



Module Description

WZ2690: Latest Neuroscience - Presenting Papers to Researchers and the General Public

Assistant Professorship of Neuronal Control of Metabolism
(Prof. Grunwald-Kadow)

Module level: Master	Language: English	Module duration: one semester	Occurrence: winter semester
Credits*: 3	Total number of hours: 90	Self-study hours: 58	Contact hours: 32

* The number of credits can vary depending on the corresponding SPO version. The valid number is always indicated on the Transcript of Records or the Performance Record.

Description of achievement and assessment methods:

This seminar series will start with an introductory lecture by the course lecturers, followed by an assignment of 2 reviews and 1 research paper to each student. Research paper and reviews will be read and analyzed during self-study hours and discussed with the lecturer during individual meetings. During three and a half days of block seminar, students will in the first two days present the main points of their paper including aims, results and discussion in the context of a comprehensive background that is to be researched and based in part on the distributed reviews. During the second part, students will learn how to present a research finding to the general public and how to write a press release for the layman. Papers and reviews will comprise landmark and latest papers in the field of neuroscience research with a special focus on internal and metabolic state and neuromodulation. Students will discuss the mechanisms of state-dependent neuromodulation and its implications in animal behavior, disease etc. Students will also discuss the latest scientific tools that are used to study neuromodulation in different animal models based on the assigned papers. In the first part, each student will give a 45 minutes presentation of the selected paper in front of the group. In addition, the students will prepare questions to be discussed with the other participants following the presentations. In the second part, the first half day will be used to look at press releases in the group and to dissect their structure, wording etc. After 1 and a half days of home work, students will present their paper in a presentation format aimed at the general public with general introductions, schemata, conclusions etc. In addition, the students are requested to write a press release on their paper at home, which is again aimed at the general public and should be concise and interesting with some illustrations. The evaluation is based on the presentations, the press release, and the discussion of the selected papers (70%) and the participation in the course (30%).

Exam type: not specified	Exam duration (min.): not specified	Possibility of re-taking: In the next semester: No At the end of the semester: No	Homework: No
Lecture: No	Conversation: No	Written paper: No	

(Recommended) requirements:

Basic knowledge of neurobiology is mandatory.

Contents:

Group seminar with a 3 hours introductory meeting/discussion and a block of 3 and a half days of presentations by students.

Study goals:

Students who successfully complete this module will understand the concept of how internal and metabolic states influence neurons and neuronal processing by neuromodulation and its implications in animal behavior including human behavior in health and disease. In particular, they will know important landmark works, know different modes and forms of neuromodulation including neuropeptides and monoamines, be able to name and describe important techniques used to study neuromodulation. Furthermore, they understand the importance of neuromodulation and neuromodulatory mechanisms in the treatment of common diseases including diabetes, obesity, depression, and get first insights into concepts of drug design and function. Students will learn different ways of presenting scientific works - to a scientific audience as well as to a layman audience. Students will understand the difference between a scientific presentation and manuscript and an article and presentation aimed at the general public to promote Science and important findings. They will have been introduced on how to write a press release and how to explain a scientific problem and finding to a layman.

Teaching and learning methods:

A general introduction on the topic and list of proposed papers will be given during the preparatory meeting (3 hrs). Then students will have the option to choose a paper and will have a week to prepare a presentation based on the paper and two accompanying reviews. In addition, students have the opportunity to meet the lecturer in a one-on-one meeting prior to their presentations of the paper to discuss questions. Students will individually present the paper in the group meeting. In the first part, each student will get 45 minutes to present the paper and 20 minutes for discussion. A feedback will be given after each presentation by the group and lecturer and if requested also individually at a later time. In the second part, press releases will be read and analyzed in the group together with the lecturer. Then each student will present a short laymen slide presentation to the group. Finally, each student has to formulate a press release at home.

Media formats:

Pubmed, powerpoint, black board

Literature:

Literature for reading will be provided or suggested during the introductory meeting. The internet will be used to find examples of good (and less inspiring) press releases and newspaper articles. Furthermore, TED talks and other science interviews will be studied. In addition, the textbook 'Principles of Neural Science' by Eric Kandel and colleagues is recommended.

Responsible for the module:

not specified: [not specified](#)

Courses (Type, SH) Lecturer:

Übung/seminar

Current topics in neuromodulation

1 SWS

Jean-Francois De Backer

Übung/seminar

Latest Neuroscience - presenting papers to researchers and the general public

1 SWS

Ilona Grunwald Kadow

For further information about this module and its allocation to the curriculum see:

<https://campus.tum.de/tumonline/wbModHb.wbShowMHBRReadOnly?pKnotenNr=1377333>

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