

GROWTH AND REMODELING OF LIVING TISSUES

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ABSTRACT

This mini-symposium focuses on exchanging ideas and research outcomes on experimental and computational studies that aim at elucidating the biomechanics and mechanobiology of living tissues. Living tissues are continuously exposed to environmental changes, which can stimulate growth, remodeling, and repair of the internal tissue structure. The biomechanical mechanisms that are involved in growth and remodeling occur and interact at different length scales, from the molecular to the cellular and tissue levels. Experimental observation and computational simulation across these different length scales remains challenging. We invite contributions that investigate growth and remodeling mechanisms at the molecular, cellular, and tissue level. In particular, experimental and computational studies are welcome that aim to elucidate biomechanical stimuli, mechanotransduction pathways, and homeostatic control mechanisms in living tissues. The symposium will emphasize on using modern experimental techniques, and novel mathematical theories and computational methods.