



Zenith

INTERNATIONAL PHD PROGRAM IN NEUROSCIENCE

**FRIDAY, 5 MARCH 2021
AT 5:00 PM (CET)**

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PARIS, FRANCE
PRINCETON UNIVERSITY
PRINCETON, NJ, USA



ZENITH SEMINARS

HOW TWO PIECES OF DNA KISS AND WHY WE SHOULD CARE

The regulation of gene expression is at the center of the emergence of multicellularity and concomitantly of cellular specialization and specification. Information about what cell does what is established via the dynamics interplay of multiple genes organized within a genetic network. I will discuss how information is processed within the network and how my laboratory uses a combination of imaging technologies and statistical physics to follow the information in living fly embryos. I will give some background on how we got to this question, will discuss one aspect about the question in greater detail (the bit about the kissing DNA), and foreshadow the next frontier with current challenges facing the field.

Gregor received his PhD in Biophysics from Princeton University. He was a JSPS Fellow at the University of Tokyo and held several research and faculty positions at Princeton. Currently he is a Professor at the Department of Physics and Lewis-Sigler Institute for Integrative Genomics at Princeton University and the Head of the Unit "Physics of Biological Function", Department of Developmental and Stem Cell Biology at the Institut Pasteur. His research interests include providing quantitative descriptions of the rich qualitative phenomena of complex biological systems to understand how they derive from general principles. He works at the interface between physics and biology, often marrying theory and experiment.

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