Federica Cuomo, Jacopo Ferruzzi, Pradyumn Agarwal, Chen Li, Zhen W. Zhuang, Jay D. Humphrey, C. Alberto Figueroa**. Sex-Dependent Differences in Central Artery Hemodynamics in Normal and Fibulin-5 Deficient Mice: Implications for Aging.** Proceedings of Royal Society A. 2018.

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List of files

- WT_M_1.mitk
- WT_M_2.mitk
- WT_M_3.mitk
- WT_F_1.mitk
- WT_F_2.mitk
- WT_F_3.mitk
- KO_M_1.mitk
- KO_M_2.mitk
- KO_M_3.mitk
- KO_F_1.mitk
- KO_F_2.mitk
- WindkesselParameters.xlsx

Description

This folder contains CRIMSON files of 11 subjects: wild type male (WT_M), wild type female (WT_F), *Fbln5*$^{-/-}$ male (KO_M) and *Fbln5*$^{-/-}$ female (KO_F) mice; as well as a table with the full list of Windkessel values (WindkesselParameters.xlsx). These files can be used to reproduce the analysis reported in the associated paper.

Each CRIMSON file contain micro-CT data, CAD segmentations of the aorta and main branches, biaxial tissue properties, inflow waveform, and adapted finite element mesh for the specific anatomy. In order to perform an FSI simulation a steady analysis, followed by a pulsatile analysis is needed, the time step size and the number of time steps need to be adjusted accordingly.

The computational framework CRIMSON can be downloaded at http://www.crimson.software.