README

The files named data_WTPTH_40comp_Delta2wks_Age18-22.csv and data_WT_40comp_Delta2wks_Age18-22.csv contain the raw data analysed and reported in the cited paper.

The two files are written in comma-separate text file (format CSV), generated using Microsoft Excel. The first contain the data relative to a group of Wild Type mice (WT), the other of wild type mice injected with parathyroid hormone (WTPTH).

For the methods used to generate the data please refer to the cited paper.

Both file have the same structure:

Mouse = alphanumeric string which provides a unique code for each mouse; example = M105407.

Age = Age of the mouse in weeks; example = 18

Compartment = alphanumeric string which provides the anatomical compartment. The anatomical space between the two tibial growth plates is divided in 10 compartments across its length (C01, C02, …, C10), and then each compartment is divided in four "slices" mapping the anterior (A), posterior (P), medial (M), and lateral (L) aspects. Example = C01A.

Intervention = WT for wild type injected with vehicle, WTPTH for wild type injected with PTH.

SED = Average value of the Strain Energy Density in that mouse, at that time point, in that compartment. Example = 0.004289841; unit = [mJ/mm3].

FS = Free Surface available in that mouse, at that time point, in that compartment. NB: this measurement account for porosities detectable at the resolution of the microCT; there are surely smaller porosities, so the real FS is probably much larger. Example = 5.245203513; unit = [mm].

BV = Bone volume in that mouse, at that time point, in that compartment. Volume of all voxels labelled bone. Example = 0.362553358. Unit = [mm^3].

TV = Total volume of that compartment, in that mouse, at that time point. Example = 0.896639345; unit = [mm^3].

BVTV = ratio between BV/TV (Bone volume fraction). Example = 0.404346921.

BMC = Bone Mineral Content in that mouse, at that time point, in that compartment. Example = 320.5249699; unit = [1.0e-3 mg HA].

TMD = Tissue Mineral Content: Bone mineral content BMC divided by Bone Volume BV. Example = 1775.14643; unit = 1.0e-3 mg HA/ mm^3].

BMD = Bone Mineral Density: Bone mineral content BMC divided by Total Volume TV. Example = 357.4736842; unit = 1.0e-3 mg HA/ mm^3].

e11 = Average Tensile Principal Strain in that mouse, at that time point, in that compartment. Example = 142.5664933; unit = [microstrain].

e11sd = Standard deviation of the Tensile Principal Strain in that mouse, at that time point, in that compartment. Example = 65.17678479; unit = [microstrain].

E33 = Average Compressive Principal Strain in that mouse, at that time point, in that compartment. Example = -339.4221063; unit = [microstrain].

e11sd = Standard deviation of the Compressive Principal Strain in that mouse, at that time point, in that compartment. Example = 136.2643219; unit = [microstrain].

DeltaBMC = Variation of BMC over two weeks (see cited paper for details). Example = 21.88183933; unit = [1.0e-3 mg HA/wk].

DeltaTMD = Variation of BMD over two weeks (see cited paper for details). Example = 34.71754264; unit = [1.0e-3 mg HA/mm^3*wk].

DeltaBMD = Variation of BMD over two weeks (see cited paper for details). Example = 18.57439977; unit = [1.0e-3 mg HA/mm^3*wk].