New Tenured Group Leader

Prof. Michael Krieg awarded tenure at ICFO

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Prof. Dr. Michael Krieg, leader of the Neurophotonics and Mechanical Systems Biology group at ICFO, was evaluated by an international committee and based on this successful evaluation has been awarded tenure at ICFO by the Board of Trustees of the institute.

Originally from Weimar, Germany, Prof. Krieg received his PhD at TU Dresden in the Daniel Mueller and Carl-Philipp Heisenberg's lab. Using atomic force microscopy, he characterized the contribution of single molecule adhesion events to multicellular development in zebrafish, a body of work which he continued during his first postdoctoral work at the Max Planck Institute of Molecular Cell Biology and Genetics. He went on to focused on deciphering the mechanical basis of the sense of touch as a postdoctoral researcher in the lab of Dr Miriam Goodman in the Department of Molecular and Cellular Physiology at Stanford University School of Medicine. In his work, he used C elegans to study mechanosensation and stability and found that neurons with defects in Alzheimer related proteins behave like twisted ropes and curly hair.

Michael started his group at ICFO in 2017 as a NEST Fellow endowed by the Fundacio Cellex that has given support to outstandingly talented and creative young group leaders at our institute. He brought with him an ERC Starting Grant that funded the project i¿½How to bu ld a brain? Engineering molecular systems for mechanosensation and protection in neurons. ¿½ In his lab, his group studies the importance of cell's mechanical properties for healt and disease on the molecular and systems levels, exploiting microfluidic and nanotechnolo ical tools to apply precise forces to single cells or animals. Likewise, they have been worki g to establish an optogenetic neurotransmitter system with the aim to rewire neuronal cir uits directly inside ani
als. The program on Neurophotonics Mechanical Systems Biology he leads make a u ique contribution to the institute. Likewise, highly valued by the committee was Michael's s rong emphasis on the training opportunities and career paths after ICFO of the people affil ated with the team he supervises.

Future directions for this group will focus on marrying his interests in synthetic and mechanical biology to understand how animals, and ultimately humans feel the force.