



ISM Lunchtime Seminar Series

The ISM Lunchtime Seminars are online monthly events, which take place on Thursdays, 13:00-13:30h, and are open to all interested colleagues and students. ISM researchers and guest speakers present their work during a 15 min seminar, in the English language, followed by a brief Q&A session.

We are happy to announce our next speaker: Dr. Sarah Starosta from the Ruhr-University Bochum.

Title: A neuro-immune circuit mediates cancer cachexia-associated apathy.

Abstract: Cachexia, a severe wasting syndrome associated with multiple inflammatory conditions, precipitates multi-organ dysfunction and is often fatal. Patients with cachexia frequently experience clinical depression, extreme fatigue, and apathy; however, the underlying biological mechanisms of these symptoms and their relationship to cachexia remain unclear. In a mouse cancer model, we demonstrate that cachexia triggers apathy-like symptoms through a cytokine-sensing brainstem-to-basal ganglia circuit. This circuit detects elevations in IL-6, an inflammatory cytokine, at cachexia onset, and translates it into decreased mesolimbic dopamine, thereby increasing behavioral effort-sensitivity. These apathy-like symptoms were alleviated through three approaches: administering an anti-IL6 antibody treatment, ablating cytokine sensing in the area postrema, or optogenetically stimulating mesolimbic dopamine neurons. Our findings uncover a central neural circuit that senses inflammation and orchestrates behavioral changes, providing mechanistic insights into the connection between chronic inflammation and depressive symptoms.

When: 16th November 2023 at 13:00h

Where: MS-Teams (to join, please click [here](#))

Please follow the rules below to make these seminars a success:

- Please use your real name while entering the meeting. Participants with cryptic names will not be given access to the seminar.
- Please turn off your microphone while the seminar is taking place.
- Please feel free to ask questions!

Contact information

Please contact [Dr. Annakarina Mundorf](#) or [Dr. Deeksha Malhan](#) for further information.