

Dear Guest,

As Chairmen of the Scientific Programme Committee of the 2019 WCO-IOF-ESCEO congress, it is our privilege to welcome you, among 4,136 delegates, in the beautiful city of Paris.

It has been a difficult task to select a limited number of abstracts for oral presentations among the 1,416 high quality submitted papers. During the meeting, besides the invited plenary lectures and selected oral communications, we have dedicated a significant amount of time to poster viewing and discussion. Some of them will also be briefly presented orally during two special sessions.



Our “Meet the Expert” sessions were enormously attended during the previous congresses, fulfilling the needs of the practitioners participating to the congress, for exchanging knowledge and experiences. We have thus decided to reserve a special schedule for them and to address a large scope of important topical issues in musculoskeletal diseases. They always generate lively debate, interactions and provide clear take home messages for the daily practice. We very much hope that they will be as successful as in the past.

We would also like to highlight, for the second time this year and because of the huge success of last year, the non-sponsored workshops that should provide a unique opportunity for exchange of knowledge between scientists and health professionals. The congress attendees have submitted a topic and speakers to the scientific program committee, which was in charge of the final selection.

On behalf of both IOF and ESCEO, it is our pleasure to present several awards. They reward longstanding contributions to both societies, as well as are encouraging younger scientists to pursue high quality research in the fields of osteoporosis, osteoarthritis or musculoskeletal disorders.

- | The 2019 ESCEO Medal of Excellence to Christine Defraigne
- | The ESCEO-IOF Herbert Fleisch Medal to Jonathan Adachi

- | The IOF Medal of Achievement to Harry Genant
- | The IOF Olof Johnell Science Award to John Kanis
- | The IOF Committee of National Societies Medal to Varta Babalyan
- | The 2019 ESCEO-IOF Pierre Meunier Young Scientist Award to Shaun Sabico
- | The IOF President's Award to Drs Matijevic and Lyubomirsky
- | The ESCEO-AgNovos Healthcare Young Investigator Awards to 10 young scientists
- | The 2019 ESCEO-Eli Lilly Scholarships to many scientists from all around the globe

We strongly believe that this world congress, including high quality plenary lectures, oral communications and poster sessions, will build on the success of our previous congresses. It will contribute to more effective efforts in our joint mission to reduce the burden of osteoporosis, osteoarthritis and musculoskeletal diseases, for the highest benefits of our suffering patients.

We wish you a happy, enjoyable and fruitful meeting.

René Rizzoli & Cyrus Cooper



potential interest in the use of preventive and therapeutic strategies based on a single entity: the ‘muscle-bone unit’ (OC24). To note, the interesting communication of Elizabeth Curtis that provided, from the UK Biobank, novel evidence of associations between birthweight and volumetric measures of muscle size and grip strength, thus supporting intervention to improve obstetric health and optimise birthweight that may help to prevent sarcopenia and reduce the risk of falls in future generations (OC25).

Many of the oral communications of yesterday were related to physical activity. For example, in participants of the Hertfordshire Cohort Study, low impact physical activity was associated with increased total area, cortical mass and area and strength of the tibia (OC33). The added value of exercises when combined to another intervention was presented in two oral communications. In the first, including sedentary middle-aged women, daily consumption of a multinutrient fortified dairy product enhanced the effects of exercise on measures of functional muscle power, lean mass, muscle size, flexibility and balance (OC20). In the second communication in postmenopausal osteoporotic women, twelve months of whole body vibration exercises and teriparatide had a significant clinically relevant treatment effect in total lumbar spine compared to teriparatide alone (OC19).

Recently, the World Health Organization (WHO) published two important papers on the operationalization of intrinsic capacity, a relatively new concept defined as “the composite of all the physical and men-

The morning session of yesterday began with the original Lecture by Laurence Vico on the effects of spaceflight on bone and muscle. He reminded the audience that spaceflight induces bone fragility at weight-bearing skeletal sites (PL5). He noted that, despite extensive use of exercise, muscle volume is also lost, particularly in muscles such as the soleus which is involved in maintaining posture against the force of gravity.

In the second plenary lecture, with a more particular focus on sarcopenia, Roger Fielding highlighted that two major classes of therapies, selective androgen receptor activation and inhibition of myostatin signaling, have emerged as leading targets for treatment of sarcopenia (PL6). He discussed the available clinical trials data on these pathways and the barriers towards regulatory approval. In close relation to this plenary lecture, Anton Geerink

showed that the SarQoL[®] questionnaire, the first patient reported outcome validated for sarcopenia, demonstrates adequate psychometric properties whatever the diagnostic criteria for sarcopenia, so that this tool might be used as an outcome in clinical trials (OC28).

The relationship between muscle and bone health has been widely covered yesterday. For example, Nick Harvey showed, from the MrOS study, that the predictive value of appendicular lean mass for fracture is reduced by inclusion of bone mineral density value at the femoral neck, suggesting limited additional value of appendicular lean mass in fracture risk assessment over current approaches (OC23). In a new meta-analysis including 15 longitudinal studies, Médea Locquet highlighted a significant association between the change of bone mineral density and the change of various muscle parameters, suggesting a



tal capacities of an individual". In order to evaluate functional ability of older people, the WHO proposed a model containing 5 domains of intrinsic capacity (i.e., cognition, locomotion, sensory, vitality and psychosocial), divided into subdomains. The predictive value of these subdomains on major health outcomes has not been widely investigated. Alexia Charles showed, from the Belgian SENIOR cohort in nursing homes, that balance capacity and nutrition, belonging respectively to the general domains of locomotion and vitality proposed by the WHO, are independently associated with the 3-year mortality (OC26).

In osteoarthritis, as pointed out last Friday by Jean-Yves Reginster, evidence-based guidelines agree that its medical management includes both non-pharmacological and pharmacological treatment modalities, but differences are observed on the choice of drugs to be used and on the prioritization of the currently available medications (PL4). Such discrepancies are common for the assessment of the efficacy of Symptomatic Slow Acting Drugs for OsteoArthritis (SYSADOA) in the management of knee OA. They mostly reflect heterogeneity of the experts' panels involved or geographical differences in the availability of chemical entities. However, high evidence of safety and efficacy seems to be provided for prescription-grade formulations of chondroitin sulfate and crystalline glucosamine sulfate. This fact has

been confirmed here in Paris in two oral communications. The first was a new meta-analysis presented by Germain Honvo reporting that chondroitin sulfate provides a moderate benefit on pain in patients with knee osteoarthritis, however, with substantial heterogeneity (OC21). Sensitivity analyses showed that the risk of bias, brand and study size were the factors explaining inconsistency among the clinical trials results. In the second study, Olivier Bruyère, using a new model to simulate individual health utility scores of patients, showed that, in a German context, the use of crystalline glucosamine sulfate is cost-effective, whereas other formulations are not. The two communications confirm the importance of the formulation of SYSADOA products.

The last plenary lecture of yesterday by John Kanis on tools for estimating fracture probability was of primary interest and covered a topic increasingly addressed in the literature but that deserves a rigorous analysis (PL7). He noted that a major objective of fracture risk assessment is to enable the targeting of interventions to those at need and avoid unnecessary treatment in those at low risk of fracture. Several risk prediction models have been developed, but the most widely used is FRAX® has been integrated into more than 80 guidelines worldwide. John Kanis pointed out that the setting of universal intervention thresholds is problematic from an interna-



tional perspective since the risk of fracture, the cost of fracture, the cost of treatment, reimbursement and willingness to pay, all differ by country. Thus, probability-based guidelines variously use an age-dependent fracture probability, or a fixed probability threshold applied to all relevant ages.

Today, you will also have the privilege, during oral or poster communications, to learn from scientists about the clinical management of various musculoskeletal diseases, health economics, nutrition and risk factors for fracture.

ESCEO-IOF Pierre Meunier Young Scientist Award

Yesterday, Dr Shaun Sabico has been presented as the winner of the 2019 ESCEO-IOF Pierre Meunier Young Scientist Award. This award recognizes the contribution to the field of musculoskeletal diseases of a young scientist who has shown an ability to perform top-quality research and is expected to become a key opinion leader in the coming years.

Dr Sabico completed medical training at the University of Santo Tomas, Philippines and obtained a PhD in medical sciences last year at Warwick Medical School, Warwick University, UK last 2018 under the mentorship of Prof Philip McTernan and Prof Nasser Al-Daghri. Under Prof Al-Daghri's guidance, Dr Sabico has been instrumental in the spread of vitamin D awareness in Saudi Arabia/Middle East through clinical, epidemiologic, genetic and proteomic studies as well as penned local and regional guidelines for vitamin



J.-Y. Reginster & S. Sabico

D and osteoporosis with key experts. He is currently the deputy director and incoming assistant professor at the Chair for Biomarkers of Chronic Diseases in King Saud University, Saudi Arabia. His research in-

terests include chronic diseases, vitamin D, probiotics and bone markers. He is author of more than a hundred scientific publications in these fields.

IOF Medal of Achievement



H. Genant & S. Ferrari

The IOF Medal of Achievement honours an individual who has made a significant and unstinting contribution to the advancement of the work of the IOF, through furthering one or more of the mission statements and/or goals of the Foundation. The winner of this prestigious award is Professor Harry Genant.

Harry Genant is Professor Emeritus of the University of California San Francisco, and Chairman Emeritus of the Board of Directors of Synarc, Inc. He received his medical degree from Northwestern University in Chicago, Illinois and completed his intern-

ship on the Osler Service at Johns Hopkins University in Baltimore, Maryland. He received residency training in Medicine and in Radiology at the University of Chicago, and was Chief Resident and Assistant Professor in Radiology. In 1974 Dr. Genant joined the faculty of the University of California, San Francisco, as Chief of Musculoskeletal Radiology, ultimately becoming Professor of Radiology, Medicine, Epidemiology and Orthopaedic Surgery. Dr. Genant has been editor or co-editor of more than 30 books and author or co-author of more than 200 chapters or invited

articles, over 600 articles in peer-reviewed scientific and medical journals, and over 1500 abstracts presented at national and international scientific and professional gatherings. He is past Associate Editor of Bone, and current Associate Editor of Journal of Orthopaedic Translation, and Editorial Board Member of Osteoporosis International and the Journal of Clinical Densitometry.

Dr. Genant has served as President of the Association of University Radiologists, President of the International Skeletal Society, First President and Founder of the International Bone Density Workshop series, Scientific Chair of the First through Sixth International Congresses on Osteoporosis in China, Chair of the WHO Task Force on Osteoporosis, Member of the Board of Directors and Council of Scientific Advisors of the International Osteoporosis Foundation and Co-Chairman of the IOF Global Initiative on Vertebral Fracture Assessment and the IOF Bone Quality Working Group.

Professor Serge Ferrari, when presenting the Award, stated, "The research of Harry Genant has been of great value to the International Osteoporosis Foundation and to the greater osteoporosis community as a whole."

THE
WCO-IOF-ESCEO
TURNS

20

CELEBRATE
WITH US NEXT YEAR
IN BARCELONA

WORLD CONGRESS
ON OSTEOPOROSIS,
OSTEOARTHRITIS AND
MUSCULOSKELETAL
DISEASES



WCO
IOF-ESCEO

April 2-5, 2020
Barcelona | Spain
CCIB Congress Center

2020 BARCELONA

