

8:30-8:40 **WELCOME**

Marc Penaud (General Director CHU de Toulouse), Bruno Vellas (Toulouse, France), Roger Fielding (Boston, USA)

Moderators: Bruno Vellas (Toulouse, France), Roger Fielding (Boston, USA)

8:40-9:00 **KEYNOTE 1**

AGING BIOMARKERS AND GEROSCIENCE DISCOVERY WHERE WE ARE AND WHERE WE MUST GO

Luigi Ferrucci, National Institute of Aging, Baltimore (USA)

9:00-9:20 **KEYNOTE 2**

EFFECTS OF INTERMITTENT FASTING ON HEALTH, AGING, AND DISEASE

Rafael de Cabo, National Institute of Health, Baltimore (USA)

9:20-9:35 **CONFERENCE 1**

THE SENEESCENCE-ASSOCIATED SECRETOME AS A BIOMARKER OF AGE AND MEDICAL RISK

Marissa J. Schafer, Xu Zhang, Amanika Kumar, Thomas, A. White, Sarah K. Jachim, Elizabeth J. Atkinson, and **Nathan K. LeBrasseur** Mayo Clinic, Rochester, MN, (USA)

9:35-9:50 **CONFERENCE 2**

INCIDENT COGNITIVE DECLINE IN SARCOPENIA AND SARCOPENIC OBESITY : DATA FROM THE NATIONAL HEALTH AND AGING TRENDS SURVEY

John A. Batsis, MD (1,2,3), Christian Haudenschild (1,3), Robert M. Roth, PhD (1), Meredith Roderka, BS (2), Travis Masterson, PhD (1), John Brand, PhD (1), Tyler Gooding, BA (2), Matthew C. Lohman, PhD (5), Todd A. Mackenzie, PhD (1,2,3) - (1) Geisel School of Medicine at Dartmouth, Hanover, New Hampshire, USA - (2) Department of Medicine, Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire, USA (3) The Dartmouth Institute for Health Policy, Lebanon, New Hampshire, USA - (4) Neuropsychology Program, Department of Psychiatry, Dartmouth-Hitchcock (5) University of South Carolina, Dept of Epidemiology and Biostatistics, Columbia, SC (USA)

9:50-10:20 **PANEL DISCUSSION 1**

THE GLIM CRITERIA FOR MALNUTRITION ARE THEY RELEVANT FOR THE FRAIL AND SARCOPENIC INDIVIDUAL? THE EVOLVING MALNUTRITION DIAGNOSIS - A PRESENTATION OF THE GLIM CONCEPT

Tommy Cederholm, University of Uppsala, Uppsala, Sweden

Discussion: **John Morley**, Saint Louis University, Saint Louis, (USA), **Yves Rolland**, CHU of Toulouse, (France)

10:20-10:30 **PRESENTATION OF THE IANA LIFETIME ACHIEVEMENT AWARD**

John Morley MD, PhD, St Louis University, Saint Louis, (USA) in recognition his contribution to aging and Nutrition Research

10:30-11:00 **COFFEE BREAK POSTER SESSION**

11:00-11:20 **KEYNOTE 3**

Moderator: Roger Fielding (Boston, USA)

THE INSPIRE GEROSCIENCE PLATFORM FOR TRANSLATIONAL GERIATRIC MEDICINE RESEARCH FROM INTRINSIC CAPACITIES TO BIOLOGICAL AGE

Bruno Vellas, MD, PhD, Chairman of the Toulouse Gerontopole, University of Toulouse (France)

11:20-12:00 **SYMPOSIUM 1**

PRIMARY CARE APPROACH TO GERIATRIC ASSESSMENT, FRAILTY AND SARCOPENIA

Moderator: John Morley, MD, PhD, Saint Louis University (USA)

• **Primary Care approach to frailty and sarcopenia**
Jean Woo, The Chinese University of Hong Kong (China)

• **The Rapid Geriatric Assessment: a Tool for Primary Care Physicians**
John Morley, MD, PhD, Saint Louis University (USA)

• **The Utility of Rapid Geriatric Assessment App to Identify Unmet Needs of Older Adults in Primary Care**
Reshma A Merchant, National University Health System National University of Singapore (Singapore)

Moderator: Bruno Vellas (Toulouse, France)

12:00-12:15 **CONFERENCE 3**

LATE-ONSET NICOTINAMIDE RIBOSIDE SUPPLEMENTATION IMPROVES HEALTH-SPAN AND FUNCTIONAL PARAMETERS IN OLD MICE

J Vina Freshage Research Group Dept. Physiology-University of Valencia (Spain) Arc-Chagnaud C (1,2) Salvador-Pascual A (1) De la Rosa Gonzalez A (1) Millan F (1) Garcia-Dominguez E (1) Carretero A (1, Correas AG (1, Olaso-Gonzalez G (1) Gomez-Cabrera MC (1) Freshage Research Group- Dept. Physiology-University of Valencia, CIBERFES-ISCIII, INCLIVA, Spain (2) University of Montpellier, INRA, UMR866, Dynamique Musculaire et Metabolisme, Montpellier, (France)

12:15-12:30 **CONFERENCE 4**

FRAILTY AND ITS ASSOCIATION WITH POTENTIAL BIOMARKERS AT BASELINE FIRST RESULTS FROM DO-HEALTH

Michael Gagesch, MD (1,2), Patricia Chocano-Bedoya, MD PhD (1,2), Reto W. Kressig, MD (3), Bruno Vellas, MD (4), René Rizzoli, MD5, Heike A. Bischoff-Ferrari, MD, DrPH (1,2) for the DO-HEALTH investigators (1) Dept of Geriatrics and Aging Research, University Hospital Zurich and University of Zurich, Zurich, Switzerland (2) Centre on Aging and Mobility, University of Zurich, Zurich, Switzerland (3) University of Basel, Switzerland (4) Felix Platter Hospital, Basel, Switzerland (5) Gerontopôle, University of Toulouse, France (6) University of Geneva, (Switzerland)

12:30-1:30 **LUNCH INDUSTRY SYMPOSIUM** hosted by **ABBOTT NUTRITION**

INTERPLAY BETWEEN NUTRITIONAL STATUS, SARCOPENIA AND FRAILTY: ROLE OF SPECIALIZED NUTRITION IN IMPROVING CLINICAL OUTCOMES

• Interplay between malnutrition and frailty • Nutritional interventions to address muscle dysfunction

Moderator: Roger Fielding (Boston, USA)

2:00-2:45 **SYMPOSIUM 2**

THE SPRING STUDY: CHARACTERIZING RESILIENCE AND FRAILTY TO PHYSICAL STRESSORS USING A DYNAMICAL PHYSIOLOGICAL SYSTEMS APPROACH

- **The Measurement of Physical Resiliencies: Conceptualization and Study Design**
Karen Bandeen-Roche, PhD, Biostatistics, Johns Hopkins University, Baltimore, (USA)
- **Physical Resiliencies in Three Major Clinical Stressors**

Jeremy Walston, MD, Geriatric Medicine and Gerontology, Johns Hopkins University, Baltimore, (USA)

- **Do Dynamical System Measures at Baseline Predict Responses to Clinical Stressors?**

Findings from Pilot Studies of Physical Resilience and Aging

Ravi Varadhan, PhD, Oncology Biostatistics, Johns Hopkins University, Baltimore, (USA)

Moderator: Roger Fielding (Boston, USA)

2:45-3:00 **CONFERENCE 5**

THE GERIATRIC FRAILTY CLINIC IN TOULOUSE: PRESENTATION AND DESCRIPTIVE ANALYSIS OF 5000 PATIENTS

Sandrine Sourdet MD, Zara Steinmeyer MD, Anne Ghisolfi MD, Thomas Gemar MD, Bruno Chicoulaa MD, Bruno Vellas, MD PhD
Gérontopôle, Department of Internal Medicine and Geriatrics, Toulouse University Hospital, (France)

3:00-3:15 **CONFERENCE 6**

IMPLEMENTING EXERCISE THROUGHOUT HOSPITALIZATION TO COUNTERACT MUSCLE & FUNCTION DECLINE

Mylène Aubertin-Leheudre, PhD, UQAM, Montreal (Canada)

3:15-3:30 **CONFERENCE 7**

EFFECTS OF A BLENDED HOME-BASED EXERCISE PROGRAM AND DIETARY PROTEIN INTERVENTION ON PHYSICAL PERFORMANCE IN COMMUNITY-DWELLING OLDER ADULTS: RESULTS FROM THE VITAMIN CRCT

Jantine van den Helder MS (1,2), Sumit Mehra MS (3,4), Carlene van Dronkelaar MS (1), Gerben ter Riet MD PhD (1), Michael Tieland PhD (1), Bart Visser PhD (1), Ben J.A. Kröse PhD (3,5), Raoul H.H. Engelbert PhD (1,6), Peter J.M. Weijs PhD (1,7,8). (1) Center of Expertise Urban Vitality, University of Applied Sciences, (2) Amsterdam University Medical Centers, VU University, Movement Sciences, (3) CREATE-IT Applied Research, University of Applied Sciences, (4) Faculty of Applied Social Sciences and Law, Amsterdam University of Applied Sciences, (5) Informatics Institute, University of Amsterdam, (6) Department of Rehabilitation, Amsterdam University Medical Centers, (7) Department of Nutrition and Dietetics, Amsterdam University Medical Centers, VU University, (8) Amsterdam Public Health research institute, Amsterdam University Medical Centers, VU University; Amsterdam, (The Netherlands)

3:30-4:00 **COFFEE BREAK POSTER SESSION**

Moderator: Debra Waters, Dunedin (New Zealand)

4:00-4:15 **CONFERENCE 8**

DEVELOPMENT OF AN IN VITRO PLATFORM TO PREDICT AND SCREEN COMBINATIONS OF ENDOGENOUS METABOLIC MODULATORS CAPABLE OF INFLUENCING MUSCLE PHYSIOLOGY

William Comb (1), Murat Cokol (1), Melanie Flaender (2), Andrew Downey (1), Pauline Poydenot (2), Erwann Ventre (2), Tony Tramontin (1), Michael Hamill (1)
(1) Axcella Health, Inc. Cambridge MA (2) CYTOO SA. Grenoble (France)

4:15-4:30 **CONFERENCE 9**

ASSOCIATION OF MUSCLE AND METABOLIC BIOMARKERS WITH TRANSITIONS IN GAIT SPEED AND COGNITIVE STATUS IN OLDER ADULTS

Debra L. Waters, (1,2), Lara Vlitestra (3), John E. Morley (4), Bruno Vellas (5) (1) Dept of Medicine and School of Physiotherapy, University of Otago, Dunedin, New Zealand and Dept of Internal Medicine, (2) University of New Mexico School of Medicine, Albuquerque, NM, (3) Dept of Medicine, University of Otago, Dunedin, New Zealand Clifford Qualls, Dept of Mathematics & Statistics and School of Medicine, University of New Mexico, Albuquerque, (4) Division of Geriatric Medicine, Saint Louis University, St. Louis, MO, (5) Dept of Internal and Geriatrics Medicine, Gerontopole, CHU de Toulouse, (France)

4:30-5:15 **SYMPOSIUM 3**

SARCOPENIA AND NEUROSCIENCE: A FAILURE TO COMMUNICATE

Moderator: Richard G Carson, Dublin (Ireland)

- **Welcome and Introductory Comments**

Stephen B. Kritchevsky, Ph.D., Sticht Center for Healthy Aging and Alzheimer's Prevention, Wake Forest School (USA)

- **Sarcopenia? Dynapenia: Reflecting back on the last decade**

Brian C. Clark, PhD, Ohio Musculoskeletal and Neurological Institute (OMNI), Ohio University, Athens, OH, (USA)

- **Get a grip: individual variations in grip strength are a marker of brain health**

Richard G. Carson, PhD, Trinity College Institute of Neuroscience & School of Psychology, Trinity College Dublin, Dublin (Ireland)

5:15-5:45 **THE MNA® MINI NUTRITIONAL ASSESSMENT 25 YEARS ANNIVERSARY**

Moderator : Bruno Vellas, MD, PhD, Chairman of the Toulouse Gerontopole, University of Toulouse (France)

- **The MNA®: What we have learned over 25 years**

Bruno Vellas, MD, PhD, Chairman of the Toulouse Gerontopole, University of Toulouse (France)

- **Relationship between the MNA® and Health expenditure in the elderly**

Pedro Abizanda. Head of the Geriatrics Department at the Complejo Hospitalario Universitario of Albacete, Albacete (Spain)

6:30-9:00 **MNA COCKTAIL RECEPTION** Activity sponsored by **Nestlé Health Sciences**

Fondation Bemberg • Hôtel D'Assézat • Place d'Assezat, 31000 Toulouse

This 16th century private house has been renovated and is now hosting the Bemberg Foundation. Tour the permanent collection of ancient and modern art pieces before enjoying a cocktail networking reception in the old kitchens.



8:00-9:00 **POSTER SESSION**9:00-9:15 **KEYNOTE 4** Moderator : Roger Fielding, Boston (USA)

Evidence for performance of potential sarcopenia variables predicting outcomes:
Peggy Cawthon, PhD, University of California, Berkeley, San Francisco, CA (USA)

Moderators: Mylène Aubertin-Leheudre (Canada), Sergio Ruiz, Miami (USA)

9:15-9:30 **CONFERENCE 11****EFFECTS OF FORTETROPIN® ON THE RATE OF MUSCLE****PROTEIN SYNTHESIS IN OLDER MEN AND WOMEN: A RANDOMIZED, DOUBLE-BLINDED CONTROL STUDY**

William Evans, PhD, (1), Mahalakshmi Shankaran (1), Edna Nyangau (1), Tyler Field (1), Hussein Mohammed (1) Robert Wolfe (2), Scott Schutzler (2), and Marc Hellerstein (1) University of California Berkeley (2)University of Arkansas for Medical Sciences(USA)

9:30-9:45 **CONFERENCE 12****BLOOD METABOLOMIC PROFILE ADAPTATION FOLLOWING 12-WEEK OF HIIT TRAINING COMBINED WITH CITRULLINE SUPPLEMENTATION IN OLDER ADULTS**

Layale Youcef (1) Sylvère Durand (PhD) (2,3) Fanny Aprahamian (2,3) Deborah Lefevre (2,3) Eva Peyrusqué 1,4) Guido Kroemer (MD PhD) (2,3) Mylène Aubertin-Leheudre (PhD) (4) **Philippe Noirez (PhD)1,4 (1) INSERM U1124, Université de Paris, Paris, France (2) INSERM U1138, Centre de Recherche des Cordeliers, Sorbonne Université, Université de Paris, Paris, France (3) Metabolomics and Cell Biology Platforms, Gustave Roussy Cancer Campus, AMMICA US23/CNRS UMS3655, Villejuif, France (4) Department of Exercise Science, Université du Québec à Montréal, Montréal, (Canada)**

9:45-10:00 **CONFERENCE 13****PARKIN, A NEW THERAPEUTIC TARGET TO COUNTER SARCOPENIA AND SEPSIS-INDUCED MUSCLE WASTING?**

Gilles Gousspillou (1 2 3,5) - JP Leduc-Gaudet (1,2,3) , O Reynaud (1, 2), F E Broering (3),D Mayaki (3), S NA Hussain (3,4)

(1)Dept de Sciences de l'activité physique, Faculté des Sciences, UQAM, Canada, (2) Groupe de recherche en Activité Physique Adaptée, Canada, (3) Dept of Medicine and Division of Experimental Medicine, McGill University, Canada, (4) Research Institute of the McGill University Health Centre, Canada, (5) Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal, Québec, (Canada)

10:00-10:15 **CONFERENCE 14****IS SENSORY LOSS A RISK FACTOR FOR FRAILITY? A SYSTEMATIC REVIEW AND META-ANALYSIS**

Benjamin Kye Jyn Tan,(1) Ryan Eyn Kidd Man,(2,3) Alfred Tau Liang Gan,(2) Eva K. Fenwick,(2,3) Preeti Gupta,(2) Varshini 9Varadaraj, (4,5) Bonnielin K. Swenor, (4,5) Tien Yin Wong,(1,2,3) Ecosse Luc Lamoureux(1,2,3) (1) Yong Loo Lin School of Medicine, National University of Singapore, Singapore (2) Singapore Eye Research Institute, Singapore National Eye Centre, Singapore (3) Duke-NUS Medical School, Singapore (4) The Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA (5) Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, (USA)

10:15-10:30 **CONFERENCE 15****THE ASSOCIATION OF FRAILITY WITH MEDICATIONS WITH HIGH ANTICHOLINERGIC BURDEN IN COMMUNITY-DWELLING US OLDER VETERANS.**

Sergio J. Ruiz (1) Victor Cevallos (1) Michael J. Mintzer (1,2) Jorge G. Ruiz (1,2)-(1) Miami VAHS GRECC(2) Dept. of Medicine, U of Miami Miller School of Medicine (USA)

10:30-11:00 **COFFEE BREAK POSTER SESSION**11:00-11:20 **KEYNOTE 5** Moderator : Sandrine Andrieu (France)**NUTRITION, GEROSCIENCES AND AGE-RELATED DISEASES**

Roger Fielding PhD, Tufts University, Boston, MA (USA)

Moderators: John Morley, Saint Louis (USA), Waly Dioh, Paris (France)

11:20-11:35 **CONFERENCE 16****SARA PROGRAM: PRELIMINARY FINDINGS & IMPLICATIONS FROM SARA-OBS STUDY AND ITS IMPACT ON SARA-INT STUDY**

Waly Dioh, PhD(1), **Cendrine Tourette, PhD (1), Carole Margalef, BS(1), Amy Chen, PhD(2), René Lafont, PhD (1,3), Pierre Dilda, PhD (1), Stanislas Veillet, PhD (1), and Samuel Agus, MD (2) - (1) Biophytis, Sorbonne Université Paris, France (2) Biophytis, Cambridge, MA CNRS Institute de Biologie Paris Seine (BIOSIPE), Paris, (France)**

11:35-11:50 **CONFERENCE 17****SAYGO: COMMUNITY-BASED PEER-LED CLASSES TO IMPROVE FALLS RISK, FRAILITY, AND SOCIAL CONNECTION**

Debra L Waters, Director of Gerontology Research, University of Otago ,(New Zealand)

11:50 -12:05 **CONFERENCE 18****HOW CAN THE MICROBIOME PLAY A ROLE IN MUSCLE FUNCTIONALITY?**

Anton De Spiegeleer, MD (1,2,3), - D Elewaut, MD, PhD (3) - N Van Den Noortgate, MD, PhD (1), Y Janssens, (2) N Debunne, (2),S Van Langenhove,(2) S Govindarajan, PhD (3) B De Spiegeleer, PhD (2) E Wynendaele, PhD (2) (1) Dept of Geriatrics, Faculty of Medicine and Health Sciences, Ghent University Hospital, (2) Drug Quality and Registration (DruQuaR) group, Faculty of Pharmaceutical Sciences, Ghent University,(3) Unit for Molecular Immunology and Inflammation, VIB-Center for Inflammation Research, Ghent, (Belgium)

12:05 -12:35 **SYMPOSIUM 4****INNOVATIONS IN NON-PHARMACOLOGICAL INTERVENTIONS TO KEEP AGEING MUSCLES STRONG AND AGILE AND THE MIND SHARP**

Moderator: Mylène Aubertin (Canada)

- **Novel nutritional approaches to enhance the effects of exercise on muscle, mobility and the mind in older people**

Robin M. Daly Institute for Physical Activity and Nutrition, Deakin University, Melbourne, Victoria, (Australia)

- **Importance of initial protein intake on muscle function during aging and following an exercise intervention**

Mylène Aubertin-Leheudre (1,2) (1) Dept of Exercise Sciences, Groupe de recherche en activité physique adapté (GRAPA), Université du Québec à Montréal, Canada (2) Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal, (Qc), (Canada)

- **Assistive technologies for supporting healthy nutrition behaviours in community-dwelling older adults now and in the (not too distant) future**

David Scott (1,2) (1) School of Clinical Sciences at Monash Health, Monash University, Australia (2) Australian Institute for Musculoskeletal Science, Department of Medicine - Western Health, The University of Melbourne, (Australia)

12:35-1:35 **INDUSTRY LUNCH SYMPOSIUM** hosted by **SANOVI**
PROSPECTS FOR INFLUENZA VACCINATION TO PROTECT FRAIL INDIVIDUALS

Moderator: Yves Rolland MD, PhD, Gerontopôle Toulouse (France)

- **Indirect clinical impact of Influenza in older populations**
Gaëtan Gavazzi, MD, PhD, University Hospital of Grenoble, (France)

1:35-2:00 **POSTER SESSION**

2 :00-2:45 **SYMPOSIUM 5**

ADDRESSING THE DRIVERS OF FRAILITY: ACTIVE NUTRIENTS FOR MITOCHONDRIAL HEALTH, BIOENERGETICS AND FUNCTIONALITY

Moderators: Roger Fielding, Tufts University, Boston (USA)

- **The impact of Age Associated Cellular Decline on bioenergetics and functional impairment**
Bret H Goodpaster, AdventHealth Translational Research Institute, Orlando (USA)
- **Correcting glutathione deficiency in aging: Impact on mitochondrial and metabolic health**
Rajagopal V Sekhar, Baylor College of Medicine, Houston (USA)

Moderator: Roger Fielding, Tufts University, Boston (USA)

2:45-3:00 **CONFERENCE 19**

INCREASING FRAILITY SEVERITY IS ASSOCIATED WITH A STEP-WISE INCREASE IN RISK OF DELIRIUM IN OLDER UNSCHEDULED HOSPITAL ADMISSIONS

Carly Welch, University of Birmingham, Birmingham (UK)

3:00-3:15 **CONFERENCE 20**

THE ROLE OF VITAMIN D IN SKELETAL MYOCYTES

Jenny Gunton (1,3) (1) Department of Diabetes and Endocrinology, Westmead Hospital, Westmead, Sydney, Australia. (2) Faculty of Health and Medicine, The University of Sydney, Sydney, Australia. (3) The Westmead Institute for Medical Research, The University of Sydney, (Australia)

3:15-3:30 **CONFERENCE 21**

PREVALENCE OF LOW MUSCLE MASS, MUSCLE STRENGTH AND UPPER-BODY MUSCLE QUALITY IN COMMUNITY-LIVING OLDER ADULTS LIVING IN AUCKLAND, NEW ZEALAND

Anne N Hiol MSc (1), Pamela R von Hurst, PhD (1), Cathryn A Conlon, PhD (1), Jamie V de Seymour PhD (1), Kathryn L Beck, PhD(1) (1) School of Sport, Exercise, and Nutrition, Massey University, (New Zealand)

3:30-4:00 **COFFEE BREAK POSTER SESSION**

Moderator: Philippe Barreto, Toulouse, Maturin Tabue Teguo (France)

4:00-4:15 **CONFERENCE 22**

FRAILITY INDEX, HOSPITAL ADMISSION AND LENGTH OF HOSPITAL STAY IN NURSING HOME RESIDENTS: RESULTS FROM THE INCUR STUDY

Simo Nadine (1), MD, Cesari Matteo (2,3), MD, PhD, Tchiero Huidi (4), MD, Yves Rolland (5), MD, PhD, Dartigues Jean-François (7), MD, PhD, Vellas Bruno (5), MD, PhD and Tabue-Teguo Maturin (1,6), MD, PhD. (1) CHU de Guadeloupe, Université des Antilles, (2) Geriatric Unit, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milano (3) Dept of Clinical Sciences and Community Health, University of Milan, Italy (4) CH de Saint Martin, France - (5) Gerontopôle, CHU de Toulouse (6) INSERM 1219, Bordeaux Population Health Research Center, Université de Bordeaux, (France)

4:15-4:30 **CONFERENCE 23**

EFFECTS OF SCREENING AND SELECTIVE FALL PREVENTION INTERVENTIONS FOR REDUCING FRACTURES, FALLS AND FRAILITY

Sarah E Lamb, DSc (1), Julie Bruce PhD (2), Anower Hossain PhD (3), Ji Chen PhD (2), Roberta Longo PhD (4), Ranjit Lall PhD (2), Chris Bojke PhD (4), Claire Hulme PhD (1), Emma Withers (2), Susanne Finnegan MSc (2) Martin Underwood MD (2, 7) on behalf of the Prevention of Fall Injury Trial (Pre-FIT) Study Group (1) Institute of Health Research, College of Medicine and Health, University of Exeter, Exeter, UK EX1 2LU. (2) Warwick Clinical Trials Unit, Division of Health Sciences, University of Warwick, Coventry, (3) Institute of Statistical Research and Training (ISRT), University of Dhaka, Bangladesh. (4) Leeds Institute of Health Sciences, Worsley Building, (6) Clarendon Way, University of Leeds, Leeds, UK (5) Royal Devon & Exeter Hospital, Barrack Road, Exeter, UK. Nuffield Department of Orthopaedics Rheumatology & Musculoskeletal Sciences, University of Oxford, Windmill Road, Oxford, UK University Hospitals of Coventry and Warwickshire, Clifford Bridge Rd, Coventry, (UK)

4:30-4:45 **CONFERENCE 24**

MALNUTRITION AS A STRONG PREDICTOR OF THE ONSET OF SARCOPENIA

Charlotte Beaudart (1) Dolores Sanchez-Rodriguez (1,2) Médéa Locquet (1) Jean-Yves Reginster (1,3) Laetitia Lengelé (1) Olivier Bruyère(1) - (1)WHO Collaborating Centre for Public Health Aspects of Musculoskeletal Health and Aging, Division of Public Health, Epidemiology and Health Economics, University of Liège, Liège, (Belgium)(2) Geriatrics Department, Parc Salut Mar. Rehabilitation Research Group, Hospital Del Mar Medical Research Institute (IMIM), Barcelona, Spain (3) Prince Mutaib Chair for Biomarkers of Osteoporosis, Biochemistry Department, College of Science, King Saud University, Riyadh, (Kingdom of Saudi Arabia)

4:45-5:00 **CONFERENCE 24 #**

ADVERSE MUSCLE COMPOSITION WITHIN OBESITY IS ASSOCIATED WITH LOW FUNCTIONAL PERFORMANCE AND INCREASED COMORBIDITY RESULTS FROM THE LARGE UK BIOBANK IMAGING STUDY

Jennifer Linge, MSc (1,2) Olof Dahlqvist Leinhard, PhD (1,2,3) (1) AMRA Medical, Linköping, Sweden (2) Department of Medical and Health Sciences, Linköping University, Sweden (3) Center for Medical Image Science and Visualization (CMIV), Linköping University, (Sweden)

5:00-5:15 **CONFERENCE 25**

SALIDROSIDE SUPPLEMENTATION ASSOCIATED WITH INTERMITTENT EXERCISE ENHANCES PHYSICAL PERFORMANCE IN OLD MICE

Remi Roumanille, Thomas Brioché, Théo Fovet, Corentin Guilhot, Pierre Delobel, Christelle Bertrand-Gaday, Angèle Chopard, Anne Bonnieu, Guillaume Py : DMEM, Université Montpellier, INRAE - Pascale Fanca-Berhon: Naturex SA, Montpellier, (France)

5:15-5:30 **CONFERENCE 26**

PRELIMINARY RESULTS FROM FOCUS: THE FRAILITY OUTCOMES CONSENSUS PROJECT

John Muscedere Queen's University, Kingston (Canada)

5:30-6:15 **SYMPOSIUM 5#**

TRYPTOPHAN METABOLISM LINKS CHRONIC INFLAMMATION TO FUNCTIONAL DECLINE & PHYSICAL FRAILITY

Moderator: Jeremy Walston, MD, Johns Hopkins University School of Medicine, Baltimore, (USA)

- **Altered Tryptophan Metabolism Links Chronic Inflammation to Functional Decline & Physical Frailty in Mice and Humans**
Reyhan Westbrook, PhD, Johns Hopkins University School of Medicine, Baltimore, MD (USA)
- **Neurotoxic Kynurenines are Linked to Reduced Neuromuscular Connectivity in a Mouse Model of Chronic Inflammation and Frailty**
Tae Chung, MD, Johns Hopkins University School of Medicine, Baltimore, MD (USA)
- **Effects of tryptophan degradation pathway blockade on age-related decline in physical performance and life span of Drosophila melanogaster**
Mariann M. Gabrawy, PhD, Johns Hopkins University School of Medicine, Baltimore, MD (USA)

8:45-9:00 **CONFERENCE 26#**

EFFECTS OF FORTETROPIN® ON THE RATE OF MUSCLE

PROTEIN SYNTHESIS IN OLDER MEN AND WOMEN: A RANDOMIZED, DOUBLE-BLINDED CONTROL STUDY

William Evans, PhD, (1), Mahalakshmi Shankaran (1), Edna Nyangau (1), Tyler Field (1), Hussein Mohammed (1) Robert Wolfe (2), Scott Schutzler (2), and Marc Hellerstein (1) University of California Berkeley (2)University of Arkansas for Medical Sciences(USA)

9:00-9:45 **SYMPOSIUM 6 • ESCEO Symposium**

ASSESSMENT OF QUALITY OF LIFE IN SARCOPENIA: FROM CLINICAL TRIALS TO DAILY PRACTICE

Moderator: Jean-Yves Reginster (Belgium), René Rizzoli (Switzerland)

- **Importance of Patients Related Outcomes Measures (PROMs) as primary endpoints for the development of medications aimed at the treatment of diseases related to musculoskeletal aging**

Francesca Cerreta (Netherlands)

- **Assessment of quality of life with the SarQol questionnaire: Where do we stand?**

Charlotte Beaudart (Belgium)

- **Discussion - conclusion**

Olivier Bruyère (Belgium)

Moderators: Philippe Barreto, Toulouse (France), Dominique Dardevet, Clermont Ferrand (France)

9:45-10:00 **CONFERENCE 27**

THE LOW-GRADE INTESTINAL INFLAMMATION POTENTIATES SARCOPENIA IN OLD ADULTS THAT CAN BE RESTRAINED BY A PROBIOTIC: STREPTOCOCCUS THERMOPHILUS CNRZ160.

Isabelle Savary-Auzeloux, PhD (1) Marianne Jarzaguet RT (1) Jérémie David RT (1) Carole Migné RI (1) Marcela De Azevedo 9PhD (2) Jean-Marc Chatel PhD (2) Dominique Dardevet PhD (1) - (1) Université Clermont Auvergne, INRA, UNH, Unité de Nutrition Humaine, CRNH Auvergne, (2) Micalis, INRA, AgroParisTech, Université Paris Saclay, Jouy en Josas, (France)

10:00-10:15 **CONFERENCE 28**

ADAPTATION AND VALIDATION OF A SCALE TO ASSESS INTRINSIC CAPACITY IN MEXICAN COMMUNITY-DWELLING ELDERLY ADULTS

Luis Miguel Gutiérrez-Robledo MD, PhD - Rosa Estela Garcia-Chanes PhD, Oscar Rosas-Carrasco MD -Instituto Geriatria, (México)

10:15-10:30 **CONFERENCE 29**

PRELIMINARY ESTIMATION OF RESIDUAL WORKING CAPACITIES CRITERIA FOR PREVENTING FRAILTY AND SARCOPENIA IN THE ELDERLY PERSONS

Tomarevska Olena, Poliakov Oleksandr, Bezrukov Vladyslav

Institute of Gerontology by D.F. Chebotarev of National Academy of Medical Sciences of Ukraine - (Ukraine)

10:30-11:00 **COFFEE BREAK POSTER SESSION**

Moderators: Heather Fritz, Detroit (USA), Luis Miguel Gutiérrez-Robledo, Mexico (Mexico)

11:00-11:15 **CONFERENCE 30**

DEVELOPMENT AND VALIDATION OF A HOSPITAL ELECTRONIC RECORD FRAILTY INDEX (HERFI) USING MACHINE LEARNING TECHNIQUES

J Mytton BSc (1) GV Gkoutos PhD (1,2) C Ferro MD, Thomas Jackson PhD (1,3) (1) University Hospitals Birmingham NHS Trust, (UK) (2) Centre for Computational Biology, University of Birmingham, (UK) (3) Institute of Inflammation and Ageing, University of Birmingham, (UK)

11:15-11:30 **CONFERENCE 31**

FIBER TYPE 2 ATROPHY IS ASSOCIATED WITH SARCOPENIA IN HIP FRACTURE PATIENTS

Fabiana Tanganelli (1), L Baber (1), S Jarmusch (1), F Hofmeister (1), C Neuerburg (3), S Mehaffey (3), S Hintze (2), P Meinke (2), U Ferrari (1), B Schoser (2), MDrey (1)(1) Geriatrics, Department of Medicine IV, University Hospital, LMU Munich (2) Friedrich Baur Institute at the Dept of Neurology, University Hospital, LMU Munich(3) Dept of General, Trauma and Reconstructive Surgery, University Hospital, LMU Munich (Germany)

11:30-11:45 **CONFERENCE 32**

AN INTRINSIC CAPACITY SCORE TO PREDICT THE MORTALITY RISK IN AN ELDERLY POPULATION OF COSTA RICA

Luis Miguel Gutiérrez-Robledo MD, PhD, Rosa Estela Garcia Chanes PhD, Mario Ulises Pérez Zepeda MD, PhD Instituto Nacional de Geriatria, (México)

11:45-12:00 **CONFERENCE 33**

MUSCLE MITOCHONDRIA FUNCTIONAL ADAPTATION DURING HABITUATION TO ECCENTRIC VERSUS CONCENTRIC EXERCISE TRAINING

Craig RG Willis (1), Colleen S Deane (1), Daniel J Wilkinson (2), Kenneth Smith (2), Bethan E Phillips (2), Philip J Atherton (2), Timothy Etheridge (1) (1) Department of Sport and Health Sciences, University of Exeter, UK. (2) MRC-ARUK Centre for Musculoskeletal Ageing Research and National Institute of Health Research, University of Nottingham, (UK)

12:00-12:15 **CONFERENCE 34**

DETECTING PREFRAILTY: COMPARING SUBJECTIVE FRAILTY ASSESSMENT AND THE PAULSON-LICHTENBERG FRAILTY INDEX

Heather Fritz, (1) PhD., OTR/L, Institute of Gerontology, Wayne State University, Detroit, MI USA Malcolm Cutchin (1) PhD., Institute of Gerontology, Wayne State University, Detroit, MI USA Yi-Ling Hu (1)

12:15-12:30 **CONFERENCE 35**

BIOCHEMICAL AND NEUROIMAGING MARKERS AS PREDICTORS OF INCIDENT FRAILTY IN THE ELDERLY: A SECONDARY ANALYSIS OF THE MAPT STUDY

Wan-Hsuan Lu, MS (1) P de Souto Barreto, PhD (1,2) Y Rolland, MD, PhD (1,2) K Virecoulon Giudici, PhD (1) B Vellas, MD, PhD (1,2) and the MAPT/DSA Group (1) Gerontopole of Toulouse, Institute of Ageing, Toulouse University Hospital (2) UPS/Inserm UMR1027, Toulouse, (France)

12:35-2:00 **LUNCH COMMUNICATIONS**

12:35 -1:05 **SYMPOSIUM 4**

INNOVATIONS IN NON-PHARMACOLOGICAL INTERVENTIONS TO KEEP AGEING MUSCLES STRONG AND AGILE AND THE MIND SHARP

Moderator: Mylène Aubertin (Canada)

- **Novel nutritional approaches to enhance the effects of exercise on muscle, mobility and the mind in older people**

Robin M. Daly Institute for Physical Activity and Nutrition, Deakin University, Melbourne, Victoria, (Australia)

- **Assistive technologies for supporting healthy nutrition behaviours in community-dwelling older adults now and in the (not too distant) future**

David Scott (1,2) (1) School of Clinical Sciences at Monash Health, Monash University, Australia (2) Australian Institute for Musculoskeletal Science, Department of Medicine - Western Health, The University of Melbourne, (Australia)

1:05-2:00 **SYMPOSIUM 7****NOVEL BIOMARKERS AT THE INTERSECTION OF FRAILTY AND ALZHEIMER'S DISEASE***Jeremy D. Walston, MD Johns Hopkins University (USA)*

- **Nuclear factor–kappa B-mediated (NFB) related inflammatory markers and cognitive impairment**

Esther Oh MD, PhD, Johns Hopkins University (USA)

- **Circulating cell-free DNA is associated with faster rates of cognitive decline and worsening physical measures over time**

Lolita Nidadavolu, MD, PhD, Johns Hopkins University (USA)

- **Angiotensin system and the intersection of frailty and Alzheimer's disease**

*Peter Abadir, MD, Johns Hopkins University (USA)*2:00-2:15 **CONFERENCE 36****AIR POLLUTION AND FRAILTY AMONG PATIENTS WITH END-STAGE KIDNEY DISEASE (ESKD)***Miranda R. Jones (1), Yijing Feng (2), Nadia Chu (1,2), Jeremy Walston (3) Dorry Segev (1,2), Mara McAdams-DeMarco (1, 2), (1) Dept of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD. (2) Dept of Surgery, Johns Hopkins University School of Medicine, Baltimore, MD. - (3) Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD (USA)*2:15-2:30 **CONFERENCE 37****ASSESSING HEART RATE DYNAMICS DURING PHYSICAL ACTIVITY: A NEW MARKER OF FRAILTY AMONG OLDER ADULTS***Kayleigh Ruberto (1), Ben Carpenter (1), Hossein Ehsani, PhD (1); Saman Parvaneh, PhD (2), Jane Mohler, MPH, PhD(1,3) Nima Toosizadeh, PhD (1,3,4) (1) Department of Biomedical Engineering, College of Engineering, University of Arizona; (2) Philips Research North America, Cambridge; (3) Arizona Center of Aging, University of Arizona; (4) Division of Geriatrics, General Internal Medicine and Palliative Medicine, Department of Medicine, University of Arizona (USA)*2:30-2:45 **CONFERENCE 38****ACCELEROMETER-DETERMINED PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR ARE ASSOCIATED WITH SARCOPENIA BUT NOT 12-MONTH INCIDENT FALLS IN COMMUNITY-DWELLING SWEDISH OLDER ADULTS***David Scott (1), Jonas Johansson (2), Anoohya Gandham (1), Peter Ebeling (1), Peter Nordstrom (2), Anna Nordstrom (2) (1) Monash University, Clayton, (Australia) (2) Umeå University, Umeå, (Sweden)*2:45-3:00 **CONFERENCE 39****IL-15R IS RESPONSIBLE FOR TRANSLLOCATION OF IL-15, ANABOLIC MYOKINE, ONTO THE SKELETAL MUSCLE CELL MEMBRANE WHICH IS REQUIRED FOR IL-15 SECRETION***Taku Fujimoto(1), K Sugimoto (1), T Takahashi (1,2), Y Yasunobe (1), K Xie(1), M Tanaka (1,2,3), Y Onishi (1), S Yoshida (1), H Kurinami(1), H Akasaka (1), H Rakugi(1) (1) Dept of Geriatric and General Medicine, Graduate School of Medicine, Osaka University, Japan (2) Depts of Medicine and Physiology, University of Toronto, Canada (3) Dept of Rehabilitation Science, Graduate School of Health Sciences, Kobe University, Japan (4) Dept of Rehabilitation Science, Osaka Health Science University, (Japan)*3:00-3:15 **CONFERENCE 40****PRECLINICAL EVALUATION OF AN ARTIFICIAL INTELLIGENCE DISCOVERED PEPTIDE NETWORK FOR MUSCLE HEALTH***Roi Cal, Heidi Davis, Alish Kerr, Ian Holyer and Nora Khaldi. Nuritas, Dublin (Ireland)*3:15-3:30 **CONFERENCE 41****EWGSOP1 VERSUS EWGSOP2: WHAT IS THE IMPACT ON PREVALENCE AND HEALTH OUTCOMES?***Fanny Petermann-Rocha MSc (1,2), Frederick K Ho, PhD (1), Stuart R Gray, PhD (2), Jill P Pell MD, PHD1 and Carlos Celis-Morales PhD (2) (1) Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK - (2) British Heart Foundation Glasgow Cardiovascular Research Centre, Institute of Cardiovascular and Medical Science, University of Glasgow, Glasgow, (UK)*3:30-3:45 **CONFERENCE 42****ACTIVITY PATTERN VARIANCE: STATISTICAL NOISE OR INSIGHT INTO FRAILTY?***Megan Huisingsh-Scheetz MD, MPH (1), Kristen Wroblewski MS (2), Linda Waite, PhD (3), Elbert Huang MD, MPH (4), Donald Hedeker, PhD (5), L. Philip Schumm, MA(6) University of Chicago, Department of Medicine, Section of Geriatrics and Palliative Medicine, Chicago, University of Chicago, Department of Public Health Sciences, University of Chicago, Department of Sociology and NORC, USA - University of Chicago, Department of Medicine, Section of General Medicine, Chicago, IL, USA University of Chicago, Department of Public Health Sciences, USA University of Chicago, Dept of Public Health Sciences, (USA)*3:45-4:00 **CONFERENCE 43****CAN WHEY-PROTEIN PLUS VITAMIN D SUPPLEMENTATION ENHANCE THE EFFECTS OF PROGRESSIVE RESISTANCE TRAINING ON MUSCLE HEALTH, GLYCAEMIC CONTROL, COGNITIVE FUNCTION AND RELATED RISK FACTORS IN OLDER ADULTS WITH TYPE 2 DIABETES? A 6-MONTH RANDOMIZED CONTROLLED TRIAL***E Miller, PhD (1) D W. Dunstan, PhD (2) D A. Kerr, PhD (3) D Menzies, B.Ed (4) CA. Nowson, PhD (1) H Macpherson, PhD (1) Robin M. Daly, PhD(1) (1) Institute for Physical Activity and Nutrition, Deakin University, Melbourne, VIC, Australia (2) Baker IDI Heart and Diabetes Institute, Melbourne, VIC, Australia (3) School of Public Health, Curtin University, Perth, WA, Australia (4) South Eastern Melbourne PHN, Melbourne, VIC (Australia)*4:00-4:15 **CONFERENCE 44****THE APPLICATION OF DIFFERENT SARCOPENIA CUTOFF POINTS IN CHINESE OLDER PEOPLE: A CROSS-SECTIONAL OBSERVATIONAL STUDY***Qin Du, PhD (1), W Chen, MD (2), S Ge, MD (3), X Zhao, PhD, MD (1) - (1) Abbott Nutrition Research and Development, Shanghai, China, (2) Peking Union Medical College Hospital, Beijing, China, (3) The Sixth People's Hospital Shanghai Jiaotong University, (China)*4:15-4:30 **CONFERENCE 45****THE EFFECT OF EXERCISE ON ACTIVITIES OF DAILY LIFE AND QUALITY OF LIFE IN FRAIL OLDER ADULTS: A SYSTEMATIC REVIEW***Evan Campbell, PhD (1), Fanny Petermann-Rocha MSc (2,3), Paul Welsh, PhD (3), Carlos Celis-Morales, PhD (2,3) and Stuart R Gray, PhD (3) (1) Healthcare Improvement Scotland, NHS Scotland (2) Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK (3) British Heart Foundation Glasgow Cardiovascular Research Centre, Institute of Cardiovascular and Medical Science, University of Glasgow, Glasgow, (UK)*