NEUROSCIENCE
STUDY TRACK

Co-Directors:

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

Master in Medical Biology
1st semester of the Master in Medical Biology:

**Neuroscience Disorders:**

10h course + 2h article presentations

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

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

Bogdan Draganski,
Dept. of Clinical Neurosciences (DNC)

Pascal Steullet,
Center for Psychiatric Neurosciences (CNP)

Micah Murray
Dept. of Radiology (RAD)
2nd semester of the Master in Medical Biology:

Neuroscience study path: 6 modules

- Brain Development
- Sensory Functions
- Neuron-Glia Biology
- Neuronal Death and Repair
- Modulation of Synaptic Transmission
- Introduction to Psychiatric Neuroscience
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

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<th>Department of Fundamental Neurosciences (DNF)</th>
<th>Center for Psychiatric Neuroscience (CNP)</th>
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...and many more laboratories at UNIL/CHUV with a neuroscience focus!

- Service of Anesthesiology
- HOJG
- CIG
- Dept. Computational Biology
- UNISANTE

Master in Medical Biology
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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