

PROPOSITIONS

THE INTERPLAY OF BONE AND MUSCLE IN HEALTH AND DISEASE

1. A single bone mineral density (BMD) measurement can predict risk of fractures for a period of over 20 years. (this thesis)
2. The term “osteosarcopenia” labels accurately the presence of sarcopenia in individuals with osteoporosis, but carries the same fracture risk as osteoporosis alone (this thesis)
3. Genetic predisposition to either lower levels of vitamin D or to calcium intake avoidance are not causally associated with lower BMD or increased fracture risk in older adults. (this thesis)
4. The effect of genetic variants on BMD is already observed at a young age, supporting the value of peak bone mass as a determinant of bone health later in life. (this thesis)
5. Genes with pleiotropic effects across the musculoskeletal system can inform risk stratification and novel treatments for osteoporosis and sarcopenia. (this thesis)
6. Scientific credibility: is it who you are, or how you do it?
(Janet D. Stemwedel)
7. “I am large, I contain multitudes” –the answers to our genomic research questions are ultimately hidden across different-omics data layers.
(Song of Myself, Walt Whitman)
8. The truth is rarely pure and never simple.
(Oscar Wilde)
9. Big data is analogous to a cup of coffee. It usually does the work, but the quality will depend on the shape, size, texture, roasting, and brewing of the coffee beans.
10. Although knowledge about disease typically rises from studying the population, disease treatment should be tailored to the individual.
11. Life is what happens to us while we are making other plans.
(Allen Saunders)

Katerina Trajanoska
7th October 2020