## NEUROSCIENCE Study Track

Co-Directors:

Prof. Micah Murray

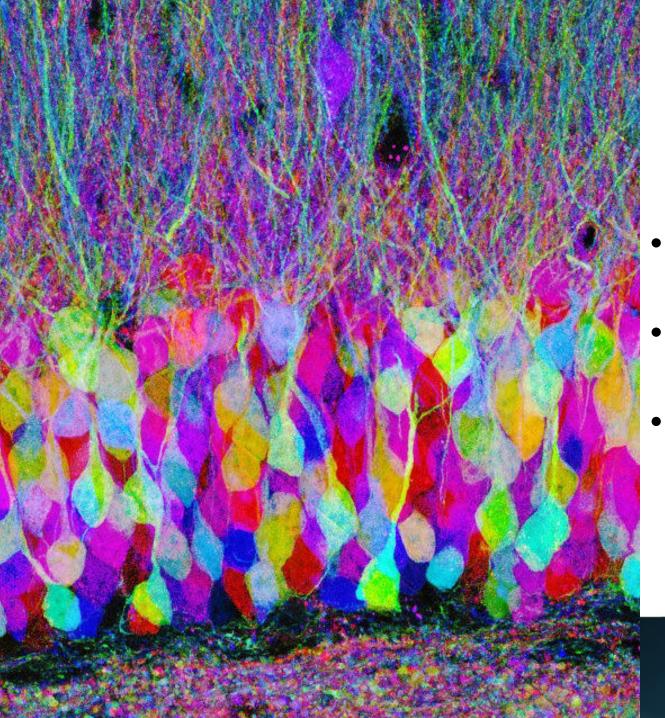
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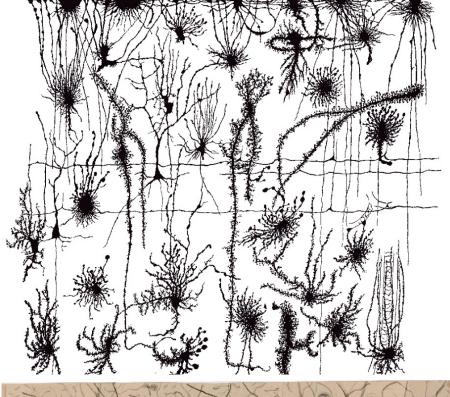






# Why study Neurosciences?

- The brain is the most complex living structure
- We have ~100'000'000'000 (100 billion) nerve cells in our brain
- They make more than a trillion connections (synapses)





# Why study Neurosciences?

- There are almost the same amount of glial cells as neurons (astrocytes, oligodendrocytes, microglia)
- Glial cells influence neurons in many ways



# Why study Neurosciences?

 The nervous system controls everything we do:

movement, pain, sleep, appetite, learning, memory, emotions, vision, hearing, consciousness, thoughts, intelligence, creativity...

 Current knowledge is only the "tip of the iceberg" and there is plenty to be better understood or discovered!



# Curriculum in Neurosciences

- 1<sup>st</sup> year BSc: Nervous tissue (Module: Biologie cellulaire des tissus)
- 2<sup>nd</sup> year BSc: Intro. to neurosciences
- 3<sup>rd</sup> year BSc: Neurobiology (Module: Physiologie des systèmes complexes) + optional courses
- MSc in Medical Biology: Neuroscience track
- Lemanic Neuroscience Doctoral school

#### 1<sup>st</sup> semester of the Master in Medical Biology:

#### Neuroscience Disorders: 10h course + 2h article presentations



Jean-René Cardinaux, Center for Psychiatric Neurosciences (CNP)



Pascal Steullet,
Center for Psychiatric Neurosciences (CNP)



Jean-Yves Chatton,
Dept. of Fundamental Neurosciences (DNF)



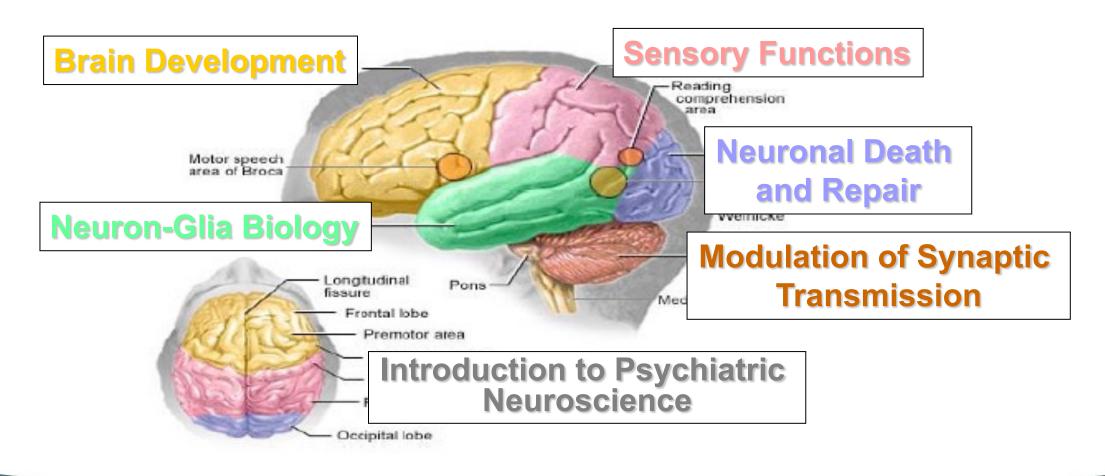
Micah Murray

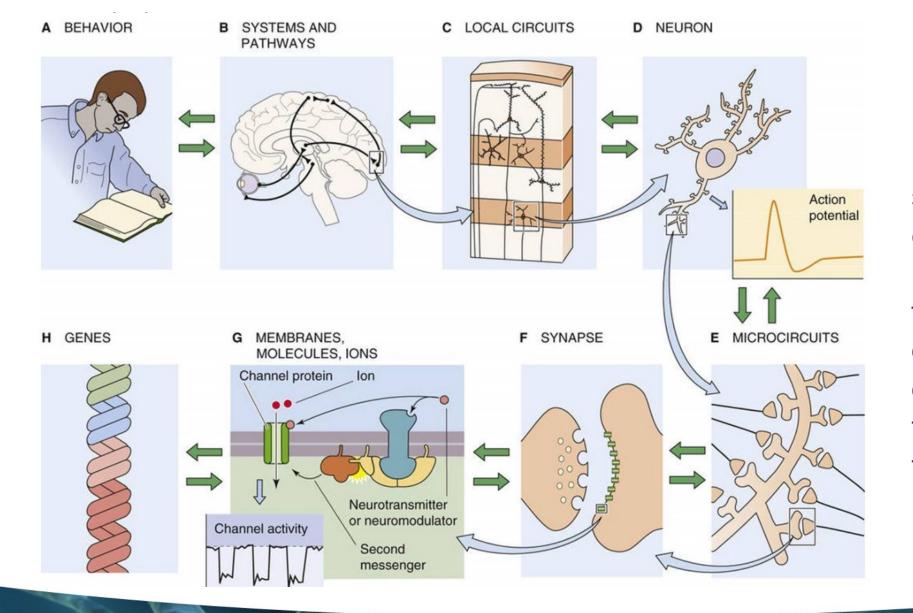
Dept. of Radiology (RAD)



Bogdan Draganski,
Dept. of Clinical Neurosciences (DNC)

## 2<sup>nd</sup> semester of the Master in Medical Biology: *Neuroscience study path:* 6 *modules*





From genes to synapses to circuits in order to understand brain functions, behavior, diseases, mental disorders, and how to find new treatments

# The Neuroscience network UNIL-CHUV >30 Labs for First-step and Master Projects





## Department of Fundamental Neurosciences (DNF)



## **Department of Clinical Neurosciences (DNC)**



### **Center for Psychiatric Neuroscience (CNP)**



...and many more laboratories at UNIL/CHUV with a neuroscience focus!

**Dept of Radiology** 

**Dept of Biomedical Sciences** 

**Service of Anesthesiology** 

**HOJG** 

CIG

**Dept. Computational Biology** 

**UNISANTE** 

If you are fascinated by how the brain works and want to learn more about brain physiology and disorders...

# Come and join us in the Neuroscience study track!

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