Hanse-Wissenschaftskolleg
Institute for Advanced Study

Workshop

Auditory Efferents:

Closing the Loop(s)

Delmenhorst, 04.-06. November 2024

OrganisatorInnen/ Organizers:
Dr. Laurel H. Carney, University of Rochester, New York, USA
Dr. Christine Köppl, Carl von Ossietzky Universität, Oldenburg
Dr. Go Ashida, Carl von Ossietzky Universität, Oldenburg

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Program

Venue:

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Monday, 04. November 2024

Session 1: Setting the stage

09:30 – 09:45	**Introduction to Workshop: Motivation for bringing this group together** *Laurel Carney, University of Rochester (Rochester NY, USA)*
09:45 – 10:30	**Olivocochlear efferents across vertebrate evolution: Major changes** *Christine Köppl, Carl von Ossietzky Universität (Oldenburg, DE)*
10:30 – 11:15	**Role of olivocochlear efferents in hearing across the lifespan: Insights from mouse models** *Amanda Lauer, Johns Hopkins University (Baltimore, MD, USA)*
11:15 – 11.45	*COFFEE BREAK*
11:45 – 12:30	**Does the medial olivocochlear efferent reflex really help hearing in noise?** *Enrique Lopez-Poveda, University of Salamanca (Salamanca, ES)*
12:30 – 13:15	**The efferent system and noise-induced hearing loss** *Ana Belén Elgoyhen, University of Buenos Aires (Buenor Aires, Argentina)*
13:15 – 14:30	*LUNCH*

Session 2: Cochlear efferent circuitry and physiology

14:30 – 15:15	**Efferent synaptic mechanisms in the inner ear** *Sonja Pyott, University Medical Center Groningen (Groningen, NL)*
15:15 – 16:00	**Cellular mechanisms mediating lateral efferent modulation of auditory nerve fiber activity** *Elizabeth Glowatzki, Johns Hopkins University (Baltimore, MD, USA)*
16:00 – 16:30	*COFFEE BREAK*
16:30 – 17:15	**LOC Flexibility** *Lisa Goodrich, Harvard University (Cambridge, MA, USA)*
17:15 ff	**Discussion Round - Summary of Day 1: What important questions did we identify?**
18:30 – 20:00	*ABENDESSEN / DINNER*

Tuesday, 05. November 2024

Session 3: Brainstem efferent circuitry, physiology and function

09:30 – 10:15	**Central auditory pathways and the efferent system** *Brett Schofield, Northeast Ohio Medical University (Rootstown, OH, USA)*
10:15 – 11:00	**Cochlear efferent neurons and their local circuitry** *Lawrence Trussell, Oregon Health Science University (Portland, OR, USA)*
11:00 – 11:30	*COFFEE BREAK*
11:30 – 12:15	**Inhibitory circuits in the medial olivocochlear system** *Catherine Weisz, NIH-NIDCD (Bethesda, MD, USA)*
12:15 – 13:00	*POSTER SESSION*
13:00 – 14:30	*LUNCH*

Session 4: Systems-level physiology and perception

14:30 – 15:15	**Systems-level efferent physiology** *Paul Delano, Universidad de Chile (Santiago, Chile)*
15:15 – 16:00	**TBN**
16:00 – 16:30	*KAFFEEPAUSE / COFFEE BREAK*

Session 5: Human physiology and perception

16:30 – 17:15	**Assessment of the medial olivocochlear reflex using electrocochleography in humans 8** *Skyler Jennings, University of Utah (Salt Lake City, UT, USA)*
17:15 ff	**Discussion Round - Summary of Day 2: What important questions did we identify?**
18:30 – 20:00	*DINNER*

Wednesday, 06. November 2024

10:00 – 10:30	**Rapid evaluation of medial olivocochlear and middle ear muscle efferent reflex dynamics** *Shawn Goodman, University of Iowa (Iowa City, IA, USA)*
10:30 – 11:00	**Psychoacoustic measures of efferent function (with some modeling)** *Elizabeth Strickland, Purdue University (West Lafayette, IN, USA)*
11:00 – 11:30	*COFFEE BREAK*

Session 6: Incorporating efferents into auditory models

11:30 – 12:15	**Efferent effects in the Meddis model of the auditory periphery** *Tim Jürgens. Technische Hochschule Lübeck (Lübeck, DE)*
12:15 – 13:00	**A subcortical model with MOC efferents** *Laurel Carney, University of Rochester (Rochester NY, USA)*
13:00 – 14:30	*LUNCH*
14:30 – 15:15	**Wrap-Up - What are key aspects that should be included in models?** *Go Ashida, Carl von Ossietzky Universität (Oldenburg, DE)*
15:15 ff	**Summary of workshop: What is next for the Study Group?**