

ADAPTATION, GROWTH AND REMODELLING: MULTI-SCALE IN TIME AND SPACE SIMULATIONS

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Biofluids are diverse in the body, such as - but not limited to - blood, air, lymph, bile, etc. and play an important role in organ functions. Due to disease progression or after a medical intervention (surgery, endovascular procedure, etc.), biofluid circulation changes, causing a number of adaptative phenomena to occur: auto regulation, adaptation, growth and remodelling. These changes can occur at cellular, multi-cellular or organ scale levels. They develop over a range of timescales, from a few seconds, minutes to weeks or months. Hence there is a need to cope with these different spatial and time scales in numerical simulations. This mini symposium will be a place to discuss modelling and numerical issues on these topics. Challenges on data gathering and incorporation, on coupling the modelling of these different scales or on solving them numerically are particularly welcome.