



## פרופסור מרטין אוהיים

מנהל, מכון סנט-פר פריז למדעי המוח  
מנהל מחקר, המרכז הלאומי למחקר מדעי (CNRS)  
אוניברסיטת פריז סיטה, פריז, צרפת

## Professor Martin Oheim

Director, Saints-Pères Paris Institute for the Neurosciences  
Director of Research, Centre National de la Recherche Scientifique (CNRS)  
Université Paris Cité, Paris, France

סמינר | Seminar

# LABEL-FREE 2-PHOTON IMAGING OF THE STRUCTURAL ORGANISATION OF PERIPHERAL NEURONES AND GLIA IN THE ENTERIC GANGLIA

## Abstract

Common wisdom has it that intuitions, instincts and basic reactions without a rational basis come from 'gut feeling'. Indeed, the enteric nervous system (ENS) – a dense meshwork of neurones and glia organised in submucosal and myenteric plexuses that controls the function of the gastrointestinal tract – is much more than a primitive outpost of the brain. While the basic circuitry and main neurotransmitters are well-described, recent work - similar to the central nervous system, CNS) has recognised the key roles played by enteric glia in intestinal homeostasis. But although enteric glia share many similarities with CNS astrocytes, there are important differences, and no unique glial marker has been identified. Also, the unexpected complexity provided by this heterogeneous and plastic glial cell population is best studied in intact tissue. In our current work, we present and validate a fast, label-free 3-D imaging technique for rapidly imaging large networks of enteric neurones and glia in their natural habitat, based on intrinsic (autofluorescence and second-harmonic generation) contrast.

The Lecture will be held on Wednesday  
23 March 2022, at 11:00  
Flekser Hall 118, Kaplun Building  
Tel Aviv University, Ramat-Aviv

ההרצאה תתקיים ביום רביעי  
23 במרץ 2022, בשעה 11:00  
אולם פלקסר 118, בניין קפלון  
אוניברסיטת תל-אביב, רמת-אביב

כיבוד קל יוגש לפני ההרצאה | Light refreshments will be served before the lecture