34th international symposium on ALS/MND

6-8 December 2023
Basel, Switzerland and online

Host: Verein ALS Schweiz

Organised by the Motor Neurone Disease Association
The 34th International Symposium on ALS/MND has been approved by the Federation of the Royal Colleges of Physicians of the United Kingdom for 18 category 1 (external) CPD credits.

Organiser of the Symposium

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CME Accreditation

The 34th International Symposium on ALS/MND has been approved by the Federation of the Royal Colleges of Physicians of the United Kingdom for 18 category 1 (external) CPD credits.
Welcome

Grüezi! Bonjour! Benvenuto! Allegra!
A very warm welcome!

It’s the first time in over thirty years that the International Symposium on ALS/MND has come to Switzerland. With this conference, the MND Association offers the largest annual conference dedicated to ALS and MND research. Wherever our community congregates, you’ll find an unparalleled spirit. People from all over the world come together in support of our common cause: a world free of ALS/MND. Whether we are in Boston, Dublin, Perth or Basel: our purpose is always to learn from and to inspire each other – in a powerful exchange between professionals. At the ALS Association Switzerland, our main cause is seeking to improve the quality of life of people with ALS and their loved ones as best we can.

When delegations from Switzerland and 16 countries met in the UK in November 1992 to found the International Alliance of ALS/MND Associations, their goals were as follows: raising global awareness, sharing information on managing the condition, supporting and coordinating global research, creating a global identity and improving quality of care. Our community shares those very same aims to this day. We are deeply committed to supporting people with the condition and their loved ones and meeting the needs of specialists and experts in the field. Discovered 150 years ago, the condition remains terminal. Every year, all over the world, it leaves in its wake those people who suffer this awful fate – and others who are forced to look on while a loved one loses their life. So I think it is right and vital that we have stuck to these goals. This means that we persevere and persist even when the road is hard and the journey to our destination is longer than we would have hoped.

You currently find yourselves in the heart of Europe, in a country often mistaken for Sweden, on account of its name. But Switzerland is 10 times smaller than Sweden. And over 200 times smaller than the USA. Switzerland is also a country in four parts, each with its own language and culture: German-speaking and French-speaking Switzerland, Italian-speaking Ticino, and the canton of Grisons, where some people speak Romansh, the fourth official language of Switzerland. While our cultures are very diverse, we have decided to take them as inspiration and – in the spirit of the wider whole – to bring together the very best from every corner of our country. We are honoured to have you pay us a visit. I see this occasion as an opportunity to tap into the diversity of our community and achieve our utmost in pursuit of our common cause. With that, I wish you a very warm welcome here in Switzerland!

Walter Brunner
President, ALS Association Switzerland

Foreword

Welcome to the 34th International Symposium on ALS/MND, which at last, after the remote meetings of the last three years, is being held in person. The symposium is taking place in the beautiful city of Basel, and I hope you will have the chance to explore, while experiencing the buzz of an in-person conference.

Switzerland is famous for several medical discoveries relevant to neuroscience. The mind-altering drug LSD, being trialled as a treatment in psychotherapy and for migraine was discovered here. Antihistamines, used for saliva control in motor neuron disease were discovered by the Swiss Nobel prize-winner Bovet, along with sulfa antibiotics and muscle relaxants. But perhaps my favourite two Swiss contributors are Paracelsus, who developed an oral formulation of opium and is regarded as one of the founders of modern medicine, and Friedrich Miescher, who in 1869, discovered DNA. Paracelsus was regarded as unconventional at the time, but his persistence allowed him to advance medical science. Miescher did not at first realize the significance of his discovery but by building on it, we now have incredible advances in medicine. We can see that the biggest steps forward may come from unexpected approaches or appear unimportant at first. Finding effective therapies for ALS/MND is a challenging task but we are making progress through science, and there are many examples of apparently small steps amplifying up into significant changes in our understanding.

This year, among the usual strong representations of genomics, proteomics, cell biology, and clinical care, four important themes are biomarkers, clinical trials, the role of the immune system, and cognitive change. Our knowledge in each of these areas is maturing rapidly and being applied directly into the search for successful treatment, galvanised by advances over the last 12 months. The symposium brings hope, excitement and new vision to take back to our clinics and laboratories. I wish you a very informative and enjoyable meeting.

Ammar Al-Chalabi
Programme Committee Chair
SESSION 1
JOINT OPENING SESSION
Location: San Francisco
Chairs: A Al-Chalabi (UK) and T Curry (UK)

08.30 – 08.35
Welcome
A Al-Chalabi (UK) and T Curry (UK)

08.35 – 08.45
Welcome from Host Association/Dignitary

08.45 – 09.30
C1 Stephen Hawking Memorial Lecture: Mapping the CNS: From cells to networks for movement
R Costa (USA)

09.30 – 10.00
International Alliance Humanitarian Award

10.00 – 10.20
IPG Award and winner’s research presentation

10.30 – 11.00
REFRESHMENTS, NETWORKING AND EXHIBITORS
Location: Level 2 Foyer

SESSION 2A
GENETICS AND GENOMICS
Location: San Francisco
Chairs: J Kirby (UK) and M van Es (Netherlands)

11.00 – 11.30
C2 Exploring the non-coding genome
J Quinn (UK)

11.30 – 11.45
C3 The oligogenic structure of ALS
A Iacoangeli (UK)

11.45 – 12.00
C4 Genome-wide paired DNA-RNAseq analyses to discover intronic splice mutation hotspots in neurological disorders
Y Wang (Netherlands)

12.00 – 12.15
C5 Genetic and epigenetic investigation of survival modifiers in Chinese ALS
M Zhang (China)

12.15 – 12.30
C6 An IGFBP7 promotor SNP is associated with the ALS Reversal phenotype
E Rampersaud (USA)

SESSION 2B
RESPIRATORY ASSESSMENT AND MANAGEMENT
Location: Singapore
Chairs: S Pinto (Portugal) and A Geronimo (USA)

11.00 – 11.20
C7 Identifying needs in ALS respiratory care using weekly monitoring of pulmonary function
A Geronimo (USA)

11.20 – 12.00
C8 Improving measurement of lung function in ALS: the results of the Pulmonary Function via Impedance Tomography (PuFIT)
C McIlduff (USA)

11.40 – 12.00
C9 Calculated maximal volume ventilation (cMVV) as a marker of early respiratory failure in ALS
U Manera (Italy)

12.00 – 12.15
C10 Factors associated with emergency tracheostomy or early mortality in a population-based study of 170 subjects with ALS/MND
P Cazzolli (USA)

12.15 – 12.30
C11 Giving breath to motor neurons: Non-invasive mechanical ventilation slows disease progression in ALS
M Grassano (Italy)

SESSION 2C
PERSPECTIVES ON ALS AND FTD: PHENOTYPES AND NEUROIMAGING
Location: Montreal
Chairs: J van Swieten (Netherlands) and M Turner (UK)

11.00 – 11.05
Introduction
J van Swieten (Netherlands)

11.05 – 11.45
C12 Clinical/cognitive phenotypes in ALS and FTD: You say tomatoes...
S Abrahams (UK) and J Rohrer (UK)

11.45 – 12.25
C13 Neuroimaging in ALS and FTD
J Kassubek (Germany) and H Rosen (USA)

12.25 – 12.40
Discussion

12.30 – 14.00
LUNCH
Location: Event Halle
SESSION 3A
IN VIVO MODELS
Location: San Francisco
Chairs: C. Bendotti (Italy)
C. Lutz (USA)

14.00 – 14.30
C14 Mouse Models and Resources for ALS – What Models to use, when and why
C. Lutz (USA)

14.30 – 14.45
C15 Severity of impaired motor unit recovery in ALS-associated KIF5A variant mice is inversely related to total soluble KIF5A protein levels
S. Kolb (USA)

14.45 – 15.00
C16 Linking mechanisms of protein aggregation to neurodegeneration in vivo – the critical role of posttranslational modifications for condensate formation and aggregation of human TDP-43
M. Morsch (Australia)

15.00 – 15.15
C17 TARDBP Knock-In Zebrafish Models Display a Motor Phenotype and Present with Some Pathological Hallmarks of ALS
G. Armstrong (Canada)

15.15 – 15.30
C18 Reorganization of central carbon metabolism rescues TDP-43 proteostasis collapse in spinal motor neurons
K. Asakawa (Japan)

SESSION 3B
TECHNOLOGY AND TELEMEDICINE
Location: Singapore
Chairs: T. Meyer (Germany)
E. Hobson (UK)

14.00 – 14.30
C19 Harnessing collaborative innovation to enhance quality of life in ALS/MND
S. Moss (UK)

14.30 – 14.45
C20 Longitudinal remote monitoring of nocturnal physiology in people living with ALS
M. Crook-Rumsey (UK)

14.45 – 15.00
C21 Evaluation of digital technologies for home-based assessment of people with ALS
A. Mueller (Switzerland)

15.00 – 15.15
C22 Clinical use and comparative analysis of the self-explanatory ALS Functional Rating Scale (ALSFRS-R-SE) in a controlled multicenter study
A. Maier (Germany)

15.15 – 15.30
C23 Site and participant perspectives on participating in an ALS trial designed to reduce burden: COURAGE-ALS
S. Rudnicki (USA)

15.30 – 16.00
REFRESHMENTS, NETWORKING AND EXHIBITORS
Location: Level 2 Foyer

SESSION 3C
PERSPECTIVES ON ALS AND FTD: BIOMARKERS, TRIALS AND PRODROMAL DISEASE
Location: Montreal
Chairs: R. Bowser (USA)
J. Rohrer (UK)

14.00 – 14.30
C24 Fluid biomarkers in ALS and FTD
M. Turner (UK)
J. van Swieten (Netherlands)

14.30 – 15.00
C25 Prodromal ALS and FTD
M. Benatar (USA)
C. McMillan (USA)

15.00 – 15.30
C26 Therapeutic trials in ALS and FTD
L. van den Berg (Netherlands)
A. Boxer (USA)
SESSION 4A
CELL BIOLOGY AND PATHOLOGY
Location: San Francisco
Chairs: J Atkin (Australia)
H Durham (Canada)
16.00 – 16.20
C27 Dysregulated lipid metabolism is an early contributor to neurodegeneration in C9orf72 ALS/FTD
A Cammack (UK)
16.20 – 16.40
C28 Disruption of the angiopoietin-like protein system correlates with lipid homeostasis in ALS
S Krishnamurthy (Canada)
16.40 – 17.00
C29 Transcriptomic analysis of amyotrophic lateral sclerosis patient brain regions with differential pTDP-43 neuropathology
N Grima (Australia)
17.00 – 17.15
C30 UNC13A Loss and TDP-43 Dependent Mis-splicing Drives Synaptic Dysfunction in FTD and ALS
S Hinckley (USA)
17.15 – 17.30
C31 TDP-43 subcellular mislocalisation is correlated with loss of optineurin binding for FTD and ALS-associated TBK1 missense variants
C Dobson-Stone (Australia)

SESSION 4B
CAREGIVERS AND FAMILIES
Location: Singapore
Chairs: K Schweikert (Switzerland)
M Galvin (Ireland)
16.00 – 16.30
C32 Informal caregiving in ALS: Difficulty and benefit
M Galvin (Ireland)
16.30 – 16.45
C33 Making end of life decisions about home mechanical ventilation: Patient and family perspectives
E Wilson (UK)
16.45 – 17.00
C34 Health communication guidance for the ALS disease course: Evidence from patient and family focus groups and ALS healthcare professionals. Outcomes of the ALS Talk Project
W Johnston (Canada)
17.00 – 17.15
C35 What, how and when do families communicate about ALS? A qualitative exploration of parents’ and children’s perceptions
M Sommers-Spijkerman (Netherlands)
17.15 – 17.30
C36 Factors predicting anticipatory grief in family carers currently supporting people living with MND
A Trucco (UK)

SESSION 4C
PERSPECTIVES ON ALS AND FTD: PATHOLOGY, MODELS AND TARGETS
Location: Montreal
Chairs: M Strong (Canada)
C McMillan (USA)
16.00 – 16.30
C37 Genetics, pathology and selective vulnerability in ALS and FTD
M Neumann (Germany)
16.30 – 17.00
C38 ALS-FTD: Models and therapeutic targets
A Isaacs (UK)
17.00 – 17.30
C39 Gene therapy strategies for ALS and FTD
C Shaw (UK)
17.30 – 17.45
Discussion

POSTER SESSION A
Location: Event Halle
Part 1 - 17.45 – 18.45
Theme 1 Epidemiology and Informatics
Theme 5 Human Cell biology and Pathology
Theme 8 Clinical imaging and electrophysiology
Theme 11 Cognitive and Psychological assessment and support
Part 2 - 18.45 – 19.45
Theme 4 In Vivo Experimental Models
Theme 10 Disease Stratification and Phenotyping of patients
Biomedical Work in Progress
Thursday 7 December

07.00 – 08.30
NON-CME INDUSTRY BREAKFAST SESSION
Learnings in ALS over the last 10 years
For more information about our non-CME industry sessions, please visit www.symposium.mndassociation.org
Location: Sydney

SESSION 5A
PROTEOSTASIS AND PROTEOTOXICITY
Location: San Francisco
Chairs: J Robertson (Canada)
M Hasegawa (Japan)
08.30 – 09.00
C40 Prion-like properties of ALS associated proteins
M Hasegawa (Japan)
09.00 – 09.15
C41 Phosphorylation alters TDP-43 protein-protein interactions and aggregation
E Kellett (Australia)
09.15 – 09.30
C42 Cyclin F influences the proteostasis of TDP-43
S Rayner (Australia)
09.30 – 09.45
C43 Identifying synaptic interactors of FUS reveals novel functions
S Taconelli (UK)
09.45 – 10.00
C44 The neuroanatomical distributions and morphologies of SOD1 inclusions segregate into different patterns in ALS patients carrying SOD1 mutations
K Forsberg (Sweden)

SESSION 5B
NUTRITIONAL ASSESSMENT AND MANAGEMENT
Location: Singapore
Chairs: F Steyn (Australia)
H Stavroulakis (UK)
08.30 – 08.50
C45 A multi-centre evaluation of the post-gastrostomy management in patients with MND (PostGas)
T Stavroulakis (UK)
08.50 – 09.10
C46 Tube feedings: Assessment of the decision making for patients with ALS
K Tran (USA)
09.10 – 09.30
C47 Higher glycemic index diet is associated with slower disease progression in ALS
I Lee (USA)
09.30 – 09.45
C48 Investigating the role of anthropometric measurements to assess nutritional state in MND: a pilot study
S Roscoe (UK)
09.45 – 10.00
C49 Central pathways of appetite control in MND: fMRI evidence of altered brain responses to visual food stimuli
J Chang (Australia)

SESSION 5C
NON-CME INDUSTRY SESSION
Navigating ALS diagnosis in Europe: a multi-country perspective to improve patient journey
For more information about our non-CME industry sessions, please visit www.symposium.mndassociation.org
Location: Montreal

10.00 – 10.30
REFRESHMENTS, NETWORKING AND EXHIBITORS
Location: Level 2 Foyer
SESSION 6A
PRECLINICAL THERAPEUTIC STRATEGIES
Location: San Francisco
Chairs: L Bruijn (Switzerland)
F Menzies (UK)

10.30 – 10.45
C50 Modulation of the mevalonate pathway restores TDP-43-mediated STMN2 deficiency
M Nolan (USA)

10.45 – 11.00
C51 Antisense oligonucleotides rescue UNC13A expression after TDP-43 loss of function
M Keuss (UK)

11.00 – 11.15
C52 An intravenous AAV-RNAi approach targeting Atxn2 for sporadic ALS
G Murlidharan (USA)

11.15 – 11.30
C53 Development of an AAV gene therapy for C9orf72 ALS by targeting the repeat expansion containing C9orf72 transcripts
Y Liu (Netherlands)

11.30 – 11.45
C54 Novel peptides based on thioredoxins are protective in cellular, zebrafish and two mouse models of ALS
J Atkin (Australia)

11.45 – 12.00
C55 Therapeutic mitigation of the toxic phenotype induced by TDP-43 in animal models of ALS
C Dröppelman (Canada)

12.00 – 12.15
C56 Novel pharmacological approaches in stimulating protein clearance for therapeutic targeting of cytoplasmic TDP-43 pathology in ALS models
S Keating (Australia)

12.15 – 12.30
C57 ATH-1105, a small molecule positive modulator of the neurotrophic hepatocyte growth factor system, is neuroprotective when administered prophylactically, therapeutically or in combination with riluzole in the prp-TDP-43 A315T mouse model of ALS
K Church (USA)

SESSION 6B
CLINICAL TRIALS
Location: Singapore
Chairs: L van den Berg (Netherlands)
S Paganoni (USA)

10.30 – 10.50
C58 COURAGE-ALS: Results of the Phase 3 clinical trial of reldesemtiv in ALS
J Shefner (USA)

10.50 – 11.10
C59 Harnessing biomarkers to understand clinical outcomes in RCTs: The Modifying Immune Responses and Outcomes in ALS Study (MIROCALS)
A Malaspina (UK)

11.10 – 11.30
C60 Pridopidine for the treatment of ALS: Top line results from the Phase 2 Healey ALS platform trial
J Shefner (USA)

11.30 – 11.50
C61 Safety profile, biological and clinical effects of colchicine in ALS: Results from a Phase 2 multicenter, randomized controlled double-blind clinical trial
J Mandrioli (Italy)

11.50 – 12.10
C62 Two-year results from the open-label extension of VALOR: Tofersen in adults with SOD1 ALS
M Cudkowicz (USA)

12.10 – 12.30
C63 Results of a double blind, placebo-controlled clinical trial of AIT-101 (LAN-002A) in C9orf72 ALS: A biomarker driven Phase 2A clinical trial targeting PIKfyve inhibition
S Babu (USA)

SESSION 6C
NEUROIMAGING
Location: Montreal
Chairs: J Grosskreutz (Germany)
P-F Pradat (France)

10.30 – 10.50
C64 Along-tract texture analysis of magnetic resonance images in the corticospinal tract and corpus callosum in ALS
P Parnianpour (Canada)

10.50 – 11.10
C65 Defining the core white-matter disease signature of ALS through state-of-the-art diffusion-weighted imaging and fixel based analysis
S Tu (Australia)

11.10 – 11.30
C66 Brain connectome alterations across King's stages in ALS
E Spinelli (Italy)

11.30 – 11.50
C67 Use of brain 2-[18F]FDG-PET to discriminate ALS and ALS-mimics
A Canosa (Italy)

11.50 – 12.10
C68 A proof of mechanism study to evaluate the effect of sotuletinib (BLZ945) on neuroinflammation as measured by [11C]-PBR28 PET imaging in participants with ALS
R Miller (Switzerland)

12.10 – 12.30
C69 Premorbid brain structural variations influence risk of ALS
A Thompson (UK)

12.30 – 14.00
LUNCH
Location: Event Halle
SESSION 7A
IMMUNITY, INFLAMMATION AND NEURODEGENERATION
Location: San Francisco
Chairs: F Song (USA) L Ferraiuolo (USA)
14.00 – 14.30
C70 Astrocyte-neuron interaction in health and disease
L Ferraiuolo (USA)
14.30 – 14.45
C71 Focal corticospinal tract degeneration below the brainstem of ALS patients suggests a dying back of upper motor neurons
H Cropper (USA)
14.45 – 15.00
C72 TBK1 loss-of-function is associated with cell autonomous microglial dysfunction
O Peters (UK)
15.00 – 15.15
C73 Type I interferon response propagates TDP-43 pathogenesis in ALS
C Yu (Australia)
15.15 – 15.30
C74 Single-cell RNA sequencing identifies a cytotoxic NK subpopulation associated with ALS
O Dols Icardo (Spain)

SESSION 7B
IMPROVING CLINICAL PRACTICE
Location: Singapore
Chairs: S Feldman (USA) M Ogino (Japan)
14.00 – 14.20
C75 Mapping the natural history of ALS: Time-to-event analysis of clinical milestones in the pan-European, population-based PRECISION-ALS cohort
H McDonough (Ireland) A Puchades (Spain)
14.20 – 14.40
C76 A randomised controlled trial examining clinical and cost effectiveness of Acceptance and Commitment Therapy plus usual care for improving psychological health in people living with MND in comparison to usual care alone
R Gould (UK)
14.40 – 15.00
C77 A multicentre evaluation of excessive saliva management in people living with MND
S Boddy (UK)
15.00 – 15.15
C78 Evidence-based consensus guidelines for ALS genetic testing and counselling
J Roggenbuck (USA)
15.15 – 15.30
C79 Quinine for the treatment of muscle cramps in ALS: A randomized placebo controlled double-blind cross-over trial
N Braun (Switzerland)

SESSION 7C
NON-CME INDUSTRY SESSION
Better diagnosis, treatments and quality of life for people living with MND: are we making an impact?
For more information about our non-CME industry sessions, please visit www.symposium.mndassociation.org
Location: Montreal
15.30 – 16.00
REFRESHMENTS, NETWORKING AND EXHIBITORS
Location: Level 2 Foyer
SESSION 8A
TDP – 43
Location: San Francisco
Chairs: M Hallegger (UK)
M Polymenidou (Switzerland)

16.00 – 16.30
C80 Does TDP-43 constitute a viable therapeutic target?
M Polymenidou (Switzerland)

16.30 – 16.50
C81 Molecular signatures of TDP-43 dysfunction are age dependent, variable, and therapeutically targetable in authentic sALS and C9orf72 ALS/FTD patient iPSNs
A Coyne (USA)

16.50 – 17.10
C82 Nuclear TDP-43 pathology detected by RNA aptamer is an early aggregation event that correlates with STMN-2 cryptic exon emergence and clinical phenotype
J Gregor (UK)

17.10 – 17.30
C83 Discovery and optimization of the first-in-class TDP-43 PET tracer
E Vokali (Switzerland)

SESSION 8B
COGNITIVE CHANGE
Location: Singapore
Chairs: S Abrahams (UK)
O Hardiman (Ireland)

16.00 – 16.15
C84 Cognitive and behavioural impairment in ALS patients with TARDBP and SOD1 pathogenic variants: A domain analysis.
A Chio (Italy)

16.15 – 16.30
C85 ALS ‘non-specific’ cognitive impairment frequently occurs and remains unnoticed in ALS: development of a new cognitive screening tool.
A Michielsen (Netherlands)

16.30 – 16.45
C86 Directly measuring network function during social cognition in ALS using EEG during the Reading the Mind in the Eyes Task
R McMackin (Ireland)

16.45 – 17.00
C87 Cardiac autonomic dysfunction is associated with impaired cognition in patients with ALS
Z Li (China)

17.00 – 17.15
C88 Relationship between plasma uric acid, white matter microstructure and cognitive function in ALS patients
J Tang (China)

17.15 – 17.30
C89 correlates of frontotemporal spectrum disorders in a large Italian cohort on non-demented ALS patients
B Poletti (Italy)

SESSION 8C
NON-CME INDUSTRY SESSION
Maintaining continuity of oral disease-modifying treatment by meeting the needs of people with ALS: challenges and expectations
For more information about our non-CME industry sessions, please visit www.symposium.mndassociation.org
Location: Montreal

POSTER SESSION B
Location: Event Halle

Part 1 - 17.45 – 18.45
Theme 2 Genetics and Genomics
Theme 9 Clinical Trials and Design
Theme 12 Clinical Management and Support

Part 2 - 18.45 – 19.45
Theme 3 In vitro Experimental Models
Theme 6 Tissue Biomarkers
Theme 7 Pre-clinical therapeutic strategies
Care Practice/Work in Progress
Friday 8 December

07.00 – 08.30
NON-CME INDUSTRY BREAKFAST SESSION
Clinical Trials in ALS: What have we learned and where are the next opportunities?
For more information about our non-CME industry sessions, please visit www.symposium.mndassociation.org
Location: Sydney

SESSION 9A
IV VITRO MODELS
Location: San Francisco
Chairs: K Talbot (UK) J Rothstein (USA)

08.30 – 09.00
C90 Whole Genome Screen for Nuclear and TDP-43 Import Regulators in Human iPSC-derived Neurons
J Rothstein (USA)

09.00 – 09.15
C91 C9orf72 patient-derived spinal cord organoids reveal key ALS phenotypes
L Loh (Australia)

09.15 – 09.30
C92 Loss of TDP43 affects neuronal survival and differentiation in a human stem cell 3D model of the cerebral cortex
V Ramesh (UK)

09.30 – 09.45
C93 Optogenetic stimulation reveals activity-dependent mechanisms of neurodegeneration in C9orf72-HRE ALS motor neurons and neuromuscular co-culture
L Farrimond (UK)

09.45 – 10.00
C94 An optogenetic approach to recapitulate C9ORF72 DPR pathology in cellular models
R Hodgson (UK)

10.00 – 10.30
REFRESHMENTS, NETWORKING AND EXHIBITORS
Location: Level 2 Foyer

SESSION 9B
CLINICAL MANAGEMENT
Location: Singapore
Chairs: J Bedford (UK) C Ingre (Sweden)

08.30 – 09.00
C95 Standards of care in an era of multiple treatments
C Ingre (Sweden)

09.00 – 09.30
C96 Developing guidelines for the management of cognitive and behavioural changes in ALS
E Mioshi (UK)

09.30 – 10.00
C97 How to break the news in ALS/MND: a primer for physicians and allied health professionals
M Kavanaugh (USA)

SESSION 9C
TISSUE BIOMARKERS
Location: Montreal
Chairs: M Benatar (USA) A Malaspina (UK)

08.30 – 08.50
C98 A robust microRNA ALS blood diagnostic test
S Banack (USA)

08.50 – 09.10
C99 Deep proteomics of cerebrospinal fluid implicates endoplasmic reticulum and inflammatory mechanisms in aggressiveness of ALS
E Dellar (UK)

09.10 – 09.30
C100 Proteomics and mathematical modelling of longitudinal CSF differentiates fast versus slow ALS disease progression
R Bowser (USA)

09.30 – 09.45
C101 Lipid-mediated resolution of inflammation and survival in ALS
Q Yildiz (UK)

09.45 – 10.00
C102 Peripheral immunity relates to disease progression and prognosis in ALS
Q Jiang (China)
### SESSION 10A
**TRANSCRIPTOMICS AND RNA BIOLOGY**

**Location:** San Francisco  
**Chairs:** M Ruepp (UK)  
P Wong (USA)

**10.30 – 11.00**  
**C103** TDP-43 dependent cryptic exons: Functional fluid biomarker and target validation  
P Wong (USA)

**11.00 – 11.15**  
**C104** Lnc-HIBADH-4 regulates autophagy-lysosome pathway in amyotrophic lateral sclerosis by targeting CTSD  
J Huang (China)

**11.15 – 11.30**  
**C105** Harnessing TDP-43 mediated feedback loops as novel diagnostic tools and for pathomechanistic insights  
M Hallegger (UK)

**11.30 – 11.45**  
**C106** FUS is a global regulator of RNA methylation and ALS-FUS mutations disrupt this function at several levels  
T Shelkovnikova (UK)

**11.45 – 12.00**  
**C107** Loss of ALS-linked SFPQ causes aberrant splicing and deregulation of RNA editing in human motor neurons  
G Tyzack (UK)

**12.00 – 12.15**  
**C108** C9orf72 gene networks in the human brain correlate with cortical thickness in C9-FTD and implicate vulnerable cell types  
I Broce (USA)

**12.15 – 12.30**  
**C109** Trancriptomic signatures of frontal cortex vulnerability in C9orf72 ALS and FTLD-TDP  
B Spencer (USA)

**12.30 – 14.00**  
**LUNCH**  
**Location:** Event Halle

### SESSION 10B
**CLINICAL STRATIFICATION AND ENDPOINTS**

**Location:** Singapore  
**Chairs:** M Weber (Switzerland)  
A Chiò (Italy)

**10.30 – 11.00**  
**C110** Stratification and improving clinical endpoints: Is personalised medicine the answer?  
A Genge (Canada)

**11.00 – 11.10**  
**C111** ALS clinical heterogeneity: What we know and what we need to know  
S Vucic (Australia)

**11.10 – 11.30**  
**C112** Evaluating the performance of the Bayesian primary efficacy analysis model in the HEALEY ALS Platform Trial  
B Saville (USA)

**11.30 – 11.45**  
**C113** Head-to-head reliability of different outcome measures in the ALS Methodology Study 999AS003  
C Neuwirth (Switzerland)

**11.45 – 12.00**  
**C114** Enhancing randomized clinical trials for ALS: harnessing synthetic placebo controls from patient registries  
R Van Eijk (Netherlands)

**12.00 – 12.15**  
**C115** Can we beat the placebo response by patient stratification at the baseline of a clinical trial?  
B Lerner (Israel)

### SESSION 10C
**SURROGATE MARKERS**

**Location:** Montreal  
**Chairs:** A Hübers (Switzerland)  
M de Carvahlo (Portugal)

**10.30 – 10.50**  
**C116** Cerebrospinal fluid levels of Chitinase 3-like protein 1 correlate with cerebral glucose metabolism in ALS  
J De Vocht (Belgium)

**10.50 – 11.10**  
**C117** Threshold tracking transcranial magnetic stimulation and neurofilament light chain as biomarkers in ALS  
A Jacobsen (Denmark)

**11.10 – 11.30**  
**C118** Cortico-muscular coherence: A promising biomarker of neurodegeneration in ALS  
S Bista (Netherlands)

**11.30 – 11.50**  
**C119** Cortical hyperexcitability in ALS is mediated by distinct neuronal populations  
N Pavey (Australia)

**11.50 – 12.10**  
**C120** Dynamic analysis of brain state reveals altered functional networks in ALS: Insights from high density resting state EEG  
M Metzger (Ireland)

**12.10 – 12.30**  
**C121** The cortical neurophysiological signature of ALS  
M Trubshaw (UK)
SESSION 11
JOINT CLOSING SESSION

Location: San Francisco
Chairs: A Al-Chalabi (UK)
D Taylor (Canada)

14.00 – 14.05
Invitation to Montreal 2024

14.05 – 14.10
Poster Prize Awards

14.10 – 14.20
Healey Center Prize

14.20 – 14.30
Lalji Family Award

14.30 – 15.00
C122 Genetic testing in ALS: Opportunities and challenges
M Harms (USA)

15.00 – 15.15
C123 Survival for patients with ALS: How close are we to developing a robust personalised prediction model?
H-J Westeneng (Netherlands)

15.15 – 15.30
Late breaking news
Posters

**Theme 01 - Epidemiology and Informatics**

**EPI-01** MND Register for England Wales and Northern Ireland: interim analysis of incidence prevalence lifetime risk and case ascertainment  
Dr Sarah Opie-Martin

**EPI-02** Characterising the amyotrophic lateral sclerosis population in Europe – a clinical observational study of 21,000 patients as part of the PRECISION ALS project  
Dr Sarah Opie-Martin

**EPI-03** PRECISION ALS: A Bespoke Framework for Cross National Prospective Data Collection and Analysis  
Prof Orla Hardiman

**EPI-04** Exploring the interplay of BMI smoking and head injury with C9orf72 carrier status on ALS risk and functional decline  
Dr Charilaos Chourpiliadis

**EPI-05** Detection of environmental risk factors of ALS: Airborne Pure Lead and Lead Compounds  
Mr Kevin Cornell

**EPI-06** Sex Hormones and Neurodegenerative Disorders: a Mendelian Randomization Study  
Professor Chunyu Li

**EPI-07** Estimating the Size of the Asymptomatic Genetic ALS & FTD Community in the United States  
Ms Jean Swidler

**EPI-08** A nationwide epidemiological survey of Facial Onset Sensory and Motor Neuronopathy (FOSMN) in Japan  
Mr Senri Ko

**EPI-09** Health conditions preceding Motor Neurone Disease: a cross-country study from Australia, France and Sweden  
Dr Allan McRae

**EPI-10** Increase of ALS survival over an 18-year period: results from a population-based cohort  
Dr Rosario Vasta

**EPI-11** Natural history and remarkable psychiatric state of old-onset amyotrophic lateral sclerosis in China  
Mr Sen Huang

**EPI-12** Pathological insights and expert evaluation of primary lateral sclerosis: a case series  
Ms Eva de Boer

**EPI-13** Time-to-event prediction in ALS using a semi-competing risks modeling approach using the ALS Natural History Consortium dataset  
Mr Andres Arguedas

**EPI-14** Time-to-event prediction in ALS using a landmark modeling approach using the ALS natural history consortium dataset  
Mr. David Schneck

**EPI-15** Comparing States and Outcomes of Patients with Amyotrophic Lateral Sclerosis Using Tracheostomy Invasive Ventilation in Tokyo Japan and Ohio USA  
Ms Yuki Nakayama

**EPI-16** Health care utilization last month of life in ALS – a register study from Sweden  
Dr Anneli Oznane

**Theme 02 - Genetics and Genomics**

**GEN-01** MicroRNA and transfer-RNA derived small RNA signatures in ALS. ALS ‘mimics’ and healthy controls  
Ms Sharada Baindoor

**GEN-02** Mapping neuropathological signatures of rare ALS genes  
Dr Luca Biasetti

**GEN-03** Epigenetic sex differences in amyotrophic lateral sclerosis  
Dr Olivia Grant

**GEN-04** Expanding the genotype-phenotype diversity of ALS  
Dr Marta Gromicho

**GEN-05** Phenotype targeted exome in patients with Motor Neuron Disease  
Mr Raúl Domínguez-rubio

**GEN-06** Whole-genome bisulfite identification of motor neuron derived cell specific enhancers and enables the identification of motor neuron derived cell-free DNA  
Dr Calum Harvey

**GEN-07** Targeting ALS by a novel conserved motor neuron micropeptide derived from IncRNA  
Ms Fang-Yu Hsu

**GEN-08** Characterization of transcriptional diversity in C9orf72-related diseases using a novel long-read sequencing technology  
Ms Angita Jain

**GEN-09** Transcriptome-based in silico screening in human motor neurons with ALS-associated mutations in TARDBP/TDP-43  
Ms Sarah Lépine

**GEN-10** Mutations in the tail domain of the neurofilament heavy chain gene increase the risk of amyotrophic lateral sclerosis  
Ms Heather Marriott

**GEN-11** Targeted long-read sequencing of C9orf72 in multiple human tissues  
Mr Evan Udine

**GEN-12** Intronic KIF5A TC variant modifies rate of progression and survival in sporadic amyotrophic lateral sclerosis  
Dr Frances Theunissen

**GEN-13** Genotype-phenotype correlation of SQSTM1 variants in patients with amyotrophic lateral sclerosis  
Dr Shichan Wang

**GEN-14** What is the best strategy to perform a genetic study in patients with ALS?  
Dr Daniel Borrego Hernández

**GEN-15** Body mass index is lower in presymptomatic C9orf72 pathogenic variant carriers compared to presymptomatic SOD1 pathogenic variant carriers and gene-negative controls  
Dr Ikjae Lee

**GEN-16** Evaluating Deep Learning Methods for ALS Patient Prediction: Performance Analysis across Multiple Cohorts  
Miss Jiaying Hu

**GEN-17** A case of familial ALS with a novel mutation in the ANXA11 gene  
Professor Seiichi Nagano

**GEN-18** Genetic analysis and prognostic biomarkers of ALS in Taiwan  
Dr Kang-yang Jih

**GEN-19** POSTER WITHDRAWN

**GEN-20** Analysis of genetic characteristics of a cohort of Italian patients of a referral center of Amyotrophic Lateral Sclerosis  
Dr Laura Libonati

**GEN-21** Evaluating the Neurological Proteome as an ALS Biomarker in an Australian Multi-omic Cohort  
Miss Laura Ziser

**GEN-22** Genetic factors affecting survival in Japanese patients with sporadic amyotrophic lateral sclerosis: a genome-wide association study and verification in iPS-derived motor neurons from patients  
Dr Ryoichi Nakamura

**GEN-23** Genetic spectrum of ALS in a South African cohort  
Dr Melissa Nel

**GEN-24** C9orf72 gene repeat expansion profile of motor neurone disease patients in Portugal  
Dr Cláudia Santos Silva

**GEN-25** POSTER WITHDRAWN
GEN-26 My ALS Decision Tool™: An interactive online informed decision-making tool for genetic testing in ALS
Ms Lauren Webb

GEN-27 Combinatorial Analysis of ALS and FTD Patient Genomes to Identify Cross-Disease Mechanisms
Dr Andrzej Malinowski

GEN-28 Alzheimer’s Disease and Frontotemporal Dementia: A bi-directional mendelian randomization study
Dr Xiaoting Zheng

GEN-29 Association of TRMT2B Gene Variants with Juvenile Amyotrophic Lateral Sclerosis
Professor Junling Wang

GEN-30 Young-onset and rapidly progressive amyotrophic lateral sclerosis caused by a novel frameshift truncating mutation p.Y153Qfs*9 in TBK1 gene
Professor Yi-Chung Lee

GEN-31 Genetic analysis in patients with Young onset ALS of Chinese origin
Professor Zhangyu Zou

GEN-32 How frequent is early ‘dropped head syndrome’ associated with FUS/TLS mutations?
Dr Josep Gaius

Theme 03 - In Vitro Experimental Models

IVT-01 Investigating the effects of the immune system on the progression of ALS
Dr Nasser Al-Shanti

IVT-02 Role of C9orf72/SMCB8/WDR41 complex in inflammation
Miss Maleeha Khan

IVT-03 Source mapping of ALS-miRNA biomarkers using human astrocyte models
Miss Hannah Bailey

IVT-04 POSTER WITHDRAWN

IVT-05 Cellular stress induces neuron-specific degradation of the fragile X protein family
Ms Lorena Decker

IVT-06 Loss of individual fragile X protein family members is related to defects in proteostasis
Ms Sonja Menge

IVT-07 Using TDP-43 stem cell models to investigate calcium channel blockers for repurposing in ALS
Dr Emily Carroll

IVT-08 Utilising human iPS-derived neuronal models to investigate novel modulators of TDP-43 pathology
Ms Matisse Jacobs

IVT-09 Understanding the impact of TDP43 on neuromuscular junction denervation by using a human stem cell derived neuromuscular assembloid model
Miss Andrea Salzinger

IVT-10 Small heat shock proteins enhance TDP-43 condensate dynamics and mitigate pathological modification
Mr Thomas Walker

IVT-11 Translation of dipeptide repeat proteins from antisense transcripts in C9orf72 ALS/FTD through unique and redundant AUG initiation codons
Dr Yoshifumi Sonobe

IVT-12 A stem cell-derived microfluidic 3D triculture model to study astrocyte microglia and motor neuron interactions in C9orf72 ALS
Dr Marianne King

IVT-13 The effects of ALS-associated SQSTM1/p62 mutations on autophagy inflammation and oxidative stress
Mr Yuval Gurfeinik

IVT-14 Biochemical regulation of Sequestosome-1/p62 foci is impaired by ALS/FTD-linked cyclin F
Dr Jennilee Davidson

IVT-15 Electrophysiological abnormalities in early stages of motor neuron pathology in G93A SOD1 mice
Dr Martina Wiedau

IVT-16 Nrf2 pre-activation protects against arsenite-induced oxidative stress
Dr Flavia Rosianu

IVT-17 Sigma 1 receptor an ALS16-causative gene product prevents mitochondrial fragmentation via ATAD3A in ALS
Dr Seiji Watanabe

IVT-18 Pridopidine exerts neuroprotective effects via activation of the Sigma-1 receptor (S1R)
Dr Michal Geva

IVT-19 Ca2+ and microglia activate the Tau-Motif-2 signals and contribute to clinical severity of ALS
Dr Shintaro Hayashi

IVT-20 The Molecular Mechanism Underlying How Extracellular Phosphoglycerate Kinase 1 Improves the Neuropathy Outgrowth of Motor Neurons
Professor Huai-Jen Tsai

IVT-21 Alteration of Adipocyte Function in Amyotrophic Lateral Sclerosis: Development of the Humanized In Vitro Model System to Screen for Immuno-Metabolic Molecular Signatures
Mr Alexandre Vezena

Theme 04 - In Vivo Experimental Models

IVV-01 AIT-101 Improves Functional Deficits in a Human TDP-43 Animal Model of ALS
Dr Peter R Young

IVV-02 Cytoplasmic interactions of TDP with core parapleakle proteins are enriched in ALS vulnerable brain regions in the mouse
Dr Jackie Mitchell

IVV-03 Cell stress and apoptotic activation even prior to disease onset in a TDP-43 mouse model of ALS/FTD
Dr Wei Luan

IVV-04 Imaging the spinal cord neurodegeneration of the TDP-43-A31ST ALS mouse model: relationship between MRI and TDP-43 aggregates
Ms Yara Al Ojaimi

IVV-05 TAR DNA binding protein-43 KDa (TDP-43) pathology causes differential expression of retrotransposons in a TDP-43- Q331K mouse model
Miss Shreevidya Korada

IVV-06 Modulation of mutant TDP-43 within astrocytes ameliorates disease progression in a mouse model of amyotrophic lateral sclerosis
Ms Anna Barbieri

IVV-07 A new ALS/FTD mouse model with widespread expression of C9orf72 nucleotide repeats throughout the CNS
Ms Katelyn Russell

IVV-08 Investigating the molecular basis for selective vulnerability in FET-linked Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal dementia (FTD)
Miss Laura Odemwingie

IVV-09 Early bioenergetic hypothalamic dysfunction in SOD1G93A mice
Dr Valentina Nesici

IVV-10 Antibiotic mediated modulation of gut microbiome affects survival in SOD1 mice
Dr Megha Kaul

IVV-11 Pan-neural expression of human SOD1 mutations in Drosophila induces early neuroinflammation
Dr Francesco Liguori

IVV-12 Drosha-dependent microRNAs modulate FUS-mediated amyotrophic lateral sclerosis in vivo
Dr Udai Pandey

IVV-13 Characterising novel humanised and physiological mouse models of FUS-ALS
Ms Georgia Price
Posters

IVV-14 A novel modulator of modified proteins reduced pathogenetic stress in vitro and in vivo ALS models
Dr Olaf Abduljabbar

IVV-15 Do Gliarial Cells contribute to the Differential Vulnerability of Neuromuscular Junctions in Amyotrophic Lateral Sclerosis? Mrs Marine BORD

IVV-16 Divergent Pathologies in Novel Knockin Mutant Matrin 3 Mouse Models
Dr David Medina

IVV-17 Investigating the regeneration competence of peripheral motor neurons in ALS
Dr Samuelle Negro

IVV-18 Nuclear import defects in a nemf mutant mouse model of neurodegeneration
Mr Jonathan Plessis-belair

IVV-19 DNAJC7 interaction prevents tau fibril formation in vitro and loss of interaction with tau occurs after phosphorylation of threonine 175 and PAD exposure of tau in a rat model of traumatic brain injury
Professor Michael Strong

IVV-20 Phenotyping of the rNLS8 mouse model of amyotrophic lateral sclerosis
Mr Jussi Toivanen

Theme 05 - Human cell biology and pathology (including iPSC studies)

HCB-01 A transcriptome-wide RNA binding analysis of C9orf72 poly(PR) dipeptides
Dr Rubika Balendra

HCB-02 Nuclear transport receptors as novel modifiers of C9orf72 pathology
Dr Feilin Liu

HCB-03 Loss of C9orf72 dysregulates several aspects of nucleocytoplasmic transport contributing to TDP-43 mislocalization in ALS
Dr Philip McGoldrick

HCB-04 Investigating purine metabolism in C9orf72 ALS
Dr Benjamin Hall

HCB-05 MitoALS: The role of mitochondrial dysfunction in ALS
Dr Tale L Bjerknes

HCB-06 Mutations in TDP-43 reduce mitochondrial bioenergetics and axonal transport in ALS iPSC-derived motor neurons
Dr Ruxandra Dafinca

HCB-07 Metabolomics to probe the mechanistic link between brain iron deposition and lipid changes in neurodegenerative diseases using human post-mortem tissue
Dr Holly Spence

HCB-08 Acute Oxidative Stress Exacerbates ALS-Related Pathology and Impairs Translation of UNC13A and PURA in C9orf72-ALS Motor Neurons
Dr Yinyan Xu

HCB-09 Markers of TDP-43 loss-of-function in MND
Dr Maize Cao

HCB-10 TDP-43 regulation by microRNAs toward the treatment of ALS
Dr Keiko Imamura

HCB-11 A fluid biomarker reveals loss of TDP-43 splicing repression in presymptomatic ALS
Ms Katherine Irwin

HCB-12 TDP-43 Dysfunction triggers exon skipping and aggregation of the epilepsy gene KCNQ2 in ALS/FTD
Dr Evangelos Kiskinis

HCB-13 Exploring the Role of Viral Infection in TDP-43-Mediated ALS Pathogenesis
Mr Vithushan Surendran

HCB-14 Hippocampal pTDP-43 aggregation as an independent pathology in genetic amyotrophic lateral sclerosis: Exploring the ‘two-hit’ hypothesis at super resolution
Miss Kyrah Thumbadoo

HCB-15 Reactive transformation of VCP mutant microglia in ALS activates JAK-STAT in motor neurons
Dr Ben Clarke

HCB-16 An alternatively spliced SFPQ mRNA generates a novel cytoplasmic SFPQ protein and is upregulated in VCP-ALS
Dr Jacob Neeves

HCB-17 Can the abnormal stimulation of the multisystem inflammatory component by environmental factors be causative of the onset of ALS?
Dr Claudia Crosio

HCB-18 miRNAs profiling in peripheral blood mononuclear cells of fast and slow progressors Amyotrophic Lateral Sclerosis patients
Stella Gagliardi

HCB-19 C9orf72-ALS iPSC microglia are pro-inflammatory and toxic to motor neurons via MMP9
Dr Bjorn Vahsen

HCB-20 On the intersection of nucleocapsid protein (NCP) of the SARS-CoV-2 virus and the pathobiology of ALS
Professor Michael Strong

HCB-21 Development of in vitro ALS discovery and translational assays with patient-derived cells
Dr Mathilde Chaineau

HCB-22 ALS fibroblast derived exosomes increase wound healing
Mr Vincent Clément

HCB-23 Investigating the contribution of neuromuscular signaling in ALS/MND pathology
Dr Peter Noakes

HCB-24 Modeling ALS using human iPSCs-derived astrocytes
Dr Vincent Soubannier

HCB-25 Generation of spinal cord organoids using the bioreactor for ALS medicine
Dr Dang Suong

HCB-26 Analyzing the relation between neurofilament subunit abnormalities and neuromuscular junction disruption using an iPSC-derived model of ALS
Miss Maria Jose Castellanos-Montiel

HCB-27 Gliarial involvement in the mechanism of synapse loss in the ALS CNS
Dr Zsofia Laszlo

HCB-28 C21ORF2 mutations point toward primary cilia dysfunction in ALS
Miss Matilde Contard

HCB-29 SOD1 activity and protein level toward primary cilia dysfunction in ALS and neuromuscular tissues
Ms Laura Leykam

HCB-30 Neurofilament content of patient sensory skin axons reflects ALS progression
Miss Julia Meyer

HCB-31 Characterizing the protective role of redox-regulated Nucleoredoxin (NRX) in Motor Neuron Disease (MND)
Dr Sonam Parakh

HCB-32 C4G2 repeat RNA binds to FARS protein and affect the rate of phenylalanine-tRNA aminoacylation
Professor Boris Rogelj

HCB-33 Nucleoporin Coding Variants: Disease Initiation for Sporadic ALS
Dr Jeffrey Rothstein

HCB-34 Characterization of stress granule formation in cells overexpressing a novel extracellular isoform of Fused in Sarcoma (EC-FUS)
Dr Sayanthooran Saravanabavan

HCB-35 The G3BP-centric interaction network regulates the dynamics of stress granules
Mr Jinjun Wu
**Posters**

**Theme 06 - Tissue Biomarkers**

**BIO-01 Multicenter evaluation of neurofilaments light chain in adult spinal muscular atrophy patients treated with nusinersen**
Mrs Annika Wachinger

**BIO-02 Neurofilament light chain level in plasma of ALS patients following IPL344 treatment in phase 1/2a clinical trial (NCT03652805 NCT03755167)**
Dr Ilana Cohen

**BIO-03 Inflammatory and neurodegenerative biomarkers in SOD1-related ALS after treatment with Tofersen**
Dr Elisabetta Zucchi

**BIO-04 Neurodegenerative biomarkers outperform neuroinflammatory biomarkers in amyotrophic lateral sclerosis**
Dr Ulf Kläppe

**BIO-05 Exploration of changes of neuroinflammatory biomarkers in ALS CSF and plasma in clinical immunooassays set up**
Dr Magda Kozicak

**BIO-06 The correlation of immune and metabolic markers with clinical features and disease development in ALS patients**
Miss Huihui Zhao

**BIO-07 Longitudinal analysis of T cell responses in amyotrophic lateral sclerosis**
Miss Solmaz Yazdani

**BIO-08 Biofluid extracellular vesicle extraction and profiling in ALS**
Dr Elizabeth Dellar

**BIO-09 The development of robust and reproducible methods for quantifying miRNA from neural-enriched extracellular vesicles for an ALS-diagnostic application**
Dr Rachael Dunlop

**BIO-10 Cross-tissue miRNA analysis of extracellular vesicles and peripheral blood mononuclear cells from ALS patients**
Dr Stella Gagliardi

**BIO-11 Novel insights on the role and therapeutic potential of Glycoprotein nonmetastatic melanoma protein B (Gpmb) in Amyotrophic Lateral Sclerosis**
Dr Mauro Giuseppe Spatafora

**BIO-12 Brown Adipose Tissue: a novel actor in the pathogenesis of Amyotrophic Lateral Sclerosis**
Dr Marco Rosina

**BIO-13 Gliial fibrillary acidic protein and vascular endothelial growth factor in adult SMA patients treated with nusinersen**
Dr Miguel Oliveira Santos

**BIO-14 Development of a Composite Diagnostic Biomarker for Amyotrophic Lateral Sclerosis: Experimental Approach and progress to date**
Jamie Timmons

**BIO-15 Increased ADAM 10/17 activity in an animal model of ALS: rationale for targeting ADAMs as a potential therapeutic target?**
Dr Paolo Cabras

**BIO-16 Skeletal muscle protein signatures to predict fast versus slow disease progression in ALS transgenic mice**
Dr Caterina Bendotti

**BIO-17 Co-chaperones in post-mortem neural tissue from ALS patients**
Miss Laura Expósito-Blázquez

**BIO-18 Cell-free DNA as a non-invasive biomarker to detect ALS**
Dr Fleur Garton

**BIO-19 Cystatin C is associated with poor survival in amyotrophic lateral sclerosis patients**
Dr Qirui Jiang

**BIO-20 Blood Cells: Unravelling their impact on Respiratory Outcome and Survival in ALS**
Dr Ana Catarina Pronto-Laborinho

**Theme 07 - Pre-clinical Therapeutic Strategies**

**TST-07 Oral treatment with D-RD2RD2 impedes early disease mechanisms in SOD1*G93A transgenic mice but does not prolong survival**
Ms Katharina Wintz

**TST-08 NX210c drug candidate peptide improves motor function and prolongs survival in the SOD1G93A mouse model of ALS**
Dr Sighild Lemarchant

**TST-09 Chlorovirus glycoproteins and SOD1G93A significantly enhance while cellular proteins IRF3 and ERK MAP-kinase significantly dampen production of ALS-associated inflammatory factors from murine macrophages**
Dr Gary Pattee

**TST-10 Allele selective FUS targeted antisense oligonucleotide therapeutic development for ALS**
Dr Rita Mejzini

**TST-11 Longitudinal study of the neuronal effects of ALS-linked mutant FUS in mice and the therapeutic effects of NF-kB inhibition**
Mrs Mari Carmen Pelaez

**TST-12 Update on AMX0114: An Antisense Oligonucleotide Targeting Calpain-2 a Critical Effector of Axonal Degeneration**
Joshua Cohen

**TST-13 Effects of HDAC6 Inhibition in ALS mouse models**
Ms Farika Kabir

**TST-14 Urolithin A Delay the Progression of Amyotrophic Lateral Sclerosis by Promoting PINK1/Parkin-Dependent Mitophagy in Motor Neuron**
Mr Sen Huang

**TST-15 M102 A multi-target drug suitable for personalised medicine approaches in ALS**
Dr Raquel Rua Martins

**TST-16 Therapeutic efficacy of targeting iron metabolism and iron-mediated lipid peroxidation in neurodegenerative disease: a systematic review and meta-analysis**
Dr Holly Spence

**TST-17 CXCR4: a marker of neurotransmission failure and a target for neuromuscular function recovery in ALS**
Dr Giorgia D’Este

**TST-18 Pharmacological enhancement of skeletal muscle regeneration in Amyotrophic Lateral Sclerosis through intramuscular allosteric activation of the P2X7 receptor**
Mrs Paola Fabbrizio
**Posters**

**IMG-26 Electromechanical coupling study in Amyotrophic Lateral Sclerosis patients as a marker of different progression**
Dr Laura Libonati

**IMG-27 Motor band sign is a specific marker of ALS and corresponds topographically to motor symptoms**
Ms Charlotte Zeijon

**IMG-28 Validation and histopathological correlation of the rAMIRA-based Spinal Cord Lateral Tract Sign in Amyotrophic Lateral Sclerosis**
Dr Maria Janina Wendebourg

**Theme 09 - Clinical Trials and Trial Design**

**CLT-01 CARDINALS: a phase 2 randomized double-blind placebo-controlled parallel-group study to evaluate the efficacy and safety of uthrolo done (PTC857) in patients with ALS**
Ms Mayzie Johnston

**CLT-02 Evaluating the Safety Tolerability and Pharmacokinetics of QRL-101 in a Single Ascending Dose Study in Healthy Adults and a Multiple Ascending Dose Study with Exploratory Electrophysiological Markers in adults living with ALS**
Dr. Angela Genge

**CLT-03 RIPK1 inhibitor SAR443820 in adult participants with amyotrophic lateral sclerosis (ALS): Study design and participant baseline characteristics of the Himalaya trial**
Dr Li Xiong

**CLT-04 Vitamin E (α-tocopherol) Adjunct Treatment for Riluzole and Riluzole / Edaravone – What are the clinical outcomes to be measured?**
Professor Benjamin Rix Brooks

**CLT-05 The integrated stress response is modulated by eIF2B agonist DNL343: results from phase 1 healthy subject and phase 1b ALS patient studies**
Dr Linus Sun

**CLT-06 Combination of Anti-aging therapies and Cell therapy for treatment of ALS**
Dr Hemangi Sane

**CLT-07 A Propensity-Score-Matched Control Surveillance Study of Intrathecal Autologous Bone Marrow-Derived Mesenchymal Stem Cells (Neuronata-R*) Treatment in Patients with ALS to Assess the Long-Term Survival Benefits**
Dr Seung Hyun Kim

**CLT-08 Baseline and Safety Data from a Phase 2 Clinical Trial of Repeated Intrathecal Autologous Adipose-Derived MSCs in ALS**
Dr Nathan Staff

**CLT-09 NurOwn Autologous Stem Cell Transplant - a Precision Medicine Approach Using Mesenchymal Stem Cell Neurotrophic Factors for ALS**
Professor Merit Cudkowicz

**CLT-10 Ongoing and Planned Studies to Further Elucidate the Efficacy and Safety of ERT in Patients with Ataxia and Sarcopenia**
Professor Merit Cudkowicz

**CLT-11 Preliminary Experience With Sodium Phenylbutyrate and Taurursodiol in a United States Expanded Access Program**
Dr. Shiran Zimri

**CLT-12 Clinical and neurofilament light-chain response to tofersen in SOD1-ALS: Results of a multicenter observational study**
Professor Thomas Meyer

**CLT-13 Implementation of Tofersen Expanded Access Program in the US The Cumulative Experience of Six Academic Centers**
Dr. Senda Ajroud-Driss

**CLT-14 Phase 1 Trial of Autologous Hybrid TREG/Th2 Cells (RAPA-501) in Patients Living With ALS: In Vivo Modulation of Immune Regulatory Molecules**
Professor James Berry

**CLT-15 Longitudinal comparison of the self-entry and traditional ALSFRS-R as functional outcome measures in ALS**
Professor James Berry

**CLT-16 MIROCALS: Understanding the transcriptional response in the blood to low-dose IL-2 treatment in ALS**
Prof Janine Kirby

**CLT-17 Genetic status in clinical trials: The Modifying Immune Responses and Outcomes in ALS Study (MIROCALS)**
Professor Ammar Al-Chalabi

**CLT-18 Interim Analysis of the Radiavca/ Edaravone Findings in Biomarkers from ALS (REFINE-ALS) Study**
Dr Steve Apple

**CLT-19 Shifting the Paradigm - A Biomarker Driven Approach for Studying Amyotrophic Lateral Sclerosis (ALS) Therapy Activity**
Dr. Shiran Zimri

**CLT-20 Hospitalizations in COURAGE-ALS and Their Relationship to ALS**
Dr Stacy Rudnicki

**CLT-21 Effects of a two-year period Hybrid Assistive Limb use on gait in patients with spinal and bulbar muscular atrophy**
Dr Takehisa Hirayama

**CLT-22 Portable fixed dynamometry enables home-based reliable assessment of muscle strength in patients with amyotrophic lateral sclerosis: a pilot study**
Mr Jordi van Unnik

**CLT-23 Internet-Supervised Home-Based Slow Vital Capacity (SVC) Spirometry in patients with amyotrophic lateral sclerosis – Prospective Multi-Center Observational Study**
Dr Eufrosina Young

**CLT-24 Utilising qualitative methods for collecting data with people with MND: Benefits challenges and best practice**
Dr Alys Griffiths

**CLT-25 POSTER WITHDRAWN**

**CLT-26 A Meta-analysis of inclusion/ exclusion criteria in interventional Amyotrophic Lateral Sclerosis (ALS) clinical trials and its impact on recruitment**
Miss Ashley Stepler

**CLT-27 EXPERTS-ALS: A drug prioritisation platform**
Professor Martin Turner

**CLT-28 Leading subdomains of the ALSFRS-R in the D50 progression model**
Professor Julian Grosskreutz

**CLT-29 Analyzing ALS progression: Unveiling rates patterns and variability in the ALSFRS-R using retrospective data from the PRECISION ALS Consortium**
Ms Daphne Weemering

**CLT-30 A joint model for assessing Mortality-Adjusted Progression (MAP) in Amyotrophic Lateral Sclerosis: Application to clinical trials of Sodium Phenylbutyrate and Taurursodiol**
Ruben van Eijk

**CLT-31 Co-producing a digital service to facilitate large-scale remote research participation: Telehealth in MND Research (TtM-R)**
Dr Liam Knox

**CLT-32 Applying the Systematic Living Evidence for Clinical Trials (SyLECT) framework in MND-SMART: Selection of amantadine as the 3rd experimental arm**
Dr Charis Wong

**CLT-33 Automating the Update of ALS Signal. A Clinical Trials DashboardEnsuring that PLWALS and cALS have accurate and up-to-date global ALS clinical trials information**
Mr Robert Faulstich

**CLT-34 How to lockdown-proof a trial: lessons from the adaptation of the MiNDToolkit intervention from in-person to remote delivery during the COVID-19 pandemic**
Dr Emma Flanagan
**Theme 10 - Disease Stratification and Phenotyping of Patient**

**DSP-01** Evaluation of arterial blood gas parameters as prognostic markers in amyotrophic lateral sclerosis  
Dr Hélène Blasco

**DSP-02** Protein signatures in CSF reflecting cognitive decline in ALS  
Dr Sofia Bergström

**DSP-03** Serum NFL or GFAP to distinguish sporadic frontotemporal dementia from late-onset psychiatric disorders: a DIPPA-FTD study  
Ms Sterre de Boer

**DSP-04** Virome Inflammation and Metabolism Signatures for the stratification of Amyotrophic Lateral Sclerosis Patients  
Dott Laura Ferri

**DSP-05** RNA sequencing of amyotrophic lateral sclerosis peripheral blood reveals distinct molecular subtypes: considerations for biomarker discovery  
Ms Natalie Grima

**DSP-06** Detection and Discovery of Urinary Biomarkers of Immune Dysfunction for ALS  
Mr Vassilios Karnaros

**DSP-07** NfM in CSF as a prognostic marker in relation to NFL and pNFL in ALS  
Ms Jennie Olofsson

**DSP-08** Plasma neurofilament analysis in VITALITY-ALS: analysis at baseline longitudinal and by rate of disease progression  
Dr Tyrell Simkins

**DSP-09** Implication of Central Nervous System Barrier Impairment in Amyotrophic Lateral Sclerosis: Gender-Related Difference in Patients  
Dr Hugo Alarcan

**DSP-10** Assessing Disease Progression and Survival Patterns in ALS: A Study of Prognostic Subgroups and Deviations from Expected Outcomes  
Dr Inês Alves

**DSP-11** Altered metabolic rates are not limited to patients with amyotrophic lateral sclerosis but are also present in patients with progressive muscle atrophy and primary lateral sclerosis  
Mr Mark Janse van Mantgem

**DSP-12** Familial motor neuron disease: co-occurrence of PLS and ALS (-FTD)  
Mr Koen Demaegd

**DSP-13** Impact of age on the bulbar phenotype of ALS patients  
Professor Susana Pinto

**DSP-14** Amygdala TDP-43 pathology is associated with behavioural dysfunction in amyotrophic lateral sclerosis  
Ms Olivia Rifai

**DSP-15** C9orf72-related disease among ALS patients with and without clinical evidence of upper motor neuron dysfunction  
Ms Yulia Shpilyukova

**DSP-16** Comparison of ALS patients with and without clinical evidence of upper motor neuron dysfunction  
Ms Jungmin So

**DSP-17** A Clinical Scale for Rating the Severity of Bulbar Lower Motor Neuron Dysfunction in Amyotrophic Lateral Sclerosis  
Miss Alessia Giugno

**DSP-18** Clinical-based prediction models for gastrostomy timing in patients with Amyotrophic Lateral Sclerosis  
Dr Andrea Lizio

**DSP-19** Clinical Validation of a Novel Device for Objective Measurement of Hand Dexterity  
Dr Conor Hayden

**DSP-20** Passive wrist-worn accelerometer-derived endpoints decline alongside disease progression in patients with motor neuron disease  
Mr Sylvain Zorman

**DSP-21** Advancing Patient-Centric Therapies: A Novel Framework for Developing Sensor-Based Digital Health Technologies as Clinical Outcome Assessments in Amyotrophic Lateral Sclerosis  
Mr Sylvain Zorman

**DSP-22** Could home physiology monitoring in Amyotrophic Lateral Sclerosis be a useful non-invasive biomarker?  
Dr James Scott

**DSP-23** The eye-tracking metrics in ALS: a way to describe oculomotor dysfunction and its association with clinical impairment  
Dr Federica Cozza

**DSP-24** Data Fusion with a Multi-Channel Variational Autoencoder Improves Motor Neuron Disease Prognosis Prediction  
Miss Florence Townend

**DSP-25** A Preliminary Analysis of Oral Edaravone-Treated Patients With Amyotrophic Lateral Sclerosis Enrolled in a US-Based Administrative Claims Database  
Ms Malgorzata Ciepielewska

**DSP-26** PRECISION-ALS: Examining the impact of Amyotrophic Lateral Sclerosis (ALS) on working status and caregiver assistance using population-based European databases  
Dr Robert McFarlane

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**Theme 11 - Cognitive and Psychological Assessment and Support**

**COG-01** Evaluation of support groups for caregivers of people living with ALS/ MND  
Ms Malin Björkquist

**COG-02** Reflections of family caregivers and health professionals on the everyday challenges of caring for persons with amyotrophic lateral sclerosis and cognitive impairments: a qualitative study  
Dr Lene Klem Olesen

**COG-03** Is the MiNDToolkit a feasible online intervention for carers of people with MND presenting with behavioural symptoms?  
Professor Eneida Mioshi

**COG-04** Being a family caregiver of a patient with ALS: What are the experiences and coping strategies after bereavement  
Dr Lone Knudsen

**COG-05** The need for parental support when a parent has ALS – based on the ill parents’ and the co-parents’ perspectives  
R.N Anneli Ozanne

**COG-06** Adolescents’ need for professional support when living with a parent with ALS – based on both the adolescents’ and the parents’ experiences  
Mrs Nina Malmström

**COG-07** How to identify and measure emotional distress in motor neurone disease  
Ms Niamh Appleby

**COG-08** Light the Way: Experience of psychological distress reaction and adaptation to genetic test results in an online platform for genetic education counseling testing and support  
Dr Paul Wicks

**COG-09** Cognitive impairment in patients with ALS from Sweden  
Dr Linn Oijerstedt

**COG-10** Patient and technical feasibility of real-world sampling of cognition and functional neurophysiology in ALS and FTD  
Dr Florentine Barbey

**COG-11** Longitudinal cognitive assessment using the Cumulus home-based EEG platform in ALS and FTD  
Dr Emmet Costello
COG-12 Validity and reliability measures of the Swedish Karolinska version of the Edinburgh Cognitive and Behavioral ALS Screen (SK-ECAS)
Mrs Juliette Foucher

COG-13 Normative data and the influence of age and education on cut-off values: Dutch alternative versions (B and C) of the Edinburgh Cognitive and Behavioral ALS Screen (ECAS)
Ms Fenna Hiemstra

COG-14 Development and Interrater Reliability of the Motor Domain for the Multidomain Impairment Rating (MIR) Scale in Frontotemporal Lobar Degeneration: Data from the ALLFTD Consortium
Dr Toji Miyagawa

COG-15 Cognitive Impairment and Mental Capacity to Make Treatment Decisions in MND: Preliminary Findings
Dr Milena Contreras

COG-16 Sentence comprehension deficits in ALS
Dr Judith Machts

COG-17 Investigating the potential of an online speech and language intervention for individuals with primary progressive aphasia in Italy: a feasibility and clinical effectiveness study
Dr Christian Lunetta

COG-18 Differential impairment in facial emotion recognition among subtypes of Amyotrophic Lateral Sclerosis patients: A Comparative Study
Dr Antonio Meyer

COG-19 Psychiatric diseases and Amyotrophic Lateral Sclerosis: A bidirectional mendelian randomization study
Professor Qi Niu

COG-20 The quality of life of adult male patients with spinal muscular atrophy and spinal and bulbar muscular atrophy
Mr Vanja Viric

COG-21 Expanding social participation opportunities and psychological impacts on rehabilitation of life with ALS using the HeartyPresenter Software for individuals with severe disabilities
Mr Hajime Takano

COG-22 Self-compassion intervention for people living with amyotrophic lateral sclerosis: A feasibility and acceptability pilot study
Dr Marion Sommers-Spijkerman

Theme 12 - Clinical Management and Support

CMS-01 The use of Telehealth to reduce barriers in access to multidisciplinary team care and improve health outcomes for those with ALS/MND- A mixed-methods systematic Literature Review
Miss Ana Rita Gameiro Costa

CMS-02 Virtual nurse health coaching in the setting of ALS care
Dr Andrew Geronimo

CMS-03 The perspectives of patients and their family members on the development and use of technology-based tools for the measurement of physical functioning remote monitoring and telemedicine in MND
Ms Avril Mc Tague

CMS-04 Algorithm-based recommendations as a clinical decision support system in the provision of assistive technology devices for ALS
Professor Christoph Münch

CMS-05 Evaluation of a Remote Monitoring and Communication System (TIM) for Patients with MND and their Caregivers: A Survey of Healthcare Professionals’ Perspectives of Using the System
Mr David Murphy

CMS-06Facilitators of and Barriers to integrating telemonitoring in ALS care: a nationwide implementation study of ALS Home Monitoring & Coaching
Mrs Ann Katrin Schmidt

CMS-07 LinkELA: ALS Telemedicine project in Barcelona to facilitate a multidisciplinary follow-up from the patient’s home
Dr Alejandro Caravaca Puchades

CMS-08 A Study of a Japanese Model of ALS Care: A 24-Hour Home-Visit Care System Enables ALS Patients to Live a High Quality of Life without Family Support
Mr Hajime Takano

CMS-09 ALS Satellite Clinics Improve Access for Vulnerable Populations: UCSF ALS satellite clinic patients are more likely to be non-white and elderly yet have higher ALS-FRS-R scores at initial clinic visit
Mr Bradley Bedell

CMS-10 ALS/MND patient survey provides clinics with actionable areas of improvement
Ms M. C. Collet

CMS-11 Using pre-and post-tests to evaluate the effects of the same e-learning sessions with 6-month intervals twice for students in multiple healthcare disciplines to support communication for people with ALS
Mr Takemasa Ishikawa

CMS-12 Clinical Care Practices for Amyotrophic Lateral Sclerosis Patients in Japan During the Coronavirus Disease Pandemic 2019: Current and Future issues
Shouko Serizawa

CMS-13 Healthcare Professionals’ experiences of providing care for people living with amyotrophic lateral sclerosis (ALS) and their family caregivers: A scoping literature review
Miss Megan Walls

CMS-14 Quality of Life and its components: Informal caregivers in Ireland over the course of ALS
Miss Megan Walls

CMS-15 Improving online caregiver training for ALS patients in Italy: a two-year update
Stella Gagliardi

CMS-16 Perceived benefits from peer-support among family caregivers of people with amyotrophic lateral sclerosis and cognitive impairments in a palliative rehabilitation blended online learning program
Dr Lene Klem Olesen

CMS-17 An innovative team approach to early goals of care discussions in ALS patient care
Anne Shields

CMS-18 Retrospective analysis of the racial diversity in invasive ventilation decisions by patients with ALS
Dr Xiaowei Su

CMS-19 Person centered nursing visits after diagnosis
Mrs Katarina Johansson

CMS-20 The Impact of Personalized Prognostic Information for Patients with Amyotrophic Lateral Sclerosis
Dr Christin Su

CMS-21 Enhancing Diagnostic Efficiency in ALS: A Comprehensive Review of Factors to Reduce Diagnosis Delay
Dr Leonard Van Den Berg

CMS-22 Improvement of survival of ALS patients over the years in a large clinic cohort
Mr Yaeht Cohen

CMS-23 Motor neurone disease: a point-prevalence study of patient reported symptom prevalence. Severity and palliative care needs
Dr Fiona Runacres

CMS-24 Perceptions and needs regarding end of life care in patients with amyotrophic lateral sclerosis
Dr Fouke Ombelet

CMS-25 Respiratory function survival and NIV prevalence over time in ALS - a retrospective study from PRECISION ALS
Dr Stefan Sennhöftl

CMS-26 Real-world evidence for the effect of riluzole treatment on survival in patients with Amyotrophic Lateral Sclerosis: a retrospective analysis of PRECISION-ALS
Dr. Rosario Vasta
CMS-27 Resting tidal breathing to predict SVC in ALS: A new application of Thoracic Electrical Impedance Tomography
Dr Seward Rutkove

CMS-28 Responsibility in caring for those with MND and ventilation at the end of life: bereaved family member perspectives
Dr Eleanor Wilson

CMS-29 Current Status of Decision-Making Process for Tracheostomy in Korean ALS patients
Dr Seok-Jin Choi

CMS-30 Influence of familial experience on the decision-making process for ventilation in familial amyotrophic lateral sclerosis: A qualitative single-case study
Ms Juri Sawada

CMS-31 Withdrawal of mechanical ventilation in amyotrophic lateral sclerosis patients: a multicenter Italian survey
Dr Cristina Moglia

CMS-32 How to prevent choking at the end of life with NPPV
Professor Mieko Ogino

CMS-33 Early signs of dysphagia in persons with ALS
Mrs Petra Backman

CMS-34 The impact of diabetes mellitus on the respiratory function of Amyotrophic Lateral Sclerosis patients
Professor Susana Pinto

CMS-35 Evaluating the efficacy of meeting energy requirements on ALS progression and survival
Ms Amber R. Sewell-Green

CMS-36 Development of a complex online intervention to support high calorie diets for people with ALS: OptiCALS
Professor Paul Norman

CMS-37 Weight loss risk prediction in amyotrophic lateral sclerosis
Dr David Lester

CMS-38 A prospective observational study on the impact of sarcopenia and malnutrition in patients with ALS
Dr Christian Lunetta

CMS-39 A Retrospective Case Note Audit of the Nutritional Status of Patients with Motor Neurone Disease referred for gastrostomy insertion at a tertiary hospital and UK MND Care Centre
Mrs Justyna Reinert

CMS-40 An Exploration of the Association of Speech Function and the Quality of Life of People Living with ALS
Dr Kathryn Connaghan

CMS-41 Impact of Cognitive Impairment from Frontotemporal Dementia Spectrum Disorder on Quality-of-Life Outcomes in Amyotrophic Lateral Sclerosis
Miss Ariana Andere

CMS-42 Acceptability and feasibility of the MiNDToolkit intervention for management of behavioural symptoms in MND: views and experiences of healthcare professionals
Dr Thando Katangwe-Chigamba

CMS-43 Interplay of Depression Anxiety and Fatigue in Appetite Loss in Motor Neuron Disease: Findings from a Prospective Case-Control Study
Ms Sally Neville

CMS-44 Venous thromboembolism in amyotrophic lateral sclerosis
Dr Michael Trubshaw

CMS-45 Relationship between anthropometry and ultrasound in patients with ALS
Miss Jennifer Danielle Machado Dutra

CMS-46 Frequency of SOD1 and FUS mutations in a multicenter screening program in Germany – implication for early access program and clinical trial enrollment
Ms Peggy Schumann

CMS-47 POSTER WITHDRAWN

CMS-48 What barriers do clinicians face in carrying out MND genomic testing? Results from a UK survey
Dr Jade Howard

CMS-49 Fear of Falling As a Predictor of Falls in Patients with Motor Neuron Disease
Ms. Shara Holzberg

CMS-50 Exploring treatment burden and adherence to treatment in ALS patients: a prospective multicentric study
Dr Andrea Lizio

CMS-51 Patient preferences in the treatment of amyotrophic lateral sclerosis with riluzole: data from the Italian cohort of the Patient Preference Study
Dr Alberto Doretti

CMS-52 Relyvrio Access Rate in Patients with Amyotrophy Lateral Sclerosis: Experience at One Center
Dr Mansoureh Mamarabadi

CMS-53 Investigating geographical differences in time from ALS symptom onset to key disease milestones: data from a real-world survey
Dr Paulos Gebrehiwet

CMS-54 Global Fundamental Rights in ALS/MND Survey: A look into the global results
Ms Jessica Mabe

Biomedical Work in Progress

BW-01 POSTER WITHDRAWN

Biomedical and clinical work in progress

BW-02 Developing a stimulation-free Remote Motor Unit Number Estimate (Remune)
Miss Judith Bilgorai

BW-03 POSTER WITHDRAWN

Biomedical and clinical work in progress

BW-04 Towards raising monoclonal antibodies against pathogenic fibrils of TDP-43 and FUS for therapeutic and diagnostic use in ALS
Dr Aliza Borenshtein-katz

BW-05 Role of Chitinase proteins in the activation of macrophages and modulating neuroinflammation in ALS
Ms Chelsea Tran

BW-06 Human-centric neuromuscular organ-chip platform for drug discovery in MND
Miss Sophie Burling

BW-07 Single-cell transcriptomics reveal the presence of clonally expanding T cells in ALS
Dr Zhenzhen Chen

BW-08 Investigating Cell-Type Specific miRNA Dysregulation in Amyotrophic Lateral Sclerosis
Dr Hamish Crerar

BW-09 Blood-based biomarkers in C9orf72: RNA-foci and DPRs in PBMCs
Ms Julie De Houwer

BW-10 Characterization of pathological cellular changes in familial and sporadic ALS using differentiated human motor neurons
Dr Sandra de la Fuente Ruiz

BW-11 Auto-reactive T cells in Amyotrophic lateral sclerosis
Dr Elie Deeba

BW-12 Identification and Clinical Significance of the “Motor Band Sign in Patients with ALS and Variants Using Longitudinal Fast High-Isotropic-Resolution Magnetic Resonance Imaging
Dr Frank Diaz

BW-13 Investigating the potential of apathy subtypes as a clinical predictor in ALS
Mrs Juliette Foucher

BW-14 A multicenter open-labeled 24-week single-group phase 2 trial of EPI-S89 in ALS (EPIC-ALS)
Yuishin Izuimi
BW-15 Dipeptide-repeat proteins cause cytoskeletal disorganisation in C9orf72-amyotrophic lateral sclerosis
Miss Charlotte Gale

BW-16 Sporadic ALS Australia Systems Genomics Consortium: SALSA-SGC
Ms Anjali Henders

BW-17 Graphene Quantum Dots alleviate TDP-43 aggregation-mediated phenotype of amyotrophic lateral sclerosis
Professor Young Bin Hong

BW-18 Lymphocyte subsets and psychiatric and cognitive outcomes in ALS patients
Mr Yihan Hu

BW-19 Mediterranean Dietary Pattern at Middle Age and Risk of Amyotrophic Lateral Sclerosis
Miss Emily Joyce

BW-20 Exploring the involvement of Endogenous Retroviruses in Amyotrophic Lateral Sclerosis with Transcriptomic Analyses
Dr Alfredo Iacoangeli

BW-21 POSTER WITHDRAWN

BW-22 A review of lifetime physical activity levels in a Brain Bank MND donor cohort
Miss Jaimee Kennedy

BW-23 Multi-modal detection of changes in MND for the quantitative evaluation of response to 3K3A-APC treatment
Mr Max Kirkby

BW-24 Integrative Multi-Omics Analysis For Enhanced Molecular Subtyping of Sporadic ALS
Ms Heather Marriott

BW-25 Evaluating the characteristics of Evoked High-Frequency Oscillatory Responses as a potential biomarker for sensorimotor dysfunction in ALS: A Preliminary Study
Mr Prabhav Mehra

BW-26 Prevalence of ALS in all 50 States in the United States. Data from the National ALS Registry 2010-2018
Dr Paul Mehta MD

BW-27 Preliminary investigations into the use of combining art and lay summaries to enhance public understanding of MND Papers
Dr Rick Niemis

BW-28 Geographic and socioeconomic comparison of time to significant clinical milestones in patients with amyotrophic lateral sclerosis in urban and rural environments in California
Ms Kyra Neylan

BW-29 Multiplexed protein imaging of cells and neurons with SIMPL-IF
Dr Michel Nofal

BW-30 Cognitive endophenotypes in familial ALS: a longitudinal study
Mr Colm G Peelo

BW-31 Quantifying auditory networks disruption in ALS
Ms Serena Plaitano

BW-32 Quantitative analysis of cortical iron accumulation in MAPT GRN- and C9orf72-associated frontotemporal lobar degeneration based on susceptibility MRI and histology
Ms Fieke Prinse

BW-33 Profiling Hypothalamic Energy Homeostasis Associated microRNA in Myotonic Dystrophy Type 1 Amyotrophic Lateral Sclerosis with Cognitive Impairment (ci) and/or Behavioral Impairment (bi) and healthy controls
Ms Neila Raveen

BW-34 Phase 3b Extension Study Evaluating Superiority of Daily vs Approved On/Off Oral Edaravone Dosing in patients with ALS
Dr Stephen Apple

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BW-36 The premoidals project: identification of a disease signature for presymptomatic and early ALS
Dr Laura Tzeplaeff

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Mr Floris T. Van Loon

BW-38 Serum Glial Fibrillary Astrocytic Protein in Patients with Amyotrophic Lateral Sclerosis
Dr Maria Janina Wendebourg

BW-39 The Robert Packard Center for ALS Research
Mrs Suzanne Connelly

BW-40 Rebalancing the motor circuit restores movement in a Caenorhabditis elegans model for TDP-43-toxicity
Professor Ellen Nollen

Care Practice/Work in Progress

BW-41 Translating the Extended Life Expectancy of US Veterans with ALS
Mrs Mandi Bailey

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## Summary of events/locations

### Tuesday 5 December

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<td>WFN ALS/MND Speciality Group</td>
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<td>13.30 – 16.00</td>
<td>ENCALSB</td>
<td>Sydney, Level 2</td>
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<td>16.00 – 19.00</td>
<td>Project MinE (closed meeting)</td>
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<tr>
<td>16.00 – 18.00</td>
<td>Registration International Symposium</td>
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<tr>
<td>18.00 – 19.30</td>
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<td>Symposium Biomedical Session 2A</td>
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<td>Symposium Alternative Session 2C</td>
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<td>12.30 – 14.00</td>
<td>Lunch and Networking</td>
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<td>Non-CME Industry Breakfast Session - Learnings in ALS over the last 10 years</td>
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<tr>
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<td>Non-CME Industry Breakfast Session - Clinical Trials in ALS: What have we learned the next opportunities?</td>
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Floorplans

LEVEL 3

OSAKA
SAMARKAND

SAN FRANCISCO

LEVEL 2

MONTREAL

SINGAPORE
SYDNEY

FOYER

RIO

GUANGZHOU
HONG KONG
MIAMI
MEXICO
NAIROBI

EVENT HALLE
Follow signage from Level 2

EVENT HALLE

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(more information can be found on our website, www.symposium.mndassociation.org, and on the Symposium App)

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Join us in Montreal, Canada 6-8 December 2024

Provisional abstract submission deadline: 10 July 2024

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