

COURSE DETAIL

MOLECULAR NEUROBIOLOGY

Country

Denmark

Host Institution

University of Copenhagen

Program(s)

University of Copenhagen

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

139

UCEAP Course Suffix**UCEAP Official Title**

MOLECULAR NEUROBIOLOGY

UCEAP Transcript Title

MOLECULAR NEUROBIOL

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course describes the molecular basis of our nervous system. Basic knowledge of biochemistry and molecular biology is needed to be able to follow this class. The course starts with an introduction of basal neurobiology and then discusses the protein structures and physiological actions of the Na⁺, K⁺, Ca²⁺ and Cl⁻ channels. The biochemical aspects of synaptic transmission are covered: exocytosis/endocytosis, the various neurotransmitters, their biosynthesis and break-down, neurotransmitter transporters and neurotransmitter receptors, and the different second messenger systems. The course also covers neuropharmacology questions such as: How do neuroleptics, anxiolytics, sedatives, mood lifters, Viagra, and the various euphoric drugs act? Furthermore, topics like neuroendocrinology, smell, taste, and vision and, finally, consciousness (who am I?) are discussed.

Language(s) of Instruction

English

Host Institution Course Number

NBIK14034U

Host Institution Course Title

MOLECULAR NEUROBIOLOGY

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Biology

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