João Fonseco, Ph.D.

Joao.DosSantosFonseca@ucsf.edu

Favorite thing about San Francisco:
Karl the fog

Model organism of choice:
Dragons

Favorite scientist quote:
"Nothing in biology makes sense except in the light of evolution." - Theodosius Dobzhansky

Education

Postdocoral Scholar (2013-Present)
University of California, San Francisco

Ph.D., Molecular Biology (2007-2012)
University of Vienna

B.S., Cell and Molecular Biology (2002-2006)
New University of Lisbon

Research Summary

I aim to uncover the overarching principles governing signal propagation in multicellular structures. I am tackling this question in the context of the PKA/cAMP pathway in mammalian epithelial tissues using a multidisciplinary systems and synthetic approach to trace cAMP signaling in intact epithelial tissues, or synthetic tissues, that resemble in vivo structures. This research will generate a quantitative understanding of length and time scales of signal propagation across cellular communities, and of how cells take advantage of communication and non-genetic heterogeneity to generate emergent behaviors.