Seminar/Talk

Top-down control of descending pain modulation via the periaqueductal gray

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Host: Maximilian Jösch

Pain perception is heavily shaped by cognitive process and pharmacological drugs. In this talk, I will present data obtained in mice supporting the view that the neural circuit mechanisms that underlie placebo antinociception and morphine antinociception converge on the midbrain periaqueductal gray. Our results point to a role for descending cortical projections in placebo, but not morphine antinociception. I will also discuss our work developing a photopharmacological toolkit for bidirectional regulation of endogenous opioid receptors in vivo using light, and how we are using these tools to uncover the role of endogenous opioid peptide signaling in placebo antinociception. Collectively, this work illuminates neural pathways that contribute to cognitive and pharmacological pain modulation and paves the way for spatiotemporally precise behavioral photopharmacology experiments in model organisms.

Monday, August 21, 2023 02:00pm - 03:00pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.
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https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.