List of Abbreviations, Acronyms and Terminology

| Abbreviation | Definition |
|--------------|------------|
| GRADE | Grading of Recommendations, Assessment, Development and Evaluations |
| CEBM | Centre for Evidence-Based Medicine |
| OP | Osteoporosis |
| PMO | Post-Menopausal Osteoporosis |
| RVE | Representative Volume Element |
| micro-MPA | micro-MultiPhysics Agent-based |
| TGF-β | Transforming Growth Factor β |
| RANKL | Receptor Activator of Nuclear Factor κ β Ligand |
| OPG | Osteoprotegerin |
| PTH | ParaThyroid Hormone |
| SCLR | sclerostin |
| BMP | Bone Morphogenetic Protein |
| TNF | Tumour Necrosis Factor |
| Wnt | Wingless and int-1 |
| IGF | insulin-like growth factor |
| MCSF | macrophage colony stimulating factor |
| NO | nitric oxide |
| Sema3A | semaphorin 3A |
| RUNX2 | Runt-related transcription factor 2 |
| N.Oc | Osteoclast number |
| Abbreviation | Term Description |
|--------------|------------------|
| N.Ob         | Osteoblast number |
| N.Ot         | Osteocyte number  |
| MSCs         | Mesenchymal Stem Cells |
| HSCs         | Hematopoietic Stem Cells |
| BMU          | Basic Multicellular Unit |
| CT           | Computed Tomography |
| micro-CT     | micro-scale Computed Tomography |
| DXA          | Dual-energy X-ray Absorptiometry |
| BMD          | Bone Mineral Density |
| TRAP         | Tartrate Resistant Acid Phosphatase |
| LC-MS        | Liquid Chromatography with tandem Mass Spectrometry |
| ELISA        | Enzyme-Linked ImmunoSorbent Assay |
| RIA          | RadioImmunoAssay |
| CV           | Coefficient of Variation |
| FTIR         | Fourier Transform Infrared Spectroscopy |
| BMSF         | Bone Marrow Supernatant Fluid |