



Département de psychiatrie  
Centre de neurosciences psychiatriques  
Site de Cery  
CH-1008 Prilly - Lausanne

# Centre de Neurosciences Psychiatriques

## CNP SEMINAR ANNOUNCEMENT

Thursday, February 8, 2018, 14:00

### “Biomarkers in psychiatry drug development: the value of translational research”

**Dr. Patricio O'Donnell, MD PhD**

Clinical Translational Science CNS  
Translational Research & Early Clinical (TREC)  
Takeda Pharmaceuticals  
350 Massachusetts Avenue  
Cambridge, MA 02139

Invited by Kim Do  
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**Salle Escale**

**Hôpital Psychiatrique de Cery  
Site de Cery, CH-1008 Prilly-Lausanne**

Dr. O'Donnell will discuss the factors that have limited the development of novel treatments in psychiatry and approaches to address them. First, he will discuss the need to identify novel targets based on human data. In that regard, access to human genetics (in the form of GWAS data or rare variants) is helping the field consider novel mechanisms. A second issue has been the poor use of preclinical models; several examples of novel approaches that are helping with testing novel compounds will be presented. Third, Dr. O'Donnell will highlight the need of translatable biomarkers that will help bridge animal to human studies. For complex disorders such as most of psychiatric conditions, the approach recommended is to parse out individual disease domains that may have a better defined neurobiological basis. Domain performance that can be objectively measured along with variables that co-vary with them will be extremely helpful for the field. For those companies still investing in Psychiatry drug discovery and development, a translatable biomarker approach is a must. Examples of this approach using electrophysiology and imaging in schizophrenia will be discussed. Overall, while many pharmaceutical companies have left the field, there is still hope in the ones remaining taking a novel approach that may solve the errors of the past and eventually contribute novel medications.

#### **Selected publications:**

1. Patricio O'Donnell, MD, PhD<sup>1</sup>; Michael D. Ehlers, MD, PhD<sup>1</sup> Opportunities for New Drug Development in Psychiatry A Glass Half-Full. *JAMA Psychiatry*. 2015; 72(11):1067-1068.
2. Schubert CR<sup>1</sup>, Xi HS<sup>2</sup>, Wendland JR<sup>3</sup>, O'Donnell P<sup>4</sup>. Translating Human Genetics into Novel Treatment Targets for Schizophrenia. *Neuron* 84, November 5, 2014.