



The Department of Pharmacology

Proudly Presents the Seminar Series:

Frontiers in Pharmacology

"Massively Parallel All-Optical Cardiac Electrophysiology"

Optical targeting (stimulation or recording) allows distributed parallel access to thousands and even millions of cells and locations at the same time, and within the tissue setting; optical targeting is high-throughput by nature. In this talk, I will discuss and demonstrate the combination of optogenetic stimulation with optical imaging of electrical activity in cardiomyocytes, i.e. the realization of "all-optical electrophysiology" in a high-throughput manner (HTS). Examples will include demonstration of cardiac "wave steering" by light and the use of a new fully-automated all-optical HTS platform (OptoDyCE) for drug screening using patient-derived cardiomyocytes (iPS-CMs).

Emilia Entcheva, PhD

**Professor,
Biomedical Engineering
George Washington University**

Friday, March 10, 2017

4:00 pm

**GBSF Auditorium
(Rm. # 1005)**

Light refreshments will be served.

*Host : Daisuke Sato
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