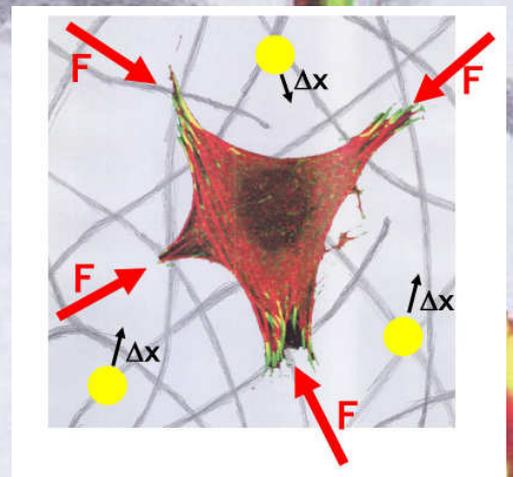


# Positions for Postdocs and PhD-Candidates in Mechanobiology

In our research program we aim at the understanding of the fundamental physics-aspects of cellular *mechanosensing* and *mechanotransduction* and the biological implications thereof. During the last few years the physics community has developed instrumentation and theoretical understanding of how forces develop and propagate in complex environments such as biomimetic active and passive biopolymer networks, as well as biomimetic composite materials composed of widely disparate mechanical properties. Given these advances and simultaneous developments in cell biology to provide unique molecular tools it is now the time to start exploring, in a quantitative manner, how mechanical properties and forces determine cell. The overall aim of our program is to understand the physical mechanisms that contribute to cellular mechanosensing and mechanotransduction.

We will address the:

- 1) mechanical processes related to the mechanical coupling machinery,
- 2) mechano-responsiveness of cells embedded in 3D extracellular matrices,
- 3) biological effects of mechanical processes on cellular developmental programs.



We are a recognized multidisciplinary team of physicists and cell biologists located at **Amsterdam and Leiden** (The Netherlands). We are looking for people of varied background (*experimental, theoretical, physics, cell biology*) who enjoy working in a multi-disciplinary team and who will actively foster and participate in collaborations. On our website (<http://www.mechanobiology.nl/>) you will find additional information about our research and the consortium members.

For an application to one of the posts send your application to Prof. Dr. T. Schmidt ([nieuwenhuizen@physics.leidenuniv.nl](mailto:nieuwenhuizen@physics.leidenuniv.nl)), or to one of the other PIs. Include with your application a motivation letter, a CV, transcripts (PhD), a publication list (postdoc), and give the names of two persons willing to provide us with a letter of recommendation.

Erik Danen, Marileen Dogterom, Elly Hol,  
Davide Iannuzzi, Gijsje Koenderink,  
Fred MacKintosh, Christine Mummery,  
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