

1163-92-1307

**Nicholas Mattia Marazzi\***, marazzin@mail.missouri.edu, and **Giovanna Guidoboni, Riccardo Sacco, Josh Fraser, Kannappan Palaniappan** and **Virginia Huxley**. *Fluid and proteins in microvascular networks: importance of heterogeneity in geometrical and biophysical properties.*

The main goal of this study is to illustrate how the estimate of the fluid exchange between microvasculature and surrounding tissue is impacted by assuming heterogenous or homogeneous network properties. To this purpose, the microvascular fluid exchange is studied in three different configurations: homogeneous (all vessels in the network are identical with respect to dimensions and biophysical properties), class-uniform (class-specific dimensions and biophysical properties) and heterogeneous scenario (class-specific biophysical properties and vessel-specific geometrical properties). The assumption of homogeneous distribution of geometrical and biophysical network leads to an overestimate of  $J_{f,tot}$  of 317 (Received September 15, 2020)