Center for Circadian Biology Symposium
Abstract & Submission Guidelines

Deadline to submit: March 27, 2023

Poster Size & Display:

Poster size should be no more than **32 inches wide by 48 inches tall,** printed in portrait orientation. Space is very limited; therefore, each stand will accommodate two submission posters displayed side-by-side. Please do not exceed the allowable size.

Poster Abstract Guidelines: (see properly formatted sample on next page)

- Abstract size: one-page maximum; file type .pdf.
- Fonts and point size: 11 point or larger, any font that is easy to read.
- Abstract Title: Bold, centered on page.
- Abstract Authors: Centered, include all authors' full names, underline presenting author.
- Authors' Affiliation: Include department and institution below Authors.
- Abstract body (Text only): Justified. Maximum of 500 words (not to exceed one-page submission).
- References: Optional (but not to exceed the one-page submission).

Presenters:

Priority for limited space will be given to students and postdocs. Four prizes will be awarded of $75 each. Team submissions are welcome, but teams must select one author who will accept on behalf of the group should you win a prize. Please underline the name of one presenting author on the abstract.

Sign-up & Submission:

Step-1 If you plan to present a poster Sign-up here! Space is limited to 20 posters; you will be notified if we reach capacity.

Step-2 Submit your poster abstract (deadline March 27, 2023) to ccb.mtgs@gmail.com, subject Poster Abstract (file type: .pdf). You may submit your abstract now; however, poster presenters must be registered attendees by March 27, 2023.

See properly formatted abstract sample next page!

PROPERLY FORMATTED ABSTRACT SAMPLE:

Comparison of fertility and locomotor deficits in mice lacking Bmal1 in AVP neurons, VIP neurons, or both populations

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Circadian rhythms in mammals are governed by the suprachiasmatic nucleus (SCN). The SCN is often defined by peptide expression, with arginine vasopressin (AVP) containing neurons in the dorsal ("shell") region, and vasoactive intestinal peptide (VIP) in the ventral ("core") region. These regions have distinct functions related to photic input, SCN coupling and rhythmicity, and SCN output. Further, both populations are indicated in the circadian regulation of the preovulatory luteinizing hormone surge through independent pathways to neuroendocrine neurons. The peptides also offer a way to target discrete regions of the SCN in genetic studies. Using AVP-Cre and VIP-Cre mice, we targeted the core molecular circadian clock gene *Bmal1* using cre-lox technology and generated three conditional knockout mice: AVPcre-Bmal1$^{-/-}$, VIPcre-Bmal1$^{-/-}$, and the double knockout AVPcre-VIPcre-Bmal1$^{-/-}$. Our goal was to disrupt the endogenous molecular clock in these regions and evaluate the effect of *Bmal1* in these populations on fertility, locomotor activity, and body temperature. While both the AVPcre-Bmal1$^{-/-}$ and VIPcre-Bmal1$^{-/-}$ mice have been generated by previous groups, we evaluated fertility for the first time in these animals. We also performed a concurrent analysis of all three mutants, including an 8-hour phase advance, 8-hour phase delay, and a bright light pulse at ZT16 in a small cohort of mice to establish preliminary observations. Overall, we hope to further define the role of *Bmal1* in AVP and VIP neurons, and the combined effects of knockout in both populations.