

## World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2020): Educational Lecture Abstracts

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### EL1

#### VASCULAR CALCIFICATION AND BONE FRAGILITY: LINKS BEYOND THE AGEING

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Vascular mineralization, bone loss and increased fracture risk are frequent age-associated disorders. Several epidemiological studies have suggested a relationship between them and increased mortality. Until recently, this important aspect had been underestimated as osteoporosis and vascular calcification had been considered poorly or non-modifiable disorders. However, recent data suggest that the association of vascular calcification and bone loss are not just a consequence of the ageing. Vascular calcification, osteoporosis and bone fragility seems to be biologically linked, involving important bone regulators such as the RANK/RANKL/OPG/LGR4 system and the Wnt/Betacatenin pathway.

Evidence is now emerging, suggesting that LGR4, the recently discovered second RANKL receptor and the inhibitors of the Wnt/Betacatenin pathway, such as the secreted frizzled-related proteins (SRFP), the Dickkopf Wnt signaling pathway inhibitor 1 (DKK-1), and sclerostin

may play a role in the connections between vascular calcification and bone loss. The clinical, epidemiological and experimental data linking bone and vessels will be analysed.

### EL2

#### BEHAVIORAL STRATEGIE FOR THE BUSY CLINICIAN

D. Pinto<sup>1</sup>

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Dr. Daniel Pinto, PT, PhD will present the ongoing work in his research lab in the development of an electronic framework for the application of Brief Action Planning as a clinical tool during clinical management of patients with musculoskeletal injuries. Dr. Pinto will discuss initial beta testing of the software and patient cases within the context of rehabilitation. Dr. Pinto is an Assistant Professor in the Department of Physical Therapy, Marquette University, USA.

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