

### Programme Key:

<b>I</b>	<b>Invited Speaker</b>
<b>O/LBO</b>	<b>Selected Oral Presentation/Late Breaking Selected Oral Presentation</b>
<b>P/LBP</b>	<b>Poster Presentation/Late Breaking Poster Presentation</b> (on display at the venue and on the virtual platform)
<b>VP/LBVP</b>	<b>Virtual Poster Presentation/ Late Breaking Virtual Poster Presentation</b> (on display on the virtual platform and on ePoster boards at the venue)

Please note, all times stated in the programme are in local Prague, Czechia (CET) time.

## WMS 2024 Full Programme

Version: 011024

### Monday 7th October 2024

08:30-19:00	<b>Pre-Congress Teaching Course</b> 📍 Congress Venue, Club D+E (separate registration required)
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### Tuesday 8th October 2024

08:00-11:00	<b>Pre-Congress Teaching Course</b> 📍 Congress Venue, Club D+E (separate registration required)	
11:00-16:00	<b>WMS Executive Board Meeting</b> 📍 South Boardroom 1	
14:30-18:00	<b>Registration and poster set up</b> 📍 Congress Venue, Second Floor Foyers	
14:30-16:00	<b>Meet the Exhibitors</b> 📍 Congress Venue, Second Floor Foyers (Catering provided)	
16:30-17:30	<b>Industry Symposium 1</b> 📍 South Hall 1	<b>Industry Symposium 2</b> 📍 South Hall 2  Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium
18:00-18:45	<b>Opening Ceremony</b> 📍 Congress Hall (separate registration required) <i>Moderators: Jana Haberlová, University Hospital Motol, Czechia &amp; Radim Mazanec, Charles University, Czechia</i>	
18:45-21:00	<b>Networking Reception</b> 📍 Congress Venue, Panorama Hall and Zoom Room, First Floor (separate registration required)	

### Wednesday 9th October 2024

06:30-19:30	<b>Congress desk open</b>	
07:45-08:45	<b>Industry Symposium 3</b> 📍 South Hall 1  Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium	<b>Industry Symposium 4</b> 📍 South Hall 2  Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium
09:00-09:15	<b>Congress Welcome - Message from the President</b> 📍 Congress Hall	
09:15-10:45	<b>Topic 1: Acquired Muscle Disorders</b> 📍 Congress Hall <i>Moderators: Suur Biliciler, Uthealth Science Center Houston, MCGovern Medical School, USA &amp; Heřman Mann, Institute of Rheumatology Prague, Czechia</i>	

09:15-09:45	<p><b>01INV</b> Acquired muscle disorders: Introduction to CART cells and Tregs  <u>Villalta, A</u><sup>1,2,3</sup>  <sup>1</sup>Physiology and Biophysics, <sup>2</sup>Muscle Biology and Disease Research Center, <sup>3</sup>Institute for Immunology, University of California Irvine</p>
09:45-10:15	<p><b>02INV</b> Current and prospective uses of CAR and CAAR T-cell therapies in muscle disorders  <u>Mozaffar, T</u>  <sup>1</sup>University of California Irvine</p>
10:15-10:30	<p><b>01O</b> Response to rozanolizumab across treatment cycles in patients with generalised Myasthenia Gravis: A post hoc analysis  <u>Vissing J</u><sup>1</sup>, Grosskreutz J<sup>2</sup>, Habib A<sup>3</sup>, Mahuwala Z<sup>4</sup>, Mantegazza R<sup>5</sup>, Pascuzzi R<sup>6</sup>, Sacconi S<sup>7</sup>, Vu T<sup>8</sup>, Beau Lejdstrom R<sup>9</sup>, Greve B<sup>10</sup>, Grimson F<sup>11</sup>, Tarancón T<sup>12</sup>, Bril V<sup>13</sup>  <sup>1</sup>University of Copenhagen, <sup>2</sup>University of Lübeck, <sup>3</sup>University of California, <sup>4</sup>Department of Neuromuscular Medicine and Clinical Neurophysiology, University of Kentucky, USA, <sup>5</sup>Istituto Nazionale Neurologico Carlo Besta, <sup>6</sup>Indiana University School of Medicine, <sup>7</sup>Université Côte d'Azur, <sup>8</sup>University of South Florida Morsani College of Medicine, <sup>9,10,11,12</sup>UCB Pharma, <sup>13</sup>University Health Network Canada</p>
10:30-10:45	<p><b>02O</b> Characterization of a mouse model for Jo-1, PL-7 and PL-12 associated Anti-synthetase syndrome  <u>Bachir D</u><sup>1</sup>, Preusse C<sup>2</sup>, Lichtenberg S<sup>1</sup>, Koch-Hölsken K<sup>1</sup>, Umatham V<sup>3,4</sup>, Herrmann A<sup>1</sup>, Schaenzer A<sup>3</sup>, Meuth S<sup>1</sup>, Stenzel W<sup>2</sup>, Ruck T<sup>1</sup>  <sup>1</sup>Heinrich Heine University, <sup>2</sup>Charité-Universitätsmedizin Berlin, <sup>3</sup>Justus Liebig University, <sup>4</sup>German Armed Force Hospital</p>
10:45-11:15	<p><b>Morning refreshments, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer</p>
10:45-11:15	<p><b>Myology Café - Meet the WMS EDI Committee</b> 📍 Forum Hall Foyer</p>
11:15-13:15	<p><b>Topic 1: Acquired Muscle Disorders</b> 📍 Congress Hall  Moderators: Ichizo Nishino, National Institute of Neuroscience, Japan &amp; Corinna Preusse, Charité-universitätsmedizin Germany</p>
11:15-11:45	<p><b>03INV</b> Idiopathic inflammatory myopathies: current state of the field, new insights and treatment  <u>Vencovský J</u><sup>1</sup>, Mann H<sup>1</sup>  <sup>1</sup>Institute of Rheumatology, Czechia</p>
11:45-12:15	<p><b>04INV</b> Acquired muscle disease - a paediatric perspective  <u>Ramdass S</u><sup>1</sup>  <sup>1</sup>Oxford University Hospitals NHS foundation Trust, Oxford, UK, <sup>2</sup>University of Oxford, Oxford, UK</p>
12:15-12:30	<p><b>03O</b> Identification of Class I HLA genetic predispositions and prediction of autoantigenic epitopes in dermatomyositis patients of Indian origin  <u>Jassal B</u><sup>1</sup>, Deepak R<sup>2</sup>, Venugopalan Y V<sup>3</sup>, Suri V<sup>1</sup>, Sharma M<sup>1</sup>  <sup>1</sup>Neuropathology Lab, All India Institute of Medical Sciences, <sup>2</sup>Department of Transplant Immunology and Immunogenetics, All India Institute of Medical Sciences, <sup>3</sup>Department of Neurology, All India Institute of Medical Sciences</p>
12:30-12:45	<p><b>04O</b> In-silico Interactomics as a way to elucidate Inclusion Body Myositis  <u>De Los Reyes F</u><sup>1</sup>, Hayashi S<sup>1</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1</sup>  <sup>1</sup>Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry</p>
12:45-13:00	<p><b>05O</b> Unravelling the role of early mitochondrial dysfunction in Inclusion Body Myositis: a chicken or egg dilemma reloaded  <u>Kleefeld F</u><sup>1</sup>, Cross E<sup>2</sup>, Lagos D<sup>2</sup>, Preusse C<sup>1</sup>, Roos A<sup>3,4,5,6</sup>, Horvath R<sup>2</sup>, Stenzel W<sup>1</sup>  <sup>1</sup>Charité - Universitätsmedizin Berlin, <sup>2</sup>University of Cambridge, <sup>3</sup>Department of Neurology, University Hospital Düsseldorf, Heinrich Heine University, <sup>4</sup>Brain and Mind Research Institute, Children's Hospital of Eastern Ontario Research Institute, <sup>5</sup>Leibniz-Institut für Analytische Wissenschaften-ISAS e.V., <sup>6</sup>Department of Pediatric Neurology, Centre for Neuromuscular Disorders, Centre for Translational Neuro- and Behavioural Sciences, University Duisburg-Essen</p>
13:00-13:15	<p><b>06O</b> NLRP3 inflammasome activation and altered mitophagy are key pathways in Inclusion Body Myositis.  <u>Naddaf E</u><sup>1</sup>, Nguyen T<sup>1</sup>, Watzlawik J<sup>2</sup>, Gao H<sup>3</sup>, Hou X<sup>2</sup>, Fiesel F<sup>2,4</sup>, Mandrekar J<sup>1,5</sup>, Kokesh E<sup>1</sup>, Harmsen W<sup>5</sup>, Lanza I<sup>6</sup>, Springer W<sup>2,4</sup>, Trushina E<sup>1,3</sup>  <sup>1</sup>Department of Neurology, Mayo Clinic, <sup>2</sup>Department of Neuroscience, Mayo Clinic, <sup>3</sup>Department of Molecular Pharmacology and Experimental Therapeutics, Mayo Clinic, <sup>4</sup>Neuroscience PhD Program, Mayo Clinic Graduate School of Biomedical Sciences, <sup>5</sup>Department of Quantitative Health Sciences, Mayo Clinic, <sup>6</sup>Division of Endocrinology and Metabolism, Mayo Clinic</p>

13:15-14:30	<b>Lunch, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer
13:15-14:30	<b>Meet the Experts Lunch</b> 📍 Zoom and Panorama Rooms, 1st Floor (separate registration required and lunch is provided)
14:30-15:30	<b>Poster Session 1</b> 📍 Forum Hall (lunch is provided)
	<b>113P-146P, 147VP: SMA Clinical</b>
	<b>113P Quality of life and participation of adults with spinal muscular atrophy: QOLSMA</b> <i>Ribault S<sup>1</sup>, Rippert P<sup>1</sup>, Lopinet T<sup>1</sup>, Le Goff L<sup>1</sup>, Barrière A<sup>1</sup>, Morard M<sup>1</sup>, Theuriet J<sup>1</sup>, Pegat A<sup>1</sup>, Boyer F<sup>2</sup>, Vuillerot C<sup>1</sup></i> <sup>1</sup> Hospices Civils De Lyon, <sup>2</sup> CHU de Reims
	<b>114P Epidemiology and therapeutic outcomes of patients with Spinal Muscular Atrophy: results from a 12-year real-world study based on the French National Healthcare database (SNDS)</b> <i>Quijano-Roy S<sup>1</sup>, Bourget I<sup>2</sup>, Lot A<sup>1</sup>, Desguerre I<sup>3</sup>, Urtizberea J<sup>4</sup>, de Chasteigner A<sup>5</sup>, Leiba G<sup>5</sup>, Affinito S<sup>5</sup>, Panes A<sup>6</sup>, Denis H<sup>6</sup>, Schmidt A<sup>6</sup></i> <sup>1</sup> APHP Raymond Poincaré Hospital, <sup>2</sup> Gustave Roussy Hospital, <sup>3</sup> APHP Necker Enfants Hospital, <sup>4</sup> GH Pitie Salpetriere, <sup>5</sup> Novartis GT France SAS, <sup>6</sup> HEVA
	<b>115P MRI of whole-body muscles and tongue of patients with Spinal Muscular Atrophy</b> <i>Froelich S<sup>1</sup>, Receveur N<sup>1</sup>, Scharff Poulsen N<sup>1</sup>, Espe Hansen A<sup>2</sup>, Vissing J<sup>1</sup></i> <sup>1</sup> Copenhagen Neuromuscular Center, (CNMC), Department of Neurology, Rigshospitalet, <sup>2</sup> Department of Radiology, Rigshospitalet
	<b>116P Exploring neurobehavioral disorders in type 1 and presymptomatic patients with Spinal Muscular Atrophy</b> <i>Buchignani B<sup>1,2</sup>, Coratti G<sup>2,3</sup>, Cutri C<sup>3</sup>, Palermo C<sup>2</sup>, Leone D<sup>2</sup>, Antonaci L<sup>2</sup>, Pera M<sup>2,3</sup>, Pane M<sup>2,3</sup>, Mercuri E<sup>2,3</sup></i> <sup>1</sup> Università Di Pisa, <sup>2</sup> Centro Clinico Nemo Pediatrico, <sup>3</sup> Università Cattolica del Sacro Cuore
	<b>117P Prevalence of neurodevelopmental anomalies in patients with Spinal Muscular Atrophy Type I registered in CUIDAME</b> <i>Alvarez Molinero M<sup>1</sup>, Gómez Andrés D<sup>1</sup>, Garcia Uzquiano R<sup>2</sup>, Expósito Escudero J<sup>2</sup>, Costa Comellas L<sup>1</sup>, Garcia Romero M<sup>3</sup>, Martínez Salcedo E<sup>4</sup>, Nungo Garzón C<sup>5</sup>, Grimalt Calatayud M<sup>6</sup>, Lopez Lobato M<sup>7</sup>, Munell Casadesús F<sup>1</sup>, Fernández Ramos J<sup>8</sup>, Calzada, Garcia-Mora C<sup>9</sup>, Gómez Martín H<sup>10</sup>, Calvo R<sup>11</sup>, Toledo Bravo de Laguna L<sup>12</sup>, González Barrios D<sup>13</sup>, Navarrio Abia V<sup>14</sup>, Fernández Garcia M<sup>3</sup>, CUIDAME Investigators Group<sup>15</sup></i> <sup>1</sup> Vall Hebron University Hospital, <sup>2</sup> Sant Joan de Deu Hospital, <sup>3</sup> La Paz University Hospital, <sup>4</sup> Virgen de la Arrixaca University Hospital, <sup>5</sup> La Fe Valencia Hospital, <sup>6</sup> Son Espases University Hospital, <sup>7</sup> Virgen del Rocio Hospital, <sup>8</sup> Reina Sofía Hospital, <sup>9</sup> Toledo University Hospital, <sup>10</sup> Salamanca University Hospital, <sup>11</sup> Regional University Hospital of Malaga, <sup>12</sup> Materno-Infantil Hospital of Las Palmas de Gran Canaria, <sup>13</sup> Nuestra Señora de Candelaria University Hospital, <sup>14</sup> University Hospital of Burgos, <sup>15</sup> Cuidame Investigators Group
	<b>118P Characterization of patients with Type 1 Spinal Muscular Atrophy in advanced disease state treated with Nusinersen</b> <i>Balkenhol J<sup>1</sup>, Beytia M<sup>1</sup>, Jofre J<sup>2</sup>, Suarez B<sup>2</sup>, Hervias C<sup>3</sup>, Calcagno G<sup>3</sup>, Castiglioni C<sup>2</sup></i> <sup>1</sup> Pontificia Universidad Católica De Chile, División Pediatría, Unidad Neurología Pediátrica, <sup>2</sup> Clinica Meds, Neurology Service, <sup>3</sup> Clinica Meds, Neurokinesiology Service
	<b>119P Evaluation of physical function before and after medical treatment in patients with Spinal Muscular Atrophy aged 11-25 years</b> <i>Werlauff U<sup>1</sup>, Busk L<sup>1</sup>, Drivsholm P<sup>1</sup>, Heiden B<sup>1</sup>, Iversen R<sup>1</sup>, Laustsen H<sup>1</sup>, Mahoney A<sup>1</sup>, Olesen L<sup>1</sup>, Handberg C<sup>1,2</sup></i> <sup>1</sup> The Danish National Rehabilitation Centre for Neuromuscular Diseases, <sup>2</sup> Department of Public Health, Faculty of Health, Aarhus University
	<b>120P Diagnostic delay in Korean adults with Spinal Muscular Atrophy</b> <i>Kim S<sup>1</sup>, Choi Y<sup>1</sup>, Cho J<sup>2</sup>, Choi Y<sup>1</sup>, Park H<sup>1</sup></i> <sup>1</sup> Department Of Neurology, Gangnam Severance Hospital, Yonsei University College of Medicine, <sup>2</sup> Department of Neurology, National Health Insurance Service Ilsan Hospital
	<b>121P Insulin resistance and liver fibrosis and - steatosis in adult patients with Spinal Muscular Atrophy</b> <i>Receveur N<sup>1</sup>, Frølich S<sup>1</sup>, Scharff Poulsen N<sup>1</sup>, Ewertsen C<sup>2</sup>, Espe Hansen A<sup>2</sup>, Vissing J<sup>1</sup></i> <sup>1</sup> Copenhagen Neuromuscular Center, Department of Neurology, Rigshospitalet, <sup>2</sup> Department of Radiology, Rigshospitalet
	<b>122P A retrospective review of changes in upper limb function following spinal surgery in Spinal Muscular Atrophy</b> <i>Martineau O<sup>1,2</sup>, Milev E<sup>1,2</sup>, Main M<sup>1</sup>, Scoto M<sup>1,2</sup>, Muntoni F<sup>1,2</sup>, Baranello G<sup>1,2</sup></i> <sup>1</sup> Great Ormond Street Hospital, <sup>2</sup> University College London

**123P The difficult path to diagnosis of the patient with spinal muscular atrophy**

**Bolano Diaz C**<sup>1,2</sup>, Morosini M<sup>1</sup>, Chloca F<sup>1</sup>, Mesa L<sup>1</sup>, Jauregui A<sup>1</sup>, Pirra L<sup>1</sup>, Vazquez G<sup>1</sup>, Flores D<sup>1</sup>, Dubrovsky A<sup>1</sup>

<sup>1</sup>Favaloro Foundation - Neurosciences Institut, <sup>2</sup>John Walton Muscular Dystrophy Research Centre

**124P Hidden in plain sight: genome reanalysis to identify an intragenic novel variant in the SMN locus in a patient with an undiagnosed lower motor neuron disease**

**Haliloğlu G**<sup>1</sup>, Donkervoort S<sup>2</sup>, Weisburd B<sup>3,4</sup>, Öz Yıldız S<sup>1</sup>, Ceylaner S<sup>5</sup>, Pais L<sup>3,6</sup>, O'Donnell-Luria A<sup>3,6</sup>,

Bönnemann C<sup>2</sup>

<sup>1</sup>Hacettepe University Faculty of Medicine, Department of Pediatrics, Division of Pediatric Neurology,

<sup>2</sup>Neuromuscular and Neurogenetic Disorders of Childhood Section, National Institute of Neurological Disorders

and Stroke, <sup>3</sup>Program in Medical and Population Genetics, Broad Institute of MIT and Harvard, <sup>4</sup>Center for

Genomic Medicine, Massachusetts General Hospital, <sup>5</sup>Intergen Genetic Diagnosis and Research Center, <sup>6</sup>Division

of Genetics and Genomics, Boston Children's Hospital, Harvard Medical School

**125P A review of the management and outcomes of children with SMA in the West Midlands, UK during 2017-2022**

**Willis T**<sup>1,2</sup>, Kulshrestha R<sup>1</sup>, Alhaswani Z<sup>3</sup>, Parasuraman D<sup>3</sup>, Kuiper J<sup>1</sup>, Jones J<sup>1</sup>, Perry C<sup>1</sup>

<sup>1</sup>Robert Jones and Agnes Hunt hospital, <sup>2</sup>University of Chester Medical School, <sup>3</sup>University Hospitals Birmingham

**126P Retrospective assessment of feeding and nutrition after 2 years of risdiplam treatment in children with Type 1 SMA using a novel scale**

**Baranello G**<sup>1,2</sup>, Conway E<sup>1</sup>, Li Y<sup>3</sup>, Gorni K<sup>4</sup>

<sup>1</sup>Dubowitz Neuromuscular Centre, NIHR Great Ormond Street Hospital Biomedical Research Centre, UCL Great

Ormond Street Institute of Child Health & Great Ormond Street Hospital Trust, <sup>2</sup>Developmental Neurology Unit,

Fondazione IRCCS Istituto Neurologico Carlo Besta, <sup>3</sup>Pharma Development, Data Sciences, F. Hoffmann-La

Roche Ltd, <sup>4</sup>PDMA Neuroscience and Rare Disease, F. Hoffmann-La Roche Ltd

**127P UK real-world longitudinal data collection and analysis in adult SMA: theAdult SMA REACH Data collection study**

**Karkkainen E**<sup>1,2</sup>, Murphy L<sup>1,2</sup>, Muni Lofra R<sup>1,2</sup>, Segovia S<sup>1,2</sup>, Page J<sup>1,2</sup>, Verdu-Diaz J<sup>1</sup>, Michell-Sodhi J<sup>1,2</sup>, Alvarez G<sup>1,2</sup>,

Marini-Bettolo C<sup>1,2</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, <sup>2</sup>Newcastle University and Newcastle Hospitals NHS

Foundation Trust

**128P Treatment with gene therapy in patients with spinal muscular atrophy. Current experience in CuidAME registry**

**Exposito Escudero J**<sup>1</sup>, Costa Comellas L<sup>2</sup>, García Romero M<sup>3</sup>, Toledo Bravo De Laguna L<sup>4</sup>, Gomez Martin H<sup>5</sup>,

Calvo Medina R<sup>6</sup>, Navarro Abia V<sup>7</sup>, Ñungo Garzón C<sup>8</sup>, Martínez Gonzalez M<sup>9</sup>, Martínez Salcedo E<sup>10</sup>, Grimalt

Calatayud M<sup>11</sup>, Martínez González M<sup>12</sup>, Álvarez Molinero M<sup>2</sup>, Fernández García M<sup>3</sup>, Puig Ram C<sup>1</sup>, García Uzquiano

R<sup>1</sup>, Hervás D<sup>8</sup>, **Nascimento Osorio A**<sup>1</sup>, CUIDAME investigators Group<sup>13</sup>

<sup>1</sup>Hospital Sant Joan De Deu, <sup>2</sup>Hospital Vall d'Hebron, <sup>3</sup>Hospital Universitario La Paz, <sup>4</sup>Hospital Materno-Infantil

de Canarias, <sup>5</sup>Complejo Asistencial Universitario de Salamanca, <sup>6</sup>Hospital Regional Universitario de Malaga,

<sup>7</sup>Hospital Universitario de Burgos, <sup>8</sup>Hospital Universitario y Politecnico la Fe, <sup>9</sup>Hospital Universitario de Cruces,

<sup>10</sup>Hospital Clínico Universitario Virgen de la Arrixaca, <sup>11</sup>Hospital Son Espases, <sup>12</sup>Complejo Universitario Hospital de

Albacete, <sup>13</sup>CUIDAME investigators Group

**129P Newborn screening for Spinal Muscular Atrophy in Poland – a summary of 3-year experience**

**Gos M**<sup>2</sup>, Wasilik J<sup>2</sup>, Landowska A<sup>2</sup>, Jurzyk M<sup>2</sup>, Wawer W<sup>2</sup>, Kubiszyn P<sup>2</sup>, Wieczorek J<sup>2</sup>, Kordowska O<sup>2</sup>, Nosarieva

L<sup>2</sup>, Durda K<sup>3</sup>, Fraczyk M<sup>2</sup>, **Jedrzejowska M**<sup>1</sup>, Oltarzewski M<sup>2</sup>

<sup>1</sup>Medical University of Warsaw, <sup>2</sup>Institute of Mother and Child, <sup>3</sup>Pomeranian Medical University

**130P Real-life outcome data on Risdiplam therapy for Spinal Muscular Atrophy**

**Lavi R**<sup>1,2</sup>, Sagi L<sup>1,2</sup>, Katzenellenbogen S<sup>1</sup>, Shtamler A<sup>1</sup>, Weizman A<sup>1</sup>, Opincariu I<sup>1,3</sup>, Fattal-Valevski A<sup>1,2</sup>

<sup>1</sup>Sourasky Medical Center, <sup>2</sup>Faculty of Medicine Tel Aviv University, <sup>3</sup>Schonbrunn Academic School of Nursing,

Sourasky Medical Center

**131P Social communication abilities in treated children with Spinal Muscular Atrophy type 1 (SMA1): a cross-sectional study from two tertiary neuromuscular centres**

**Brusa C**<sup>1,2</sup>, Buchignani B<sup>3,4</sup>, Cutri C<sup>5</sup>, Coratti G<sup>3,5</sup>, Weststrate H<sup>1,2</sup>, Clark E<sup>2</sup>, Johnson E<sup>2</sup>, Barritt E<sup>2</sup>, Antonaci L<sup>3</sup>,

Leone D<sup>3</sup>, Palermo C<sup>3</sup>, Cornell N<sup>1,2</sup>, Munot P<sup>2</sup>, Manzur A<sup>2</sup>, Scoto M<sup>1,2</sup>, Pane M<sup>3,5</sup>, Mercuri E<sup>3,5</sup>, Muntoni F<sup>1,2</sup>,

Baranello G<sup>1,2</sup>

<sup>1</sup>UCL - Great Ormond Street Institute of Child Health, <sup>2</sup>Great Ormond Street Hospital for Children, <sup>3</sup>Centro Clinico

Nemo, Fondazione Policlinico Universitario Agostino Gemelli, IRCCS, Rome, <sup>4</sup>University of Pisa, <sup>5</sup>Pediatric

Neurology, Università Cattolica del Sacro Cuore

**132P Early-onset motor neuropathies and novel genetic causes: a Chilean series**

**Castiglioni Toledo C**<sup>1</sup>

<sup>1</sup>Clinica Meds-Inrpac

### **133P Description of UK SMA cohorts since the introduction of disease modifying therapies**

**Muni Lofra R**<sup>1,2</sup>, Rowher A<sup>3</sup>, Muntoni F<sup>3</sup>, Marini-Bettolo C<sup>1,2</sup>, SMAREACH UK Steering Group, Adult SMAREACH Steering Group

<sup>1</sup>John Walton Muscular Dystrophy Research Centre-Newcastle University, <sup>2</sup>Newcastle Hospitals NHS Foundation Trust, <sup>3</sup>Dubowitz Neuromuscular Centre, UCL Great Ormond Street Institute of Child Health

### **134P Beyond the "walker" label: functional diversity and disease impact in spinal muscular atrophy patients with walking ability**

**Cattinari M**<sup>1</sup>, Hervás D<sup>2</sup>, de Lemus M<sup>1,3,4</sup>, Tizzano E<sup>1,5</sup>

<sup>1</sup>Fundame, Madrid, Spain, <sup>2</sup>Department of Applied Statistics and Operations Research and Quality, Universitat Politècnica de València, <sup>3</sup>SMA Europe Germany, <sup>4</sup>Committee of Advanced Therapies at the European Medicines Agency, <sup>5</sup>Department of Clinical and Molecular Genetics and Rare Diseases Unit and Medicine, Genetics Group, VHIR, Hospital Vall d'Hebron

### **135P Use of electrophysiologic data and physical therapy assessments in SMA monitoring**

**Wright M**<sup>1,2</sup>, Yang M<sup>1,2</sup>, Moore Burk M<sup>2</sup>, Kelley C<sup>2</sup>, Stratton A<sup>1,2</sup>, Apkon S<sup>1,2</sup>, Gibbons M<sup>1,2</sup>, Browning K<sup>1,2</sup>, Kupfer O<sup>1,2</sup>, Watne L<sup>2</sup>, Foster H<sup>2</sup>, Parsons J<sup>1,2</sup>

<sup>1</sup>University of Colorado School of Medicine, <sup>2</sup>Children's Hospital Colorado

### **136P Medical treatment of children with spinal muscular atrophy - An investigation of parents' experiences of hopes, worries and need for rehabilitation for their child**

**Handberg C**<sup>1,2</sup>, Werlauff U<sup>1</sup>, Drivsholm P<sup>1,2</sup>, Lorenzen S<sup>1</sup>, Mahoney A<sup>1</sup>

<sup>1</sup>National Rehabilitation Center for Neuromuscular Diseases, <sup>2</sup>Department of Public Health, Faculty of Health, Aarhus University

### **137P Mortality in Spinal Muscular Atrophy in the era of disease-modifying therapies**

**Finnegan R**<sup>1</sup>, Rohwer A<sup>1</sup>, Scoto M<sup>1,2</sup>, Main M<sup>1</sup>, Baranello G<sup>1,2</sup>, Manzur A<sup>1</sup>, Muntoni F<sup>1,2</sup>, Munot P<sup>1</sup>

<sup>1</sup>Dubowitz Neuromuscular Centre, Great Ormond Street Hospital for Children, <sup>2</sup>NIHR Great Ormond Street Hospital Biomedical Research Centre

### **138P Long-term motor responses to disease-modifying therapies in Spinal Muscular Atrophy (SMA) adults: a prospective study**

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### **139P Treatment effects on ambulation loss in Spinal Muscular Atrophy Type III: insights from the Italian ISMAC registry**

**Coratti G**<sup>1</sup>, D'Amico A<sup>2</sup>, Sansone V<sup>3</sup>, Masson R<sup>4</sup>, Maggi L<sup>5</sup>, Mongini T<sup>6</sup>, Pegoraro E<sup>7</sup>, Pini A<sup>8</sup>, Vacchiano V<sup>9</sup>, Coccia M<sup>10</sup>, Filosto M<sup>11</sup>, Ticci C<sup>12</sup>, D'Errico E<sup>13</sup>, Nigro V<sup>14</sup>, Bruno C<sup>15</sup>, Messina S<sup>16</sup>, Pera M<sup>1</sup>, Pane M<sup>1</sup>, Mercuri E<sup>1</sup>

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### **140P Need for tube feeding in SMA type I patients treated with disease modifying therapies: bulbar function before treatment matters**

**Coratti G**<sup>1</sup>, Pane M<sup>1</sup>, Stanca G<sup>1</sup>, D'Amico A<sup>2</sup>, Sansone V<sup>3</sup>, Berti B<sup>1</sup>, Fanelli L<sup>1</sup>, Albamonte E<sup>3</sup>, Ausili C<sup>1</sup>, Cerchiarì A<sup>4</sup>, Catteruccia M<sup>2</sup>, De Sanctis R<sup>1</sup>, Leone D<sup>1</sup>, Palermo C<sup>1</sup>, Buchignani B<sup>1</sup>, Tosi M<sup>2</sup>, Pera M<sup>1</sup>, Bertini E<sup>2</sup>, Mercuri E<sup>1</sup>

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#### 141P Spinal Muscular Atrophy is also a disorder of spermatogenesis

**Magot, A<sup>1</sup>**, Reignier, A<sup>2</sup>, Binois, O<sup>3</sup>, Vuillerot, C<sup>4,5</sup>, Yann, P<sup>1</sup> and the Fermasi Study Group

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#### 142P A preliminary machine learning retrospective observational study to predict treatment response to nusinersen in non-sitter Spinal Muscular Atrophy

**Stimpson G<sup>1,2,6</sup>**, O'Reilly E<sup>1,2</sup>, Coratti G<sup>3,4</sup>, Ridout D<sup>5</sup>, Chakraborti T<sup>6,7</sup>, Mitra R<sup>6,8</sup>, Mercuri E<sup>3,4</sup>, Scoto M<sup>3,4</sup>, Muntoni F<sup>3,4</sup>, Baranello G<sup>3,4</sup>

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#### 143P Swallowing physiology and function in untreated patients with Spinal Muscular Atrophy type 1: establishing natural history reference values

**McGrattan K<sup>1</sup>**, Graham R<sup>2</sup>, Miles A<sup>3</sup>, Allen J<sup>3</sup>, Hofelich Mohr A<sup>1</sup>, Rao V<sup>4</sup>, Alfano L<sup>5</sup>, Smith L<sup>11</sup>, Brandesma J<sup>6</sup>, Leon Astudillo C<sup>7</sup>, Levy D<sup>8</sup>, Tang W<sup>10</sup>, Brown A<sup>13</sup>, Spoden A<sup>1</sup>, Schenck G<sup>9</sup>, Darras B<sup>2</sup>

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#### 144P Gene therapy for Spinal Muscular Atrophy amid the dengue outbreak in Brazil: a case report

**Graca F<sup>1</sup>**, C França Jr M<sup>1</sup>

<sup>1</sup>University Of Campinas

#### 145P Efficacy of SMA NBS: 4-year comparative study with control group

**Dangouloff T<sup>1</sup>**, De Waele L<sup>2</sup>, Beysen D<sup>3</sup>, Smeets N<sup>4</sup>, Vanlander A<sup>5</sup>, Benmhammed N<sup>1</sup>, Tychon C<sup>1</sup>, Daron A<sup>1</sup>, Deconinck N<sup>6</sup>, Dontaine P<sup>6</sup>, Servais L<sup>1,7</sup>

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#### 146P Investigation of bone health in a large cohort of naïve SMA patients

**Panicucci C<sup>1</sup>**, Brolatti N<sup>1</sup>, Casalini S<sup>1</sup>, Coratti G<sup>2</sup>, Pedemonte M<sup>1</sup>, Ricci F<sup>3</sup>, Mongini T<sup>4</sup>, Sansone V<sup>5</sup>, Filosto M<sup>6</sup>, Bello L<sup>7</sup>, Pegoraro E<sup>7</sup>, Bruno I<sup>8</sup>, Verriello L<sup>9</sup>, Ricci G<sup>10</sup>, D'Amico A<sup>11</sup>, Mercuri E<sup>2</sup>, Maghnie M<sup>1</sup>, Di Iorgi N<sup>1</sup>, Bruno C<sup>1</sup>, working group ITASMAC<sup>12</sup>

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#### 147VP Efficacy and safety of Nusinersen in the treatment of Spinal Muscular Atrophy in adolescents and adults

**Ningning W<sup>1,4,5</sup>**, Hu Y<sup>2</sup>, Yu L<sup>3</sup>, Zhu W<sup>1,4,5</sup>

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204P-231P, 232VP-233VP: Clinical trials, access to health care and outcome measures

**204P A phase 1 study of antisense oligonucleotide NS-035 in patients with Fukuyama Congenital Muscular Dystrophy**

Fujino C<sup>1</sup>, Kitamura A<sup>1</sup>, Takahashi A<sup>1</sup>, Maeda M<sup>1</sup>, Kubota A<sup>1</sup>, Tokuyama Y<sup>2</sup>, Wada I<sup>2</sup>, Kobayashi K<sup>3</sup>, Komaki H<sup>4</sup>, Taniguchi-Ikeda M<sup>5</sup>, Ishigaki K<sup>6</sup>, Toda T<sup>1</sup>

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**205P Early diagnosis for Duchenne muscular dystrophy (DMD) to shape and influence the model of care to support children and families following an early diagnosis of DMD**

Lee S<sup>1</sup>, Bradley C<sup>1</sup>, Evans K<sup>1</sup>, Lorentzos M<sup>2</sup>, Servais L<sup>3</sup>, Parsons J<sup>4</sup>

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**206P A quality improvement proposal: improving care management of complex neuromuscular patients – establishing a neuromuscular complex care centre as part of the translational neuromuscular pathway**

Marini Bettolo C<sup>1</sup>, Wong K<sup>1</sup>, Segovia S<sup>1</sup>, Muni Lofra R<sup>1</sup>, Elseed M<sup>1</sup>

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**207P Mobile muscle clinics operating from a UK centre of excellence: report of patient experience and quality of care**

Kulshrestha R<sup>1</sup>, Emery N<sup>1</sup>, Strachan K<sup>1</sup>, Willis T<sup>1</sup>, Bassie C<sup>1</sup>

<sup>1</sup>Robert Jones and Agnes Hunt Orthopaedic Hospital

**208P Are people living with neuromuscular disorders in the north of England satisfied with National Health Service wheelchair service provision?**

Michell-Sodhi J<sup>1</sup>, Moat D<sup>1</sup>, Dias T<sup>1</sup>, Mason J<sup>1</sup>, Robinson E<sup>1</sup>, Schiava M<sup>1</sup>, Barr E<sup>1</sup>, Bolano C<sup>1</sup>, Doaa S<sup>1</sup>, Wong K<sup>1</sup>, Maha E<sup>1</sup>, Emma G<sup>1</sup>, Michela G<sup>1</sup>, Michelle M<sup>1</sup>, Tasca G<sup>1</sup>, Diaz-Manera J<sup>1</sup>, James M<sup>1</sup>, Straub V<sup>1</sup>, Marini-Bettolo C<sup>1</sup>, Muni-Lofra R<sup>1</sup>

<sup>1</sup>John Walton Muscular Dystrophy Research Centre

**209P Custom orthosis improves mobility and caregiver experience in an adolescent with Congenital Myasthenic syndrome and Myofibrillar Myopathy**

Varghese V<sup>1</sup>, Rajadurai I<sup>1</sup>, Paul M<sup>1</sup>, Banavara Shyamprasad S<sup>2</sup>, Mathew A A<sup>1,2</sup>

<sup>1</sup>Bangalore Baptist Hospital, <sup>2</sup>Synapse Neuro and Child Development Centre

**210P Advancing upper limb motor function evaluation in Duchenne muscular dystrophy and Spinal Muscular Atrophy via kinematic parameterization with the wearable device "ArmTracker"**

Natera De Benito D<sup>1</sup>, Favata A<sup>2</sup>, Expósito-Escudero J<sup>1</sup>, Gallart R<sup>3</sup>, Moya O<sup>1</sup>, Roca S<sup>1</sup>, Marzabal Gatell A<sup>2</sup>, van Noort L<sup>2</sup>, Ortez C<sup>1</sup>, Torras C<sup>3</sup>, Nascimento A<sup>1</sup>, Medina-Cantillo J<sup>1</sup>, Pàmies Vilà R<sup>2</sup>, Font-Llagunes J<sup>2</sup>

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**211P Following patient mobility in daily life: the EJP-DT4RD project**

Hogrel J<sup>1</sup>, Muni-Lofra R<sup>2</sup>, Santmarty P<sup>1</sup>, Decostre V<sup>1</sup>, Marques T<sup>1</sup>, Haf Davies E<sup>3</sup>, Straub V<sup>2</sup>, the DT4RD Project Group

<sup>1</sup>Institute of Myology, <sup>2</sup>John Walton Muscular Dystrophy Research Centre, <sup>3</sup>Aparito

**212P Identifying biomarkers for prediction of fall-risk in patients with Inclusion Body Myositis (IBM)**

Hunn S<sup>1</sup>, Wehl C<sup>1</sup>

<sup>1</sup>Washington University School of Medicine

**213P Sensitivity to change of the Motor Function Measure (MFM) in myotonic dystrophy type 1**

Ribault S<sup>1</sup>, Rippert P<sup>1</sup>, Bassez G<sup>2</sup>, Duong T<sup>3</sup>, Vuilllerot C<sup>1</sup>

<sup>1</sup>Hospices Civils De Lyon, <sup>2</sup>Stanford University, <sup>3</sup>Hôpital de la Pitié Salpêtrière

**214P The 10-meter model: predicting the 6-minute walk test in Pompe disease**

El Kaim A<sup>1</sup>, Fer F<sup>1</sup>, Hogrel J<sup>1</sup>

<sup>1</sup>Institute Of Myology

**215P Evaluating the responsiveness of patient reported outcome measures (PROs) to change in valosin-containing protein multisystem proteinopathy (MSP1) over 24 months**

Iammarino M<sup>1</sup>, Reash N<sup>1</sup>, Lowes L<sup>1,2</sup>, Pietruszewski L<sup>3</sup>, Adderley K<sup>1</sup>, Humphrey L<sup>1</sup>, Beale A<sup>1</sup>, Steiner C<sup>1</sup>, Smith M<sup>1</sup>, Alfano L<sup>1,2</sup>

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**216P A questionnaire-based investigation into levels physical disability and of physical activity in adults with neuromuscular disease in a UK neuromuscular centre**

**Willis T**<sup>1,2</sup>, Strachan K<sup>1</sup>, Emery N<sup>1</sup>

<sup>1</sup>Robert Jones and Agnes Hunt hospital, <sup>2</sup>University of Chester Medical School,

**217P Comparing IBMFRS and sIFA as progression indicators in Inclusion Body Myositis patients from the INSPIRE-IBM trial**

**Gaid P**<sup>1</sup>, Wencil M<sup>1</sup>, Hernandez I<sup>1</sup>, Goyal N<sup>1</sup>, Dimachkie M<sup>2</sup>, Lloyd T<sup>3</sup>, Mohassel P<sup>3</sup>, Wehl C<sup>4</sup>, Freimer M<sup>5</sup>, Shaibani A<sup>6</sup>, Wicklund M<sup>7</sup>, Dixon S<sup>8</sup>, Chahin N<sup>9</sup>, Wang L<sup>10</sup>, Shieh P<sup>11</sup>, Amato A<sup>12</sup>, Quinn C<sup>13</sup>, Carbanar O<sup>14</sup>, Mozaffar T<sup>1</sup>, INSPIRE-IBM Study Group<sup>1</sup>

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**218P Inter-rater reliability of adapted test of neuromuscular disorders (ATEND) wheelchair-based assessment**

**Nelson L**<sup>1</sup>, Tang W<sup>2</sup>, Pasternak A<sup>3</sup>, Glanzman A<sup>4</sup>, Muni Lofra R<sup>5</sup>, Duong T<sup>2</sup>

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**219P Enhancing clinical trial eligibility criteria in FSHD: validating whole-body MRI as a key outcome measure**

**Widholm P**<sup>1,2,3</sup>, Karlsson M<sup>1</sup>, Pini J<sup>4,5</sup>, Puma A<sup>4</sup>, Villa L<sup>4</sup>, Cavali M<sup>4</sup>, Ezaru A<sup>4</sup>, Bassez G<sup>6</sup>, Marty B<sup>6</sup>, Evangelista T<sup>6</sup>, Thomas R<sup>7,8</sup>, Danjoux L<sup>7,8</sup>, Tard C<sup>7,8</sup>, Sacconi S<sup>4,5</sup>

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**220VP Wearable sensors to evaluate and monitor neuromuscular patients in real world environment**

**Diella E**<sup>1</sup>, Storm F<sup>1</sup>, Molteni L<sup>1</sup>, Delle Fave M<sup>1</sup>, Canella G<sup>1</sup>, Meola G<sup>2</sup>, Biffi E<sup>1</sup>, D'Angelo M<sup>1</sup>

<sup>1</sup>IRCCS E Medea, <sup>2</sup>University of Milan

**221P Initial data from the achieve trial of DYNE-101 in adults with myotonic dystrophy type 1 (DM1)**

Wolf D<sup>1</sup>, Lilleker J<sup>2</sup>, Bassez G<sup>3</sup>, Diaz-Manera J<sup>4</sup>, **Kools J**<sup>5</sup>, Pane M<sup>6</sup>, Roxburgh R<sup>7</sup>, Schoser B<sup>8</sup>, Turner C<sup>9</sup>, Mix C<sup>1</sup>, Ray S<sup>1</sup>, Han B<sup>1</sup>, Farwell W<sup>1</sup>, Sansone V<sup>10</sup>

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**222P Development of a standardized information model for rare neuromuscular diseases**

**Gazzerro E**<sup>1</sup>, Hübner M<sup>2</sup>, Nyongui E<sup>3</sup>, Krefting D<sup>3</sup>, Spuler S<sup>1</sup>, Zschüntzsch J<sup>3</sup>, Schepers J<sup>2</sup>, Röttger R<sup>4</sup>

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**223P Mental health support for children and young people with Duchenne muscular dystrophy – who, when and how across the UK**

**Geagan C**<sup>1</sup>, Sandhu A<sup>1</sup>, Bouquillon L<sup>2</sup>, Conn R<sup>3</sup>, Bindman D<sup>2</sup>, Pattni J<sup>2</sup>, Turner C<sup>1</sup>, McDonald R<sup>2</sup>, Alex J<sup>5</sup>, Rodney S<sup>4</sup>, Quinlivan R<sup>2</sup>, Guglieri M<sup>1</sup>, Straub V<sup>1</sup>

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**224P Psychosocial discussions in neuromuscular clinics from a professional lens: evidence from a service evaluation regarding barriers to discussions**

**Geagan C**<sup>1</sup>, Sandhu A<sup>1</sup>, Mason J<sup>1</sup>, McCallum M<sup>1</sup>, Muni-Lofra R<sup>1</sup>, Moat D<sup>1</sup>, Wong K<sup>1</sup>, Robinson E<sup>1</sup>, Grover E<sup>1</sup>, Michel-Sodhi J<sup>1</sup>, Bolaño Diaz C<sup>1</sup>, Schiava M<sup>1</sup>, Salman D<sup>1</sup>, James M<sup>1</sup>, Tasca G<sup>1</sup>, Diaz Manera J<sup>1</sup>, Guglieri M<sup>1</sup>, Straub V<sup>1</sup>, Elseed M<sup>1</sup>, Marini Bettolo C<sup>1</sup>

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**225P Initial data from the DELIVER trial of DYNE-251 in males with DMD Mutations amenable to Exon 51 skipping**

**De Waele L**<sup>1</sup>, Campbell C<sup>2</sup>, Deconinck N<sup>3</sup>, Flanigan K<sup>4</sup>, Lorentzos M<sup>5</sup>, Phan H<sup>6</sup>, Shieh P<sup>7</sup>, Mix C<sup>8</sup>, Ray S<sup>8</sup>, Wang D<sup>8</sup>, Farwell W<sup>8</sup>, Dugar A<sup>8</sup>, Naylor M<sup>8</sup>, Guglieri M<sup>9</sup>, on behalf of the DELIVER study investigators

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**226P Phase 3, randomized, global study assessing efficacy and safety of del-desiran for the treatment of Myotonic Dystrophy Type 1: HARBOR trial design**

**Fowler M**<sup>5</sup>, Johnson N<sup>1</sup>, Thornton C<sup>2</sup>, Day J<sup>3</sup>, Sansone V<sup>4</sup>, McEvoy B<sup>5</sup>, Tai L<sup>5</sup>, Knisely B<sup>5</sup>, Brandt T<sup>5</sup>, Gallagher K<sup>5</sup>, Hughes S<sup>5</sup>, Ackermann E<sup>5</sup>

<sup>1</sup>Virginia Commonwealth University, <sup>2</sup>University of Rochester, <sup>3</sup>Stanford University Medical Center, <sup>4</sup>University of Milan, <sup>5</sup>Avidity Biosciences

**227P Advancing neuromuscular education and care within physiotherapy: POD-NMD (Physiotherapy Online Delivery - Neuromuscular Diseases)**

**Slim C**<sup>1</sup>, Mayhew A<sup>2</sup>

<sup>1</sup>TREAT-NMD, <sup>2</sup>The John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University and Newcastle Hospitals NHS Foundation Trust

**228P Don't lose your HEAD: a quality improvement proposal for early recognition of neuromuscular diseases in floppy neonates in the North of England**

**Reeves T**<sup>1,2</sup>, Muni-Lofra R<sup>1</sup>, Harris L<sup>1</sup>, Richardson R<sup>2</sup>, Guglieri M<sup>1</sup>, Marini-Bettolo C<sup>1</sup>

<sup>1</sup>John Walton Muscular Dystrophy Research Centre, <sup>2</sup>Newcastle upon Tyne Hospitals, NHS Foundation Trust

**229P Home mechanical ventilation in paediatric neuromuscular disorders in a resource limited setting**

**Ramesh Babu R**<sup>1,2</sup>, Kinimi I<sup>3</sup>, Shinde S<sup>3</sup>, Mohan Rao N<sup>3</sup>, Sahoo A<sup>3</sup>, Maganthy M<sup>1</sup>, Agnes Mathew A<sup>1,2</sup>

<sup>1</sup>Bangalore Baptist Hospital, <sup>2</sup>Synapse Neuro Centre and Child Development Centre, <sup>3</sup>Respiratory Medicine, Manipal Hospitals

**230P Physiotherapy for rare hereditary NMDs- an open and free e-learning course for physiotherapists. Results after 18 months online at sjelden.no**

**Rosenberger A**<sup>1</sup>, Schandy R<sup>2</sup>, Lysne S<sup>2</sup>, Hæstad H<sup>1</sup>

<sup>1</sup>National Neuromuscular Centre Norway, University Hospital of North-Norway, <sup>2</sup>National advisory unit on rare disorders, Oslo University Hospital

**231P Efficacy of tranilast in preventing exacerbating cardiac function and death from heart failure in Muscular dystrophy patients with advanced-stage heart failure: a single-arm, open-label, multicenter study**

**Matsumura T**<sup>1</sup>, Fukudome T<sup>2</sup>, Motoyoshi Y<sup>3</sup>, Nakamura A<sup>4</sup>, Kuru S<sup>5</sup>, Segawa K<sup>6</sup>, Kitao R<sup>7</sup>, Watanabe C<sup>8</sup>, Tamura T<sup>9</sup>, Takahashi T<sup>10</sup>, Hashimoto H<sup>11</sup>, Sekimizu M<sup>11</sup>, Saito A<sup>11</sup>, Asakura M<sup>12</sup>, Kimura K<sup>13</sup>, Iwata Y<sup>14</sup>

<sup>1</sup>NHO Osaka Toneyama Medical Center, <sup>2</sup>NHO Nagasaki Kawatana Medical Center, <sup>3</sup>NHO Shimoshizu National Hospital, <sup>4</sup>NHO Matsumoto Medical Center, <sup>5</sup>NHO Suzuka Hospital, Suzuka, <sup>6</sup>National Center of Neurology and Psychiatry, <sup>7</sup>NHO Hakone Hospital, <sup>8</sup>NHO Hiroshima-Nishi Medical Center, <sup>9</sup>NHO Higashisaitama Hospital, <sup>10</sup>NHO Sendai-Nishitaga Hospital, <sup>11</sup>NHO Nagoya Medical Center, <sup>12</sup>Hyogo College of Medicine, <sup>13</sup>The Institute of Medical Science, The University of Tokyo, <sup>14</sup>National Cerebral and Cardiovascular Center Research Institute, Suita

**232VP Patient knowledge of the risks of glucocorticoid management in a specialist adult muscle clinic**

**Kent L**<sup>1</sup>, Begeti F<sup>1</sup>, Turner H<sup>1</sup>, Brady S<sup>1</sup>

<sup>1</sup>Oxford University Hospitals NHS Foundation Trust

**233VP Review of inpatient care of children affected by neuromuscular disorders or complex neurodisability from the carer perspective**

**Thomas S**<sup>1,2</sup>, Gallagher S<sup>1,2</sup>, Khalid A<sup>1,2</sup>, Alhaswani Z<sup>1,2</sup>

<sup>1</sup>Birmingham Heartlands Hospital, <sup>2</sup>University Hospitals Birmingham

## 267P-279P: Cell insights, muscle homeostasis

### 267P Circulating alpha-Klotho combats TGF-beta-induced sarcopenia

Ohsawsa Y<sup>1</sup>, Nishimatsu S<sup>1</sup>, Saito F<sup>2</sup>, Sunada Y<sup>1</sup>

<sup>1</sup>Kawasaki Medical School, <sup>2</sup>School of Medicine, Teikyo University

### 268P Age and sex affect human skeletal muscle secretome

Crisol B<sup>1</sup>, Pinzon N<sup>1</sup>, Orio J<sup>1</sup>, Gaut-Serey L<sup>1</sup>, Ohana J<sup>1</sup>, Bensalah M<sup>1</sup>, Peterson C<sup>2</sup>, Butler-Browne G<sup>1</sup>, Mouly V<sup>1</sup>, Bigot A<sup>1</sup>, Trollet C<sup>1</sup>

<sup>1</sup>Sorbonne Université, Inserm, Institut de Myologie, Centre de Recherche en Myologie, <sup>2</sup>University of Kentucky

### 269P Human neuroblastoma cell-derived neurons and iPSC-derived neurons as models for neuromuscular disorders

Wang H<sup>1</sup>, Pommerenke C<sup>1</sup>, Hauer V<sup>1</sup>, Rand U<sup>1</sup>, Eberth S<sup>1</sup>, Nagel S<sup>1</sup>, Dirks W<sup>1</sup>, Werr L<sup>2,3</sup>, Fischer M<sup>2,3</sup>, Steenpaß L<sup>1</sup>

<sup>1</sup>Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures, <sup>2</sup>University Children's Hospital of Cologne, <sup>3</sup>University of Cologne

### 270P Single nucleus RNA sequencing reveals unique myonuclei populations in Late-Onset Myopathy

Soule T<sup>1</sup>, Pontifex C<sup>1</sup>, Rosin N<sup>1,2</sup>, Joel M<sup>1</sup>, Lee S<sup>1</sup>, Nguyen M<sup>1,3</sup>, Chhibber S<sup>3</sup>, Pfeffer G<sup>1,3,4</sup>

<sup>1</sup>Hotchkiss Brain Institute, <sup>2</sup>Faculty of Veterinary Medicine, <sup>3</sup>Department of Clinical Neurosciences, Cumming School of Medicine, <sup>4</sup>Department of Medical Genetics, Cumming School of Medicine

### 271P Exploring the effects of the epi-drug Remodelin on murine myoblasts differentiation

Sian V<sup>1,2</sup>, Sarparanta J<sup>1,3</sup>, Hentschel A<sup>4</sup>, Jonson P<sup>1,3</sup>, Roos A<sup>5,6</sup>, Natraj Gayathri S<sup>1,3</sup>, Udd B<sup>1,7</sup>, Savarese M<sup>1,3</sup>, Nebbioso A<sup>2</sup>

<sup>1</sup>Folkhälsan Research Center, <sup>2</sup>Department of Precision Medicine, University of Campania Luigi Vanvitelli, <sup>3</sup>University of Helsinki, Faculty of Medicine, <sup>4</sup>Leibniz-Institut für Analytische Wissenschaften-ISAS e.V., <sup>5</sup>Department of Pediatric Neurology, Centre for Neuromuscular Disorders, Centre for Translational Neuro- and Behavioral Sciences, University Duisburg-Essen, <sup>6</sup>Brain and Mind Research Institute, Children's Hospital of Eastern Ontario Research Institute, <sup>7</sup>Neuromuscular Research Centre, Tampere University and University Hospital

### 272P High phosphate levels induce atrophy and FGF23 expression in skeletal muscle

Heitman K<sup>1</sup>, Fajol A<sup>1</sup>, Thomas M<sup>1</sup>, Li Q<sup>1</sup>, Campos I<sup>1</sup>, Westbrook D<sup>1</sup>, Komarova S<sup>1</sup>, Alexander M<sup>1</sup>, White K<sup>2</sup>

<sup>1</sup>University of Alabama Birmingham, <sup>2</sup>Indiana University

### 273P Estrogen deficiency results in reduced maximal running capacity without changes in the phosphorylation of myosin regulatory light chain in female rats

Karvinen S<sup>1</sup>, Lee E<sup>1,2</sup>, Nissinen T<sup>1</sup>, Ylä-Outinen L<sup>1</sup>, Jalkanen A<sup>3</sup>, Karppinen J<sup>1,4</sup>, Vieira-Potter V<sup>5</sup>, Lipponen A<sup>1</sup>

<sup>1</sup>University of Jyväskylä, <sup>2</sup>University of Montréal, <sup>3</sup>University of Eastern Finland, <sup>4</sup>University of Helsinki, <sup>5</sup>University of Missouri

### 274P Generation of cardiac organoids from DuchenneMuscularDystrophy patient-derived induced pluripotent stem cells: a novel approach to understanding cardiomyopathy

Przymuszała M<sup>1</sup>, Stępniewski J<sup>1</sup>, Florczyk-Soluch U<sup>1</sup>, Dulak J<sup>1</sup>

<sup>1</sup>Jagiellonian University

### 275P Feasibility of assessing muscle oxygenation in patients with neuromuscular disease using near-infrared spectroscopy

Tang W<sup>1</sup>, Salvatore S<sup>1</sup>, Khonde S<sup>1</sup>, Montalvo S<sup>1</sup>, de Monts C<sup>1</sup>, Smith S<sup>1</sup>, Hageman N<sup>1</sup>, Blumberg Y<sup>1</sup>, Ataide P<sup>1</sup>, Ni Ghiollagain N<sup>1</sup>, Parker D<sup>1</sup>, Wheeler M<sup>1</sup>, Day J<sup>1</sup>, Christle J<sup>1</sup>, Duong T<sup>1</sup>

<sup>1</sup>Stanford University

### 276P Exploring muscle endurance in a neuromuscular population: insights from the assisted 6-minute cycling test combined with cardiopulmonary exercise testing and near-infrared spectroscopy

Tang W<sup>1</sup>, de Monts C<sup>1</sup>, Montalvo S<sup>1</sup>, Dunaway Young S<sup>1</sup>, Salvatore S<sup>1</sup>, Khonde S<sup>1</sup>, Smith S<sup>1</sup>, Hageman N<sup>1</sup>, Blumberg Y<sup>1</sup>, Ataide P<sup>1</sup>, Ni Ghiollagain N<sup>1</sup>, Parker D<sup>1</sup>, Wheeler M<sup>1</sup>, Day J<sup>1</sup>, Wheeler M<sup>1</sup>, Duong T<sup>1</sup>

<sup>1</sup>Stanford University

### 277P Single-nuclei RNAseq in myotonic dystrophy type I: DMPK accumulation and myofiber repair

Todorow V<sup>1</sup>, Hayashi S<sup>2</sup>, Meinke P<sup>1</sup>, Schoser B<sup>1</sup>, Nishino I<sup>2</sup>

<sup>1</sup>Friedrich-Baur-Institute, LMU, <sup>2</sup>Department of Neuromuscular Research, National Center of Neurology and Psychiatry (NCNP)

### **278P Mapping human skeletal muscle enhancers to increase rates of genetic diagnosis**

**Taylor R**<sup>1,2</sup>, Taylor J<sup>1,2</sup>, Denisenko E<sup>1,2</sup>, Jones M<sup>1,2</sup>, Clayton J<sup>1,2</sup>, Laing N<sup>1,2</sup>, Forrest A<sup>1,2</sup>, Alinejad-Rokny H<sup>3</sup>, Ravenscroft G<sup>1,2</sup>

<sup>1</sup>Harry Perkins Institute of Medical Research, <sup>2</sup>Centre for Medical Research, University of Western Australia, <sup>3</sup>Graduate School of Biomedical Engineering, University of New South Wales

### **279P Exploring myogenic tremor in an animal model of MYBPC1-Associated Myopathy: a comprehensive study**

**Inashkina I**, Zdanovica A<sup>1</sup>, Lunge M<sup>1</sup>, Zayakin P<sup>1</sup>, Upite J<sup>2</sup>, Dzirkale Z<sup>2</sup>, Alnis J<sup>4</sup>, Lace B<sup>3</sup>, Jansone B<sup>2</sup>, Stavusis J<sup>1</sup>

<sup>1</sup>Latvian Biomedical Research and Study Centre, <sup>2</sup>Department of Pharmacology, Faculty of Medicine, University of Latvia, <sup>3</sup>Riga East University Hospital, <sup>4</sup>Institute of Atomic Physics and Spectroscopy, University of Latvia

### **361P-400P: DMD - imaging and outcome measures**

#### **361P Development of a next-generation multiplex ddPCR assay for measurement of in-frame dystrophin mRNA in people with DMD treated with BMN 351**

Tamura S<sup>1</sup>, Sidhu I<sup>1</sup>, Ilagan J<sup>1</sup>, Yu A<sup>1</sup>, Byer A<sup>1</sup>, Kamath S<sup>1</sup>, Staskus L<sup>1</sup>, Russell C<sup>1</sup>, Melton A<sup>1</sup>, **Larimore K**<sup>1</sup>

<sup>1</sup>BioMarin Pharmaceutical Inc

#### **362P Whole-body MRI reveals common and distinctive muscle involvement in “clinically asymptomatic” female carriers of pathogenic DMD variants**

**Gilberto F**<sup>1,2</sup>, Vigliano A<sup>3</sup>, Luce L<sup>1,2,4</sup>, Pastor Rueda J<sup>3</sup>, Chaves H<sup>3</sup>, Mesa L<sup>5</sup>, Carcione M<sup>1,2</sup>, Mazzanti C<sup>1,2</sup>, Llamas Massini C<sup>1,2</sup>, Radic P<sup>6</sup>, Cejas C<sup>3</sup>

<sup>1</sup>Laboratorio de Distrofinopatías, Cátedra de Genética, Facultad de Farmacia y Bioquímica, Universidad de Buenos Aires, <sup>2</sup>Instituto de Inmunología, Genética y Metabolismo (INIGEM), UBA-CONICET, <sup>3</sup>Fundación para la Lucha contra las Enfermedades Neurológicas de la Infancia-FLENI, <sup>4</sup>John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University and Newcastle Hospitals NHS Foundation Trust, <sup>5</sup>Instituto de Neurociencias, Fundación Favaloro, <sup>6</sup>CONICET-Academia Nacional de Medicina, Instituto de Medicina Experimental (IMEX)

#### **363P A cross-sectional survey upper limb functional using PUL 2.0 at large clinical centers and registries in patients with Duchenne muscular dystrophy**

**Coratti G**<sup>1</sup>, Niks E<sup>2</sup>, van der Holst M<sup>3</sup>, Tian C<sup>4</sup>, Mercuri E<sup>1</sup>, Muntoni F<sup>5,6</sup>, Servais L<sup>7,8</sup>, Ward S<sup>9</sup>

<sup>1</sup>Child Neurology Unit e Centro Nemo, IRCCS Fondazione Policlinico Gemelli, Università Cattolica del Sacro Cuore, <sup>2</sup>Department of Neurology, Leiden University Medical Center, <sup>3</sup>Department of Orthopedics, Rehabilitation and Physiotherapy, Leiden University Medical Center (LUMC), <sup>4</sup>Cincinnati Children's Hospital Medical Center (CCHMC); College of Medicine University of Cincinnati, <sup>5</sup>Dubowitz Neuromuscular Centre, UCL, Great Ormond Street Institute of Child Health & Great Ormond Street Hospital, <sup>6</sup>National Institute for Health Research Great Ormond Street Hospital Biomedical Research Centre, UCL Great Ormond Street Institute of Child Health, <sup>7</sup>MDUK Oxford Neuromuscular Center, Department of Paediatrics, University of Oxford, <sup>8</sup>Neuromuscular Center of Liège, Division of Paediatrics, CHU and University of Liège (NMCL), <sup>9</sup>Collaborative Trajectory Analysis Project

#### **364P Gross motor delays in boys with Duchenne muscular dystrophy are seen in infancy**

**Lowes L**<sup>1,2</sup>, Reash N<sup>1</sup>, Iammarino M<sup>1</sup>, Connolly A<sup>2</sup>, Pietruszewski L<sup>3</sup>, Smith M<sup>1</sup>, Peng J<sup>4</sup>, Steiner C<sup>1</sup>, Tsao C<sup>2</sup>, Waldrop M<sup>1,2</sup>, Flanigan K<sup>1,2</sup>, Chagat S<sup>1</sup>, Meyer A<sup>1</sup>, Mendell J<sup>5</sup>, Alfano L<sup>1,2</sup>

<sup>1</sup>Abigail Wexner Research Institute at Nationwide Children's Hospital, <sup>2</sup>The Ohio State University College of Medicine, <sup>3</sup>Center for Cerebral Palsy, University of California, Los Angeles, <sup>4</sup>Center for Biostatistics, The Ohio State University Wexner Medical Center, <sup>5</sup>Sarepta Therapeutics

#### **365P Duchenne video assessment 2.0 scorecard performance: evaluation of inter-item and inter-scorecard relationships**

Contesse M<sup>1</sup>, Sapp A<sup>1</sup>, Zigler C<sup>2</sup>, Chen W<sup>1</sup>, Marshall J<sup>1</sup>, Gensler G<sup>1</sup>, Brown C<sup>1</sup>, Barnes R<sup>1</sup>, King D<sup>1</sup>, Wilson S<sup>1</sup>, **Leffler M**<sup>1</sup>

<sup>1</sup>Emmes, <sup>2</sup>Duke University School of Medicine

#### **366P Social Vulnerability and Fluid Cognition in Duchenne Muscular Dystrophy: The Impact on Boys and Carrier Mothers**

**Penumalee V**<sup>1</sup>, Karra H<sup>2</sup>, Javalkar S<sup>1</sup>, Arun S<sup>1</sup>, Kaat A<sup>3</sup>, Thangarajh M<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University, <sup>2</sup>University of Virginia, <sup>3</sup>Northwestern University

#### **367P Mortality among males with muscular dystrophy in the USA: estimation from whole-population cause-of-death records**

**Hayes E**<sup>1</sup>, Giafaglione J<sup>1</sup>, Signorovitch J<sup>2</sup>, Sajeev G<sup>2</sup>, Zhu A<sup>2</sup>, Shell R<sup>1</sup>, Waldrop M<sup>3</sup>, Cripe L<sup>1</sup>, Wright L<sup>1</sup>, Nandi D<sup>1</sup>

<sup>1</sup>Department of Pediatrics, Nationwide Children's Hospital, <sup>2</sup>Analysis Group, Inc, <sup>3</sup>Center for Gene Therapy, Abigail Wexner Research Institute, Nationwide Children's Hospital

**368P Ankle contractures in Duchenne muscular dystrophy: using real world data to study the influence of the gastrocnemius and soleus muscles on functional decline**

**Fleerackers E<sup>1,2,3</sup>**, Pelsma M<sup>4</sup>, Krom Y<sup>1,3</sup>, Hoek R<sup>1,3</sup>, Kan H<sup>5</sup>, van Zwet E<sup>6</sup>, Houwen-van Opstal S<sup>3,4</sup>, Niks E<sup>1,3</sup>, van der Holst M<sup>2,3</sup>

<sup>1</sup>Department of Neurology, Leiden University Medical Center, <sup>2</sup>Department of Orthopaedics, Rehabilitation & Physical therapy, Leiden University Medical Center, <sup>3</sup>Duchenne Center Netherlands, <sup>4</sup>Department of Rehabilitation, Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Center, Amalia Children's Hospital, <sup>5</sup>Department of Radiology, Leiden University Medical Center, <sup>6</sup>Department of Biomedical Data Sciences, Leiden University Medical Center

**369P Elbow function and thumb pinch strength are relevant for activities of daily living for non-ambulant DMD patients**

**Michaëls M<sup>1,2</sup>**, Naarding K<sup>1,2</sup>, van der Holst M<sup>1,2</sup>, van Zwet E<sup>1</sup>, Kan H<sup>2,3</sup>, Niks E<sup>1,2</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Duchenne Center Netherland, <sup>3</sup>C.J. Gorter MRI Center

**370P Gait analysis in children with Duchenne muscular dystrophy: overground vs. treadmill walking**

**Deconinck N<sup>1</sup>**, Ruiz P<sup>2</sup>, Kaleeta J<sup>3</sup>, Cheron G<sup>2</sup>, Cebolla A<sup>2</sup>

<sup>1</sup>Pediatric neurology Department and Neuromuscular reference center, ULB <sup>2</sup>Laboratory of Neurophysiology and Movement Biomechanics, ULB <sup>3</sup>Paediatric Orthopedic Surgery, HUDERF, ULB

**371P Screening for psychosocial needs in adults with Duchenne muscular dystrophy: preliminary findings on using the GAD7 and PHQ9**

**Bouquillon L<sup>1</sup>**, Pattni J<sup>1</sup>, Bindman D<sup>1</sup>, Geagan C<sup>2</sup>, Conn R<sup>3</sup>, McDonald R<sup>1</sup>, Turner C<sup>2</sup>, Rodney S<sup>4</sup>, Johnson A<sup>5</sup>, Guglieri M<sup>2</sup>, Straub V<sup>2</sup>, Quinlivan R<sup>1</sup>

<sup>1</sup>University College London Hospitals NHS Foundation Trust, <sup>2</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust, <sup>3</sup>Devon Partnership NHS Trust, <sup>4</sup>Duchenne Research Fund <sup>5</sup>Duchenne UK

**372VP MRI fat fraction in Duchene muscular dystrophy (DMD): inter-reader variability of the 90th percentile fat fraction value**

**Hammond M<sup>1</sup>**, Harris J<sup>1</sup>, Mesbah S<sup>1</sup>, Roche F<sup>2</sup>, Berger M<sup>1</sup>, Zabbatino S<sup>1</sup>, Scheyer R<sup>3</sup>, Holland S<sup>1</sup>

<sup>1</sup>Medpace Core Laboratories, <sup>2</sup>Medpace Core Laboratories, <sup>3</sup>Medpace

**373P Association between the time of diagnosis and muscle breakdown in DMD patients diagnosed under two years of age**

**Coşkun A<sup>1</sup>**, Topaloğlu H

<sup>1</sup>Ankara Atatürk Sanatory Train and Research Hospital

**374P Relationship between the Pediatric Outcomes Data Collection Instrument (PODCI) and EQ-5D-3L utility score in Duchenne muscular dystrophy**

**Posner N<sup>1</sup>**, Merla V<sup>1</sup>, Aslam Z<sup>1</sup>, Bushmakina A<sup>1</sup>, Cappelleri J<sup>1</sup>

<sup>1</sup>Pfizer, Inc.

**375P Relationship between Pediatric Outcomes Data Collection Instrument (PODCI) and North Star Ambulatory Assessment (NSAA)**

**Posner N<sup>1</sup>**, Merla V<sup>1</sup>, Aslam Z<sup>1</sup>, Bushmakina A<sup>1</sup>, Cappelleri J<sup>1</sup>

<sup>1</sup>Pfizer, Inc.

**376P Ataluren in patients with nonsense mutation DMD (nmDMD): retrospective evaluation from a tertiary referral center in Turkey**

**Öz Yıldız S<sup>1,3</sup>**, Bulut N<sup>2</sup>, Gürbüz İ<sup>2</sup>, Öztoprak Ü<sup>1</sup>, Tunca Yılmaz Ö<sup>2</sup>, Haliloğlu G<sup>1</sup>

<sup>1</sup>Hacettepe University Faculty of Medicine, Department of Pediatrics, Division of Pediatric Neurology, <sup>2</sup>Hacettepe University Faculty of Physical Therapy and Rehabilitation, <sup>3</sup>Necip Fazıl City Hospital, Ministry of Health

**377P Patterns of disease progression in Duchenne muscular dystrophy: heterogeneous changes in motor function tasks among patients with similar trajectories over one year**

**Posner N<sup>1</sup>**, Talaga A<sup>1</sup>, Johnson M<sup>2</sup>, Gomez-Lievano A<sup>2</sup>, Akbarnejad H<sup>2</sup>, Ma Y<sup>2</sup>, Aslam Z<sup>1</sup>, Kane A<sup>1</sup>, Bhambri R<sup>1</sup>, Dukacz S<sup>3</sup>, Cappelleri J<sup>1</sup>, Signorovitch J<sup>2</sup>

<sup>1</sup>Pfizer New York, <sup>2</sup>Analysis Group, <sup>3</sup>Pfizer Toronto

**378P Geospatial driver of cognition in biological mothers of sons with Dystrohinopathy**

**Javalkar S<sup>1</sup>**, Penumalee V<sup>1</sup>, Arun S<sup>1</sup>, Karra H<sup>1,2</sup>, Kaat A<sup>3</sup>, Thangarajh M<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University, <sup>2</sup>University of Virginia, <sup>3</sup>Northwestern University

**379P A qualitative study on people with Duchenne muscular dystrophy and caregivers' experiences during the transition process from pediatric to adult healthcare**

**Marcassoli A<sup>1</sup>**, Moroni I<sup>2</sup>, Guastafierro E<sup>1</sup>, Briigliadori B<sup>2</sup>, Nardocci N<sup>2</sup>, Leonardi M<sup>1</sup>, De Angelis F<sup>3</sup>, Langer T<sup>4</sup>, Rodger S<sup>4</sup>, Willems J<sup>4</sup>, Kraus De Camargo O<sup>5</sup>, Frei J<sup>5</sup>, Swain A<sup>5</sup>, Ringer D<sup>5</sup>, Gorter J<sup>5</sup>, Pozniak K<sup>5</sup>, Rajapakse N<sup>5</sup>, Fournier A<sup>6</sup>, Gutierrez R<sup>6</sup>, Osman H<sup>7</sup>, Reeskau G<sup>8</sup>, McCauley D<sup>5</sup>, Wang E<sup>5</sup>, Friedrich S<sup>4</sup>

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**380VP Assessment of lung function and respiratory muscles using ultrasonography in Duchenne muscular dystrophy**

**Ferreira Lima K<sup>1</sup>**, Arruda P<sup>1</sup>, Albuquerque M<sup>1</sup>, Zanoteli E<sup>1</sup>

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**381P Survey results for use of the Performance of the Upper Limb Module in patients with Duchenne muscular dystrophy: UK North Star national registry**

**Wolfe A<sup>1,2</sup>**, Brooke M<sup>2</sup>, Aslam N<sup>2</sup>, Manzur A<sup>1,2</sup>, Muntoni F<sup>1,2</sup>, Baranello G<sup>1,2</sup>

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**382P Decreased quality of life in Duchenne muscular disease patients related to functional neurological and cardiac impairment**

**Jurikova L<sup>1</sup>**, Masarova L<sup>2,11</sup>, Panovsky R<sup>2,3</sup>, Pesl M<sup>2,3,4</sup>, Zondra Revendova K<sup>5,6</sup>, Volny O<sup>2,5,6</sup>, Feithova V<sup>2,7</sup>, Holecek T<sup>2,7,8</sup>, Kincl V<sup>2,3</sup>, Danhofer P<sup>1</sup>, Vohanka S<sup>9</sup>, Haberlova J<sup>10</sup>, Podolska K<sup>10</sup>

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**383P A qualitative evaluation of meaningful change on the north star ambulatory assessment and performance of upper limb in Duchenne muscular dystrophy**

**Murphy A<sup>1</sup>**, Ciobanu T<sup>2</sup>, Davies E<sup>2</sup>, Gillman A<sup>3</sup>, Barrett L<sup>3</sup>, Johnson A<sup>4</sup>, Mills J<sup>3</sup>, Heinrich P<sup>3</sup>, Przydzial K<sup>3</sup>, Ewens B<sup>3</sup>, Vandenberg G<sup>3</sup>, Cano S<sup>3</sup>, Mayhew A<sup>5</sup>

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**384P Functional Outcome Measures (FOMs) guiding clinical care of children with Duchenne muscular dystrophy**

**Khandekar G<sup>1</sup>**, Banavara Shyamprasad S<sup>1</sup>, Ramesh Babu R<sup>1,2</sup>, Kumar A<sup>2</sup>, Satyam P<sup>1,2</sup>, Maganthi M<sup>2</sup>, Krishna G<sup>1</sup>, Mathew A<sup>1,2</sup>

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**385P Quantitative magnetic resonance of masticatory muscles in adolescents with Duchenne muscle dystrophy**

**Avila Smirnow D<sup>1,2,3</sup>**, Meza C<sup>1,2</sup>, González C<sup>1,2</sup>, Uribe S<sup>4,5</sup>, Salinas L<sup>1,2</sup>

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**386P Dark-adaptation visual thresholds in Duchenne muscular dystrophy patients with genetic backgrounds affecting different dystrophin proteins**

**Dias S<sup>1</sup>**, Barboni M<sup>1,2</sup>, Brasil A<sup>1</sup>, Lima K<sup>3</sup>, Camelo C<sup>3</sup>, Sindeaux R<sup>3</sup>, Resende M<sup>3</sup>, Albuquerque M<sup>3</sup>, Zanoteli E<sup>3</sup>, Ventura D<sup>1</sup>

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**387P Quantifying function from birth through adulthood in Duchenne muscular dystrophy: a cross-sectional evaluation of the Neuromuscular Gross Motor Outcome**

**Iammarino M<sup>1</sup>**, Reash N<sup>1</sup>, Smith M<sup>1</sup>, Steiner C<sup>1</sup>, Beale A<sup>1</sup>, Humphrey L<sup>1</sup>, Lowes L<sup>1</sup>, Alfano L<sup>1</sup>

<sup>1</sup>Nationwide Children's Hospital

**388P Remote evaluation of functional outcomes in Duchenne muscular dystrophy: navigating opportunities and obstacles**

**Banavara Shyamprasad S<sup>1</sup>**, Khandekar G<sup>1</sup>, Ramesh Babu R<sup>1,2</sup>, Krishna G<sup>1</sup>, Mathew A<sup>1,2</sup>

<sup>1</sup>Synapse Neuro Center, <sup>2</sup>Bangalore Baptist Hospital

**389P Natural history of bone health in Duchenne muscular dystrophy: A systematic review and implications for the design of a clinical trial**

**De Ford C<sup>1</sup>**, Guridi M<sup>1</sup>, Chen Y<sup>2</sup>, Murphy A<sup>3</sup>, Wood C<sup>4</sup>, McMillan H<sup>5</sup>, Mercuri E<sup>6</sup>, Crabtree N<sup>7</sup>, Ward L<sup>8,9</sup>

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**390P Assessing biomarkers of bone metabolism and the role of the IL-6 signalling pathway in patients with Duchenne muscular dystrophy**

**De Ford C<sup>1</sup>**, Guridi M<sup>1</sup>, Fruechtenicht C<sup>1</sup>, See C<sup>1</sup>, Houghton R<sup>1</sup>, Chen Y<sup>2</sup>, Murphy A<sup>3</sup>, Wood C<sup>4</sup>, Ward L<sup>5,6</sup>, Crabtree N<sup>7</sup>, Mercuri E<sup>8</sup>, McMillan H<sup>9</sup>

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**391P Agreement and accuracy of ambulatory definitions in Duchenne muscular dystrophy (DMD): a cross-sectional analysis**

**Macedo A<sup>1</sup>**, Logan J<sup>1</sup>, Dai D<sup>1</sup>, **Ricchetti-Masterson K<sup>1</sup>**

<sup>1</sup>Sarepta Therapeutics Inc.

**392P Investigating the data landscape of Duchenne muscular dystrophy: Answering your research questions with the right data source**

**Furby H<sup>1</sup>**, Johnson M<sup>1</sup>, Signorovitch J<sup>2</sup>, Moride Y<sup>3</sup>, Castillon G<sup>3</sup>, Simpson A<sup>4</sup>

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**393P Understanding oropharyngeal dysphagia in Duchenne muscular dystrophy: A 10-year longitudinal cohort study**

**Scholten S<sup>1</sup>**, Lagarde M<sup>1</sup>, Knuijt S<sup>2</sup>, Houwen-van Opstal S<sup>1</sup>, Erasmus C<sup>3</sup>, Groothuis J<sup>2</sup>

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**394P Longitudinal changes in the North Star Ambulatory Assessment and leg muscle fat fraction in DMD**

**Forbes S<sup>1</sup>**, Nair K<sup>2</sup>, Willcocks R<sup>1</sup>, Barnard A<sup>1</sup>, Lott D<sup>1</sup>, Senesac C<sup>1</sup>, Rock K<sup>1</sup>, Finanger E<sup>3</sup>, Brandsema J<sup>4</sup>, Subramony S<sup>1</sup>, Wang D<sup>4</sup>, Rooney W<sup>5</sup>, Walter G<sup>1</sup>, Vandenborne K<sup>1</sup>

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**395P Age at loss of ambulation in patients with nmDMD from the STRIDE Registry: sensitivity analyses**

**Muntoni F<sup>1</sup>**, Buccella F<sup>2</sup>, Nascimento Osorio A<sup>3</sup>, Tulinius M<sup>4</sup>, Bernadete Dutra de Resende M<sup>5</sup>, Johnson S<sup>6</sup>, Werner C<sup>7</sup>, Anbu B<sup>8</sup>, Liu E<sup>6</sup>, Mercuri E<sup>8</sup>

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**396P 6-year follow-up on muscle affection in female carriers of Dystrophinopathy**

**Lyu Z<sup>1</sup>**, Poulsen N<sup>1</sup>, Joensen H<sup>1</sup>, Dunø M<sup>2</sup>, Bundgaard H<sup>3</sup>, Vejlsstrup N<sup>3</sup>, Lando C<sup>1</sup>, Hansen A<sup>4</sup>, Vissing J<sup>1</sup>

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**397P 6-year follow-up on cardiac affection in female carriers of Dystrophinopathy**

Lyu Z<sup>1</sup>, Poulsen N<sup>1</sup>, Joensen H<sup>1</sup>, Bundgaard H<sup>2</sup>, Vejstrup N<sup>2</sup>, Lando C<sup>1</sup>, Hansen A<sup>3</sup>, Vissing J<sup>1</sup>

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**398P Magnetic resonance imaging detects bone alterations in corticosteroid treated boys with DMD**

Kunnath Ravindranunni R<sup>1</sup>, Grewal R<sup>2</sup>, Cottrell C<sup>2</sup>, Bernier A<sup>1</sup>, Tuna I<sup>1</sup>, Vandeborne K<sup>1</sup>, Walter G<sup>1</sup>, Rajapakse C<sup>2</sup>, Willcocks R<sup>1</sup>

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**399P MRI assessment of microdystrophin gene therapy in DMD: a five year longitudinal study**

Willcocks R<sup>1</sup>, Lott D<sup>1</sup>, Forbes S<sup>1</sup>, Vandeborne K<sup>1</sup>, Walter G<sup>1</sup>

<sup>1</sup>University of Florida

**400P Longitudinal evaluation of ambulatory function with ankle wearable technology in ambulant DMD**

Poleur M<sup>1</sup>, Parinello G<sup>2</sup>, Vrščaj E<sup>3</sup>, Kumhera M<sup>4</sup>, Bisson C<sup>2</sup>, Aragon-Gawińska K<sup>5</sup>, Anghelescu C<sup>6</sup>, Daron A<sup>1</sup>, Szabo L<sup>7</sup>, Leanca M<sup>8,9,10</sup>, Mirea A<sup>8,9,10</sup>, Kodyš S<sup>11</sup>, Saleh A<sup>11</sup>, Osredkar D<sup>3</sup>, Haberlova J<sup>4</sup>, Potulska-Chromik A<sup>5</sup>, Butoiianu N<sup>6,8</sup>, Eggensteiner D<sup>2</sup>, Strijbos P<sup>12</sup>, Servais L<sup>13,14</sup>

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**538P-577P, 578VP: Acquired, inflammatory, myositis**

**538P Muscle haptoglobin biomarkers cachexia induced by anti-acute myeloid leukemia chemotherapy**

Rybalka E<sup>1,2,3</sup>, Campelj D<sup>1,4</sup>, Spiesberger G<sup>1,2</sup>, Formosa L<sup>5</sup>, Steele J<sup>6</sup>, Zhang H<sup>6</sup>, Schittenhelm R<sup>6</sup>, Leow L<sup>3</sup>, Bhandari N<sup>1</sup>, Goodman C<sup>7</sup>, Timpani C<sup>1,2,3</sup>

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**539P A late-onset multiple-acyl-CoA-dehydrogenase deficiency-like condition is more common in West of Scotland than primary genetic MADD, and is likely multifactorial**

Watson-Fargie T<sup>1</sup>, Coomber A<sup>2</sup>, Barr M<sup>3</sup>, Brennan K<sup>1</sup>, Dale J<sup>4</sup>, Fletcher E<sup>5</sup>, Gallagher P<sup>1</sup>, Molinari E<sup>1</sup>, Miller-Hodges E<sup>6</sup>, O'Sullivan D<sup>7</sup>, Stewart K<sup>8</sup>, Taylor R<sup>9</sup>, Topf A<sup>10</sup>, Straub V<sup>10</sup>, Edwards R<sup>3</sup>, Stewart W<sup>11</sup>, Farrugia M<sup>1</sup>, Longman C<sup>8</sup>

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**540P Assessing the effect of chronic nitrate supplementation on muscle mass and physical function outcomes**

Edwards H<sup>1,2</sup>, Morton J<sup>2</sup>, Moseley J<sup>3</sup>, Marshall T<sup>3</sup>, Berry A<sup>2</sup>, Igwesi-Chidobe C<sup>3</sup>, El-Khamisy S<sup>2</sup>, Jones H<sup>2</sup>, Farrow M<sup>4</sup>

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**541P Comparative evaluation of pulmonary function tests and self-reported respiratory function in Inclusion Body Myositis based on NT5c1A antibody serology status**

**Wencel M<sup>1</sup>**, Bjazevic K<sup>1</sup>, Goyal N<sup>1</sup>, Carbunar O<sup>2</sup>, Freimer M<sup>1,4</sup>, Dimachkie M<sup>3</sup>, Quinn C<sup>4</sup>, LLoyd T<sup>5</sup>, Mohassel P<sup>5</sup>, Wehl C<sup>6</sup>, Shaibani A<sup>7</sup>, Wang L<sup>8</sup>, Chahin N<sup>9</sup>, Amato A<sup>10</sup>, Wicklund M<sup>11</sup>, Shieh P<sup>12</sup>, Herbelin L<sup>13</sup>, Barohn R<sup>13</sup>, Mozaffar T<sup>1</sup>

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**542P INSPIRE-IBM: an NIH-funded, two-year, multicenter, observational study in inclusion body myositis (IBM)-an update**

**Wencel M<sup>1</sup>**, Goyal N<sup>1</sup>, Carbunar O<sup>2</sup>, Freimer M<sup>3</sup>, Dimachkie M<sup>4</sup>, Quinn C<sup>5</sup>, Lloyd T<sup>6</sup>, Mohassel P<sup>6</sup>, Wehl C<sup>7</sup>, Shaibani A<sup>8</sup>, Wang L<sup>9</sup>, Nizar C<sup>10</sup>, Amato A<sup>11</sup>, Wicklund M<sup>12</sup>, Dixon S<sup>12</sup>, Shieh P<sup>13</sup>, Herbelin L<sup>14</sup>, Herbelin L<sup>14</sup>, Mozaffar T<sup>1</sup>

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**543P Riboflavin-responsive MADD, a modern day problem?**

**Hustinx M<sup>1</sup>**, Brady S<sup>2</sup>

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**544P A single center Indian cohort of Inclusion Body Myositis**

**George J<sup>1</sup>**, Rajalakshmi P<sup>2</sup>, Sundaram S<sup>1</sup>, Nair S<sup>1</sup>

<sup>1</sup>Sree Chitra Tirunal Institute for Medical Sciences and Technology & Technology, <sup>2</sup>Department of Pathology, Sree Chitra Tirunal Institute for Medical Sciences and Technology

**545P Capillary abnormalities in Immune-Mediated Necrotizing Myopathy: more than collateral damage?**

**Eisenlohr P<sup>1,2</sup>**, Preusse C<sup>1</sup>, Roos A<sup>4</sup>, Stenzel W<sup>1</sup>, Kleefeld F<sup>2</sup>

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**546VP Deep immunoprofiling in inclusion body myositis and trajectory analysis**

**Roy B<sup>1</sup>**, DiStasio M<sup>1</sup>, Hackbarth R<sup>2</sup>, Bahrassa F<sup>1</sup>, Joo D<sup>1</sup>, Pham M<sup>1</sup>, O'Connor K<sup>1</sup>

<sup>1</sup>Yale University School of Medicine, <sup>2</sup>University of Hamburg

**547P The diagnostic value of serum periostin for myocardial involvement in immune-mediated necrotizing myopathy**

**Xu L<sup>1</sup>**, Yang M<sup>1</sup>, Kosari M<sup>2</sup>, Li Y<sup>1</sup>, Bu B<sup>1</sup>, Ji S<sup>1</sup>

<sup>1</sup>Department of Neurology, Tongji Hospital of Tongji Medical College, Huazhong University of Science and Technology <sup>2</sup>MBBS student, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology

**548P A role of heparin-binding epidermal growth factor-like growth factor in myocardial involvement in immune-mediated necrotizing myopathy**

**Xu L<sup>1</sup>**, Meng-ge Y<sup>1</sup>, Kosari M<sup>2</sup>, Li Y<sup>1</sup>, Bu B<sup>1</sup>, Ji S<sup>1</sup>

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**549VP High dose intravenous corticosteroids in refractory Immune Checkpoint Inhibitor-related Myocarditis/Myositis/Myasthenia overlap syndrome**

**Forcina F<sup>1</sup>**, Tufano L<sup>1</sup>, Lauletta A<sup>1</sup>, Morino S<sup>1</sup>, Musumeci B<sup>2</sup>, Antonini G<sup>1</sup>, Garibaldi M<sup>1</sup>

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**550P Immune checkpoint inhibitor-induced myositis in a patient with cholangiocarcinoma**

Joe S<sup>1</sup>, **Kim S<sup>1</sup>**, Choi Y<sup>1</sup>, Choi Y<sup>1</sup>, Park H<sup>1</sup>

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### 551P BiP (GRP78) as potential blood and tissue biomarker in systemic sclerosis

**Preusse C**<sup>1,2,3</sup>, Döbelmann V<sup>4</sup>, Kleefeld F<sup>1</sup>, Hentschel A<sup>5</sup>, Holla E<sup>6</sup>, Ruck T<sup>4</sup>, Stenzel W<sup>3</sup>, Siegert E<sup>7</sup>, Roos A<sup>4,6,8</sup>

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### 552P Binding immunoglobulin protein (BiP) abundance and distribution in Idiopathic Inflammatory Myopathies (IIM)

**Kleefeld F**<sup>1</sup>, Preusse C<sup>1</sup>, Hentschel A<sup>4</sup>, Stenzel W<sup>1</sup>, Döbelmann V<sup>2</sup>, Roos A<sup>2,3,5</sup>

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### 553P Brachio-cervical Inflammatory Myopathy, an unknown disease with diverse serological and histopathological findings and poor response to treatment

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### 554P Mitochondrial pathology in Myositis: a multicentric case series

**Lauletta A**<sup>1</sup>, Bosco L<sup>2</sup>, Merlonghi G<sup>1</sup>, Falzone Y<sup>2</sup>, Cheli M<sup>3</sup>, Bencivenga R<sup>4</sup>, Léonard-Louis S<sup>5</sup>, Benveniste O<sup>6</sup>, Ruggiero L<sup>4</sup>, Maggi L<sup>3</sup>, Previtali S<sup>2</sup>, Garibaldi M<sup>1</sup>

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### 555P Assessment of IBM-FRS total score and specific domains in a large cohort of Inclusion Body Myositis patients

**Vicino A**<sup>1,2</sup>, Lauletta A<sup>3</sup>, Barbaccia A<sup>4</sup>, Valentino L<sup>5</sup>, Cheli M<sup>6</sup>, Sacconi E<sup>7</sup>, Grandis M<sup>8</sup>, Coccia M<sup>9</sup>, Barp A<sup>10</sup>, Ravaglia S<sup>11</sup>, Bortolani S<sup>12</sup>, Ruggiero L<sup>13</sup>, Mongini T<sup>14</sup>, Verriello L<sup>15</sup>, Vattemi G<sup>6</sup>, Filosto M<sup>16</sup>, Liguori R<sup>5</sup>, Rodolico C<sup>4</sup>, Garibaldi M<sup>3</sup>, Maggi L<sup>1</sup>

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### 556P Contractile properties of permeabilised single muscle fibres from female patients with Idiopathic Inflammatory Myopathies

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- 557P Skin manifestations of immune-mediated necrotizing myopathy with anti-HMGCR antibody**  
Kurashige T<sup>1</sup>, Nakamura R<sup>2</sup>, Muraio T<sup>1</sup>, Mine N<sup>4</sup>, Sato M<sup>3</sup>, Katsumata R<sup>1</sup>, Kanaya Y<sup>1</sup>, Dodo Y<sup>1</sup>, Sugiura T<sup>1</sup>, Ohshita T<sup>1</sup>  
<sup>1</sup>Nho Kure Medical Center and Chugoku Cancer Center, <sup>2</sup>Hiroshima City North Medical Center Asa Citizens Hospital, <sup>3</sup>Hiroshima University Hospital, <sup>4</sup>Chugoku Rosai Hospital
- 558P Contactin-1 antibody-associated chronic inflammatory demyelinating polyneuropathy (CIDP) in a pediatric patient: beyond the tip of an iceberg**  
Özel E<sup>1</sup>, Öncel İ<sup>1</sup>, Öztoprak Ü<sup>1</sup>, Temuçin Ç<sup>2</sup>, Haliloğlu G<sup>1</sup>  
<sup>1</sup>Hacettepe University Faculty of Medicine, Department of Pediatrics, Division of Pediatric Neurology, <sup>2</sup>Hacettepe University Faculty of Medicine, Department of Neurology
- 559P Immunological biomarkers in immune-mediated and hereditary polyneuropathies**  
Kodal L<sup>1</sup>, Krag T<sup>1</sup>, Dysgaard T<sup>1</sup>  
<sup>1</sup>Copenhagen Neuromuscular Center, Department of Neurology, Rigshospitalet,
- 560VP Immune-mediated necrotizing myopathy in 14 Polish patients – clinical course and treatment outcome**  
Rajczewska Oleszkiewicz C<sup>1</sup>, Kierdaszuk B<sup>1</sup>, Kostera-Pruszczyk A<sup>1</sup>  
<sup>1</sup>Department of Neurology, Medical University of Warsaw
- 561P PDGFRα as a reliable surface marker for fibro-adipogenic progenitor (FAP) cells**  
Park J<sup>1</sup>, Walli S<sup>1</sup>, Bachir D<sup>1</sup>, Dobelmann V<sup>1</sup>, Preuße C<sup>2</sup>, Stenzel W<sup>2</sup>, Brunn A<sup>3</sup>, Meuth S<sup>1</sup>, Ruck T<sup>1</sup>, Nelke C<sup>1</sup>  
<sup>1</sup>Department of Neurology, Medical Faculty and University Hospital Düsseldorf, Heinrich Heine University Düsseldorf, <sup>2</sup>Department of Neuropathology, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, <sup>3</sup>Institute of Neuropathology, University Hospital Düsseldorf, Heinrich-Heine-University Düsseldorf
- 562P Rare mimics of idiopathic inflammatory myopathies – a single centre cohort from India**  
Sivaraman Nair S<sup>1</sup>, George J<sup>1</sup>, Poyuran R<sup>1</sup>  
<sup>1</sup>Sree Chitra Tirunal Institute for Medical Sciences and Technology
- 563P Abatacept, the solution for a patient with immune-mediated necrotizing myopathy**  
Calabria Gallego M<sup>1</sup>  
<sup>1</sup>Hospital Universitario De Salamanca
- 564VP Investigating motor and bulbar severity in NT5c1A seropositive and seronegative IBM participants in the INSPIRE-IBM trial**  
Herrera M<sup>1</sup>, Wencil M<sup>1</sup>, Hernandez I<sup>1</sup>, Goyal N<sup>1</sup>, Dimachkie M<sup>2</sup>, Lloyd T<sup>3</sup>, Mohassel P<sup>3</sup>, Wehl C<sup>4</sup>, Freimer M<sup>5</sup>, Shaibani A<sup>6</sup>, Wicklund M<sup>7</sup>, Dixon S<sup>8</sup>, Chahin N<sup>9</sup>, Wang L<sup>10</sup>, Shieh P<sup>11</sup>, Amato A<sup>12</sup>, Quinn C<sup>13</sup>, Carbanar O<sup>14</sup>, Mozaffar T<sup>1</sup>, INSPIRE-IBM Study Group<sup>1</sup>  
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- 565VP Investigating highly differentiated cytotoxic T cells and functional severity in participants with Inclusion Body Myositis in the INSPIRE-IBM trial**  
Herrera M<sup>1</sup>, Wencil M<sup>1</sup>, Hernandez I<sup>1</sup>, Goyal N<sup>1</sup>, Dimachkie M<sup>2</sup>, Lloyd T<sup>3</sup>, Mohassel P<sup>3</sup>, Wehl C<sup>4</sup>, Freimer M<sup>5</sup>, Shaibani A<sup>6</sup>, Wicklund M<sup>7</sup>, Dixon S<sup>8</sup>, Chahin N<sup>9</sup>, Wang L<sup>10</sup>, Shieh P<sup>11</sup>, Amato A<sup>12</sup>, Quinn C<sup>13</sup>, Carbanar O<sup>14</sup>, Mozaffar T<sup>1</sup>, INSPIRE-IBM Study Group<sup>1</sup>  
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- 566P CIC-1 chloride channel inhibition improves disease symptoms and survival in a rat model of muscle-specific kinase (MuSK) Myasthenia Gravis**  
Skals M<sup>1</sup>, Morgen J<sup>1</sup>, Huus N<sup>1</sup>, Skov M<sup>1</sup>, Kelly N<sup>1</sup>, Broch-Lips M<sup>1</sup>  
<sup>1</sup>NMD Pharma A/S
- 567P A prospective observational study on the effect of intravenous immunoglobulin on small fiber neuropathy after SARS-CoV-2 infection or vaccination**  
Shin J<sup>1</sup>, Lee J<sup>2</sup>  
<sup>1</sup>Hallym Medical Center, Dongtan Sacred Heart University, <sup>2</sup>Kyungpook National University Hospital

**568P Unraveling interferon-related autophagic signatures in Immune Myopathies**

**Authier F<sup>1</sup>**, Hou C<sup>1</sup>, Periou B<sup>1</sup>, Souvannanorath S<sup>1</sup>, Malfatti E<sup>1</sup>, Martin L<sup>1</sup>

<sup>1</sup>Paris Est-creteil University

**569P Revisiting Systemic Sclerosis Myopathy: unveiling unique histopathological signatures and overlaps with immune myopathies features**

**Authier F<sup>1</sup>**, Zaidan L<sup>1</sup>, Le Gouellec N<sup>2</sup>, Periou B<sup>3</sup>, Relaix F<sup>1</sup>, Mouthon L<sup>4</sup>, Hachulla E<sup>5</sup>

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**570P Physiological and molecular mechanisms underlying chronic alcoholic-related myopathy**

**Baumann C<sup>1</sup>**, Ganjaji M<sup>1</sup>, Brown A<sup>1</sup>, Willis C<sup>2</sup>

<sup>1</sup>Ohio University, <sup>2</sup>University of Bradford

**571P Muscular metabolic plasticity in 3D in vitro models against systemic stress factors in ME/ CFS and long COVID-19**

**Mughal S<sup>1,4</sup>**, Andújar-Sánchez F<sup>3,4</sup>, Sabater-Arcis M<sup>1</sup>, Fernández-Costa J<sup>1</sup>, Ramón-Azcón J<sup>1,2</sup>

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**572P Dysphagia pattern in Inclusion Body Myositis as a distinguishing feature: insight from a patient initially presenting with rapidly progressing dysphagia**

**Park Y<sup>1,2</sup>**, Bae J<sup>3,4</sup>, Jung Y<sup>3,4</sup>

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**573P The interlocution of autophagy and interleukin-6 in immune-mediated necrotizing myopathy**

**Liang W<sup>1,2,3</sup>**, Chang S<sup>1</sup>, Lin P<sup>5</sup>, Jong Y<sup>1,3,4</sup>, Liu H<sup>5</sup>

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**574P Infectious muscles diseases: a comprehensive case study of 7 patients from Indian cohort**

**Sharma M<sup>1</sup>**, Bhatia R<sup>1</sup>, Venugopalan Y V<sup>1</sup>

<sup>1</sup>Neuropathology Lab, AIIMS

**575P FORTIFY: a phase 3 study to evaluate efficacy & safety of BBP-418 in individuals with Limb-Girdle muscular dystrophy 2I, LGMDR9 FKRP-related (LGMD2I/R9)**

**Sproule D<sup>1</sup>**, Reddy D<sup>1</sup>, Blankenbiller T<sup>1</sup>, Rainey A<sup>1</sup>, Reklis L<sup>1</sup>

<sup>1</sup>ML Bio Solutions, A BridgeBio Company

**576P High precision quantification of ICAM-1 highlights similarities and differences between subgroups of Idiopathic inflammatory myopathies**

**Nishimura A<sup>1</sup>**, Nelke C<sup>2</sup>, Huber M<sup>3</sup>, Mensch A<sup>4</sup>, Roth A<sup>1</sup>, Oberwittler C<sup>5</sup>, Zimmerlein B<sup>6</sup>, Krämer H<sup>7,8</sup>,

Neuen-Jacob E<sup>9</sup>, Stenzel W<sup>10</sup>, Müller-Ladner U<sup>3</sup>, Ruck T<sup>2</sup>, Schänzer A<sup>1</sup>

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**577P Evaluation of mitochondrial dysfunction as a potential mediator of inflammatory pathways in inclusion body myositis**

**Walli S<sup>1</sup>**, Abdennebi D<sup>1</sup>, Görg B<sup>2</sup>, Bachir D<sup>1</sup>, Dobelmann V<sup>1</sup>, Preuße C<sup>3</sup>, Stenzel W<sup>3</sup>, Schoser B<sup>4</sup>, Roos A<sup>1,6,7</sup>,

Brunn A<sup>5</sup>, Meuth S<sup>1</sup>, Ruck T<sup>1</sup>, Nelke C<sup>1</sup>

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**578VP Recurrent rhabdomyolysis as the presenting feature of mixed connective tissue disease**

**Kent L**<sup>1</sup>, Butterworth R<sup>2</sup>, Hofer M<sup>1</sup>, Giavri E<sup>2</sup>, Brady S<sup>1</sup>

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**644P-655P: Muscle MRI & new imaging techniques**

**644P Muscle MRI in Glycogen Storage disease type 5 (McArdle disease) – single centre experience**

**Mohamed K**<sup>1</sup>, Pula S<sup>1</sup>, Finnigan P<sup>1</sup>, Godfrey R<sup>1</sup>, Hammam A<sup>1</sup>, Morrow J<sup>1</sup>, Løkken N<sup>2</sup>, Quinlivan R<sup>1</sup>

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**645P The utility and limitations of artificial intelligence in diagnosing rare disorders**

**Alawneh J**<sup>1</sup>, Gonorazky H<sup>1</sup>, Repalo A<sup>2</sup>, Mashouri P<sup>2</sup>

<sup>1</sup>The Hospital for Sick Children, <sup>2</sup>University of Toronto

**646P Towards integration of quantitative MRI in the diagnostic protocol of neuromuscular disorders in three Dutch NMD expert centers**

**Rauh S**<sup>1</sup>, Cameron D<sup>2</sup>, Heskamp L<sup>3</sup>, van Doorn J<sup>2</sup>, Kruit M<sup>1</sup>, Nievelstein R<sup>3</sup>, Becks R<sup>2</sup>, Niks E<sup>1</sup>, van der Pol L<sup>3</sup>, Houwen S<sup>2</sup>, Braakman H<sup>2</sup>, Erasmus C<sup>2</sup>, van Alfen N<sup>2</sup>, Bartels B<sup>3</sup>, Froeling M<sup>3</sup>, Kan H<sup>1</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Radboud University Medical Center, <sup>3</sup>University Medical Center Utrecht

**647P Tongue volume evaluation in Spinal and Bulbar Muscular Atrophy (SBMA) by AI-assisted automatic MRI-analysis**

**Rosenbohm A**<sup>1</sup>, Vernikouskaya I<sup>2</sup>, Müller H<sup>1</sup>, Chadraabal K<sup>1</sup>, Gadelkareem M<sup>1</sup>, Ludolph A<sup>1,3</sup>, Rasche V<sup>2,4</sup>, Kassubek J<sup>1,3</sup>

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**648P MRI demonstrates altered skeletal muscle membrane permeability in Becker muscular dystrophy, representing a potential biomarker for disease activity**

**Schrama E**<sup>1</sup>, Hooijmans M<sup>2</sup>, Niks E<sup>1,3</sup>, Kan H<sup>3,4</sup>, Cameron D<sup>5</sup>

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**649P Comparing unsupervised AI techniques for visualizing MRI fat infiltration patterns in muscular dystrophies**

**Pizarro-Gallequillos B**<sup>1</sup>, Gómez-Andrés D<sup>2</sup>, Tobar F<sup>3</sup>, Andía M<sup>4</sup>, Díaz-Manera J<sup>5</sup>, Verdú-Díaz J<sup>5</sup>, Suazo Rojas L<sup>6</sup>, Díaz Jara J<sup>6</sup>, Bevilacqua J<sup>7</sup>

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**650VP Development and implementation of enhanced AI-derived DTI features for precision mapping of neural tract damage in Myotonic dystrophy**

**Kamali T**<sup>1</sup>, Hageman N<sup>1</sup>, Yazdavar T<sup>1</sup>, C Piccolli<sup>1</sup>, Day JW<sup>1</sup>, Sampson J<sup>1</sup>, Wozniak J<sup>2</sup>

<sup>1</sup>Department of Neurology and Neurological Sciences, Stanford University School of Medicine, <sup>2</sup>Department of Psychiatry & Behavioural Sciences, University of Minnesota

**651VP Quantitative MRI pre- and post-skeletal muscle biopsy reveals correlations with histopathological findings**

**Schlaffke L**<sup>1</sup>, Forsting J<sup>1</sup>, Kneifel M<sup>1</sup>, Rehmann R<sup>1</sup>, De Lorenzo A<sup>1</sup>, Enax-Krumova E<sup>1</sup>, Froeling M<sup>2</sup>, Vorgerd M<sup>1,3</sup>, Güttsches A<sup>1,3</sup>

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### **652P Muscle MRI-phenotyping of patients with likely pathogenic anoctamin 5 variants**

**Poulsen N<sup>1</sup>**, Palmio J<sup>2</sup>, Jokela M<sup>2,3</sup>, Claeys K<sup>4,5,15</sup>, Iterbeke L<sup>5,15</sup>, De Bleecker J<sup>6</sup>, De Vos E<sup>6</sup>, Domínguez-González C<sup>7</sup>, Bermejo-Guerrero L<sup>7</sup>, Muelas N<sup>8,9,10</sup>, Vilchez J<sup>8,9</sup>, Gonzalez-Chamorro A<sup>11</sup>, Diaz-Manera J<sup>11</sup>, Straub V<sup>11</sup>, Straathof C<sup>12</sup>, Niks E<sup>12</sup>, Voermans N<sup>13</sup>, Cameron D<sup>14</sup>, Vissing J<sup>1</sup>, On behalf of the study group

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### **653P Rapid quantitative assessment of sodium dynamics after exercise using <sup>23</sup>Na-MRI in dysferlinopathy and healthy controls**

Bolano Diaz C<sup>1</sup>, Neal M<sup>2,3</sup>, Richardson M<sup>1</sup>, Muni Lofra R<sup>1</sup>, Michell-Sodhi J<sup>1</sup>, James M<sup>1</sup>, Mayhew A<sup>1</sup>, Hilsden H<sup>1</sup>, Wilson I<sup>2,3</sup>, Hollingsworth K<sup>2,3</sup>, Blamire A<sup>2,3</sup>, Straub V<sup>1</sup>, Thelwall P<sup>2,3</sup>, Diaz-Manera J<sup>1,4,5</sup>, **Diaz-Manera J<sup>1,4,5</sup>**

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### **654P Different lower limb muscle MRI patterns in autosomal dominant titinopathies**

**Gomez Andres D<sup>1</sup>**, Costa Comellas L<sup>1</sup>, Díaz-Manera J<sup>2</sup>, Öunap K<sup>3</sup>, Álvarez-Molinero M<sup>1</sup>, Urcuyo G<sup>1</sup>, Savarese M<sup>4</sup>, Munell F<sup>1</sup>, Udd B<sup>5</sup>

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### **655P Predictive modelling of dysferlinopathy progression: a longitudinal fat fraction analysis**

**Bolano Diaz C<sup>1</sup>**, Wilson I<sup>2</sup>, Hilsden H<sup>1</sup>, James M<sup>1</sup>, Araujo E<sup>3</sup>, Reyngoudt H<sup>3</sup>, Blamire A<sup>2</sup>, Jain COS Consortium<sup>4</sup>, Carlier P<sup>3</sup>, Straub V<sup>1</sup>, Diaz Manera J<sup>1</sup>

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## **688P-704P: Therapies for NMD**

### **688P Sleep and health-related quality of life in rare neuromuscular disorders**

**Fjermestad K<sup>1</sup>**, Brørs E

<sup>1</sup>Frambu Resource Centre for Rare Disorders, <sup>2</sup>University of Oslo

### **689P Highlights and key learnings from 15 years of the TREAT-NMD Advisory Committee for Therapeutics (TACT)**

**Turner C<sup>1</sup>**, Robertson L<sup>2</sup>, Bushby K<sup>1</sup>, Csimma C<sup>3</sup>, De Luca A<sup>4</sup>, Heslop E<sup>1</sup>, Wells D<sup>5</sup>, Aartsma-Rus A<sup>6</sup>, Straub V<sup>1</sup>

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### **690P The prospect of direct benefit in first-in-human gene therapy studies in minors - an ethical analysis**

**Pirson I<sup>1</sup>**, Niks E<sup>1</sup>, de Vries M<sup>1</sup>, de Graeff N<sup>1</sup>

<sup>1</sup>Leids Universitair Medisch Centrum

### **691P Substantial improvement of shoulder function with a new physiotherapy approach in children with LGMD, MD and FSHD**

**Pelsma M<sup>1,2</sup>**, Ijspeert J<sup>2</sup>, Braakman H<sup>1</sup>, Houwen S<sup>1,2</sup>, Hendrix- van der Stegen A<sup>1,2</sup>

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### **692P Determination of in vitro phenotype of Myofibrillar myopathy type 6 (MFM6), caused by the P209L mutation in the BAG3 gene, using patient-derived fibroblasts, and the role of autophagy stimulators in the cell recovery**

**Snoch W<sup>1</sup>**, Rintz E<sup>1</sup>, Węgrzyn G<sup>1</sup>

<sup>1</sup>University Of Gdańsk

**693P Proposed NIH core for advanced genetic therapies: spotlight on clinical development of AAV products for neuromuscular disorders**

Todd J<sup>1,2</sup>, Reoma L<sup>2</sup>, Nath A<sup>2</sup>, Martin S<sup>2</sup>, Brooks K<sup>2</sup>, Ano S<sup>3</sup>, Dukhanina O<sup>3</sup>, Lawal T<sup>4</sup>, Brooks P<sup>5</sup>, Ottinger E<sup>5</sup>, Lomash R<sup>5</sup>, Stan R<sup>5</sup>, Goldfeder L<sup>6</sup>, Venditti C<sup>7</sup>, Bönnemann C<sup>1</sup>

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**694P AAV-based gene replacement for SELENON-related myopathy**

Moghadaszadeh B<sup>1</sup>, Troiano E<sup>1</sup>, Barraza-Flores P<sup>1</sup>, Lee W<sup>1</sup>, Beggs A<sup>1</sup>

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**695P Unveiling the mosaic of quality of life in muscular dystrophy: an analysis of PROMIS survey data in adults**

Dixon M<sup>1</sup>, Vordos K<sup>1</sup>, Krikov S<sup>1</sup>, Reeder M<sup>1</sup>, Butterfield R<sup>1</sup>

<sup>1</sup>University Of Utah, Department of Pediatrics

**696P ADAPT-NMD: a hybrid II study exploring the feasibility of delivering, evaluating, and implementing a self-management programme for people with neuromuscular disorders at a specialist neuromuscular centre**

Lee L<sup>1</sup>, Kulnik S<sup>2</sup>, Curran G<sup>3</sup>, Boaz A<sup>4</sup>, Ramdharry G<sup>1</sup>

<sup>1</sup>University College London, <sup>2</sup>Ludwig Boltzmann Institute for Digital Health and Prevention, <sup>3</sup>University of Arkansas for Medical Sciences, <sup>4</sup>King's College London

**697P Clinicians' perspectives on a new self-management support programme for people living with neuromuscular disorders**

Lee L<sup>1</sup>, Kulnik S<sup>2</sup>, Boaz A<sup>3</sup>, Ramdharry G<sup>1</sup>

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**698P Adapting to life with a neuromuscular disorder: a qualitative exploration of the patient perspective**

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<sup>1</sup>University College London, <sup>2</sup>Ludwig Boltzmann Institute for Digital Health and Prevention, <sup>3</sup>King's College London

**699P Exon skipping for the second Calponin Homology Domain of dystrophin using AAV.U7snRNA - In vitro & Intramuscular studies using a novel murine model of Duchenne muscular dystrophy**

Brinkman A<sup>1</sup>, Lesman D<sup>1</sup>, Li D<sup>1</sup>, Rajakumar D<sup>1</sup>, Atre C<sup>1</sup>, Rodriguez Y<sup>1</sup>, Almeida C<sup>1</sup>, Wein N<sup>1</sup>

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**700P Alternative delivery of adeno-associated virus 9 for the treatment of Duchenne muscular dystrophy to target CSF and muscles- GFP Biodistribution study in WT mice**

Iyer A<sup>1</sup>, Gomez C<sup>1</sup>, Rodriguez Y<sup>1</sup>, Almeida C<sup>1</sup>, Bobbili P<sup>2</sup>, McGovern V<sup>2</sup>, Arnold D<sup>2</sup>, Burghes A<sup>2</sup>, Meyer K<sup>1</sup>, Wein N<sup>1</sup>

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**701P AAV.U7.ex44 Mediates Efficient Exon Skipping, Protein Restoration & Phenotype Rescue - Pre-Clinical Intramuscular and Dose Escalation Study for a Mutational Hotspot of the Duchenne Muscular Dystrophy (DMD)**

Rajakumar D<sup>1</sup>, Almeida C<sup>1</sup>, Atre C<sup>1</sup>, Lesman D<sup>1</sup>, Li D<sup>1</sup>, Rodriguez Y<sup>1</sup>, Young C<sup>2</sup>, Spencer M<sup>2</sup>, Flanigan K<sup>1</sup>, Wein N<sup>1</sup>

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**702P SEPNI/SELENON-related myopathy depends on the oxidoreductase ERO1A and is druggable with the chemical chaperone TUDCA**

**Ferreiro A**<sup>1,2</sup>, Germani S<sup>3,4</sup>, Tri Van Ho A<sup>1</sup>, Cherubini A<sup>3</sup>, Varone E<sup>3</sup>, Chernorudskiy A<sup>3</sup>, Renna G<sup>3</sup>, Fumagalli S<sup>3</sup>, Bolis M<sup>5</sup>, Rastelli G<sup>6</sup>, Nogara L<sup>7,8</sup>, Poggio E<sup>9</sup>, Brini M<sup>9,10</sup>, Cattaneo A<sup>11</sup>, Bachi A<sup>11</sup>, Simmen T<sup>12</sup>, Cali T<sup>7</sup>, Boncompagni S<sup>6</sup>, Blaauw B<sup>7,14</sup>, Zito E<sup>3,4</sup>

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**703P Integrated Organ-on-Chip platform with PINP plasmonic biosensor for fibrosis monitoring in Duchenne muscular dystrophy**

**Fernández-Costa J**<sup>1</sup>, Ruíz-Gutiérrez M<sup>1</sup>, Ninfali C<sup>1</sup>, Torabi M<sup>1</sup>, Fernández-Simón E<sup>2</sup>, Díaz-Manera J<sup>2</sup>, Ramón-Azcón J<sup>1,3</sup>

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**704P Translating RNAi-based gene therapy for Facioscapulohumeral muscular dys-trophy**

**Wallace L**<sup>1</sup>, Camp J<sup>1</sup>, Neal K<sup>1</sup>, Zender G<sup>1</sup>, Taylor N<sup>1</sup>, Zhou B<sup>1</sup>, Ye F<sup>1</sup>, Price B<sup>2</sup>, Triplett M<sup>2</sup>, Harper S<sup>1,3</sup>

<sup>1</sup>Nationwide Children's Hospital, <sup>2</sup>Armatus Bio, <sup>3</sup>Department of Pediatrics, The Ohio State University College of Medicine

15:30-16:00	<p><b>Short Oral Presentations 1</b>                  📍 North Hall  <b>146P, 145P, 231P, 576P, 577P</b>                  Moderator: Werner Stenzel, Charité University Hospital</p>	<p><b>Short Oral Presentations 2</b>                  📍 Terrace 2A  <b>278P, 703P, 702P, 279P, 704P</b>                  Moderator: Perry Shieh, University of California</p>	<p><b>Short Oral Presentations 3</b>                  📍 Terrace 2B  <b>400P, 399P, 654P, 655P, 653P</b>                  Moderator: Krista Vandeborne, University of Florida</p>
16:15-17:00	<p><b>Debate: Can the costs of gene therapies in neuromuscular disorders be justified?</b>                  📍 Congress Hall                  Moderators: Francesco Muntoni, University College London, Great Ormond Street Hospital, UK &amp; Teresinha Evangelista, Institut de Myologie, France</p>		
	<p><b>14INV</b>                  Olga Germanenko, SMA Family Foundation, Russia</p> <p><b>15INV</b>                  Josie Godfrey, JG Zebra Consulting, United Kingdom</p>		

**01P-51P, 52VP-54VP: CM - CMD****01P Structural variation in nebulin and its implications on phenotype and inheritance: establishing a dominant distal phenotype caused by large deletions**

**Sagath L**<sup>1,2</sup>, **Kiiski K**<sup>1,3</sup>, **Naidu K**<sup>4,5</sup>, **Djordjevic D**<sup>6</sup>, **Yoon G**<sup>6,7</sup>, **Rogers C**<sup>8</sup>, **Scherer K**<sup>9</sup>, **Koparir E**<sup>10</sup>, **Kunstmann E**<sup>11</sup>, **Davis M**<sup>12</sup>, **Purwa J**<sup>13</sup>, **Zygmunt A**<sup>14</sup>, **Bönnemann C**<sup>15,16</sup>, **Biancalana V**<sup>17</sup>, **Echaniz-Laguna A**<sup>18,19</sup>, **Beggs A**<sup>20</sup>, **Henning F**<sup>4</sup>, **Wallgren-Pettersson C**<sup>1,2</sup>, **Pelin K**<sup>1,2,21</sup>, **Lehtokari V**<sup>1,2</sup>

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**02P Exploring genotype-phenotype correlations in NEB-related Myopathies**

**Ogasawara M**<sup>1</sup>, **Nishimori Y**<sup>1</sup>, **Eura N**<sup>1</sup>, **Yoshioka W**<sup>1</sup>, **Yae Y**<sup>1</sup>, **Yamanaka A**<sup>1</sup>, **Hashizume L**<sup>2</sup>, **Miyazaki N**<sup>2</sup>, **Sugie K**<sup>2</sup>, **Hayashi S**<sup>1</sup>, **Noguchi S**<sup>1</sup>, **Iida A**<sup>1</sup>, **Nishino I**<sup>1</sup>

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**03P Modulation of the cyclin inhibitor p27 can ameliorate muscular dystrophy in LAMA2-RD**

**Bonaccorso R**<sup>1</sup>, **Porrello E**<sup>1</sup>, **Tonlorenzi R**<sup>1</sup>, **Previtali S**<sup>1</sup>

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**04P Characterising patient iPSC-derived models of RYR1-related myopathies**

**Crane J**<sup>1,2</sup>, **Clayton J**<sup>1,2</sup>, **Vo C**<sup>1,2</sup>, **Driver K**<sup>1,2</sup>, **Malfatti E**<sup>3,4</sup>, **Romero N**<sup>5,6</sup>, **Laing N**<sup>1,2</sup>, **Ravenscroft G**<sup>1,2</sup>, **Taylor R**<sup>1,2</sup>

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**05P Pediatric cardiomyopathy may be more prevalent amongst ACTA1 mutation related myopathies: a single center case-series**

**Nandi D**<sup>1</sup>, **Meyer A**<sup>2</sup>, **Connolly A**<sup>3,4</sup>, **Waldrop M**<sup>3,4</sup>, **Flanigan K**<sup>3,4</sup>, **Cripe L**<sup>1</sup>, **Hayes E**<sup>1</sup>

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**06VP In vivo modulation of novel modifier genes for LAMA2-RD**

**Pini V**<sup>1,2</sup>, **Bonaccorso R**<sup>1</sup>, **Porrello E**<sup>1</sup>, **Burriss T**<sup>3</sup>, **Morgan J**<sup>2</sup>, **Muntoni F**<sup>2</sup>, **Previtali S**<sup>1</sup>

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**07P Development of cell therapy for Ullrich congenital muscular dystrophy by iPSC-derived mesenchymal stromal cell**

**Sakurai H**<sup>1</sup>, **Goto M**<sup>1</sup>, **Takenaka-Ninagawa N**<sup>1</sup>, **Harada A**<sup>1</sup>, **Ikeya M**<sup>1</sup>

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### **08P SRPK3-TTN related myopathy: early clinical characteristics and muscle imaging findings**

**Orbach R<sup>1</sup>**, Donkervoort S<sup>1</sup>, Saade D<sup>2</sup>, D'Souza P<sup>3</sup>, Haugland J<sup>1</sup>, Foley A<sup>1</sup>, Bharucha Goebel D<sup>1,4</sup>, Potticary A<sup>1</sup>, Chao K<sup>5</sup>, Macnamara E<sup>3</sup>, Finkel R<sup>6</sup>, Beggs A<sup>7</sup>, Tiffit C<sup>3</sup>, Bönnemann C<sup>1</sup>

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### **09P Delineating collagen VI genes expression patterns in mice skeletal muscles using RNAscope**

**Guirguis F<sup>1,2</sup>**, Bolduc V<sup>1</sup>, Zhou H<sup>3,4</sup>, Muntoni F<sup>2,3</sup>, Bönnemann C<sup>1</sup>

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### **10P Characterization of the severe phenotype of COL6-related dystrophy due to the recurrent deep intronic pseudoexon-inducing variant COL6A1 c.930+189C>T**

**Foley A<sup>1</sup>**, Bolduc V<sup>1</sup>, Guirguis F<sup>1</sup>, Donkervoort S<sup>1</sup>, Hu Y<sup>1</sup>, Orbach R<sup>1</sup>, Mohassel P<sup>1</sup>, Zhou H<sup>2</sup>, Aguti S<sup>3</sup>, Jimenez-Mallebrera C<sup>4</sup>, Lamandé S<sup>5</sup>, Allamand V<sup>6</sup>, Gualandi F<sup>7</sup>, Ferlini A<sup>7</sup>, Wilton S<sup>8,9</sup>, Wagener R<sup>10</sup>, Bertini E<sup>11</sup>, Muntoni F<sup>12,13</sup>, Bönnemann C<sup>1</sup>, The COL6A1 Intron 11 Study Group

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### **11P Autosomal dominant centronuclear myopathy caused by variants in the DNM2 gene – Results of an international, prospective natural history study**

**Braun F<sup>1,2</sup>**, Seferian A<sup>3</sup>, Behin A<sup>4</sup>, Fer F<sup>3</sup>, Peretti M<sup>3</sup>, Duchêne D<sup>3</sup>, Schara-Schmidt U<sup>1</sup>, Anoussamy M<sup>3</sup>, Baets J<sup>5,6</sup>, Servais L<sup>3</sup>, NatHis-CNM Study Group<sup>7</sup>

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### **12P Female carriers of X-linked Myotubular Myopathy (XL-MTM) in Germany – extending the knowledge about the impact of heterozygous variants in the MTM1 gene**

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### **13P Centronuclear Myopathy in DNM2 E368K mice: behavioral and pathological insights**

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#### 14P X-linked myotubular myopathy: 3-year follow-up of a prospective international natural history

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#### 15P Prospective, longitudinal study of the natural history of paediatric patients in France with LAMA2 related dystrophies

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#### 16P Limitation of short-reads NGS sequencing on genomic DNA: interest of functional studies in the diagnosis of congenital Ullrich muscular dystrophy

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#### 17P Decoding TTN gene mutations in Indian cohort: detection and characterization using insights from sequencing and structural analysis

**Dhall A<sup>1</sup>**, Jassal B<sup>1</sup>, Faruq M<sup>2</sup>, Shamim U<sup>2</sup>, Kumar D<sup>1</sup>, Bhatia D<sup>1</sup>, Venugopalan Y V<sup>1</sup>, Suri D<sup>1</sup>, Sharma D<sup>1</sup>

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#### 18P Cohort of Czech patients with RYR1-related disorders

**Lauerová B<sup>1</sup>**, Zidkova J<sup>2,3</sup>, Rohlenova M<sup>1</sup>, Dolanska A<sup>1</sup>, Gloser M<sup>1</sup>, Kumhera M<sup>1</sup>, Lassuthova P<sup>4</sup>, Kramarova T<sup>2,3</sup>, Kopicilova J<sup>2</sup>, Fajkusova L<sup>2,3</sup>, Haberlova J<sup>1</sup>

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#### 19P Recurrent TTN missense variants in biallelic titinopathies: collecting all the puzzle pieces

**Di Feo M<sup>1,2</sup>**, Rees M<sup>3</sup>, Gautel M<sup>3</sup>, Jungbluth H<sup>3,4</sup>, Fiorillo C<sup>1,5</sup>, Bruno C<sup>5,6</sup>, Udd B<sup>2,6</sup>, Savarese M<sup>2</sup>, On behalf of the Titin Study Group<sup>7</sup>

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**20P A novel DNM2 variant causing Centronuclear Myopathy with respiratory involvement**

**Urrea A<sup>1</sup>**, Fajre F<sup>1</sup>, Pizarro B<sup>2</sup>, Gonzalez D<sup>3</sup>, Maquilon C<sup>4</sup>, Antolini M<sup>4</sup>, Bevilacqua J<sup>1,5</sup>

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**21P Tongue ultrasound assessment in patients with Nemaline myopathy**

**Moreno C<sup>1</sup>**, Moreira A<sup>1</sup>, Gontijo Camelo C<sup>1</sup>, Zanoteli E<sup>1</sup>

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**22P Clinical and ultrasonographic evaluation of dysphagia in patients with LAMA2-CMD**

**Camelo C<sup>1</sup>**, Sampaio P<sup>1</sup>, Moreira A<sup>1</sup>, Moreno C<sup>1</sup>, Artlheiro M<sup>1</sup>, Silva A<sup>1</sup>, Reed U<sup>1</sup>, Zanoteli E<sup>1</sup>

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**23P Establishing the genetic diagnosis in patients with suspected recessive Titinopathy**

**Mueller J<sup>1</sup>**, Savarese M<sup>2</sup>, Lillback V<sup>2</sup>, Perry L<sup>1</sup>, Zaharieva I<sup>1</sup>, Pini V<sup>1</sup>, Sagath L<sup>3</sup>, Steyaert W<sup>3</sup>, Hoischen A<sup>3</sup>, Yopez V<sup>4</sup>, Esteve-Codina A<sup>5</sup>, Neveling K<sup>3</sup>, Topf A<sup>6</sup>, Muntoni F<sup>1</sup>, Sarkozy A<sup>1</sup>

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**24P Improving gross motor function in pediatric Centronuclear Myopathy with acetylcholinesterase inhibitors: a case report**

**Paprad T<sup>1</sup>**, Laohapongsomboon S<sup>1</sup>, Amornvit J<sup>2</sup>

<sup>1</sup>King Chulalongkorn Memorial Hospital, <sup>2</sup>Faculty of Medicine, Chulalongkorn University

**25P Data trends and highlights from The Global Registry for COL6-related Dystrophies**

**McDonald S<sup>1</sup>**, Allamand V<sup>2</sup>, Alvarez R<sup>3</sup>, Dziewczapolski G<sup>3</sup>, Boddy H<sup>4</sup>, Deconinck N<sup>5</sup>, Ferré X<sup>6</sup>, McAlister B<sup>4</sup>, Mejat A<sup>7</sup>, Sarkozy A<sup>8</sup>, Copier J<sup>9</sup>, Straub V<sup>1</sup>

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**26P Is oral salbutamol a possible treatment for congenital myopathies?**

**Michael E<sup>1,2</sup>**, Hedberg-Oldfors C<sup>3</sup>, Gudmundsson M<sup>4</sup>, Weichbrodt J<sup>4</sup>, Oldfors A<sup>3</sup>, Darin N<sup>2</sup>

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**27P Muscle ultrasound findings in paediatric patients with TTN gene related congenital myopathy**

**Sarkozy A<sup>1</sup>**, Perry L<sup>1</sup>, Cicala G<sup>1,2</sup>, Manzur A<sup>1</sup>, Vanegas M<sup>3</sup>, Khries M<sup>3</sup>, Sudhakar S<sup>4</sup>, Clark C<sup>5</sup>, Muntoni F<sup>1,6</sup>, Jungbluth H<sup>3</sup>, Baranello G<sup>1</sup>

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**28P CHKB muscular dystrophy: beyond Megamitochondria**

**Codina Bergada A<sup>1,2</sup>**, Nascimento A<sup>1</sup>, Lavilla R<sup>2</sup>, Ortez C<sup>1</sup>, Natera-de Benito D<sup>1,3</sup>, Expósito J<sup>1</sup>, Estévez-Arias B<sup>1,4</sup>, Carrera L<sup>1</sup>, Martorell L<sup>5</sup>, Isai A<sup>1</sup>, Colomer J<sup>1</sup>, Jou C<sup>1,2,3,6</sup>

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**29P Temporal requirement of dystroglycan glycosylation during brain development and rescue of cortical dysplasia via gene delivery in the fetal stage**

**Sudo A<sup>1</sup>**, Kanagawa M<sup>2</sup>, Kobayashi K<sup>2</sup>, Endo M<sup>3</sup>, Minami Y<sup>3</sup>, Aiba A<sup>4</sup>, Toda T<sup>1</sup>

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### **30P Nemaline Myopathy-linked TNNT1 mutations are associated with aberrant thin filament extensibility and myofibre hyper-contractility**

**Laitila J**<sup>1,2</sup>, Lewis C<sup>2</sup>, Hessel A<sup>3,4</sup>, Primiano G<sup>5,6</sup>, Hernandez-Lain A<sup>7,8</sup>, Fiorillo C<sup>9</sup>, Lawlor M<sup>10</sup>, Ottenheim C<sup>11</sup>, Ochala J<sup>2</sup>

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### **31P Nutritional status of patients with nemaline myopathy and related congenital myopathies in Finland**

**Lehtokari V**<sup>1,2</sup>, Similä M<sup>3</sup>, Tammepuu M<sup>4</sup>, Isohanni P<sup>5</sup>, Auranen M<sup>6</sup>, Hiekkala S<sup>7</sup>, Wallgren-Pettersson C<sup>1,2</sup>, Strang-Karlsson S<sup>8</sup>

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### **32P Investigating myosin dysregulation in X-linked myotubular myopathy**

**Rostedt F**<sup>1,2</sup>, Gerlach Melhedegaard E<sup>1</sup>, Zanoteli E<sup>3</sup>, Primiano G<sup>4</sup>, Nishino I<sup>5</sup>, Laporte J<sup>6</sup>, Gineste C<sup>6</sup>, Romero N<sup>7</sup>, Lawlor M<sup>8</sup>, Wallgren-Pettersson C<sup>2,9</sup>, Laitila J<sup>1,2</sup>, Ochala J<sup>1</sup>

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### **33P Description of natural history baseline characteristics of a paediatric cohort of recessive TTN myopathy patients in the UK – a prospective study**

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### **34P Investigating sarcomeric changes in Cullin-3 knockout muscles**

**Fochi V**<sup>1</sup>, Blondelle J<sup>2</sup>, Medelyte B<sup>1</sup>, Seto J<sup>3,4</sup>, Jones Y<sup>2</sup>, Castillon G<sup>2</sup>, Ghassemian M<sup>5</sup>, Singer J<sup>6</sup>, Lange S<sup>1,2,7</sup>

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### **35P Generation of a zebrafish knock-in model of Exertional Heat Stroke**

**Endo Y**<sup>1,2</sup>, Geissah S<sup>2</sup>, Cui X<sup>2</sup>, Noche R<sup>2</sup>, Dowling J<sup>2</sup>

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**36P Liver involvement in Myotubular and Centronuclear Myopathy: review of one year's data collected by the MTM & CNM Patient Registry**

**Bohill J<sup>1</sup>**, Ward E<sup>2</sup>, Lennox A<sup>3</sup>, Lawlor M<sup>4</sup>, Jungbluth H<sup>5,6</sup>, Beggs A<sup>7</sup>, Graham R<sup>8</sup>, Heidemann M<sup>9</sup>, Wood M<sup>2</sup>, Ward M<sup>2</sup>, Page J<sup>1</sup>, Cowling B<sup>10</sup>, Haselkorn T<sup>11</sup>, Voermans N<sup>12</sup>, Foley A<sup>13</sup>, Kyrana E<sup>14</sup>, Marini-Bettolo C<sup>1</sup>, Dhawan A<sup>14</sup>, Dowling J<sup>15</sup>

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**37P TreatMYPN: In vivo mouse characterization and in vitro 3D muscle studies followed by 15P AAV gene therapy for the ultrarare myopalladin-related Congenital Myopathy**

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**38P Collablot, a new immunodetection assay for the quantification of collagen VI expression and secretion in cell culture**

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**39P Studying markers of metabolism, apoptosis, and necrosis in cullin-3 skeletal muscle knockouts**

**Herskind J<sup>1</sup>**, Fujita K<sup>2</sup>, Dato V<sup>2</sup>, Fochi V<sup>1</sup>, Blondelle J<sup>2</sup>, Medelyte B<sup>1</sup>, Seto J<sup>3,4</sup>, Jones Y<sup>2</sup>, Castillon G<sup>2</sup>, Ghassemian M<sup>5</sup>, Singer J<sup>6</sup>, Lange S<sup>1,2,7</sup>

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**40P Muscle ultrasound pattern in Merosin-deficient muscular dystrophy**

**Costa Comellas L<sup>1,2,3</sup>**, Gómez-Andrés D<sup>1,2,3</sup>, Urcuyo G<sup>1,3</sup>, Toro-Tamargo E<sup>1</sup>, López-López J<sup>4</sup>, Álvarez-Molinero M<sup>1,5</sup>, Munell F<sup>1,2,3</sup>

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**41P Rigid spine syndrome revealing nemaline myopathy caused by a novel mutation in cofilin-2 gene (CFL2)**

**Farhat E<sup>1,3</sup>**, Miladi N<sup>1,4</sup>, Chaabouni M<sup>1,2</sup>

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**42P Characterizing MRI brain abnormalities in X-linked Myotubular Myopathy**

Vogt L<sup>1</sup>, **Amburgey K<sup>1</sup>**, Widjaja E<sup>2</sup>, Dowling J<sup>1</sup>

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**43P Characterization of RYR1 variants in congenital myopathy zebrafish models**

**Sinclair J<sup>1</sup>**, Todd J<sup>1</sup>, Feldman B<sup>1</sup>, Lawal T<sup>1</sup>

<sup>1</sup>National Institutes of Health

**44P Novel TTN mutation causing a congenital onset, slowly progressive myopathy with contractures in two siblings**

**Figueroa Bonaparte S<sup>1</sup>**, Martínez -Viguera A<sup>1</sup>, Juanola-Mayos E<sup>1</sup>, Lucente G<sup>1</sup>, Almendrote M<sup>1</sup>, Gasch-Navalon E<sup>2</sup>, Corral-Juan M<sup>2</sup>, Matilla-Dueñas A<sup>2</sup>, Martínez-Piñeiro A<sup>1</sup>

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**45P Strategies to improve the design of gapmer antisense oligonucleotide on allele-specific silencing in COL6-related congenital muscular dystrophies**

Aguti S<sup>1</sup>, Cheng S<sup>1</sup>, Briggs S<sup>1</sup>, Ala P<sup>1</sup>, Muntoni F<sup>1</sup>, Zhou H<sup>1</sup>

<sup>1</sup>University College London

**46P Congenital Myopathies and Muscular Dystrophies in the UK: a comprehensive next generation sequencing analysis of frequencies over an 8-year period (2016-2023)**

Cicala G<sup>1,2</sup>, Mccauley J<sup>3</sup>, Mein R<sup>4</sup>, Walsh C<sup>3</sup>, Muntoni F<sup>1,5</sup>, Sarkozy A<sup>1</sup>

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**47P MYBPC1 mutation in a family: spectrum of phenotype in three generations**

Shekhar L<sup>1</sup>, Majumdar A<sup>1</sup>

<sup>1</sup>Bristol Royal Hospital for Children

**48P Digging into histological-genetic correlations in MYH2-myopathy: a case series and review of the literature**

Labella B<sup>1,2</sup>, Brochier G<sup>1,3</sup>, Beuvin M<sup>1</sup>, Méneret A<sup>3</sup>, Leonard-Louis S<sup>3</sup>, Maisonobe T<sup>3</sup>, Stojkovic T<sup>1</sup>, Méta y C<sup>3</sup>, Evangelista T<sup>1,3</sup>

<sup>1</sup>Association Institut De Myologie, <sup>2</sup>University of Brescia, <sup>3</sup>APHP- Hôpital Pitié-Salpêtrière

**49P Epidemiologic study of XLMTM and clinical expression in the liver (EXCEL): study design of an observational, patient-centric study**

Beggs A<sup>1</sup>, Haselkorn T<sup>2</sup>, Dhawan A<sup>3</sup>, Lawlor M<sup>4</sup>, Kim J<sup>2</sup>, Ward E<sup>5</sup>, Hughes Z<sup>6</sup>, Baima J<sup>2</sup>, James L<sup>2</sup>, Coats J<sup>2</sup>, Gentyala R<sup>2</sup>, Brandon T<sup>2</sup>, Jesus Perez Inigo Garcia-Malo M<sup>7</sup>, Marini Bettolo C<sup>8</sup>, Graham R<sup>9</sup>, Dowling J<sup>10</sup>

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**50P Monoallelic DAG1 truncating variants in patients with hyperCKemia**

Segarra-casas A<sup>1,2</sup>, Trainor C<sup>1</sup>, Polavarapu K<sup>3</sup>, Díaz-Manera J<sup>1</sup>, Gonzalez-Quereda L<sup>2,4</sup>, Kirschner J<sup>5</sup>, López de Munain A<sup>6,7,8,9</sup>, Nascimento A<sup>4,10,11</sup>, Roos A<sup>3,12,13</sup>, Dowling J<sup>14,15</sup>, Muntoni F<sup>16,17</sup>, DAG1 Study Group, Töpf A<sup>1</sup>, Straub V<sup>1</sup>

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**51P Clinical characterization of Collagen XII-related disease caused by biallelic COL12A1 variants**

Donkervoort S<sup>1</sup>, McCarty R<sup>1</sup>, Saade D<sup>1</sup>, Munot P<sup>2</sup>, Laverty C<sup>3</sup>, Pinz H<sup>4</sup>, Zou Y<sup>1</sup>, McNally M<sup>1</sup>, Yun P<sup>1</sup>, Tian C<sup>5</sup>, Töpf A<sup>6</sup>, Phadke R<sup>7</sup>, Malicki D<sup>3</sup>, Friedman J<sup>3</sup>, Foley A<sup>1</sup>, Gleeson J<sup>8</sup>, Lotze T<sup>9</sup>, Muntoni F<sup>2</sup>, Straub V<sup>6</sup>, Study Group, Bönnemann C<sup>1</sup>

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**52VP Muscle ultrasound as a potential biomarker in patients with LAMA2-related dystrophy under 6 years of age**

Haugland S<sup>1</sup>, Orbach R<sup>1</sup>, McAnally M<sup>1</sup>, Donkervoort S<sup>1</sup>, Foley A<sup>1</sup>, Bonnemann C<sup>1</sup>

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**53VP A 5-year natural history study in LAMA2-related muscular dystrophy and SELENON-related myopathy: the extended last strong study**

De Laat I<sup>1</sup>, Bouman K<sup>1,2</sup>, van de Camp S<sup>1</sup>, Dittich A<sup>3</sup>, van Tilburg W<sup>4</sup>, Cameron D<sup>5</sup>, Doorduyn J<sup>1</sup>, van Alfen N<sup>1</sup>, Kamsteeg E<sup>6</sup>, Houwen S<sup>7</sup>, Groothuis J<sup>7</sup>, Erasmus C<sup>2</sup>, Voermans N<sup>1</sup>

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**54VP Emerging muscle ultrasound patterns as a diagnostic aid in TTN-related myopathy**

Potticary A<sup>1</sup>, McAnally M<sup>1</sup>, Donkervoort S<sup>1</sup>, Bonnemann C<sup>1</sup>

<sup>1</sup>NIH NINDS

**79P-97P: LGMD**

**79P Profiling of pathogenic variants in Japanese patients with Sarcoglycanopathy**

Shimazaki R<sup>1</sup>, Saito Y<sup>1,2</sup>, Awaya T<sup>3,4</sup>, Minami N<sup>2</sup>, Kurosawa R<sup>3</sup>, Hosokawa M<sup>3</sup>, Ohara H<sup>3</sup>, Hayashi S<sup>1</sup>, Takeuchi A<sup>5</sup>, Hagiwara M<sup>3</sup>, K. Hayashi Y<sup>6</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1,2</sup>

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**80P Evaluating the clinical significance of single heterozygous likely pathogenic and pathogenic variants for autosomal recessive limb-girdle muscular dystrophies in a highly specialised service for rare neuromuscular disorders**

Oliwa A<sup>1</sup>, Hudson J<sup>1</sup>, Topf A<sup>1</sup>, Graham E<sup>1</sup>, Salman D<sup>1</sup>, Straub V<sup>1</sup>, Harris E<sup>1</sup>, Marini-Bettolo C<sup>1</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University and Newcastle upon Tyne Hospitals NHS Foundation Trust

**81P Minimal clinically important differences in Dysferlinopathy from the 10-year, multicenter Jain Clinical Outcome Study**

Gordish-Dressman H<sup>1,2</sup>, James M<sup>3</sup>, Rufibach L<sup>4</sup>, Hilsden H<sup>3</sup>, Day J<sup>5</sup>, Mendell J<sup>6</sup>, Fernandez-Torron R<sup>7</sup>, Harms M<sup>8</sup>, Pestronk A<sup>9</sup>, Vissing J<sup>10</sup>, Desai U<sup>11</sup>, Yoshimura M<sup>12</sup>, Shin J<sup>13</sup>, Mozaffar T<sup>14</sup>, Stojkovic T<sup>15</sup>, Pegoraro E<sup>16</sup>, Bevilacqua Rivas J<sup>17</sup>, Olive M<sup>18</sup>, Paradas C<sup>19</sup>, COS consortium on behalf of the Jain Foundation, Straub V<sup>3</sup>

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**82P Diagnostic approach to ANO5-Related Muscular Dystrophy in a series of female siblings: an interdisciplinary perspective**

Correa Arrieta C<sup>1</sup>, Castellar Leones S<sup>1,2,3</sup>, Calderon Castro A<sup>1,2,3</sup>, Rodriguez P<sup>1,2</sup>, Saldaña D<sup>1</sup>, Maradei Anaya S<sup>1,2</sup>

<sup>1</sup>Biotechgen, <sup>2</sup>Universidad Nacional de Colombia, <sup>3</sup>Hospital Universitario Nacional de Colombia,

**83P Should we include HACD1 variants in the differential diagnosis of slowly progressive adult-onset limb-girdle weakness?**

Da Silveira Massaro C<sup>1</sup>, Ferreira W<sup>1</sup>, Farias I<sup>1</sup>, Oliveira H<sup>1</sup>, Serrano P<sup>1</sup>, Badia B<sup>1</sup>, Souza P<sup>1</sup>, Bezerra M<sup>1</sup>, Pinto W<sup>1</sup>, Nunes K<sup>1</sup>, Oliveira A<sup>1</sup>

<sup>1</sup>Universidade Federal de São Paulo- UNIFESP - EPM

**84P A rare homozygous CAPN3 variant with distinct clinical features in unrelated families of Iraqi Jewish descent**

**Aharoni S**<sup>2,4</sup>, Assia Batzir N<sup>1</sup>, Orenstein N<sup>1,2</sup>, Yaron Y<sup>2,3</sup>, Kuzminsky A<sup>4</sup>, Nevo Y<sup>2,4</sup>, Konen O<sup>2,5</sup>, Bazak L, Lidzbarsky G<sup>6</sup>, Basel-Salmon L<sup>2,6,7</sup>

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**85P Myopathy secondary to SCN4A C.3502C>T variant**

**Calabria Gallego M**<sup>1</sup>

<sup>1</sup>Hospital Universitario De Salamanca

**86P Muscle 3D models to investigate LGMD2 Transportin 3 Related Deficiency: insights into myogenic processes and contractile dysfunction**

**Pacilio S**<sup>1,4</sup>, Costa R<sup>1</sup>, Rodia M<sup>1</sup>, Lombardi S<sup>1</sup>, Di L<sup>2</sup>, Banos G<sup>3</sup>, Didier N<sup>3</sup>, Malfatti E<sup>4</sup>, Focarete M<sup>2</sup>, Cenacchi G<sup>1</sup>

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**87P MRI characterization of the cardiac involvement in LGMD2i/R9**

**Fromes Y**<sup>1</sup>, Olivier S<sup>2</sup>, Zanfongnon R<sup>3</sup>, Thevenot E<sup>3</sup>, Stojkovic T<sup>1,4</sup>, Marty B<sup>1</sup>, Reyngoudt H<sup>1</sup>

<sup>1</sup>Institute of Myology, <sup>2</sup>Atamyo Therapeutics, <sup>3</sup>Genethon, <sup>4</sup>La Pitié-Salpêtrière Hospital,

**88P Clinical progression of 43 patients with Sarcoglycanopathy at a single centre**

**Kocak G**<sup>1</sup>, Michel-Sodhi J<sup>1</sup>, Marini-Bettolo C<sup>1</sup>, Moat D<sup>1</sup>, Guglieri M<sup>1</sup>, Robinson E<sup>1</sup>, Schiava M<sup>1</sup>, Bolano-Díaz C<sup>1</sup>, Wong K<sup>1</sup>, Grover E<sup>1</sup>, James M<sup>1</sup>, Segovia S<sup>1</sup>, Elseed M<sup>1</sup>, Salman D<sup>1</sup>, Harris E<sup>1</sup>, Topf A<sup>1</sup>, Luce L<sup>1</sup>, Hudson J<sup>2</sup>, Henderson M<sup>2</sup>, Parkhurst Y<sup>2</sup>, Graham E<sup>2</sup>, Straub V<sup>1</sup>, Tasca G<sup>1</sup>, Muni Lofra R<sup>1</sup>, Diaz-Manera J<sup>1</sup>

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**89P The LGMD2A/Calpainopathy Registry: A patient-powered natural history study and trial recruitment tool**

**Levy J**<sup>1</sup>, Boslego J<sup>1</sup>, Guglieri M<sup>2</sup>, Martin A<sup>3</sup>, Mathews K<sup>4</sup>, Wrubel M<sup>1</sup>

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**90P Genetic heterogeneity of limb girdle myopathies in Tunisia: more than sarcoglycanopathies**

**Farhat E**<sup>1</sup>, Miladi N<sup>1</sup>, Chaabouni M<sup>1,2</sup>, Amouri R<sup>3</sup>, Leturcq F<sup>4</sup>

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**91P Determination of gene/protein expression and protein functionality in carriers of Limb-Girdle Muscular Dystrophy (LGMD)**

**Gaynor A**<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University

**92P Development and characterization of induced pluripotent stem cells derived from Calpainopathy patients, carrying the CAPN3 c.1746-20C>G variant**

**Inashkina I**<sup>1</sup>, Goluba K<sup>2</sup>, Tvoronoviča A<sup>1</sup>, Parfejevs V<sup>2</sup>, Lāce B<sup>2,3</sup>, Riekstiņa U<sup>2</sup>

<sup>1</sup>Latvian Biomedical Research and Study Centre, <sup>2</sup>Pharmaceutical sciences centre, Faculty of Medicine, University of Latvia, <sup>3</sup>Riga East Clinical University Hospital



**93P The International Clinical Outcome Study for Dysferlinopathy II: validation of motor outcome measures in a new patient cohort**

**Hilsden H<sup>1</sup>**, James M<sup>1</sup>, Gordish Dressman H<sup>2</sup>, Rufibach L<sup>3</sup>, Day J<sup>4</sup>, Mendell J<sup>5</sup>, Fernandez Torron R<sup>6</sup>, Harms M<sup>7</sup>, Pestronk A<sup>8</sup>, Vissing J<sup>9</sup>, Desai U<sup>10</sup>, Yoshimura M<sup>11</sup>, Shin J<sup>12</sup>, Mozaffar T<sup>13</sup>, Stojkovic T<sup>14</sup>, Pegoraro E<sup>15</sup>, Bevilacqua Rivas J<sup>16</sup>, Olive M<sup>17</sup>, Paradas C<sup>18</sup>, Straub V<sup>1</sup>

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**94P JOURNEY: a natural history study of Limb Girdle muscular dystrophies R3-R5: baseline characteristics of study cohort**

Lowes L<sup>1</sup>, **Ortez Gonzalez C<sup>2</sup>**, Claeys K<sup>3</sup>, Laverty C<sup>4</sup>, Gangfuss A<sup>5</sup>, Proud C<sup>6</sup>, Manera J<sup>7</sup>, James M<sup>7</sup>, Alfano L<sup>1</sup>, Stevenson H<sup>8</sup>, Yu L<sup>8</sup>, Comi G<sup>9,10</sup>

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**95P Development of a myotropic gene therapy towards a first treatment for LGMDR7**

**Heier C<sup>1</sup>**, Fiorillo A<sup>1</sup>, Provenzano M<sup>1</sup>, McMichael G<sup>1</sup>, Crumbaugh C<sup>1</sup>, Hawkins E<sup>1</sup>, Johnson N<sup>1</sup>, Hale M<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University

**96P The impact of losing the ability to sit to stand on social participation in people with Dysferlinopathy: clinical outcome study for Dysferlinopathy**

**Robinson E<sup>1</sup>**, James M<sup>1</sup>, Hilsden H<sup>1</sup>, Rufibach L<sup>2</sup>, Roper W<sup>3</sup>, Holsten S<sup>4</sup>, Lowes L<sup>5</sup>, De Monts C<sup>6</sup>, Yochai C<sup>7</sup>, Zabala Pardo A<sup>8</sup>, Ogasawara Y<sup>9</sup>, Rudolph K<sup>10</sup>, Weber J<sup>11</sup>, Montiel Morillo E<sup>12</sup>, Birnbaum S<sup>13</sup>, Rojas Rojas J<sup>14</sup>, Mayhew A<sup>1</sup>, Straub V<sup>1</sup>, COS Consortium on behalf of the Jain Foundation<sup>3</sup>

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**97P Spectrum of limb girdle muscular dystrophies in a cohort of inherited myopathies with limb girdle weakness**

Venugopalan Y V<sup>1</sup>, Macken W<sup>2,3</sup>, Dalal A<sup>4</sup>, Rani N<sup>1</sup>, **Reyaz A<sup>1</sup>**, Ahmad T<sup>1</sup>, Tarane K<sup>1</sup>, Danish M<sup>1</sup>, ICGNMD Consortium<sup>5</sup>, Bhatia R<sup>1</sup>, Wilson L<sup>2</sup>, Bugiardini E<sup>2</sup>, Vandrovцова J<sup>2</sup>, Houlden H<sup>2</sup>, Pitceathly R<sup>2,3</sup>, Thangaraj K<sup>4,6</sup>, Topf A<sup>7</sup>, Straub V<sup>7</sup>, Hanna M<sup>2</sup>, Srivastava P<sup>1</sup>

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**401P-436P, 437VP: DMD – treatments**

**401P Moderate-term dimethyl fumarate treatment reduces fibrosis of skeletal and cardiac muscle in the mdx mouse model of Duchenne muscular dystrophy**

**Timpani C**<sup>1,2,3</sup>, Kourakis S<sup>1,2</sup>, Bagaric R<sup>1,2</sup>, Qi B<sup>1,2</sup>, Ali B<sup>1,2</sup>, Spiesberger G<sup>1,2</sup>, Boyer R<sup>1</sup>, Kandhari N<sup>4</sup>, Yan X<sup>1,5</sup>, Stupka N<sup>3,2,1</sup>, van Putten M<sup>6</sup>, Aartsma-Rus A<sup>6</sup>, Deveson-Lucas D<sup>4</sup>, Fischer D<sup>7</sup>, Rybalka E<sup>1,2,3</sup>

<sup>1</sup>Victoria University, Institute for Health & Sport, <sup>2</sup>Australian Institute for Musculoskeletal Science, Inherited and Acquired Myopathy Program, <sup>3</sup>The University of Melbourne, Department of Medicine - Western Health, Melbourne Medical School, <sup>4</sup>Monash University, Monash Genomics and Bioinformatics Platform, Biomedical Discovery Institute, <sup>5</sup>Australian Institute for Musculoskeletal Science, Sarcopenia Research Program, <sup>6</sup>Leiden University Medical Center, Department of Human Genetics, <sup>7</sup>University Children's Hospital of Basel, Division of Neuropediatric and Developmental Medicine

**402P Faecal microbiota transplantation: a potential novel therapeutic avenue for Duchenne muscular dystrophy**

**Timpani C**<sup>1,2,3</sup>, Debrincat D<sup>1</sup>, Van Der Beek J<sup>1</sup>, Eri R<sup>4,5</sup>, Diwakarla S<sup>6,3</sup>, McQuade R<sup>6,3,2</sup>, Rybalka E<sup>1,2,3</sup>

<sup>1</sup>Victoria University, Institute for Health & Sport, <sup>2</sup>Australian Institute for Musculoskeletal Science, <sup>3</sup>The University of Melbourne, Department of Medicine - Western Health, Melbourne Medical School, <sup>4</sup>University of Tasmania, School of Health Sciences, <sup>5</sup>RMIT University, School of Science, STEM College, <sup>6</sup>The University of Melbourne, Gut Barrier and Disease Laboratory, Department of Anatomy and Physiology

**403P CONNECT1-EDO51: A 12-week open-label Phase 2 study to evaluate PGN-EDO51 safety and efficacy in people with Duchenne amenable to exon 51 skipping**

**Mellion M**<sup>1</sup>, McMillan H<sup>2</sup>, Chrestian N<sup>3</sup>, Gonorazky H<sup>4</sup>, O'Connell C<sup>5</sup>, Vacca S<sup>1</sup>, Peterson M<sup>1</sup>, Marcos B<sup>1</sup>, Batra S<sup>1</sup>, Lonkar P<sup>1</sup>, Holland A<sup>1</sup>, Foy J<sup>1</sup>, Lamore S<sup>1</sup>, Garg B<sup>1</sup>, Yu S<sup>1</sup>, Larkindale J<sup>1</sup>

<sup>1</sup>Pepgen Inc., <sup>2</sup>Children's Hospital of Eastern Ontario, <sup>3</sup>CHU De Quebec-Universite Laval, <sup>4</sup>Hospital for Sick Children, <sup>5</sup>Stan Cassidy Centre for Rehabilitation

**404P CONNECT2-EDO51: A Phase 2 placebo-controlled study to evaluate PGN-EDO51 safety and efficacy in people with Duchenne amenable to exon 51 skipping**

**Mellion M**<sup>1</sup>, Marcos B<sup>1</sup>, Vacca S<sup>1</sup>, Peterson M<sup>1</sup>, Batra S<sup>1</sup>, Lonkar P<sup>1</sup>, Holland A<sup>1</sup>, Foy J<sup>1</sup>, Lamore S<sup>1</sup>, Garg B<sup>1</sup>, Yu S<sup>1</sup>, Larkindale J<sup>1</sup>

<sup>1</sup>Pepgen Inc.

**405P Single- and repeat-dose nonclinical data for PGN-EDO51 demonstrated favorable pharmacology and safety profiles for the treatment of DMD**

Sweeney C<sup>1</sup>, Gilbert J<sup>1</sup>, Lamore S<sup>1</sup>, Lonkar P<sup>1</sup>, Foy J<sup>1</sup>, **Holland A**<sup>1</sup>

<sup>1</sup>PepGen Inc.

**406P Effects of telerehabilitation-based motor imagery training on motor imagery ability and motor function in children with Duchenne muscular dystrophy**

Bora Zereyak M<sup>1</sup>, **Bulut N**<sup>1</sup>, Yılmaz Ö<sup>1</sup>, Gürbüz İ<sup>1</sup>, Haliloğlu G<sup>2</sup>

<sup>1</sup>Hacettepe University, Faculty of Physical Therapy and Rehabilitation, <sup>2</sup>Hacettepe University, Faculty of Medicine, Department of Pediatrics, Division of Pediatric Neurology

**407P RGX-202, an investigational gene therapy for the treatment of Duchenne muscular dystrophy: interim clinical data**

**Dastgir J**<sup>1</sup>, Veerapandiyan A<sup>2</sup>, Rao V<sup>3</sup>, Tesi-Rocha C<sup>4</sup>, Harper A, Iannacone S<sup>6</sup>, Falabella P<sup>1</sup>, Pakola S<sup>1</sup>, Philips D<sup>1</sup>, Wilson C<sup>1</sup>, Boulos N<sup>1</sup>, Gilmor M<sup>1</sup>, Yang L<sup>1</sup>, Patel H<sup>1</sup>, Fiscella M<sup>1</sup>, Danos O<sup>1</sup>

<sup>1</sup>Regenxbio, <sup>2</sup>Arkansas Children's Hospital, <sup>3</sup>Lurie Children's Hospital, <sup>4</sup>Stanford School of Medicine, <sup>5</sup>Children's Hospital of Richmond at Virginia Commonwealth University, <sup>6</sup>The University of Texas Southwestern Medical Center

**408P Dose escalation and repeatability for ultrasound-guided intramuscular administration of local treatment in Duchenne muscular dystrophy**

Findik Sener O<sup>1</sup>, Sage F<sup>1</sup>, Niks E<sup>1,2</sup>, de Ruiten M<sup>1</sup>, Engelse M<sup>1</sup>, Geijsen N<sup>1</sup>, Burgmans M<sup>1</sup>, **Kan H**<sup>1,2</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Duchenne Center

**409P Short-term and long-term safety profile of Givinostat in Duchenne muscular dystrophy**

**Vučinić D**<sup>1</sup>, Nascimento A<sup>2</sup>, Finkel R<sup>3</sup>, Brandsema J<sup>4</sup>, Finanger E<sup>5</sup>, Harper A<sup>6</sup>, Acsadi G<sup>7</sup>, Nevo Y<sup>8</sup>, Houwen-van Opstal S<sup>9</sup>, Blaschek A<sup>10</sup>, Coceani N<sup>11</sup>, Cazzaniga S<sup>11</sup>, Bettica P<sup>11</sup>, Muelas N<sup>12</sup>

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**410P GNT0004, Genethon's AAV8 vector-delivered microdystrophin gene therapy of Duchenne muscular dystrophy, first data of the phase I/II part of the GNT-016-MDYF all-in-one clinical trial in ambulant boys**

Laugel V<sup>1</sup>, De Lucia S<sup>2</sup>, Davion J<sup>3</sup>, Daniele N<sup>4</sup>, **Cao F<sup>4</sup>**, Sanz M<sup>4</sup>, Buscara L<sup>4</sup>, Blaie S<sup>4</sup>, Thibaut L<sup>4</sup>, Sagot M<sup>4</sup>, Riviere A<sup>4</sup>, Creoff E<sup>4</sup>, Lelait M<sup>4</sup>, Valent A<sup>4</sup>, Perret G<sup>4</sup>, Braun S<sup>4</sup>, Muntoni F<sup>5</sup>

<sup>1</sup>Hôpital de Hautepierre, <sup>2</sup>Motion Plateforme d'essais cliniques pédiatriques Hôpital Armand Trousseau, <sup>3</sup>Service de Neurologie pédiatrique, CHU Lille, <sup>4</sup>Genethon, <sup>5</sup>Hospital for Children Foundation Trust, Great Ormond Street Hospital

**411P Phenotypical differences in 2 immortalized dystrophic cell lines from pediatric patients: a glimpse into pharmacological personalized therapy**

Cappellari O<sup>1</sup>, Quarta R<sup>1</sup>, Cristiano E<sup>1</sup>, Boccanegra B<sup>1</sup>, Cerchiara A<sup>1</sup>, Marinelli M<sup>1</sup>, Barile S<sup>2</sup>, Mouly V<sup>3</sup>, Lasorsa M<sup>2</sup>, Imbrici P<sup>1</sup>, **De Luca A<sup>1</sup>**

<sup>1</sup>Department of Pharmacy-Drug Sciences, University Of Bari Aldo Moro, <sup>2</sup>Department of Biosciences Biotechnology and Environment, University of Bari Aldo Moro, <sup>3</sup>Institute of Myology, University of Sorbonne

**412P Duchenne muscular dystrophy fibro-adipogenic progenitors impair muscle function of co-cultured healthy myotubes in a functional 3D model**

**Ninfali C<sup>1</sup>**, Fernández-Garibay X<sup>1</sup>, Tejedera-Villafranca A<sup>1</sup>, Díaz-Manera J<sup>2</sup>, Ramón-Azcón J<sup>1,3</sup>, Fernández-Costa J<sup>1</sup>

<sup>1</sup>Institute for Bioengineering of Catalonia (IBEC), The Barcelona Institute of Science and Technology (BIST), <sup>2</sup>John Walton Muscular Dystrophy Research Centre, Institute of Genetic Medicine, Newcastle University, <sup>3</sup>ICREA-Institució Catalana de Recerca i Estudis Avançats,

**413P Natural history of renal dysfunction in Duchenne muscular dystrophy**

**Arahata H<sup>1</sup>**

<sup>1</sup>Nho Omuta Hospital

**414P Pulmonary function in Colombian non-ambulatory patients with Duchenne muscular dystrophy treated with Ataluren**

**Gordillo Gonzalez G<sup>1,2</sup>**, Villamil-Osorio M<sup>3</sup>, Restrepo-Gualteros S<sup>4</sup>, Vallejo-Mesa D<sup>5,6</sup>, Rivera-Nieto C<sup>7</sup>, Contreras-García G<sup>8,9</sup>, Guerra-Araujo V<sup>10</sup>, Ospina-Lagos S<sup>11,12</sup>, Paredes-Brijaldo Á<sup>4</sup>, Hernández-Forero M<sup>13</sup>, Becerra-Ortiz P<sup>14</sup>, Silvera-Redondo C<sup>15</sup>, Arias C<sup>16</sup>, Campo-Tertera C<sup>17,18</sup>, Curiel-Acosta J<sup>19</sup>

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**415P Cardiac function in Colombian non-ambulatory patients with Duchenne muscular dystrophy treated with Ataluren**

**Gordillo Gonzalez G<sup>1,2,10</sup>**, Huertas-Quiñones V<sup>3</sup>, Silvera-Redondo C<sup>4</sup>, Vallejo-Mesa D<sup>5,6</sup>, Gómez-Castillo C<sup>7</sup>, Rivera-Nieto C<sup>3</sup>, Contreras-García G<sup>8,9</sup>, Guerra-Araujo V, Ospina-Lagos S<sup>11,12</sup>, Paredes-Brijaldo Á<sup>13</sup>, Hernández-Forero M<sup>14</sup>, Becerra-Ortiz P<sup>15</sup>, Campo-Tertera C<sup>16,17</sup>, Curiel-Acosta J<sup>18</sup>

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**416P Effect of ataluren on upper limb function in nmDMD patients from the STRIDE Registry**

**Muntoni F<sup>1</sup>**, Buccella F<sup>2</sup>, Nascimento Osorio A<sup>3</sup>, Tulinius M<sup>4</sup>, Bernadete Dutra de Resende M<sup>5</sup>, Johnson S<sup>6</sup>, Werner C<sup>7</sup>, Anbu B<sup>6</sup>, Liu E<sup>6</sup>, Mercuri E<sup>8</sup>

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**417P Comparison of changes in 6-minute walk distance for Colombian patients with Duchenne muscular dystrophy treated with Ataluren with different rates of decline**

**Ruiz Ospina E**<sup>1,2</sup>, Castellar Leones S<sup>1,3</sup>, Bobadilla Quesada E<sup>2</sup>, Bolaños Almeida C<sup>2</sup>, Ladino Cortes L<sup>2</sup>, Ruiz Arbelaez C<sup>2</sup>, Maradei Anaya S<sup>2</sup>, Parra Dugarte N<sup>4</sup>, Contreras García G<sup>5,6</sup>, Ramírez Rodríguez S<sup>7,8</sup>, Gomez Castillo C<sup>9</sup>, Ospina Lagos S<sup>1</sup>, Sierra del Villar G<sup>4</sup>, Becerra Ortiz P<sup>10</sup>, Silvera Redondo C<sup>11</sup>, Sierra Rosales G<sup>12</sup>  
<sup>1</sup>Universidad Nacional De Colombia, <sup>2</sup>Fundación Hospital La Misericordia, <sup>3</sup>Hospital Universitario Nacional de Colombia, <sup>4</sup>Fundación Hospital Infantil Napoleón Franco Pareja, <sup>5</sup>Hospital Universitario de Santander, <sup>6</sup>Universidad Industrial de Santander, <sup>7</sup>Universidad Von Humboldt, <sup>8</sup>Neuroimágenes S.A., <sup>9</sup>Hospital Alma Máter de Antioquía, <sup>10</sup>Somefy, <sup>11</sup>Universidad del Norte, <sup>12</sup>Infaneuro

**418P Ambulatory function in Colombian patients with Duchenne muscular dystrophy treated with Ataluren after a baseline 6-minute walk distance <300m**

**Ruiz Ospina E**<sup>1,2</sup>, Castellar Leones S<sup>1,3</sup>, Vallejo Mesa D<sup>4,5</sup>, Contreras García G<sup>6,7</sup>, Acosta Aragón M<sup>8</sup>, Ospina Lagos S<sup>1</sup>, Guerra Araújo V<sup>9</sup>, Becerra Ortiz P<sup>10</sup>, Silvera Redondo C<sup>11</sup>, Campo Ternerera C<sup>12,13</sup>, Gomez Castillo C<sup>5</sup>, Curiel Acosta J<sup>14</sup>, Ramírez Rodríguez S<sup>15,16</sup>  
<sup>1</sup>Universidad Nacional De Colombia, <sup>2</sup>Fundación Hospital La Misericordia, <sup>3</sup>Hospital Universitario Nacional, <sup>4</sup>Universidad de Antioquía, <sup>5</sup>Hospital Alma Máter de Antioquía, <sup>6</sup>Hospital Universitario de Santander, <sup>7</sup>Universidad Industrial de Santander, <sup>8</sup>Hospital Universitario San José de Popayán, <sup>9</sup>Psicokids And Teens, <sup>10</sup>Somefy, <sup>11</sup>Universidad del Norte, <sup>12</sup>Hospital San Vicente Fundación, <sup>13</sup>Hospital Infantil Concejo de Medellín, <sup>14</sup>Medical Center, Santa Marta, <sup>15</sup>Universidad Von Humboldt, <sup>16</sup>Neuroimágenes S.A.

**419P A stapled inhibitory core peptide of myostatin improves dystrophic pathology in DBA/2-mdx mice**

**Sunada Y**<sup>1</sup>, Nishimatsu S<sup>1</sup>, Fujino M<sup>1</sup>, Ohsawa Y<sup>1</sup>  
<sup>1</sup>Kawasaki Medical School

**420P Potential benefits of JMV2894, a growth hormone secretagogue, in Duchenne muscular dystrophy: insights from a preclinical study in the D2-mdx mouse**

**Mantuano P**<sup>1</sup>, Boccanegra B<sup>1</sup>, Cappellari O<sup>1</sup>, Mele A<sup>1</sup>, Marinelli M<sup>1</sup>, Cristiano E<sup>1</sup>, Tulimiero L<sup>1</sup>, Conte E<sup>1</sup>, Torsello A<sup>2</sup>, Denoyelle S<sup>3</sup>, Liantonio A<sup>1</sup>, De Luca A<sup>1</sup>  
<sup>1</sup>Department of Pharmacy – Drug Sciences, University of Bari “Aldo Moro”, <sup>2</sup>School of Medicine and Surgery, University of Milan-BICOCCA, <sup>3</sup>Institut des Biomolécules Max Mousseron, UMR 5247 CNRS-Université Montpellier-ENSCM, Faculté de Pharmacie

**421P Early therapeutic benefit of delandistrogene-moxeparvovec-rokl in Duchenne muscular dystrophy**

**Acsadi G**<sup>1</sup>, Stolgitis N<sup>1</sup>, Ng E<sup>1</sup>  
<sup>1</sup>Connecticut Children's Hospital

**422P U7snRNA-mediated exon 17 skipping restores dystrophin expression in cells and in a novel mouse model of Duchenne muscular dystrophy**

**Gushchina L**<sup>1</sup>, Dufresne G<sup>1</sup>, Saylam E<sup>1</sup>, Bradley A<sup>1</sup>, Rohan N<sup>1</sup>, Lowery A<sup>1</sup>, Suhaiba A<sup>1</sup>, Lin H<sup>1</sup>, Wein N<sup>1</sup>, Flanigan K<sup>1</sup>  
<sup>1</sup>The Abigail Wexner Research Institute, Nationwide Children's Hospital

**423P Safety and efficacy of delandistrogene moxeparvovec versus placebo in Duchenne muscular dystrophy: phase 3 EMBARK primary results**

Mendell J<sup>1,2</sup>, Muntoni F<sup>3</sup>, McDonald C<sup>4</sup>, Mercuri E<sup>5</sup>, Ciafaloni E<sup>6</sup>, Komaki H<sup>7</sup>, Leon-Astudillo C<sup>8</sup>, **Nascimento A**<sup>9</sup>, Proud C<sup>10</sup>, Schara-Schmidt U<sup>11</sup>, Veerapandiyam A<sup>12</sup>, Zaidman C<sup>13</sup>, Murphy A<sup>14</sup>, Reid C<sup>14</sup>, Asher D<sup>15</sup>, Darton E<sup>15</sup>, Mason S<sup>15</sup>, Fontoura P<sup>16</sup>, Elkins J<sup>15</sup>, Rodino-Klapac L, on behalf of the EMBARK Study Group<sup>15</sup>  
<sup>1</sup>Center for Gene Therapy, Nationwide Children's Hospital, <sup>2</sup>The Ohio State University, <sup>3</sup>The Dubowitz Neuromuscular Centre, NIHR Great Ormond Street Hospital Biomedical Research Centre, Great Ormond Street Institute of Child Health and Institute of Neurology, University College London, & Great Ormond Street Hospital Trust, <sup>4</sup>UC Davis Health, <sup>5</sup>Pediatric Neurology Institute, Catholic University and Nemo Pediatrico, Fondazione Policlinico Gemelli IRCCS, <sup>6</sup>University of Rochester Medical Center, <sup>7</sup>Translational Medical Center, National Center of Neurology and Psychiatry, <sup>8</sup>Department of Pediatrics, University of Florida, <sup>9</sup>Neuromuscular Unit, Neuropaediatrics Department, Hospital Sant Joan de Déu, Fundacion Sant Joan de Déu, CIBERER – ISC III, <sup>10</sup>Children's Hospital of the King's Daughters, <sup>11</sup>Department of Pediatric Neurology, Center for Neuromuscular Disorders in Children and Adolescents, University Clinic Essen, University of Duisburg-Essen, <sup>12</sup>Department of Pediatrics, Division of Neurology, University of Arkansas for Medical Sciences, Arkansas Children's Hospital, <sup>13</sup>Department of Neurology, Washington University in St Louis, <sup>14</sup>Roche Products Ltd, <sup>15</sup>Sarepta Therapeutics, Inc., <sup>16</sup>F. Hoffmann-La Roche Ltd

**424P Micro-dystrophin expression and safety with delandistrogene moxeparvec gene therapy for DMD in a broad population: phase 1B trial (ENDEAVOR)**

**Proud C<sup>1</sup>**, Zaidman C<sup>2</sup>, McDonald C<sup>3</sup>, Day J<sup>4</sup>, Thrasher P<sup>5</sup>, Asher D<sup>5</sup>, Murphy A<sup>6</sup>, Guridi M<sup>7</sup>, Ding K<sup>5</sup>, Reid C<sup>6</sup>, Lewis S<sup>5</sup>, Magistrado-Coxen P<sup>5</sup>, Palatinsky E<sup>5</sup>, Wandel C<sup>7</sup>, Potter R<sup>5</sup>, Rodino-Klapac L<sup>5</sup>, Mendell J<sup>8,9</sup>

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**425P Five-year outcomes with delandistrogene moxeparvec in patients with Duchenne muscular dystrophy (DMD): a phase 1/2a study**

Mendell J<sup>1,2</sup>, Sahenk Z<sup>1,2</sup>, Lowes L<sup>1,2</sup>, Reash N<sup>1</sup>, Iammarino M<sup>1</sup>, Alfano L<sup>1</sup>, Signorovitch J<sup>3</sup>, Jin J<sup>4</sup>, Gao P<sup>4</sup>, **Mason S<sup>4</sup>**, Elkins J<sup>4</sup>, Rodino-Klapac L<sup>4</sup>

<sup>1</sup>Center for Gene Therapy, Nationwide Children's Hospital, <sup>2</sup>The Ohio State University, <sup>3</sup>Analysis Group, <sup>4</sup>Sarepta Therapeutics, Inc.

**426P Ankle foot orthosis prescription for Duchenne muscular dystrophy patients: a retrospective study**

**Prufer De Q. C. Araujo A<sup>1</sup>**, Ferreira Rebel M<sup>1</sup>, Almeida Pereira J<sup>1</sup>, Mello Brasil L<sup>1</sup>, Chacon Pereira A<sup>1</sup>, Horokoski Kovacs A<sup>1</sup>, Pereira Dias Drumond Fortes C<sup>1</sup>, Nardes dos Santos F<sup>1</sup>, de Fatima Landgraaf J<sup>1</sup>, Stajnbock F<sup>1</sup>

<sup>1</sup>Federal University of Rio De Janeiro

**427P An open-label study to collect long-term safety and efficacy data from boys with DMD who have completed prior studies with vamorolone (GUARDIAN Study)**

**Nip K<sup>1</sup>**, de Vera A<sup>1</sup>, Hasham S<sup>1</sup>, Charef P<sup>1</sup>, Wong S

<sup>1</sup>Santhera Pharmaceuticals, <sup>2</sup>Royal Hospital for Children

**428P Cardiac MRI outcomes in patients with Duchenne muscular dystrophy treated with delandistrogene moxeparvec: findings from EMBARK Part 1**

**Walter G<sup>1</sup>**, Vandenborne K<sup>2</sup>, Bourke J<sup>3</sup>, Soslow J<sup>4</sup>, Mason S<sup>5</sup>, Palatinsky E<sup>5</sup>, Wandel C<sup>6</sup>, Ding K<sup>5</sup>, Reid C<sup>7</sup>, Murphy A<sup>7</sup>, Manfrini M<sup>6</sup>, Richardson J<sup>5</sup>, Elkins J<sup>5</sup>

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**429P Givinostat in Duchenne muscular dystrophy: natural history comparison applying propensity score matching**

**Gomez Andres D<sup>1</sup>**, Sansone V<sup>2</sup>, Phan H<sup>3</sup>, Willis T<sup>4</sup>, Guglieri M<sup>5</sup>, Scoto M<sup>6</sup>, Vandenborne K<sup>7</sup>, Cazzaniga S<sup>8</sup>, Coceani N<sup>8</sup>, Bettica P<sup>8</sup>, McDonald C<sup>9</sup>

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**430P The damaged lysosome is a therapeutic target for combined therapy in Duchenne muscular dystrophy**

**Jaber A<sup>1,2</sup>**, Bakour R<sup>1,2</sup>, Palmieri L<sup>1,2</sup>, Bourg N<sup>1,2</sup>, Albini S<sup>1,2</sup>, Richard I<sup>1,2</sup>, Israeli D<sup>1,2</sup>

<sup>1</sup>Genethon, <sup>2</sup>Paris-Saclay University, Inserm, Integrare Research Unit UMR\_S951

**431P Exon 45 skipping and dystrophin production with ENTR-601-45 in preclinical models of Duchenne muscular dystrophy**

**Girgenrath M<sup>1</sup>**, Estrella N<sup>1</sup>, Kumar A<sup>1</sup>, Hicks A<sup>1</sup>, Brennan C<sup>1</sup>, Blake S<sup>1</sup>, Li X<sup>1</sup>, Pathak A<sup>1</sup>, Kheirabadi M<sup>1</sup>, Dougherty P<sup>1</sup>, Lian W<sup>1</sup>, Liu N<sup>1</sup>, Gao N<sup>1</sup>, Wang D<sup>1</sup>, Streeter M<sup>1</sup>, Stadheim A<sup>1</sup>, Dhanabal M<sup>1</sup>, Qian Z<sup>1</sup>

<sup>1</sup>Entrada Therapeutics

**432P Hydrogen sulfide attenuates skeletal muscle abnormalities in a murine model of Duchenne Muscular Dystrophy**

**Łoboda A<sup>1</sup>**, Myszka M<sup>1,2</sup>, Mucha O<sup>1</sup>, Hajok K<sup>1</sup>, Jakubczak E<sup>1</sup>, Waśniowska U<sup>1</sup>, Dulak J<sup>1</sup>

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**433P Therapeutic potential of ENTR-601-44, an Endosomal Escape Vehicle (EEV™) - Oligonucleotide Conjugate for the treatment of exon 44 skip amenable DMD**

**Oldham M**<sup>1</sup>, Estrella N<sup>1</sup>, Kumar A<sup>1</sup>, Hicks A<sup>1</sup>, Brennan C<sup>1</sup>, Blake S<sup>1</sup>, Li X<sup>1</sup>, Pathak A<sup>1</sup>, Kheirabadi M<sup>1</sup>, Dougherty P<sup>1</sup>, Lian W<sup>1</sup>, Liu N<sup>1</sup>, Gao N<sup>1</sup>, Streeter M<sup>1</sup>, Stadheim A<sup>1</sup>, Dhanabal M<sup>1</sup>, Qian Z<sup>1</sup>, Girgenrath M<sup>1</sup>

<sup>1</sup>Entrada Therapeutics

**434P SAT-3247: an oral small molecule inhibitor targeting AAK1, a critical effector of skeletal muscle regeneration**

**Mitchell R**<sup>1</sup>

<sup>1</sup>Satellos Bioscience

**435P Correction of a common Duchenne muscular dystrophy mutation by CRISPR/Cas9 gene editing using homology-independent targeted integration**

**Nicolau S**<sup>1,2</sup>, Sarff J<sup>1</sup>, Vetter T<sup>1,2</sup>, Stephenson A<sup>1</sup>, Flanigan K<sup>1,2</sup>

<sup>1</sup>Nationwide Children's Hospital, <sup>2</sup>Ohio State University

**436P Optimizing the efficacy of antisense oligonucleotides for the treatment of Duchene muscular dystrophy**

**Aghaeipour A**<sup>1,2</sup>, Torres-Masjoan L<sup>1</sup>, Aguti S<sup>1</sup>, Zhou H<sup>3,4</sup>, Muntoni F<sup>1,2,4</sup>

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**437VP Cystatin C monitoring in DMD boys with viltolarsen therapy**

**Gremiakova T**<sup>1</sup>, Gremiakova O<sup>1</sup>, Stepanov A<sup>2</sup>

<sup>1</sup>Charity Fund "Gordey", <sup>2</sup>Federal State Budget Institution, Central Clinical Hospital with Ambulance

**472P-496P: Genetics of NMD (new genes and NGS, diagnostic etc.)**

**472P Utilizing next-generation sequencing for pediatric-onset neuromuscular patients unidentified by traditional diagnostic techniques**

**Kulsirichawaroj P**<sup>1,2</sup>, Sanmaneechai O<sup>1,2</sup>

<sup>1</sup>Division of Neurology, Department of Pediatrics, Faculty of Medicine, Siriraj Hospital, Mahidol University, <sup>2</sup>Center of Excellence for Neuromuscular Diseases, Faculty of Medicine, Siriraj Hospital, Mahidol University

**473P Using RNAseq analysis in a cohort of undiagnosed congenital myopathy patients**

**Barraza-Flores P**<sup>1</sup>, Genetti C<sup>1</sup>, Shao W<sup>1</sup>, French C<sup>1</sup>, Rockowitz S<sup>1</sup>, Beggs A<sup>1</sup>

<sup>1</sup>Boston Children's Hospital

**474P Identifying biological pathomechanisms of TTN-affected Myopathies using RNA-sequencing data**

**Natraj Gayathri S**<sup>1,2</sup>, Jonson P<sup>1,2</sup>, Oghabian A<sup>1</sup>, Lillback V<sup>1</sup>, Sian V<sup>1</sup>, Roos A<sup>3,4</sup>, Hackman P<sup>1,2</sup>, Udd B<sup>1,5</sup>, Savarese M<sup>1,2</sup>

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**475P A novel clinic to resolve variants of uncertain significance in neuromuscular patients**

**Johnson K**<sup>1</sup>, Schneider T<sup>1</sup>, Babaian N<sup>1</sup>, Azage M<sup>1</sup>, McIntosh P<sup>1</sup>

<sup>1</sup>University Of Pennsylvania

**476P Functional studies of three novel CASQ1 variants**

**Laarne M**<sup>1,2</sup>, Sarparanta J<sup>1,2</sup>, Wallgren-Pettersson C<sup>1,2</sup>, Jokela M<sup>4</sup>, Udd B<sup>1,2,3</sup>, Hackman P<sup>1,2</sup>, Lehtokari V<sup>1,2</sup>, Pelin K<sup>1,2,5</sup>

<sup>1</sup>Folkhälsan Research Center, <sup>2</sup>Department of Medical Genetics, Medicum, University of Helsinki, <sup>3</sup>Neuromuscular Research Center, Tampere University Hospital and Fimlab Laboratories, <sup>4</sup>Division of Clinical Neurosciences, Turku University Hospital and University of Turku, <sup>5</sup>Molecular and Integrative Biosciences Research Programme, Faculty of Biological and Environmental Sciences, University of Helsinki

**477P An integrated transcriptomics and genomics approach to detect an X/autosome translocation in a female with Duchenne muscular dystrophy**

**Segarra-Casas A**<sup>1,2</sup>, Yépez V<sup>3</sup>, Demidov G<sup>4</sup>, Laurie S<sup>5</sup>, Esteve A<sup>5</sup>, Gagneur J<sup>3,6,7</sup>, Parkhurst Y<sup>8</sup>, Muni-Lofra R<sup>1</sup>, Harris E<sup>1</sup>, Marini-Bettolo C<sup>1</sup>, Straub V<sup>1</sup>, Töpf A<sup>1</sup>

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#### **478P RNA sequencing as a diagnostic tool in a cohort of 54 undiagnosed patients with neuromuscular diseases**

**Segarra-casas A<sup>1</sup>**, Domínguez-González C<sup>2,3</sup>, Natera-de-Benito D<sup>4</sup>, Ortez C<sup>3,4</sup>, Nascimiento A<sup>3,4</sup>, Hernández-Lain A<sup>5</sup>, Kapetanovic S<sup>6</sup>, Rodríguez M<sup>1</sup>, González-Mera L<sup>7</sup>, Nedkova V<sup>7</sup>, Fernández-Torrón R<sup>8</sup>, López-de Munain A<sup>8</sup>, Jimenez-Mallebrera C<sup>3,4</sup>, Rodríguez-Santiago B<sup>1,3</sup>, Gallardo E<sup>3,9</sup>, Olivé M<sup>3,9</sup>, Gallano P<sup>1,3</sup>, González-Quereda L<sup>1,3</sup>  
<sup>1</sup>Genetics Department, Institut de Recerca Sant Pau (IR SANT PAU), Hospital de la Santa Creu i Sant Pau, <sup>2</sup>Neuromuscular Unit, Neurology Department, imas12 Research Institute, Hospital Universitario 12 de Octubre, <sup>3</sup>Centre for Biomedical Network Research on Rare Diseases (CIBERER), Instituto de Salud Carlos III, <sup>4</sup>Neuromuscular Unit, Department of Neurology, Hospital Sant Joan de Déu, <sup>5</sup>Neuropathology Unit, imas12 Research Institute, Hospital Universitario 12 de Octubre, <sup>6</sup>Neurology Department, Hospital de Basurto, <sup>7</sup>Neuromuscular Diseases Unit, Neurology Department, IDIBELL-Hospital Universitari de Bellvitge, Hospitalet de Llobregat, <sup>8</sup>Biodonostia Neurosciences Area Group of Neuromuscular Diseases Biodonostia-Osakidetza Basque Health Service, <sup>9</sup>Neuromuscular Diseases Unit, Neurology Department, Institut de Recerca Sant Pau (IR SANT PAU), Hospital de la Santa Creu i Sant Pau

#### **479P Hereditary Sensory & Autonomic Neuropathy Type 2A (HSAN2A): insights into genetic aetiology and variant classification**

**Shekhar L<sup>1</sup>**, Lazarova A<sup>2</sup>, Berry I<sup>2</sup>, Majumdar A<sup>1</sup>

<sup>1</sup>Bristol Royal Hospital for Children, <sup>2</sup>Bristol genetics laboratory

#### **480P Comparative analysis of CRISPR/Cas9-targeted Nanopore long-read sequencing approaches in repeat expansion disorders**

**Bonne G<sup>1,2</sup>**, Benarroch L<sup>1</sup>, Boëlle P<sup>3</sup>, Labrèche K<sup>3</sup>, Madry H<sup>2</sup>, Mohand-Oumoussa B<sup>2</sup>, Eura N<sup>4</sup>, Nishino I<sup>4</sup>, Gourdon G<sup>1</sup>, Tomé S<sup>1</sup>

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#### **481P Acute respiratory failure revealing DNAJB4 myopathy: a case report**

**Chitimis D<sup>1</sup>**, Adam C<sup>2</sup>, Cauquil C<sup>3</sup>, Amthor S<sup>4</sup>, Heming N<sup>4</sup>, Annane D<sup>4</sup>, Keren B<sup>5</sup>, Nicolas G<sup>1,6</sup>, Laforêt P<sup>1,6</sup>, Metay C<sup>7</sup>, Lefeuvre C<sup>1</sup>

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#### **482P Closing the gap in diagnosis of neuropathies and late-onset neurological disorders – a trans-Australia collaboration**

**Laing N<sup>1,2</sup>**, Kennerson M<sup>3,4</sup>, Lamont P<sup>5</sup>, Vucic S<sup>3</sup>, Davis M<sup>1,6</sup>, Bryson-Richardson R<sup>7</sup>, Ravenscroft G<sup>1,2</sup>, Perez-Siles G<sup>3,4</sup>, Ghaoui R<sup>8</sup>, Narayanan R<sup>3,4</sup>, McCombe P<sup>9</sup>, Deveson I<sup>10</sup>, Bryen S<sup>11</sup>, Grosz B<sup>3,4</sup>, Johari M<sup>1,2</sup>, Rick A<sup>1,2</sup>, Folland C<sup>1,2</sup>, Scriba C<sup>1,2</sup>, Parmar J<sup>1,2</sup>, Ellis M<sup>3,4</sup>

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#### **483P Comprehensive investigation of neuromuscular manifestations in Triple-A syndrome: A combined clinical, molecular genetic and proteomic study**

**Oetztuerk M<sup>1</sup>**, Nelke C<sup>1</sup>, Hentschel A<sup>2</sup>, Schänzer A<sup>3</sup>, Meuth S<sup>1</sup>, Weis J<sup>4</sup>, Ruck T<sup>1</sup>, Roos A<sup>5,6</sup>

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#### **484P New IRF2BPL variant in a patient with a neuromuscular phenotype**

**Winkler M<sup>1</sup>**, Kornblum C<sup>1</sup>, Reimann J<sup>1</sup>

<sup>1</sup>Clinic Of Neuromuscular Diseases

#### **485P Familial case of Bethlem myopathy caused by an ALU insertion in COL6A2**

**Luce L**<sup>1</sup>, Demidov G<sup>2</sup>, Duff J<sup>1</sup>, McFarlane A<sup>1</sup>, Segarra Casas A<sup>1,3</sup>, Laurie S<sup>4,5</sup>, de Visser M<sup>6</sup>, van der Kooi A<sup>6</sup>, Straub V<sup>1</sup>, Töpf A<sup>1</sup>

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#### **486P Spatial analysis of skeletal muscle identifies markers of histopathological tissue alterations in Duchenne mouse models**

**Heezen L**<sup>1</sup>, Abdelaal T<sup>2,3,4</sup>, van Putten M<sup>1</sup>, Aartsma-Rus A<sup>1</sup>, Mahfouz A<sup>1,4,5</sup>, Spitali P<sup>1</sup>

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#### **487P 2024 update of the national French consensus on gene lists for the diagnosis of muscular diseases using high-throughput sequencing**

**Gorokhova S**<sup>13</sup>, Pion E<sup>1</sup>, Cossée M<sup>2</sup>, Biancalana V<sup>3</sup>, Acquaviva Bourdain C<sup>4</sup>, Bouchet-Seraphin C<sup>5</sup>, Fauré J<sup>6</sup>, Leturcq F<sup>7</sup>, Menassa R<sup>8</sup>, Metay C<sup>9</sup>, Michel-Calemard L<sup>8</sup>, Nectoux J<sup>7</sup>, Petit F<sup>10</sup>, Rendu J<sup>6</sup>, Richard P<sup>9</sup>, Sternberg D<sup>11</sup>, Vuillaumier-Barrot S<sup>5</sup>, Attarian S<sup>12</sup>, Krahn M<sup>13</sup>

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#### **488P SEPN1-Related Myopathy with acute respiratory onset in middle age: a clinical and genetic study**

**Risi B**<sup>1</sup>, Caria F<sup>1</sup>, Damioli S<sup>1</sup>, Labella B<sup>2,3</sup>, Bertella E<sup>1</sup>, Giovanelli G<sup>1</sup>, Ferullo L<sup>2,3</sup>, Olivieri E<sup>2,3</sup>, Poli L<sup>3</sup>, Padovani A<sup>1</sup>, Filosto M<sup>1,2</sup>

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#### **489P PIEZO2-associated distal arthrogryposis: phenotypic spectrum and genotype-phenotype correlations in a multicenter case series**

**Akinci G**<sup>1</sup>, Cinar E<sup>1</sup>, Gunay C<sup>2</sup>, Ardicli D<sup>3</sup>, Degerliyurt A<sup>3</sup>, Ozyilmaz B<sup>4</sup>, Ceylan A<sup>5</sup>, Yis U<sup>2</sup>, Topaloglu H<sup>6</sup>

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#### **490P Reclassification of missense variant pathogenicity from a hereditary spastic paraplegia gene panel using ClinGen recommendations for in silico predictor scores**

**Dube J**<sup>1</sup>, Kim S<sup>2,3</sup>, Lau L<sup>2,3</sup>, Higginbotham T<sup>2,3</sup>, Marshall C<sup>2,3</sup>, Jobling R<sup>1,3</sup>

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#### **491P PIEZO2 loss of function syndrome: a highly specific and recognizable phenotype**

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#### **492P Mass spectrometry as a technique for robust quantification of titin and other large muscle disease-associated proteins**

**Smolnikov A**<sup>1</sup>, Padoani D<sup>1</sup>, Jarczyluk J<sup>1</sup>, Su Z<sup>1</sup>, Hamey J<sup>1</sup>, Wilkins M<sup>1</sup>, Yuen M<sup>1,2,3,4</sup>, Oates E<sup>1,5</sup>

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#### **493P Gene prioritization for enhancing molecular diagnosis in rare muscle diseases of singletons**

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#### **494P Evaluation of transcriptome forward computational strategies to improve molecular diagnosis in rare pediatric neuromuscular disease**

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#### **495P Genetic mosaicism, an underestimated event in genetically unsolved neuromuscular patients: study of two families**

**Estévez-Arias B**<sup>1,2</sup>, Segarra-Casas A<sup>3</sup>, Ortez C<sup>1,4,5</sup>, Matalonga L<sup>6</sup>, Carrera-García L<sup>1,4</sup>, Expósito-Escudero J<sup>1,4</sup>,

Jou C<sup>4,5,7</sup>, Codina A<sup>4,7</sup>, Jiménez-Mallebrera C<sup>4,5,8</sup>, Martorell L<sup>5,9</sup>, Lochmüller H<sup>6,10,11</sup>, Töpf A<sup>12</sup>, Beltran S<sup>6,8</sup>, Hoenicka J<sup>2,6</sup>, Palau F<sup>2,6,9,13,14</sup>, Martí J<sup>15</sup>, Gallano P<sup>3,5</sup>, Nascimento A<sup>1,4,5</sup>, Natera-de Benito D<sup>1,4</sup>, González-Querreda L<sup>3,5</sup>

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#### **496P Recessive missense variants in DARS2 gene as novel cause of axonal Charcot-Marie-Tooth disease**

**Estévez-arias B**<sup>1,2</sup>, Bonello Palot N<sup>3,4</sup>, Carrera-García L<sup>1,5</sup>, Ortez C<sup>1,5,6</sup>, Expósito-Escudero J<sup>1,5</sup>, Yubero D<sup>6,7</sup>, Muchart J<sup>8</sup>, Delmont E<sup>9</sup>, Nascimento A<sup>1,5,6</sup>, Hoenicka J<sup>2,6</sup>, Palau F<sup>2,6,7,10,11</sup>, Natera-de Benito D<sup>1,5</sup>

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#### **579P-595P, 596VP-597VP: EDMD, OPDM, autophagic, extramuscular**

##### **579P Myopathies associated with the FHL1 gene: a case series**

**Ferreira W**<sup>1</sup>, Massaro C<sup>1</sup>, Oliveira H<sup>1</sup>, Badia B<sup>1</sup>, Souza P<sup>1</sup>, Serrano P<sup>1</sup>, Farias I<sup>1</sup>, Bezerra M<sup>1</sup>, Pinto W<sup>1</sup>, Faria Nunes K<sup>1</sup>, Oliveira A<sup>1</sup>

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##### **580P SYNE-1 and SYNE-2 mutations: expanding the phenotype and genotype spectrum of Nesprin myopathy**

**Cheli M**<sup>1</sup>, Marchetto G<sup>1</sup>, Gibertini S<sup>2</sup>, Bruno C<sup>3</sup>, Filosto M<sup>4</sup>, Lattanzi G<sup>5</sup>, Fiorillo C<sup>6</sup>, Grandis M<sup>7</sup>, Malandrini A<sup>8</sup>, Maioli M<sup>9</sup>, Mandich P<sup>10</sup>, Massa R<sup>11</sup>, Matà S<sup>12</sup>, Melani F<sup>13</sup>, Maggi L<sup>2</sup>, Rubegni A<sup>14</sup>, Santorelli F<sup>14</sup>, Tonin P<sup>1</sup>, Cassandrini D<sup>14</sup>, Vattemi G<sup>1</sup>

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##### **581P Toxic autophagic vacuolar myopathies and the role of human leukocyte antigen class I molecules and membrane attack complex in its pathogenesis**

**Labella B**<sup>1,2</sup>, Lacene E<sup>1</sup>, Chanut A<sup>1</sup>, Leonard-Louis S<sup>3</sup>, Benveniste O<sup>3</sup>, Lefeuvre C<sup>4</sup>, Lafôret P<sup>4</sup>, Evangelista T<sup>1,3</sup>

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##### **582P Brain abnormalities in Spinal Muscular Atrophy type 1 with neurodevelopmental disorders**

**Holanda Mendonca R**<sup>1</sup>, Diógenes Alencar Sindeaux R<sup>1</sup>, Gontijo Camelo C<sup>1</sup>, Barbante Casella E<sup>1</sup>, Faria Silva Chillon K<sup>1</sup>, Jose da Rocha A<sup>2</sup>, Zanoteli E<sup>1</sup>

<sup>1</sup>Hospital das Clinicas FMUSP, <sup>2</sup>Dasa Medicina Diagnostica

##### **583P Recurrent pneumothoraces in chronically ventilated adult neuromuscular patients attending the National Hospital for Neurology and Neurosurgery in London**

**Desikan M**<sup>1</sup>, Sir B<sup>1</sup>, Astin R<sup>1</sup>, Quinlivan R<sup>1</sup>

<sup>1</sup>National Hospital for Neurology and Neurosurgery

##### **584P Nuclear envelope and splicing alterations in selected muscular dystrophies**

**Meinke P**<sup>1</sup>, Todorow V<sup>1</sup>, Hintze S<sup>1</sup>, Schoser B<sup>1</sup>

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##### **585P Collagen XIII as the neuromuscular junction organizer**

**Prasannan A**<sup>1</sup>, Norman O<sup>1</sup>, Heikkinen A<sup>1</sup>, Pihlajaniemi T<sup>1</sup>

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##### **586P Visualization of degenerative processes of the myofibers on muscle pathology in OPDM based on single nucleus RNA-seq data**

**Yamanaka A**<sup>1,2</sup>, Eura N<sup>1,2</sup>, Hayashi S<sup>1</sup>, Sugie K<sup>2</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1</sup>

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### 587P White matter lesions and genetic muscular diseases: an overview

Jaubert P<sup>1</sup>, Mario G<sup>2</sup>, Stojkovic T<sup>1</sup>, **Masique M<sup>1</sup>**

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### 588P Phenotype variability and natural history of X-linked Myopathy with excessive autophagy running head: natural history of XMEA

**Fernández-Eulate G<sup>1</sup>**, Alfieri G<sup>2</sup>, Spinazzi M<sup>3</sup>, Ackermann-Bonan I<sup>4</sup>, Duval F<sup>5</sup>, Solé G<sup>5</sup>, Caillon F<sup>6</sup>, Mercier S<sup>7</sup>, Pereon Y<sup>8</sup>, Magot A<sup>8</sup>, Pegat A<sup>9</sup>, Salort-Campana E<sup>10</sup>, Gorokhova S<sup>11</sup>, Krahn M<sup>11</sup>, Biancalana V<sup>12</sup>, Evangelista T<sup>1</sup>, Behin A<sup>1</sup>, Metay C<sup>13</sup>, Stojkovic T<sup>1</sup>

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### 589P Nanopore CRISPR/Cas9-targeted sequencing reveals genetic characteristics and a possible haplotype in oculopharyngodistal myopathy

**Eura N<sup>1,2</sup>**, Noguchi S<sup>2</sup>, Yamanaka A<sup>1,2</sup>, Sonehara K<sup>3</sup>, Hayashi S<sup>2</sup>, Okada Y<sup>3</sup>, Sugie K<sup>1</sup>, Nishino I<sup>2</sup>

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### 590P Genetic heterogeneity in PLIN4 gene: characterization of a new pathogenic expansion causing an autophagic vacuolar myopathy

**Carnazzi A<sup>1,2</sup>**, Iannibelli E<sup>2</sup>, Gibertini S<sup>2</sup>, Nicolini De Gaetano L<sup>2</sup>, Riolo G<sup>2</sup>, Salerno F<sup>2</sup>, Čopič A<sup>3</sup>, Maggi L<sup>2</sup>, Ruggieri A<sup>2</sup>

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### 591P DNA damage in LMNA-related congenital muscular dystrophy

**Leconte M<sup>1</sup>**, Guesmia Z<sup>1</sup>, Bonne G<sup>1</sup>, Bertrand A<sup>1</sup>

<sup>1</sup>Centre De Recherche En Myologie, Sorbonne Université, Inserm

### 592P A knocked-in mouse model of GNE myopathy maintained physical function up to 70 weeks of age with supplementation of 6'-sialyl lactose

**Shin J<sup>1,3</sup>**, Choi J<sup>1,2</sup>, Seo K<sup>1</sup>, Kim H<sup>1</sup>, Kim L<sup>2</sup>, Park Y<sup>3</sup>, Kim D<sup>1,3</sup>

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### 593VP Emerging role of muscle and fibrosis-related microRNAs as biomarkers and therapeutic targets in Emery-Dreifuss muscular dystrophies

**Bonanno S<sup>1</sup>**, Malacarne C<sup>1</sup>, Tarasco M<sup>1,2</sup>, Farinazzo G<sup>1</sup>, Mattioli E<sup>3,4</sup>, Schena E<sup>3,4</sup>, Saraceno F<sup>5</sup>, Fiorillo C<sup>6</sup>, Andreetta F<sup>1</sup>, Schirmer E<sup>7</sup>, Maggi L<sup>1</sup>, Marcuzzo S<sup>1,8</sup>, Cavalcante P<sup>1</sup>, Lattanzi G<sup>3,4</sup>

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### 594P FUS/TLS as a potential regulator of PABPN1 in skeletal muscle?

**Mouigni H<sup>1,2,3</sup>**, Altin N<sup>1,2,3</sup>, Ohana J<sup>1,2,3</sup>, Kondili M<sup>1,2,3</sup>, Dhiab J<sup>1,2,3</sup>, Muraine L<sup>1,2,3</sup>, Lemaitre M<sup>1,2,3</sup>, Meunier P<sup>1,2,3</sup>, Butler-Browne G<sup>1,2,3</sup>, Mouly V<sup>1,2,3</sup>, Bigot A<sup>1,2,3</sup>, Negroni E<sup>1,2,3</sup>, Trollet C<sup>1,2,3</sup>

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### **595P ACTA1-related cardiomyopathy: emerging genotypic and phenotypic patterns among patients with ACTA1-related myopathy with cardiac involvement**

**McAnally M<sup>1</sup>**, Potticary A<sup>1</sup>, Hayes L<sup>2</sup>, Clayton J<sup>3</sup>, Haliloğlu G<sup>4</sup>, Donkervoort S<sup>1</sup>, Yang M<sup>5</sup>, Gibbons M<sup>6</sup>, Gross B<sup>7</sup>, Foley A<sup>1</sup>, Guglieri M<sup>8</sup>, Lee T<sup>9</sup>, Munot P<sup>10</sup>, Sarkozy A<sup>10</sup>, Muntoni F<sup>10,11</sup>, Straub V<sup>8</sup>, Laing N<sup>3,12</sup>, Beggs A<sup>13</sup>, Bönnemann C<sup>1</sup>, for the ACTA1-Cardiomyopathy Study Group<sup>14,15,16,17,18,19,20,21,22</sup>

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### **596VP Elevated VCP ATPase activity correlates with disease onset in multisystem proteinopathy-1**

**Robinson S<sup>1</sup>**, Findlay A<sup>1</sup>, Schiava M<sup>2</sup>, Daw J<sup>1</sup>, Diaz-Manera J<sup>2</sup>, Chou T<sup>3</sup>

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### **597VP Vacuolar myopathy with permanent weakness: case report with imaging, muscle biopsy, and molecular features**

**Cotta A<sup>1</sup>**, Carvalho E<sup>1</sup>, da-Cunha-Júnior A<sup>1</sup>, da Silveira E<sup>2</sup>, Costa-e-Silva C<sup>2</sup>, Nunes-Neves S<sup>1</sup>, Valicek J<sup>1</sup>, Vargas A<sup>1</sup>

<sup>1</sup>The Sarah Network of Rehabilitation Hospitals, <sup>2</sup>The Sarah Network of Rehabilitation Hospitals

### **619P-642P, 643VP: FSHD**

#### **619P Normal and borderline-sized D4Z4 alleles in FSHD1-mimics: a multicentric Italian review of cases**

**Gadaleta G<sup>1</sup>**, Vercelli L<sup>1</sup>, Urbano G<sup>1</sup>, Rolle E<sup>1</sup>, Torri F<sup>2</sup>, Pugliese A<sup>3</sup>, Maggi L<sup>4</sup>, Tupler R<sup>5</sup>, Filosto M<sup>6</sup>, Rodolico C<sup>3</sup>, Ruggiero L<sup>7</sup>, Ricci G<sup>2</sup>, Siciliano G<sup>2</sup>, Mongini T<sup>1</sup>

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#### **620P Novel outcome measures to quantify longitudinal changes in motor function in FSHD**

**Hayward L<sup>1</sup>**, Andrade E<sup>1</sup>, Ridout B<sup>2</sup>, Penka J<sup>2</sup>, Stauffer J<sup>2</sup>, Tulchin-Francis K<sup>3</sup>, Lowes L<sup>3</sup>, King O<sup>1</sup>, Watts G<sup>1</sup>

<sup>1</sup>Univ of Massachusetts Chan Medical School, <sup>2</sup>LittleSeed WSV Technology LLC, <sup>3</sup>Nationwide Children's Hospital

#### **621P The rarest subtype of a rare disease: Infantile Facio-Scapulo-Humeral Dystrophy**

**Yunisova G<sup>1</sup>**, Arduç Akçay A<sup>2</sup>, Eraslan S<sup>3</sup>, Avci Ş<sup>3</sup>, Eren İ<sup>4</sup>, Özdağ Acarlı A<sup>5</sup>, Kayserili H<sup>3</sup>, Oflazer P<sup>5</sup>

<sup>1</sup>Koc University Hospital, Muscle Disease Center, <sup>2</sup>Koç University Hospital, Department of Pediatrics, Pediatric Neurology, <sup>3</sup>Koç University Hospital, Genetic Diseases Diagnosis and Evaluation Center, <sup>4</sup>Koç University Hospital, Department of Orthopedics and Traumatology, <sup>5</sup>Koç University, Koç University Hospital, Department of Neurology, Muscle Diseases Center

**622P An unusual case of double trouble of Facioscapulohumeral dystrophy (FSHD) and coexisting congenital myopathy uncovered by whole genome sequencing**

**Kulshrestha R<sup>1</sup>**, Emery N<sup>1</sup>, Strachan K<sup>1</sup>, Willis T<sup>1,2</sup>, Sewry C<sup>1</sup>, Morley-Davies A<sup>3</sup>

<sup>1</sup>Robert Jones and Agnes Hunt Hospital, Oswestry, UK, <sup>2</sup>University of Chester Medical School, Chester, UK,

<sup>3</sup>University Hospital of North Midlands, Stoke-on-Trent, UK

**623P Muscular Dystrophy in the Japanese nationwide registry of muscular dystrophy (Remudy)**

**Takizawa H<sup>1</sup>**, Yoshioka W<sup>2</sup>, Mori-Yoshimura M<sup>1</sup>, Saito Y<sup>2</sup>, Nishino I<sup>2</sup>, Nakamura H<sup>3</sup>, Matsumura T<sup>4</sup>

<sup>1</sup>Department of Neurology, National Center Hospital, National Center of Neurology and Psychiatry, <sup>2</sup>Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry,

<sup>3</sup>Department of Clinical Research Support, National Center Hospital, National Center of Neurology and Psychiatry,

<sup>4</sup>Department of Neurology, NHO Osaka Toneyama Medical Center

**624P A new double-trouble phenotype: facioscapulohumeral muscular dystrophy and familial amyotrophic lateral sclerosis**

**Alonso-pérez J<sup>1</sup>**, León-Hernández J<sup>1</sup>, Henao-Ramírez M<sup>1</sup>, Méndez-Hernández L<sup>2</sup>, Sánchez R<sup>2</sup>,

Martínez-Bugallo F<sup>3</sup>, Prieto-Morín C<sup>3</sup>

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Fundación Canaria Instituto de Investigación Sanitaria de Canarias (FIISC), <sup>2</sup>Neurophysiology Department,

Hospital Universitario Nuestra Señora de Candelaria, <sup>3</sup>Genetic Department, Hospital Universitario Nuestra

Señora de Candelaria

**625P From phenotype to genotype: diagnosis pitfalls in atypical FSHD cases**

**Torri F<sup>1</sup>**, Strafella C<sup>2</sup>, Vercelli L<sup>3</sup>, Gadaleta G<sup>3</sup>, Risi B<sup>4</sup>, Colantoni L<sup>2</sup>, Giardina E<sup>2</sup>, Filosto M<sup>4</sup>, Mongini T<sup>3</sup>, Siciliano G<sup>1</sup>, Ricci G<sup>1</sup>

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Santa Lucia Foundation IRCCS, <sup>3</sup>Neuromuscular Unit, Department of Neurosciences Rita Levi Montalcini,

University of Turin, <sup>4</sup>Neuromuscular Omnicenter, NeMO, Fondazione Serena Onlus

**626P Disability questionnaire of FSHD1 correlates with the in-person examination**

**Lee J<sup>1</sup>**, Shin J<sup>2</sup>, Shin J<sup>3</sup>

<sup>1</sup>Kyungpook National University Hospital, <sup>2</sup>Pusan National University Yangsan Hospital, Yangsan, <sup>3</sup>Hallym medical center, Dongtan Sacred Heart Hospital

**627P The FORCE(TM) platform achieves robust and durable DUX4 suppression and improves muscle function in Facioscapulohumeral muscular dystrophy mouse model**

**Picariello T<sup>1</sup>**, Natoli T<sup>1</sup>, Yoder N<sup>1</sup>, Yao M<sup>1</sup>, Valdivia B<sup>1</sup>, Tahaei E<sup>1</sup>, Johnson J<sup>1</sup>, Qiu Q<sup>1</sup>, More P<sup>1</sup>, Schlaefke L<sup>1</sup>, Yang S<sup>1</sup>, Basiri B<sup>1</sup>, Weeden T<sup>1</sup>, Beskrovnaya O<sup>1</sup>, Zanotti S<sup>1</sup>

<sup>1</sup>Dyne Therapeutics

**628P Development of a CRISPR/CasX 4q telomeric region ablation strategy for FSHD1 using an isogenic hiPSC line and a FSHD1 fibroblast cell line**

**Lama C<sup>1</sup>**, de Graaf N<sup>1,2</sup>, Bou Akar R<sup>1</sup>, Danaus P<sup>3</sup>, Suel-Petat L<sup>4</sup>, Nectoux J<sup>3</sup>, Authier F<sup>1,5</sup>, Relaix F<sup>1</sup>, Richard I<sup>4</sup>, Malfatti E<sup>1,5</sup>

<sup>1</sup>Université Paris Est Créteil, INSERM, IMRB - Hôpital Henri-Mondor, <sup>2</sup>The Department of Neurology, Donders

Institute for Brain, Cognition and Behaviour, Radboud university medical center, <sup>3</sup>Assistance Publique - Hôpitaux

de Paris, APHP, Centre Universitaire Paris, Hôpital Cochin, Laboratoire de Génétique et Biologie Moléculaires,

<sup>4</sup>Généthon, INSERM, Unité de recherche Intégrare, UMR\_S951 - Université Paris-Saclay, Université d'Évry,

<sup>5</sup>Reference Center for Neuromuscular Disorders, APHP Henri Mondor University Hospital

**629P Co-producing UK care quality standards in Facioscapulohumeral muscular dystrophy (FSHD) in partnership with people with FSHD, carers and healthcare professionals: a qualitative focus group study**

**Leone E<sup>1</sup>**, Pandyan A<sup>2</sup>, Rogers A<sup>1</sup>, Kulshrestha R<sup>3</sup>, Hill J<sup>1</sup>, Philp F<sup>4</sup>

<sup>1</sup>Keele University, <sup>2</sup>Bournemouth University, <sup>3</sup>The Robert Jones and Agnes Hunt Orthopaedic Hospital, Gobowen,

<sup>4</sup>University of Liverpool

**630P Genetic diversity and clinical implications of Facioscapulohumeral muscular dystrophy in the Indian population**

**Lemmers R<sup>1</sup>**, Venugopalan Y V<sup>2</sup>, van der Vliet P<sup>1</sup>, Reyaz A<sup>2</sup>, Mishra R<sup>2</sup>, Ahmad T<sup>2</sup>, Kretkiewicz M<sup>1</sup>, Macken W<sup>3</sup>, Efthymiou S<sup>3</sup>, Bhatia R<sup>2</sup>, Dominik N<sup>3</sup>, Houlden H<sup>3</sup>, Morrow J<sup>3</sup>, Wilson L<sup>3</sup>, Hanna M<sup>3</sup>, Bugiardini E<sup>3</sup>,

van der Maarel S<sup>1</sup>, Padma Srivastava M<sup>2</sup>

<sup>1</sup>Leiden University Medical Centre, <sup>2</sup>All India Institute of Medical Sciences, <sup>3</sup>University College London

**631P** Respiratory function and trajectories in Facioscapulohumeral muscular dystrophy (FSHD): a clinical audit

**Robinson E<sup>1</sup>**, Lees E<sup>1</sup>, Moat D<sup>1</sup>, Michell-Sodhi J<sup>1</sup>, Richardson M<sup>1</sup>, Wong K<sup>1</sup>, Grover E<sup>1</sup>, Schiava M<sup>1</sup>, Bolano C<sup>1</sup>, Salman D<sup>1</sup>, Guglieri M<sup>1</sup>, Elseed M<sup>1</sup>, McCallum M<sup>1</sup>, Diaz-Manera J<sup>1</sup>, James M<sup>1</sup>, Straub V<sup>1</sup>, Marini Bettolo C<sup>1</sup>, Pace F<sup>1</sup>, Muni-Lofra R<sup>1</sup>, Tasca G<sup>1</sup>

<sup>1</sup>John Walton Muscular Dystrophy Research Centre

**632P** A human skeletal muscle-on-chip model for Facioscapulohumeral muscular dystrophy: improving maturation and complexity

**Augustinus R<sup>1</sup>**, Franken M<sup>1</sup>, van der Maarel S<sup>1</sup>, Pijnappel P<sup>2</sup>, de Greef J<sup>1</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Erasmus Medical Center

**633P** Penetrance of 5RU founder allele and correlation of D4Z4 methylation levels to severity in large kindred with FSHD

**Butterfield R<sup>1</sup>**, Dunn D<sup>2</sup>, Duval B<sup>2</sup>, Moldt S<sup>1</sup>, Weiss R<sup>2</sup>

<sup>1</sup>University of Utah, Department of Pediatrics, <sup>2</sup>University of Utah, Department of Human Genetics

**634P** Retrospective analysis of muscle biopsy findings in a cohort of patients with Facioscapulohumeral Dystrophy Type 1

**Ruggiero L<sup>1</sup>**, Pezzella M<sup>1</sup>, Di Leo R<sup>1</sup>, Vitale F<sup>1</sup>, Russo R<sup>1</sup>, Grasso C<sup>1</sup>, Iapoco M<sup>1</sup>, Boemia V<sup>1</sup>, Tupler R<sup>2</sup>, Fiorillo C<sup>3</sup>, Zoppi D<sup>1</sup>

<sup>1</sup>Policlin Universita Federico II - Clinica 2 Neurologia, <sup>2</sup>Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Modena., <sup>3</sup>Department of Neurosciences, Rehabilitation, Ophthalmology, Genetic and Maternal and Infantile Sciences, University of Genoa,

**635P** Pain impacts quality of life, psychological disorders and exercise in a large international cohort of patients with facioscapulohumeral muscular dystrophy

**Knox R<sup>1</sup>**, Wang L<sup>2</sup>, Elsheikh B<sup>3</sup>, LoRusso S<sup>4</sup>, Zhao S<sup>5</sup>, Eichinger K<sup>5</sup>, Higgs K<sup>6</sup>, Lewis L<sup>5</sup>, Walker M<sup>6</sup>, Sansone V<sup>7</sup>, Leung D<sup>8</sup>, Sacconi S<sup>9</sup>, Mul K<sup>10</sup>, Shieh P<sup>11</sup>, Butterfield R<sup>12</sup>, Johnson N<sup>13</sup>, Bugiardini E<sup>14</sup>, McDermott M<sup>5</sup>, Tawil R<sup>5</sup>, Statland J<sup>6</sup>

<sup>1</sup>Washington University School Of Medicine, <sup>2</sup>University of Washington, <sup>3</sup>The Ohio State University, <sup>4</sup>Kaiser Permanente, <sup>5</sup>University of Rochester Medical Center, <sup>6</sup>University of Kansas Medical Center, <sup>7</sup>The NEMO Clinical Center, University of Milan, <sup>8</sup>Kennedy Krieger Institute, <sup>9</sup>Nice University, <sup>10</sup>Radboud University, <sup>11</sup>University of California, <sup>12</sup>University of Utah, <sup>13</sup>Virginia Commonwealth University, <sup>14</sup>University College London

**636P** Longitudinal insights into childhood onset Facioscapulohumeral dystrophy: a five-year natural history study

**Dijkstra J<sup>1,2</sup>**, Boon H<sup>1,2</sup>, Koekkoek A<sup>2</sup>, Goselink R<sup>3</sup>, Pelsma M<sup>4</sup>, Houwen-van Opstal S<sup>4</sup>, Van Alfen N<sup>5</sup>, Van Engelen B<sup>1</sup>, Voermans N<sup>1</sup>, Erasmus C<sup>2</sup>

<sup>1</sup>Department of Neurology, Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Center, <sup>2</sup>Department of Pediatric Neurology, Donders Institute for Brain, Cognition and Behaviour, Amalia Children's Hospital, Radboud University Medical Centre, <sup>3</sup>Department of Neurology, Jönköping, Region Jönköping County, and Department of Biomedical and Clinical Sciences, Linköping University, <sup>4</sup>Department of Rehabilitation, Donders Institute for Brain, Cognition and Behaviour, Amalia Children's Hospital, Radboud University Medical Center, <sup>5</sup>Department of Neurology, Clinical Neuromuscular Imaging Group, Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Center

**637P** RelnForce: A bicentric, randomized, double blind, placebo-controlled pilot study to evaluate the efficacy and safety of satralizumab in FSHD1

Pini J<sup>1,2</sup>, Aleman A<sup>3</sup>, Breiner A<sup>3</sup>, Cavalli M<sup>1</sup>, Puma A<sup>1</sup>, Villa L<sup>1</sup>, Gaki E<sup>4</sup>, Mclver T<sup>4</sup>, Okumu S<sup>5</sup>, Sidiropoulos P<sup>5</sup>, Lochmüller H<sup>3</sup>, **Sacconi S<sup>1,2</sup>**

<sup>1</sup>Peripheral Nervous System and Muscle Department, University Côte d'Azur, CHU Nice, <sup>2</sup>University Cote d'Azur, Inserm, CNRS, Institute for Research on Cancer and Aging of Nice (IRCAN), <sup>3</sup>Ottawa Hospital Research Institute, <sup>4</sup>Roche Products Ltd, 5F. Hoffmann-La Roche Ltd

**638P** Interleukin-6 as a Biomarker for Disease Activity, Progression and Muscle Composition in Facioscapulohumeral Dystrophy: Insights from Longitudinal Studies

**Sacconi S<sup>1,2</sup>**, Pini J<sup>1,2</sup>, Martinuzzi E<sup>3</sup>, Puma A<sup>1</sup>, Villa L<sup>1</sup>, Cavalli M<sup>1</sup>, Ezaru A<sup>1</sup>, Garcia J<sup>1</sup>, Glaichenhaus N<sup>3</sup>

<sup>1</sup>Peripheral Nervous System and Muscle Department, University Côte d'Azur, CHU Nice, <sup>2</sup>University Cote d'Azur, Inserm, CNRS, Institute for Research on Cancer and Aging of Nice (IRCAN), <sup>3</sup>University Cote d'Azur, CNRS, Inserm, Institute of Molecular and Cellular Pharmacology, Sophia Antipolis, France

**639P** The other face of Facioscapulohumeral Muscular Dystrophy: exploring facial weakness using muscle ultrasound

**Vincenzen S<sup>1</sup>**, Van Doorn J<sup>1</sup>, Teeselink S<sup>1</sup>, Rasing N<sup>1</sup>, Padberg G<sup>1</sup>, Voermans N<sup>1</sup>, van Engelen B<sup>1</sup>, van Alfen N<sup>1</sup>, Mul K<sup>1</sup>

<sup>1</sup>Radboudumc, department of Neurology

**640P Efficacy and safety of EPI-321, an investigational single dose Epigenome editing therapy targeting D4Z4 in Facioscapulohumeral Muscular Dystrophy (FSHD)**

**Boregowda S<sup>1</sup>**, Zheng H<sup>1</sup>, Agrawal V<sup>1</sup>, Norton A<sup>1</sup>, Wasala N<sup>1</sup>, Collin de l'Hortet A<sup>1</sup>

<sup>1</sup>EPICRISPR Biotechnologies, Inc.

**641P Modeling cell type specific and sporadic DUX4 gene expression in FSHD**

**Sasaki-Honda M<sup>1,2</sup>**, Sakurai H<sup>1</sup>, Rada-Iglesias A<sup>2</sup>

<sup>1</sup>CiRA, Kyoto University, <sup>2</sup>IBBTEC, University of Cantabria

**642P 4qA D4Z4 methylation test as a valuable complement for differential diagnosis in patients with FSHD-like phenotype**

**Xia X<sup>1</sup>**, Cheng N<sup>1</sup>, Liu Y<sup>1</sup>, Zhu W<sup>1</sup>, Zhao C<sup>1</sup>

<sup>1</sup>Huashan Hospital, Fudan University

**643VP Molecular imaging of muscle involvement in Facioscapulohumeral Muscular Dystrophy using multispectral optoacoustic tomography**

**Monforte M<sup>1</sup>**, Bortolani S<sup>1</sup>, Ravera B<sup>2</sup>, Marchese D<sup>2</sup>, Qiu Y<sup>3</sup>, Burton N<sup>3</sup>, Torchia E<sup>2</sup>, De Spirito M<sup>2</sup>, Ricci E<sup>2</sup>, Tasca G<sup>4</sup>

<sup>1</sup>Fondazione Policlinico Universitario A. Gemelli IRCCS, <sup>2</sup>Università Cattolica del Sacro Cuore, <sup>3</sup>iThera Medical GmbH, <sup>4</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University

**677P-686P, 687P: RNA in NMD: clinical insights, pathomechanisms and treatments**

**677P The Splice Index as a prognostic biomarker of strength and function in Myotonic Dystrophy type 1**

Provenzano M<sup>1,2</sup>, Ikegami K<sup>1,2</sup>, Bates K<sup>1,2</sup>, Hartman J<sup>1,2</sup>, Jones A<sup>1,2,3</sup>, Butler A<sup>1,2,3</sup>, Berggren K<sup>1,2</sup>, Hung M<sup>4</sup>, Kiefer M<sup>1,2,5</sup>, Thornton C<sup>6,7</sup>, Johnson N<sup>1,2</sup>, **Hale M<sup>1,2</sup>**, on behalf of the Myotonic Dystrophy Clinical Research Network (DMCRN)

<sup>1</sup>Department of Neurology, Virginia Commonwealth University, <sup>2</sup>Center for Inherited Muscle Research, Virginia Commonwealth University, <sup>3</sup>Children's Hospital of Richmond at Virginia Commonwealth University, Pediatric Therapy Services, <sup>4</sup>College of Dental Medicine, Roseman University of Health Sciences, <sup>5</sup>Department of Physical Therapy, Virginia Commonwealth University, <sup>6</sup>Department of Neurology, University of Rochester School of Medicine and Dentistry, <sup>7</sup>Center for RNA Biology, University of Rochester School of Medicine and Dentistry

**678P Unraveling calcium dysregulation and autoimmunity in immune mediated Rippling muscle disease**

**Nath S<sup>1</sup>**, Dasgupta A<sup>2</sup>, Dubey D<sup>1</sup>, Kokesh E<sup>1</sup>, Liewluck T<sup>1</sup>, Beecher G<sup>3</sup>, Pittock S<sup>1</sup>, Doles J<sup>2</sup>, Litchy W<sup>1</sup>, Milone M<sup>1</sup>

<sup>1</sup>Mayo Clinic Department of Neurology, <sup>2</sup>Department of Anatomy, Cell Biology, & Physiology, Indiana University, <sup>3</sup>Faculty of Medicine & Dentistry - Medicine Dept, University of Alberta

**679P Clinical and molecular characterization of DMD pseudo-3'-terminal exons**

**Frair E<sup>1</sup>**, Nicolau S<sup>1,2,3</sup>, Meyer A<sup>1,2,4</sup>, Vetter T<sup>1,2</sup>, Dunn D<sup>5</sup>, Gabel L<sup>1</sup>, Waldrop M<sup>1,2,3</sup>, Weiss R<sup>5</sup>, Flanigan K<sup>1,2,3</sup>

<sup>1</sup>Center for Gene Therapy, Abigail Wexner Research Institute, Nationwide Children's Hospital, <sup>2</sup>Department of Pediatrics, The Ohio State University College of Medicine, <sup>3</sup>Department of Neurology, The Ohio State University, <sup>4</sup>Division of Genetic and Genomic Medicine, Nationwide Children's Hospital, <sup>5</sup>Department of Human Genetics, The University of Utah

**680P Developing effective RNA editing approaches to target the nonsense mutation in the key functional region of DMD**

**Lam H<sup>1,2</sup>**, Uzwyshyn-Jones K<sup>1</sup>, Ma S<sup>1</sup>, Muntoni F<sup>2</sup>, Meng J<sup>1,3</sup>, Zhou H<sup>1,3</sup>

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**681P A novel COL11A1 variant in a child with neuromuscular findings: expanding the genotypic and phenotypic spectrum of COL11A1-related disease**

**Mcanally M<sup>1</sup>**, Potticary A<sup>1</sup>, Donkervoort S<sup>1</sup>, Hu Y<sup>1</sup>, Huryan L<sup>3</sup>, Pais L<sup>2</sup>, Harper A<sup>4</sup>, Foley A<sup>1</sup>, Bönnemann C<sup>1</sup>

<sup>1</sup>Neuromuscular and Neurogenetic Disorders of Childhood Section, National Institute of Neurological Disorders and Stroke, NIH, <sup>2</sup>Program in Medical and Population Genetics, Broad Institute of MIT and Harvard, <sup>3</sup>National Eye Institute, NIH, <sup>4</sup>Department of Neurology, Division of Child Neurology, Children's Hospital of Richmond at VCU

**682P Differential splicing of OBSCN throughout human cardiac and skeletal muscle development**

**Oghabian A<sup>1,2</sup>**, Jonson P<sup>1,3</sup>, Johari M<sup>1,12</sup>, Andres D<sup>4</sup>, Munell F<sup>5</sup>, Soriano J<sup>6</sup>, Duran M<sup>7</sup>, Sinisalo J<sup>8</sup>, Tolppanen H<sup>9</sup>, Tolva J<sup>10</sup>, Hackman P<sup>1,3</sup>, Savarese M<sup>1,3</sup>, Udd B<sup>1,3,4,11</sup>

<sup>1</sup>Folkhälsan Research Center, <sup>2</sup>Research Program for Clinical and Molecular Metabolism, Faculty of Medicine, University of Helsinki, <sup>3</sup>Department of Medical Genetics, Medicum, <sup>4</sup>Department of Neurology, Vaasa Central Hospital, <sup>5</sup>Child Neurology Unit, Hospital Universitari Vall d'Hebron, Vall d'Hebron Research Institute (VHIR), <sup>6</sup>Unitat De Malalties Neuromusculars Pediàtriques, Hospital Universitari Vall D'hebron, <sup>7</sup>Histology Department, Vall D'hebron University Hospital, <sup>8</sup>Maternal Fetal Medicine Unit, Department of Obstetrics, Universitat Autònoma de Barcelona, Hospital Vall D'hebron, <sup>9</sup>Helsinki University Central Hospital, <sup>10</sup>Transplantation Laboratory, Department of Pathology, <sup>11</sup>Neuromuscular Research Center, Department of Neurology, Tampere University and University Hospital, <sup>12</sup>Harry Perkins Institute of Medical Research, Centre for Medical Research, University of Western Australia

**683P Phase IIa trial assessing the efficacy and safety of Enpatoran in patients with Dermatomyositis and Polymyositis: NEPTUNIA rationale and study design**

Aggarwal R<sup>1</sup>, Roy S<sup>2</sup>, Thömmes G<sup>3</sup>, Weinelt D<sup>3</sup>, Chitkara D<sup>4</sup>, **Denis D<sup>5</sup>**

<sup>1</sup>University of Pittsburgh, <sup>2</sup>Ares Trading SA, an affiliate of Merck KGaA, <sup>3</sup>Merck Healthcare KGaA, <sup>4</sup>EMD Serono Research & Development Institute, Inc., an affiliate of Merck KGaA, <sup>5</sup>EMD Serono, Inc., an affiliate of Merck KGaA

**684P Complex duplications containing terminal exon duplications in the DMD gene**

**Meyer A<sup>1,2</sup>**, Nicolau S<sup>1</sup>, Dunn D<sup>3</sup>, Gabel L<sup>1</sup>, Frair E<sup>1</sup>, Weiss R<sup>3</sup>, Flanigan K<sup>1,2</sup>

<sup>1</sup>Nationwide Children's Hospital, <sup>2</sup>The Ohio State University, <sup>3</sup>University of Utah

**685VP Reduction of dystrophin-targeting microRNAs increases expression of clinically relevant dystrophin isoforms**

**Fiorillo A<sup>1,2</sup>**, McCormack N<sup>2</sup>, Calabrese K<sup>2</sup>, Sun C<sup>2</sup>, Tully C<sup>2</sup>, Heier C<sup>1,2</sup>

<sup>1</sup>Virginia Commonwealth University, <sup>2</sup>Children's National Hospital

**686P Identification and characterization of actionable deep intron 8 IGHMBP2 hotspot pathogenic variants through motor neuron RNAseq and whole genome**

**Silverstein S<sup>1,2,3</sup>**, Donkervoort S<sup>1</sup>, Cassini T<sup>4</sup>, Vetrini F<sup>5,6</sup>, Conboy E<sup>5,6</sup>, Comer A<sup>7</sup>, Treat K<sup>5,6</sup>, Liaqat K<sup>5,6</sup>,

Mantcheva L<sup>5,6</sup>, Patankar A<sup>8</sup>, Bharucha-Goebel D<sup>1,9</sup>, Foley A<sup>1</sup>, Chao K<sup>10</sup>, Neuhaus S<sup>1</sup>, Grunseich C<sup>8</sup>, Bonnemann C<sup>1</sup>

<sup>1</sup>Neuromuscular and Neurogenetics Disorders of Childhood Section, NINDS, NIH, <sup>2</sup>Rutgers New Jersey Medical School, <sup>3</sup>Undiagnosed Diseases Program, NIH, <sup>4</sup>Vanderbilt University Medical Center, <sup>5</sup>Department of Medical and Molecular Genetics, Indiana University School of Medicine, <sup>6</sup>Undiagnosed Rare Disease Clinic, Indiana University School of Medicine, <sup>7</sup>Department of Neurology, Indiana University School of Medicine, <sup>8</sup>Neurogenetics Branch, NINDS, NIH, <sup>9</sup>Department of Neurology, Children's National Hospital, <sup>10</sup>The Broad Institute of MIT and Harvard

**687P Splicing switching of alternative last exons due to a deletion including canonical polyadenylation site in COL6A2 gene causes recessive UCMD**

**Saito Y<sup>1</sup>**, El Sherif R<sup>2,3</sup>, Awaya T<sup>4</sup>, Hayashi S<sup>1</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1</sup>

<sup>1</sup>Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, <sup>2</sup>Myo-Care Neuromuscular Center, Myo-Care National Foundation, <sup>3</sup>School of Medicine, New Giza University, <sup>4</sup>Department of Anatomy and Developmental Biology, Graduate School of Medicine and Faculty of Medicine, The University of Kyoto

18:15-18:45	<b>Short Oral Presentations 4</b> 📍 North Hall <b>641P, 630P, 638P, 639P, 640P</b> Moderator: Nicol Voermans, Radboud University Medical Centre	<b>Short Oral Presentations 5</b> 📍 Terrace 2A <b>586P, 50P, 97P, 96P, 51P</b> Moderator: Piera Smeriglio, Institut de Myologie	<b>Short Oral Presentations 6</b> 📍 Terrace 2B <b>496P, 686P, 594P, 595P, 403P</b> Moderator: Nigel Laing, Harry Perkins Institute of Medical Research
19:00-20:00	<b>Industry Symposium 5</b> 📍 South Hall 1  Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium		<b>Industry Symposium 6</b> 📍 South Hall 2  Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium



07:00-15:00	<b>Congress desk open</b>	
07:15-08:15	<b>NMD Board Meeting</b> 📍 Club E (separate registration required)	
08:15-09:15	<b>Industry Symposium 7</b> 📍 South Hall 1  <b>Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium</b>	<b>Industry Symposium 8</b> 📍 South Hall 2  <b>Catering provided by the sponsor for this session, available from 30 minutes prior to the start of the symposium</b>
09:30-11:00	<b>Topic 2: NMD Around the World</b> 📍 Congress Hall Moderators: <i>Hernan Gonorazky, The Hospital for Sick Children, Canada &amp; Rasha El Sherif, Newgiza University, Egypt</i>  <b>05INV</b> Advancing neuromuscular disorders in Senegal, West Africa, through collaborative networks and available resources <u>Rodriguez Cruz P<sup>1,2,3</sup></u> <sup>1</sup> Centro Nacional de Análisis Genómico (CNAG), <sup>2</sup> Neurology Department, CHNU de Fann, <sup>3</sup> Université Cheikh Anta Diop de Dakar  <b>06INV</b> What about management of neuromuscular diseases in Latin America? <u>Monges S<sup>1</sup></u> <sup>1</sup> Hospital de Pediatría J.P. Garrahan  <b>07INV</b> Neuromuscular disorders in India: New World meets the Old <u>Venugopalan Y V<sup>1</sup></u> <sup>1</sup> All India Institute of Medical Sciences  <b>08INV</b> An African perspective on muscle diseases <u>Heckmann J<sup>1</sup></u> <sup>1</sup> University of Cape Town	
11:00-11:30	<b>Morning refreshments, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer	
11:00-11:30	<b>Myology Café - Meet the WMS Myology Developments Across the World Committee</b> 📍 Forum Hall Foyer	
11:30-13:30	<b>Topic 2: NMD Around the World</b> 📍 Congress Hall Moderators: <i>Sharon Aharoni, Schneider Childrens' Medical Center, Israel &amp; Jorge Bevilacqua, Hospital Clínico Universidad De Chile &amp; Clínica Dávila, Chile</i>	
11:30-11:45	<b>070</b> Rare neuromuscular disease specific mega clinics: a proposal to bridge the gap in resource limited settings <u>Ramesh Babu R<sup>1,2</sup>, Krishna G<sup>1,2</sup>, Satyam P<sup>1,2</sup>, Rao S<sup>3</sup>, Maganthi M<sup>2</sup>, Agnes Mathew A<sup>1,2</sup></u> <sup>1</sup> Synapse Neuro Centre & Child Development Centre, Bangalore Baptist Hospital, <sup>2</sup> Bangalore Baptist Hospital, <sup>3</sup> Organization of Rare Diseases	
11:45-12:00	<b>080</b> To manually or mechanically cough: that is the question. Cough augmentation in children with neuromuscular disorders: a feasibility study <u>Human A<sup>5</sup>, Corten L<sup>3</sup>, Morrow B<sup>4</sup></u> <sup>1</sup> Department of Physiotherapy, School of Health Care Sciences, Sefako Makgatho Health Sciences University, <sup>2</sup> Department of Health and Rehabilitation Sciences (Division Physiotherapy), <sup>3</sup> School of Sport and Health Sciences (Physiotherapy), University of Brighton, <sup>4</sup> Department of Paediatrics and Child Health, University of Cape Town, <sup>5</sup> Department of Physiotherapy, School of Health Care Sciences, University of Pretoria	
12:00-12:15	<b>090</b> The clinical and molecular landscape of genetic neuromuscular disorders in Senegal, West Africa <u>Rodriguez Cruz P<sup>1,2,3</sup>, Diagne R<sup>2,3</sup>, Diop A<sup>4</sup>, Diouf A<sup>5</sup>, Ndong M<sup>6</sup>, Senghor H<sup>2</sup>, Dieng S<sup>6</sup>, Oko C<sup>2</sup>, Traoré M<sup>7</sup>, Mbaye K<sup>8</sup>, Seck L<sup>2</sup>, Sy M<sup>2</sup>, Sow A<sup>2,9</sup>, Diagne N<sup>2</sup>, Martorell Sampol L<sup>10</sup>, Nascimiento A<sup>10</sup>, Beltran S<sup>1</sup>, Ndiaye R<sup>3</sup>, Ndiaye M<sup>2,3</sup>, Diop A<sup>2,3</sup></u> <sup>1</sup> Centro Nacional de Análisis Genómico (CNAG), <sup>2</sup> Neurology Department, CHNU de Fann, <sup>3</sup> Université Cheikh Anta Diop de Dakar, <sup>4</sup> Neurology Department, Centre Hospitalier National de Pikine, <sup>5</sup> Centre Talibou Dabo, <sup>6</sup> Centre Hospitalier National d'Enfants Albert Royer, <sup>7</sup> Centre Hospitalier Roi Baudouin, <sup>8</sup> Centre Hospitalier Régional de Ziguinchor, <sup>9</sup> Centre Hospitalier National pour Enfants de Diamniado, <sup>10</sup> Hospital San Joan de Deu	

<b>12:15-12:30</b>	<p><b>100</b> The neonatal screening of SMA in Ukraine: the 18 months of experience  <u>Olkhovych N</u><sup>6</sup>, Servais L<sup>2</sup>, Makukh H<sup>3</sup>, Grechanina O<sup>4</sup>, Veropotvelyan M<sup>5</sup>, Samonenko N<sup>6</sup>, Mytsyk N<sup>2</sup>, Barvinskaya O<sup>2</sup>, Kormoz S<sup>2</sup>, Shklyarskaya T<sup>6</sup>, Gorovenko N<sup>7</sup>  <sup>1</sup>Expert Centre of Neonatal Screening, <sup>2</sup>MDUK Oxford and NIHR, University of Oxford, <sup>3</sup>Lviv Regional Centre of Neonatal Screening, <sup>4</sup>Kharkiv Regional Centre of Neonatal Screening, <sup>5</sup>Kryviy Rig Regional Centre of Neonatal Screening, <sup>6</sup>National Children's Specialized Hospital "OHMATDYT" MoH, <sup>7</sup>National University of Health Care named after P.L. Shupika</p>
<b>12:30-12:45</b>	<p><b>110</b> Genetic profile of Brazilian patients with LAMA2-related dystrophies  <u>Camelo C</u><sup>1</sup>, Moreno C<sup>1</sup>, Artilheiro M<sup>1</sup>, Fonseca A<sup>1</sup>, Gianetti J<sup>2</sup>, Barbosa A<sup>3</sup>, Donis K<sup>4</sup>, Saute J<sup>4</sup>, Pessoa A<sup>5</sup>, VanderLinden H<sup>6</sup>, Gonçalves A<sup>7</sup>, Kulikowski L<sup>1</sup>, Kok F<sup>1</sup>, Zanoteli E<sup>1</sup>  <sup>1</sup>University Of Sao Paulo, <sup>2</sup>Universidade Federal de Minas Gerais, <sup>3</sup>Fundação Hospitalar do Estado de Minas Gerais, <sup>4</sup>Hospital de Clínicas de Porto Alegre, <sup>5</sup>Children's Hospital Albert Sabin, <sup>6</sup>Rehabilitation Center Dr. Henrique Santillo, <sup>7</sup>University of Porto</p>
<b>12:45-13:00</b>	<p><b>120</b> Clinical, paraclinical features and classification of myositis in Vietnam  <u>Le S</u><sup>1</sup>, Nguyen Le Trung H<sup>2</sup>  <sup>1</sup>University Medical Center of Hochiminh, <sup>2</sup>University of Medicine and Pharmacy of Hochiminh</p>
<b>13:00-13:15</b>	<p><b>130</b> Genomic neuromuscular disorders in Turkey originate from a vast background  <u>Topaloğlu H</u><sup>1</sup>  <sup>1</sup>Yeditepe University, Pediatrics</p>
<b>13:15-13:30</b>	<p><b>140</b> Inherited Neuromuscular disorders in India: Outcomes of 1000 probands in the ICGNMD study at AIIMS New Delhi  <u>Venugopalan Y V</u><sup>1</sup>, Macken W<sup>2,3</sup>, Wilson L<sup>2</sup>, Rani N<sup>1</sup>, Reyaz A<sup>1</sup>, Ahmad T<sup>1</sup>, Dalal A<sup>4</sup>, Vandrovcova J<sup>2</sup>, Dominik N<sup>2</sup>, Consortium ICGNMD-Consortium<sup>5</sup>, Tallapaka K<sup>6</sup>, Lemmers R<sup>7</sup>, Reilly M<sup>2</sup>, Hanna M<sup>2,3</sup>, Bhatia R<sup>1</sup>, Pitceathly R<sup>2,3</sup>, Houlden H<sup>2</sup>, Thangaraj K<sup>4,6</sup>, Straub V<sup>8</sup>, Srivastava P<sup>1</sup>  <sup>1</sup>All India Institute of Medical Sciences, <sup>2</sup>Department of Neuromuscular Diseases, UCL Queen Square Institute of Neurology, <sup>3</sup>NHS Highly Specialised Service for Rare Mitochondrial Disorders, Queen Square Centre for Neuromuscular Diseases, The National Hospital for Neurology and Neurosurgery, <sup>4</sup>Centre for DNA Fingerprinting and Diagnostics, Hyderabad, <sup>5</sup><a href="https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list">https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list</a>, <sup>6</sup>Centre for Cellular &amp; Molecular Biology, <sup>7</sup>Department of Human Genetics, Leiden University Medical Center (LUMC), <sup>8</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust</p>
13:30-14:45	<b>Lunch, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer
13:30-14:45	<b>Career Development Session - Engagement with industry</b> 📍 Zoom and Panorama Rooms, 1st floor (separate registration required and lunch is provided)
15:30-17:30	<b>Poster viewing / Group activity</b> (separate registration required)
17:30-20:00	<b>Group activity networking reception</b> 📍 Kaiserstein Palace (separate registration required)

## Friday 11th October 2024

06:45-17:15	<b>Congress desk open</b>
07:30-08:30	<p><b>Interesting Case Discussions</b> 📍 South Hall 2  Moderators: A. Reghan Foley, National Institutes of Health, USA &amp; Hans-Hilmar Goebel, Charité – Universitätsmedizin Berlin, Germany</p> <p><b>Case 1:</b> HIV-associated inclusion body myositis in a young woman  Jeannine Heckmann, University of Cape Town, South Africa</p> <p><b>Case 2:</b> A muscle disorder presenting with Resistant Hypercalcaemia  Ashirwad Merve, University College London Hospitals, UK</p> <p><b>Case 3:</b> TUBA4A associated congenital myopathy with centronuclear findings and protein aggregates  Cristiane Moreno, Universidade de São Paulo, Brazil</p> <p><b>Case 4:</b> Proximal and facial weakness: Beyond FSHD  Carmen Paradas Lopez, Virgen del Rocío Hospital, Spain</p> <p><b>Case 5:</b> ADSSL1 -associated myopathy presented with EDMD like phenotype  Hacer Durmus, Istanbul Faculty of Medicine, Turkey</p>
08:30-08:45	<b>Comfort break</b>
08:45-10:15	<p><b>Topic 3: RNA in NMD: Clinical Insights, Pathomechanisms and Treatments</b>  📍 Congress Hall  Moderators: Liubov Gushchina, The Abigail Wexner Research Institute, Nationwide Children's Hospital, USA &amp; Emma Rybalka, Victoria University, Australia</p>
<b>08:45-09:15</b>	<p><b>09INV</b> An overview of the RNA pathomechanisms in neuromuscular diseases,  <u>Swanson M</u><sup>1</sup>  <sup>1</sup>University of Florida College of Medicine</p>
<b>09:15-09:45</b>	<p><b>10INV</b> Clinical and diagnostic utility of RNA/transcriptome: An overview of role of RNA in disease gene discovery and diagnostics  <u>Yoon G</u><sup>1</sup>  <sup>1</sup>The Hospital for Sick Children</p>
<b>09:45-10:00</b>	<p><b>150</b> Spatial transcriptomics analysis of Becker and Duchenne skeletal muscle to decipher histopathological alterations in dystrophinopathies  <u>Heezen L</u><sup>1</sup>, Mao Q<sup>1</sup>, van Putten M<sup>1</sup>, Diaz Manera J<sup>2</sup>, Kan H<sup>3</sup>, Niks E<sup>4</sup>, Aartsma-Rus A<sup>1</sup>, Nicolau S<sup>5</sup>, Flanigan K<sup>5,6,7</sup>, Mahfouz A<sup>1,8,9</sup>, Spitali P<sup>1</sup>  <sup>1</sup>Department of Human Genetics, Leiden University Medical Center, <sup>2</sup>Faculty of Medical Sciences, Newcastle University, <sup>3</sup>Department of Radiology, Leiden University Medical Center, <sup>4</sup>Department of Neurology, Leiden University Medical Center, <sup>5</sup>Center for Gene Therapy, The Abigail Wexner Research Institute at Nationwide Children's Hospital, <sup>6</sup>Department of Pediatrics, The Ohio State University, <sup>7</sup>Department of Neurology, The Ohio State University, <sup>8</sup>Delft Bioinformatics Lab, Delft University of Technology, <sup>9</sup>Leiden Computational Biology Center, Leiden University Medical Center</p>
<b>10:00-10:15</b>	<p><b>160</b> Lost in translation: pathogenic translation of GGC repeats in novel and toxic proteins in Oculopharyngodistal myopathy (OPDM)  <u>Boivin M</u><sup>1</sup>, Schmitt L<sup>1</sup>, Grandgirard E<sup>1</sup>, Morlet B<sup>1</sup>, Negroni L<sup>1</sup>, Goetz-Reiner P<sup>1</sup>, Lefebvre E<sup>1</sup>, Maglott A<sup>1</sup>, Eberling P<sup>1</sup>, Oulad-Abdelghami M<sup>1</sup>, Deng J<sup>2</sup>, Charlet-Berquerand N<sup>1</sup>  <sup>1</sup>IGBMC, <sup>2</sup>Peking University First Hospital</p>
10:15-10:45	<b>Morning refreshments, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer
10:15-10:45	<b>Myology Café - Meet the WMS Sustainability Committee</b> 📍 Forum Hall Foyer
10:45-12:15	<p><b>Topic 3: RNA in NMD: Clinical Insights, Pathomechanisms and Treatments</b>  📍 Congress Hall  Moderators: Gisèle Bonne, Institut de Myologie, France &amp; Silvère Van Der Maarel, Leiden University Medical Center, The Netherlands</p>
<b>10:45-11:15</b>	<p><b>11INV</b> RNA as biomarkers in neuromuscular diseases, including monitoring progression, in clinical trial design, as outcomes  <u>Spitali P</u><sup>1</sup>  <sup>1</sup>Leiden University Medical Center</p>
<b>11:15-11:45</b>	<p><b>12INV</b> RNA therapeutics in neuromuscular diseases, including new developments, and challenges  <u>Arechavala Gomez V1</u><sup>2</sup>  <sup>1</sup>Biobizkaia Health Research Institute, <sup>2</sup>Ikerbasque, Basque Foundation for Science</p>

11:45-12:00	<p><b>170 Schwann cell transduction and PMP22 target engagement in non-human primates supports translation of RNAi-based gene therapy for CMT1A</b>  <b>Wallace L<sup>1</sup></b>, Thangaraj M<sup>1</sup>, Stavrou M<sup>2</sup>, Price B<sup>3</sup>, Zender G<sup>1</sup>, Bayazit M<sup>1</sup>, Taylor N<sup>1</sup>, Kleopa K<sup>2</sup>, Harper S<sup>1,4</sup>  <sup>1</sup>Nationwide Children's Hospital, <sup>2</sup>The Cyprus Institute of Neurology &amp; Genetics, <sup>3</sup>Armatus Bio, <sup>4</sup>Department of Pediatrics, The Ohio State University College of Medicine</p>
12:00-12:15	<p><b>180 Breaking ground in CMT1B treatment: AAV9-mediated dual RNAi and gene replacement therapy targeting schwann cells improves myelination and peripheral nerve function in mice</b>  <b>McCulloch M<sup>1,2</sup></b>, Munezero D<sup>1</sup>, Paripati A<sup>1</sup>, Zhu J<sup>1</sup>, Amini Chermahini G<sup>1</sup>, Chuah R<sup>1</sup>, Rashnonejad A<sup>1,2,3</sup>  <sup>1</sup>Nationwide Children's Hospital (Center for Gene Therapy), <sup>2</sup>The Ohio State University (Molecular, Cellular, and Developmental Biology Graduate Program), <sup>3</sup>The Ohio State University (Department of Pediatrics)</p>
12:30-13:30	<b>WMS General Assembly / Poster viewing for non-members</b> 📍 South Hall 2
12:30-14:00	<b>Lunch, exhibition and posters</b> 📍 Congress Hall Foyer, Forum Hall and Forum Foyer
13:45-14:15	<b>Sponsor Meeting</b> 📍 South Boardroom 2
14:15-15:15	<p><b>Poster Session 3</b> 📍 Forum Hall (refreshments provided)</p> <p><b>55P-75P, 76VP-78VP: Distal myopathies, MFM</b></p> <p><b>55P Novel mutations and genotype-phenotype correlation in a multicenter cohort of GNE myopathy in China</b>  <b>Jiao K<sup>1</sup></b>, Zhang J<sup>1</sup>, Li Q<sup>2</sup>, Lv X<sup>3</sup>, Hong D<sup>6</sup>, Zhao Z<sup>4</sup>, Wang Z<sup>5</sup>, Zhu W<sup>1</sup>  <sup>1</sup>Department of Neurology and Rare Disease Center, Huashan Hospital, Fudan University, and National Center for Neurological Disorders (NCND), <sup>2</sup>Xiangya Hospital, Central South University, <sup>3</sup>Department of Neurology and Research Institute of Neuromuscular and Neurodegenerative Diseases, Qilu Hospital of Shandong University, <sup>4</sup>Department of Neuromuscular Disease, Third Hospital of Hebei Medical University, <sup>5</sup>The First Affiliated Hospital of Fujian Medical University, <sup>6</sup>Department of Neurology and Department of Medical Genetics, The First Affiliated Hospital of Nanchang University</p> <p><b>56P Mutational screening of Distal Myopathy gene ACTN2 reveals an aggregation hot-spot in the actin-binding domain</b>  <b>Ranta-aho J<sup>1,2</sup></b>, Jonson P<sup>1,2</sup>, Sarparanta J<sup>1,2</sup>, Udd B<sup>1,3</sup>, Savarese M<sup>1,2</sup>  <sup>1</sup>Folkhälsan Research Center, <sup>2</sup>University of Helsinki, <sup>3</sup>Tampere University and Tampere University Hospital</p> <p><b>57P Phenotypic description of 40 patients with p.Ser55Phe variant in the MYOT gene: MYOT-MUR study</b>  <b>Martínez Marín R<sup>1</sup></b>, Aledo Serrano M<sup>1</sup>, Mena Bravo A<sup>1</sup>, Lorenzo Diéguez M<sup>1</sup>, García Leal A<sup>1</sup>, Zmork Martínez G<sup>1</sup>, Pérez Lucas J<sup>2</sup>, Pérez García E<sup>1</sup>  <sup>1</sup>Hospital Universitario La Paz, <sup>2</sup>Hospital Universitario Del Tajo</p> <p><b>58P ADSSL1 myopathy in a neuromuscular cohort in Northern India</b>  <b>Reyaz A<sup>1</sup></b>, Macken W<sup>2,3</sup>, Rani N<sup>1</sup>, Ahmad T<sup>1</sup>, Tarane K<sup>1</sup>, Danish M<sup>1</sup>, ICGNMD Consortium<sup>5</sup>, Bhatia R<sup>1</sup>, Pitceathly R<sup>2,3</sup>, Thangaraj K<sup>4,6</sup>, Topf A<sup>7</sup>, Straub V<sup>7</sup>, Srivastava P<sup>1</sup>, Hanna M<sup>2,3</sup>, Venugopalan Y V<sup>1</sup>  <sup>1</sup>All India Institute Of Medical Sciences (AIIMS), <sup>2</sup>Department of Neuromuscular Diseases, UCL Queen Square Institute of Neurology, <sup>3</sup>NHS Highly Specialised Service for Rare Mitochondrial Disorders, Queen Square Centre for Neuromuscular Diseases, The National Hospital for Neurology and Neurosurgery, <sup>4</sup>Centre for DNA Fingerprinting and Diagnostics, <sup>5</sup><a href="https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list">https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list</a>, <sup>6</sup>Centre for Cellular &amp; Molecular Biology, Hyderabad, India, <sup>7</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust</p> <p><b>59P Clinical and genetic spectrum of GNE myopathy in a neuromuscular cohort in northern India</b>  <b>Rani N<sup>1</sup></b>, Macken W<sup>2,3</sup>, Reyaz A<sup>1</sup>, Ahmad T<sup>1</sup>, Tarane K<sup>1</sup>, Danish M<sup>1</sup>, Consortium ICGNMD-Consortium<sup>5</sup>, Bhatia R<sup>1</sup>, Pitceathly R<sup>2,3</sup>, Thangaraj K<sup>4,6</sup>, Topf A<sup>7</sup>, Straub V<sup>7</sup>, Srivastava P<sup>1</sup>, Hanna M<sup>2,3</sup>, Venugopalan Y V<sup>1</sup>  <sup>1</sup>All India Institute Of Medical Sciences, <sup>2</sup>Department of Neuromuscular Diseases, UCL Queen Square Institute of Neurology, London, UK, <sup>3</sup>NHS Highly Specialised Service for Rare Mitochondrial Disorders, Queen Square Centre for Neuromuscular Diseases, The National Hospital for Neurology and Neurosurgery, <sup>4</sup>Centre for DNA Fingerprinting and Diagnostics, <sup>5</sup><a href="https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list">https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/global-contributor-list</a>, UCL, UK, <sup>6</sup>Centre for Cellular &amp; Molecular Biology, <sup>7</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust</p>

### **60P Evaluation of aggregopathy markers in genetically defined Myofibrillar Myopathies**

**Iannibelli E<sup>1</sup>**, Gibertini S<sup>1</sup>, Maruotti A<sup>2</sup>, Salerno F<sup>1</sup>, Cheli M<sup>3</sup>, Vattemi G<sup>3</sup>, Tonin P<sup>3</sup>, Tasca G<sup>4</sup>, Bortolani S<sup>5</sup>, Pegoraro E<sup>6</sup>, Previtali S<sup>7</sup>, Garibaldi M<sup>8</sup>, Merlonghi G<sup>8</sup>, Filosto M<sup>9,10</sup>, Carnazzi A<sup>11</sup>, Nicolini De Gaetano L<sup>1</sup>, Riolo G<sup>1</sup>, Ruggieri A<sup>1</sup>, Maggi L<sup>1</sup>

<sup>1</sup>Istituto Neurologico Carlo Besta Fondazione IRCCS, <sup>2</sup>Libera Università Maria SS Assunta, <sup>3</sup>University of Verona, <sup>4</sup>Newcastle University and Newcastle Hospitals NHS Foundation Trusts, <sup>5</sup>Fondazione Policlinico Universitario Agostino Gemelli IRCCS, <sup>6</sup>University of Padova, <sup>7</sup>IRCCS Ospedale San Raffaele, <sup>8</sup>Sapienza University of Rome, Sant'Andrea Hospital, <sup>9</sup>University of Brescia, <sup>10</sup>NeMO-Brescia Clinical Center for Neuromuscular Diseases, <sup>11</sup>University of Milan

### **61P Characteristics of muscle computed tomography in a family with HSPB8-related rimmed vacuolar myopathy**

**Kobayashi M<sup>1</sup>**, Abe E<sup>1</sup>, Wada C<sup>1</sup>, Yokoyama E<sup>2</sup>, Hara K<sup>3</sup>, Nakayama T<sup>4</sup>, Inoue-Shibui A<sup>5</sup>, Suzuki N<sup>6</sup>, Izumi R<sup>5</sup>, Aoki M<sup>5</sup>, Nishino I<sup>7</sup>, Ishihara T<sup>1</sup>, Toyoshima I<sup>1</sup>

<sup>1</sup>Department of Neurology, NHO Akita National Hospital, <sup>2</sup>Department of Rehabilitation, Akita Prefectural Center for Rehabilitation and Psychiatric Medicine, <sup>3</sup>Department of Neurology, Japanese Red Cross Akita Hospital, <sup>4</sup>Department of Neurology, Yokohama Rosai Hospital, <sup>5</sup>Department of Neurology, Tohoku University Graduate School of Medicine, <sup>6</sup>Department of Rehabilitation Medicine, Tohoku University Graduate School of Medicine, <sup>7</sup>Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry

### **62P Axial involvement as a prominent feature in SMPX-related distal myopathy**

**Omar Mohamed Salman D<sup>1</sup>**, C. Bolano-Diaz C<sup>1</sup>, Muni-Lofra R<sup>1</sup>, Wong K<sup>1</sup>, Elseed M<sup>1</sup>, Harris E<sup>1,2</sup>, Diaz-Manera J<sup>1</sup>, Guglieri M<sup>1</sup>, Marini-Bettolo C<sup>1</sup>, Straub V<sup>1</sup>, Tasca G<sup>1</sup>

<sup>1</sup>The John Walton muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University, <sup>2</sup>Northern Genetics Service, Institute of Genetic Medicine

### **63P Identifying the disease-causing variant in a large family, with a late-onset dominant distal myopathy**

**Turku T<sup>1</sup>**, Savarese M<sup>1</sup>, Johari M<sup>1,2</sup>, Soininen M<sup>1</sup>, Hoischen A<sup>3,4</sup>, Steehouwer M<sup>3</sup>, Roos A<sup>5,6</sup>, Preuße C<sup>7,8</sup>, Stenzel W<sup>7</sup>, Wallgren-Pettersson C<sup>1</sup>, Pelin K<sup>1</sup>, Udd B<sup>1</sup>, Hackman P<sup>1</sup>

<sup>1</sup>The Folkhälsan Research Center, <sup>2</sup>Harry Perkins Institute of Medical Research, Centre for Medical Research, <sup>3</sup>Department of Human Genetics, Radboud University Medical Center, <sup>4</sup>Department of Internal Medicine, Radboud Institute for Molecular Life Sciences, Radboud Expertise Center for Immunodeficiency and Autoinflammation and Radboud Center for Infectious Disease (RCI), Radboud University Medical Center, <sup>5</sup>Pediatric Neurology, Faculty of Medicine, University Children's Hospital, University of Duisburg-Essen, <sup>6</sup>Brain and Mind Research Institute, Children's Hospital of Eastern Ontario Research Institute, <sup>7</sup>Department of Neuropathology, Charité-Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin, Humboldt-Universität Zu Berlin, Berlin Institute of Health (BIH), <sup>8</sup>Department of Neuropediatrics, Charité-Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin, Humboldt-Universität Zu Berlin, Berlin Institute of Health (BIH)

### **64P Effects of autophagy stimulation in the Tibial muscular dystrophy mouse model**

**Sarparanta J<sup>1,2</sup>**, Suel-Petat L<sup>3</sup>, Luque H<sup>1,2</sup>, Jonson P<sup>1,2</sup>, Deste G<sup>4</sup>, Vihola A<sup>1</sup>, Barresi R<sup>4</sup>, Udd B<sup>1,2,5</sup>, Richard I<sup>3</sup>

<sup>1</sup>Folkhälsan Research Center, <sup>2</sup>Medicum, University of Helsinki, <sup>3</sup>Généthon, <sup>4</sup>San Camillo IRCCS, <sup>5</sup>Neuromuscular Research Center, Tampere University Hospital

### **65P Striking periscapular muscle hypertrophy as the presenting symptom in a 5-month old infant diagnosed with a MYH7 congenital myopathy: report of a case**

**Deconinck N<sup>1</sup>**, Coppens S<sup>2</sup>, Vilain C<sup>2</sup>, Remiche G<sup>3</sup>, Semal B<sup>2</sup>, Presiozi M<sup>4</sup>, Lecomte S<sup>5</sup>, Dontaine P<sup>1</sup>

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### **66P Clinical and molecular complexity in Desminopathy: description of a novel variant in DES gene**

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### **67P ADSS1 Myopathy in Korea: a comprehensive analysis of clinical, laboratory, radiological, pathological, and genetic features**

**Kim S<sup>1</sup>**, Choi Y<sup>1</sup>, Kim W<sup>2</sup>, Park H<sup>1</sup>, Choi Y<sup>1</sup>

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**68P Induced muscle and liver absence of Gne in postnatal mice does not result in structural or functional muscle impairment**

**Mitrani-Rosenbaum S<sup>1</sup>**, Harazi A<sup>1</sup>, Yakovlev L<sup>1</sup>, Ilouz N<sup>1</sup>, Selke P<sup>2</sup>, Horstkorte R<sup>2</sup>, Argov Z<sup>3</sup>

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**69P Medaka fish *Oryzias latipes* a new vertebrate model for Titinopathies: the HMERF case study**

**Cetrangolo V<sup>1,2</sup>**, Savarese M<sup>1,5</sup>, Linari M<sup>4</sup>, Polishchuk E<sup>2</sup>, Conte I<sup>7</sup>, Nigro V<sup>2,3</sup>, Udd B<sup>1,5,6</sup>

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**70P Defining the landscape of TIA1 and SQSTM1 Digenic Myopathy**

**Fernández-eulate G<sup>1</sup>**, Panos-Basterra P<sup>2</sup>, Theuriet J<sup>3</sup>, Nadaj-Pakleza A<sup>4</sup>, Magot A<sup>5</sup>, Lannes B<sup>6</sup>, Marcorelles P<sup>7</sup>, Behin A<sup>1</sup>, Masingue M<sup>1</sup>, Caillon F<sup>8</sup>, Malek Y<sup>3</sup>, Fenouil T<sup>9</sup>, Bas J<sup>10</sup>, Menassa R<sup>11</sup>, Michel-Calemard L<sup>11</sup>, Streichenberger N<sup>9</sup>, Simon J<sup>12</sup>, Bouhour F<sup>3</sup>, Evangelista T<sup>1</sup>, Méta y C<sup>13</sup>, Pegat A<sup>3</sup>, Stojkovic T<sup>1</sup>

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**71P Phase II/III and efficacy confirmation study of aceneuramic acid for GNE myopathy in Japan**

**Suzuki N<sup>1,10</sup>**, Mori-Yoshimura M<sup>2</sup>, Katsuno M<sup>3,4</sup>, Takahashi M<sup>5</sup>, Yamashita S<sup>6</sup>, Oya Y<sup>2</sup>, Hashizume A<sup>3,4</sup>, Yamada S<sup>3</sup>, Nakamori M<sup>5</sup>, Izumi R<sup>1</sup>, Kato M<sup>1</sup>, Warita H<sup>1</sup>, Tateyama M<sup>1</sup>, Kuroda H<sup>1</sup>, Asada R<sup>7</sup>, Yamaguchi T<sup>8</sup>, Nishino I<sup>9</sup>, Aoki M<sup>1</sup>

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**72P Skeletal muscle pathology in plectinopathies**

**Winter L<sup>1</sup>**

<sup>1</sup>Medical University of Vienna

**73P Peripheral Neuropathy in Myofibrillar Myopathies (MFM) and MFM gene-related myopathies**

**Wannarong T<sup>1</sup>**, Milone M<sup>1</sup>, Selcen D<sup>1</sup>, Dyck P<sup>1</sup>, Liewluck T<sup>1</sup>

<sup>1</sup>Mayo Clinic

**74P Update on GNE-myopathy: introduction of tissue and blood biomarkers and a novel homozygous missense variant associated with early disease onset and proximal involvement**

**Roos A<sup>1,7,10</sup>**, Döbelmann V<sup>1</sup>, Hentschel A<sup>2</sup>, Hagenacker T<sup>3</sup>, Derksen A<sup>4</sup>, Osmanovic A<sup>5</sup>, Evangelista T<sup>6</sup>, Gangfuss A<sup>7</sup>, Kaiser F<sup>8</sup>, Schara-Schmidt U<sup>7</sup>, Ruck T<sup>1</sup>, Savarese M<sup>9</sup>, Lochmüller H<sup>4</sup>

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### **75P Evaluation of clinico-pathological and genetic spectrum of FLNC mutations in Indian cohort**

**Sharma M<sup>1</sup>**, Dhall A<sup>1</sup>, Jassal B<sup>1</sup>, Suri V<sup>1</sup>, Faruq M<sup>1</sup>, Shamim U<sup>1</sup>, Bhatia R<sup>1</sup>, Venugopalan Y V<sup>1</sup>, Chakarwanti B<sup>1</sup>, Gulati S<sup>1</sup>

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### **76VP Myofibrillar Myopathy with cardiomyopathy, lipid accumulation and sarcoplasmic reticulum dilation**

**Cotta A<sup>1</sup>**, Carvalho E<sup>1</sup>, da-Cunha-Júnior A<sup>1</sup>, Menezes M<sup>1</sup>, da Silveira E<sup>2</sup>, Costa-e-Silva C<sup>2</sup>, da-Silva-Neto R<sup>1</sup>, Cauhi A<sup>1</sup>, Valicek J<sup>1</sup>, Vargas A<sup>1</sup>

<sup>1</sup>The Sarah Network of Rehabilitation Hospitals, <sup>2</sup>The Sarah Network of Rehabilitation Hospitals

### **77VP GNE myopathy: Phenotypic diversity in 10-year study of National registry in Japan and correlation of the diaphragm with respiratory function**

**Yoshioka W<sup>1</sup>**, Mori-Yoshimura M<sup>1</sup>, Oba M<sup>1</sup>, Saito Y<sup>1</sup>, Oya Y<sup>1</sup>, Eura N<sup>1</sup>, Hayashi S<sup>1</sup>, Kimura Y<sup>1</sup>, Sato N<sup>1</sup>, Nakamura H<sup>1</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1</sup>

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### **78VP Pathogenic NARS1 mutations identified as the cause of neurodevelopmental delay, microcephaly and peripheral neuropathy in two related patients**

**Vlachou V<sup>1</sup>**, Abed Alrahman R<sup>1</sup>, Majumdar A<sup>1</sup>

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## **182P-203P: SMA outcome measures and registries**

### **182P Impact of nusinersen on the health-related quality of life and caregiver burden in patients with Spinal Muscular Atrophy with symptom onset before age 6 months**

**Lee Y<sup>1</sup>**, Bae H<sup>1</sup>, Shim Y<sup>2</sup>, Cho J<sup>3</sup>, Yun J<sup>4</sup>, Lee H<sup>5</sup>, Chae J<sup>6</sup>, Kwon S<sup>1</sup>

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### **183P CuidAME: The Spanish longitudinal Registry of SMA patients. A global view in 2024**

**Nascimento Osorio A<sup>1</sup>**, García Uzquiano R<sup>1</sup>, Puig C<sup>1</sup>, Fernandez M<sup>2</sup>, Nungo N<sup>3</sup>, Exposito J<sup>1</sup>, Calvo R<sup>4</sup>, Alvarez M<sup>5</sup>, Lopez M<sup>6</sup>, Martinez E<sup>7</sup>, Grimalt M<sup>8</sup>, Fernandez J<sup>9</sup>, Navarro V<sup>10</sup>, Urbano M<sup>11</sup>, Martinez M<sup>12</sup>, Gonzalez D<sup>13</sup>, Sariego A<sup>14</sup>, Sardina M<sup>15</sup>, Marti I<sup>16</sup>, CuídAME Study Group<sup>1</sup>

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### **184P The integration of PROMs and clinician reported data: a holistic approach to characterise disease burden and treatment impact**

**Walker H<sup>1</sup>**, Page J<sup>1</sup>, Murphy L<sup>1</sup>, Segovia S<sup>1</sup>, Karkkainen E<sup>1</sup>, Cavalcante E<sup>2</sup>, Madden M<sup>2</sup>, Adcock K<sup>3</sup>, Farrugia M<sup>4</sup>, Irwin J<sup>5</sup>, Lilleker J<sup>6</sup>, McConville J<sup>7</sup>, Merrison A<sup>8</sup>, Parton M<sup>9</sup>, Ryburn L<sup>10</sup>, Muni-Lofra R<sup>1</sup>, Scoto M<sup>2</sup>, Marini-Bettolo C<sup>1</sup>

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### **185P Spinal Muscular Atrophy diagnosis in Latin American: The LATAM RegistrAME clinical registry**

**Carneiro Batista E<sup>1</sup>**, Zanoteli E<sup>2</sup>, Rodrigues Sant'Anna V<sup>1</sup>, Miranda Duarte F<sup>1</sup>, de Piano L<sup>1</sup>, de Pedri E<sup>1</sup>, de Albuquerque C<sup>1</sup>, Pedro I<sup>1</sup>, Serapião A<sup>1</sup>, Moia D<sup>1</sup>, Carioca A<sup>1</sup>, Sampaio B<sup>1</sup>, Monfardini F<sup>1</sup>, dos Santos G<sup>1</sup>, Soares R<sup>1</sup>, Silva G<sup>1</sup>, Berwanger O<sup>3</sup>, Rizzo L<sup>1</sup>, Fonseca H<sup>1</sup>, Medical team at the centers T<sup>4</sup>

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### **186P Demographic and clinical characteristics of risdiplam-treated and untreated adult patients with SMA**

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### **187P French HCPs approach to evaluating SMA adult patients with severe disabilities: a qualitative study**

**Laforêt P<sup>24,23</sup>**, Montagu G<sup>4</sup>, Boyer F<sup>5,6</sup>, Gargiulo M<sup>7,8</sup>, Pouplin S<sup>9,10</sup>, Barrière A<sup>11</sup>, Berling E<sup>1,2</sup>, Bonnyaud C<sup>9,10</sup>, Cintas P<sup>12</sup>, Hogrel J<sup>7</sup>, Le Goff L<sup>13</sup>, Marchadier B<sup>14</sup>, N'Dah Sékou G<sup>1,2</sup>, Orlikowski D<sup>2,15,16,17</sup>, Prigent H<sup>2,17,18</sup>, Ropars J<sup>19,20</sup>, Salort-Campana E<sup>21,22</sup>, Stojkovic T<sup>7,23</sup>, Attarian S<sup>21,22</sup>

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### **188P Easy neurocognitive and social evaluation could detect abnormal neurodevelopment in SMA Type 1**

**Alvarez Molinero M<sup>1</sup>**, Pires N<sup>2</sup>, Garcia Uzquiano R<sup>2</sup>, Gómez Garcia de la Banda M<sup>2</sup>, Costa Comellas L<sup>1</sup>, Ventura Expósito L<sup>1</sup>, Munell Casadesús F<sup>1</sup>, Benezit A<sup>2</sup>, Gómez Andrés D<sup>1</sup>, Quijano Roy S<sup>2</sup>

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### **189P Diagnostic journey of SMA patients in a reference center in Brazil**

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### **190P Spectrum of phenotypes in SMA patients with four SMN2 copies in France (Registre SMA France)**

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### **191P Characterization of patients SMA diagnosed in Algeria**

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### **192P A community-based experience with the new 12-Tier functional ability scale for Evolving Spinal Muscular Atrophy (EVOLVE-SMA)**

**Moore Burk M<sup>1,2</sup>**, Johnson K<sup>2,3</sup>, Crawford T<sup>4</sup>, Apkon S<sup>1</sup>, Duong T<sup>5</sup>, Krosschell K<sup>6</sup>, EVOLVE-SMA Working Group<sup>1,4,6</sup>

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### **193P Use of European rare disease registries to describe the natural history and disease progression of Spinal Muscular Atrophy (SMA) over time**

**Bennett N<sup>1</sup>**, Deltour N<sup>4</sup>, Garry E<sup>2</sup>, Ferreras A<sup>4</sup>, Jacquot E<sup>4</sup>, McElwee S<sup>2</sup>, Sajedian R<sup>2</sup>, Kurteva S<sup>4</sup>, Boin E<sup>4</sup>, Poll A<sup>1</sup>, Davies R<sup>11</sup>, Walter M<sup>5</sup>, Jagut M<sup>6</sup>, Haberlová J<sup>7</sup>, Cattinari M<sup>8</sup>, Marini-Bettolo C<sup>9</sup>, Ekström A<sup>10</sup>, de Lemus Belmonte M<sup>3</sup>, Breen K<sup>3</sup>, Servais L<sup>12</sup>

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### **194P Longitudinal assessment of the Adapted Test for Neuromuscular Disease (ATEND) in individuals living with Spinal Muscular Atrophy (SMA)**

**Duong T<sup>1</sup>**, Muni-Lofra R<sup>2</sup>, Pasternak A<sup>3</sup>, Tang W<sup>1</sup>, Gu B<sup>1</sup>, Dunaway Young S<sup>1</sup>, Wilson A<sup>7</sup>, Harrington A<sup>4</sup>, de Monts C<sup>1</sup>, Jeworek A<sup>5</sup>, Moore Burke M<sup>8</sup>, Maczek E<sup>3</sup>, McIntyre M<sup>7</sup>, Salvatore S<sup>1</sup>, Smith S<sup>1</sup>, Smith R<sup>4</sup>, Hsu L<sup>1</sup>, He Z<sup>1</sup>, Glanzman A<sup>6</sup>, Day J<sup>1</sup>

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### **195P Real-world data on the effectiveness and safety of Onasemnogene abeparvovec in Spinal Muscular Atrophy**

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### **196P Profiling neuroinflammatory markers in CSF from paediatric SMA patients in response to nusinersen treatment**

**Zhang Q<sup>1</sup>**, Hong Y<sup>2</sup>, Brusa C<sup>3</sup>, Scoto M<sup>3</sup>, Cornell N<sup>3</sup>, Patel P<sup>1</sup>, Boukhlofi I<sup>3</sup>, Baranello G<sup>3</sup>, Muntoni F<sup>3,4</sup>, Zhou H<sup>1,4</sup>

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### **197P Survival of SMA type 1 and type 0 infants at the time of disease modifying therapies: results of a 8-year nationwide registry**

**Coratti G<sup>1</sup>**, Pera M<sup>1</sup>, Agosto C<sup>2</sup>, D'Amico A<sup>3</sup>, Ricci F<sup>4</sup>, Sansone V<sup>5</sup>, Masson R<sup>6</sup>, Bruno C<sup>7</sup>, Varone A<sup>8</sup>, Pane M<sup>1</sup>, Mercuri E<sup>1</sup>

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### **198P Longitudinal evaluation of fatigue in adult patients with Spinal Muscular Atrophy and the impact of treatment with disease-modifying drugs**

**Graca F<sup>1</sup>**, Iwabe C<sup>1</sup>, C França Jr. M<sup>1</sup>

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### **199P The use of the Motor Unit Number Index (MUNIX) as a biomarker for disease progression in Late-Onset 5q-Spinal Muscular Atrophy treated with Nusinersen**

**Holanda Mendonca R<sup>1</sup>**, Pedro Soares Baima J<sup>1</sup>, Jorge Polido G<sup>1</sup>, Otto Heise C<sup>1</sup>, Zanoteli E<sup>1</sup>

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### **200P Minimal detectable change of the Revised Hammersmith Scale in patients with Spinal Muscular Atrophy**

**O'reilly E<sup>1,2</sup>**, Stimpson G<sup>2</sup>, Rohwer A<sup>1,2</sup>, Baranello G<sup>1,2,3</sup>, Muntoni F<sup>1,2,3</sup>, Scoto M<sup>1,2,3</sup>, On behalf of SMA REACH UK<sup>2</sup>

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### **201P Natural history of Spinal Muscular Atrophy patients with 3 and 4 copies of SMN2 gene – data from the national Spanish registry (CUIDAME)**

**Aragon Gawinska K<sup>1</sup>**, Fernández García M<sup>2</sup>, Nascimento Osorio A<sup>3</sup>, Paradas C<sup>4</sup>, Sotoca J<sup>5</sup>, Povedano M<sup>6</sup>, Moreno A<sup>7</sup>, Henao M<sup>8</sup>, Gil C<sup>9</sup>, Rojas R<sup>10</sup>, Gómez Caravaca M<sup>11</sup>, Grimalt M<sup>12</sup>, Fernández Torron R<sup>13</sup>, Jericó I<sup>14</sup>, García Campos O<sup>15</sup>, Toledo Bravo de Laguna L<sup>16</sup>, Hervás D<sup>17</sup>, Tizzano E<sup>18</sup>, Vázquez Costa J<sup>19,20</sup>, on behalf of CUIDAME Investigators Group

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### **202P Descriptive analysis of the Spinal Muscular Atrophy population treated with Nusinersen included in the CuidAME project**

**Sotoca Fernandez J<sup>1</sup>**, Puig C<sup>2</sup>, García-Uzquiano R<sup>2</sup>, García-Romero M<sup>3</sup>, Pitarch-Castellanos I<sup>4</sup>, Vázquez-Costa J<sup>4</sup>, Paradas C<sup>5</sup>, Povedano M<sup>6</sup>, Gómez-Caravaca M<sup>7</sup>, Álvarez-Molinuevo M<sup>8</sup>, Gómez-Andrés D<sup>8</sup>, Munell F<sup>8</sup>, Grimalt M<sup>9</sup>, Calvo R<sup>10</sup>, Henao M<sup>11</sup>, Jericó I<sup>12</sup>, Fernández-García M<sup>3</sup>

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### **203P Towards a better analysis of SMN2 structures and variants by complete sequencing of the SMN locus in an international cohort of 564 SMA patients**

**Tizzano E<sup>1,2</sup>**, Costa-Roger M<sup>1,2</sup>, Blasco-Pérez L<sup>1,2</sup>, Tenés A<sup>1</sup>, Martínez-Cruz D<sup>1</sup>, Leno-Colorado J<sup>1,2</sup>, Civit D<sup>1,2</sup>, Codina-Sola M<sup>1,2</sup>

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### **247P-265P, 266VP: Neuromuscular disorders around the world**

#### **247P A population-based survey on the knowledge, perception and attitudes towards rare diseases and gene therapy in Belgium: focus on Duchenne Muscular Dystrophy**

**Van Stappen T<sup>1</sup>**, Verschelden M<sup>1</sup>, Samyn W<sup>2</sup>, Minnebo J<sup>2</sup>, Mommen M<sup>1</sup>

<sup>1</sup>Pfizer, <sup>2</sup>Indiville, Leuven

#### **248P Spinal Muscular Atrophy in Latin American: patient journey observed in regional registry**

**Carneiro Batista E<sup>1</sup>**, Zanoleli E<sup>2</sup>, Rodrigues Sant'Anna V<sup>1</sup>, Miranda Duarte F<sup>1</sup>, de Piano L<sup>1</sup>, de Pedri E<sup>1</sup>, de Albuquerque C<sup>1</sup>, Pedro I<sup>1</sup>, Serapião A<sup>1</sup>, Moia D<sup>1</sup>, Carioca A<sup>1</sup>, Sampaio B<sup>1</sup>, Monfardini F<sup>1</sup>, dos Santos G<sup>1</sup>, Soares R<sup>1</sup>, Silva G<sup>1</sup>, Berwanger O<sup>3</sup>, Rizzo L<sup>1</sup>, Fonseca H<sup>1</sup>, Medical team at the centers T<sup>4</sup>

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### **249P Clinical characteristics of the Spinal Muscular Atrophy patients identified in the Brazilian public health system**

**Batista EC**<sup>1</sup>, **Zanoteli E**<sup>2</sup>, Ortega AB<sup>3</sup>, Junior MCF<sup>4</sup>, .Saute JAM<sup>5</sup>, Oliveira ASB.<sup>6</sup>, Giannetti JG<sup>7</sup>, Pessoa ALS<sup>8</sup>, Prufer A<sup>9</sup>, Boy R<sup>10</sup>, . Junior FGB<sup>1</sup>, de Albuquerque CSN<sup>1</sup>, Moia DDF<sup>1</sup>, Monfardini F<sup>1</sup>, Santos GP<sup>1</sup>, Soares RVP<sup>1</sup>, SilvaGS<sup>1</sup>, Rizzo LV<sup>1</sup>,. Berwanger O<sup>11</sup>, Fonseca HAR<sup>1</sup>

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### **250P Prevalence of Duchenne Muscular Dystrophy in Italy: a nationwide survey**

**Cicala G**<sup>1,2</sup>, Capasso A<sup>1</sup>, Ricci M<sup>1</sup>, Pane M<sup>1</sup>, D'Amico A<sup>3</sup>, Bruno C<sup>4</sup>, Sansone V<sup>5</sup>, Messina S<sup>6</sup>, Bello L<sup>7</sup>, Masson R<sup>8</sup>, Berardinelli A<sup>9</sup>, Pini A<sup>10</sup>, Ricci F<sup>11</sup>, Mongini T<sup>12</sup>, Nigro V<sup>13</sup>, Comi G<sup>14,15</sup>, Battini R<sup>16,17</sup>, Arpaia C<sup>1</sup>, Coratti G<sup>1</sup>, Mercuri on behalf of the Italian DMD group E<sup>1</sup>

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### **251P Latin-SEQ: a collaborative network to provide genetic diagnosis to patients with neuromuscular diseases in Latin America – project update**

**Topf A**<sup>1</sup>, Gonzalez-Chamorro A<sup>1</sup>, Laurie S<sup>2,3</sup>, Papakonstantinou Ntalas A<sup>2,3</sup>, Latin-SEQ Consortium<sup>1</sup>, Diaz-Manera J<sup>1</sup>

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### **252P Natural history and quality of life study on muscular dystrophies in adulthood (Muskel-LIV): study design and conduct**

**Nordström S**<sup>1,2</sup>, Wahlgren L<sup>1,2</sup>, Lindberg C<sup>1,2</sup>, Tulinius M<sup>1</sup>, Sofou K<sup>1,2</sup>

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### **253P International Centre for Genomic Medicine in Neuromuscular Diseases: analysis and characterization of the muscular dystrophy cohort from India**

**Luce L**<sup>1</sup>, Vengalil S<sup>3</sup>, Nashi S<sup>3</sup>, Srivastava K<sup>3</sup>, Manoj R<sup>3</sup>, Reyaz A<sup>4</sup>, Chaudhary N<sup>4</sup>, Ahmad T<sup>4</sup>, Naveena M<sup>5</sup>, Vandrovцова J<sup>2</sup>, ICGNMD Consortium, Yareeda S<sup>5</sup>, Bhatia R<sup>4</sup>, Venugopalan VY<sup>4</sup>, Srivastava P<sup>4</sup>, Nalini A<sup>3</sup>, Töpf A<sup>1</sup>, Straub V<sup>1</sup>

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### **254P "Where can I find a specialized physiotherapist for someone like me?" - A Norwegian innovation project**

**Ramberg C**<sup>1</sup>, Hevnskjel Ringvold G<sup>1</sup>, Ladehaug T<sup>2</sup>, Stokke S<sup>3</sup>, Ørstavik K<sup>4</sup>, Dybesland Rosenberger A<sup>1</sup>

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**255P Relevance of muscle biopsies in the neonatal period: a 52-year retrospective study in the gene-sequencing era**

Bui M<sup>1</sup>, Fernández-Eulate G<sup>2</sup>, Evangelista T<sup>1</sup>, Lacène E<sup>1</sup>, Brochier G<sup>1</sup>, Labasse C<sup>1</sup>, Madelaine A<sup>1</sup>, Chanut A<sup>1</sup>, Beuvin M<sup>1</sup>, Borsato-Levy F<sup>1</sup>, Biancalana V<sup>3</sup>, Barcia G<sup>2</sup>, De Lonlay P<sup>2</sup>, Laporte J<sup>4</sup>, **Bohm J**<sup>4</sup>, Romero N<sup>1</sup>

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**256P Establishing healthy muscle references and cutoff values for quantitative muscle ultrasound as a foundation for future diagnostic and research use in the neuromuscular clinic**

**Haestad C**<sup>1</sup>, Ramberg C<sup>1</sup>, Rosenberger A<sup>1</sup>, Arntzen K<sup>1,2</sup>

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**257P Interim analysis of an integrated interdisciplinary diagnostic pathway in a cohort of unsolved pediatric neuromuscular disorders**

**Haliloğlu G**<sup>1</sup>, Donkervoort S<sup>2</sup>, Öz Yildiz S<sup>1</sup>, Özel E<sup>1</sup>, Pais L<sup>3,4</sup>, Ganesh V<sup>3,4,5</sup>, O'Donnell-Luria A<sup>3,4</sup>, Bönnemann C<sup>2</sup>

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**258P Safety and tolerability of Onasemnogene Apeparvovec for patients with Spinal Muscular Atrophy weighing ≤17 kg and ≤24 months old: phase 4 OFELIA study**

**Zanoteli E**<sup>1</sup>, Muntadas J<sup>2</sup>, Gurgel-Gianetti J<sup>3</sup>, Monges S<sup>4</sup>, Aliberti P<sup>5</sup>, Alecu I<sup>6</sup>, Ritter S<sup>7</sup>, Martins de Lana J<sup>8</sup>, Mumneh N<sup>7</sup>, Saute J<sup>9,10</sup>

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**259P The 'muscle toolbox': harmonising diagnosis and follow-up for neuromuscular disorders across three Dutch academic hospitals**

**Cameron D**<sup>1</sup>, van Doorn J<sup>1</sup>, Heskamp L<sup>2</sup>, Rauh S<sup>3</sup>, Becks R<sup>1</sup>, Kruit M<sup>3</sup>, Nievelstein R<sup>2</sup>, Tromp S<sup>3</sup>, Tannemaat M<sup>3</sup>, Braakman H<sup>1</sup>, Erasmus C<sup>1</sup>, Houwen-van Opstal S<sup>1</sup>, Niks E<sup>3</sup>, van der Pol L<sup>2</sup>, Kan H<sup>3</sup>, Froeling M<sup>2</sup>, Bartels B<sup>2</sup>, van Alfen N<sup>1</sup>

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**260P NEUROMYODredger – 3 billion megaproject: expanding the accessibility of exome sequencing for the diagnosis of neurodevelopmental and neuromuscular disorders in nine countries**

**Malfatti E**<sup>1</sup>, Caramizaru A<sup>2</sup>, Lee H<sup>3</sup>, Kim J<sup>3</sup>, Shoaibo H<sup>4</sup>, Pennisi A<sup>1</sup>, Fahmi N<sup>5</sup>, Escobar-Cedillo R<sup>6</sup>, Miranda-Duarte A<sup>6</sup>, Nouioua S<sup>7</sup>, Benchaabi O<sup>7</sup>, Martinez P<sup>8</sup>, Castiglioni C<sup>9</sup>, Dobrescu A<sup>2</sup>, Tajsharghi H<sup>10</sup>

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**261P Insights into Facioscapulohumeral dystrophy in African individuals: clinical and molecular findings from a collaborative study**

**Rodriguez Cruz P**<sup>1,2,3</sup>, Diagne R<sup>2,3</sup>, Henning F<sup>4</sup>, Naidu K<sup>4</sup>, Heckmann J<sup>5</sup>, Floudiotis N<sup>5</sup>, Malfatti E<sup>6</sup>, Kamissoko Y<sup>7</sup>, Leturcq F<sup>8</sup>, Urtizberea A<sup>9</sup>, Tellez M<sup>10</sup>, Elsheikh B<sup>10</sup>, Beltran S<sup>1</sup>, Diop A<sup>2,3</sup>, Ndiaye M<sup>2,3</sup>, Hodes R<sup>1</sup>, Voermans N<sup>12</sup>, Van der Vliet P<sup>13</sup>, Van der Maarel S<sup>13</sup>, Lemmers R<sup>13</sup>

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**262P A global analysis of the CMT1A locus: implications for the origin and susceptibility to Charcot- Marie-Tooth disease type 1A across populations**

**Rodriguez Cruz P**<sup>1,2,3</sup>, Alitsiou A<sup>1</sup>, Diagne R<sup>2,3</sup>, Lia-Baldini A<sup>4</sup>, Ghorab K<sup>5</sup>, Gallo Diop A<sup>2,3</sup>, Ndiaye M<sup>2,3</sup>, Beltran S<sup>1</sup>, Lao O<sup>7</sup>

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**263P Updated genetic testing in heart-transplant recipients in Norway between 1983-2022 uncovering genes relevant to neuromuscular disorders**

**Benterud A**<sup>1,2</sup>, Haug Popperud T<sup>1,3</sup>, Broch K<sup>4</sup>, Hasselberg N<sup>4</sup>, Prøven Bogsrud M<sup>5</sup>, Berge K<sup>5</sup>, Haugaa K<sup>4,6</sup>, Ørstavik K<sup>1,3</sup>

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**264VP A nationwide register study on the epidemiology of Duchenne Muscular Dystrophy (DMD) in Finland**

**Auranen M**<sup>1</sup>, Kytälä M<sup>2</sup>, Vesikansa A<sup>3</sup>, Mehtälä J<sup>3</sup>, Isohanni P<sup>4,5</sup>, Kosunen M<sup>2</sup>

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**265P Effective supplementation of 6'-sialyllactose in GNE Myopathy: the results from a placebo-controlled, pilot study**

**Park Y**<sup>1,2</sup>, Kim D<sup>2,3</sup>, Choi J<sup>4</sup>, Jung J<sup>4</sup>, Kim L<sup>4</sup>, Shin J<sup>2,3</sup>

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**266VP Cardiovascular comorbidities in Myasthenia Gravis: a systematic review and meta-analysis**

**Tahir S**<sup>1</sup>, Iguh C<sup>1</sup>, Sadik O<sup>2</sup>, Duggirala N<sup>3</sup>, Ezenwa V<sup>1</sup>, Ahmed S<sup>1</sup>

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**280P-315P, 316VP-317VP: Dystrophinopathies (animals models, biomarkers, brain, genetics)**

**280P Technology-enabled assessment of cognition to facilitate democratization of brain health in Duchenne Muscular Dystrophy**

**Thangarajh M**<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University

**281P Prognostic significance of ACTN3 genotype in Duchenne Muscular Dystrophy: findings from an Argentine patient cohort**

**Luce L**<sup>1,2,3</sup>, Mazzanti C<sup>1,2</sup>, Carcione M<sup>1,2</sup>, Llamas Massini C<sup>1,2</sup>, Buonfiglio P<sup>4</sup>, Dalamón V<sup>4</sup>, Bolaño Díaz C<sup>3,5</sup>, Mesa L<sup>5</sup>, Dubrovsky A<sup>5</sup>, Cotignola J<sup>6,7</sup>, Giliberto F<sup>1,2</sup>

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**282P Biomarker panel for Duchenne Muscular Dystrophy clinical trials**

**Tsioutsias I**<sup>1</sup>, Bautista A<sup>1</sup>, Terrill J<sup>1</sup>, Bakker A<sup>1</sup>, Pinniger G<sup>1</sup>, Arthur P<sup>1</sup>

<sup>1</sup>The University of Western Australia

**283P Generation of cardiomyocyte cell models for personalized medicine**

**Nhi P**<sup>1</sup>, Åstrand C<sup>1</sup>, Hedhammar M<sup>1</sup>, Al-Khalili Szigyarto C<sup>1</sup>

<sup>1</sup>KTH Royal Institute of Technology

**284P Suspension bead array profiling of 1018 serum proteins in search for disease progression biomarkers for Duchenne Muscular Dystrophy**

**Jiménez-Requena Carrasco A**<sup>1</sup>, Ajeenah A<sup>1</sup>, Johansson C<sup>1</sup>, Naveed A<sup>5</sup>, Tobin R<sup>2</sup>, Degan C<sup>3</sup>, de Vries S<sup>3</sup>, van der Burgt Y<sup>3</sup>, Díaz-Manera J<sup>4</sup>, Guglieri M<sup>4</sup>, CINRG-DNHS Investigators C, for DMD investigators, Dang U<sup>2</sup>, Tsonaka R<sup>3</sup>, Spitali P<sup>3</sup>, Hathout Y<sup>5</sup>, Al-Khalili Szigyarto C<sup>1</sup>

<sup>1</sup>KTH University, Protein Science Department, <sup>2</sup>Carleton University, <sup>3</sup>Leiden University Medical Center, <sup>4</sup>Newcastle University, <sup>5</sup>Binghamton University

**285P AAV-delivered U7snRNA restores full-length dystrophin in patient cell lines with DMD intronic pseudoexon mutations**

**Beljan J**<sup>1</sup>, Gushchina L<sup>1</sup>, Lin H<sup>1</sup>, Nicolau S<sup>1,2,3</sup>, Weiss R<sup>4</sup>, Flanigan K<sup>1,2,3</sup>

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**286P Cognitive deficits in Duchenne muscular dystrophy: Analysis of assessment, mutation location, and social vulnerability**

**Arun S**<sup>1</sup>, Kaat A<sup>2</sup>, Thangarajh M<sup>1</sup>

<sup>1</sup>Virginia Commonwealth University, <sup>2</sup>Northwestern University

**287P Localisation of Dystrophin isoforms in the mouse brain: insights into neuropsychiatric comorbidities in Duchenne Muscular Dystrophy**

**Aghaeipour A**<sup>1,2,3</sup>, Teterou K<sup>1,2</sup>, Gileadi T<sup>1,2</sup>, Morgan J<sup>1,2</sup>, Montanaro F<sup>1,2</sup>, Muntoni F<sup>1,2,3</sup>

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**288P In patients with Duchenne Muscular Dystrophy fragmented QRS in the lateral lead of the electrocardiography is associated with reduced cardiac function**

**Yamamoto T**<sup>1</sup>, Ogawa S<sup>1</sup>, Nambu Y<sup>2</sup>, Bo R<sup>2</sup>, Matsuo M<sup>3</sup>, Awano H<sup>4</sup>

<sup>1</sup>Nagahama Institute of Bio-science and Technology, <sup>2</sup>Department of Pediatrics, Kobe University Graduate School of Medicine, <sup>3</sup>Faculty of Health Sciences, Kobe Tokiwa University, <sup>4</sup>Research Initiative Center, Organization for Research Initiative and Promotion

**289P Non-tandem duplications in DMD: impacts on genetic counseling and medical decision making**

**Gross B**<sup>1</sup>, Higginbotham E<sup>2</sup>, Lau L<sup>2</sup>, Sung W<sup>2</sup>, Moran O<sup>3</sup>, Hasnain A<sup>2,4</sup>, Stavropoulos D<sup>2,4</sup>, Beaulieu Bergeron M<sup>5,6</sup>, Boycott K<sup>7,8</sup>, McNiven V<sup>9</sup>, Liu R<sup>10</sup>, Matesanz S<sup>1,11</sup>

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**290P Developing a non-invasive, in vivo method for evaluating muscle inflammation longitudinally in two mouse models of Duchenne Muscular Dystrophy**

**MacKinnon A**<sup>1</sup>, Rowsell J<sup>1</sup>, Uaesoontrachoon K<sup>1</sup>, Mullen A<sup>1</sup>, Hoffman E<sup>1,2</sup>, Nagaraju K<sup>1,2</sup>

<sup>1</sup>Agada Biosciences Inc., <sup>2</sup>School of Pharmacy and Pharmaceutical Sciences, Binghamton University

**291P Novel insights into the expression and the epigenetic modulation of LKB1, a potential diagnostic and therapeutic player in Duchenne muscular dystrophy**

**Boccanegra B**<sup>1</sup>, Mantuano P<sup>1</sup>, Conte E<sup>1</sup>, Tulumiero L<sup>1</sup>, Lenti R<sup>1</sup>, Quarta R<sup>1</sup>, Cristiano E<sup>1</sup>, Decio A<sup>2</sup>, Cappellari O<sup>1</sup>, Licandro S<sup>2</sup>, Fossati G<sup>2</sup>, Steinkühler C<sup>2</sup>, De Luca A<sup>1</sup>

<sup>1</sup>Department Of Pharmacy - Drug Sciences, University of Bari "Aldo Moro", <sup>2</sup>Preclinical R&D Department, Italfarmaco S.p.A., Cinisello Balsamo

**292P Phenotypic characterization of the D2-mdx mouse for Duchenne Muscular Dystrophy: updates from a natural history study**

**Tulumiero L**<sup>1</sup>, Mantuano P<sup>1</sup>, Boccanegra B<sup>1</sup>, Lenti R<sup>1</sup>, Quarta R<sup>1</sup>, Cristiano E<sup>1</sup>, Marinelli M<sup>1</sup>, Mele A<sup>1</sup>, Cappellari O<sup>1</sup>, De Luca A<sup>1</sup>

<sup>1</sup>Università Degli Studi Di Bari, Aldo Moro, Dipartimento di Farmacia- Scienze del Farmaco

**293P Evaluation of creatine/creatinine ratio and myostatin as monitoring biomarkers for DMD patients using real-world data**

**Degan C**<sup>1</sup>, Vries S<sup>1</sup>, Ikelaar N<sup>1</sup>, Tsonaka R<sup>1</sup>, Niks E<sup>1,2</sup>, Spitali P<sup>1,2</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Duchenne Center Netherlands

**294P Identification of disease-specific extracellular vesicle-associated plasma biomarkers for Duchenne muscular dystrophy (DMD) and Facioscapulohumeral Muscular Dystrophy (FSHD)**

Bayazit M<sup>1</sup>, Henderson D<sup>3</sup>, Tawil R<sup>3</sup>, Flanigan K<sup>1,2</sup>, Harper S<sup>1,2</sup>, **Saad N**<sup>1,2</sup>

<sup>1</sup>Center for Gene Therapy, the Abigail Wexner Research Institute at Nationwide Children's Hospital, ,

<sup>2</sup>Department of Pediatrics, the Ohio State University, <sup>3</sup>Department of Neurology, University of Rochester Medical Center

**295P Diagnostic yield of next-generation sequencing compared with muscle biopsy for diagnosis of MLPA negative Duchenne Muscular Dystrophy**

**Sanmaneechai O**<sup>1</sup>, Meedee M<sup>1</sup>, Pimchanok K<sup>1</sup>

<sup>1</sup>Department of Pediatrics, Faculty of Medicine Mahidol University

### **296P Development of monitoring biomarker signatures in Duchenne Muscular Dystrophy**

**De Vries S<sup>1</sup>**, Degan C<sup>1</sup>, Tobin R<sup>2</sup>, Jimenéz-Requena A<sup>3</sup>, Ajeenah A<sup>3</sup>, Johansson C<sup>3</sup>, Van der Burgt Y<sup>1</sup>, Diaz-Manera J<sup>4</sup>, Guglieri M<sup>4</sup>, Al-Khalili Szigyarto C<sup>3</sup>, Spitali P<sup>1</sup>, Hathout Y<sup>5</sup>, Tsonaka R<sup>1</sup>, Dang U<sup>2</sup>, on behalf of Team: CINRG-DNHS Investigators, on behalf of Team: DMD Investigators

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Carleton University, <sup>3</sup>KTH Royal Institute of Technology, <sup>4</sup>Newcastle University, <sup>5</sup>Binghamton University

### **297P In-depth behavioral characterization of Duchenne Muscular Dystrophy mouse models lacking one, multiple or all dystrophin isoforms in the brain**

**Van Putten M<sup>1</sup>**, Verhaeg M<sup>1</sup>, van der Pijl L<sup>1</sup>, van de Vijver D<sup>1</sup>, Tanganyika-de Winter C<sup>1</sup>, Stan T<sup>1</sup>, Aartsma-Rus A<sup>1</sup>

<sup>1</sup>Leiden University Medical Center

### **298P Magnetic resonance imaging analyses of the brain of Duchenne Muscular Dystrophy mouse models lacking one, multiple or all dystrophin isoforms**

**Van Putten M<sup>1</sup>**, Verhaeg M<sup>1</sup>, Suidgeest E<sup>1</sup>, Kan H<sup>1</sup>, van der Weerd L<sup>1</sup>, Aartsma-Rus A<sup>1</sup>

<sup>1</sup>Leiden University Medical Center

### **299P Detailed natural history study of the D2-mdx and BL10-mdx models for Duchenne Muscular Dystrophy**

**Van Putten M<sup>1</sup>**, Mantuano P<sup>2</sup>, Boccanegra B<sup>2</sup>, Tanganyika-de Winter C<sup>1</sup>, Putker K<sup>1</sup>, Schneider A<sup>1</sup>, Tulumiero L<sup>2</sup>, Mele A<sup>2</sup>, van de Vijver D<sup>1</sup>, Gordiss-Dressman H<sup>3</sup>, Cappellari O<sup>2</sup>, Aartsma-Rus A<sup>1</sup>, De Luca A<sup>2</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Section of Pharmacology, Department of Pharmacy, <sup>3</sup>George Washington University School of Medicine and Health Sciences

### **300P Brain involvement in Duchenne Muscular Dystrophy (BIND)**

**Tetorou K<sup>1,2</sup>**, Aghaeipour A<sup>1,2</sup>, Gileadi T<sup>1,2</sup>, Ma S<sup>1,2</sup>, Perdomo Quinteiro P<sup>3</sup>, Saoudi A<sup>5,6</sup>, Ceschi L<sup>5</sup>, Zarrouki F<sup>5</sup>, Mitsogiannis M<sup>7</sup>, Fergus C<sup>9</sup>, Kelly V<sup>9</sup>, Zhang L<sup>4</sup>, Spitali P<sup>3</sup>, Aoki Y<sup>8</sup>, Morgan J<sup>1,2</sup>, Montanaro F<sup>1,2</sup>, Vaillend C<sup>5</sup>, Goyenvalle A<sup>6</sup>, Muntoni F<sup>1,2</sup>

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### **301P Interactome analysis of dystrophin isoforms in the mouse brain**

**Tetorou K<sup>1</sup>**, Aghaeipour A<sup>1,2</sup>, Gileadi T<sup>1,2</sup>, Pablo P<sup>3</sup>, Zhang L<sup>4</sup>, Spitali P<sup>3</sup>, Morgan J<sup>1,2</sup>, Montanaro F<sup>1,2</sup>, Muntoni F<sup>1,2</sup>

<sup>1</sup>The Dubowitz Neuromuscular Centre, UCL Great Ormond Street Institute of Child Health, <sup>2</sup>National Institute for Health Research UCL Great Ormond Street Institute of Child Health, <sup>3</sup>Human Genetics Department, Leiden University Medical Center, <sup>4</sup>Mass Spectrometry and Proteomics Facility, The Ohio State University

### **302P Dystrophin quantification by capillary western immunoassay and western blot across the dystrophinopathy spectrum**

**Lay J<sup>1</sup>**, Flanigan K<sup>1,2,3</sup>, Nicolau S<sup>1,2,3</sup>

<sup>1</sup>Center for Gene Therapy, Abigail Wexner Research Institute, Nationwide Children's Hospital, <sup>2</sup>Department of Pediatrics, The Ohio State University College of Medicine, <sup>3</sup>Department of Neurology, The Ohio State University

### **303P A longitudinal study on cognitive and behavioural functioning in Duchenne Muscular Dystrophy**

**Govaarts R<sup>1</sup>**, Weerkamp P<sup>2</sup>, de Vreede M<sup>1</sup>, Marini-Bettolo C<sup>3</sup>, Geagan C<sup>3</sup>, Hollingsworth K<sup>4</sup>, Hendriksen J<sup>2,5</sup>, Kan H<sup>1,5</sup>, Niks E<sup>1,5</sup>, Straub V<sup>3</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Kempenhaghe, <sup>3</sup>Newcastle University and Newcastle Hospitals NHS Foundation Trust, <sup>4</sup>Newcastle University, <sup>5</sup>Duchenne Centre

### **304P Multi-modal magnetic resonance imaging protocols in the multi-site Brain Involvement in Dystrophinopathies (BIND) study**

**Govaarts R<sup>1</sup>**, Doorenweerd N<sup>1,2</sup>, Brogna C<sup>4</sup>, Clark C<sup>3</sup>, Guliaeva I<sup>3</sup>, Hollingsworth K<sup>5</sup>, MacDonald Fisher P<sup>6</sup>, Mercuri E<sup>4</sup>, Niks E<sup>1</sup>, Parikh J<sup>5</sup>, Seunarine K<sup>3</sup>, Smythe L<sup>3</sup>, Stemmerik M<sup>6</sup>, Straub V<sup>2</sup>, Verdolotti T<sup>4</sup>, Vissing J<sup>6</sup>, Würgler Slipsager A<sup>6</sup>, Muntoni F<sup>3</sup>, Kan H<sup>1</sup>, Kerkelä L<sup>3</sup>

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### **305P Investigation of the clinical significance of serum titin in Duchenne Muscular Dystrophy**

Nambu Y<sup>1</sup>, **Awano H<sup>2</sup>**, Sonehara S<sup>1</sup>, Bo R<sup>1</sup>, Osawa K<sup>3</sup>, Shirakawa T<sup>3</sup>, Matsuo M<sup>4</sup>

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### **306P Evaluating genetic therapies targeting the central nervous system in Duchenne Muscular Dystrophy using high-resolution spatial transcriptomics**

**Mao Q<sup>1</sup>**, Ahmadi A<sup>1</sup>, van Doorne L<sup>1</sup>, de Vries S<sup>1</sup>, Heezen L<sup>1</sup>, Vacca O<sup>2</sup>, Aartsma-Rus A<sup>1</sup>, van Putten M<sup>1</sup>, Goyenvalle A<sup>2</sup>, Mahfouz A<sup>1,3,4</sup>, Spitali P<sup>1</sup>

<sup>1</sup>Department of Human Genetics, Leiden University Medical Center, <sup>2</sup>Université Paris-Saclay, UVSQ, Inserm, END-ICAP, <sup>3</sup>Delft Bioinformatics Lab, Delft University of Technology, <sup>4</sup>Leiden Computational Biology Center, Leiden University Medical Center

### **307P Uncovering the genomic basis of cognitive comorbidities in Duchenne Muscular Dystrophy using spatial transcriptomics in mouse models**

**Mao Q<sup>1</sup>**, Heezen L<sup>1</sup>, de Vries S<sup>1</sup>, van Doorne L<sup>1</sup>, Aartsma-Rus A<sup>1</sup>, van Putten M<sup>1</sup>, Mahfouz A<sup>1,2,3</sup>, Spitali P<sup>1</sup>

<sup>1</sup>Department of Human Genetics, Leiden University Medical Center, <sup>2</sup>Delft Bioinformatics Lab, Delft University of Technology, <sup>3</sup>Leiden Computational Biology Center, Leiden University Medical Center

### **308P Nephrological parameters in boys with Muscular Dystrophy**

**Rohlenová M<sup>1</sup>**, Zieg J<sup>2</sup>, Lauerová B<sup>1</sup>, Kumhera M<sup>1</sup>, Gloser M<sup>1</sup>, Dolanská A<sup>1</sup>, Haberlová J<sup>1</sup>

<sup>1</sup>Department of Pediatric Neurology of Motol University Hospital, <sup>2</sup>Department of Pediatrics of Motol University Hospital

### **309P Cholesterol defects in Muscular Dystrophy patients and mice cause ambulation dysfunction: insight into statin- and anti-HMGCoAR-induced myopathies**

**Bernatchez P<sup>1</sup>**, Sun Z<sup>1</sup>

<sup>1</sup>Department of Anesthesiology, Pharmacology & Therapeutics, St. Paul's Hospital, University of British Columbia

### **310P Stress exacerbates glucose intolerance in the mdx mouse model of Duchenne Muscular Dystrophy**

**Lindsay A<sup>1,2,3</sup>**, Salimova E<sup>4,5</sup>, Eliades J<sup>4</sup>, Zheng G<sup>4</sup>, Caeyenberghs K<sup>3</sup>, de Veer M<sup>4,5</sup>

<sup>1</sup>University of Canterbury, <sup>2</sup>University of Otago, <sup>3</sup>Deakin University, <sup>4</sup>Monash University, <sup>5</sup>National Imaging Facility

### **311P Development and pilot validation of the DuMAND checklist to screen for Duchenne Muscular Dystrophy-Associated Neurobehavioral Difficulties (DuMAND)**

**Geuens S<sup>1,2</sup>**, Goemans N<sup>1</sup>, Lemiére J<sup>3,4</sup>, Doorenweerd N<sup>5</sup>, De Waele L<sup>1,2</sup>

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### **312P Genotype and corticosteroid treatment are associated with distinctive variations in gray matter characteristics among patients with Duchenne Muscular Dystrophy**

**Geuens S<sup>1,2</sup>**, Van Dessel J<sup>3</sup>, Kan H<sup>4,5</sup>, Govaarts R<sup>4,5</sup>, Niks E<sup>5,6</sup>, Goemans N<sup>1</sup>, Lemiére J<sup>7,8</sup>, Doorenweerd N<sup>4</sup>, De Waele L<sup>1,2</sup>

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### **313P Validation lab: allowing standardized in vitro and in vivo experiments for candidate treatments for Duchenne Muscular Dystrophy**

**Stan T<sup>1</sup>**, Van De Vijver D<sup>1</sup>, Tanganyika-de Winter C<sup>1</sup>, van der Pijl L<sup>1</sup>, Aartsma-Rus A<sup>1</sup>

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### **314P Protein biomarkers predicting clinical milestones in Duchenne Muscular Dystrophy combining natural history and real-world data**

Spitali P<sup>1,2</sup>, Ikelaar N<sup>2,3</sup>, Barnard A<sup>4</sup>, Eng S<sup>5</sup>, Hosseini Vajargah S<sup>5</sup>, Ha K<sup>5</sup>, Kan H<sup>2,6</sup>, Vandenborne K<sup>4</sup>, Niks E<sup>2,3</sup>, **Walter G<sup>7</sup>**

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### **315P Cardio-metabolic and cytoskeletal proteomic signatures differentiate fear sensitivity in dystrophin-deficient mdx mice**

**Major G**<sup>1</sup>, Herbold C<sup>1</sup>, Cheng F<sup>2</sup>, Lee A<sup>2</sup>, Russell A<sup>3</sup>, Lindsay A<sup>1,3,4</sup>

<sup>1</sup>University of Canterbury, <sup>2</sup>Macquarie University, <sup>3</sup>Deakin University, <sup>4</sup>University of Otago

### **316VP What you see is what it is: The tales of two brothers with rare intronic dystrophin gene duplication**

**Khries M**<sup>1</sup>, Gowda V<sup>1</sup>

<sup>1</sup>Evelina London Children's Hospital

### **317VP Overview of a cohort of 35 manifesting dystrophinopathy females – and addressing the forthcoming challenges**

**Goncalves A**<sup>1,2,3</sup>, Sousa A<sup>3,4</sup>, Garrido C<sup>3,5</sup>, Cardoso M<sup>3,4</sup>, Pinto M<sup>3,6</sup>, Vieira E<sup>1,2</sup>, Oliveira M<sup>1,2</sup>, Taipa R<sup>2,3,6</sup>, Coelho T<sup>3,4</sup>, Santos M<sup>3,5</sup>, Santos R<sup>1,2,3</sup>

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## **438P - 440P, 442P - 471P: Myotonic dystrophy**

### **438P Knockdown of DMPK in Myotonic Dystrophy Type 1 using CRISPR Cas13**

**Oh H**<sup>1,2</sup>, Todorow V<sup>1</sup>, Hintze S<sup>1</sup>, Schoser B<sup>1</sup>, Meinke P<sup>1,2</sup>

<sup>1</sup>Friedrich-Baur-Institute, Munich, Germany, <sup>2</sup>Graduate School of Graduate School of Systemic Neurosciences, Ludwig-Maximilians-University Munich

### **439P Cardiac abnormalities and management in children with myotonic dystrophy type 1**

**Bovenkerk D**<sup>1</sup>, Van Den Akker R<sup>2</sup>, Klinkenberg S<sup>1</sup>, Louw J<sup>3</sup>, Udink Ten Cate F<sup>4</sup>, Braakman H<sup>2</sup>

<sup>1</sup>Department of Neurology, Maastricht University Medical Center, <sup>2</sup>Department of Pediatric Neurology, Amalia Children's Hospital, Radboud University Medical Center, <sup>3</sup>Department of Pediatric Cardiology, Maastricht University Medical Center, <sup>4</sup>Department of Pediatric Cardiology, Amalia Children's Hospital

### **440P Nonclinical data for PGN-EDODM1 demonstrated nuclear delivery, mechanistic and meaningful activity for the potential treatment of DM1**

Gilbert J<sup>1</sup>, Klein A<sup>2</sup>, Lonkar P<sup>1</sup>, Gutnick A<sup>1</sup>, Foy J<sup>1</sup>, Yu S<sup>1</sup>, Reid T<sup>3</sup>, Sarkar K<sup>3</sup>, Cleary J<sup>3</sup>, Berglund J<sup>3</sup>, Furling D<sup>2</sup>, **Holland A**<sup>1</sup>

<sup>1</sup>PepGen, <sup>2</sup>Sorbonne Université, <sup>3</sup>University at Albany-SUNY

### **442P Cognitive diversity in Congenital Myotonic Dystrophy: implications for early intervention**

**Dixon M**<sup>1</sup>, Butterfield R<sup>1</sup>

<sup>1</sup>University Of Utah, Pediatric Neurology

### **443P Assessing inter and intra-rater reliability of video hand opening time in Myotonic Dystrophy**

**Mcintyre M**<sup>1</sup>, de Monts C<sup>2</sup>, Wilson A<sup>1</sup>, Massey C<sup>3,4</sup>, Olson S<sup>1</sup>, Nelson L<sup>5</sup>, Hageman N<sup>2</sup>, Tang W<sup>2</sup>, Dekdeburn J<sup>6</sup>, Duong T<sup>2</sup>

<sup>1</sup>Department of Pediatrics, University of Utah, <sup>2</sup>Department of Neurology, Neuromuscular Division, Stanford University, <sup>3</sup>Queen Square Centre for Neuromuscular Diseases, University College London NHS Foundation Trust, <sup>4</sup>Department of Neuroscience, University of Sheffield, <sup>5</sup>Department of Physical Therapy, University of Texas Southwestern Medical Center, <sup>6</sup>Department of Neurology, University of Rochester Medical Center

### **444P Exploring Hand Myotonia: assessing hand opening and individual finger movements through machine learning**

**Duong T**<sup>1</sup>, de Monts C<sup>1</sup>, McIntyre M<sup>3</sup>, Karatsidis A<sup>2</sup>, Juraver A<sup>2</sup>, Ataide P<sup>1</sup>, Hageman N<sup>1</sup>, Erb K<sup>2</sup>, Meilleur K<sup>2</sup>, Day J<sup>1</sup>, Burton L<sup>2</sup>, Kanzler C<sup>2</sup>

<sup>1</sup>Stanford University, <sup>2</sup>Biogen, <sup>3</sup>University of Utah

### **445P Utilization and costs of healthcare services and labour market affiliation of persons with adult-onset Myotonic Dystrophy – a Danish Register-Based Study (Study II)**

**Handberg C**<sup>1,2</sup>, Rudolfson J<sup>3</sup>, Andersen H<sup>4</sup>, Vissing J<sup>5</sup>, Rossau C<sup>6</sup>, Dreyer P<sup>6</sup>, Olsen J<sup>3</sup>, Bengtsson S<sup>3</sup>, Aagaard H<sup>1</sup>, Werlauff U<sup>1</sup>

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**446P Comorbidities and mortality of persons with adult-onset Myotonic Dystrophy – a Danish Register-Based Study (Study I)**

**Werlauff U<sup>1</sup>**, Rudolfson J<sup>2</sup>, Andersen H<sup>3</sup>, Vissing J<sup>4</sup>, Rossau C<sup>5</sup>, Dreyer P<sup>6</sup>, Olsen J<sup>2</sup>, Bengtsson S<sup>2</sup>, Aagaard H<sup>7</sup>, Handberg C<sup>6,7</sup>

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**447P Atrio-ventricular conduction in a mouse model with Myotonic Dystrophy Type-1: a preliminary study in hDMPK-77Tg mice**

**Kimura K<sup>1</sup>**, Minegishi K<sup>2</sup>, Motohashi N<sup>2</sup>, Morita H<sup>3</sup>, Nakanishi K<sup>3</sup>, Daimon M<sup>3</sup>, Takeda N<sup>3</sup>, Echigoya Y<sup>4</sup>, Nakamori M<sup>5</sup>, Aoki Y<sup>2</sup>

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**448P Quantitative analysis of brain atrophy in patients with myotonic dystrophy (DM1) using MRI –multi center analysis**

**Nakayama T<sup>1</sup>**, Matsumura T<sup>2</sup>, Kuru S<sup>3</sup>, Kobayashi M<sup>4</sup>, Suwazono S<sup>5</sup>, Takahashi M<sup>6</sup>

<sup>1</sup>Yokohama Rosai Hospital, <sup>2</sup>NHO Toneyama Hospital, <sup>3</sup>NHO Suzuka Hospital, <sup>4</sup>NHO Akita Hospital, <sup>5</sup>NHO Okinawa Hospital, <sup>6</sup>Osaka University

**449P Molecular biomarkers in myotonic dystrophy type 1**

**Slipsager A<sup>1</sup>**, Hildonen M<sup>2</sup>, Godtfeldt Stemmerik M<sup>1</sup>, Tümer Z<sup>2</sup>, Dunø M<sup>2</sup>, Birkedal U<sup>2</sup>, Vissing J<sup>1</sup>

<sup>1</sup>CNMC, Rigshospitalet, <sup>2</sup>Department of Genetics, Rigshospitalet

**450P A review of the symptom control clinic, advance care planning and mortality in myotonic dystrophy 1 in a UK neuromuscular centre**

**Willis T<sup>1,2</sup>**, Bassie C<sup>1</sup>, Fox H<sup>3</sup>, Kulshrestha R<sup>1</sup>, Willis D<sup>2,3</sup>

<sup>1</sup>Robert Jones and Agnes Hunt hospital, <sup>2</sup>University of Chester Medical School, <sup>3</sup>Severn Hospice

**451P Gait parameters / cognitive function correlation in a cohort of patients with myotonic dystrophy type 1: a single-center sensor-based gait analysis**

**Risi B<sup>1</sup>**, Pilotto A<sup>2,3,4</sup>, Rizzardi A<sup>2,3</sup>, Ferrari E<sup>1</sup>, Labella B<sup>2,3</sup>, Zatti C<sup>2,3</sup>, Hansen C<sup>5</sup>, Romijnders R<sup>5</sup>, Caria F<sup>1</sup>, Damioli S<sup>1</sup>, Bertella E<sup>1</sup>, Poli L<sup>3</sup>, Ferullo L<sup>2,3</sup>, Olivieri E<sup>2,3</sup>, Maetzler W<sup>5</sup>, Padovani A<sup>2,3</sup>, Filosto M<sup>1,2</sup>

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**452P Genetic confirmation of myotonic dystrophy type II after allogeneic stem cell transplant**

**Schaefer J<sup>1</sup>**, Saak A<sup>2</sup>

<sup>1</sup>Uniklinikum C.G. Carus, <sup>2</sup>Ludwig-Maximilians Universität

**453P Characterisation of cell culture models of myotonic dystrophy type I for drug screening by in-cell western and digital droplet PCR**

López-Martínez A<sup>1</sup>, Sendino M<sup>1</sup>, Torres-Conde N<sup>1</sup>, Al-Ani A<sup>1</sup>, Martínez-Gonzalez S<sup>1</sup>, Nuñez-Manchón J<sup>2</sup>, Nogales-Gadea G<sup>2</sup>, **Arechavala Gomeza V<sup>1,3</sup>**

<sup>1</sup>Biobizkaia Health Reseach Institute, <sup>2</sup>Institut d'Investigació en Ciències de la Salut Germans Trias i Pujol (IGTP), <sup>3</sup>Ikerbasque, Basque Foundation for Science

**454P Myotonic dystrophy type 1 with progressive supranuclear palsy showing responsiveness to levodopa**

**Indrawati L<sup>1,2</sup>**, Tunjungsari D<sup>1,2,3</sup>, Nagpal C<sup>2</sup>, Muljono W<sup>1</sup>, Ariarini N<sup>2,3</sup>

<sup>1</sup>Department of Neurology, Dr Cipto Mangunkusumo Hospital, <sup>2</sup>Department of Neurology, Faculty of Medicine, Universitas Indonesia, <sup>3</sup>Department of Neurology, Universitas Indonesia Hospital

**455P Psoriasis and myotonic dystrophy type 1: another cutaneous manifestation of a multisystemic disorder**

**Tufano L<sup>1</sup>**, Bucci E<sup>1</sup>, Antonini G<sup>1</sup>, Garibaldi M<sup>1</sup>

<sup>1</sup>Department of Neuroscience, Mental Health and Sensory Organs (NESMOS), Sapienza University of Rome

#### **456P Gait analysis by IMU sensor in myotonic dystrophy type 1**

**Tufano L<sup>1</sup>**, Bianchini E<sup>1</sup>, Bucci E<sup>1</sup>, Antonini G<sup>1</sup>, Garibaldi M<sup>1</sup>

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#### **457P Mortality rate and predictors of death in the DM1 population, a registry-based study**

**Bassez G<sup>1</sup>**, Kachal A<sup>1</sup>, Gyenge M<sup>1</sup>, Hamroun D<sup>1</sup>, French Myotonic Dystrophy Study Group

<sup>1</sup>Institute of Myology

#### **458P The iDM-Scope Registry: an innovative France-Canada framework to advance Myotonic Dystrophy translational research**

**Bassez G<sup>1</sup>**, Gyenge M<sup>1</sup>, Hamroun D<sup>2</sup>, Kachal A<sup>1</sup>, Evangelista T<sup>1</sup>, Rodrigue X<sup>3</sup>, Nury M<sup>3</sup>, Lochmüller H<sup>4</sup>, Gagnon C<sup>5</sup>

<sup>1</sup>Institute of Myology, <sup>2</sup>CHU Montpellier, <sup>3</sup>Université Laval, <sup>4</sup>The Ottawa Hospital, <sup>5</sup>Université Sherbrooke

#### **459P Correlation of minimally invasive blood biomarkers with muscle-derived molecular signatures in myotonic dystrophy type 2**

**Kleefeld E<sup>1</sup>**, Hentschel A<sup>5</sup>, Preusse C<sup>1</sup>, Schoser B<sup>3</sup>, Stenzel W<sup>1</sup>, Roos A<sup>2,5,7</sup>

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#### **460P Understanding the clinical heterogeneity in myotonic dystrophy type 1: identifying clinical phenotypes using unsupervised clustering**

**la Fontaine L<sup>1</sup>**, Imkamp M<sup>1</sup>, 't Hoen P<sup>2</sup>, van As D<sup>2</sup>, Smulders F<sup>2</sup>, Bruijnes J<sup>1</sup>, de Kok J<sup>1</sup>, Faber C<sup>1</sup>, Merkies I<sup>1</sup>, van Kuijk S<sup>1</sup>

<sup>1</sup>Maastricht University Medical Centre, <sup>2</sup>Radboud University Medical Centre

#### **461P Evaluation of PGN-EDODM1: FREEDOM-DM1 and FREEDOM2-DM1 clinical trials in myotonic dystrophy type 1**

**Larkindale J<sup>1</sup>**, Shoskes J<sup>1</sup>, Garg B<sup>1</sup>, Song G<sup>1</sup>, Lonkar P<sup>1</sup>, Babcock S<sup>1</sup>, Vacca S<sup>1</sup>, Yu S<sup>1</sup>, Mellion M<sup>1</sup>

<sup>1</sup>PepGen Inc.

#### **462P Evaluating EEG as an outcome measure for CNS Symptoms in myotonic dystrophy type 1: a clinical trial analysis**

**Allen S<sup>1</sup>**, Kamali T<sup>1</sup>, Parker D<sup>1</sup>, Seto A<sup>2</sup>, Ehrich E<sup>2</sup>, Wang E<sup>3</sup>, Sampson J<sup>1</sup>

<sup>1</sup>Stanford University, <sup>2</sup>Expansion Therapeutics, <sup>3</sup>University of Florida

#### **463P Longitudinal progression of motor function in individuals with myotonic dystrophy type 1: insights from the END-DM1 study**

**Johnson N<sup>1</sup>**, Hung M<sup>1</sup>, Sansone V<sup>1</sup>, Subramony S<sup>1</sup>, Statland J<sup>1</sup>, Hamel J<sup>1</sup>, van Engelen B<sup>1</sup>, Mul K<sup>1</sup>, Elsheikh B<sup>1</sup>,

Roxburgh R<sup>1</sup>, Day J<sup>1</sup>, Swenson A<sup>1</sup>, Schoser B<sup>1</sup>, Ragole T<sup>1</sup>, Greene E<sup>1</sup>, Shieh P<sup>1</sup>, Thornton C<sup>1</sup>, On behalf of DMCRN

<sup>1</sup>Virginia Commonwealth University

#### **464P Advancing preclinical research of myotonic dystrophy type 1 with 3D functional human skeletal muscle tissues**

**Fernández-Garibay X<sup>1</sup>**, Sabater-Arcís M<sup>2,3</sup>, Núñez-Manchón J<sup>4</sup>, Tejedera-Villafranca A<sup>1</sup>, Artero R<sup>2,3</sup>, Suelves M<sup>4</sup>, Nogales-Gadea G<sup>4</sup>, Ramón-Azcón J<sup>1,5</sup>, Fernández-Costa J<sup>1</sup>

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Institució Catalana de Recerca i Estudis Avançats

#### **465P Factors impacting dysphagia in adult-onset myotonic dystrophy type 1**

**Berggren K<sup>1</sup>**, Kamarunas E<sup>2</sup>, Johnson N<sup>1</sup>

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#### **466P Multisystemic manifestations in adult patients with classic myotonic dystrophy Type 1**

**Iterbeke L<sup>1</sup>**, Claeys K<sup>1,2</sup>

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Institute (LBI), <sup>2</sup>Department of Neurology, University Hospitals Leuven

#### **467P A multicenter retrospective study in Turkish children with myotonic dystrophy type 1**

**Oz Tuncer G<sup>1</sup>**, Sanri A<sup>2</sup>, Kurt Bayir G<sup>1</sup>, Erol İ<sup>3</sup>, Ardıçlı D<sup>4</sup>, Öztürk M<sup>5</sup>, Gazeteci Tekin H<sup>6</sup>, Kutluk G<sup>7</sup>, Hergüner Ö<sup>8</sup>, Tekgül H<sup>9</sup>, Tütüncü Toker R<sup>10</sup>, Per H<sup>11</sup>, Çavuşoğlu D<sup>12</sup>, Pembegül Yıldız E<sup>13</sup>, Kömür M<sup>14</sup>, Türkdoğan D<sup>15</sup>, Özgör B<sup>16</sup>, Ayça S<sup>17</sup>, Turkish Myotonic Dystrophy Type 1 Study Group T<sup>18</sup>

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#### **468P Exploring gut microbiome alteration in children with myotonic dystrophy type 1: a pilot study**

**van Uden A<sup>1,2</sup>**, Zweers-van Essen H<sup>3</sup>, de Baaij-Daalmeyer A<sup>3</sup>, Ederveen T<sup>2</sup>, Braakman H<sup>1</sup>

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#### **469P Modal allele change as a predictor of skeletal muscle symptoms progression in myotonic dystrophy type 1**

**Radovanovic N<sup>1</sup>**, Pesovic J<sup>1</sup>, Peric S<sup>2,3</sup>, Radenkovic L<sup>1</sup>, Brkusanin M<sup>1</sup>, Brajuskovic G<sup>1</sup>, Rakocevic Stojanovic V<sup>2,3</sup>, Savic-Pavicevic D<sup>1</sup>

<sup>1</sup>University of Belgrade-Faculty of Biology, Center for Human Molecular Genetics, <sup>2</sup>University Clinical Centre of Serbia, Neurology Clinic, <sup>3</sup>University of Belgrade-School of Medicine

#### **470P Splicing is improved using a novel AAV-microRNA delivery platform as a treatment for myotonic dystrophy type 1**

**Cao S<sup>1</sup>**, Tomassy G<sup>1</sup>, Richards B<sup>1</sup>, Fan W<sup>1</sup>, Luo Z<sup>1</sup>, Jackson R<sup>1</sup>, O'Riordan C<sup>1</sup>, Goulet M<sup>1</sup>, Mueller C<sup>1</sup>

<sup>1</sup>Genomic Medicine Unit, Sanofi

#### **471P Interfering with CUG toxic repeats using AAV.U7snRNAs rescue myotonia and splicing defects in myotonic dystrophy type 1**

**Almeida C<sup>1</sup>**, Brinkman A<sup>1</sup>, Wendt C<sup>2</sup>, Blatnik A<sup>2</sup>, Delgado A<sup>1</sup>, Gushchina L<sup>1</sup>, Arnold W<sup>3</sup>, Weiss R<sup>4</sup>, Wein N<sup>1,5</sup>

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#### **598P-618P: Registries, networks and care of NMD**

##### **598P The Canadian Neuromuscular Disease Registry: using real-world evidence to further spinal muscular atrophy research in Canada**

**Crone M<sup>1</sup>**, Henley K<sup>2</sup>, Hodgkinson V<sup>2</sup>, Dyck A<sup>2</sup>, Brais B<sup>3</sup>, Campbell C<sup>4</sup>, Gonorazky H<sup>5</sup>, Lochmüller H<sup>6</sup>, MacKenzie A<sup>7</sup>, McMillan H<sup>7</sup>, Oskoui M<sup>8</sup>, Korngut L<sup>9</sup>, Selby K<sup>10</sup>, SMA Investigator Network on behalf of the CNDR Investigator Network

<sup>1</sup>Alberta Children's Hospital, University of Calgary, <sup>2</sup>Department of Clinical Neurosciences, Hotchkiss Brain Institute, University of Calgary, <sup>3</sup>Montreal Neurological Institute, McGill University, <sup>4</sup>Western University, <sup>5</sup>Hospital for Sick Children, University of Toronto, <sup>6</sup>Brain and Mind Research Institute, Children's Hospital of Eastern Ontario, University of Ottawa, <sup>7</sup>Children's Hospital of Eastern Ontario, University of Ottawa, <sup>8</sup>Montreal Children's Hospital, McGill University, <sup>9</sup>Hotchkiss Brain Institute, University of Calgary, <sup>10</sup>BC Children's Hospital, University of British Columbia

**599P The UK Facioscapulohumeral muscular dystrophy Patient Registry: a powerful tool to support clinical research and patient voice in the translational research pathway**

**Walker H<sup>1</sup>**, Muni-Lofra R<sup>1</sup>, Orrell R<sup>2</sup>, Graham A<sup>3</sup>, Norwood F<sup>4</sup>, Roberts M<sup>5</sup>, Willis T<sup>6</sup>, Matthews E<sup>7</sup>, Mencias M<sup>7</sup>, Adcock K<sup>8</sup>, Marini-Bettolo C<sup>1</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University, <sup>2</sup>UCL Queen Square Institute of Neurology, University College London, <sup>3</sup>Patient Representative, <sup>4</sup>Department of Neurology, Kings College Hospital, <sup>5</sup>Department of Neurology, Salford Royal NHS Foundation Trust, <sup>6</sup>Neuromuscular Service, The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust, <sup>7</sup>The Atkinson Morley Regional Neurosciences Centre, St George's University Hospital NHS Foundation Trust, <sup>8</sup>Muscular Dystrophy UK

**600P The UK Myotonic Dystrophy Patient Registry - empowering clinical research and patient voice with an effective translational research tool**

**Walker H<sup>1</sup>**, Sodhi J<sup>1</sup>, Turner C<sup>2</sup>, Adcock K<sup>3</sup>, Ashley E<sup>4</sup>, Orrell R<sup>5</sup>, Monckton D<sup>6</sup>, Hamilton M<sup>7</sup>, Hewamadduma C<sup>8</sup>, Walker M<sup>9</sup>, Marini-Bettolo C<sup>1</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University, <sup>2</sup>University College Hospital, National Hospital for Neurology and Neurosurgery, <sup>3</sup>Muscular Dystrophy UK, <sup>4</sup>Cure Myotonic Dystrophy UK Charity (Cure-DM), <sup>5</sup>UCL Queen Square Institute of Neurology, University College London, <sup>6</sup>Institute of Molecular Cell and Systems Biology, University of Glasgow, <sup>7</sup>West of Scotland Clinical Genetics Service, Queen Elizabeth University Hospital, <sup>8</sup>Sheffield Teaching Hospitals NHS Foundation Trust, <sup>9</sup>Myotonic Dystrophy Support Group

**601P Gap analysis of 4-year data in the Dutch Dystrophinopathy Database**

**Meijer-Krom Y<sup>1,3</sup>**, Ikelaar N<sup>1,3</sup>, Bongers J<sup>1,3</sup>, van de Velden N<sup>1,3</sup>, Snijder R<sup>4</sup>, Houwen van Opstal S<sup>2,3</sup>, Niks E<sup>1,3</sup>

<sup>1</sup>Department of Neurology, Leiden University Medical Center, <sup>2</sup>Department of Rehabilitation, Donders Institute for Brain, Cognition and Behaviour, Radboud university medical center, Amalia Children's Hospital, <sup>3</sup>Duchenne Center Netherlands, <sup>4</sup>Department of Biobanking, Leiden University Medical Center

**602P FISMA for high quality and interoperable real-world data on dystrophinopathies: FAIR from the start, from concept to reality**

**Meijer-Krom Y<sup>1,5</sup>**, Hoek R<sup>1,5</sup>, Houwen van Opstal S<sup>2,5</sup>, van de Velden N<sup>1,5</sup>, Ikelaar N<sup>1,5</sup>, van der Holst M<sup>3,5</sup>, Snijder R<sup>4</sup>, Niks E<sup>1,5</sup>

<sup>1</sup>Department of Neurology, Leiden University Medical Center, <sup>2</sup>Department of Rehabilitation, Amalia Children's Hospital, Radboud University Medical Center, <sup>3</sup>Department of Orthopedics, Rehabilitation and Physiotherapy, Leiden University Medical Center, <sup>4</sup>Biobanking Organization, Leiden University Medical Center, <sup>5</sup>Duchenne Center Netherlands

**603P DMD Hub: An established clinical trial accelerator network delivering tools and services to sites, patients and industry in the UK**

**Heslop E<sup>1</sup>**, Gaeta A<sup>2</sup>, Reuben E<sup>2</sup>, Johnson A<sup>2</sup>, Cammish P<sup>1</sup>, McNiff M<sup>1</sup>, Riguzzi P<sup>1</sup>, Muntoni F<sup>3</sup>, Childs A<sup>4</sup>, Straub V<sup>1</sup>, Guglieri M<sup>1</sup>

<sup>1</sup>JWMDRC Newcastle University, <sup>2</sup>Duchenne UK, <sup>3</sup>UCL Great Ormond Street Institute of Child Health, <sup>4</sup>Leeds Teaching Hospital

**604P Descriptive analysis of Duchenne Muscular Dystrophy patients included in the Swedish National Registry for neuromuscular disorders**

**Ekström A<sup>1</sup>**

<sup>1</sup>Queen Silvia Children's Hospital, Sahlgrenska University Hospital. University of Gothenburg

**605P Dutch LGMD registry: real-world data to facilitate trial readiness**

**Schrama E<sup>1</sup>**, Hoek R<sup>1</sup>, Bongers J<sup>1</sup>, Straathof C<sup>1</sup>, Badrising U<sup>1</sup>, van Reenen R<sup>2</sup>, van der Kooi A<sup>3</sup>, van Duyvenvoorde H<sup>4</sup>, Krom Y<sup>1</sup>, Niks E<sup>1</sup>

<sup>1</sup>Department of Neurology, Leiden University Medical Center, <sup>2</sup>Spierziekten Nederland, <sup>3</sup>Department of Neurology, Amsterdam University Medical Center, <sup>4</sup>Department of Clinical Genetics, Leiden University Medical Center

**606P Burden of illness for male patients with Duchenne Muscular Dystrophy in a real-world setting, a Swedish registry study**

**Furby H<sup>1</sup>**, Boudreau D<sup>2</sup>, Ekstrom A<sup>3</sup>, Freilich J<sup>4</sup>, Kroksmark A<sup>5</sup>, Streja E<sup>4</sup>, Wojtowicz J<sup>1</sup>, Yang Q<sup>4</sup>, Zhao J<sup>4</sup>, De Ford C<sup>1</sup>

<sup>1</sup>F. Hoffmann-La Roche, Ltd, <sup>2</sup>Genentech, Inc., <sup>3</sup>Department of Pediatrics, Institute of Clinical Sciences, Sahlgrenska Academy, University of Gothenburg, <sup>4</sup>Parexel International Limited, <sup>5</sup>Department of Health and Rehabilitation, Institute of Neuroscience and Physiology, University of Gothenburg

### **607P A patient-centered registry for rare neuromuscular disorders with federated FAIR infrastructure: the EURO-NMD Registry Hub**

Atalaia A<sup>1</sup>, Wandrei D<sup>2</sup>, Lalout N<sup>3,4</sup>, Tassoni A<sup>2</sup>, A. C. 't Hoen P<sup>3</sup>, Athanasiou D<sup>6</sup>, D'Angelo C<sup>8</sup>, Mancuso M, Kornblum C<sup>12</sup>, Kirschner J<sup>13</sup>, Pareyson D<sup>14</sup>, Bassez G<sup>15</sup>, Lamy F<sup>17</sup>, de Visser M<sup>21</sup>, Silani V<sup>25</sup>, Vroom E<sup>6</sup>, D. Wilkinson M<sup>28</sup>, Lochmuller H<sup>5,13</sup>, **Evangelista T**<sup>8,28</sup>, ERN EURO-NMD Registry Consortium

<sup>1</sup>Inserm Center of Research in Myology, Neuro Myology Service, G.H. Pitié Salpêtrière, Sorbonne Université,

<sup>2</sup>Clinical Trials Unit, Medical Center – University of Freiburg, Faculty of Medicine, University of Freiburg, <sup>3</sup>Medical

BioSciences Department, Radboud University Medical Center, <sup>4</sup>Duchenne Parent Project, <sup>5</sup>Children's Hospital

of Eastern Ontario Research Institute, <sup>6</sup>World Duchenne Organisation, <sup>7</sup>Duchenne Data Foundation, <sup>8</sup>European

Reference Network for Rare Neuromuscular Diseases EURO NMD, Institute of Myology, University Hospital

Pitié-Salpêtrière-APHP, <sup>9</sup>Department of Clinical Neurosciences, University of Cambridge, <sup>10</sup>Department of

Clinical and Experimental Medicine, Neurological Institute, University of Pisa, <sup>11</sup>Department of Neurology/Center

for Lysosomal and Metabolic Diseases, Erasmus MC University Medical Center, <sup>12</sup>Department of Neurology,

Neuromuscular Diseases Section, University Hospital Bonn, Bonn, Germany, <sup>13</sup>Department of Neuropediatrics

and Muscle Disorders, Faculty of Medicine, Medical Center – University of Freiburg, <sup>14</sup>Unit of Rare Neurological

Diseases. Department of Clinical Neurosciences, Fondazione IRCCS Istituto Neurologico Carlo Besta,

<sup>15</sup>Neuromuscular Diseases Reference Center, Pitié Salpêtrière University Hospital, APHP, <sup>16</sup>Association Française

Contre Les Myopathies, AFM-Telethon, <sup>17</sup>European Patient Organisation for Dysimmune and Inflammatory

Neuropathies, <sup>18</sup>Neuromuscular Center, University Hospital Motol, <sup>19</sup>Department of Neurology, Maastricht

University Medical Center, and MHeNS, School for Mental Health and Neuroscience, Maastricht University,

<sup>20</sup>Department of Neurology, Amsterdam University Medical Center, Location Academic Medical Center,

<sup>21</sup>Department of Neurology, University Hospitals Leuven, and Laboratory for Muscle Diseases and Neuropathies,

Department of Neurosciences, KU Leuven, and Leuven Brain Institute (LBI), <sup>22</sup>Hospital Universitario Virgen

del Rocío, Séville, Spain, <sup>23</sup>Department of Clinical and Experimental Medicine, AOU G. Martino Di Messina,

<sup>24</sup>Department of Neurology and Laboratory of Neuroscience, IRCCS Istituto Auxologico Italiano, <sup>25</sup>ALS Liga

Belgium, Leuven, Belgium, <sup>26</sup>CHRU de Montpellier, Hopital La Colombiere, <sup>27</sup>INIA, Universidad Politecnica de

Madrid (UPM), <sup>28</sup>Neuromuscular Pathology Functional Unit; Neuropathology Service, Institute of Myology,

University Hospital Pitié-Salpêtrière-APHP

### **608P Collection of real-world data for Duchenne Muscular Dystrophy patients through a national registry: description of the current cohort in the UK**

**Brooke M**<sup>1</sup>, Wolfe A<sup>1,2</sup>, Aslam N<sup>1</sup>, Manzur A<sup>2</sup>, Muntoni F<sup>1,2</sup>, Baranello G<sup>1,2</sup>

<sup>1</sup>University College London, <sup>2</sup>Great Ormond Street Hospital for Children NHS Foundation Trust

### **609P Integration of healthcare and research to optimize treatment and collect real-world data in neuromuscular disorders**

**Verschoof M**<sup>1,2</sup>, Slingerland F<sup>1</sup>, Roest A<sup>3</sup>, de Vreede I<sup>3</sup>, Warmenhoven N<sup>4,5</sup>, van Beek C<sup>5</sup>, de Witte P<sup>5</sup>, Bot D<sup>6</sup>, van Wageningen H<sup>4,5</sup>, Atsma D<sup>7</sup>, Straathof C<sup>1,2</sup>, Kan H<sup>8</sup>, Spitali P<sup>2,9</sup>, Snijder R<sup>10</sup>, Hoek R<sup>1</sup>, van der Holst M<sup>2,5</sup>, Meijer-Krom Y<sup>1,2</sup>, Niks E<sup>1,2</sup>

<sup>1</sup>Department of Neurology, Leiden University Medical Center, <sup>2</sup>Duchenne Center Netherlands, <sup>3</sup>Department

of Pediatrics, Leiden University Medical Center, <sup>4</sup>Basalt Rehabilitation Center, <sup>5</sup>Department of Orthopedics,

Rehabilitation & Physical therapy, Leiden University Medical Center, <sup>6</sup>Department of Dietetics and Social Work,

Leiden University Medical Center, <sup>7</sup>Department of Cardiology, Leiden University Medical Center, <sup>8</sup>C.J. Gorter

MRI Center, Department of Radiology, Leiden University Medical Center, <sup>9</sup>Human Genetics Department, Leiden

University Medical Center, <sup>10</sup>Biobanking Organization, Leiden University Medical Center

### **610P Facilitating patient/caregiver preparation prior to visit increases quality in neuromuscular care**

**Edofsson U**<sup>1</sup>, Weichbrodt J<sup>1</sup>, Sofou K<sup>1</sup>

<sup>1</sup>The Queen Silvia Children's Hospital

### **611P Empowering patient decision-making and enhancing clinical care through the UK Duchenne Muscular Dystrophy patient data collection platform**

**Reuben E**<sup>1</sup>, Gaeta A<sup>1</sup>, Johnson A<sup>1</sup>, Philippault H<sup>1</sup>, Davies E<sup>2</sup>, Ferrer-Mallol E<sup>2</sup>, Cammish P<sup>3</sup>, Guglieri M<sup>3</sup>,

Ezzamouri B<sup>1</sup>

<sup>1</sup>Duchenne UK, London, UK, <sup>2</sup>Aparito Ltd, <sup>3</sup>Institute of Human Genetics International Centre for Life Newcastle

University

**612P Dystrophinopathy in ACTION; Analysis of the first 500 males enrolled in the Advanced Cardiac Therapies Improving Outcomes Network prospective dystrophinopathy registry**

**Hayes E<sup>1</sup>**, Villa C<sup>2</sup>, Nandi D<sup>1</sup>, Soslow J<sup>3</sup>, Mokshagundam D<sup>4</sup>, Shih R<sup>5</sup>, Wisotzkey B<sup>6</sup>, Parent J<sup>7</sup>, Cunningham T<sup>8</sup>, Conway J<sup>9</sup>, Estes P<sup>10</sup>, Birnbaum B<sup>11</sup>, Shugh S<sup>12</sup>, Raucci F<sup>13</sup>, Kaufman B<sup>14</sup>, Soares N<sup>15</sup>, Kirmani S<sup>16</sup>, Martinez H<sup>17</sup>, Gambetta K<sup>18</sup>, Lal A<sup>19</sup>, Wittlieb-Weber C<sup>20</sup>

<sup>1</sup>The Children's Hospital, <sup>2</sup>Cincinnati Children's Hospital, <sup>3</sup>Monroe Carell Jr. Children's Hospital at Vanderbilt, <sup>4</sup>St. Louis Children's Hospital, <sup>5</sup>UF Shands Children's Hospital, <sup>6</sup>Phoenix Children's Hospital, <sup>7</sup>Riley Hospital for Children, <sup>8</sup>Arkansas Children's Hospital, <sup>9</sup>Stollery Children's Hospital, <sup>10</sup>Boston Children's Hospital, <sup>11</sup>Children's Mercy, <sup>12</sup>Joe DiMaggio Children's Hospital, <sup>13</sup>Children's Hospital of Richmond at VCU, <sup>14</sup>Lucille Packard Children's Hospital, Palo Alto, USA, <sup>15</sup>Children's Medical Center Dallas, Dallas, USA, <sup>16</sup>Children's Wisconsin, <sup>17</sup>Le Bonheur Children's Hospital, <sup>18</sup>Ann & Robert H. Lurie Children's Hospital of Chicago, <sup>19</sup>Primary Children's Hospital, <sup>20</sup>The Children's Hospital of Philadelphia

**613P Contemporary use of ventricular assist devices in Muscular Dystrophy: a report from the ACTION learning collaborative**

**Nandi D<sup>1</sup>**, Hayes E<sup>1</sup>, Auerbach S<sup>2</sup>, Bansal N<sup>3</sup>, Conway J<sup>4</sup>, Esteo P<sup>5</sup>, Kaufman B<sup>6</sup>, Lal A<sup>7</sup>, Law S<sup>8</sup>, Mokshagundam D<sup>9</sup>, Sutcliffe D<sup>10</sup>, Absi M<sup>11</sup>, Raskin A<sup>12</sup>, Friedland-Little J<sup>13</sup>, Wittlieb-Weber C<sup>14</sup>, Kroschwitz B<sup>15</sup>, Lorts A<sup>15</sup>, Cripe L<sup>1</sup>, Villa C<sup>15</sup>

<sup>1</sup>Division of Cardiology, Department of Pediatrics, Nationwide Children's Hospital, <sup>2</sup>Children's Hospital Colorado, <sup>3</sup>Mt Sinai School of Medicine, <sup>4</sup>University of Alberta, <sup>5</sup>Boston Children's Hospital, <sup>6</sup>Lucille Packard Children's Hospital, <sup>7</sup>Primary Children's Hospital, <sup>8</sup>Morgan Stanley Children's Hospital of New York, <sup>9</sup>St. Louis Children's Hospital, <sup>10</sup>Children's Mercy Hospital, <sup>11</sup>LeBonheur Children's Hospital, <sup>12</sup>Children's Hospital of Wisconsin, <sup>13</sup>Seattle Children's Hospital, <sup>14</sup>Children's Hospital of Philadelphia, <sup>15</sup>Cincinnati Children's Hospital Medical Center

**614P Burden on parent caregivers of children with a muscle disease: a qualitative study**

**Altena-rensens S<sup>1</sup>**, van Hattum M<sup>2</sup>, Braakman H<sup>1</sup>, Erasmus C<sup>1</sup>,

<sup>1</sup>Radboudumc Amalia Children's Hospital, Netherlands, <sup>2</sup>Hogeschool Arnhem en Nijmegen

**615P Introducing PaLaDIn: improving the use of rare NMD patient data to inform healthcare decision making**

**Leary R<sup>1</sup>**, Allison D<sup>2</sup>, Cogoni S<sup>3</sup>, Cornet R<sup>4</sup>, Roos M<sup>5</sup>, Davies E<sup>6</sup>, Schoser B<sup>7</sup>, Kahtava K<sup>8</sup>, Ezzamouri B<sup>9</sup>, Straub V<sup>1</sup>

<sup>1</sup>John Walton Muscular Dystrophy Research Centre (Newcastle University), <sup>2</sup>TREAT-NMD Services Ltd., <sup>3</sup>Parent Project Italy APS, <sup>4</sup>Amsterdam University Medical Centre, <sup>5</sup>Leiden University Medical Centre, <sup>6</sup>Aparito, <sup>7</sup>Ludwig-Maximilians-Universität München, <sup>8</sup>FSHD Society, <sup>9</sup>Duchenne UK

**616P From New Zealand Neuromuscular Disease Registry to Pūnaha Io - the New Zealand NeuroGenetic Registry & Biobank**

**Rodrigues M<sup>1,2</sup>**, O'Grady G<sup>3</sup>, Buchanan C<sup>1</sup>, Fraser L<sup>1</sup>, Stewart C<sup>1</sup>, Cleland J<sup>4</sup>, Roxburgh R<sup>1,2</sup>

<sup>1</sup>Health New Zealand - Auckland, <sup>2</sup>University of Auckland, <sup>3</sup>Starship Children's Hospital, <sup>4</sup>Health New Zealand

**617P Using innovative data modelling methods to improve data quality- learning from Adult SMA REACH a real-world data collection study**

**Segovia Simon S<sup>1</sup>**, Verdu-Diaz J<sup>1</sup>, Karkkainen E<sup>1</sup>, Page J<sup>1</sup>, Carver A<sup>1</sup>, Alvarez G<sup>1</sup>, Muni-Lofra R<sup>1</sup>, Mitchell-Sodhi J<sup>1</sup>, Marini-Bettolo C<sup>1</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust

**618P Global FKRP Registry - the research database for Limb Girdle Muscular Dystrophy 2I/R9**

**McDonald S<sup>1</sup>**, Murphy L<sup>1</sup>, Alfano L<sup>2</sup>, Brazzo K<sup>3</sup>, Johnson N<sup>4</sup>, Laurent J<sup>5</sup>, Mathews K<sup>6</sup>, Thiele S<sup>7</sup>, Vissing J<sup>8</sup>, Walter M<sup>7</sup>, Woods L<sup>9</sup>, Ørstavik K<sup>10</sup>, Straub V<sup>1</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Newcastle University, <sup>2</sup>Center for Gene Therapy at the Research Institute, Nationwide Children's Hospital, <sup>3</sup>CureLGMD2i Foundation, <sup>4</sup>Virginia Commonwealth University, Department of Neurology, <sup>5</sup>LGMD2i Research Fund, <sup>6</sup>Carver College of Medicine, University of Iowa, <sup>7</sup>Friedrich-Baur-Institute, Department of Neurology, Ludwig-Maximilians-University, <sup>8</sup>Copenhagen Neuromuscular Center, University of Copenhagen, <sup>9</sup>Patient representative, <sup>10</sup>Section for Rare Neuromuscular disorders, Department of Neurology, Oslo University Hospital

15:15-15:45

**Short Oral Presentations 7**

📍 North Hall

**69P, 70P, 74P, 71P, 72P**

Moderator: Duygu Selcen, The Mayo Clinic

**Short Oral Presentations 8**

📍 Terrace 2A

**469P, 470P, 471P, 468P, 203P**

Moderator: Nicholas Johnson, Virginia Commonwealth University

**Short Oral Presentations 9**

📍 Terrace 2B

**315P, 314P, 312P, 265P, 262P**

Moderator: Anna Sarkozy, Great Ormond Street Hospital

**98P-109P, 110VP-112VP: ALS/neuropathy****98P Biallelic pathogenic PLEKHG5 variants in a girl with childhood-onset lower motor neuron disease****Cavuşoğlu D**<sup>1</sup>, Ataseven Kulali M<sup>2</sup>, Guzel A<sup>3</sup>, Olgac Dunder N<sup>4</sup><sup>1</sup>Departments of Pediatric Neurology, Afyonkarahisar Health Sciences University, <sup>2</sup>Departments of Pediatric Genetics, Etlik City Hospital, <sup>3</sup>Departments of Neurology, Afyonkarahisar Health Sciences University, <sup>4</sup>Department of Pediatric Neurology, Faculty of Medicine, İzmir Katip Celebi University**99P Genetic odyssey: a journey through inherited neuropathies in our center****Davarasingi V**<sup>1</sup>, Krishna G<sup>1</sup>, Ramesh babu R<sup>1</sup>, Satyam P<sup>1</sup>, Mathew A<sup>1</sup><sup>1</sup>Synapse Neuro center and Child Development Centre**100P Case series of three children with SH3TC2-Related Hereditary Sensorimotor Neuropathy****Moore Burk M**<sup>1</sup>, Kelley C<sup>1</sup>, Silver C<sup>1</sup>, Gibbons M<sup>2</sup>, Foster H<sup>1</sup>, Browning K<sup>1,2</sup>, Murphy-Zane M<sup>1,2</sup>, Apkon S<sup>1,2</sup>, Yang M<sup>1,2</sup><sup>1</sup>Children's Hospital Colorado, <sup>2</sup>University of Colorado School of Medicine**101P Pediatric Charcot-Marie-Tooth (CMT) Clinic: quality care and preparing for the future****Moore Burk M**<sup>1</sup>, Kelley C<sup>1</sup>, Silver C<sup>1</sup>, Gibbons M<sup>2</sup>, Foster H<sup>1</sup>, Browning K<sup>2</sup>, Murphy-Zane M<sup>1,2</sup>, Yang M<sup>1,2</sup>, Apkon S<sup>1,2</sup><sup>1</sup>Children's Hospital Colorado, <sup>2</sup>University of Colorado School of Medicine**102P Clinical profiles bulbar and limb onset Amyotrophic Lateral Sclerosis patients: A Retrospective Cohort Study****Yunisova G**<sup>1</sup>, Üçem S<sup>2</sup>, Özdağ Acarlı A<sup>3</sup>, Başak A<sup>4</sup>, Oflazer P<sup>3</sup><sup>1</sup>Koc University Hospital, <sup>2</sup>Koç University, Koç University Hospital, Department of Neurology, <sup>3</sup>Koç University, Koç University Hospital, Department of Neurology, Muscle Diseases Center, <sup>4</sup>Koç University, Research Center for Translational Medicine (KUTTAM), NDAL, Department of Molecular Biology and Genetics**103P NMD670, a first-in-class skeletal muscle CIC-1 Inhibitor in Charcot-Marie-Tooth disease: the SYNAPSE-CMT phase 2 study****Gidaro T**<sup>1</sup>, S. Grønnebak T<sup>1</sup>, Cornwall C<sup>1</sup>, Gupte J<sup>1</sup>, Sampson C<sup>1</sup>, Kiyasova V<sup>1</sup>, H. Pedersen T<sup>1</sup>, A. Quiroz J<sup>1</sup><sup>1</sup>NMD Pharma**104P RNA Aptamers as a potential drug candidate for ALS****Niu L**<sup>1</sup>, Huang Z<sup>1</sup>, Akamatsu M<sup>1</sup><sup>1</sup>Department of Chemistry, University at Albany, State University of New York**105P Frequency and clinical characterization of SORD-Related Neuropathy in a Belgian cohort****Opsomer M**<sup>1,2</sup>, Vermeersch P<sup>3</sup>, Philip V<sup>1</sup>, Decru B<sup>3</sup>, Race V<sup>4</sup>, Dohrn M<sup>5,6</sup>, Zuchner S<sup>5</sup>, Claeys K<sup>1,2</sup><sup>1</sup>Department of Neurology, University Hospitals Leuven, <sup>2</sup>Laboratory for Muscle Diseases and Neuropathies, Department of Neurosciences, KU Leuven, and Leuven Brain Institute (LBI), <sup>3</sup>Clinical Department of Laboratory Medicine, University Hospitals Leuven, <sup>4</sup>Center for Human Genetics, KU Leuven and University Hospitals Leuven, <sup>5</sup>Dr. John T. Macdonald Foundation, Department of Human Genetics and John P. Hussman Institute for Hum Genomics, University of Miami, Miller School of Medicine, <sup>6</sup>Department of Neurology, Medical Faculty RWTH Aachen University**106P Clinical, neurophysiological, and genetic characterization of a 5' UTR PSAP variant: Implications for diagnosis****Donkervoort S**<sup>1</sup>, Orbach R<sup>1</sup>, Silverstein S<sup>1,2</sup>, Potticary A<sup>1</sup>, Stenton S<sup>3</sup>, Karachunski P<sup>4</sup>, Bönnemann C<sup>1</sup><sup>1</sup>NNDCS, National Institutes of Health, <sup>2</sup>Rutgers New Jersey Medical School, <sup>3</sup>Broad Institute of MIT and Harvard, <sup>4</sup>University of Minnesota Medical School**107P Clinical features of FOSMN syndrome in Korea: a comparison with bulbar-onset Amyotrophic Lateral Sclerosis****Choi S**<sup>1</sup>, Ju W<sup>1</sup>, Sung J<sup>1</sup><sup>1</sup>Department of Neurology, Seoul National University Hospital**108P Case series: description of HSBP1 mutations conferring motor neuropathies with overlap features presenting barriers to timely diagnosis****Nardin J**<sup>1</sup>, Segall H<sup>1</sup>, Jones K<sup>2</sup>, Mehrabyan A<sup>1</sup><sup>1</sup>UNC Health, <sup>2</sup>Duke University



**109P Preserve sense by antisense – a novel allele-specific antisense oligonucleotide therapy for SPTLC1-related Hereditary Sensory Neuropathy**

Meng J<sup>1,2</sup>, Ma S<sup>1</sup>, Wong L<sup>1</sup>, Lone M<sup>3</sup>, Zhang Q<sup>1</sup>, Cheng S<sup>1</sup>, Demetriou C<sup>1</sup>, Clark A<sup>4</sup>, Bennett D<sup>5</sup>, Hornemann T<sup>3</sup>, Reilly M<sup>1</sup>, Muntoni F<sup>1,2</sup>, **Zhou H<sup>1,2</sup>**

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**110VP FIG4 loss of function: Unraveling the phenotypic spectrum for clinical trial readiness**

**Boyek G<sup>1</sup>**, Orbach R<sup>1</sup>, Gottlieb K<sup>2</sup>, Duff J<sup>3</sup>, Lenk G<sup>4</sup>, Bönnemann C<sup>1</sup>

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**111P Genotype-phenotype analysis of multisystem proteinopathy with neurological involvement**

**Xia X<sup>1</sup>**, Dong Y<sup>1</sup>, Chen Y<sup>1</sup>, Zhao C<sup>1</sup>, Zhu W<sup>1</sup>

<sup>1</sup>Huashan Hospital, Fudan University

**112VP Spinal and Bulbar Muscular Atrophy with easy fatigability and hyperCKemia**

**Lee J<sup>1</sup>**

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**148P-181P: SMA Therapies**

**148P Rapid risdiplam initiation in newborns with Spinal Muscular Atrophy (SMA): A multicenter, retrospective cohort study**

**Goedeker N<sup>1</sup>**, Dierker A<sup>1</sup>, Felker M<sup>2</sup>, Lakhota A<sup>3</sup>, Rogers A<sup>3</sup>, Zaidman C<sup>1</sup>

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**149VP 3D stem cell-derived spinal cord/muscle organoid model for studying and treating neuromuscular diseases**

**Corti S<sup>1</sup>**, D' Angelo A<sup>1</sup>, Beatrice F<sup>1</sup>, Ongaro J<sup>2</sup>, Rinchetti P<sup>1</sup>, Faravelli I<sup>1</sup>, Miotto M<sup>3</sup>, Lodato S<sup>3</sup>, Nizzardo M<sup>2</sup>, Comi G<sup>1</sup>, Ottoboni L<sup>1</sup>

<sup>1</sup>University Of Milan, <sup>2</sup>Fondazione IRCCS Ca Granda Ospedale Maggiore Policlinico, <sup>3</sup>Humanitas University

**150P Patient, caregiver and healthcare professionals' perspective on spinal bracing in early onset Spinal Muscular Atrophy in the U.K.: a national survey**

**Quelch W<sup>1</sup>**, Taylor F<sup>2</sup>, Thorman P<sup>3</sup>, Ramjattan H<sup>2</sup>, Ramdas S<sup>2,4,5</sup>, Ong M<sup>1</sup>

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**151P Real-world treatment with risdiplam in adults with SMA: a multicentre study**

**Gorni K<sup>1</sup>**, Guittari C<sup>2</sup>, Candrilli S<sup>3</sup>, Miles L<sup>3</sup>, Simpson A<sup>4</sup>, Shapouri S<sup>5</sup>

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**152P Perceived effects of treatments by SMA adult patients: a French qualitative study**

**Laforêt P<sup>2,4,3</sup>**, Montagu G<sup>4</sup>, Boyer F<sup>5,6</sup>, Gargiulo M<sup>7,8</sup>, Pouplin S<sup>9,10</sup>, Barrière A<sup>11</sup>, Berling E<sup>1,2</sup>, Bonnyaud C<sup>9,10</sup>, Cintas P<sup>12</sup>, Hogrel J<sup>7</sup>, Le Goff L<sup>13</sup>, Marchadier B<sup>14</sup>, N'Dah Sékou G<sup>1,2</sup>, Orlikowski D<sup>2,15,16,17</sup>, Prigent H<sup>2,17,18</sup>, Ropars J<sup>19,23</sup>, Salort-Campana E<sup>20,21</sup>, Stojkovic T<sup>7,22</sup>, Attarian S<sup>20,21</sup>

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**153P Long-term effectiveness of risdiplam in non-ambulant SMA patients with prolonged disease duration**

Weng W<sup>1,2</sup>, Shieh J<sup>1</sup>, Huang H<sup>1</sup>, Tsai L<sup>1</sup>

<sup>1</sup>National Taiwan University Hospital, <sup>2</sup>National Taiwan University College of Medicine

**154VP Usage of disease modifying therapies in Spinal Muscular Atrophy and existing disparities: a population-based study from the MDA MOVR database**

McLaren N<sup>1</sup>, Joo D<sup>1</sup>, Nowak R<sup>1</sup>, Roy B<sup>1</sup>

<sup>1</sup>Yale University School of Medicine

**155P The experience of parents as they make treatment decisions for their child with Spinal Muscular Atrophy and the factors that influence these decisions: a narrative review**

Leach M<sup>1</sup>, Finanger E<sup>1</sup>, Izumi S<sup>1</sup>

<sup>1</sup>Oregon Health and Science University

**156P Phosphorylated neurofilament heavy chain in cerebrospinal fluid and plasma in clinically silent and childhood-onset SMA individuals from Serbia**

Brkusanić M<sup>1</sup>, Kosac A<sup>2</sup>, Branković-Srecković V<sup>2</sup>, Jovanović K<sup>3</sup>, Karanović J<sup>1</sup>, Matijasević Joković S<sup>1</sup>, Garai N<sup>1</sup>, Pesović J<sup>1</sup>, Radovanović N<sup>1</sup>, Radenković L<sup>1</sup>, Dobrijević Z<sup>4</sup>, Nikolić D<sup>3,5</sup>, Stević Z<sup>5,6</sup>, Brajkuskić G<sup>1</sup>, Milic-Rasić V<sup>2,5</sup>, Savić-Pavicević D<sup>1</sup>

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**157P Functional progression post Nusinersen therapy in Spinal Muscular Atrophy Type 2: a comprehensive 18-month analysis from a South Indian centre**

Banavara Shyamprasad S<sup>1</sup>, Khandekar G<sup>1</sup>, Ramesh Babu R<sup>1,2</sup>, Maganthy M<sup>2</sup>, Krishna G<sup>1</sup>, Kumar A<sup>2</sup>, Mathew A<sup>1,2</sup>

<sup>1</sup>Synapse Neuro Center, Bengaluru, India, <sup>2</sup>Bangalore Baptist Hospital

**158P Results of the nationwide pilot project of newborn screening for SMA in Czech Republic**

Glozer M<sup>1</sup>, Lauerova B<sup>1</sup>, Rohlenova M<sup>1</sup>, Kumhera M<sup>1</sup>, Dolanska A<sup>1</sup>, Jurikova L<sup>2</sup>, Haberlova J<sup>1</sup>

<sup>1</sup>Faculty Hospital Motol, <sup>2</sup>Neuromuscular Center, Department of Pediatric Neurology, University Hospital Brno and Faculty of Medicine, Masaryk University

**159P Acute liver failure failure post gene therapy in Spinal Muscular Atrophy**

Satyam P<sup>1,2</sup>, Krishna G<sup>1,2</sup>, Ramesh Babu R<sup>1,2</sup>, Maganthy M<sup>2</sup>, K.S L<sup>2</sup>, H.R S<sup>3</sup>, Mathew A<sup>1,2</sup>

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**160P Risdiplam real-world experience in paediatric patients with Spinal Muscular Atrophy type 2**

Nascimento Osorio A<sup>1</sup>, Expósito-Escudero J<sup>1</sup>, Medina J<sup>1</sup>, Valle M<sup>1</sup>, Roca S<sup>1</sup>, Moya O<sup>1</sup>, Natera De-Benito D<sup>1</sup>,

Latre C<sup>1</sup>, Ortez C<sup>1</sup>, Carrera-García L<sup>1</sup>

<sup>1</sup>Hospital Sant Joan De Deu

**161P Long-term safety of Onasemnogene Apeparovvec for patients with Spinal Muscular Atrophy: real-world findings from the RESTORE Registry**

Servais L<sup>1,2</sup>, Alecu I<sup>3</sup>, Lopez-Leon S<sup>4</sup>, Ilic A<sup>3</sup>, Brueckner A<sup>3</sup>, Benguerba K<sup>5</sup>, Reyna S<sup>6</sup>, Dabbous O<sup>6</sup>, Mumneh N<sup>6</sup>, Finkel R<sup>7</sup>

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**162P Real-world outcomes following Onasemnogene Apeparovvec in patients with SMA and Invasive Ventilatory support: findings from the RESTORE Registry**

Servais L<sup>1,2</sup>, Shieh P<sup>3</sup>, Goedecker N<sup>4</sup>, Waldrop M<sup>5,6</sup>, Bo R<sup>7</sup>, Erbas Y<sup>8</sup>, Raju D<sup>9</sup>, Benguerba K<sup>10</sup>, Reyna S<sup>9</sup>, Wolff D<sup>9</sup>, Finkel R<sup>11</sup>

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**163P Real-World outcomes following Onasemnogene Apeparvovec in patients with SMA and One SMN2 gene copy: findings from the RESTORE Registry**

Servais L<sup>1,2</sup>, Mathews K<sup>3</sup>, Bernes S<sup>4</sup>, Lakhota A<sup>5</sup>, Tizzano E<sup>6</sup>, Raju D<sup>7</sup>, Benguerba K<sup>8</sup>, Reyna S<sup>7</sup>, Dabbous O<sup>7</sup>, Finkel R<sup>9</sup>

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**164P Meta-analysis of clinical impact of Onasemnogene Apeparvovec treatment of Spinal Muscular Atrophy patients**

Reyna S<sup>1</sup>, Dabbous O<sup>1</sup>, Wallach S<sup>1</sup>, Patel A<sup>1</sup>, Toro W<sup>1</sup>, Ritter S<sup>1</sup>

<sup>1</sup>Novartis Gene Therapies, Inc.

**165P Health Care Resource Use (HCRU) for patients with Spinal Muscular Atrophy (SMA) Types 2 or 3 in the UK**

Reyna S<sup>1</sup>, Toro W<sup>1</sup>, Patel A<sup>1</sup>, Saleh S<sup>2</sup>, Dabbous O<sup>1</sup>

<sup>1</sup>Novartis Gene Therapies, Inc., <sup>2</sup>American University of Beirut

**166P Fertility outcomes in risdiplam-treated male patients with Spinal Muscular Atrophy (SMA): a multicenter case series**

Erdler M<sup>1</sup>, Coskery S<sup>2</sup>, Frey M<sup>3</sup>, Lopez M<sup>4</sup>

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**167P SnRNAseq analysis of muscle samples of patients with SMA reveals novel pathogenic pathways and open avenues for new therapeutic strategies**

Collins C<sup>1</sup>, Gokul-Nath R<sup>1</sup>, Katsikis P<sup>1</sup>, Fernández-Simón E<sup>1</sup>, Villalobos E<sup>1</sup>, Monceau A<sup>1</sup>, Reza M<sup>1</sup>, Mehra P<sup>1</sup>, Laidler Z<sup>1</sup>, Clark J<sup>1</sup>, Rojas-García R<sup>2</sup>, Tasca G<sup>1</sup>, Marini-Bettolo C<sup>1</sup>, Díaz-Manera J<sup>1</sup>

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**168P Long-term effects of risdiplam in adult Spinal Muscular Atrophy: a 24-month prospective study on clinical, functional, and patient-reported outcome measures**

Itebeke L<sup>1</sup>, Claeys K<sup>1,2</sup>

<sup>1</sup>Laboratory for Muscle Diseases and Neuropathies, Department of Neurosciences, KU Leuven, and Leuven Brain Institute (LBI), <sup>2</sup>Department of Neurology, University Hospitals Leuven

**169P Alteration of LARGE1 abundance in patients and a mouse model of 5q-associated Spinal Muscular Atrophy**

Roos A<sup>1,4,5</sup>, Schmitt L<sup>2</sup>, Hansmann C<sup>2</sup>, Hezel S<sup>2</sup>, Salmanian S<sup>2</sup>, Hentschel A<sup>3</sup>, Meyer N<sup>1</sup>, Della Marina A<sup>1</sup>, Kölbl H<sup>1</sup>, Kleinschnitz C<sup>2</sup>, Schara-Schmidt U<sup>1</sup>, Leo M<sup>2</sup>, Hagenacker T<sup>2</sup>

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**170P Apitegromab in Spinal Muscular Atrophy: baseline characteristics of participants enrolled in the phase 3 SAPPHERE study**

Crawford T<sup>1</sup>, Servais L<sup>2</sup>, Krueger J<sup>3</sup>, Kölbl H<sup>4</sup>, Gomez Garcia M<sup>5,6,7</sup>, Cancas C<sup>8</sup>, Kuntz N<sup>9,10</sup>, Finkel R<sup>11</sup>, Yao B<sup>12</sup>, Zhao G<sup>12</sup>, Marantz J<sup>12</sup>, Darras B<sup>13</sup>, Mercuri E<sup>14,15</sup>

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**171P Newborn Spinal Muscular Atrophy screening: 2-year results of multi-center experience in Turkey**

**Ünver O<sup>1</sup>**, Öztürk G<sup>1</sup>, Sakarya Güneş A<sup>2</sup>, Özçelik A<sup>3</sup>, Maraş Genç H<sup>4</sup>, Saltık S<sup>5</sup>, Akbeyaz İ<sup>1</sup>, Tekin Orgun L<sup>2</sup>, Karakayalı B<sup>1</sup>, Acar Arslan E<sup>2</sup>, Cırdı G<sup>2</sup>, Ceylan A<sup>6</sup>, Gökdemir Y<sup>7</sup>, Özbaş Akkaya A<sup>8</sup>, Erdem Eralp E<sup>7</sup>, Karadağ Saygı E<sup>9</sup>, Karadağ B<sup>7</sup>, Kara B<sup>2</sup>, Topaloğlu H<sup>10</sup>, Türkoğlu D<sup>1</sup>

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**172P FUS protein expression in the myopathology of 5q-associated Spinal Muscular Atrophy type 3**

**Kölbel H<sup>1</sup>**, Dobelman V<sup>2</sup>, van Haute L<sup>3</sup>, Lancene E<sup>4</sup>, Kollipara L<sup>5</sup>, Della Marina A<sup>1</sup>, Horvath R<sup>6</sup>, Schara-Schmidt U<sup>1</sup>, Ruck T<sup>2</sup>, Schoser B<sup>7</sup>, Evangelista T<sup>4</sup>, Roos A<sup>1,2,8</sup>

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**173P A multidisciplinary approach to address the challenges posed by new phenotypes of symptomatic SMA patients treated with innovative therapies**

Gaume M<sup>1</sup>, Viillard L<sup>2</sup>, Vialle R<sup>1</sup>, Desguerre J<sup>3</sup>, de Lattre C<sup>4</sup>, Cunin V<sup>5</sup>, **Vuillerot C<sup>6</sup>**

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**174P Risdiplam in type 2 and 3 Spinal Muscular Atrophy: results of a cohort of adult Italian patients. A 3-year follow-up**

**Ruggiero L<sup>1</sup>**, Russo A<sup>1</sup>, Iodice R<sup>1</sup>, Dubbioso R<sup>1</sup>, Tozza S<sup>1</sup>, Esposito G<sup>2</sup>, Zoppi D<sup>1</sup>

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**175P Thrombospondin-4 as potential cerebrospinal fluid biomarker for therapy response in pediatric 5q-associated spinal muscular atrophy patients**

**Dobelmann V<sup>1</sup>**, Roos A<sup>1,2,3</sup>, Hentschel A<sup>4</sup>, Della Marina A<sup>2</sup>, Leo M<sup>5</sup>, Schmitt L<sup>5</sup>, Maggi L<sup>6</sup>, Schara-Schmidt U<sup>2</sup>, Hagenacker T<sup>5</sup>, Ruck T<sup>1</sup>, Koelbel H<sup>2</sup>

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**176P Acceptability, feasibility, safety and potential efficacy of an optimised rehabilitation for treated patients with SMA in UK: ACE SMA**

**Lilien C<sup>1</sup>**, Hill S<sup>1</sup>, Mavrommati F<sup>1,2</sup>, Ramjattan H<sup>3</sup>, Taylor F<sup>3</sup>, Collett J<sup>2</sup>, Servais L<sup>1,4</sup>

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**177P Effect of gene therapy on the epigenetic and transcriptional stability of SMA**

**Smeriglio P<sup>1</sup>**, Grandi F<sup>1</sup>, Arnould A<sup>1</sup>, Pezet S<sup>1</sup>, Marais T<sup>1</sup>, Mazzucchi S<sup>1</sup>, Astord S<sup>1</sup>, Cohen-Tannoudji M<sup>1</sup>

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**178P Spinal muscular atrophy type II skeletal muscle treated with Nusinersen and Risdiplam shows SMN restoration but mitochondrial deficiency**

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<sup>1</sup>INSERM UMR 974

**179P Intravenous and intrathecal Onasemnogene ABEPARVOVEC gene therapy in symptomatic and presymptomatic SMA: long-term follow-up study**

**Darras B<sup>1</sup>**, Farrar M<sup>2,3</sup>, Mercuri E<sup>4</sup>, Strauss K<sup>5,6,7</sup>, Day J<sup>8</sup>, Chien Y<sup>9</sup>, Masson R<sup>10</sup>, Bernardo R<sup>11</sup>, Alecu I<sup>12</sup>, Dodd N<sup>13</sup>, Mehl L<sup>14</sup>, Connolly A<sup>15,16</sup>

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**180P Interim results from RESPOND: a study of nusinersen in children with Spinal Muscular Atrophy (SMA) previously treated with onasemnogene abeparvovec (OA)**

**Masson R<sup>1</sup>**, Proud C<sup>2</sup>, Finkel R<sup>3</sup>, Parsons J<sup>4</sup>, Kuntz N<sup>5</sup>, Foster R<sup>6</sup>, Li W<sup>7</sup>, Chary S<sup>7</sup>, Sohn J<sup>7</sup>, Fradette S<sup>7</sup>, Youn B<sup>7</sup>, Paradis A<sup>7</sup>

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**181P Investigating the developmental expression of the SMN protein in brain in a Spinal muscular atrophy mouse model**

**Demetriou C<sup>1</sup>**, Frontzek K<sup>3</sup>, Zhou H<sup>2</sup>, Muntoni F<sup>1</sup>, Baranello G<sup>1</sup>

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**234P-246P, 497P-513P, 514VP-515VP: Myasthenia Gravis, NMJ1-2, Periodic paralysis**

**234P Congenital Myasthenic Syndromes in adults: clinical features, diagnosis and long-term prognosis**

**Theuriet J<sup>1,2</sup>**, Villar-Quiles R<sup>2</sup>, Stojkovic T<sup>2</sup>, Eymard B<sup>2</sup>

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**235P Cross sectional study of 187 patients with Congenital Myasthenia Syndrome, describing the clinical phenotypes, genetic mutations, and single point standardised assessment scores**

**Ramdas S<sup>1,2</sup>**, Ramjattan H<sup>3</sup>, Hennehan L<sup>4</sup>, Natera De Benito D<sup>5</sup>, Nascimiento A<sup>5</sup>, Della Marina A<sup>6</sup>, Schara-Schmidt U<sup>6</sup>, Munot P<sup>7</sup>, Simmons E<sup>7</sup>, Maggi L<sup>8</sup>, Gallone A<sup>9</sup>, Nadaj Pakleza A<sup>10</sup>, Chanson J<sup>10</sup>, Marini-Bettolo C<sup>11</sup>, Moat D<sup>11</sup>, Paz Guerrero-Molina M<sup>12</sup>, Dominguez-González C<sup>12,13</sup>, Jungbluth H<sup>14,15</sup>, Sheehan J<sup>14</sup>, Palace J<sup>4</sup>

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**236P Real-world experience with C5 complement inhibition and FcRn modulation in Myasthenia Gravis**

**Huntemann N<sup>1</sup>**, Nelke C<sup>1</sup>, Schroeter C<sup>1</sup>, Meuth S<sup>1</sup>, Ruck T<sup>1</sup>

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**237P Advancing the understanding of VAMP1-related Congenital Myasthenic Syndrome: phenotypic insights, favorable response to 3,4-diaminopyridine, and clinical characterization of five new cases**

**Natera De Benito D<sup>1</sup>**, Pugliese A<sup>2</sup>, Polavarapu K<sup>3</sup>, Guergueltcheva V<sup>4</sup>, Tournev I<sup>5</sup>, Todorova A<sup>6</sup>, Ribeiro J<sup>7</sup>, M Fernández-Mayoralas D<sup>8</sup>, Ortez C<sup>1</sup>, Martorell L<sup>1</sup>, Estevez-Arias B<sup>1</sup>, Matalonga L<sup>9</sup>, Laurie S<sup>9</sup>, Jou C<sup>1</sup>, Lau J<sup>3</sup>, Thompson R<sup>3</sup>, Shen X<sup>10</sup>, Engel A<sup>10</sup>, Nascimento A<sup>1</sup>, Lochmuller H<sup>3</sup>, Selcen D<sup>10</sup>

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**238P NMD670, a first-in-class skeletal muscle CIC-1 Inhibitor in Myasthenia Gravis: the SYNAPSE-MG dose-finding study**

**Gidaro T<sup>1</sup>**, S. Grønnebak T<sup>1</sup>, Cornwall C<sup>1</sup>, Gupte J<sup>1</sup>, Sampson C<sup>1</sup>, Kiyasova V<sup>1</sup>, H. Pedersen T<sup>1</sup>, A. Quiroz J<sup>1</sup>

<sup>1</sup>NMD Pharma A/S, DK-8200

**239P The association between disease severity and utilities, mental health, fatigue, sleep disturbances and sick leave in patients with Myasthenia Gravis**

Brackx F<sup>1</sup>, Goffart B<sup>2</sup>, Linthoudt T<sup>2</sup>, De Ruyck F<sup>2</sup>, Phillips G<sup>2</sup>, Dewilde S<sup>1</sup>, **Claeys K<sup>3,4</sup>**

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**240P Late presentation DOK7 Congenital Myasthenia Syndrome (CMS), misdiagnosed as Myasthenia Gravis (MG) – a case series**

**Henehan L<sup>1</sup>**, Rossini E<sup>1,2</sup>, Dong Y<sup>3</sup>, Beeson D<sup>4</sup>, Ramdas S<sup>5,6</sup>, Leite I<sup>1,4</sup>, Palace J<sup>1,4</sup>

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**241P Long term follow-up of CHRNE Congenital Myasthenic Syndrome (CMS) – a retrospective multi-centre cohort study**

**Henehan L<sup>1</sup>**, Khries M<sup>2</sup>, Ramjattan H<sup>3,4</sup>, Dong Y<sup>5</sup>, Everett R<sup>1</sup>, Munot P<sup>6</sup>, Jungbluth H<sup>2,7</sup>, Beeson D<sup>8</sup>, Ramdas S<sup>3,9</sup>, Palace J<sup>1,8</sup>

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**242P Efgartigimod in AChR and non-AChR generalized Myasthenia Gravis: a single center experience**

**Antozzi C<sup>1</sup>**, Frangiamore R<sup>1</sup>, Rinaldi E<sup>1</sup>, Vanoli F, Bonanno S<sup>1</sup>, Maggi L<sup>1</sup>, Mantegazza R<sup>1</sup>

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**243P The effect of Nav1.4 Ile582Val gain-of-function mutation on mouse skeletal muscle excitability is sex specific**

**Suetterlin K<sup>1,2,3</sup>**, Mannikko R<sup>2</sup>, Matthews E<sup>5</sup>, Maitland S<sup>4</sup>, Greensmith L<sup>2</sup>, Hanna M<sup>2</sup>, Tan S<sup>2,6</sup>

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**244P A natural history study of Congenital Myasthenic Syndromes, to establish reliable outcome measures suitable for clinical and research assessment**

**Ramjattan H<sup>1</sup>**, English H<sup>1</sup>, Henehan L<sup>2</sup>, Ramdas S<sup>3,4</sup>, Palace J<sup>2</sup>

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**245P Exploring the relationship between an instrumented walking test and community physical activity in individuals with Congenital Myasthenic Syndrome**

**Ramiattan H<sup>1</sup>**, English H<sup>1</sup>, Ramdas S<sup>2,3</sup>, Esser P<sup>4</sup>, Palace J<sup>5</sup>

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**246P Factors affecting the diagnostic delay of Myasthenia Gravis**

**Marlet I<sup>1</sup>**, Andersen R<sup>1</sup>, Axelsen K<sup>1</sup>, Andersen L<sup>1</sup>, Wissing J<sup>1</sup>, Witting N<sup>1</sup>

<sup>1</sup>Copenhagen Neuromuscular Center, Department of Neurology, Rigshospitalet

**497P AChR-positive generalized Myasthenia Gravis patients unresponsive to new targeted molecular therapies: a single-centre case series**

**Rossini E<sup>1,2</sup>**, Marando D<sup>1</sup>, Morino S<sup>2</sup>, Leonardi L<sup>2</sup>, Tufano L<sup>1</sup>, Lauletta A<sup>1</sup>, Forcina F<sup>1</sup>, Garibaldi M<sup>1,2</sup>, Antonini G<sup>1</sup>, Fionda L<sup>2</sup>

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**498P Neuromuscular centre effect on prevalence of Congenital Myasthenic Syndrome (CMS) in the UK**

**Rossini E<sup>1,2</sup>**, Henehan L<sup>1</sup>, Everett R<sup>1</sup>, Dong Y<sup>3</sup>, Marini Bettolo C<sup>4</sup>, Munot P<sup>5</sup>, Jungbluth H<sup>6</sup>, Beeson D<sup>7</sup>, Ramdas S<sup>8,9</sup>, Palace J<sup>1,7</sup>

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**499P Exploring the impact of diet and physical activity on episodic muscle weakness and paralysis in Hypokalemic Periodic Paralysis: a qualitative interview study**

**Welland N<sup>1,2</sup>**, Hagen Venås B<sup>1,2</sup>, Ellefsen-Martinsen M<sup>1</sup>, Ludt Fossmo H<sup>1,3,4</sup>, Dybesland Rosenberger A<sup>5</sup>, Dahl H<sup>6</sup>, Ørstavik K<sup>2</sup>, Nordstrøm M<sup>1,3</sup>

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**500P The 6-minute walk test in a small group of patients with Congenital Myasthenic Syndromes**

**Bulut N<sup>1</sup>**, Aydın Yağcıoğlu G<sup>2</sup>, Demir A<sup>3</sup>, Gürbüz İ<sup>1</sup>, Yılmaz Ö<sup>1</sup>, Haliloğlu G<sup>3</sup>

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**501P Validation of ME&MG, a novel digital device for patients with Generalized myasthenia Gravis: the DOMYA Study**

Berling E<sup>1</sup>, Orlikowski D<sup>1</sup>, Nicolas G<sup>2</sup>, Prigent H<sup>2</sup>, N'Dah-Sekou G<sup>2</sup>, Carment L<sup>3</sup>, Gorin C<sup>3</sup>, Klaeyle L<sup>3</sup>, Touré Cuq E<sup>3</sup>, Aras E<sup>4</sup>, Zinaï S<sup>3</sup>, **Laforêt P<sup>2</sup>**

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**502P Cognitive functioning in Myasthenia Gravis: an Italian cohort study**

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**503P Corticosteroid dose tapering in patients with generalised Myasthenia Gravis on zilucoplan: an interim analysis of RAISE-XT**

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**504P Myonuclear abnormalities in Hypokalemic Periodic Paralysis due to ATP1A2 variant**

**Yae Y<sup>1,2</sup>**, Ogasawara M<sup>1,3</sup>, Nonaka I<sup>1</sup>, Hayashi S<sup>1</sup>, Iida A<sup>4</sup>, Okamura-Oho Y<sup>5</sup>, Noguchi S<sup>1</sup>, Nishino I<sup>1,4</sup>

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**505VP Safety and effectiveness of ravulizumab in gMG: evidence from a global registry**

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**506VP Long-term efficacy and safety of ravulizumab in adults with AChR-Ab+ gMG: final results from the phase 3 CHAMPION MG open-label extension**

**Vu, T<sup>1</sup>**

<sup>1</sup>Alexion, AstraZeneca Rare Disease

**507P Late-onset and milder phenotypes in a DOK7 Myasthenic Syndrome cohort to rethink the natural history of a perceived severe disease**

**Brisson J<sup>1,2,3,4</sup>**, Villeneuve J<sup>5</sup>, Nicolas L<sup>3</sup>, Mathieu J<sup>1,2</sup>, Gagnon C<sup>1,3,4</sup>

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**508P Clinical and genetic features of patients with Myotonia Congenita in Korea**

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**509P A real-life experience with Eculizumab and Efgartigimod in generalized Myasthenia Gravis patients**

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**510P Eculizumab versus rituximab for refractory anti-acetylcholine receptor antibody-positive generalized Myasthenia Gravis: a single-center experience**

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### 511P Blood biomarkers in a cohort of patients with CHRNE-associated Congenital Myasthenic Syndrome

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### 512P Investigating muscle specific kinase agonist antibody treatment for Agrn and ColQ Congenital Myasthenic Syndromes

**Ho K**<sup>1,2</sup>, Adjei-Afryiye O<sup>1,2</sup>, Carmona R<sup>1</sup>, Ray R<sup>2</sup>, Zeldin J<sup>1,2</sup>, O'Neil D<sup>1</sup>, Vanhauwaert R<sup>4</sup>, Spendiff S<sup>1</sup>, Lochmüller H<sup>1,2,3</sup>

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### 513P Deposition of MAC and IgG subclasses at the neuromuscular junction in LRP4+ Myasthenia Gravis

Hoffmann S<sup>1</sup>, Meisel A<sup>1</sup>, Brokamp K<sup>1</sup>, Helmig L<sup>1</sup>, Schülke-Gerstenfeld M<sup>2</sup>, Rückert J<sup>3</sup>, Pumberger M<sup>4</sup>, Schömig F<sup>4</sup>, Ruck T<sup>5</sup>, Pawlitzki M<sup>5</sup>, Stenzel W<sup>6</sup>, **Preusse C**<sup>1,2,6</sup>

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### 514VP Latent tuberculosis infection in Myasthenia Gravis patients in a low-incidence region

Carbonero C<sup>1</sup>, Arias M<sup>2</sup>, Mozo L<sup>3</sup>, Palacios J<sup>4</sup>, **Moris De La Tassa G**<sup>1</sup>

<sup>1</sup>Neurology Service. HUCA. SESPA, <sup>2</sup>Neumology Service. HUCA. SESPA, <sup>3</sup>Immunology Service. HUCA. SESPA, Oviedo, Spain, <sup>4</sup>Microbiology Service. HUCA. SESPA

### 515VP SCN4A loss of function zebra fish model: insights into myopathy and sudden infant death

**Ader F**<sup>1</sup>, Pittman A<sup>1</sup>, Matthews E<sup>1</sup>, Osborn D<sup>1</sup>

<sup>1</sup>St Georges University of London

### 318P-358P, 343VP, 359VP-360VP: DMD - clinical care and cases reports, BMD

#### 318P DMD splice site point mutation in intron 68 maintains the reading frame and almost full-length dystrophin expression with cell-specific pattern

**Białobrzaska M**<sup>1</sup>, Przymuszała M<sup>1</sup>, Potulska-Chromik A<sup>2</sup>, Kostera-Pruszczyk A<sup>2</sup>, Stępniewski J<sup>1</sup>, Florczyk-Soluch U<sup>1</sup>, Dulak J<sup>1</sup>

<sup>1</sup>Jagiellonian University Kraków, <sup>2</sup>Medical University of Warsaw

#### 319P MRI gluteal/thigh muscle fat fraction detects NSAD motor task failures in men with Becker muscular dystrophy

**Rock K**<sup>1</sup>, Willcocks R<sup>1</sup>, Barnard A<sup>1</sup>, Forbes S<sup>1</sup>, Lott D<sup>1</sup>, Senesac C<sup>1</sup>, Rooney W<sup>2</sup>, Baetscher E<sup>2</sup>, Subramony S<sup>1</sup>, Chahin N<sup>1</sup>, Kamal O<sup>1</sup>, Hinkle J<sup>1</sup>, Corwine A<sup>1</sup>, Huerta O<sup>2</sup>, Walter G<sup>1</sup>, Vandenborne K<sup>1</sup>

<sup>1</sup>University Of Florida, <sup>2</sup>Oregon Health and Science University

#### 320P Clinical characterization of a large single-centre cohort of patients with Becker Muscular Dystrophy

**Riguzzi P**<sup>1,2</sup>, Borland H<sup>1</sup>, Bourke J<sup>1</sup>, Marini Bettolo C<sup>1</sup>, James M<sup>1</sup>, Muni Lofra R<sup>1</sup>, Diaz-Manera J<sup>1</sup>, Tasca G<sup>1</sup>, Elseed M<sup>1</sup>, Grover E<sup>1</sup>, Geagan C<sup>1</sup>, Schiava M<sup>1</sup>, Bolano Diaz C<sup>1</sup>, Michell-Sodhi J<sup>1</sup>, Moat D<sup>1</sup>, Wong K<sup>1</sup>, Pegoraro E<sup>2</sup>, Bello L<sup>2</sup>, Straub V<sup>1</sup>, Guglieri M<sup>1</sup>

<sup>1</sup>John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University and Newcastle Hospitals NHS Foundation Trust, <sup>2</sup>Department of Neurosciences, University of Padova

**321P A new world: proposed model for physical therapist evaluation and management following implementation of newborn screening for Duchenne Muscular Dystrophy**

**Smith M<sup>1</sup>**, Iammarino M<sup>1</sup>, Reash N<sup>1</sup>, Steiner C<sup>1</sup>, Chagat S<sup>2</sup>, Meyer A<sup>3,1</sup>, Alfano L<sup>1,4</sup>, Lowes L<sup>1,4</sup>

<sup>1</sup>Center for Gene Therapy, Nationwide Children's Hospital, <sup>2</sup>Department of Neurology, Nationwide Children's Hospital, <sup>3</sup>Division of Genetic and Genomic Medicine, Nationwide Children's Hospital, <sup>4</sup>Department of Pediatrics, The Ohio State University

**322P Rasch evaluation of North Star Ambulatory Assessment and North Star Assessment for Limb-Girdle type Muscular Dystrophies in Becker Muscular Dystrophy**

**Lowes L<sup>1</sup>**, James M<sup>2</sup>, Alfano L<sup>1</sup>, Mayhew A<sup>2</sup>, Eagle M<sup>3</sup>, McDonald C<sup>4</sup>, Vissing J<sup>5</sup>, Phan H<sup>6</sup>, Donovan J<sup>7</sup>, MacDougall J<sup>7</sup>

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**323P Caregiver burden with Duchenne and Becker Muscular Dystrophy in Japan**

**Ishizaki M<sup>1</sup>**, Kobayashi M<sup>2</sup>, Nakamura A<sup>3</sup>, Maeda Y<sup>1</sup>, Ueyama H<sup>1</sup>, Matsumura T<sup>4</sup>

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**324P A longitudinal study of creatine kinase, creatinine levels, and appendicular lean mass index in pediatric Becker Muscular Dystrophy**

**Horn P<sup>1,2</sup>**, Zygmunt A<sup>1,2</sup>, Vilaisaktipakorn P<sup>1</sup>, Sharaf T<sup>1,3</sup>, Shiuan Y<sup>2</sup>, Rybalsky I<sup>1</sup>, Reebals L<sup>1</sup>, Bange J<sup>1</sup>, Tian C<sup>1,2</sup>

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**325P Is upper extremity contracture progression related to changes in upper extremity function in Duchenne Muscular Dystrophy? An international multicenter natural history study**

**Van Der Holst M<sup>1,2</sup>**, Italianer M<sup>2</sup>, Wolfe A<sup>3</sup>, Chesshyre M<sup>4</sup>, Voit T<sup>5</sup>, Straub V<sup>6</sup>, de Lucia S<sup>7</sup>, Servais L<sup>8,9</sup>, Hogrel J<sup>7</sup>, Pelsma M<sup>10</sup>, de Groot I<sup>10</sup>, Houwen S<sup>10</sup>, Muntoni F<sup>3</sup>, Niks E<sup>1</sup>

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**326P Acute adverse events after Zoledronic acid infusion are uncommon in patients with Duchenne Muscular Dystrophy previously treated with oral bisphosphonates**

**Vilaisaktipakorn P<sup>1</sup>**, Nasomyont N<sup>1,2</sup>, Hornung L<sup>1,2</sup>, Tian C<sup>1,2</sup>, Wasserman H<sup>1,2</sup>, Rutter M<sup>1,2</sup>

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**327P Correlation of biomarkers and timed function tests in pediatric Becker Muscular Dystrophy**

**Vilaisaktipakorn P<sup>1</sup>**, Zygmunt A<sup>1,2</sup>, Sharaf T<sup>3</sup>, Shiuan Y<sup>2</sup>, Horn P<sup>1,2</sup>, Bange J<sup>1</sup>, Reebals L<sup>1</sup>, Rybalsky I<sup>1</sup>, Tian C<sup>1,2</sup>

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**328P Navigating Dystrophinopathies: dual diagnosis and their implications**

**Bhimarao Nagaraj C<sup>1,2</sup>**, Reebals L<sup>1</sup>, Zygmunt A<sup>1,2</sup>, Tian C<sup>1,2</sup>

<sup>1</sup>Cincinnati Children's Hospital, <sup>2</sup>University of Cincinnati

**329P Siblings with Duchenne Muscular Dystrophy: a chart review to explore associations between age of diagnosis and clinical disease outcomes**

**Bhimarao Nagaraj C<sup>1,2</sup>**, Brahmamdam V<sup>1,2</sup>, Pilipenko V<sup>1</sup>, Armstrong N<sup>3</sup>, Zygmunt A<sup>1,2</sup>, Rybalsky I<sup>1,2</sup>, Reebals L<sup>1</sup>, Tian C<sup>1,2</sup>

<sup>1</sup>Cincinnati Children's Hospital, <sup>2</sup>University of Cincinnati, <sup>3</sup>Foundation for Angelman Syndrome Therapeutics

**330P Trends in creatine kinase levels and 10-meter walk-run velocity in pediatric Becker Muscular Dystrophy treated with glucocorticoid steroids**

**Zygmunt A<sup>1,2</sup>**, Vilaisaktipakorn P<sup>1</sup>, Sharaf T<sup>1,3</sup>, Shiuan Y<sup>2</sup>, Horn P<sup>1,2</sup>, Bange J<sup>1</sup>, Reebals L<sup>1</sup>, Rybalsky I<sup>1</sup>, Tian C<sup>1,2</sup>

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**331P A Phase 1/2 clinical trial of the antisense oligonucleotide BMN 351 now actively recruiting boys with exon 51–skip–amenable Duchenne Muscular Dystrophy**

Duis J<sup>1</sup>, **Neil D<sup>1</sup>**, Qi Y<sup>1</sup>, Larimore K<sup>1</sup>, Rosen O<sup>1</sup>, Robinson M<sup>1</sup>, Velazquez P<sup>1</sup>, Gupta S<sup>1</sup>, Lillenstein J<sup>1</sup>, Cosgrove J<sup>1</sup>  
<sup>1</sup>BioMarin Pharmaceutical Inc

**332P Physician and caregiver concordance in Duchenne Muscular Dystrophy patients in Europe, Japan, and the USA: a multi-national survey**

**Posner N<sup>1</sup>**, Talaga A<sup>1</sup>, Strober J<sup>3</sup>, Ishigaki K<sup>2</sup>, Cappelleri J<sup>1</sup>, Dukacz S<sup>1</sup>, Aslam Z<sup>1</sup>, Morton E<sup>4</sup>, Iqbal H<sup>4</sup>, Chatterton E<sup>4</sup>, DeCourcy J<sup>4</sup>  
<sup>1</sup>Pfizer, <sup>2</sup>Tokyo Women's Medical University, <sup>3</sup>UCSF Benioff Children's Hospital, <sup>4</sup>Adelphi Real World,

**333P Real-World symptom progression in Duchenne Muscular Dystrophy patients in Europe, Japan, and the USA: results from a multi-national survey**

**Posner N<sup>1</sup>**, Talaga A<sup>1</sup>, Strober J<sup>3</sup>, Ishigaki K<sup>2</sup>, Cappelleri J<sup>1</sup>, Dukacz S<sup>1</sup>, Aslam Z<sup>1</sup>, Morton E<sup>4</sup>, Iqbal H<sup>4</sup>, Chatterton E<sup>4</sup>, DeCourcy J<sup>4</sup>  
<sup>1</sup>Pfizer, <sup>2</sup>Tokyo Women's Medical University, <sup>3</sup>UCSF Benioff Children's Hospital, <sup>4</sup>Adelphi Real World,

**334P GrowDMD: an international study on transition of youth with Duchenne Muscular Dystrophy (DMD)**

**Friedrich S<sup>1</sup>**, Langer T<sup>1</sup>, Reeskau G<sup>2</sup>, Rodger S<sup>1</sup>, Willems J<sup>1</sup>, de Angelis F<sup>3</sup>, Brigidori B<sup>4</sup>, Guastafierro E<sup>4</sup>, Leonardi M<sup>4</sup>, Marcassoli A<sup>4</sup>, Moroni I<sup>4</sup>, Nardocci N<sup>4</sup>, Fournier A<sup>5</sup>, Frei J<sup>6</sup>, Gutierrez Rojas R<sup>5</sup>, Kraus De Camargo O<sup>6</sup>, Pozniak K<sup>6</sup>, Swain A<sup>6</sup>, Gorter J<sup>6</sup>, Osman H<sup>7</sup>  
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**335P Transition in Duchenne Muscular Dystrophy: understanding healthcare providers' roles in an international context**

**Friedrich S<sup>1</sup>**, Langer T<sup>1</sup>, Reeskau G<sup>2</sup>, Rodger S<sup>1</sup>, Willems J<sup>1</sup>, de Angelis F<sup>3</sup>, Brigidori B<sup>4</sup>, Guastafierro E<sup>4</sup>, Leonardi M<sup>4</sup>, Marcassoli A<sup>4</sup>, Moroni I<sup>4</sup>, Nardocci N<sup>4</sup>, Fournier A<sup>5</sup>, Frei J<sup>6</sup>, Gutierrez Rojas R<sup>5</sup>, Kraus De Camargo O<sup>6</sup>, Pozniak K<sup>6</sup>, Swain A<sup>6</sup>, Gorter J<sup>6</sup>, Osman H<sup>7</sup>  
<sup>1</sup>University Hospital Freiburg, <sup>2</sup>Deutsche Gesellschaft für Muskelkranke e.V., <sup>3</sup>Parent Project APS, <sup>4</sup>Fondazione IRCCS Istituto Neurologico Carlo Besta, <sup>5</sup>CHU Sainte-Justine, <sup>6</sup>CanChild – McMaster University, <sup>7</sup>Muscular Dystrophy Canada

**336P Quantifying the burden-of-illness of Duchenne Muscular Dystrophy in Belgium: an interim analysis of a site-based survey**

**De Waele L<sup>1,2</sup>**, Cremers J<sup>3</sup>, Debieu E<sup>3</sup>, Gielis E<sup>1</sup>, Maenen V<sup>1</sup>, Vanoppen I<sup>3</sup>, Van Stappen T<sup>4</sup>, Beeckman L<sup>4</sup>, Posner N<sup>5</sup>, Dukacz S<sup>5</sup>, Jiang L<sup>5</sup>, Evans J<sup>6</sup>, Wu Y<sup>6</sup>, Jones C<sup>6</sup>, Meeus L<sup>7</sup>, Claeys K<sup>3,8</sup>  
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**337P Functional assessments used in routine care for Duchenne Muscular Dystrophy in the USA: a survey of Certified Duchenne Care Centers**

**Camino E<sup>1</sup>**, Freed M<sup>1</sup>, Schrader R<sup>1</sup>, Signorovitch J<sup>2</sup>, Zhong J<sup>2</sup>, Bi S<sup>2</sup>, Ward S<sup>3</sup>, Veerapandiyan A<sup>4</sup>  
<sup>1</sup>Parent Project Muscular Dystrophy, <sup>2</sup>Analysis Group Inc., <sup>3</sup>Collaborative Trajectory Analysis Project, <sup>4</sup>Arkansas Childrens Hospital

**338P Very late-onset Becker Muscular Dystrophy caused by a new DMD variant**

**Soltanzadeh P<sup>1</sup>**, Boutros N<sup>1</sup>  
<sup>1</sup>University of California (UCLA)

**339P Exploring the content validity of Patient-Reported Outcome (PRO) measures to capture the patient experience of Becker Muscular Dystrophy (BMD)**

**Bronson A<sup>1</sup>**, Mellor K<sup>2</sup>, Kilburn N<sup>1</sup>, Marshall C<sup>1</sup>, Al-zubeidi T<sup>2</sup>  
<sup>1</sup>Edgewise Therapeutics, <sup>2</sup>Clarivate

**340P Upper extremity assessment in Becker Muscular Dystrophy: a functional and MRI data approach**

**Bellam P<sup>1</sup>**, Rock K<sup>1</sup>, Willcocks R<sup>1</sup>, Barnard A<sup>1</sup>, Forbes S<sup>1</sup>, Lott D<sup>1</sup>, Senesac C<sup>1</sup>, Rooney W<sup>2</sup>, Baetscher E<sup>2</sup>, Subramony S<sup>1</sup>, Chahin N<sup>1</sup>, Dixon L<sup>1</sup>, Walter G<sup>1</sup>, Vandeborne K<sup>1</sup>  
<sup>1</sup>University Of Florida, <sup>2</sup>Oregon Health and Science University

**341P Incidental DMD in-frame deletions identified by prenatal array CGH: inter and intra-familial phenotype variability**

**Munell E<sup>1</sup>**, Gomez Andres D<sup>1</sup>, Costa Comellas L<sup>1</sup>, Alvarez M<sup>1</sup>, Rauli<sup>1</sup>, Plaja A<sup>1</sup>, Castells N<sup>1</sup>, Abuli A<sup>1</sup>, Rovira E<sup>1</sup>  
<sup>1</sup>Hospital Universitari Vall d'Hebron

### **342P Use of psychopharmacological drug in Duchenne Muscular Dystrophy: a European multi-centre study**

**Muntoni E**<sup>1,11</sup>, Weerkamp P<sup>2,3</sup>, Miranda R<sup>4</sup>, Collin P<sup>5</sup>, Vroom E<sup>6</sup>, Niks E<sup>7,13</sup>, Vissing J<sup>8</sup>, Desquerre I<sup>9</sup>, Straub V<sup>10</sup>, Mercuri E<sup>12</sup>, Hendriksen J<sup>2,3,13</sup>

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### **343VP Duchenne Muscular Dystrophy: the critical role of pulmonary infection in survival outcomes**

**Wahlgren L**<sup>1,2</sup>, Kroksmark A<sup>3</sup>, Tulinius M<sup>2</sup>, Sofou K<sup>1,2</sup>

<sup>1</sup>The Queen Silvia Children's Hospital, Sahlgrenska University Hospital, <sup>2</sup>Department of Pediatrics, Institute of Clinical Sciences, Sahlgrenska Academy, University of Gothenburg, <sup>3</sup>Department for Health and Rehabilitation/Physiotherapy, University of Gothenburg

### **344P DMD-YOUNG: paediatric palliative care for children with a slowly progressive neuromuscular disorder in transition to adulthood**

**Annexstad E**<sup>1</sup>, Ramberg C<sup>2</sup>, Rosenberger A<sup>2</sup>, Nordstrøm M<sup>1,3</sup>

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### **345P Becker Muscular Dystrophy (BMD): natural history**

**Yuksele D**<sup>1</sup>, Ustun C<sup>1</sup>, Akyuz E<sup>2</sup>

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### **346P Cognitive profile of children with Duchenne and Becker Muscular Dystrophies**

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### **347P Project HERCULES – building an evidence base to inform clinical care and access to medicines in DMD**

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### **348P A national plan of action to raise Awareness and Improve Medical care of Duchenne Muscular Dystrophy (AIM-DMD)**

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### **349P Comparison of short- and long-term proteomic response to the fast skeletal myosin inhibitor, sevaseten (EDG-5506), in Becker Muscular Dystrophy (BMD)**

Barthel B<sup>1</sup>, Madden M<sup>1</sup>, Thaler L<sup>1</sup>, Evanchik M<sup>1</sup>, Koch K<sup>1</sup>, Donovan J<sup>1</sup>, Collins S<sup>1</sup>, Phan H<sup>2</sup>, **Russell A**<sup>1</sup>

<sup>1</sup>Edgewise Therapeutics, <sup>2</sup>Rare Disease Research

### **350P Multi-parametric MRI of lower leg muscle in patients with Becker Muscular Dystrophy**

**Gerhalter T**<sup>1</sup>, Schunk V<sup>1</sup>, Baudin P<sup>2</sup>, Rauh S<sup>3</sup>, Tkotz K<sup>1</sup>, Zaiss M<sup>1</sup>, Roemer F<sup>1</sup>, Dörfler A<sup>1</sup>, Uder M<sup>1</sup>, Gazzerro E<sup>4</sup>, Nagel A<sup>1</sup>

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**351P Sevasseten, a fast myosin inhibitor, in adults with Becker Muscular Dystrophy results in reduced muscle damage biomarkers and functional stabilization**

**Donovan J<sup>1</sup>**, Phan H<sup>2</sup>, Russell A<sup>1</sup>, Barthel B<sup>1</sup>, Thaler L<sup>1</sup>, Kilburn N<sup>1</sup>, Amato M<sup>1</sup>, MacDougall J<sup>1</sup>

<sup>1</sup>Edgewise Therapeutics, <sup>2</sup>Rare Disease Research

**352P Severe gastrointestinal problems in Duchenne Muscular Dystrophy: a case series**

Zielman- Blokhuis A<sup>2</sup>, Tytgat K<sup>3</sup>, Groothuis J<sup>1</sup>, **Houwen S<sup>1</sup>**

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**353P Applying a decision-making framework for expanded access to Duchenne Muscular Dystrophy**

**Rouet J<sup>1</sup>**, Duro-Ocana P<sup>1</sup>, Lawrence C<sup>1</sup>, Zanker S<sup>1</sup>

<sup>1</sup>Bionical Emas

**354P 3-Year outcomes in Colombian patients under 7 years old with Duchenne Muscular Dystrophy early treated with ataluren**

**Toro C<sup>1</sup>**, Ruiz-Ospina E<sup>2</sup>, Castellar-Leones S<sup>3</sup>, Ladino-Cortés L<sup>2</sup>, Bolaños-Almeida C<sup>2</sup>, Bobadilla-Quesada E<sup>2</sup>, Maradei-Anaya S<sup>2</sup>, Ortiz-Giraldo B<sup>4</sup>, Acosta-Aragón M<sup>5</sup>, Guerra-Araujo V<sup>11</sup>, Alvarez-Montañez A<sup>6</sup>, Silvera-Redondo C<sup>7</sup>, Pachajoa H<sup>8</sup>, Londoño-Mesa I<sup>9</sup>, Torres-Nieto M<sup>11</sup>, Del Río-Ospina L<sup>10</sup>

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**355P A comprehensive education and training programme for healthcare professionals in care and research for Duchenne Muscular Dystrophy developed from DMD Care UK and the DMD Hub**

**Turner C<sup>1</sup>**, Geuens S<sup>2</sup>, Heslop E<sup>1</sup>, Johnson A<sup>3</sup>, Straub V<sup>1</sup>, Guglieri M<sup>1</sup>

<sup>1</sup>University Of Newcastle, <sup>2</sup>UZ Leuven, <sup>3</sup>Duchenne UK

**356P A retrospective review of adult Duchenne Muscular Dystrophy patients in a UK centre of excellence and report the results of adherence to the standards of care guidelines for cardiac management**

**Willis T<sup>1,2</sup>**, Kulshrestha R<sup>1</sup>, Jones J<sup>1</sup>

<sup>1</sup>Robert Jones and Agnes Hunt hospital, <sup>2</sup>University of Chester Medical School

**357P Correlation between height, weight, and body mass index z-scores and clinical outcome assessments in young boys with Duchenne Muscular Dystrophy**

**Schiava M<sup>1</sup>**, Dang U<sup>2</sup>, Wood C<sup>3</sup>, Wong S<sup>4</sup>, Muni Lofra R<sup>1</sup>, Ward L<sup>5</sup>, Mayhew A<sup>1</sup>, Tawil R<sup>6</sup>, Willis T<sup>7</sup>, Griggs R<sup>6</sup>, Guglieri M<sup>1</sup>

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**358P Long-term changes of motor function in Becker Muscular Dystrophy**

**Bello L<sup>1</sup>**, Riguzzi P<sup>1</sup>, Capece G<sup>1</sup>, Penzo M<sup>1</sup>, Petrosino A<sup>1</sup>, Sogus E<sup>1</sup>, Mastellaro S<sup>1</sup>, Caroli M<sup>1</sup>, Villa M<sup>1</sup>, Sabbatini D<sup>1</sup>, Gorgoglione D<sup>1</sup>, Vianello S<sup>1</sup>, Sorarù G<sup>1</sup>, Pegoraro E<sup>1</sup>

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**359VP Social difficulties and care burden of adult Duchenne Muscular Dystrophy in Japan: A questionnaire survey based on the Japanese Registry of Muscular Dystrophy (Remudy)**

**Mori-Yoshimura M<sup>1</sup>**, Ishigaki K<sup>2</sup>, Shimizu-Motohashi Y<sup>3</sup>, Ishihara N<sup>4</sup>, Yoshida S<sup>5</sup>, Unuma A<sup>1</sup>, Nakamura H<sup>6</sup>

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**360VP Making DMD/BMD research data FAIR: the case of heterogeneous brain (BIND) data**

**Siminiuc S<sup>1</sup>**, Sakellariou E<sup>1</sup>, Queralt Rosinach N<sup>3</sup>, Pedomo Quinteiro P<sup>4</sup>, Spitali P<sup>3</sup>, Paliouras G<sup>1,2</sup>, Muntoni F<sup>5</sup>

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## 516P-536P, 537VP: Metabolic and mitochondrial myopathies

### 516P Fanconi Syndrome-induced severe Osteomalacic Myopathy: an uncommon side effect of Tenofovir Disoproxil Fumarate

**Dang H<sup>1</sup>**, Nguyen T<sup>2</sup>

<sup>1</sup>Neurology, University Medical Center Ho Chi Minh City, <sup>2</sup>University of Medicine and Pharmacy at Ho Chi Minh City

### 517P Clinical characteristics and genetic analysis of Chronic Progressive External Ophthalmoplegia

**Choi S<sup>1</sup>**, Lee S<sup>1</sup>, Choi K<sup>1</sup>

<sup>1</sup>Pusan National University Hospital, Pusan National University School of Medicine and Biomedical Research Institute

### 518P Proteomic characterization of polyglucosan bodies in skeletal muscle in glycogenin-1 deficiency

**Visuttijai K<sup>1</sup>**, Hedberg-Oldfors C<sup>1</sup>, Costello D<sup>2</sup>, Bermingham N<sup>3</sup>, Oldfors A<sup>1</sup>

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### 519P Insights into Primary Mitochondrial Myopathies: baseline characteristics and potential biomarkers from a natural history study

**Martín Jiménez P<sup>1</sup>**, Bermejo Guerrero L<sup>1</sup>, Blázquez A<sup>2</sup>, Serrano Lorenzo P<sup>2</sup>, Hernández Lain A<sup>3</sup>, Lucas Gómez B<sup>4</sup>, Martín M<sup>5</sup>, Domínguez González C<sup>1</sup>

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### 520P Periodic paralysis in a child with Thermosensitive Mitochondrial Trifunctional Protein Deficiency

**Al-Amrani F<sup>1</sup>**, Ruiter J<sup>2</sup>, Doolaard M<sup>2</sup>, Kumar A<sup>3</sup>, Ferdinandusse S<sup>2</sup>, Al-Thihli K<sup>4</sup>

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### 521P Methodology and design of a study to characterize the disease course in a large dataset of patients with Thymidine Kinase 2 Deficiency

**Domínguez-gonzález C<sup>1,2,3</sup>**, Nascimento A<sup>3,4</sup>, Ma Y<sup>5</sup>, Panahloo Z<sup>5</sup>, Boudiaf N<sup>5</sup>, Kim R<sup>6</sup>, VanMeter S<sup>6</sup>, Brunnert M<sup>7</sup>, Hirano M<sup>8</sup>

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### 522P Idiopathic hyperCKemia and myalgia- keep looking till you find a cause

**Shekhar L<sup>1</sup>**, Majumdar A<sup>1</sup>

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### 523P Rare Disease Register: McArdle Disease and Glycogenoses

**Finnigan P<sup>1</sup>**, Godfrey R<sup>1,2</sup>, Arikan E<sup>1</sup>, Bythel M<sup>3</sup>, Aston J<sup>3</sup>, Mohamed K<sup>1</sup>, Quinlivan R<sup>1</sup>

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### 524P Grip strength in McArdle disease

**Finnigan P<sup>1</sup>**, Godfrey R<sup>1,2</sup>, Pattni J<sup>1</sup>, Mohamed K<sup>1</sup>, Quinlivan R<sup>1</sup>

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### **525P Management of seizures in patients with Primary Mitochondrial Diseases: consensus statement from the inter-ERNs mitochondrial working group**

Mancuso M<sup>1</sup>, **Evangelista T**<sup>9</sup>, Papadopoulou M<sup>2</sup>, Ng Y<sup>3,4</sup>, Ardisson A<sup>5</sup>, Bellusci M<sup>6</sup>, Bertini E<sup>7</sup>, Di Vito L<sup>8</sup>, Fons C<sup>10</sup>, Hikmat O<sup>11</sup>, Horvath R<sup>12</sup>, Klopstock T<sup>13,14,15</sup>, Kornblum C<sup>16</sup>, Lamperti C<sup>5</sup>, Licchetta L<sup>8</sup>, Molnar M<sup>17</sup>, Varhaug K<sup>18</sup>, O'Callaghan M<sup>10</sup>, Pressler R<sup>19,20</sup>, Consortium InterERN group on mitochondrial diseases (ERNs NMD, EYE, RND)  
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### **526P Clinical spectrum and treatment in paediatric TANGO2 deficiency disorder**

**Ortez Gonzalez C**<sup>1</sup>, Ortuño B<sup>1</sup>, Sarquella-Brugada G<sup>1</sup>, Meavilla S<sup>1</sup>, García-Cazorla Á<sup>1</sup>, Expósito-Escudero J<sup>1</sup>, O'Callaghan M<sup>1</sup>, Natera De-Benito D<sup>1</sup>, Darling A<sup>1</sup>, Nascimento A<sup>1</sup>, Julià N<sup>1</sup>, Carrera-García L<sup>1</sup>  
<sup>1</sup>Hospital Sant Joan De Deu

### **527P Small molecule adenylosuccinic acid supports muscle metabolism in Adss1 deficient muscle phenotypes**

**Rybalka E**<sup>1,2,3</sup>, Kourakis S<sup>1,2</sup>, Yates T<sup>1</sup>, Bagaric R<sup>1,2</sup>, Qi B<sup>1,2</sup>, Ali B<sup>1,2</sup>, Khandari N<sup>4</sup>, Peterson A<sup>5</sup>, Yan X<sup>1</sup>, Kuang J<sup>1</sup>, Nijagal B<sup>5</sup>, Deveson-Lucas D<sup>4</sup>, Timpani C<sup>1,2,3</sup>  
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### **528P A novel homozygous variant of uncertain significance in ETFDH suspected of causing severe Metabolic Syndrome and Myopathy**

**Fajre F**<sup>1</sup>, González D<sup>2</sup>, Urra A<sup>1</sup>, Madariaga G<sup>3</sup>, Pizarro B<sup>4</sup>, Díaz-Jara J<sup>4</sup>, Bevilacqua J<sup>1,5</sup>  
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### **529P Paucisymptomatic late onset Pompe disease: lessons from the clinical, radiological and histopathological long-term follow-up of an untreated patient**

**Fernández-eulate G**<sup>1,2</sup>, Caillaud C<sup>3</sup>, Lacene E<sup>4</sup>, Labasse C<sup>4</sup>, Brochier G<sup>4</sup>, Carlier R<sup>5</sup>, Evangelista T<sup>4,6</sup>, Laforêt P<sup>7</sup>  
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### **530P Biallelic missense variants in C2orf69 cause mitochondrial dysfunction associated with early-onset neurodegeneration and autoinflammation**

**Oh R**<sup>1,2</sup>, Maier M<sup>3</sup>, Blaser S<sup>1,4</sup>, Cameron J<sup>1,5</sup>, Lafreniere A<sup>1,6</sup>, Hawkins C<sup>1,6</sup>, Reversade B<sup>3,7,8,9</sup>, Yoon G<sup>1,10</sup>

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### **531P The French Registry of Glycogen Storage Disease Type 3**

**Masingue M**<sup>1</sup>, Decostre V<sup>2</sup>, Bello M<sup>3</sup>, Do Cao J<sup>4</sup>, Labrune P<sup>4</sup>, Laforêt P<sup>3</sup>

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### **532P Clinical, pathological, and genetic characteristics of 27 Spanish patients with POLG-related disorders**

**Bermejo Guerrero L**<sup>1</sup>, Restrepo-Vera J<sup>2,3,4</sup>, Martín – Jiménez P<sup>1</sup>, Blázquez A<sup>5</sup>, Serrano-Lorenzo P<sup>5</sup>, Navarro-Riquelme M<sup>5</sup>, Hernández-Lain A<sup>6</sup>, Juntas-Morales R<sup>2</sup>, Martí R<sup>3,4</sup>, Martín M<sup>7</sup>, Domínguez – González C<sup>1,4</sup>

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### **533P Long-term follow-up Deoxynucleoside therapy for Late Onset Thymidine Kinase 2 Deficiency patients**

**Durmus H**<sup>1</sup>, Gedikbaşı A<sup>1</sup>, Ceylaner S<sup>1</sup>, Kıyan E<sup>1</sup>, Gulsen Parman Y<sup>1</sup>

<sup>1</sup>Istanbul Faculty of Medicine

### **534P Clinical and genetic characterization of Brazilian patients with TK2 deficiency**

**Moreno C**<sup>1</sup>, Tácio Quadros Santos Monteiro Fonseca A<sup>1</sup>, Cunha Artilheiro M<sup>1</sup>, Macedo Serafim da Silva A<sup>1</sup>, de Paula Estephan E<sup>1</sup>, Abdo Paiva M<sup>1</sup>, Gontijo Camelo C<sup>1</sup>, Santos Pessoa A, Paranhos Miranda Covalesk A, Tomaselli P<sup>1</sup>, Scarpellini G<sup>1</sup>, Gurgel-Giannetti J<sup>1</sup>, Holanda Mendonça R<sup>1</sup>, Maroco Cruzeiro M<sup>1</sup>, Marques Júnior W<sup>1</sup>, Ferreira da Rosa Sobreira C<sup>1</sup>, Hirano M<sup>1</sup>, Andres Nascimento A<sup>1</sup>, Schlesinger D<sup>1</sup>, Zanoteli E<sup>1</sup>

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### **535P Cytochrome c oxidase (COX) deficiency due to a novel homozygous COX6B1 pathogenic missense variant**

**Oldfors C**<sup>1</sup>, Jennions E<sup>2</sup>, Olsson-Engman M<sup>3</sup>, Visuttijai K<sup>1</sup>, Wiksell Å<sup>4</sup>, Fluriach Dominguez N<sup>5</sup>, Kollberg G<sup>1</sup>, Oldfors A<sup>1</sup>

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### **536P Biallelic variants in BCS1L cause a novel neuromuscular phenotype with motor neuronopathy**

**Orbach R**<sup>1</sup>, Maio N<sup>2</sup>, Donkervoort S<sup>1</sup>, Foley A<sup>1</sup>, Chao K<sup>3</sup>, Lehky T<sup>4</sup>, Silverstein S<sup>1</sup>, Potticary A<sup>1</sup>, Rouault T<sup>2</sup>, Butterfield R<sup>5</sup>, Bönnemann C<sup>1</sup>

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**537VP Evaluation of the Scottish rhabdomyolysis and metabolic myopathy gene panel highlights limitations of genetic test criteria and a postcode lottery in access to testing**

**He Z<sup>1</sup>**, Longman C<sup>10</sup>, Farrugia M<sup>5</sup>, Fletcher E<sup>2</sup>, Robb Y<sup>2</sup>, McWilliam C<sup>3</sup>, Ross A<sup>4</sup>, Brennan K<sup>5</sup>, Davenport R<sup>6</sup>, Hopkins P<sup>7</sup>, Horrocks I<sup>8</sup>, Joseph S<sup>8</sup>, Harvie J<sup>9</sup>, Kerrigan S<sup>9</sup>, Stewart K<sup>10</sup>, Brennan K<sup>5</sup>, Miller-Hodges E<sup>11</sup>

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**656P-676P: Pompe disease**

**656P AAV gene therapy in the Pompe canine model demonstrates correction of the muscle and CNS disorder with immune tolerance to human GAA**

**Byrne B<sup>1</sup>**, Pope M<sup>1</sup>, Gentry M<sup>1</sup>, Sun R<sup>1</sup>, Gurda B<sup>1</sup>, Trivedi P<sup>1</sup>, Cloutier D<sup>1</sup>, Saba S<sup>1</sup>, Fuller D<sup>1</sup>, Coleman K<sup>1</sup>, Corti M<sup>1</sup>

<sup>1</sup>University of Florida

**657P Cipaglucosidase alfa + miglustat in late-onset Pompe disease: two non-ambulatory patients switching from high-dose, high-frequency alglucosidase alfa**

**Byrne B<sup>1</sup>**, Castelli J<sup>2</sup>, Jain V<sup>2</sup>, Sitaraman Das S<sup>2</sup>, Zhang J<sup>2</sup>

<sup>1</sup>University of Florida, <sup>2</sup>Amicus Therapeutics, Inc.

**658P High-risk screening for Late-Onset Pompe Disease in China: an expanded Multicenter Study**

**Zhu B<sup>1,2,3</sup>**, Jiao K<sup>1,2,3</sup>, Chang X<sup>4</sup>, Yao X<sup>5</sup>, Zhu W<sup>1,2,3</sup>

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**659P Unlocking long-term insights: antibody formation and efficacy of enzyme replacement therapy in adults with Pompe disease**

**Theunissen M<sup>1</sup>**, Ditters I<sup>2</sup>, van Doorn P<sup>1</sup>, van den Hout J<sup>2</sup>, Hoogeveen-Westerveld M<sup>3</sup>, Jacobs E<sup>3</sup>, van der Ploeg A<sup>2</sup>, van der Beek N<sup>1</sup>

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**660P Safety and efficacy of switching to avalglucosidase alfa in patients with late-onset Pompe disease previously deteriorating on alglucosidase alfa**

**Potters L<sup>1</sup>**, Theunissen M<sup>1</sup>, Wagenmakers M<sup>2</sup>, van Doorn P<sup>1</sup>, van der Ploeg A<sup>3</sup>, van der Beek N<sup>1</sup>

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**661P Sensitivity to Change and Meaningful Change Thresholds of the Quick Motor Function Test (QMFT) in Pompe Disease**

**van der Beek N<sup>1</sup>**, Sjöström-Bujacz A<sup>2</sup>, Daskalopoulou C<sup>3</sup>, Papageorgiou D<sup>3</sup>, An Haack K<sup>4</sup>, Gallego V<sup>5</sup>, DasMahapatra P<sup>5</sup>, Thibault N<sup>5</sup>, Zaher A<sup>6</sup>, Armstrong N<sup>5</sup>, Kruijshaar M<sup>1</sup>, van der Ploeg A<sup>1</sup>

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**662P The novel GAA variant p.R190G: expanding the spectrum of late onset Pompe disease and possible implications for screening in the Chinese population**

**Jiao K<sup>1</sup>**, Jacobs E<sup>2</sup>, Yue D<sup>3</sup>, Boonman J<sup>2</sup>, Zhao C<sup>1</sup>, Pijnappel W<sup>2</sup>, Zhu W<sup>1</sup>

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**663P Screening for Pompe disease and its differential diagnoses**

**Sekulic A<sup>1</sup>**, Todorovic T<sup>1</sup>, Peric S<sup>1</sup>, Basta I<sup>1</sup>, Ivanovic V<sup>1</sup>, Rakocevic-Stojanovic V<sup>1</sup>, Bozovic I<sup>1</sup>, Palibrk A<sup>1</sup>, Viric V<sup>1</sup>

<sup>1</sup>University of Belgrade, Faculty of Medicine, Belgrade

### **664P From past to present: Pompe disease, pseudodeficiency, and genetic challenges**

**Giliberto F<sup>1,2</sup>**, Buonfiglio P<sup>3</sup>, Luce L<sup>1,2,4</sup>, Llamas Massini C<sup>1,2</sup>, Carcione M<sup>1,2</sup>

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### **665P Spanish Pompe Registry: overview based on the 130 patients included**

**Martínez Marín R<sup>1</sup>**, Reyes Leiva D<sup>2</sup>, Nascimento Osorio A<sup>3</sup>, Muelas N<sup>4</sup>, Domínguez C<sup>5</sup>, Rojas Marcos Í<sup>6</sup>, Paradas C<sup>6</sup>, Olivé M<sup>7</sup>, Matas A<sup>8</sup>, Gómez Caravaca M<sup>10</sup>, Barba Romero M<sup>9</sup>, Mendoza M<sup>11</sup>, de León J<sup>12</sup>, Gutiérrez A<sup>13</sup>, Rabasa M<sup>14</sup>, Segovia S<sup>7</sup>, Díaz Manera J<sup>15</sup>

<sup>1</sup>Hospital Universitario La Paz, <sup>2</sup>Hospital San Joan Despi, <sup>3</sup>Servicio de Neuropediatría, Hospital Sant Joan de Deu, <sup>4</sup>Hospital La Fe, <sup>5</sup>Hospital Universitario 12 de Octubre, <sup>6</sup>Hospital Virgen del Rocío, <sup>7</sup>Hospital de la Santa Creu i Sant Pau, <sup>8</sup>Hospital Clinic, Barcelona, Spain, <sup>9</sup>Hospital Unversitario de Albacete, <sup>10</sup>Hospital Universitario Juan Ramón Jiménez, <sup>11</sup>Hospital Universitario Doctor Negrín, <sup>12</sup>Hospital Universitario Nuestra Señora de la Candelaria, <sup>13</sup>Hospital Insular, <sup>14</sup>Hospital de Fuenlabrada, <sup>15</sup>John Walton Muscular Dystrophy Research Center

### **666P MyoScreen™ Infantile and Late-Onset Pompe human skeletal muscle disease models for drug discovery and development of next-generation gene therapies**

Young J<sup>1</sup>, Morozzi G<sup>1</sup>, Travard L<sup>1</sup>, Yennek S<sup>2</sup>, Lagerstedt J<sup>2</sup>, Zablocki A<sup>1</sup>, Martin A<sup>1</sup>, Flaender M<sup>1</sup>, Lorintiu O<sup>1</sup>, Dupont A<sup>1</sup>, Autier V<sup>1</sup>, **Ventre E<sup>1</sup>**, Darimont B<sup>1</sup>, Selig L<sup>1</sup>

<sup>1</sup>Cytoo, <sup>2</sup>Novo Nordisk

### **667P Glycogen response to enzyme replacement therapy in patients with Pompe disease**

**Stemmerik M<sup>1</sup>**, Vissing J<sup>1</sup>

<sup>1</sup>Copenhagen Neuromuscular Centre, Rigshospitalet

### **668P Pompe Registry: Real-world experience of patients with late-onset Pompe disease who switched therapy from alglucosidase alfa to avalglucosidase alfa**

**Schoser B<sup>1</sup>**, Toscano A<sup>2</sup>, Foster M<sup>3</sup>, Sparks S<sup>3</sup>, Kishnani P<sup>4</sup>, on behalf of the Pompe Registry sites

<sup>1</sup>Friedrich-Baur-Institut LMU München, <sup>2</sup>Reference Center for Rare Neuromuscular Disorders, University of Messina, <sup>3</sup>Sanofi, <sup>4</sup>Duke University Medical Center

### **669P The FORCE(TM) platform enables TfR1-mediated delivery of enzyme replacement therapy to muscle and central nervous system, resolving Pompe pathology in mice**

**Picariello T<sup>1</sup>**, Vieira B<sup>1</sup>, Johnson J<sup>1</sup>, Schlaefke L<sup>1</sup>, Russo R<sup>1</sup>, Chang A<sup>1</sup>, Cui J<sup>1</sup>, Yang S<sup>1</sup>, Rinaldi S<sup>1</sup>, Weeden T<sup>1</sup>, Zanotti S<sup>1</sup>, Beskrovnaya O<sup>1</sup>

<sup>1</sup>Dyne Therapeutics

### **670P Post-baseline outcomes of the UK Early Access to Medicines Scheme registry for cipaglucosidase alfa plus miglustat in late-onset Pompe disease**

**Roberts M<sup>1</sup>**, Cole D<sup>2</sup>, Geberhiwot T<sup>3</sup>, Hughes D<sup>4</sup>, Lachmann R<sup>5</sup>, Murphy E<sup>6</sup>, Sharma R<sup>7</sup>, Jain V<sup>8</sup>, Moffat E<sup>9</sup>, Rutecki J<sup>8</sup>, Clarke S<sup>9</sup>, Deegan P<sup>10</sup>

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### **671P Miglustat: a first-in-class enzyme stabiliser for late-onset Pompe disease**

**Mozaffar T<sup>1</sup>**, Roberts M<sup>2</sup>, Byrne B<sup>3</sup>, Dimachkie M<sup>4</sup>, Hopkin R<sup>5</sup>, Kishnani P<sup>6</sup>, Schoser B<sup>7</sup>, van der Ploeg A<sup>8</sup>, Brudvig J<sup>9</sup>, Fox B<sup>9</sup>, Holdbrook F<sup>9</sup>, Jain V<sup>9</sup>, Johnson F<sup>9</sup>, Zhang J<sup>9</sup>, Parenti G<sup>10</sup>

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### **672P New insights into Pompe disease using Raman-microscopy**

**Hintze S<sup>1</sup>**, Krois E<sup>2</sup>, Wieland K<sup>3</sup>, Meinke P<sup>1</sup>, Haisch C<sup>2</sup>, Schoser B<sup>1</sup>

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### 673P Magnetization transfer Imaging in Late-Onset Pompe disease

**Croce M<sup>1</sup>**, Naz F<sup>2</sup>, Barzaghi L<sup>2,3,4</sup>, Paoletti M<sup>3</sup>, Mongini T<sup>5</sup>, Gasperini S<sup>6</sup>, Filosto M<sup>7</sup>, Maggi L<sup>8</sup>, Sechi A<sup>9</sup>, Grandis M<sup>10,11</sup>, Sacchini M<sup>12</sup>, Sciacco M<sup>13</sup>, Vercelli L<sup>5</sup>, Bonizzoni C<sup>3</sup>, Bergsland N<sup>14</sup>, Santini F<sup>15,16</sup>, Deligianni X<sup>15,16</sup>, Gandini in Wheeler-Kingshott C<sup>1,17,18</sup>, Ravaglia S<sup>1</sup>, Pichiecchio A<sup>1,3</sup>

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### 674P Quantification of skeletal muscle glycogen in Late Onset Pompe patients using carbon MR spectroscopy at 3 Tesla

**Gonzalez Chamorro A<sup>1,3</sup>**, Wilson I<sup>2</sup>, Bolaño C<sup>1,3</sup>, Hollingsworth K<sup>2</sup>, James M<sup>1,3</sup>, Wong K<sup>1,3</sup>, Fitzsimmons S<sup>1,3</sup>, Diaz Manera J<sup>1,3</sup>, Thelwall P<sup>2</sup>

<sup>1</sup>The John Walton Muscular Dystrophy Research Centre, Newcastle University, <sup>2</sup>The Newcastle Magnetic Resonance Centre, Newcastle University, <sup>3</sup>The Newcastle upon Tyne Hospitals NHS Foundation Trust

### 675P Understanding skeletal muscle pathology and function in Late-Onset Pompe disease: insights from Proteomic and Transcriptomic Analyses

**Schäfer A<sup>1</sup>**, Lohanadan K<sup>2</sup>, van der Ven P<sup>2</sup>, Hentschel A<sup>3</sup>, Mensch A<sup>4</sup>, Hahn A<sup>5</sup>, Kornblum C<sup>6</sup>, Stenzel W<sup>7</sup>, Krämer H<sup>8</sup>, Rosenbohm A<sup>9</sup>, Bartkuhn M<sup>10</sup>, Roos A<sup>11,12,13</sup>, Schänzer A<sup>1</sup>

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### 676P Impact of discontinuation and reintroduction of alglucosidase alpha in patients with late-onset Pompe disease

**Andrejic N<sup>1</sup>**, Viric V<sup>2</sup>, Andabaka M<sup>3</sup>, Bozovic I<sup>2</sup>, Palibrk A<sup>2</sup>, Ivanovic V<sup>2</sup>, Basta I<sup>2</sup>, Stevic Z<sup>2</sup>, Peric S<sup>2</sup>

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### 705LBP - 710LBP, 711VP, 712LBP - 717LBP, 719LBP - 733LBP,, 735LBVP, 736LP - 738LBP: Late Breaking

#### 705LBP Epilepsy in childhood neuromuscular disorders: Is it truly rare?

**Acar Arslan E<sup>1</sup>**, Öztürk G<sup>1</sup>, İyışenyürek Ş<sup>1</sup>, Akbeyaz H<sup>1</sup>, Bıkmazer B<sup>1</sup>, Karayakalı B<sup>1</sup>, Ünver O<sup>1</sup>, Türkdoğan D<sup>1</sup>

<sup>1</sup>Marmara University Pendik Research and Training Hospital

#### 706LBP Evaluation of children diagnosed with muscular dystrophy panel

**Ayca S<sup>1</sup>**, Orak S<sup>1</sup>, Polat M<sup>1</sup>, Çam S<sup>2</sup>

<sup>1</sup>Celal Bayar University, School of Medicine, Department of Pediatric Neurology, <sup>2</sup>Celal Bayar University, School of Medicine, Department of Medical Genetics

#### 707LBP Transcriptomics reveals DMD-driven cell dynamics and mechanisms of fibroblast inflammatory tissue priming in human dystrophic muscle

**Barthelemy F<sup>1,2</sup>**, Chesmore K<sup>1,3</sup>, Scripture-Adams D<sup>1,2</sup>, Nelson S<sup>1,3,4,5</sup>, Miceli M<sup>1,2</sup>

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**708LBP Clinical trial readiness in a rare and underserved disease: Learnings from community engagement and the lived experience in Becker muscular dystrophy (Becker)**

**Bronson A<sup>1</sup>**, Cameron M<sup>3</sup>, Tencer S<sup>1</sup>, Engel P<sup>2</sup>, Jackson S<sup>2</sup>, Krieger K<sup>1</sup>, Donovan J<sup>1</sup>

<sup>1</sup>Edgewise Therapeutics, <sup>2</sup>Engage Health, <sup>3</sup>AdvocacyWorks Consulting

**709LBP Longer-term efficacy, safety, and patient-reported outcomes of apitegromab in patients with nonambulatory SMA: Results from the 48-month TOPAZ study**

**Crawford T<sup>1</sup>**, De Vivo D<sup>2</sup>, Krueger J<sup>3</sup>, Mazzone E<sup>4</sup>, Song G<sup>5</sup>, Marantz J<sup>5</sup>, Gueye M<sup>5</sup>, Yu D<sup>5</sup>, Yao B<sup>5</sup>, Umans K<sup>5</sup>, Darras B<sup>6,7</sup>, on behalf of the TOPAZ Study Team<sup>8</sup>

<sup>1</sup>John Hopkins Hospital, Department of Neurology, <sup>2</sup>Columbia University, Irving Medical Center, <sup>3</sup>Helen Devos Children's Hospital Neurology - Grand Rapids, <sup>4</sup>Catholic University, <sup>5</sup>Scholar Rock, Inc., <sup>6</sup>Boston Children's Hospital, Department of Neurology, <sup>7</sup>Harvard Medical School, <sup>8</sup>TOPAZ Study Team includes clinical trial investigators, physical therapists, study coordinators, and Scholar Rock (sponsor) staff

**710LBP Exploring higher doses of nusinersen in spinal muscular atrophy: final results from part B of the 3-part DEVOTE study**

**Crawford T<sup>1</sup>**, Finkel R<sup>2</sup>, Mercuri E<sup>3</sup>, Day J<sup>4</sup>, Montes J<sup>5</sup>, Garcia Romero M<sup>6</sup>, Sumner C<sup>1</sup>, Sohn J<sup>7</sup>, Monine M<sup>7</sup>, Paradis A<sup>7</sup>, Sun P<sup>7</sup>, Foster R<sup>8</sup>, Gambino G<sup>8</sup>, Makepeace C<sup>7</sup>, Fradette S<sup>7</sup>, Farewell R<sup>7</sup>, on behalf of the DEVOTE Study Group

<sup>1</sup>John Hopkins Hospital, <sup>2</sup>St Jude Children's Research Hospital, <sup>3</sup>Catholic University, <sup>4</sup>Stanford University School of Medicine, <sup>5</sup>Columbia University Irving Medical Center, <sup>6</sup>Hospital La Paz, <sup>7</sup>Biogen, <sup>8</sup>Biogen

**711LBVP Genetic susceptibility for thrombotic microangiopathies in a 10-month-old child affected by SMA type 1**

**D'Alessandro R<sup>1,2</sup>**, Somà A<sup>1</sup>, Salvalaggio A<sup>1</sup>, Guarnone E<sup>1</sup>, Cavallina I<sup>1</sup>, Rolle E<sup>1</sup>, Rossi F<sup>1</sup>, Vacchetti M<sup>1</sup>, Mongini T<sup>2</sup>, Ricci F<sup>1</sup>

<sup>1</sup>Department of Public Health and Pediatric Sciences, Section of Child and Adolescent Neuropsychiatry, University of Turin, <sup>2</sup>Department of Neurosciences, Neuromuscular Unit, University of Turin

**712LBP Epigenetic liquid biopsy for Duchenne and Becker muscular dystrophy**

Hart S<sup>1</sup>, Fattal-Valevsky A<sup>2</sup>, Lavi R<sup>2</sup>, Sagi L<sup>2</sup>, Shemer R<sup>1</sup>, Dor Y<sup>1</sup>, **Dor-Wolman T<sup>1</sup>**

<sup>1</sup>Hadassah Hebrew University Medical Center, <sup>2</sup>Tel Aviv Sourasky Medical Center

**713LBVP Heterozygous truncating variants in DAG1 are associated with sporadic and familial isolated hyperCKemia**

**Fiorillo C<sup>1,7</sup>**, Traverso M<sup>1</sup>, Baratto S<sup>1</sup>, Panicucci C<sup>1</sup>, Bruno C<sup>1,7</sup>, Grandis M<sup>5,7</sup>, Innes A<sup>3</sup>, Torella A<sup>2,6</sup>, Picillo E<sup>2,6</sup>, Onore M<sup>2,6</sup>, Politano L<sup>2,6</sup>, Nigro V<sup>2,6</sup>, Scala M<sup>1,7</sup>, Barresi R<sup>4</sup>

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**714LBP Can 5q SMA neonatal screening be a sustainable reality in middle-income countries? The experience of Minas Gerais state in Brazil**

**Giannetti J<sup>1</sup>**, Januário J<sup>1</sup>, Milanez L<sup>1</sup>, Sacramento A<sup>1</sup>, Moura A<sup>1</sup>, Braga T<sup>1</sup>, Pinhati C<sup>1</sup>, Carvalho N<sup>1</sup>

<sup>1</sup>Universidade Federal de Minas Gerais, Belo Horizonte

**715LBP Juvenile ALS associated with the SPTLC1 gene: a diagnostic challenge**

**Gomez Montoya S<sup>1</sup>**, Veneruzzo G<sup>2</sup>, Monges S<sup>1</sup>

<sup>1</sup>Department of Neurology, Hospital de Pediatría J.P. Garrahan, <sup>2</sup>Genomics laboratory, Hospital de Pediatría J.P. Garrahan

**716LBP Distinct muscle regeneration capability of mesenchymal stromal cells derived from human iPS cells in Ullrich congenital muscular dystrophy model mice**

**Goto M<sup>1</sup>**, Takenaka-Ninagwa N<sup>1</sup>, Yoshioka-Bourgeois C<sup>1</sup>, Miki M<sup>1</sup>, Sakurai H<sup>1</sup>

<sup>1</sup>Center for iPS Cell Research and Application, Kyoto University

**717LBP Distinct muscle regeneration capability of mesenchymal stromal cells derived from human iPS cells in Ullrich congenital muscular dystrophy model mice**

Zhai W<sup>1,2</sup>, **Jiao K<sup>1</sup>**, Wang N<sup>1</sup>, Yu L<sup>3</sup>, Huang X<sup>4</sup>, Li W<sup>5</sup>, Hu C<sup>5</sup>, Chen X<sup>1</sup>, Zhu B<sup>1</sup>, Zhang J<sup>1</sup>, Chang X<sup>6</sup>, Zhong H<sup>1</sup>, Zhao C<sup>1</sup>, Zhu S<sup>2</sup>, Zhu W<sup>1</sup>

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**719LBP Duchenne muscular dystrophy gene editing therapy with CRISPR/high-fidelity Cas12Max**

**Luk A**<sup>1,4</sup>, Lin J<sup>2</sup>, Jin M<sup>2</sup>, Li Z<sup>3</sup>, Li T<sup>4</sup>, Shi L<sup>4</sup>, Yang H<sup>5</sup>, Li G<sup>4</sup>

<sup>1</sup>HuidaGene Therapeutics, <sup>2</sup>Department of Neurology, First Affiliated Hospital, Fujian Medical University,

<sup>3</sup>Lingang Laboratory, <sup>4</sup>HuidaGene (Shanghai) Therapeutics Co., Ltd, <sup>5</sup>Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences

**720LBP Initial data following 24 weeks of treatment with WVE-N531 in patients with DMD: findings from Part B (FORWARD-53) of a phase 1b/2 open-label study**

**Malhi S**<sup>1</sup>, Servais L<sup>2</sup>, Bader M<sup>3</sup>, AlQurashi M<sup>4</sup>, Tillinger M<sup>1</sup>, Paulson D<sup>1</sup>, Angelov A<sup>1</sup>, Kaviya A<sup>1</sup>, Hu X<sup>1</sup>, Narayanan P<sup>1</sup>, Hart A<sup>1</sup>, Haegele J<sup>1</sup>, Singh K<sup>1</sup>, Rheinhardt J<sup>1</sup>, Ghosh A<sup>1</sup>, Saint S<sup>1</sup>, Bhatia S<sup>1</sup>, McClure T<sup>1</sup>, Casey C<sup>1</sup>, Li-Kwai-Cheung A<sup>1</sup>

<sup>1</sup>Wave Life Sciences, <sup>2</sup>Oxford Children's Hospital, Oxford University Hospitals NHS Foundation Trust,

<sup>3</sup>The Specialty Hospital (TSH), Advanced Clinical Center, <sup>4</sup>Istiklal Hospital, Clinical Research Unit

**721LBP Multi-modal benefits of deramiocel (CAP-1002) in late-stage patients with DMD: A new treatment approach to target skeletal and cardiac muscle pathogenesis (HOPE-2-OLE Trial – 36-month data)**

**McDonald C**<sup>1</sup>, Villa C<sup>2</sup>, Tian C<sup>2</sup>, Zygmunt A<sup>2</sup>, Soslow J<sup>3</sup>, Ollberding N<sup>2</sup>, Hor K<sup>4</sup>, Harmelink M<sup>5</sup>, Varadhachary A<sup>6</sup>, Apkon S<sup>7</sup>, Romana V<sup>8</sup>, Desai U<sup>8</sup>, Hogan N<sup>8</sup>, Maharry K<sup>8</sup>, Awadalla M<sup>8</sup>, Marban L<sup>8</sup>

<sup>1</sup>UC Davis Health, <sup>2</sup>Cincinnati Children's Hospital, <sup>3</sup>Vanderbilt University Medical Center, <sup>4</sup>Nationwide Children's Hospital, <sup>5</sup>Children's Hospital of Wisconsin, <sup>6</sup>Washington University, <sup>7</sup>Children's Hospital Colorado, <sup>8</sup>Capricor Therapeutics

**722LBP Evaluating the effectiveness of clinical tools in determining the causes of recurrent rhabdomyolysis**

**Nandakumar D**<sup>1</sup>, Breland C<sup>1</sup>, Bhai S<sup>1</sup>

<sup>1</sup>University Of Texas Southwestern Medical School

**723LBP The genetic diagnosis of neuromuscular diseases beyond whole genome sequencing: a next step in testing**

**Nigro V**<sup>1,2</sup>, Di Letto P<sup>1</sup>, Rahman S<sup>1</sup>, Zanolio M<sup>1</sup>, Romano F<sup>1</sup>, Scarpato M<sup>1</sup>, Vicidomini G<sup>1</sup>, Giacobbe C<sup>1</sup>, Picillo E<sup>1</sup>, Spanpanato C<sup>1,2</sup>, Del Vecchio Blanco F<sup>1</sup>, Piluso G<sup>1</sup>, Politano L<sup>1</sup>, Torella A<sup>1,2</sup>

<sup>1</sup>University of Campania Luigi Vanvitelli, <sup>2</sup>Telethon Institute of Genetics and Medicine

**724LBP The natural history of pediatric Becker muscular dystrophy: a single center retrospective cohort study and muscle ultrasound characterization**

**Piccoli C**<sup>1</sup>, Glanzman A<sup>2</sup>, Gross B<sup>2</sup>, Yum S<sup>2</sup>

<sup>1</sup>Stanford University, <sup>2</sup>Children's Hospital of Philadelphia

**725LBP Meaningful Within-Patient Change (MWPC) thresholds for North Star Ambulatory Assessment (NSAA) and Modified Pediatric Outcomes Data Collection Instrument (PODCI) in patients with Duchenne Muscular Dystrophy (DMD)**

**Posner N**<sup>1</sup>, Bushmakina A<sup>1</sup>, Mazar I<sup>1</sup>, Shen Q<sup>1</sup>, Duckacz S<sup>1</sup>, Ines M<sup>1</sup>, Aslam Z<sup>1</sup>, Cappelleri J<sup>1</sup>

<sup>1</sup>Pfizer, Inc.

**726LBP Long-term safety and tolerability of delandistrogene moxeparvovec in Duchenne muscular dystrophy: phase 1 to phase 3 clinical trials**

**Proud C**<sup>1</sup>, McDonald C<sup>2</sup>, Mercuri E<sup>3</sup>, Muntoni F<sup>4</sup>, Zaidman C<sup>5</sup>, Dharia S<sup>6</sup>, Mason S<sup>6</sup>, Meng J<sup>6</sup>, Murphy A<sup>7</sup>, Palatinsky E<sup>6</sup>, Reid C<sup>7</sup>, Wandel C<sup>8</sup>, Mendell J<sup>6</sup>

<sup>1</sup>Children's Hospital of The King's Daughters, <sup>2</sup>UC Davis, <sup>3</sup>Pediatric Neurology Institute, Catholic University and Nemo Pediatrico, Fondazione Policlinico Gemelli IRCCS, <sup>4</sup>Dubowitz Neuromuscular Centre, NIHR Great Ormond Street Hospital Biomedical Research Centre, Great Ormond Street Institute of Child Health, University College London, and Great Ormond Street Hospital Trust, <sup>5</sup>Washington University in Saint Louis, <sup>6</sup>Sarepta Therapeutics, Inc., <sup>7</sup>Roche Products Ltd, <sup>8</sup>F. Hoffmann-La Roche Ltd

**727LBP Evidence for a role of eotaxin family proteins as inflammatory mediators and biomarkers in inclusion body myositis: new insights in the disease pathogenesis**

**Riolo G**<sup>1</sup>, Gibertini S<sup>1</sup>, Iannibelli E<sup>1</sup>, Carnazzi A<sup>1,2</sup>, Nicolini De Gaetano L<sup>1</sup>, Salerno F<sup>1</sup>, Ruggieri A<sup>1</sup>, Bonanno S<sup>1</sup>, Marcuzzo S<sup>1</sup>, Cavalcante P<sup>1</sup>, Maggi L<sup>1</sup>

<sup>1</sup>Neuroimmunology and Neuromuscular Diseases Unit - Fondazione IRCCS Istituto Neurologico Carlo Besta,

<sup>2</sup>Ph.D. program in Pharmacological Biomolecular Sciences, Experimental and Clinical, University of Milan

**728LBP Post-Authorisation Safety Study (PASS). Mexiletine effectiveness in patients with non-dystrophic myotonia: interim analysis findings**

**Rosenbohm A**<sup>1</sup>, Vicart S<sup>2</sup>, Tard C<sup>3</sup>, Jayaseelan D<sup>4</sup>, Sedehizadeh S<sup>5</sup>, Schneider-Gold C<sup>6</sup>, Adetoro N<sup>7</sup>, Zozulya-Weidenfeller A<sup>8</sup>

<sup>1</sup>University of Ulm, <sup>2</sup>Pitié-Salpêtrière University Hospital, <sup>3</sup>CHRU Lille, <sup>4</sup>National Hospital for Neurology and

Neurosurgery, <sup>5</sup>Nottingham University Hospitals NHS Trust, <sup>6</sup>St. Josef-Hospital, <sup>7</sup>Lupin Research, <sup>8</sup>Lupin EMEA

**729LBP Protein biomarkers of muscle injury exhibit differential reduction with subject age and time in adults with Becker muscular dystrophy**

**Russell A<sup>1</sup>**, Barthel B<sup>1</sup>, Schrama E<sup>2</sup>, Koeks Z<sup>2</sup>, van de Velde N<sup>2</sup>, Verschuuren J<sup>2</sup>, Donovan J<sup>1</sup>, Niks E<sup>2</sup>, Spitali P<sup>2</sup>  
<sup>1</sup>Edgewise Therapeutics, <sup>2</sup>University of Leiden

**730LBP Double trouble: a comprehensive study into unrelated genetic comorbidities in adult patients with Facioscapulohumeral muscular dystrophy type I**

**Saconni S<sup>1,2</sup>**, Tammam G<sup>3,4</sup>, Ezaru A<sup>1</sup>, Slioui A<sup>1</sup>, Monforte M<sup>5</sup>, Tasca G<sup>6</sup>, Villa L<sup>1</sup>, Cavalli M<sup>1</sup>, Salviati L<sup>7</sup>, van der Vliet P<sup>8</sup>, Lemmers R<sup>8</sup>, Pini J<sup>1,2</sup>, van der Maarel S<sup>8</sup>, Puma A<sup>1</sup>

<sup>1</sup>Peripheral Nervous System & Muscle Department, Pasteur 2 Hospital, Nice University Hospital, <sup>2</sup>Institute for Research on Cancer and Aging of Nice, CNRS, INSERM, Côte d'Azur University, <sup>3</sup>Department of Brain and Behavioral Sciences, University of Pavia, <sup>4</sup>IRCCS Mondino Foundation, <sup>5</sup>Institute of Neurology, Catholic University School of Medicine, <sup>6</sup>John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trust, <sup>7</sup>Clinical Genetics Unit, Department of Women's and Children's Health, University of Padua, <sup>8</sup>Department of Human Genetics, Leiden University Medical Center

**731LBP Efficient exon skipping and dystrophin restoration after a single in vivo dose of Antisense Oligonucleotide Conjugate (AOC) in the mdx mouse model for Duchenne muscular dystrophy**

**Stan T<sup>1</sup>**, Van De Vijver D<sup>1</sup>, Tanganyika-de Winter C<sup>1</sup>, Post E<sup>2</sup>, van Geel R<sup>2</sup>, Türkmen N<sup>2</sup>, van Delft F<sup>2</sup>, Aartsma-Rus A<sup>1</sup>

<sup>1</sup>Leiden University Medical Center (LUMC), <sup>2</sup>Synaffix BV

**732LBP Post-exercise biomarkers of muscle injury are reduced by Sevasemten, a fast myosin inhibitor, in adults with Becker muscular dystrophy**

**Stemmerik M<sup>1</sup>**, Russel A<sup>2</sup>, Frølich S<sup>1</sup>, Receveur N<sup>1</sup>, Slipsager A<sup>1</sup>, Barthel B<sup>2</sup>, Donovan J<sup>2</sup>, MacDougall J<sup>2</sup>, Vissing J<sup>1</sup>  
<sup>1</sup>Copenhagen Neuromuscular Center, Rigshospitalet, <sup>2</sup>Edgewise Therapeutics

**733LBP Development of KT323 as a potent and safe gene therapy candidate for facioscapulohumeral muscular dystrophy (FSHD) through high throughput AAV capsid and cargo engineering**

**Tabebordbar S<sup>1</sup>**, Seshadri S<sup>1</sup>, Brown K<sup>1</sup>, Dang C<sup>1</sup>, Tabebordbar S<sup>1</sup>, Marsh E<sup>1</sup>, Salmun G<sup>1</sup>, Hakim C<sup>1</sup>, Jenquin J<sup>1</sup>, Stricker J<sup>1</sup>, Ferguson B<sup>1</sup>, Fielden M<sup>1</sup>

<sup>1</sup>Kate Therapeutics

**735LBP First in class ASO targeting IGHMBP2 cryptic splice variant: efficacy and safety**

**Tyner C<sup>1</sup>**, Smieszek S<sup>1</sup>, Przychodzen B<sup>1</sup>, Johnson C<sup>1</sup>, Polymeropoulos C<sup>1</sup>, Birznieks G<sup>1</sup>, Polymeropoulos M<sup>1</sup>

<sup>1</sup>Vanda Pharmaceuticals Inc.

**736LBP Solving challenging titinopathy cases via multi-omics**

**Zhang Y<sup>1</sup>**, Xu L<sup>1</sup>, Lei Y<sup>2</sup>, Bönnemann C<sup>3</sup>, Chan S<sup>2</sup>, Javed A<sup>1</sup>

<sup>1</sup>School of Biomedical Sciences, LKS faculty of Medicine, The University of Hong Kong, <sup>2</sup>Department of Paediatrics and Adolescent Medicine, School of Clinical Medicine, LKS Faculty of Medicine, The University of Hong Kong, <sup>3</sup>Neuromuscular and Neurogenetic Disorders of Childhood Section, Neurogenetics Branch, National Institute of Neurological Disorders and Stroke, National Institutes of Health

**737LBP Full-length RNA sequencing in FSHD identifies novel isoforms and intergenic transcripts activated by DUX4**

**Zheng D<sup>1</sup>**, van den Heuvel A<sup>1</sup>, Balog J<sup>1</sup>, M. Willemsen I<sup>1</sup>, Kloet S<sup>1</sup>, J. Tapscott S<sup>2,3</sup>, Mahfouz A<sup>1,4</sup>,

M. van der Maarel S<sup>1</sup>

<sup>1</sup>Leiden University Medical Center, <sup>2</sup>Fred Hutchinson Cancer Center, <sup>3</sup>University of Washington, <sup>4</sup>Delft University of Technology

**738LBP Non-invasive optoacoustic muscle imaging in Late-onset Pompe disease – a translational and multicenter approach**

**Wagner A<sup>1,2</sup>**, Tan L<sup>2,3</sup>, Zschüntzsch J<sup>4</sup>, Meyer S<sup>4</sup>, Stobbe A<sup>4</sup>, Bruex H<sup>4</sup>, Regensburger A<sup>2,3</sup>, Alves F<sup>4,5</sup>, Jüngert J<sup>3</sup>, Rother U<sup>6</sup>, Danko V<sup>2,3</sup>, Türk M<sup>7</sup>, Schmidt S<sup>8</sup>, Vorgerd M<sup>9,10</sup>, Schlaffke L<sup>9</sup>, Wölfle J<sup>3</sup>, Hahn A<sup>11</sup>, Mensch A<sup>12</sup>, Winterholler M<sup>13</sup>, Trollmann R<sup>3</sup>, Heiß R<sup>8</sup>, Raming R<sup>2,3</sup>, Knieling F<sup>2,3</sup>

<sup>1</sup>Department of Pediatric Neurology, Charité University Hospital Berlin, <sup>2</sup>Translational Pediatrics, Department of Pediatrics and Adolescent Medicine, University Hospital Erlangen, <sup>3</sup>Department of Pediatrics and Adolescent Medicine, University Hospital Erlangen, <sup>4</sup>Translational Molecular Imaging, Max-Planck Institute for Multidisciplinary Sciences (MPI-NAT), <sup>5</sup>Clinic for Haematology and Medical Oncology, Institute of Diagnostic and Interventional Radiology, University Medical Center Göttingen, <sup>6</sup>Department of Vascular Surgery, University Hospital Erlangen, <sup>7</sup>Department of Neurology, University Hospital Erlangen, <sup>8</sup>Institute of Radiology, University Hospital Erlangen, <sup>9</sup>Department of Neurology, BG-University Hospital Bergmannsheil; Ruhr-University Bochum, <sup>10</sup>Heimer Institute for Muscle Research; BG-University Hospital Bergmannsheil, <sup>11</sup>Department of Child Neurology; Justus-Liebig-Universität Giessen, <sup>12</sup>Department of Neurology; Martin-Luther-Universität Halle-Wittenberg, <sup>13</sup>Sana Krankenhaus Rummelsberg

16:45-17:15	<b>Short Oral Presentations 10</b> 📍 North Hall <b>181P, 177P, 178P, 180P, 179P</b> <i>Moderator: Laurent Servais, University of Oxford</i>	<b>Short Oral Presentations 11</b> 📍 Terrace 2A <b>656P, 675P, 673P, 674P, 358P</b> <i>Moderator: Pascal Laforêt, Hôpital Raymond Poincaré</i>	<b>Short Oral Presentations 12</b> 📍 Terrace 2B <b>536P, 109P, 513P, 512P, 241P</b> <i>Moderator: Heike Kölbl, Universitätsmedizin Essen</i>
19:15-01:00	<b>Networking Dinner</b> 📍 Municipal House (separate registration required)		

## Saturday 12th October 2024

07:15-14:00	<b>Congress desk open</b>
07:45-08:45	<b>Clinical Trial Updates</b> 📍 Congress Hall <i>Moderators: Francesco Muntoni, University College London, Great Ormond Street Hospital, UK &amp; Tina Duong, Stanford University, USA</i>
<b>07:45-08:00</b>	<b>190</b> Muscle MRI outcomes in patients with Duchenne Muscular Dystrophy treated with delandistrogene moxeparvovec: Findings from EMBARK Part 1 <b>Vandenborne K<sup>1</sup></b> , Walter G <sup>2</sup> , Straub V <sup>3</sup> , Willcocks R <sup>1</sup> , Forbes S <sup>1</sup> , Ennamuri S <sup>4</sup> , Ding K <sup>4</sup> , Reid C <sup>5</sup> , Murphy A <sup>5</sup> , Manfrini M <sup>6</sup> , Elkins J <sup>4</sup> , Rodino-Klapac L <sup>4</sup> <sup>1</sup> Department of Physical Therapy, University of Florida, <sup>2</sup> Department of Physiology and Aging, University of Florida, <sup>3</sup> Newcastle University, John Walton Muscular Dystrophy Research Centre, <sup>4</sup> Sarepta Therapeutics, Inc., <sup>5</sup> Roche Products Ltd, <sup>6</sup> F. Hoffmann-La Roche Ltd
<b>08:00-08:15</b>	<b>200</b> Preliminary results from a Phase 1-2 gene therapy study of ATA-100, AAV9 vector encoding FKRP, in patients with Limb Girdle Muscular Dystrophy R9 <b>Olivier S<sup>1</sup></b> , Richard I <sup>1,2</sup> , Stojkovic T <sup>3</sup> , Straub V <sup>4</sup> , Preisler N <sup>5</sup> , Zanfongnon R <sup>2</sup> , Buscara L <sup>2</sup> , Genries-Ferrand S <sup>2</sup> , Vissing J <sup>5</sup> <sup>1</sup> Atamy Therapeutics, <sup>2</sup> Genethon, <sup>3</sup> APHP, Reference center for neuromuscular diseases, Institute of Myology, <sup>4</sup> John Walton Muscular Dystrophy Research Centre, <sup>5</sup> Rigshospitalet
<b>08:15-08:30</b>	<b>220</b> MExiletine versus lamotrigine in Non-Dystrophic myotonias – a randomised, double-blinded, cross-over trial <b>Vivekanandam V<sup>1,2</sup></b> , Jayaseelan D <sup>1</sup> , Skorupinska I <sup>1</sup> , Germain L <sup>1</sup> , Matthews E <sup>3</sup> , Barohn R <sup>4</sup> , McDermott M <sup>5</sup> , Hanna M <sup>1,2</sup> <sup>1</sup> The National Hospital for Neurology and Neurosurgery, Queen Square National Hospital for Neurology and Neurosurgery, Queen Square, <sup>2</sup> Queen Square UCL Institute of Neurology, <sup>3</sup> Neurosciences and Cell Biology Research Institute, St George's University of London, <sup>4</sup> University of Missouri, <sup>5</sup> University of Rochester Medical Center
<b>08:30-08:45</b>	<b>210</b> Rainbowfish: 2-year efficacy and safety data of risdiplam in infants with presymptomatic SMA <b>Servais L<sup>1,2</sup></b> , Finkel R <sup>3</sup> , Farrar M <sup>4</sup> , Vlodayets D <sup>5</sup> , Zanolati E <sup>6</sup> , Al-Muhaizea M <sup>7</sup> , Araújo A <sup>8</sup> , Nelson L <sup>9</sup> , Jaber B <sup>10</sup> , Gorni K <sup>11</sup> , Kletzl H <sup>12</sup> , Palfreeman L <sup>13</sup> , Gaki E <sup>13</sup> , Rabbia M <sup>14</sup> , Summers D <sup>13</sup> , Fontoura P <sup>11</sup> , Bertini E <sup>15</sup> , on behalf of the RAINBOWFISH Study Group <sup>1</sup> MDUK Oxford Neuromuscular Centre, Department of Paediatrics, University of Oxford, <sup>2</sup> Division of Child Neurology, Centre de Références des Maladies Neuromusculaires, Department of Pediatrics, University Hospital Liège & University of Liège, <sup>3</sup> Center for Experimental Neurotherapeutics, St Jude Children's Research Hospital, <sup>4</sup> Sydney Children's Hospital Network and UNSW Medicine, UNSW Sydney, <sup>5</sup> Russian Children Neuromuscular Center, Veltischev Clinical Pediatrics and Pediatric Surgery Research Institute of Pirogov Russian National Research Medical University, <sup>6</sup> Department of Neurology, Faculdade de Medicina, Universidade de São Paulo, <sup>7</sup> Department of Neurosciences, King Faisal Specialist Hospital & Research Center-Riyadh, <sup>8</sup> Pediatrics Department, Faculty of Medicine, Federal University of Rio de Janeiro, <sup>9</sup> Department of Physical Therapy, University of Texas Southwestern Medical Center, <sup>10</sup> Pharma Development, Safety, F. Hoffmann-La Roche Ltd, <sup>11</sup> PDMA Neuroscience and Rare Disease, F. Hoffmann-La Roche Ltd, <sup>12</sup> Roche Pharmaceutical Research and Early Development, Roche Innovation Center Basel, <sup>13</sup> Roche Products Ltd, <sup>14</sup> Genentech, Inc., <sup>15</sup> Research Unit of Neuromuscular and Neurodegenerative Disorders, Bambino Gesù Children's Research Hospital IRCCS
08:45-09:00	<b>Comfort Break</b>

09:00-09:30	<p><b>Victor Dubowitz Lecture</b>  📍 Congress Hall  Moderators: Volker Straub, Newcastle University, UK &amp; Jana Haberlová, University Hospital Motol, Czechia</p> <p><b>INV13</b> AAV delivery of mini-and full-length dystrophins  <u>Chamberlain J<sup>1</sup></u>, Hauschka S<sup>1</sup>, Regnier M<sup>1</sup>, Tasmaout H<sup>1</sup>  <sup>1</sup>University of Washington School of Medicine</p>
09:30-11:00	<p><b>Poster Highlights</b>  Moderators: Edoardo Malfatti, Université Paris Est, France &amp; Tamara Dangouloff, University Of Liege, Belgium</p> <p><b>09:30- 09:45 230</b> Spinal Muscular Atrophy is also a disorder of spermatogenesis  <u>Magot A<sup>1</sup></u>, Reignier A<sup>2</sup>, Binois O<sup>3</sup>, Vuillerot C<sup>4,5</sup>, Yann P<sup>1</sup> and the Fermasi Study Group  <sup>1</sup>Centre de Référence des Mala Neuromusculaires AOC, CHU de Nantes, Filnemus, Euro-NMD, Nantes, <sup>2</sup>Service de Médecine et Biologie de la Reproduction, gynécologie médicale, CHU de Nantes, <sup>3</sup>Service de Biologie de la Reproduction - CECOS, Hôpital Antoine Bécclère, AP-HP, Université Paris Saclay, <sup>4</sup>Centre de Référence PACA Réunion Rhône Alpes, Hospices Civils de Lyon, Hôpital Femme-Mère-Enfant, L'Escale, Service de Médecine Physique et de Réadaptation Pédiatrique, Bron, <sup>5</sup>NeuroMyogen Institute, CNRS UMR 5310 - INSERM U1217, University of Lyon</p> <p><b>09:45-10:00 240</b> Temporal requirement of dystroglycan glycosylation during brain development and rescue of cortical dysplasia via gene delivery in the fetal stage  <u>Sudo A<sup>1</sup></u>, Kanagawa M<sup>2</sup>, Kobayashi K<sup>2</sup>, Endo M<sup>3</sup>, Minami Y<sup>3</sup>, Aiba A<sup>4</sup>, Toda T<sup>1</sup>  <sup>1</sup>Department of Neurology, The University of Tokyo, <sup>2</sup>Division of Molecular Brain Science, Kobe University, <sup>3</sup>Division of Cell Physiology, Kobe University, <sup>4</sup>Laboratory of Animal Resources, The University of Tokyo</p> <p><b>10:00-10:15 250</b> Development of a CRISPR/CasX 4q telomeric region ablation strategy for FSHD1 using an isogenic hiPSC line and a FSHD1 fibroblast cell line  <u>Lama C<sup>1</sup></u>, de Graaf N<sup>1,2</sup>, Bou Akar R<sup>1</sup>, Danaus P<sup>3</sup>, Suel-Petat L<sup>4</sup>, Nectoux J<sup>3</sup>, Authier F<sup>1,5</sup>, Relaix F<sup>1</sup>, Richard I<sup>4</sup>, Malfatti E<sup>1,5</sup>  <sup>1</sup>Université Paris Est Créteil, INSERM, IMRB - Hôpital Henri-Mondor, <sup>2</sup>The Department of Neurology, Donders Institute for Brain, Cognition and Behaviour, Radboud university medical center, <sup>3</sup>Assistance Publique - Hôpitaux de Paris, APHP, Centre Universitaire Paris, Hôpital Cochin, Laboratoire de Génétique et Biologie Moléculaires, <sup>4</sup>Généthon, INSERM, Unité de recherche Intégrare, UMR_S951 - Université Paris-Saclay, Université d'Évry, <sup>5</sup>Reference Center for Neuromuscular Disorders, APHP Henri Mondor University Hospital</p> <p><b>10:15-10:30 260</b> Understanding the clinical heterogeneity in myotonic dystrophy type 1: identifying clinical phenotypes using unsupervised clustering  <u>la Fontaine L<sup>1</sup></u>, Imkamp M<sup>1</sup>, 't Hoen P<sup>2</sup>, van As D<sup>2</sup>, Smulders F<sup>2</sup>, Bruijnes J<sup>1</sup>, de Kok J<sup>1</sup>, Faber C<sup>1</sup>, Merkies I<sup>1</sup>, van Kuijk S<sup>1</sup>  <sup>1</sup>Maastricht University Medical Centre, <sup>2</sup>Radboud University Medical Centres</p> <p><b>10:30-10:45 270</b> Mass spectrometry as a technique for robust quantification of titin and other large muscle disease-associated proteins  <u>Smolnikov A<sup>1</sup></u>, Padoani D<sup>1</sup>, Jurczyk J<sup>1</sup>, Su Z<sup>1</sup>, Hamey J<sup>1</sup>, Wilkins M<sup>1</sup>, Yuen M<sup>1,2,3,4</sup>, Oates E<sup>1,5</sup>  <sup>1</sup>School of Biotechnology and Biomolecular Sciences, Faculty of Science, University Of New South Wales, <sup>2</sup>Kids Neuroscience Centre, Kids Research Institute, The Children's Hospital at Westmead, <sup>3</sup>Functional Neuromics, Children's Medical Research Institute, The University of Sydney, <sup>4</sup>Faculty of Medicine and Health, The University of Sydney, <sup>5</sup>Sydney Children's Hospital Network</p> <p><b>10:45-11:00 280</b> Minimal detectable change of the Revised Hammersmith Scale in patients with Spinal Muscular Atrophy  <u>O'reilly E<sup>1,2</sup></u>, Stimpson G<sup>2</sup>, Rohwer A<sup>1,2</sup>, Baranello G<sup>1,2,3</sup>, Muntoni F<sup>1,2,3</sup>, Scoto M<sup>1,2,3</sup>, On behalf of SMA REACH UK<sup>2</sup>  <sup>1</sup>Great Ormond Street Hospital for Children NHS Foundation Trust, <sup>2</sup>Dubowitz Neuromuscular Centre, Institute of Child Health, UCL, <sup>3</sup>UCL NIHR GOSH Biomedical Research Centre</p>
11:00-11:30	<p><b>Morning refreshments, exhibition and posters</b></p>
11:30-13:30	<p><b>Late Breaking News</b>  📍 Congress Hall  Moderators: Ana Topf, John Walton Muscular Dystrophy Research Centre, UK &amp; Alan H. Beggs, Boston Children's Hospital, Harvard Medical School, USA</p>



11:30 - 11:45

**01LBO Biallelic variants affecting the DST-b isoform cause a severe congenital myopathy presenting with arthrogryposis, muscular hypotonia and dilated cardiomyopathy**

**Jacob M<sup>1</sup>**, Kölbl H<sup>2</sup>, Munot P<sup>3</sup>, Kopajtich R<sup>1,4</sup>, Achleitner M<sup>5</sup>, Hahn A<sup>6</sup>, Schänzer A<sup>7</sup>, Weis J<sup>8</sup>, Sewry C<sup>3,9,10</sup>, Phadke R<sup>3</sup>, Sukenik-Halevy R<sup>11,12</sup>, Maroofian R<sup>13</sup>, Gómez-Andrés D<sup>14</sup>, Wilson L<sup>15</sup>, Schara-Schmidt U<sup>2</sup>, Winkelmann J<sup>1,4,16</sup>, Roos A<sup>2,17,18</sup>, Mayr J<sup>5</sup>, Distelmaier F<sup>19</sup>, Wagner M<sup>1,4,20</sup>

<sup>1</sup>Institute of Human Genetics, Klinikum rechts der Isar, Technical University of Munich, School of Medicine and Health, Munich, <sup>2</sup>Department of Neuropediatrics and Neuromuscular Centre for Children and Adolescents, Center for Translational Neuro- and Behavioral Sciences, University Hospital Essen, Duisburg-Essen University, <sup>3</sup>Dubowitz Neuromuscular Centre, Great Ormond Street Hospital, <sup>4</sup>Institute of Neurogenomics, Helmholtz Munich, <sup>5</sup>University Children's Hospital, Salzburger Landeskliniken (SALK), Paracelsus Medical University, <sup>6</sup>Department of Child Neurology, Justus-Liebig-University Giessen, <sup>7</sup>Institute of Neuropathology, Justus Liebig University Giessen, <sup>8</sup>Institute of Neuropathology, RWTH Aachen University Hospital, <sup>9</sup>Wolfson Centre for Neuromuscular Disorders, Robert Jones and Agnes Hunt Orthopaedic Hospital, <sup>10</sup>Cellular Pathology, Salford Royal Hospital NHS Foundation Trust, Northern Care Alliance, <sup>11</sup>Genetic Institute, Meir Medical Center, <sup>12</sup>School of Medicine, Faculty of Medical and Health Sciences, Tel Aviv University, <sup>13</sup>Centre for Neuromuscular Diseases, UCL Queen Square Institute of Neurology, <sup>14</sup>Department of Pediatric Neurology, Vall d'Hebron University Hospital, Vall d'Hebron Hospital Campus, <sup>15</sup>Department of Clinical Genetics, Great Ormond Street Hospital, <sup>16</sup>Munich Cluster for Systems Neurology (SyNergy), <sup>17</sup>Department of Neurology, Heinrich Heine University Düsseldorf, <sup>18</sup>Division of Neurology, Department of Medicine, Children's Hospital of Eastern Ontario Research Institute, The Ottawa Hospital, and Brain and Mind Research Institute, University of Ottawa, <sup>19</sup>Department of General Pediatrics, Neonatology, and Pediatric Cardiology, Medical Faculty and University Hospital Düsseldorf, Heinrich-Heine-University, <sup>20</sup>Division of Pediatric Neurology, Developmental Medicine and Social Pediatrics, Department of Pediatrics, Dr. von Hauner Children's Hospital, Ludwig-Maximilian University (LMU) Munich

11:45 - 12:00

**02LBO Expanding the genetic and phenotypic landscape of replication factor C complex-related disorders: RFC4 deficiency is linked to a multisystemic disorder**

**Saito Y<sup>1</sup>**, Morimoto M<sup>2</sup>, Ryu E<sup>3,4,5</sup>, RFC4 study group, Toro C<sup>2</sup>, Myung K<sup>3,6</sup>, Nishino I<sup>1</sup>, Malicdan M<sup>2,7</sup>

<sup>1</sup>Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, <sup>2</sup>National Institutes of Health Undiagnosed Diseases Program, National Human Genome Research Institute, National Institutes of Health, <sup>3</sup>Center for Genomic Integrity, Institute for Basic Science, <sup>4</sup>Department of Biological Sciences, Ulsan National Institute of Science and Technology, <sup>5</sup>Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, <sup>6</sup>Department of Biomedical Engineering, Ulsan National Institute of Science and Technology, <sup>7</sup>Human Biochemical Genetics Section, Medical Genetics Branch, National Human Genome Research Institute, National Institutes of Health

12:00 - 12:15

**03LBO Decoy gene therapy for myotonic dystrophy**

**Furling D<sup>1</sup>**, Arandel L<sup>1</sup>, Sureau A<sup>1</sup>, Cordier A<sup>1</sup>, Moulay G<sup>1</sup>, Rouxel C<sup>1</sup>, Klein A<sup>1</sup>

<sup>1</sup>Sorbonne Université, Inserm, Institut de Myologie, Centre de Recherche en Myologie

12:15 - 12:30

**04LBO Interim clinical data summary: A phase 1b/2a open-label, dose escalation study to evaluate the safety and clinical activity of intramuscular doses of an AAV9-based gene therapy (BB-301) administered to subjects with oculopharyngeal muscular dystrophy (OPMD) with dysphagia**

**Amin M<sup>1</sup>**, Achlatis E<sup>1</sup>, Balou S<sup>1</sup>, Steele C<sup>2</sup>, Peladeau-Pigeon M<sup>2</sup>, Barrett E<sup>2</sup>, Meng D<sup>2</sup>

<sup>1</sup>NYU Grossman School of Medicine, <sup>2</sup>Swallowing Rehabilitation Laboratory, University Health Network

12:30- 12:45

**05LBO A phase 1 study of antisense oligonucleotide NS-035 in patients with Fukuyama congenital muscular dystrophy**

**Fujino G<sup>1</sup>**, Kitamura A<sup>1</sup>, Takahashi A<sup>1</sup>, Maeda M<sup>1</sup>, Kubota A<sup>1</sup>, Tokuyama Y<sup>2</sup>, Wada I<sup>2</sup>, Kobayashi K<sup>3</sup>, Komaki H<sup>4</sup>, Taniguchi-Ikeda M<sup>5</sup>, Ishigaki K<sup>6</sup>, Toda T<sup>1</sup>

<sup>1</sup>The University of Tokyo, <sup>2</sup>The University of Tokyo Hospital, <sup>3</sup>Kobe University, <sup>4</sup>National Center of Neurology and Psychiatry, <sup>5</sup>Fujita Health University Hospital, <sup>6</sup>Tokyo Women's Medical University

12:45-13:00

**06LBO CIFFREO, a phase 3, randomized, double-blind, placebo-controlled study of fordadistrogene movaparovec (FM) in ambulatory participants with Duchenne muscular dystrophy (DMD)**

**Muntoni F<sup>1</sup>**, Nascimento A<sup>2</sup>, Shin J<sup>3</sup>, Guglieri M<sup>4</sup>, Stettner G<sup>5</sup>, Veerapandiyan A<sup>6</sup>, Gallo S<sup>7</sup>, Shi H<sup>7</sup>, Gundapaneni B<sup>7</sup>, Neelakantan S<sup>7</sup>, Lobello K<sup>7</sup>, Shen Q<sup>7</sup>, Levy D<sup>7</sup>, Mercuri E<sup>8</sup>

<sup>1</sup>UCL GOS Institute of Child Health, <sup>2</sup>Passeig de Sant Joan de Déu, <sup>3</sup>Pusan National University School of Medicine, <sup>4</sup>Newcastle University, <sup>5</sup>University of Zürich, <sup>6</sup>University of Arkansas for Medical Sciences, <sup>7</sup>Pfizer Inc, <sup>8</sup>Universita' la Cattolica

**Prize Giving Ceremony Moderator: Marco Savarese, University of Helsinki, Finland**

**Introduction to the WMS 2025 Congress, Vienna, Austria**

**Handover of the WMS flag and close of Congress Moderator: Volker Straub**

13:30-14:30

**Homeward lunch**