



1U4U
INNOVATION FUNDING
2020 Projects

THE STUDY OF CELL MECHANOSENSING

Understanding how mechanical forces affect cell structure and function is critical to a variety of physiological and pathological phenomena, including cell migration, development, wound healing and cancer metastasis.

In this project, we will study the mechanisms underlying the response of cells to mechanical forces, by focusing on LIM-domain proteins. We will use a combination of computational modeling and high-resolution molecular imaging of cells subjected to graded force inputs in order to characterize how LIM-domain proteins localize to and repair the cell cytoskeleton after mechanical deformation.

The combination of computer modeling with wet lab experiments will allow our team to find important insights into the mechanisms underlying the response of cells to variations in the mechanical environment.

By addressing this complex scientific problem, this research will have significance in both the study of fundamental cell physiology and cancer treatment.

COLLABORATORS

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PROJECT INFO

FUNDED PROJECT AMOUNT

\$30K