

Society for Research on  
Biological Rhythms Biennial Conference  
*Program Book*

Amelia Island  Omni Amelia Island Resort



## Amita Sehgal SRBR 2022 President

So much has happened since we last met at Amelia Island in 2018. Who would have thought then that an in-person conference was not something one could take for granted? Over the past two years, we've all learned how to get our work done, and network scientifically and perhaps even socially, without physically interacting with people. In this regard, special mention must be made of the virtual 2020 conference, which was outstanding. At the same time, we've missed the impromptu exchange of ideas, the chance meetings and the spontaneous camaraderie that come from in-person interactions and are so much a part of the career path we've chosen. The hope this time was that we'd be able to actually meet, and while we'll keep our fingers crossed until the meeting is over, we're delighted to have so many people register for and participate in SRBR 2022. It is my great pleasure to welcome each and every one of you, and hope that you find the science exciting and invigorating, the training beneficial and the social interactions stimulating.

Huge thanks to Orie Shafer and the program committee, who have assembled a diverse program of cutting-edge science that represents all aspects of our field—clocks in the lab, clocks in the field, and clocks in the clinic. As one might imagine, the pandemic made their jobs more difficult, not only because of potential health concerns of participants but also by the constantly changing COVID-19 guidelines, which have impacted international travel in particular. Big thanks also to fundraising chair, Katja Lamia, who raised money from several different sources and managed to get additional NIH institutes interested in our field. As always, we are very grateful to Ilia Karatsoreos, Professional Development Committee Chair, for organizing Trainee Day and also for his help with fundraising. It would be remiss of me to not also mention the Global Talk Series launched by Ilia, which provided a terrific virtual platform to link chronobiologists around the world and led to some of the trainee talks you will see at the conference. And I'd like to profusely thank Shihoko Kojima for chairing the trainee awards committee and Joe Takahashi and Luis Larronodo for leading the effort to select faculty awards and the SRBR logo. Given the unusual circumstances of this meeting, we also needed a COVID task force, which included Christine Merlin, Orie Shafer and Joanna Chiu. We're fortunate to have colleagues who so generously volunteer their time for the good of the community. And very importantly, meeting organization and coordination required the expert services of our PMG partners, in particular Sheena di Georgio, Dawn Keglör, Sarah Steele and Julie Cauthen. Thanks so much to all these people.

I've tried to restrict my remarks to conference-relevant issues but would like to also acknowledge the amazing SRBR Board of Directors and Committee Chairs I had the privilege of working with these past two years. They were conscientious, thoughtful, dedicated—I could go on, but suffice it to say that colleagues like these make our jobs so great.

Happy Conferencing!  
Amita

Dr. Amita Sehgal  
SRBR President 2020-2022  
University of Pennsylvania



Orie Shafer  
**SRBR 2022 Program Chair**

Welcome to the 18th Biennial Society for Research on Biological Rhythms Biennial Conference. Once again, it's time to highlight new work in the field, develop future directions of research, and discuss the myriad ways in which biological rhythms shape health and inform public policy. Before turning our attention to this year's meeting, I would like to express sincere gratitude to the program committee for SRBR 2020. Led by program chair Katja Lamia, this committee not only developed a fantastic scientific program, but, when faced with the global SARS-Cov2 pandemic, brought it fully online. Thanks are also due to our partners at Parthenon Management Group who assisted Katja and her committee in the difficult task of taking a meticulously planned in-person meeting online.

Though a great deal has changed since the beginning of the pandemic, we must acknowledge that COVID-19 still poses a significant threat. For this reason, we have taken measures to support social distancing at SRBR 2022. For example, unlike previous SRBR conferences, posters will not be hung for the duration of the meeting, but will be presented in three flights over three days. This will allow increased space and less crowding during poster sessions. We are also providing outdoor spaces for meetings and breaks. Our popular "Meet the Professors" sessions will take place outside, weather permitting. We encourage all attendees to take advantage of outdoor spaces for breaks and meetings with colleagues. We also ask that everyone wear masks when inside the conference venue and to always establish as much social distance as possible during symposia and special sessions.

It has been a pleasure to develop this year's program with SRBR's Program Committee and I am grateful for their hard work in planning SRBR 2022. The diverse interests and perspectives of this committee has resulted in a program that, I think, captures the richness and breadth of the field of biological rhythms. I hope that you learn as much from this conference as I did while working with this outstanding group of colleagues to plan it. I would like to thank the program committee, all the volunteers and presenters contributing to the SRBR 2022 program and trainee day, and the generous support of our sponsors. Finally, I would like to welcome the large number of trainees presenting and attending our conference this year, including 187 graduate students and 22 undergraduate students who will present their work. And, finally, to each and every one of you, thank you for attending SRBR 2022!

Dr. Orie Shafer  
SRBR Program Chair 2022  
Advanced Science Research Center, CUNY



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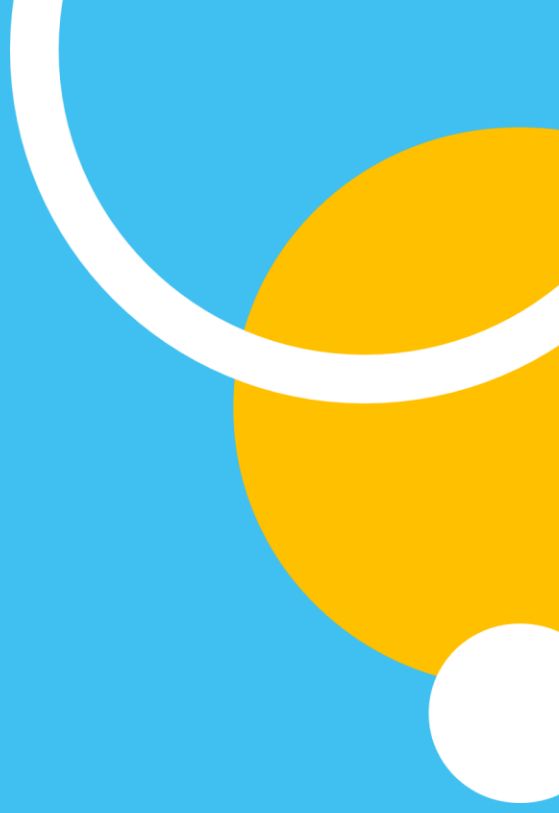
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# General Information

# General Information

## SRBR Registration Desk

The SRBR Registration Desk is located in the Amelia Ballroom Foyer.

Friday, May 13	3:00 pm – 7:00 pm
Saturday, May 14	8:00 am – 8:00 pm
Sunday, May 15	8:00 am – 8:00 pm
Monday, May 16	8:30 am – 6:30 pm
Tuesday, May 17	8:30 am – 6:30 pm
Wednesday, May 18	8:30 am – 1:30 pm

## Messages

Messages and communications may be left on the SRBR Message Board next to the SRBR Registration Desk. Meeting participants may check the message board routinely for mail, notes and messages.

## Hotel Check-In

Hotel check-in will be in the Hotel Main Lobby at the main entrance of the Resort.

## Meals

Reception fare will be available for SRBR attendees at the Welcome Reception on Saturday, May 14 at 6:00 pm. Lunch will be available for registered attendees on Monday, May 16 and Tuesday, May 17 in the Magnolia and Amelia Foyers. SRBR attendees are encouraged to attend the Closing Awards Banquet on Wednesday, May 18. A cocktail reception will begin at 6:00 pm followed by dinner and awards at 6:30 pm. [For all other meals, please visit the many dining options that the Resort has to offer.](#)

## Conference Mobile App

The SRBR Mobile App is now available in the App Store for iOS devices (e.g. iPhones) and in Google Play for Android devices. Search SRBR2022 and download today. View the latest schedule, attendee list and abstracts!

## Follow Us!

Don't forget to follow us on social media @SRBR\_Outreach and use the hashtag #SRBR2022 to join the conversation.

## Conference Wi-Fi

WiFi Network: Conference Wifi  
Network Password: amelia19



# Meeting Components

## Professional Development

### Trainee Professional Development Day

Saturday, May 14, 9:00 am – 5:30 pm

The Trainee Professional Development Day is an entire day devoted to scientific and career development activities for trainees. The day consists of a keynote address, an activity consisting of one-on-one blitz discussions, and a series of workshops on various topics. The goal of the Trainee Professional Development Day is to allow the next generation of biological rhythm researchers to learn from and interact with faculty members in a more informal and intimate setting than that allowed by the main conference.

### Junior Faculty Workshops

Saturday, May 14, 12:00 pm – 5:30 pm

The goal of the Junior Faculty Workshops, which are open to investigators within 8 years of obtaining a faculty position, is to foster the growth and success rate of the next generation of biological rhythm researchers by learning from and interacting with established faculty members in a more informal and intimate setting than that allowed by the main conference. A panel of experienced members of the field will participate in each meeting, to provide tips and advice to junior faculty members and answer questions.

### Meet the Professors

Sunday, May 15 - Wednesday, May 18, 11:30 am - 12:00 pm

*\*Monday session will be hosted 11:00 am - 11:30 am*

Meet the Professor Sessions are meant to provide trainees (students and postdocs) the opportunity to interact with experienced faculty members in the field and to foster scholarly conversation. Each day several faculty researchers will be available to talk with trainees. Any trainee interested in meeting these investigators can go to the Magnolia Garden and Terrace and take part in this informal gathering.

## Scientific Sessions

### Symposia

Sunday, May 15 - Wednesday, May 18, 9:00 am – 11:00 am

Sunday, May 15, 3:00 pm – 5:15 pm

Monday, May 16 4:30 pm – 7:00 pm

Tuesday, May 17, 2:00 pm – 4:30 pm

Symposium Sessions were designed by the 2022 Program Committee and invitations were extended to guest speakers.

### Slide Sessions

Sunday, May 15, Tuesday, May 17 and Wednesday, May 18, 12:00 pm - 1:30 pm

Slide Sessions were selected by the 2018 Program Committee from abstracts submitted for the 2022 meeting.

# Meeting Components

## Professional Development

### Presidential Symposium

Monday, May 16, 9:00 am – 11:30 am

The Presidential Symposium is a session of talks from special guests of the SRBR President.

### Pittendrigh/Aschoff Lecture

Wednesday, May 18, 5:00 pm – 6:00 pm

The Pittendrigh/Aschoff Lecture is a keynote lecture presented by a prominent researcher in the field of chronobiology. This year's lecturer is Dr. Charlotte Helfrich-Förster.

**NOTICE: The Pittendrigh/Aschoff Lecture has been cancelled due to unforeseen circumstances in presenter travel. We apologize for the inconvenience and appreciate your understanding.**

### Data Dash

Sunday, May 15, 7:30 pm – 9:00 pm

Data Dash will showcase the research of some of the trainees presenting posters, including many of the Award recipients. Each speaker will have one minute and one slide to introduce data that they will later present at their poster presentation.

### Poster Sessions

Sunday, May 15 - Tuesday, May 17

Posters will be installed beginning at 8:00 am each day by that evening's presenter group. Formal poster presentations will occur at the times listed below. Posters should be removed by 11:00 pm each night or at the conclusion of the session.

Sunday, May 15, 9:00 pm – 10:30 pm

Monday, May 16, 9:00 pm – 10:30 pm

Tuesday, May 17, 9:00 pm – 10:30 pm

# Meeting Components

## Special Meetings

**JBR Editors Meeting, SAGE Publishers**  
**Monday, May 16, 1:00 pm – 2:00 pm**

**SRBR Board of Directors Meeting**  
**Wednesday, May 18, 1:30 pm – 3:30 pm**

**General Meeting of SRBR Members**  
**Wednesday, May 18, 4:00 pm – 5:00 pm**

**This is the biennial meeting gathering the members of the Society. All SRBR members are welcome to attend. Members of the outgoing Board of Directors and representatives of the meeting organization team will do a brief report, and the new Board of Directors will be presented. Attendees will also be invited to comment and give ideas on the future of the Society.**

## Social Events and Ceremonies

**Welcome Reception**  
**Saturday, May 14, 6:00 pm – 8:00 pm**  
**Come and meet other meeting participants and old friends in this official opening event of the meeting! Drinks and small bites served.**

**Cocktail Reception**  
**Wednesday, May 18, 6:00 pm – 6:30 pm**

**Closing Banquet and Awards**  
**Wednesday, May 18, 6:30 pm**  
**Regular meeting registration includes participation in the banquet. For accompanying guest(s), banquet tickets need to be purchased in advance at the SRBR Registration Desk.**



# RESORT MAP



### SHOPPING

- 4 Beach Shoppe<sup>®</sup> **B**
- 32 Amelia Shoppe

### MEETING SPACE

- 8 Hibiscus Room
- 9 Azalea Room
- 11 Live Oak Room
- 13 Oceanview Room & Terrace **B**

### RECREATION & ACTIVITIES

- 3 Camp Amelia **B**
- 7 Arts & Crafts Bar **B**
- 10 Gamers
- 12 Hotel Fitness Center **B**

### DINING

- 2 Seaglass
- 6 Oceanside **B**
- 14 Sunrise Café
- 43 Paloma & Pico<sup>®</sup> **B**

### LANDMARKS

- 42 Sunken Forest Outlook

- Walkway to Beach (Resort Guests Only)
- Walking Path
- Breezeway
- Tram Stop (Dial "0" to Request)
- B** Beach Level
- Outdoor Pet Friendly Locations
- A** Elevators
- Open Seasonally

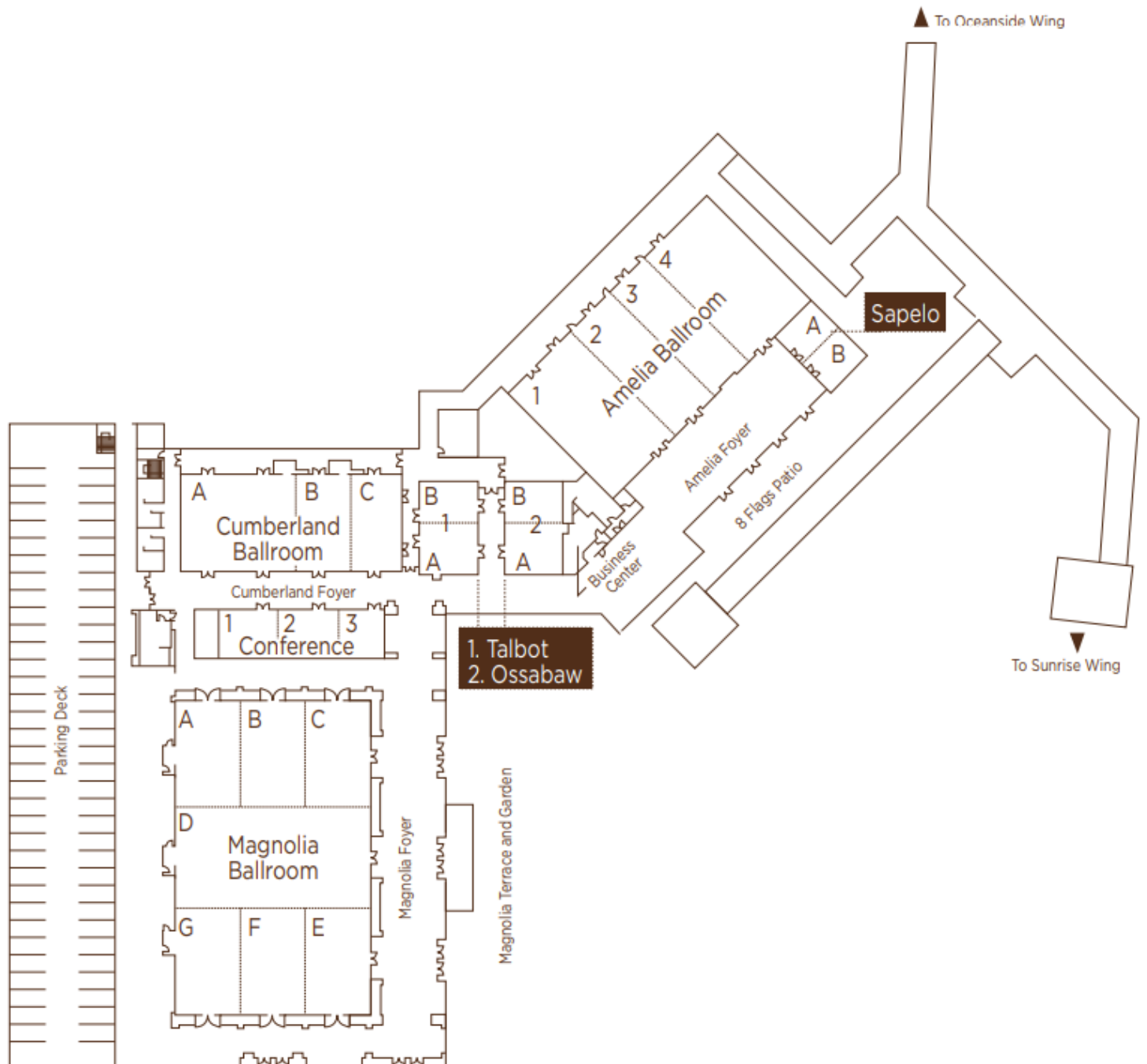
### GUESTROOM ELEVATOR GUIDE

- 01 - 12 (A)
- 14 - 35 (B)
- Breezeway to Conference Center (C)
- 36 - 61 (D)
- 63 - 71 (E)

### ICE MACHINES ARE LOCATED NEXT TO

- Elevators A (all floors)
- Elevators D (2nd floor and up)
- Guestrooms that end in "30" (all floors)

Amelia Island Conference Center





# Follow us!

Share your favorite moments of the #SRBR2022 Conference and tag us on social.

# #SRBR2022



# 2022 SRBR Sponsors



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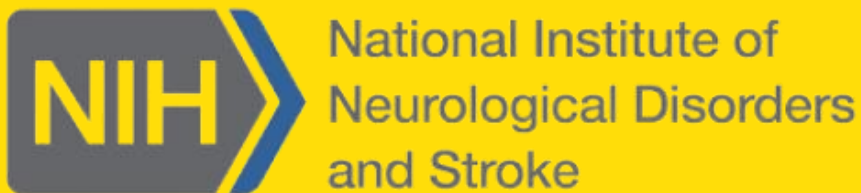
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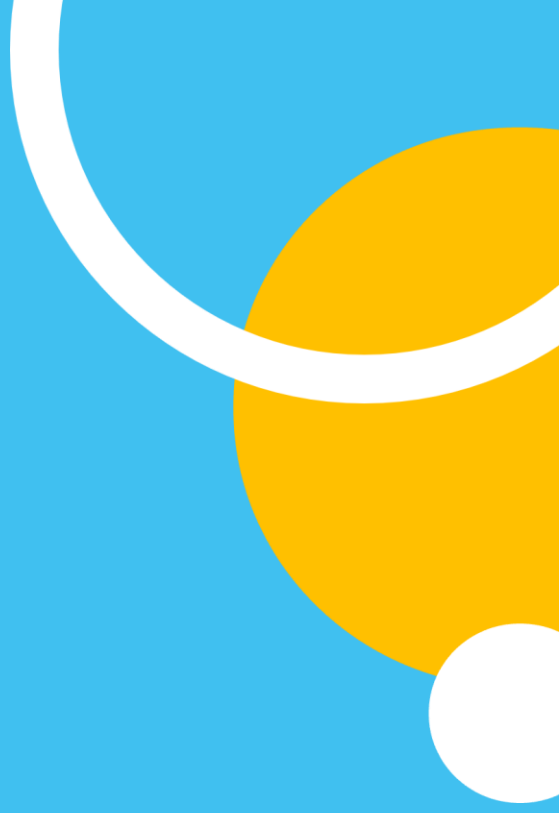
 **ACTIMETRICS**

*Thank you!*

**SRBR would like to acknowledge the following funding agencies whose grants have contributed to the overall quality and diversity of the meeting.**



*Thank you!*



# Award Winners

# 2022 Award Winners

## Merit Award

Chinyere Agbaegbu Iweka

Brittany Bush

Liliana Bustos

Anna Damato

Shaunak Deota

Brennan Falcy

Corrado Garbazza

Maria Gonzalez

Rachel Harold

Lauren Hartstein

Nazmul Hasan

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Xinyu Nie

Yunhui Niu

Oluwabukola Omotola

Justin Palermo

Melina Perez Torres

Jonathan Philpott

Sara Pierre Ferrer

Ausra Pranevicius

Anne Ramsey

Nina Rzechorzek

Aishwarya Sahasrabudhe

Jessica Schwarz

Natalie Storch

Anouk van Beurden

Rachel Van Drunen

Demy van Gilst

Bin Wang

Tenley Weil

Victor Zhang



*Congratulations!*

# 2022 Award Winners

## Vanda Pharmaceutical Excellence Award

Michael Seifu Bahiru

Andrei Mihut

Keenan Bates

Marie Pariollaud

Angelique Lamaze

Estere Seinkmane

Yin Yeng Lee

Satish Sen

Sara Meier

Lauren Woodie

## Excellence Award

Evardra Bell

Griffin Best

Cynthia Hsu

A decorative border of orange and yellow stars of various sizes, scattered across the bottom of the page.

*Congratulations!*

# 2022 Award Winners

## Emmett Chappelle Award

Chinyere Agbaegbu Iweka	Stephany Flores Ramos	Dora Obodo
Bryan Alava	Kelly Fogelson	Oluwabukola Omotola
Eva Andrews	Armina-Lyn Frederick	Omar Ordaz-Johnson
Velarie Ansu	Gabrielle Gloston	Anne Ramsey
David Au	Joshua Gonzalez	Emily Ricketts
Michael Seifu Bahiru	Maria Gonzalez	Raina Sacksteder
Juliana Cazarin de Menezes	Melvin King	Jessica Schwarz
Vaishnavi Dandavate	Nemanja Milicevic	J'Michael Wedderburn
Rodrigo Del Rio	Charles H Philippe Morquette	

## Global Diversity Fellowship Award

Natalia Bobko
Pagkapol Yhew Pongsawakul
Kirsten Redman-Vira
Guadalupe Rodriguez Ferrante
Pauline van der Watt

*Congratulations!*

# 2022 SRBR Directors' Awards

## Junior Faculty Research Award

Selma Masri

## Directors' Award for Service

Nicolas Cermakian

Mary Harrington

## Directors' Award for Research & Service

Fred Turk

## Aschoff's Rule Award

Vinod Kumar

*Congratulations!*

A decorative border at the bottom of the page consisting of numerous small, light orange stars of varying sizes, scattered across the width of the page.



# Trainee Professional Development Day

Saturday, May 14, 2022

The Trainee Professional Development Day is an entire day devoted to scientific and career development activities for trainees. The day consists of a keynote address, an activity consisting of one-on-one blitz discussions, and a series of workshops on various topics. The goal of the Trainee Professional Development Day is to allow the next generation of biological rhythm researchers to learn from and interact with faculty members in a more informal and intimate setting than that allowed by the main conference.

Only those who have pre-registered will be allowed to participate. Registered trainees should attend the workshops they selected when registering. This information will be posted on the message board in the conference center prior to the first session.

**8:00 a.m. - 9:00 a.m.**

## **TRAINEE DAY BREAKFAST**

Amelia Foyer

**9:00 a.m. - 9:20 a.m.**

## **TRAINEE DAY WELCOME**

Amelia 3 and 4

*Trainee Day Chair, Iliia Karatsoreos*

*SRBR President Elect, Horacio de la Iglesia*

**9:20 a.m. - 10:00 a.m.**

## **TRAINEE DAY KEYNOTE**

Amelia 3 and 4

*Speaker: Till Roenneberg, Professor Emeritus of Chronobiology at the Institute of Medical Psychology at Ludwig-Maximilian University*

**10:10 a.m. - 11:00 a.m.**

## **TRAINEE DAY SESSION I**

### **EXPERIMENTAL DESIGN: DO'S, DON'TS AND GOOD PRACTICE IN CHRONOBIOLOGY**

Amelia 1

*Chair: Matthew Butler, Co-Chair: Eric Bittman*

# Trainee Professional Development Day

10:10 a.m. - 11:00 a.m.

## TRAINEE DAY SESSION 1

### MODELING SUCCESSFUL INTERDISCIPLINARY COLLABORATIONS: HOW MODELERS CAN HELP EXPERIMENTAL SCIENTISTS

Amelia 2

*Chair: Jae Kyoung Kim*

### CHRONOBIOLOGY BOOTCAMP I: HISTORY, BASIC CONCEPTS AND THE MOLECULAR CLOCK IN MAMMALS

Amelia 3 and 4

*Chair: Joseph Takahashi*

### PUBLIC OUTREACH - TIPS AND TRICKS FOR GETTING YOUR SCIENCE OUT THERE USING SOCIAL MEDIA

Cumberland A

*Chair: Laura Kervezee*

*Co-Chair: Bharath Ananthasubramaniam*

### TEACHING CHRONOBIOLOGY: STRATEGIES FOR DISCOVERY-BASED LEARNING

Cumberland B

*Chair: Mary Harrington*

*Co-Chair: Todd Weber*

11:10 a.m. - 12:00 p.m.

## TRAINEE DAY SESSION 2

### CHRONOBIOLOGY BOOTCAMP II: MOLECULAR CLOCKS IN PRINCIPLE AND PRACTICE

Amelia 1

*Chair: Martha Mellow, Co-Chair: Antony Dodd*

### TRAINING NEW RESEARCHERS, AND WORKING ACROSS DIFFERENCES

Amelia 2

*Chair: Joseph Seggio*

*Co-Chair: Douglas McMahon*

*Co-Chair: Ketema Paul*

# Trainee Professional Development Day

11:10 a.m. - 12:00 p.m.

## TRAINEE DAY SESSION 2

### CHRONOBIOLOGY BOOTCAMP III: SCN PAST TO PRESENT

Amelia 3 and 4

*Chair: Erik Herzog*

*Co-Chair: Jennifer Evans*

### GETTING YOUR MESSAGE ACROSS...AT THE TALK, THE POSTER, AND THE BAR

Cumberland A

*Chair: Steven Brown*

### OUTREACH AND COMMUNICATION OF CHRONOBIOLOGY TO DIFFERENT GROUPS

Cumberland B

*Chair: Michael Tackenberg*

*Co-Chair: Luis Larrondo*

12:00 p.m. - 2:00 p.m.

## TRAINEE DAY: LUNCH AND POSITIVE FEEDBACK LOOPING

Magnolia Gardens and Terrace

2:10 p.m. - 3:00 p.m.

## TRAINEE DAY SESSION 3

### THE FACULTY JOB SEARCH

Amelia 1

*Chair: Ryan Logan*

*Co-Chair: Filipa Rijo-Ferreira*

### WHERE TO FROM HERE? ALTERNATIVES TO ACADEMIC JOBS

Amelia 2

*Chair: Allison Brager*

### CHRONOBIOLOGY BOOTCAMP IV: ENTRAINMENT: FROM CONCEPT TO ANALYSIS

Amelia 3 and 4

*Chair: Karen Gamble*

*Co-Chair: Hanspeter Herzog*

# Trainee Professional Development Day

2:10 p.m. - 3:00 p.m.

## TRAINEE DAY SESSION 3

### NETWORKING TIPS AND TRICKS

Cumberland A

*Chair: Iliia Karatsoreos*

*Co-Chair: Elizabeth Klerman*

### PUBLIC OUTREACH - TIPS AND TRICKS FOR GETTING YOUR SCIENCE OUT THERE USING SOCIAL MEDIA

Cumberland B

*Chair: Laura Kervezee*

*Co-Chair: Bharath Ananthasubramaniam*

3:00 p.m. - 3:30 p.m.

## TRAINEE DAY COFFEE BREAK

Amelia Foyer

3:30 p.m. - 4:20 p.m.

## TRAINEE DAY SESSION 4

### COMPARATIVE CLOCKS/NON-TRADITIONAL SPECIES

Amelia 1

*Chair: Alex Keene*

### WHEN, WHERE, AND HOW TO PUBLISH AND REVIEW

Amelia 2

*Chair: Mary Harrington*

### CHRONOBIOLOGY BOOTCAMP V: HUMAN CLOCKS AND TRANSLATION

Amelia 3 and 4

*Chair: Nicole Bowles*

*Co-Chair: Phyllis Zee*

### DEALING WITH YOUR DATA: CODE MAINTENANCE AND REPAIR SHOP

Cumberland A

*Chair: Jacob Hughey*

# Trainee Professional Development Day

**3:30 p.m. - 4:20 p.m.**

## **TRAINEE DAY SESSION 4**

### **LAB AND FIELD STUDIES IN CHRONOBIOLOGY**

Cumberland B

*Chair: Gisele Oda*

**4:30 p.m. - 5:30 p.m.**

## **TRAINEE DAY GLOBAL TALK SERIES: PEOPLE'S CHOICE RUNNER'S UP**

Amelia 3 and 4

*Chair: Iliia Karatsoreos*

THE FORMATION OF A FUZZY COMPLEX IN THE NEGATIVE ARM REGULATES CIRCADIAN CLOCK

ROBUSTNESS

*Speaker: Meaghan Jankowski*

CIRCADIAN CONTROL OF HEPARAN SULFATE LEVELS TIMES PHAGOCYTOSIS OF AMYLOID BETA

AGGREGATES: THE FULL STORY

*Speaker: Gretchen Clark*

**6:00 p.m. - 8:00 p.m.**

## **WELCOME RECEPTION**

Magnolia Gardens and Terrace

# Junior Faculty Workshops

Saturday, May 14, 2022

The goal of the Junior Faculty Workshops is to foster the growth and success rate of the next generation of biological rhythm researchers by learning from and interacting with established faculty members in a more informal and intimate setting than that allowed by the main conference. A panel of experienced members of the field will participate in each meeting, to provide tips and advice to junior faculty members and answer questions.

Attendance is open to investigators within ~8 years of obtaining a faculty position. Only those who have pre-registered will be allowed to participate. A list of registered faculty will be posted on the message board in the conference center prior to the first session.

**12:00 p.m. - 12:45 p.m.**

## **JUNIOR FACULTY WORKSHOP LUNCH and NETWORKING**

Magnolia Gardens and Terrace

**12:45 p.m. - 1:00 p.m.**

## **JUNIOR FACULTY WORKSHOP WELCOME**

### **Cumberland C**

*Panelist: Charna Dibner*

*Moderator: Jennifer Hurley*

*Moderator: Michael Rust*

**1:00 p.m. - 2:00 p.m.**

## **COMMUNICATING YOUR RESEARCH: PUBLICATION AND PUBLIC OUTREACH**

### **Cumberland C**

*Panelist: Luis Larrondo*

*Panelist: Jennifer Evans*

*Panelist: Colleen McClung*

*Panelist: Karyn Esser*

**2:00 p.m. - 3:00 p.m.**

## **BEST PRACTICES IN MENTORSHIP AND PERSONNEL MANAGEMENT**

### **Cumberland C**

*Panelist: Jay Dunlap*

*Panelist: Joanna Chiu*

*Panelist: Erik Herzog*

*Panelist: Rae Silver*

# Junior Faculty Workshops

**3:30 p.m. - 4:30 p.m.**

**JUGGLING RESEARCH, TEACHING, AND SERVICE RESPONSIBILITIES IN ACADEMIA**

**Cumberland C**

*Panelist: Nicolas Cermakian*

*Panelist: Daniel Forger*

*Panelist: Kristin Eckel-Mahan*

*Panelist: Dmitri Nusinow*

**4:30 p.m. - 5:30 p.m.**

**NAVIGATING AN EVER CHANGING FUNDING ENVIRONMENT**

**Cumberland C**

*Panelist: Michael Sesma*

*Panelist: John Hogenesch*

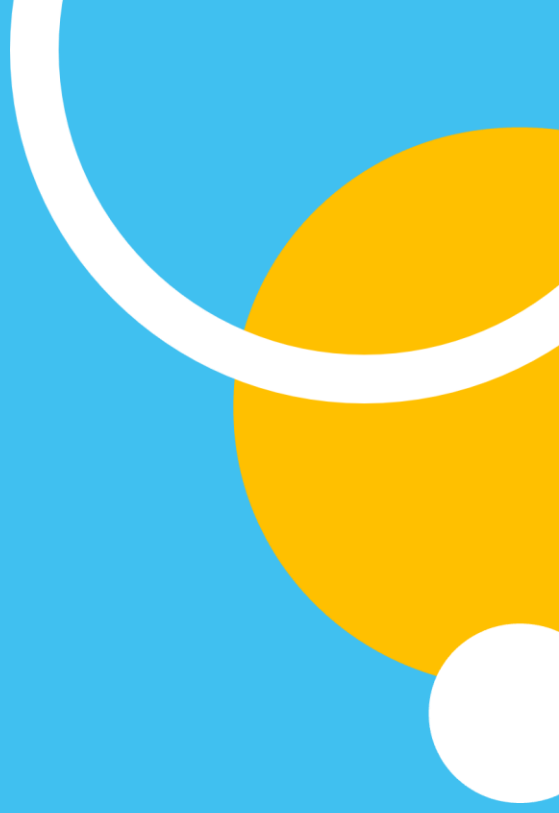
*Panelist: Tami Martino*

*Panelist: Steven Brown*

**6:00 p.m. - 8:00 p.m.**

**WELCOME RECEPTION**

Magnolia Gardens and Terrace



# Program Details



# Program Details

Friday, May 13, 2022

**3:00 p.m. - 7:00 p.m.**

**REGISTRATION**

Amelia Foyer

Saturday, May 14, 2022

**8:00 a.m. - 8:00 p.m.**

**REGISTRATION**

Amelia Foyer

**8:00 a.m. - 8:00 p.m.**

**NURSING MOTHERS' ROOM**

Conference I

**9:00 a.m. - 5:30 p.m.**

**TRAINEE PROFESSIONAL DEVELOPMENT DAY**

Amelia Ballroom, Cumberland A, Cumberland B

*\* Open to preregistered attendees only*

**12:00 p.m. - 5:30 p.m.**

**JUNIOR FACULTY WORKSHOPS**

Cumberland C

*\* Open to preregistered attendees only*

**6:00 p.m. - 8:00 p.m.**

**WELCOME RECEPTION**

Magnolia Gardens and Terrace

# Program Details

Sunday, May 15, 2022

**8:00 a.m. - 8:00 p.m.**

## **REGISTRATION**

Amelia Foyer

**8:00 a.m. - 10:30 p.m.**

## **NURSING MOTHERS' ROOM**

Conference 1

**9:00 a.m. - 11:30 a.m.**

## **SYMPOSIUM 1: THE KONOPKA SYMPOSIUM: CIRCADIAN COMPONENTS OF CIRCATIDAL CLOCKS, CIRCALUNAR CLOCKS AND PHOTOPERIODISM**

Amelia 1 and 2

*Chair: Tobias Kaiser*

*Co-Chair: Patrick Emery*

CIRCATIDAL RHYTHMS IN THE GENETICALLY TRACTABLE CRUSTACEAN PARHYALE HAWAIENSIS

*Speaker: Patrick Emery*

PHOTOPERIODISM IN A BACTERIUM? HOW CYANOBACTERIA PREDICT WINTER

*Speaker: Maria Luisa Jabbur*

CHARACTERIZING THE ROLE OF THE CIRCADIAN CLOCK IN ENDOGENOUS LUNAR TIME-KEEPING OF A MARINE INSECT

*Speaker: Jule Neumann*

THE MOLECULAR AND QUANTUM BASIS OF CRYPTOCHROME-MEDIATED MAGNETOSENSITIVITY

*Speaker: Charalambos Kyriacou*

**9:00 a.m. - 11:30 a.m.**

## **SYMPOSIUM 2: NEURAL NETWORKS AND CIRCADIAN TIMEKEEPING**

Amelia 3 and 4

*Chair: Steven Brown*

SCN VIP NEURONS: PHYSIOLOGICAL REGULATION AND TRANSCRIPTIONAL HETEROGENEITY *Speaker: Patrick Fuller*

SCN OUTPUT PATHWAYS REGULATING PHYSIOLOGICAL RHYTHMS

*Speaker: Timothy Brown*

# Program Details

Sunday, May 15, 2022

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 2: NEURAL NETWORKS AND CIRCADIAN TIMEKEEPING

Amelia 3 and 4

THE ROLE OF SALT INDUCIBLE KINASE 1 IN THE REGULATION OF SLEEP AND CIRCADIAN RHYTHMS

*Speaker: Aarti Jagannath*

SOMATOSTATIN SIGNALING REGULATES PHOTIC PROCESSING AND SCN FUNCTION IN MICE

*Speaker: Jennifer Evans*

MICROGLIAL CLOCKS IN THE SUPRACHIASMATIC NUCLEUS: FRIENDS OR FOES OF NETWORK- ENCODED CIRCADIAN TIMEKEEPING?

*Speaker: Marco Brancaccio*

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 3: CHRONOTHERAPEUTICS

### IT'S ABOUT TIME: EXPLORING THE ROLE OF THE CIRCADIAN CLOCK IN DISEASE

Cumberland Ballroom

*Chair: Erquan Zhang*

TEMZOLOMIDE CHRONOTHERAPY IN PATIENTS WITH BRAIN TUMORS

*Speaker: Jian Campian*

IT'S ABOUT TIME: EXPLORING THE ROLE OF THE CIRCADIAN CLOCK IN DISEASE

*Speaker: Angela Relógio*

TIMING EFFECTS IN MEDICINE USING EXISTING DATA

*Speaker: Marc Ruben*

BRIGHT LIGHT THERAPY IS EFFECTIVE AND SAFE IN TREATING PERINATAL DEPRESSION: A RANDOMIZED, PLACEBO-CONTROLLED TRIAL

*Presenter: Corrado Barbazza*

11:30 a.m. - 12:00 p.m.

## COFFEE BREAK - PLEASE VISIT THE EXHIBITORS AND POSTERS!

Amelia Foyer

11:30 a.m. - 12:00 p.m.

## MEET THE PROFESSORS

Magnolia Garden and Terrace

# Program Details

Sunday, May 15, 2022

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 1

Amelia 1 and 2

*Chair: Hao Duong*

**INVESTIGATING THE ROLE OF CRY5 IN REGULATING TRANSLATION DYNAMICS DURING FEEDING/FASTING CYCLE**

*Presenter: Nagammal Neelagandan*

**RHYTHMIC SYSTEMIC SIGNALS DRIVE RHYTHMIC GENE EXPRESSION THROUGH MTOR SIGNALING IN MOUSE LIVER**

*Presenter: Aishwarya Sahasrabudhe*

**INTERMITTENT EXOGENOUS GLUCOCORTICOIDS REQUIRE AN INTACT CIRCADIAN CLOCK TO ENGAGE THE MUSCLE-SPECIFIC PGC1 $\alpha$  AND REMODEL MUSCLE METABOLISM**

*Presenter: Mattia Quattrocelli*

**VAGAL CONTROL OF HEPATOCYTE CLOCK-INDEPENDENT RHYTHMIC GENE EXPRESSION IN LIVER**

*Presenter: Lauren Woodie*

**DELETION OF PERIOD GENES EXACERBATES DIET-INDUCED OBESITY IN FEMALE, BUT NOT MALE, MICE**

*Presenter: Elizabeth Kantra*

**THE RHYTHMIC ROLE OF THE PARAVENTRICULAR HYPOTHALAMUS IN THE REGULATION OF DIURNAL ENERGY BALANCE**

*Presenter: Rachel Van Druenen*

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 2

Amelia 3 and 4

*Chair: Dipesh Chaudhury*

**INTRINSIC PERIOD ARCHITECTURE IN THE CENTRAL CLOCK ENCODES PACEMAKING FUNCTIONS AND AFTEREFFECTS**

*Presenter: Mariko Izumo*

**DAILY CHANGES IN LIGHT INFLUENCE MOOD VIA INHIBITORY NETWORKS WITHIN THE THALAMIC PERIHABENULAR NUCLEUS**

*Presenter: Tenley Weil*

**IDENTIFICATION OF 4 DROSOPHILA SPSP NEURONS AS SLEEP NEED COUNTERS**

*Presenter: Xihuimin Dai*

# Program Details

Sunday, May 15, 2022

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 2

Amelia 3 and 4

**HOW DO SCN NEURONS READ THE TIME OF THE DAY IN DIURNAL AND NOCTURNAL RODENTS?**

*Presenter: Patrycja Orłowska-Feuer*

**MOSQUITO CRYPTOCHROME CONFERS SPECIES-SPECIFIC EFFECTS WHEN EXPRESSED IN DROSOPHILA**

*Presenter: David Au*

**SYNAPTIC BMALI BIOCHEMICALLY ORCHESTRATES CIRCADIAN SYNAPTIC VESICLE DYNAMICS**

*Presenter: Ilaria Barone*

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 3

Cumberland Ballroom

*Chair: Micaela Martinez*

**IDENTIFICATION OF GENE NETWORKS UNDERLYING PHOTOPERIODIC GROWTH IN ARABIDOPSIS**

*Presenter: Joshua Gendron*

**THE GREAT REPLACEMENT THEORY: HOW CAN WE EXPLAIN THE RAPID EXPANSION OF THE DROSOPHILA LS-TIM ALLELE IN THE NORTHERN HEMISPHERE?**

*Presenter: Angelique Lamaze*

**UNCOUPLING OF BEHAVIOURAL AND METABOLIC RHYTHMS IN AN ARCTIC RUMINANT**

*Presenter: Sara Meier*

**WATER IS NECESSARY FOR PHOTOPERIODIC TESTICULAR RECRUDESCENCE IN ZEBRA FINCHES BUT NOT VOCAL STATE CHANGE**

*Presenter: Vincent Cassone*

**TEMPORAL NICHE PARTITIONING OF THE ISLAND FOX (UROCYON LITTORALIS) AND ISLAND SPOTTED SKUNK (SPILOGALE GRACILIS AMPHIALA)**

*Presenter: Victor Zhang*

**CIRCADIAN CONTROL OF TEMPERATURE INSIDE OVERWINTERING HONEY BEE COLONIES IN A TEMPERATE REGION**

*Presenter: Manuel Giannoni-Guzmán*

# Program Details

Sunday, May 15, 2022

1:30 p.m. - 3:00 p.m.

**LUNCH BREAK ON OWN - PLEASE VISIT THE EXHIBITORS AND POSTERS!**

3:00 p.m. - 5:15 p.m.

**SYMPOSIUM 4: CLOCKS ON A CHANGING PLANET**

Amelia 1 and 2

*Chair: Noga Kronfeld-Schor*

**FITNESS CONSEQUENCES OF CHRONIC LIGHT POLLUTION EXPOSURE IN NOCTURNAL AND DIURNAL RODENTS**

*Speaker: Hagar Vardi-Naim*

**UNCERTAIN TIMES, SPACE, AND CUES: AVIAN MIGRATION ON A CHANGING PLANET**

*Speaker: Barbara Helm*

**THE EFFECT OF URBANISATION ON DAILY RHYTHMS OF ACTIVITY AND BODY TEMPERATURE OF WILD BIRDS**

*Speaker: Davide Dominoni*

**MANAGING TIME IN A CHANGING WORLD**

*Speaker: Barbara Mizumo Tomotani*

3:00 p.m. - 5:15 p.m.

**SYMPOSIUM 5: INFLUENCES OF SOCIAL FACTORS ON CIRCADIAN AND SLEEP BEHAVIOR**

Amelia 3 and 4

*Chair: Joel Levine*

*Co-Chair: Wanhe Li*

**A DROSOPHILA MODEL FOR UNDERSTANDING THE PERCEPTION AND CENTRAL PROCESSING OF CHRONIC SOCIAL ISOLATION**

*Co-Chair: Wanhe Li*

**HOW DOES SOCIAL LIFESTYLE AFFECT THE CIRCADIAN SYSTEM OF YOUNG HONEY BEES?**

*Speaker: Katharina Beer*

**THE INFLUENCE OF THE SOCIAL ENVIRONMENT ON THE BRAIN CIRCADIAN TRANSCRIPTOME OF TWO SOCIAL BEES DIFFERING IN THE LEVEL OF SOCIAL COMPLEXITY**

*Speaker: Guy Bloch*

**SOCIAL FACTORS AND PATTERNS OF DIURNAL BEHAVIORS IN HUMAN POPULATIONS**

*Speaker: Qian Xiao*

**THE POWER OF ACTIMETRY AS A DIAGNOSTIC TOOL IN CIRCADIAN MEDICINE**

*Speaker: Till Roenneberg*

# Program Details

Sunday, May 15, 2022

3:00 p.m. - 5:15 p.m.

## SYMPOSIUM 6: CIRCADIAN HOMEOSTASIS AND CARCINOGENESIS

Cumberland Ballroom

*Chair: Francis Levi*

### CIRCADIAN DYSFUNCTION INDUCES CARCINOGENESIS IN HUMAN HEPATOCYTES

*Speaker: Loning Fu*

### THE MYC ONCOPROTEIN DISRUPTS THE MOLECULAR CLOCK IN EARLY LUNG CANCER

*Speaker: Juliana Gazarin de Menezes*

### ROLE OF THE CIRCADIAN CLOCK IN ENVIRONMENTAL CARCINOGENESIS THROUGH GENOMIC STABILITY

*Speaker: Shobhan Gaddameedhi*

### CIRCADIAN DISRUPTION AND CANCER RISK - THE EPIDEMIOLOGICAL EVIDENCE

*Speaker: Eva Schernhammer*

### CIRCADIAN DISRUPTION AS A TELEMONITORED SURROGATE FOR INDIVIDUALS AT RISK OF CANCER DEVELOPMENT OR PROGRESSION

*Speaker: Francis Levi*

5:15 p.m. - 7:30 p.m.

## DINNER ON OWN AND FREE TIME

7:30 p.m. - 9:00 p.m.

## DATA DASH SESSION

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

### PHARMACOLOGICAL TARGETING OF ROR BENEFITS CARDIAC REPAIR AFTER HEART ATTACK

*Presenter: Janan Shoja Doost*

### INVESTIGATING CIRCADIAN CLOCK GENES IN CANCER AND THEIR CORRELATION WITH SENSITIVITY TO CHEMOTHERAPEUTIC DRUGS

*Presenter: Pauline van der Watt*

### DISRUPTION OF THE CIRCADIAN CLOCK DRIVES APC LOSS OF HETEROZYGOSITY TO ACCELERATE COLORECTAL CANCER

*Presenter: Bridget Fortin*

### THE MOLECULAR CLOCK IS A NOVEL PHARMACOLOGICAL TARGET TO REGULATE UTERINE CONTRACTIONS IN PREGNANCY

*Presenter: Hanne Hoffmann*

# Program Details

Sunday, May 15, 2022

7:30 p.m. - 9:00 p.m.

## DATA DASH SESSION

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

CLUSTER HEADACHE AS A CIRCADIAN DISORDER: DELINEATING CIRCADIAN PATHWAYS IN THE TRIGEMINAL PAIN SYSTEM

*Presenter: Chorong Han*

THE CLOCK IS TICKING FOR HIV-1

*Presenter: Helene Barrmann*

SKELETAL MUSCLE SPECIFIC RESCUE OF BMAL1 IS SUFFICIENT TO EXTEND THE LIFESPAN OF THE BMAL1 KO MOUSE

*Presenter: Miguel Gutierrez-Monreal*

ENVIRONMENTAL CIRCADIAN DISRUPTION EXTENSIVELY REMODELS LIVER CIRCADIAN PROTEOMES

*Presenter: Hao Duong*

A HYBRID EXPERIMENTAL/INFORMATIC APPROACH IDENTIFIES RHYTHMS AND TARGETS IN BREAST CANCER

*Presenter: Jan Hammarlund*

THE TICKING CLOCK, AN AGING STUDY OF A COLONIAL CHORDATE LINKING STEM CELL REGULATION AGING TO MOLECULAR DECLINE OF CIRCADIAN

*Presenter: Yotam Vaskobaynik*

DIEL AND ANNUAL TIMEKEEPING MECHANISMS MAY CONSTRAIN SPECIES RANGE-SHIFTS UNDER CLIMATE CHANGE

*Presenter: Nicholas Per Huffeldt*

DAILY RHYTHM OF DYNAMIC CEREBRAL AUTOREGULATION IN PATIENTS AFTER ACUTE ISCHEMIC STROKE

*Presenter: Daniel Abadjiev*

EFFECTS OF EXERCISE ON REALIGNING A DISRUPTED MOLECULAR CLOCK

*Presenter: Emily Schmitt*

DEPRESSION, FAMILY MENTAL HEALTH AND LONGITUDINAL PATTERNS OF HEART RATE RHYTHMICITY DURING PREGNANCY

*Presenter: Crystal Epstein*

BROAD SPECTRUM DAYTIME LIGHT EXPOSURE IMPROVES COGNITION INDEPENDENT OF CHANGES IN ALERTNESS

*Presenter: Renske Lok*



# Program Details

Sunday, May 15, 2022

7:30 p.m. - 9:00 p.m.

## DATA DASH SESSION

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

USING MACHINE LEARNING TO IDENTIFY NOVEL CIRCADIAN BEHAVIORS

*Presenter: Jeff Jones*

SCN-OVLT VASCULAR PORTAL SYSTEM: IN VIVO DETERMINATION OF DIRECTION OF BLOOD FLOW

*Presenter: Javier Stern*

AUTISTIC-LIKE BEHAVIOR AND CEREBELLAR DYSFUNCTION IN BMAL1 MUTANT MICE AMELIORATED BY MTORC1 INHIBITION

*Presenter: Abhishek Mishra*

NONINVASIVE RECORDING OF TEMPERATURE AND ACTIVITY CYCLES IN CYNOMOLGUS MONKEYS

*Presenter: Ruitang Jiang*

PARAMETRIC EFFECTS OF LIGHT VIA MULTIPLE PHOTORECEPTOR TYPES CONTRIBUTE SIGNIFICANTLY TO CIRCADIAN ENTRAINMENT IN DROSOPHILA MELANOGASTER

*Presenter: Lakshman Abhilash*

ENDOCANNABINOID RECEPTOR KNOCKOUT PROTECTS AGAINST CIRCADIAN DESYNCHRONIZATION-INDUCED METABOLIC DISRUPTION

*Presenter: Brennan Falcy*

DIURNAL VARIATION OF ASTROCYTE GAP JUNCTION DYNAMICS IN THE MOLECULAR LAYER OF THE HIPPOCAMPAL DENTATE GYRUS

*Presenter: Taylor Jorgensen*

THE GATING OF SLEEP BY DYNAMIC DOPRI1 EXPRESSION IN CIRCADIAN LND NEURONS

*Presenter: Jasmine Quynh Le*

SUBCIRCUITS WITHIN THE DROSOPHILA EVENING OSCILLATOR DIFFERENTIALLY REGULATE SLEEP, AROUSAL, AND CIRCADIAN AMPLITUDE

*Presenter: Matthew Brown*

THE DORSAL CLOCK NEURONS OF DROSOPHILA MELANOGASTER - NEW INSIGHTS INTO THEIR CONNECTIVITY AND MORPHOLOGY

*Presenter: Nils Reinhard*

CIRCADIAN RHYTHMS IN CONDITIONED FEAR EXTINCTION RECALL ARE ASSOCIATED WITH TIME-OF-DAY DIFFERENCES IN INFRA-LIMBIC PREFRONTAL CORTEX NEURAL ACTIVITY IN RATS

*Presenter: Matthew Hartssock*

# Program Details

Sunday, May 15, 2022

7:30 p.m. - 9:00 p.m.

## DATA DASH SESSION

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

DIURNAL RHYTHMS IN PHOTIC SNEEZING

*Presenter: Manuel Spitschan*

CIRCADIAN MODULATION OF VISUAL BEHAVIORS BY THE IPRGC MOLECULAR CLOCK

*Presenter: Kayla Miguel*

A RETINAL REPRESENTATION OF ENVIRONMENTAL ILLUMINATION WITHIN THE MASTER CIRCADIAN CLOCK

*Presenter: Charles H Philippe Morquette*

A SINGLE ATYPICAL PHOSPHOSWITCH IN SPECIFIC SCN NEURONS GATES WINTER SEASONALITY IN MICE

*Presenter: Sara Pierre Ferrer*

CLOCK-MEDIATED CHANGES IN THE ACTIVITY OF A HOMEOSTATIC SLEEP CENTER CONTRIBUTE TO DAYTIME SLEEP IN

DROSOPHILA

*Presenter: Cynthia Hsu*

SLEEP AND MEMORY CONSOLIDATION ARE LINKED BY RNA PROCESSING GENES IN THE DROSOPHILA MUSHROOM BODY

*Presenter: Yongjun Li*

PERSONALIZED SLEEP-WAKE PATTERNS ALIGNED WITH CIRCADIAN RHYTHM RELIEVE DAYTIME SLEEPINESS

*Presenter: Hyukpyo Hong*

ALTERED LIGHT RESPONSES IN MICE LACKING THE CIRCADIAN DEUBIQUITINASE USP2

*Presenter: Shashank Srikanta*

A FUZZY COMPLEX IN THE NEGATIVE ARM REGULATES CIRCADIAN CLOCK ROBUSTNESS

*Presenter: Meaghan Jankowski*

ANALYSIS OF CLOCK: BMALI ACTIVITY AT MOUSE LIVER ENHANCERS IN VIVO BY SINGLE MOLECULE FOOTPRINTING

*Presenter: Xinyu Nie*

QUANTIFICATION OF PROTEIN ABUNDANCE AND INTERACTION DEFINES A MECHANISM FOR OPERATION OF THE CIRCADIAN CLOCK

*Presenter: Alexander Koch*

BIDIRECTIONAL RELATIONSHIP BETWEEN THE CORE CLOCK AND IRON METABOLISM

*Presenter: Jesse Janoski*

# Program Details

Sunday, May 15, 2022

7:30 p.m. - 9:00 p.m.

## DATA DASH SESSION

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

INTERACTION MAPPING OF INDIVIDUAL CIRCADIAN CLOCK PROTEINS IN SINGLE CELLS

*Presenter: James Bagnall*

SMALL MOLECULE SCREENING: PASSING THE BINDING TEST

*Presenter: Diksha Sharma*

A ROLE FOR GENE EXPRESSION AND MRNA STABILITY IN NUTRITIONAL COMPENSATION OF THE CIRCADIAN CLOCK

*Presenter: Christina Kelliher*

MECHANISMS UNDERLYING RHYTHMIC EXCITABILITY IN MAMMALIAN CLOCK NEURONS

*Presenter: Priyam Narain*

THE PHOSPHO-CODE DETERMINING CIRCADIAN FEEDBACK LOOP CLOSURE AND OUTPUT IN NEUROSPORA

*Presenter: Bin Wang*

LIGHT-EXCITED NEURONS OF THE SUPRACHIASMATIC NUCLEUS INITIATE ENTRAINMENT TO SHIFTED LIGHT CYCLES

*Presenter: Anouk van Beurden*

A LEPTIN RESPONSIVE HYPOTHALAMIC CIRCADIAN CIRCUIT

*Presenter: Qijun Tang*

CIRCADIAN RHYTHMS IN PARASITIC DISEASES: AN UNDERLYING CLOCK OF MALARIA PARASITES

*Presenter: Filipa Rijo-Ferreira*

PHYSIOLOGICAL SIGNIFICANCE OF INTESTINAL CLOCKS IN THE DEVELOPMENT OF IBD

*Presenter: Yunhui Niu*

GENETIC IDENTIFICATION OF A PUTATIVE VTA TO SCN DOPAMINE CIRCUIT REQUIRED FOR DIET-INDUCED OBESITY IN MICE

*Presenter: Firozeh Farahmand*

MUSCLE-SPECIFIC CRY2 INFLUENCES EXERCISE PERFORMANCE AND MUSCLE METABOLISM

*Presenter: Lara-Leonie Fetzer*

GUT MICROBES ARE ESSENTIAL FOR LIVER CIRCADIAN CLOCK-MEDIATED PARTITIONING OF FUEL UTILIZATION, GLUCONEOGENESIS, AND LIPID OXIDATION

*Presenter: Katya Frazier*

# Program Details

Sunday, May 15, 2022

**7:30 p.m. - 9:00 p.m.**

## **DATA DASH SESSION**

Amelia 1 and 2

*Chairs: Barbara Murphy and Ines Chaves*

CIRCADIAL RHYTHMS OF ACTIVITY IN PARHYALE HAWAIENSIS REQUIRE BMAL1

*Presenter: Erica Kwiatkowski*

GENETIC IDENTIFICATION OF A POPULATION OF DOPAMINE NEURONS THAT IS NECESSARY FOR CIRCADIAN FOOD ANTICIPATORY ACTIVITY

*Presenter: Jacqueline Trzeciak*

THE INTESTINAL CIRCADIAN CLOCK DRIVES MICROBIAL RHYTHMICITY TO MAINTAIN GASTROINTESTINAL HOMEOSTASIS

*Presenter: Marjolein Heddes*

**9:00 p.m. - 10:30 p.m.**

## **POSTER SESSION 1**

Magnolia Ballroom

# Program Details

Monday, May 16, 2022

**8:00 a.m. - 6:30 p.m.**

## **REGISTRATION**

Amelia Foyer

**8:00 a.m. - 10:30 p.m.**

## **NURSING MOTHERS' ROOM**

Conference 1

**9:00 a.m. - 11:00 a.m.**

## **PRESIDENTIAL SYMPOSIUM: ULTRADIAN CYCLES OF METABOLISM**

Amelia Ballroom

*Chair: Erik Herzog*

### **METABOLIC CYCLES UNDERLYING GENE EXPRESSION RHYTHMS**

*Speaker: Benjamin Tu*

### **GROWING THROUGH FEAST AND FAMINE**

*Speaker: Helen Causton*

### **HOW AUTONOMOUS METABOLIC OSCILLATIONS IN SINGLE CELLS MIGHT EXERT CELL CYCLE CONTROL**

*Speaker: Matthias Heinemann*

**11:00 a.m. - 11:30 a.m.**

## **MEET THE PROFESSORS**

Magnolia Garden and Terrace

**11:00 a.m. - 11:30 a.m.**

## **COFFEE BREAK - PLEASE VISIT THE EXHIBITORS AND POSTERS!**

Amelia Foyer

# Program Details

Monday, May 16, 2022

**11:30 a.m. - 1:00 p.m.**

## **IN MEMORIAM**

Amelia Ballroom

*Chairs: Michael Nitabach and John Hogenesch*

REMEMBRANCE OF DR. MICHAEL MENAKER, UNIVERSITY OF VIRGINIA

REMEMBRANCE OF DR. PATRICIA DECOURSEY, UNIVERSITY OF SOUTH CAROLINA

*Speaker: Joseph Takahashi*

REMEMBRANCE OF DR. PATRICIA DECOURSEY, UNIVERSITY OF SOUTH CAROLINA

*Speakers: Joseph Takahashi and Mary Harrington*

REMEMBRANCE OF DR. ARNOLD ESKIN, UNIVERSITY OF HOUSTON

*Speakers: Paul Hardin, Samer Hattar, and Carl Johnson*

REMEMBRANCE OF DR. PAOLO SASSONE-CORSI, UNIVERSITY OF CALIFORNIA-IRVINE

*Speakers: Kristin Eckel-Mahan and Nicolas Germakian*

REMEMBRANCE OF DR. MICHAEL HUGHES, WASHINGTON UNIVERSITY-ST LOUIS

*Speakers: John Hogenesch, Michael Nitabach, and Erik Herzog*

**1:00 p.m. - 2:00 p.m.**

## **LUNCH PROVIDED BY SRBR!**

Magnolia and Amelia Foyers

**1:00 p.m. - 2:00 p.m.**

## **JBR EDITORS MEETING**

Talbot

**2:00 p.m. - 4:00 p.m.**

## **PANEL DISCUSSION: REPRODUCIBILITY, DATA SHARING AND OPEN SCIENCE**

Amelia 1 and 2

*Chair: Manuel Spitschan*

**OPEN SCIENCE AND REPRODUCIBILITY IN CHRONOBIOLOGY: THE ROLE OF THE JOURNAL OF BIOLOGICAL RHYTHMS**

*Speaker: Mary Harrington*

**REPRODUCIBILITY, DATA SHARING AND OPEN SCIENCE**

*Speaker: Shaun Purcell*

**MAKING SCIENCE OPEN BY DEFAULT**

*Speaker: David Mellor*

# Program Details

Monday, May 16, 2022

2:00 p.m. - 4:00 p.m.

**PANEL DISCUSSION: REPRODUCIBILITY, DATA SHARING AND OPEN SCIENCE**

Amelia 1 and 2

*Chair: Manuel Spitschan*

**REPRODUCIBILITY, DATA SHARING AND OPEN SCIENCE**

*Speaker: Manuel Spitschan*

2:00 p.m. - 4:00 p.m.

**PANEL DISCUSSION: TRANSLATING CHRONOBIOLOGY TO THE CLINIC**

Amelia 3 and 4

*Chair: Carla Finkielstein*

**PATHWAYS TO PRIORITIZATION: AN NIH PERSPECTIVE**

*Speaker: Marishka Brown*

**BUILDING CIRCADIAN MEDICINE IN A HOSPITAL**

*Speaker: John Hogenesch*

2:00 p.m. - 4:00 p.m.

**GORDON RESEARCH CONFERENCE TALKS**

Cumberland Ballroom

*Chair: Samer Hattar*

**CONNECTOMIC ANALYSIS OF THE DROSOPHILA LATERAL NEURON CLOCK CELLS REVEALS THE SYNAPTIC BASIS OF FUNCTIONAL PACEMAKER CLASSES**

*Speaker: Maria de la Paz Fernandez*

**IPRGC CIRCUITS MODULATING VISUAL THREAT ANTICIPATION**

*Speaker: Tiffany Schmidt*

**INS AND OUTS OF CIRCADIAN TIME**

*Speaker: Jeff Jones*

**MECHANISTIC INSIGHTS UNDERLYING CLOCK DISRUPTION IN COLORECTAL CANCER**

*Speaker: Selma Masri*

4:00 p.m. - 4:30 p.m.

**COFFEE BREAK - PLEASE VISIT THE EXHIBITORS AND POSTERS!**

Amelia Foyer

# Program Details

Monday, May 16, 2022

4:30 p.m. - 7:00 p.m.

## **SYMPOSIUM 7: CLOCK-OMICS**

Amelia 1 and 2

*Chair: Katharine Abruzzi*

### **TOWARD A NETWORK UNDERSTANDING OF CIRCADIAN GENE REGULATION**

*Speaker: Rosemary Braun*

### **DISSECTING THE CENTRAL NEURAL CIRCUIT OF CIRCADIAN CLOCK**

*Speaker: Jun Yan*

### **CIRCADIAN PHENOTYPING OF HUMANS USING OMICS APPROACHES**

*Speaker: Bharath Ananthasubramaniam*

### **SEX-DIMORPHIC AND AGE-DEPENDENT CIRCADIAN GENE EXPRESSION**

*Speaker: Cédric Gobet*

4:30 p.m. - 7:00 p.m.

## **SYMPOSIUM 8: LIGHT AT NIGHT: IN AND OUT OF THE WILD**

Amelia 3 and 4

*Chair: Carolina Escobar*

*Co-Chair: Andries Kalsbeek*

### **ILLUMINATED RHYTHMS – IMPACT OF ARTIFICIAL LIGHT AT NIGHT ON THE TEMPORAL**

*Speaker: Kamiel Spoelstra*

### **ORGANIZATION OF BIRD ACTIVITY**

### **BRIGHTEN UP YOUR CIRCADIAN CLOCK: IMPACT OF DAYTIME LIGHT INTENSITY ON ANIMAL BEHAVIOUR AND CLOCK FUNCTION**

*Speaker: Beatriz Bano-Dalora*

### **HUMAN EVENING LIGHT EXPOSURE IN THE REAL WORLD USING A NEW WEARABLE**

*Speaker: Sean Cain*

### **EFFECTS OF PRE-SLEEP ARTIFICIAL LIGHT EXPOSURE ON SLEEP**

*Speaker: Christine Blume*



# Program Details

Monday, May 16, 2022

**4:30 p.m. - 7:00 p.m.**

## **SYMPOSIUM 9: TIME-RESTRICTED EATING/FEEDING AS AN INTERVENTION FOR CHRONIC DISEASE**

Cumberland Ballroom

*Chair: Emily Manoogian*

### **TIME-RESTRICTED FEEDING AND CIRCADIAN-MEDIATED INTERVENTION OF CARDIOMETABOLIC DISORDERS**

*Speaker: Girish Melkani*

### **FEEDING TIME REGULATES LONGEVITY IN MICE**

*Speaker: Victoria Acosta-Rodriguez*

### **THE MICROBIOME AND TIME: UNDERSTANDING THE MICROBIOME-CIRCADIAN RELATIONSHIP**

*Speaker: Amir Zarrinpar*

### **EFFECTS OF TIME-RESTRICTED EATING ON GLYCEMIC CONTROL, WEIGHT LOSS, AND CARDIOMETABOLIC HEALTH**

*Speaker: Courtney Peterson*

**7:00 p.m. - 9:00 p.m.**

## **DINNER ON OWN AND FREE TIME**

**9:00 p.m. - 10:30 p.m.**

## **POSTER SESSION 2**

Magnolia Ballroom

# Program Details

Tuesday, May 17, 2022

8:00 a.m. - 6:30 p.m.

## REGISTRATION

Amelia Foyer

8:00 a.m. - 10:30 p.m.

## NURSING MOTHERS' ROOM

Conference 1

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 10: CIRCADIAN RHYTHMS IN BACTERIA AND MICROBIOMES

Amelia 1 and 2

*Chair: Carl Johnson*

### SCINTILLA OF CIRCADIAN EVOLUTION: CLOCKS IN BACTERIA, INTRODUCTION

*Speaker: Carl Johnson*

### MOLECULAR ASPECTS OF BIOLOGICAL CLOCK EVOLUTION INSPIRED BY THE EXAMPLE OF CYANOBACTERIA

*Speaker: Shuji Akiyama*

### MECHANICAL CLOCK MODEL FOR CYANOBACTERIAL CIRCADIAN CLOCK, BASED ON THE ACTIVITIES OF TWO ATPASE DOMAINS IN KAIC

*Speaker: Kumiko Ito-Miwa*

### THE CIRCADIAN CLOCK IN BACILLUS SUBTILIS

*Speaker: Martha Merrow*

### SCINTILLA OF CIRCADIAN EVOLUTION: CLOCKS IN MICROBIOMES

*Speaker: Carl Johnson*

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 11: RHYTHMS IN THE TIME OF COVID-19

Amelia 3 and 4

*Chair: Sheeba Vasu*

### EFFECT OF THE COVID-19 LOCKDOWN ON ASTHMA BIOLOGICAL RHYTHMS

*Speaker: Guy Hazan*

### IMPORTANCE OF CHRONOBIOLOGY IN DEVELOPING PRECISION HEALTHCARE

*Speaker: Benjamin Smarr*

### SLEEP IN THE AGE OF COVID-19: COLLEGE STUDENTS INTERNAL AND SOCIAL TIMES ARE BETTER ALIGNED UNDER STAY-AT-HOME MANDATES

*Speaker: Alicia Rice*

# Program Details

Tuesday, May 17, 2022

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 11: RHYTHMS IN THE TIME OF COVID-19

Amelia 3 and 4

*Chair: Sheeba Vasu*

**THE COVID-19 LOCK DOWN AFFECTED DAILY HABITS FAVORING BODY WEIGHT GAIN AND MOOD DISTURBANCES**

*Speaker: Natali N Guerrero-Vargas*

9:00 a.m. - 11:30 a.m.

## SYMPOSIUM 12: CIRCADIAN DISRUPTION AND PSYCHIATRIC DISORDERS

Cumberland Ballroom

*Chair: Ruifeng Cao*

SHINING LIGHT INTO A DIURNAL BRAIN

*Speaker: Lily Yan*

CIRCADIAN REGULATION OF NEUROIMMUNE FUNCTION: IMPLICATIONS FOR MOOD RELATED DISORDERS

*Speaker: Laura Fonken*

DEVELOPMENTAL EMERGENCE OF SLEEP RHYTHMS ENABLES FORMATION OF ENDURING MEMORIES

*Speaker: Matthew Kayser*

CIRCADIAN/ULTRADIAN RHYTHMS AND THE BIOLOGY OF PSYCHIATRIC DISORDERS

*Speaker: Colleen McClung*

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 4

Amelia 1 and 2

*Chair: Deniz Top*

**MEALTIME REGULATES TIME-OF-DAY PHYSIOLOGY THROUGH RHYTHMIC PROTEIN O-GLCNACYLATION**

*Presenter: Xianhui Liu*

**CIRCADIAN RHYTHMS IN THE FETUS AND THE PLACENTA DEVELOP AND SYNCHRONIZE DURING GESTATION**

*Presenter: Keenan Bates*

**CIRCADIAN RHYTHMS OF CORE BODY TEMPERATURE AND MELATONIN IN POSTMENOPAUSAL WOMEN**

*Presenter: Diane B. Boivin*

# Program Details

Tuesday, May 17, 2022

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 4

Amelia 1 and 2

*Chair: Deniz Top*

**CIRCADIAN RHYTHM INFLUENCE ON ATOPIC DERMATITIS AND SKIN INFLAMMATION**

*Presenter: Mei Bigliardi-Di*

**THE INFLUENCE OF LIGHT EXPOSURE AND PHYSICAL ACTIVITY IN THE TIMING AND  
FROM A TWO-SHIFT NATURAL MODEL OF DANCE STUDENTS**

*Presenter: Ignacio Estevan*

**A MOLECULAR TIMETABLE OF THE CELLULAR CIRCADIAN CYCLE REVEALS HOW TO RESET THE BODY CLOCK**

*Presenter: Nina Rzechorzek*

**DURATION OF SLEEP: INSIGHTS**

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 5

Amelia 3 and 4

*Chair: Ron Anafi*

**REAL-TIME ANOMALY DETECTION IN CIRCADIAN TIME-SERIES DATA USING KALMAN FILTER**

*Presenter: Dae Wook Kim*

**SEARCHING FOR NOVEL SCN ENHANCER MARKS THAT COULD DRIVE DAILY TIMEKEEPING**

*Presenter: Akanksha Bafna*

**DIURNAL TRANSCRIPTOME LANDSCAPE OF A MULTI-TISSUE RESPONSE TO TIME RESTRICTED FEEDING (TRF) IN MAMMALS**

*Presenter: Shaunak Deota*

**LIMORHYDEZ: GENOMIC ANALYSIS OF BIOLOGICAL RHYTHMS FOCUSED ON EFFECT SIZES**

*Presenter: Dora Obodo*

**RHYTHMIC TRANSCRIPTOME NETWORK AND A SIGNIFICANT CONNECTION BETWEEN THE  
AUTISM SPECTRUM DISORDER IN NEURONS**

*Presenter: Chang Hoon Lee*

**INTEGRATIVE MODELLING OF SLEEP, PHYSICAL ACTIVITY, AND CIRCADIAN RHYTHMICITY  
MOOD DISORDERS**

*Presenter: Vadim Zippunnikov*

**RHYTHMIC TRANSCRIPTOME AND**

**WITH APPLICATIONS IN AGING AND**

# Program Details

Tuesday, May 17, 2022

**12:00 p.m. - 1:30 p.m.**

## **SLIDE SESSION 6**

Cumberland Ballroom

*Chair: Shihoko Kojima*

CELLULAR BASES OF THE COUPLING BETWEEN CLOCKS IN THE CIRCADIAN CONTROL OF ADULT EMERGENCE IN DROSOPHILA MELANOGASTER

*Presenter: Javier Cavieres-Lepe*

RECONSTITUTION OF THE CYANOBACTERIAL CLOCK UNCOVERS A ROLE FOR SASA IN KAIB RECRUITMENT

*Presenter: Jeff Swan*

CIRCADIAN REGULATION OF PROTEIN HOMEOSTASIS

*Presenter: Estere Seinkmane*

THE PER2 FASP REGION FEEDBACK REGULATES CKI ACTIVITY TO CONTROL CIRCADIAN PERIOD

*Presenter: Jonathan Philpott*

IS CRYPTOCHROME 1 A STATE VARIABLE OF THE MAMMALIAN CIRCADIAN CLOCK: EVIDENCE FROM TRANSLATIONAL SWITCHING IN THE SCN

*Presenter: David McManus*

LIVE-CELL IMAGING OF CIRCADIAN CLOCK PROTEIN DYNAMICS IN CRISPR-GENERATED KNOCK-IN CELLS

*Presenter: Achim Kramer*

**1:30 p.m. - 2:00 p.m.**

## **WORKING LUNCH - LUNCH PROVIDED BY SRBR!**

Magnolia and Amelia Foyers

**2:00 p.m. - 4:30 p.m.**

## **SYMPOSIUM 13: ENTRAINMENT OF A MULTI-OSCILLATOR MULTI-LEVEL CIRCADIAN SYSTEM**

Amelia 1 and 2

*Chair: Gisele Oda*

**REALTIME CIRCADIAN MEASUREMENT IN THOUSANDS OF HUMANS SHOWS MULTI-OSCILLATOR AND MULTI-LEVEL BEHAVIOR**

*Speaker: Daniel Forger*

**USING MATHEMATICAL MODELING TO UNDERSTAND THE ROLE OF AVP CELLS IN THE SCN**

*Speaker: Stephanie Taylor*

# Program Details

Tuesday, May 17, 2022

2:00 p.m. - 4:30 p.m.

## **SYMPOSIUM 13: ENTRAINMENT OF A MULTI-OSCILLATOR MULTI-LEVEL CIRCADIAN SYSTEM**

Amelia 1 and 2

*Chair: Gisele Oda*

### **PRINCIPLES OF PHOTIC AND NON-PHOTIC ENTRAINMENT IN NOCTURNAL AND DIURNAL ANIMALS**

*Speaker: Erik Herzog*

### **NETWORK MEMORY OF THE CIRCADIAN CLOCK**

*Speaker: Jihwan Myung*

2:00 p.m. - 4:30 p.m.

## **SYMPOSIUM 14: LET THERE BE LIGHT: ADOLESCENTS' CHRONOBIOLOGY AND THE ENVIRONMENT BEYOND SCHOOL START TIME**

Amelia 3 and 4

*Chair: Reut Gruber*

### **IS THE MOON KEEPING ADOLESCENTS AWAKE**

*Speaker: Horacio de la Iglesia*

### **ASSOCIATION OF OUTDOOR ARTIFICIAL LIGHT AT NIGHT WITH MENTAL DISORDERS AND SLEEP PATTERNS AMONG US ADOLESCENTS**

*Speaker: Kathleen Merikangas*

### **CHRONOTYPE, LIGHT EXPOSURE, AND SLEEP IN HIGH SCHOOL STUDENTS: SCHOOL SHIFTS AND REMOTE SCHOOLING**

*Speaker: Ana Silva*

### **REGULATION OF SLEEP TIMING IN ADOLESCENTS BY SLEEP HOMEOSTASIS, CIRCADIAN RHYTHMICITY, LIGHT CONSUMPTION AND SOCIAL CONSTRAINTS**

*Speaker: Derk Jan Dijk*

2:00 p.m. - 4:30 p.m.

Cumberland Ballroom

## **SYMPOSIUM 15: RETINAL CIRCADIAN CLOCKS**

*Chair: Ethan Buhr*

### **THE RETINAL CIRCADIAN CLOCK SYSTEM MODULATES RETINAL FUNCTIONS AND CONE PHOTORECEPTORS VIABILITY DURING AGING**

*Speaker: Gianluca Tosini*

### **MAPPING "IN TIME" THE DAILY RHYTHMIC TRANSCRIPTOME IN THE DIABETIC RETINA**

*Speaker: Eleni Beli*

# Program Details

Tuesday, May 17, 2022

**2:00 p.m. - 4:30 p.m.**

## **SYMPOSIUM 15: RETINAL CIRCADIAN CLOCKS**

Cumberland Ballroom

*Chair: Ethan Buhr*

DOPAMINE DESYNCHRONIZES THE RETINAL CLOCK DURING DEVELOPMENT THROUGH A MELANOPsin-DEPENDENT REGULATION OF ACETYLCHOLINE RETINAL WAVES

*Speaker: Duria Dkhissi-Benyahya*

LOCAL NEURONAL CLOCK REGULATES RETINAL ANGIOGENESIS DURING DEVELOPMENT AND IN ISCHEMIC RETINOPATHY

*Speaker: Sujata Rao*

**4:30 p.m. - 5:00 p.m.**

## **COFFEE BREAK - PLEASE VISIT THE EXHIBITORS AND POSTERS!**

Amelia Foyer

**5:00 p.m. - 6:30 p.m.**

## **SPECIAL SESSION: A TOAST: CELEBRATING 50 YEARS OF THE SCN AND CLOCK GENES**

Amelia 1 and 2

*Chair: William Schwartz*

*Speaker: Johanna Meijer*

*Speaker: Marco Brancaccio*

*Speaker: Paul Hardin*

*Speaker: Joanna Chiu*

*Speaker: Jennifer Hurley*

**5:00 p.m. - 7:00 p.m.**

## **WORKSHOP AND PANEL: HOW TO ASSESS CIRCADIAN RHYTHMICITY IN THE FIELD AND IN DISEASED POPULATIONS**

*Chair: Sara Montagnese*

PRACTICE PRINCIPLES FOR REAL-WORD CIRCADIAN PHASE ASSESSMENTS

*Speaker: Steven Lockley*

MINIMUM REQUIREMENTS FOR CIRCADIAN ASSESSMENT IN THE FIELD/AT HOME

*Speaker: Kenneth Wright*

A CIRCADIAN CLINIC: DEFINITION, ACCESS AND PRESCRIPTIONS

*Speaker: Phyllis Zee*

# Program Details

Tuesday, May 17, 2022

**5:00 p.m. - 7:00 p.m.**

## **WORKSHOP AND PANEL: HOW TO ASSESS CIRCADIAN RHYTHMICITY IN THE FIELD AND IN DISEASED POPULATIONS**

*Chair: Sara Montagnese*

MINIMUM REQUIREMENTS FOR CIRCADIAN ASSESSMENT IN OUTPATIENTS

*Speaker: Ron Anafi*

MINIMUM REQUIREMENTS FOR CIRCADIAN ASSESSMENT IN INPATIENTS AND CONSIDERATIONS ON TREATMENT ROUNDS TIMING

*Speaker: Marc Ruben*

MINIMUM REQUIREMENTS (LENGTH OF MEASUREMENT, ENVIRONMENTAL CONDITIONS ETC.) FOR WEARABLES (ACTIGRAPHS, TEMPERATURE SENSORS ETC.) IN PATIENTS

*Speaker: Carsten Skarke*

**5:00 p.m. - 7:00 p.m.**

## **SRBR GLOBAL CLOCK SERIES HIGHLIGHTS**

Cumberland Ballroom

*Chair: Josh Mouland*

A ROLE FOR GENE EXPRESSION AND MRNA STABILITY IN NUTRITIONAL COMPENSATION OF THE CIRCADIAN CLOCK

*Presenter: Christina Kelliher*

CIRCADIAN DESYNCHRONIZATION DISRUPTS INFORMATION THROUGHPUT IN THE PREFRONTAL CORTEX

*Presenter: Brandon Roberts*

THE INTERACTION BETWEEN CIRCADIAN DISRUPTION AND NEURODEVELOPMENTAL DISORDERS

*Presenter: Tara Delorme*

CELLULAR BASES OF THE COUPLING BETWEEN CLOCKS IN THE CIRCADIAN CONTROL OF ADULT EMERGENCE IN DROSOPHILA MELANOGASTER

*Presenter: Javier Cavieres*

**7:00 p.m. - 9:00 p.m.**

**DINNER ON OWN and FREE TIME**

**9:00 p.m. - 10:30 p.m.**

## **POSTER SESSION 3**

Magnolia Ballroom



# Program Details

Wednesday, May 18, 2022

**8:00 a.m. - 1:30 p.m.**

## **REGISTRATION**

Amelia Foyer

**8:00 a.m. - 5:00 p.m.**

## **NURSING MOTHERS' ROOM**

Conference 1

**9:00 a.m. - 11:30 a.m.**

## **SYMPOSIUM 16: MECHANISMS OF CIRCADIAN POST-TRANSCRIPTIONAL REGULATION**

**Amelia 1 and 2**

*Chair: Dmitri Nusinow*

*Co-Chair: Jennifer Hurley*

SYNTHETIC SMALL MOLECULES MODULATING PLANT CIRCADIAN CLOCK

*Speaker: Norihito Nakamichi*

MAPPING SUBCELLULAR LOCALIZATION AND DYNAMICS OF CLOCK COMPLEXES IN LIVE CLOCK NEURONS

*Speaker: Swathi Yadlapalli*

ISOFORM-SPECIFIC REGULATION OF RHYTHMIC GENE EXPRESSION BY ALTERNATIVE POLYADENYLATION

*Speaker: Jerome Menet*

THE FORMATION OF A FUZZY COMPLEX IN THE NEGATIVE ARM REGULATES CIRCADIAN CLOCK ROBUSTNESS.

*Speaker: Jennifer Hurley*

**9:00 a.m. - 11:30 a.m.**

## **SYMPOSIUM 17: SRS/SRBR SYMPOSIUM: MATHEMATICAL MODELING OF SLEEP AND CIRCADIAN RHYTHMS** Amelia 3 and 4

*Chair: Elizabeth Klerman*

*Co-Chair: Michael Remppe*

**MODELING CIRCADIAN MODULATION OF DOPAMINE LEVELS TO UNDERSTAND IMPLICATIONS FOR HEALTH AND NEURODEGENERATIVE DISEASE**

*Speaker: Janet Best*

**MATHEMATICAL MODELING OF RODENT SLEEP IN A SIMULATED SHIFTWORK PARADIGM**

*Speaker: Michael Remppe*

# Program Details

Wednesday, May 18, 2022

9:00 a.m. - 11:30 a.m.

**SYMPOSIUM 17: SRS/SRBR SYMPOSIUM: MATHEMATICAL MODELING OF SLEEP AND CIRCADIAN RHYTHMS** Amelia 3 and 4

*Chair: Elizabeth Klerman*

*Co-Chair: Michael Remppe*

**PREDICTING RECOVERY FROM ACUTE SLEEP LOSS IN HUMANS: A MODELING STUDY**

*Speaker: Victoria Booth*

**PERSONALIZED MATHEMATICAL MODELS FOR HUMAN SLEEP AND CIRCADIAN TIMING FOR THE DESIGN OF LIGHT INTERVENTIONS**

*Speaker: Anne Skeldon*

9:00 a.m. - 11:30 a.m.

**SYMPOSIUM 18: SARS COV-2 VIRAL BIOLOGY AND THE CIRCADIAN CLOCK**

Cumberland Ballroom

*Chair: Carla Finkelstein*

**CIRCADIAN IMMUNITY, SUNRISE TIME AND THE SEASONALITY OF RESPIRATORY INFECTIONS**

*Speaker: Robert Martienssen*

**THE CIRCADIAN CLOCK COMPONENT BMAL1 REGULATES SARS-COV-2 ENTRY AND REPLICATION IN LUNG EPITHELIAL CELLS**

*Speaker: Alan Xiaodong Zhuang*

**CIRCADIAN RHYTHMS IN CORONAVIRAL DISEASE**

*Speaker: Jeffrey Haspel*

**TRENDS IN CIRCADIAN MARKERS FROM REAL-WORLD WEARABLE DATA IN RESPONSE TO THE COVID-19 PANDEMIC**

*Speaker: Caleb Mayer*

11:30 a.m. - 12:00 p.m.

**COFFEE BREAK - PLEASE VISIT THE EXHIBITORS AND POSTERS!**

11:30 a.m. - 12:00 p.m.

**MEET THE PROFESSORS**

Magnolia Garden and Terrace

# Program Details

Wednesday, May 18, 2022

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 7

Amelia 1 and 2

*Chair: Ryan Logan*

**CIRCADIAN DISRUPTION ENHANCES HSF1 SIGNALING AND TUMORIGENESIS IN KRAS- DRIVEN LUNG CANCER**

*Presenter: Marie Parollaud*

**TIME-OF-DAY DOSING AFFECTS BLOOD PRESSURE COMPLICATIONS IN AXITINIB-TREATED MICE**

*Presenter: Jiffin Paulose*

**AN ACIDIC MICROENVIRONMENT DISRUPTS MACROPHAGE MOLECULAR CLOCK FUNCTION AND OUTPUT, WHICH MAY IMPACT TUMOR GROWTH**

*Presenter: Amelia Knudsen-Clark*

**CIRCADIAN MODULATION OF HIPPOCAMPAL FUNCTION DURING ALZHEIMER'S DISEASE PATHOGENESIS**

*Presenter: Geraldine Kress*

**VARIATIONS IN REST-ACTIVITY CYCLE LENGTHS AND ALZHEIMER'S DEMENTIA**

*Presenter: Chenlu Gao*

**THE ULTRADIAN TRANSCRIPTOME OF THE HUMAN DORSOLATERAL PREFRONTAL CORTEX AND ABNORMALITIES IN SCHIZOPHRENIA**

*Presenter: Madeline Scott*

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 8

Amelia 3 and 4

*Chair: Jacquirine Kimmey*

**DISRUPTION OF CIRCADIAN RHYTHMS USING AN ULTRADIAN LIGHT-DARK CYCLE DURING NEURODEVELOPMENT LEADS TO AUTISTIC-LIKE MOLECULAR AND BEHAVIORAL ALTERATIONS IN ADULT MICE**

*Presenter: Rubal Singla*

**THE INTERACTION BETWEEN CIRCADIAN DISRUPTION AND PRENATAL IMMUNE ACTIVATION IN MICE — IMPLICATIONS FOR NEURODEVELOPMENTAL DISORDERS**

*Presenter: Tara Delorme*

**CIRCADIAN CONTROL OF HEPARAN SULFATE LEVELS TIMES MACROPHAGE PHAGOCYTOSIS OF AMYLOID BETA AGGREGATES**

*Presenter: Gretchen Clark*

**CAN VOLUNTARY WHEEL RUNNING EXERCISE SHIFT THE MUSCLE CLOCK?**

*Presenter: Andries Kalsbeek*

# Program Details

Wednesday, May 18, 2022

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 8

Amelia 3 and 4

*Chair: Jacquirine Kimmey*

### THE ROLE OF NEUROFIBROMIN-1 IN SLEEP AND METABOLISM

*Presenter: Folasade Sofela*

### SOLID-STATE DYNAMIC LIGHTING REDUCES FALL RATES IN ELDERLY CARE HOME RESIDENTS

*Presenter: Leilah Grant*

12:00 p.m. - 1:30 p.m.

## SLIDE SESSION 9

Cumberland Ballroom

*Chair: Han Kyong Choe*

### IMPACT OF POSTNATAL LIGHT CONDITIONS ON DEVELOPMENT AND LATER LIFE HEALTH

*Presenter: Demy van Gilst*

### ACETYLATION: A MODEST MODIFICATION WITH POWERFUL CONTROL OVER PER2 FASP PHOSPHORYLATION

*Presenter: Megan Torgimson*

### A ROLE FOR THE THERMOSENSITIVE SPLICING OF TIMELESS IN TEMPERATURE COMPENSATION

*Presenter: Ane Martin Anduaga*

### A CELLULAR BASIS OF DIURNALITY

*Presenter: Andrew Beale*

### EXCESS S-ADENOSYLMETHIONINE INHIBITS METHYLATION VIA CATABOLISM TO ADENINE

*Presenter: Jean-Michel Fustin*

### A SEMI-SYNTHETIC CIRCADIAN OSCILLATOR REVEALS THE EMERGENCE OF A "LIGHTS ON TIMER" BEHAVIOR

*Presenter: Luis Larrondo*

1:30 p.m. - 3:30 p.m.

## SRBR BOARD MEETING (INVITE ONLY)

Talbot

1:30 p.m. - 4:00 p.m.

## LUNCH BREAK ON OWN AND FREE TIME

# Program Details

Wednesday, May 18, 2022

**4:00 p.m. - 5:00 p.m.**

**GENERAL MEETING OF THE MEMBERS**

Cumberland Ballroom

*\* Open to SRBR Members Only*

**5:00 p.m. - 6:00 p.m.**

**PITTENDRIGH/ASCHOFF LECTURE: THE CLOCK NETWORK IN THE BRAIN - INSIGHTS FROM INSECTS**

**Amelia Ballroom**

*Speaker: Charlotte Helfrich-Förster*

**6:00 p.m. - 6:30 p.m.**

**COCKTAIL HOUR**

Magnolia Foyer

**6:30 p.m. - 10:30 p.m.**

**CLOSING BANQUET AND AWARD CEREMONY**

Magnolia Ballroom

# Poster Titles – Sunday, May 15

## **S1. CLINICAL TRANSLATION OF CIRCADIAN ENTRAINMENT AND HEALTH ACROSS THE LIFESPAN**

*Presenter: Philip Cheng*

## **S2. THE EFFECT OF TIMING OF MEDICATION ADMINISTRATION ON URINE OUTPUT IN HOSPITALIZED PATIENTS**

*Presenter: Sara Abbaspour*

## **S3. TUMOR CELL-INTRINSIC FACTORS ARE ASSOCIATED WITH CIRCADIAN HETEROGENEITY IN A MOUSE MODEL OF PANCREATIC ADENOCARCINOMA**

*Presenter: Daniel Iascone*

## **S4. INVESTIGATING CIRCADIAN CLOCK GENES IN CANCER AND THEIR CORRELATION WITH SENSITIVITY TO CHEMOTHERAPEUTIC DRUGS**

*Presenter: Pauline van der Watt*

## **S5. DISRUPTION OF THE CIRCADIAN CLOCK DRIVES APC LOSS OF HETEROZYGOSITY TO ACCELERATE COLORECTAL CANCER**

*Presenter: Bridget Fortin*

## **S6. INVESTIGATING THE CIRCADIAN RHYTHMS AND EFFECTS OF CRYPTOCHROME-STABILIZING COMPOUND IN HUMAN PANCREATIC CANCER CELLS**

*Presenter: Pagkapol Yhew Pongsawakul*

## **S7. TIME-RESTRICTED FEEDING (TRF) REPROGRAMS MICROGLIAL DAY-NIGHT IMMUNITY IN THE HYPOTHALAMUS**

*Presenter: Andries Kalsbeek*

## **S8. CLUSTER HEADACHE AS A CIRCADIAN DISORDER: DELINEATING CIRCADIAN PATHWAYS IN THE TRIGEMINAL PAIN SYSTEM**

*Presenter: Chorong Han*

## **S9. GLUCOCORTICOID SIGNALING SYNCHRONIZES TUMOR AND HOST CIRCADIAN RHYTHMS AND PROMOTES TUMOR GROWTH IN AN ORTHOTOPIC MURINE MODEL OF GLIOBLASTOMA**

*Presenter: Maria Gonzalez*

## **S10. SERUM PROTEOMICS ANALYSIS IN TIME-DEPENDENT SEPTIC PROGNOSIS IN MICE**

*Presenter: Malena Mul Fedele*

## **S11. VIDEOCONFERENCE-DELIVERED GROUP COGNITIVE BEHAVIORAL THERAPY PLUS MORNING SHORT-WAVELENGTH, WEARABLE LIGHT THERAPY IN ADOLESCENTS WITH DELAYED SLEEP WAKE PHASE DISORDER DURING COVID-19: A PILOT CASE SERIES**

*Presenter: Emily Ricketts*

## **S12. CIRCADIAN DISRUPTION IN SKELETAL MUSCLE OF BMAL1 KNOCKOUT MICE ALTERS A MITOCHONDRIAL DYNAMICS GENE PROGRAM**

*Presenter: Silvana Sidhom*

# Poster Titles – Sunday, May 15

## **S13. CIRCADIAN REGULATION OF IN VITRO THERMOGENIC ADIPOCYTES**

*Presenter: Armina-Lyn Frederick*

## **S14. DIURNAL VARIATION AND SEX EFFECTS IN HIPPOCAMPAL NEUROPHYSIOLOGY AND SPATIAL MEMORY**

*Presenter: Lacy Goode*

## **S15. THE CIRCADIAN DISTRIBUTION OF EPILEPTIC SPIKE SOURCE LOCALIZATIONS**

*Presenter: Marcus Ng*

## **S16. EVENING CHRONOTYPE IS ASSOCIATED WITH A HIGHER SEVERITY OF DEPRESSIVE SYMPTOMS IN THE IMMEDIATE POSTPARTUM PERIOD**

*Presenter: Corrado Garbazza*

## **S17. SLEEP DURATION AND TIME AWAKE IN AIRLINE PILOTS**

*Presenter: Diane B. Boivin*

## **S19. ACTIVITY MEASURES FROM CONSUMER DEVICES: USING THE APPLE WATCH FOR RESEARCH-GRADE ACTIGRAPHY**

*Presenter: Kevin Hannay*

## **S20. DUPER IS A NULL MUTATION OF CRYPTOCHROME 1 IN SYRIAN HAMSTERS**

*Presenter: Yin Yeng Lee*

## **S21. CIRCADIAN BEHAVIOR AS AN AGENT OF SELECTION IN THE GUT AND ITS INFLUENCE IN THE RECOVERY OF THE MICROBIOME FROM ANTIBIOTICS**

*Presenter: Chi Zhao*

## **S22. DECIPHERING CLOCK CELL NETWORK MORPHOLOGY WITHIN THE SUPRACHIASMATIC NUCLEUS**

*Presenter: Hyun Kim*

## **S23. CIRCADIAN POST-TRANSCRIPTIONAL CONTROL IN MACROPHAGES**

*Presenter: Sharleen Buel*

## **S24. SORTING THE CLOCK: GENOME-WIDE CRISPR SCREEN OF CIRCADIAN REGULATORS**

*Presenter: Shuzhang Yang*

## **S25. PERFORMANCE OF A DEEP LEARNING-BASED SLEEP-STAGING ALGORITHM ACROSS THE OVERNIGHT PERIOD AND TRANSITIONAL EPOCHS**

*Presenter: Shahab Haghayegh*

## **S26. ASSOCIATION OF MODEL-PREDICTED CIRCADIAN AMPLITUDE WITH MELATONIN AREA UNDER THE CURVE IN SHIFT WORKERS**

*Presenter: Olivia Walch*

# Poster Titles – Sunday, May 15

**S27. THE DROSOPHILA CLOCK REGULATES ECDYSONE ACTION TO CONTROL THE DAILY RHYTHM OF ADULT EMERGENCE**

*Presenter: Liliana Bustos*

**S28. DIEL AND ANNUAL TIMEKEEPING MECHANISMS MAY CONSTRAIN SPECIES RANGE-SHIFTS UNDER CLIMATE CHANGE**

*Presenter: Nicholas Per Huffeldt*

**S29. UNAVOIDABLE CALORIC RESTRICTION DURING RESTRICTED FOOD ACCESS IN BALB/CJ MICE**

*Presenter: George Afoakwa*

**S30. A POSSIBLE MOLECULAR BASIS FOR CIRCATIDAL RHYTHMICITY IN EURYDICE PULCHRA**

*Presenter: David Wilcockson*

**S31. WHAT CAN DROSOPHILA POPULATIONS EVOLVING UNDER TROPICAL SEMI-NATURAL CONDITIONS TELL US ABOUT CIRCADIAN CLOCKS?**

*Presenter: Sheeba Vasu*

**S32. SLEEP AND CIRCADIAN CHARACTERISTICS RELATED TO INCIDENTS REPORTED BY MEDICAL RESIDENTS**

*Presenter: Malena Mul Fedele*

**S33. DAILY RHYTHM OF DYNAMIC CEREBRAL AUTOREGULATION IN PATIENTS AFTER ACUTE ISCHEMIC STROKE**

*Presenter: Daniel Abadjiev*

**S34. EFFECTS OF COMPROMISED CIRCADIAN RHYTHM ON THE INCIDENCE AND DEVELOPMENT OF LUNG CANCER**

*Presenter: Elisabeth Anne Adanma Obara*

**S35. MACHINE LEARNING ANALYSES REVEAL CIRCADIAN CLOCK FEATURES PREDICTIVE OF ANXIETY IN HUMANS**

*Presenter: Krista Ingram*

**S36. MORNINGNESS-EVENINGNESS BY RACE-SEX: THE CARDIA SLEEP STUDY**

*Presenter: Kristen Knutson*

**S37. CIRCADIAN CLOCK GENE AMPLITUDE IS LINKED TO FAT STORES IN MESENCHYMAL STEM CELLS FROM HUMAN INFANTS**

*Presenter: Melissa Erickson*

**S38. PREDICTING CIRCADIAN RHYTHMS FROM WRIST-WORN WEARABLE SENSORS**

*Presenter: Lara Weed*

**S39. DIURNAL DIFFERENCES IN HIPPOCAMPAL PHYSIOLOGY ARE LOST IN A MOUSE MODEL OF ALZHEIMER'S DISEASE** *Presenter:*

*Jacob Reeves*



# Poster Titles – Sunday, May 15

## **S40. SKELETAL MUSCLE CLOCKS INFLUENCE COGNITIVE IMPAIRMENT IN TAUOPATHY MODEL**

*Presenter: Bryan Alava*

## **S41. DIURNAL ALTERATIONS IN GENE EXPRESSION ACROSS STRIATAL SUBREGIONS IN PSYCHOSIS**

*Presenter: Kyle Ketchesin*

## **S42. DEGREE OF PERCEIVED EXERTION DURING A DYNAMIC HAND GRIP EXERCISE IS REGULATED BY THE CIRCADIAN SYSTEM**

*Presenter: LaTroy Robinson*

## **S43. MANIPULATION OF CIRCADIAN PROCESS C BY SELECTIVE THERMAL STIMULATION TO INDUCE AND MAINTAIN SLEEP AND REGULATE SLEEP-WAKE 24H RHYTHM**

*Presenter: Shahab Haghayegh*

## **S44. AN OBSERVATIONAL STUDY TO INVESTIGATE CRY1 VARIANTS ASSOCIATED WITH FAMILIAL DELAYED SLEEP-WAKE PATTERNS**

*Presenter: Sandra Smieszek*

## **S45. THE SPECTRAL SENSITIVITY OF HUMAN CIRCADIAN PHASE RESETTING AND MELATONIN SUPPRESSION TO LIGHT CHANGES DYNAMICALLY WITH LIGHT DURATION**

*Presenter: Steven Lockley*

## **S46. S-CONE SIGNALS PROMOTE EXPLORATORY BEHAVIOUR IN MICE**

*Presenter: Elizabeth Tamayo*

## **S47. CHRONIC JETLAG ACCELERATES AMYLOID PLAQUE PATHOLOGY IN ALZHEIMER'S DISEASE MOUSE MODELS**

*Presenter: Ashish Sharma*

## **S48. ENVIRONMENTAL CIRCADIAN DISRUPTION MODULATES RETINAL FUNCTION AND CELL STRUCTURE IN MICE**

*Presenter: Kenkichi Baba*

## **S49. MEASURING EFFECTS OF LIGHT EXPOSURE ON ACTIVITY, SLEEP AND HUMAN PERFORMANCE**

*Presenter: Altug Didikoglu*

## **S50. HIGH SALT DIET ALTERS CIRCADIAN BEHAVIOR AND SUPRACHIASMATIC NEUROPHYSIOLOGY: IMPLICATIONS FOR ENDOTHELIN B RECEPTOR FUNCTION IN THE BRAIN**

*Presenter: Anna Elam*

## **S51. CHARACTERIZING THE RHYTHMIC EXPRESSION OF FGFR1 AND KLB IN THE SUPRACHIASMATIC NUCLEUS**

*Presenter: Emily Welch*

# Poster Titles – Sunday, May 15

## **S52. SEROTONERGIC MODULATION OF CIRCADIAN RHYTHMS**

*Presenter: Anfal Abuhilal*

## **S53. CONTEXTUAL FEAR MEMORY REESTABLISHES ABNORMAL CIRCADIAN BEHAVIOR IN MICE**

*Presenter: Asad Beck*

## **S54. IMPACTS OF SPACEFLIGHT AND STRAIN ON CIRCADIAN BEHAVIORS IN MICE**

*Presenter: Katrina Campbell*

## **S55. CRY 'HAVOC,' AND LET SLIP THE PHASE OF CLOCKS!**

*Presenter: Eric Bittman*

## **S56. PHENOTYPE OF LIGHT ACTIVATED NEURONS IN THE MOUSE SCN BASED ON THE EXPRESSION OF FOS AND EGRI**

*Presenter: Jens Hannibal*

## **S57. APTAMER BASED NON-INVASIVE DETECTION OF BIOMARKERS LINKED TO CIRCADIAN RHYTHM SLEEP DISORDERS**

*Presenter: Meenakshi Pundir*

## **S58. TOWARDS DEVELOPING A MOUSE MODEL FOR RELATIVE ENERGY DEFICIENCY IN SPORTS**

*Presenter: Laura van Rosmalen*

## **S59. STRICT FEEDING REGIMES ABROGATE METABOLIC DYSFUNCTION CAUSED BY LIGHTING DISRUPTIONS**

*Presenter: Nathan Skinner*

## **S60. SUPRACHIASMATIC VIP NEURONS CONTROL CIRCADIAN PRIORITY OF SOCIAL INSTINCTS**

*Presenter: Han Kyoung Choe*

## **S61. SUBCIRCUITS WITHIN THE DROSOPHILA EVENING OSCILLATOR DIFFERENTIALLY REGULATE SLEEP, AROUSAL, AND CIRCADIAN AMPLITUDE**

*Presenter: Matthew Brown*

## **S62. VASOACTIVE-INTESTINAL POLYPEPTIDE(VIP)-EXPRESSING NEURONS IN THE SUPRACHIASMATIC NUCLEUS COORDINATE PERI-OVULATORY REPRODUCTIVE AXIS ACTIVITY**

*Presenter: Savannah Bever*

## **S63. ORIGINS OF COLOUR OPPONENT INPUT TO THE MOUSE SCN: A NON-CANONICAL CENTRAL MECHANISM?**

*Presenter: Josh Moulard*

## **S64. CLOCK DISRUPTION IN MUTANT TOP-43 MOUSE EMBRYONIC FIBROBLASTS**

*Presenter: Sharon Tam*

# Poster Titles – Sunday, May 15

**S65. DOPAMINERGIC NEURONS OF THE SUBSTANTIA NIGRA EXHIBIT A CELL INTRINSIC CLOCK AND SELECTIVE ABLATION OF THIS MOLECULAR CLOCK IMPACTS ELECTROPHYSIOLOGICAL OUTPUT**

*Presenter: Ananya Swaroop*

**S66. THE EFFECT OF AMYLOID BETA VARIANTS ON SLEEP AND LONGEVITY IN DROSOPHILA**

*Presenter: Jaqueline Galvan*

**S67. DISRUPTIONS IN CIRCADIAN RHYTHMS AND SLEEP DURING ADOLESCENCE INDUCES CHANGES IN IMPULSIVITY, COGNITIVE FUNCTION, AND GENE EXPRESSION IN REWARD-RELATED BRAIN REGIONS**

*Presenter: Sam-Moon Kim*

**S68. TOWARDS THE NEURAL SUBSTRATE DRIVING CYCLICITY IN BIPOLAR DISORDER**

*Presenter: Kai-Florian Storch*

**S69. THE ESTROUS CYCLE COORDINATES THE DAILY EATING BEHAVIOR RHYTHM IN MICE**

*Presenter: Victoria Alvord*

**S70. SUPPLEMENTING SUB-OPTIMAL AMBIENT LIGHTING WITH A HIGH-MELANOPIC ILLUMINANCE TASK LAMP IMPROVES DAYTIME ALERTNESS, MOOD AND COGNITION**

*Presenter: Lailah Grant*

**S71. VALIDATION OF THE DIGITAL VENTILATED CAGE SYSTEM FOR CIRCADIAN AND SLEEP PHENOTYPING** *Presenter: Selma Tir*

**S72. DIURNAL RHYTHMS IN PHOTIC SNEEZING**

*Presenter: Manuel Spitschan*

**S73. LIGHT-INDUCED EXPRESSION OF PROKINETICIN 2 IN THE MOUSE SCN; REGULATION BY PACAP?**

*Presenter: Ida Stangerup*

**S74. CIRCADIAN MODULATION OF VISUAL BEHAVIORS BY THE IPRGC MOLECULAR CLOCK**

*Presenter: Kayla Miguel*

**S75. A RETINAL REPRESENTATION OF ENVIRONMENTAL ILLUMINATION WITHIN THE MASTER CIRCADIAN CLOCK**

*Presenter: Charles H Philippe Morquette*

**S76. A SINGLE ATYPICAL PHOSPHOSWITCH IN SPECIFIC SCN NEURONS GATES WINTER SEASONALITY IN MICE**

*Presenter: Sara Pierre Ferrer*

**S77. THE PROTECTIVE ROLE OF SLEEP IN REGULATING CORTICAL RESPONSES TO SOCIAL STRESS**

*Presenter: Eva Andrews*

# Poster Titles – Sunday, May 15

## **S78. A NEW APPROACH TO STUDYING SLEEP HOMEOSTASIS IN DROSOPHILA**

*Presenter: Budhaditya Chowdhury*

## **S79. MODULATION OF SLEEP BY TRAFFICKING OF LIPIDS THROUGH THE DROSOPHILA BLOOD BRAIN BARRIER**

*Presenter: Fu Li*

## **S80. SLEEP AND MEMORY CONSOLIDATION ARE LINKED BY RNA PROCESSING GENES IN THE DROSOPHILA MUSHROOM BODY**

*Presenter: Yangjun Li*

## **S81. NF1 FUNCTIONS IN GABA RECEPTOR NEURONS TO REGULATE SLEEP DEPTH IN DROSOPHILA**

*Presenter: Elizabeth Brown*

## **S82. GENE EXPRESSION CHANGES UNDERLYING PHOTOPERIODIC PLASTICITY IN THE SUPRACHIASMATIC NUCLEUS**

*Presenter: Olivia Cox*

## **S83. HEAD AND NECK CANCER PATHOGENESIS AND TREATMENT: EFFECTS OF THE CIRCADIAN CLOCK**

*Presenter: Rima Siauciunaite*

## **S84. MISTIMED FEEDING DISRUPTS RHYTHMS OF REPRODUCTIVE BEHAVIOR AND OF THE PREOVULATORY LH SURGE**

*Presenter: Matthew Butler*

## **S85. FUNCTIONAL OUTPUTS OF SUPRACHIASMATIC NUCLEUS TO CIRCADIAN RHYTHMICITIES**

*Presenter: Shota Miyazaki*

## **S86. THE SKELETAL MUSCLE MOLECULAR CLOCK REGULATES MUSCLE STRUCTURE AND FUNCTION THROUGH THE RNA BINDING PROTEIN, RBM20**

*Presenter: Xiping Zhang*

## **S87. BMAL1 AND CLOCK C-TERMINAL DOMAINS DRIVE CIRCADIAN OSCILLATIONS**

*Presenter: Kelly Healy*

## **S88. STRUCTURAL INSIGHTS INTO THE CIRCADIAN RHYTHM**

*Presenter: Erik Petersen*

## **S89. CHANGES IN CORE CLOCK NEGATIVE ARM PROTEINS REVEAL RELATIONSHIP BETWEEN CONFORMATION OF COMPLEXES AND POST-TRANSCRIPTIONALLY REGULATED PROTEINS**

*Presenter: Lucas Sutton*

## **S90. BIDIRECTIONAL RELATIONSHIP BETWEEN THE CORE CLOCK AND IRON METABOLISM**

*Presenter: Jesse Janoski*

# Poster Titles – Sunday, May 15

## **S92. CLOCK AND TIMELESS PROMOTE RHYTHMIC BRAHMA BINDING TO CLOCK GENE PROMOTERS**

*Presenter: Christine Tabuloc*

## **S93. SMALL MOLECULE SCREENING: PASSING THE BINDING TEST**

*Presenter: Diksha Sharma*

## **S94. EMERGENCE OF CIRCADIAN RHYTHMS IN CLOCK AND NEUROIMMUNE GENE EXPRESSION IN MOUSE BRAIN**

*Presenter: Ruizhuo Chen*

## **S95. A ROLE FOR GENE EXPRESSION AND MRNA STABILITY IN NUTRITIONAL COMPENSATION OF THE CIRCADIAN CLOCK**

*Presenter: Christina Kelliher*

## **S96. COMBINED MULTIPLE TRANSCRIPTIONAL REPRESSION MECHANISMS GENERATE STRONG CIRCADIAN RHYTHMS**

*Presenter: Yun Min Song*

## **S97. ROBUST OSCILLATIONS AGAINST SPATIAL-TEMPORAL NOISE FROM CROWDED INTRACELLULAR ENVIRONMENT**

*Presenter: Jae Kyoung Kim*

## **S98. NOVEL MICROSCOPY TOOLS REVEAL DYNAMIC SUB-CELLULAR DISTRIBUTIONS OF CORE CLOCK COMPONENTS IN NEUROSPORA CRASSA**

*Presenter: Ziyang Wang*

## **S99. THE PHOSPHO-CODE DETERMINING CIRCADIAN FEEDBACK LOOP CLOSURE AND OUTPUT IN NEUROSPORA**

*Presenter: Bin Wang*

## **S100. GLUCOCORTICOID SIGNALING REGULATES PANCREATIC ISLET CIRCADIAN TRANSCRIPTOME AND INSULIN SECRETION**

*Presenter: Satish Sen*

## **S101. CRYPTOCHROME 1 IS A MAJOR PHOTORECEPTOR IN THE ENTRAINMENT OF RHYTHMIC BEHAVIORS IN THE MONARCH BUTTERFLY**

*Presenter: Samantha Iiams*

## **S102. SYNCHRONIZATION OF THE DROSOPHILA CIRCADIAN CLOCK TO TEMPERATURE CYCLES**

*Presenter: Rebekah George*

## **S103. MICROBIAL EXPOSURE RESETS CELLULAR CIRCADIAN RHYTHMICITY**

*Presenter: Priya Crosby*

# Poster Titles – Sunday, May 15

**S104. GENETIC IDENTIFICATION OF A PUTATIVE VTA TO SCN DOPAMINE CIRCUIT REQUIRED FOR DIET-INDUCED OBESITY IN MICE**

*Presenter: Firozeh Farahmand*

**S105. IDENTIFYING THE ROLE OF SIAH2 IN CIRCADIAN REGULATION BY SELECTIVELY RESTORING EXPRESSION IN METABOLIC TISSUES**

*Presenter: Kiandra Smith*

**S106. GUT MICROBES ARE ESSENTIAL FOR LIVER CIRCADIAN CLOCK-MEDIATED PARTITIONING OF FUEL UTILIZATION, GLUCONEOGENESIS, AND LIPID OXIDATION**

*Presenter: Katya Frazier*

**S107. AN ARTIFICIAL TEMPERATURE-COMPENSATED BIOLOGICAL CLOCK USING BELOUSOV-ZHABOTINSKY GELS**

*Presenter: Yuhei Yamada*

**S108. SPATIALLY-COORDINATED COLLECTIVE PROTEIN BEHAVIORS ENABLE ROBUST CIRCADIAN TIMEKEEPING**

*Presenter: Seokjoo Chae*

**S109. LOSS OF THE HOMEODOMAIN TRANSCRIPTION FACTOR SIX3 IN NEUROMEDIN-S NEURONS ALTERS WHEEL RUNNING BEHAVIOR IN MALE, BUT NOT FEMALE MICE**

*Presenter: Karen Tonsfeldt*

**S110. SEX DIFFERENCES IN CIRCADIAN CLOCK RESILIENCE IN DROSOPHILA**

*Presenter: Evardra Bell*

**S111. MECHANISTIC AND CONNECTOMIC INSIGHTS FROM REPTILIAN CIRCADIAN SYSTEMS**

*Presenter: Emma Morris*

**S112. REDUCED EXPRESSION OF THE CELL INTRINSIC CLOCK PROTEIN BMAL1, IN MYELOID CELLS, ACCELERATES COGNITIVE DECLINE AND ALTERS MICROGLIAL FUNCTION IN AGING MICE**

*Presenter: Chinyere Agbaegbu Iweka*

**S113. GENETIC IDENTIFICATION OF A POPULATION OF DOPAMINE NEURONS THAT IS NECESSARY FOR CIRCADIAN FOOD ANTICIPATORY ACTIVITY**

*Presenter: Jacqueline Trzeciak*

**S114. THE INTESTINAL CIRCADIAN CLOCK DRIVES MICROBIAL RHYTHMICITY TO MAINTAIN GASTROINTESTINAL HOMEOSTASIS**

*Presenter: Marjolein Heddes*

**S115. CIRCADIAN DESYNCHRONY: MILD TRAUMATIC BRAIN INJURY BREAKS THE CLOCK**

*Presenter: Glenn Yamakawa*

**S116. CIRCADIAN CLOCK CONTROL OF TRNA SYNTHETASES, MRNA TRANSLATION, AND TRANSLATION FIDELITY IN NEUROSPORA CRASSA**

*Presenter: Griffin Best*

# Poster Titles – Monday, May 16

## **M1. INVESTIGATING THE EFFECTS OF TIME OF EATING AND ALCOHOL ON THE LOCOMOTOR OUTPUT IN MICE**

*Presenter: Fabian Preuss*

## **M2. CIRCADIAN MECHANISMS UNDERLYING PROLIFERATION AND ACTIVITY OF ADIPOCYTE PROGENITOR CELLS**

*Presenter: Kristin Eckel-Mahan*

## **M3. USING GENE EXPRESSION STUDIES TO IDENTIFY WHERE TO SEARCH FOR CIRCADIAN RHYTHMS IN GLIOBLASTOMAS**

*Presenter: Michael Geusz*

## **M4. ROR ACTIVATION BY NOBILETIN ENHANCES ANTI-TUMOR EFFICACY VIA SUPPRESSION OF I $\kappa$ B/NF- $\kappa$ B SIGNALING IN TRIPLE-NEGATIVE BREAST CANCER**

*Presenter: Eunju Kim*

## **M5. USING CLOCK MODULATION TO AUGMENT TREATMENT FOR HEPATOCELLULAR CARCINOMA**

*Presenter: Kristin Eckel-Mahan*

## **M6. TIME-RESTRICTED FEEDING REGULATES CIRCADIAN RHYTHMS AND SKELETAL MUSCLE FUNCTION UNDER METABOLIC CHALLENGES**

*Presenter: Girish Melkani*

## **M7. ENRICHMENT OF RAI1 GENETIC ABERRATIONS ASSOCIATED WITH SLEEP DISTURBANCES IN SMS, IN AUTISM SPECTRUM DISORDER**

*Presenter: Sandra Smieszek*

## **M8. ENRICHMENT OF THE VNTR PER3 VARIANT IN DSWPD PATIENTS: A LARGE WHOLE GENOME SEQUENCING ANALYSIS**

*Presenter: Sandra Smieszek*

## **M9. PHENOTYPIC DIFFERENCES IN PSYCHIATRIC SYMPTOMS ACROSS THE DAY ARE PREDICTED BY SOMEONE'S PSYCHIATRIC PROFILE AND CHRONOTYPE**

*Presenter: John Axelsson*

## **M10. CLOCKS AT THE NEUROIMMUNE INTERFACE: DIURNAL RHYTHMS IN NEUROINFLAMMATORY SIGNALING ARE DISRUPTED WITH AGING AND MICROGLIA-SPECIFIC BMAL1 DELETION**

*Presenter: Louise Ince*

## **M11. FEMALE MICE LACKING MELATONIN RECEPTOR 1 (MT1) ARE NO LONGER PROTECTED FROM THE NEGATIVE EFFECTS OF HIGH FAT DIET ON GLUCOSE and LIPIDS METABOLISM**

*Presenter: Varunika Goyal*

## **M12. HYPERAMMONAEMIA IMPAIRS DAILY RHYTHMS IN REST-ACTIVITY AND THE SUPRACHIASMATIC NUCLEUS BY INCREASING EXTRACELLULAR GLUTAMATE**

*Presenter: Daniel Granados-Fuentes*

# Poster Titles – Monday, May 16

**M13. BROWN ADIPOCYTE-SPECIFIC KNOCKOUT OF BMAL1 CAUSES MILD BUT SIGNIFICANT THERMOGENESIS IMPAIRMENT IN MICE**

*Presenter: Nazmul Hasan*

**M14. A DAILY TEMPERATURE RHYTHM IN THE HUMAN BRAIN PREDICTS SURVIVAL AFTER TRAUMATIC BRAIN INJURY**

*Presenter: Nina Rzechorzek*

**M15. SKELETAL MUSCLE SPECIFIC RESCUE OF BMAL1 IS SUFFICIENT TO EXTEND THE LIFESPAN OF THE BMAL1 KO MOUSE**

*Presenter: Miguel Gutierrez-Monreal*

**M16. A ROLE FOR THE CIRCADIAN TRANSCRIPTION FACTOR NPAS2 IN SLEEP AND OPIOID ADDICTION**

*Presenter: Mackenzie Gamble*

**M17. CIRCADIAN RHYTHM EFFECTS IN MOUSE MODEL OF NEONATAL OPIOID WITHDRAWAL SYNDROME** *Presenter: Navsharan Singh*

**M18. MULTI-TISSUE DISRUPTION OF MOLECULAR CIRCADIAN RHYTHMS AFTER INTENSIVE CARE**

*Presenter: Henry Hollis*

**M19. AN IN SILICO GENOME-WIDE SCREEN OF CLOCK STRENGTH IN HUMAN CANCERS**

*Presenter: Gang Wu*

**M20. CHARACTERIZING TRANSCRIPTIONALLY ACTIVE CLOCK COMPLEXES IN TIME AND SPACE USING QUANTITATIVE PROTEOMICS**

*Presenter: Fatih Aygenli*

**M21. TIME-RESTRICTED FEEDING FUNCTIONALLY MODULATES THE GUT MICROBIOME IN A MOUSE MODEL OF NON-ALCOHOLIC STEATOHEPATITIS**

*Presenter: Kelly Fogelson*

**M22. SEXUALLY DIMORPHIC EFFECTS OF LIGHT AT NIGHT IN DROSOPHILA**

*Presenter: Ausra Pranevicius*

**M23. CIRCADIAN LIPIDOME IN RAT PLASMA IS HIGHLY DEPENDENT ON DEVELOPMENTAL STAGE**

*Presenter: Alena Sumova*

**M24. THE UNIFORM PHASE EMPIRICAL MODE DECOMPOSITION METHOD FOR ANALYZING CIRCADIAN RHYTHMS**

*Presenter: Chenlu Gao*

**M25. THE ENTRAINMENT REGULARITY INDEX AND ITS ASSOCIATION WITH WEIGHT GAIN DURING THE SCHOOL YEAR AND SUMMER AMONG ELEMENTARY SCHOOL AGE CHILDREN**

*Presenter: Jennette Moreno*



# Poster Titles – Monday, May 16

**M27. FUNCTIONAL CHARACTERIZATION OF THE KAI GENE CLUSTERS IN CIRCADIAN REGULATION WITHIN THE CYANOBACTERIUM SYNECHOCYSTIS SP. PCC 6803**

*Presenter: Chi Zhao*

**M28. POLAR PHOTOPERIOD COULD FACILITATE A PHOTIC BARRIER TO SPECIES RANGES VIA PREDATION**

*Presenter: Nicholas Per Huffeldt*

**M29. A HIGHLAND-ADAPTATION MUTATION FOR EPAS1 PROTEIN STABILITY DISRUPTS THE CIRCADIAN CLOCK IN THE PLATEAU PIKA**

*Presenter: Erquan Zhang*

**M30. EFFECTS OF DIET AND FEEDING PATTERNS ON DIURNAL FLUCTUATIONS OF THE GUT METATRANSCRIPTOME**

*Presenter: Stephany Flores Ramos*

**M32. DEVELOPMENT OF CIRCADIAN DYNAMICS OF THE BLOOD-BRAIN INTERFACE IN A HUMAN-BRAIN MIMICKING MICROFLUIDIC CHIP**

*Presenter: Quang Nguyen*

**M33. MECHANISTIC BASIS OF GENETIC LINKS BETWEEN INSOMNIA AND CARDIOVASCULAR DISEASE**

*Presenter: Girish Melkani*

**M34. EFFECTS OF EXERCISE ON REALIGNING A DISRUPTED MOLECULAR CLOCK**

*Presenter: Emily Schmitt*

**M35. INTERCELLULAR COUPLING BETWEEN PERIPHERAL CIRCADIAN OSCILLATORS BY TGF- $\beta$  SIGNALING**

*Presenter: Achim Kramer*

**M36. ALTERED CIRCADIAN GENE EXPRESSION AT THE SINGLE CELL LEVEL ASSOCIATED WITH OPIOID USE DISORDER IN HUMAN POSTMORTEM BRAIN**

*Presenter: Sophia Miracle*

**M37. THE EFFECT OF NIGHT SHIFTS ON 24-H RHYTHMS IN THE URINARY METABOLOME OF POLICE OFFICERS ON A ROTATING WORK SCHEDULE**

*Presenter: Laura Kervezee*

**M38. SLEEP SELF-EVALUATION AND WELL-BEING OF SURGEONS WORKING 24-HOUR SHIFTS**

*Presenter: Natalia Bobko*

**M39. NOCTURNIN INCREASES CELLULAR SUSCEPTIBILITY TO OXIDATIVE STRESS**

*Presenter: Anne Ojo*

# Poster Titles – Monday, May 16

**M40. AS TIME GOES BY: FACTORS INFLUENCING CHRONOTYPE DEVELOPMENT DURING ADOLESCENCE**

*Presenter: Guadalupe Rodriguez Ferrante*

**M41. REGULATION OF CORTISOL REACTIVITY TO HEAD-UP TILT BY THE CIRCADIAN SYSTEM**

*Presenter: Joshua Gonzalez*

**M42. CLOCK PROTEINS AND TRAINING MODIFY EXERCISE CAPACITY IN A DAYTIME-DEPENDENT MANNER**

*Presenter: Vaishnavi Dandavate*

**M43. SEASONAL AND AGE EFFECTS ON FRACTAL REGULATION IN HUMAN MOTOR ACTIVITY**

*Presenter: Ma Cherrysse Ulsa*

**M44. A NOVEL MISSENSE VARIANT IN MELANOPsin ASSOCIATES WITH DELAYED SLEEP PHENOTYPE: WHOLE GENOME SEQUENCING STUDY**

*Presenter: Sandra Smieszek*

**M45. EFFECTS OF CLOCK DISRUPTION AND SOLAR UVB EXPOSURE ON CIRCADIAN BEHAVIOR IN SKH-1 MICE**

*Presenter: Sean Cone*

**M46. LIGHT COMPOSITION ALTERS FELINE STRESS AND BEHAVIOR IN A SHELTER ENVIRONMENT**

*Presenter: Hanne Hoffmann*

**M47. LIGHTING SCHEMES SIMULATING SHIFT WORK PROMOTES INFLAMMATORY CYTOKINE PROFILES IN MICE**

*Presenter: Carmalena Cordi*

**M48. STRAIN SPECIFIC BEHAVIORAL RESPONSES TO CONSTANT LIGHT IN MALE C57BL6/J AND B6.CG-LEP(OB)/J MICE**

*Presenter: Meredith Burns*

**M49. ACTIGRAPHY-DERIVED DAILY REST-ACTIVITY METRICS MODIFY THE ASSOCIATION BETWEEN TIME-IN-BED LIGHT EXPOSURE AND RESTING DIASTOLIC BLOOD PRESSURE**

*Presenter: Freda Patterson*

**M50. USING MACHINE LEARNING TO IDENTIFY NOVEL CIRCADIAN BEHAVIORS**

*Presenter: Jeff Jones*

**M51. SCN-DVLT VASCULAR PORTAL SYSTEM: IN VIVO DETERMINATION OF DIRECTION OF BLOOD FLOW** *Presenter: Javier Stern*

**M52. AUTISTIC-LIKE BEHAVIOR AND CEREBELLAR DYSFUNCTION IN BMAL1 MUTANT MICE AMELIORATED BY MTORC1 INHIBITION**

*Presenter: Abhishek Mishra*

# Poster Titles – Monday, May 16

**M53. NONINVASIVE RECORDING OF TEMPERATURE AND ACTIVITY CYCLES IN CYNOMOLGUS MONKEYS**

*Presenter: Ruitong Jiang*

**M54. PEPTIDE CO-RELEASE WITHIN CRITICAL NEURONAL CLOCKS OF DROSOPHILA MELANOGASTER**

*Presenter: Matthew Ciolkowski*

**M55. A CANNABINOID RECEPTOR 1 AGONIST HAS A SEX-SPECIFIC IMPACT ON LIGHT-INDUCED PHASE DELAYS**

*Presenter: Timothy Niepakny*

**M56. TIME OF DAY MODULATES NEUROIMMUNE ACTIVATION OF THE OLFACTORY BULB**

*Presenter: Gregory Pearson*

**M57. ENDOCANNABINOID RECEPTOR KNOCKOUT PROTECTS AGAINST CIRCADIAN DESYNCHRONIZATION-INDUCED METABOLIC DISRUPTION**

*Presenter: Brennan Falcy*

**M58. POLYAMINE ELEVATION AND NITROGEN STRESS ARE TOXIC HALLMARKS OF CHRONIC SLEEP LOSS IN DROSOPHILA MELANOGASTER**

*Presenter: Joseph Bedant*

**M59. IPRGC MODULATION OF NICOTINE REINFORCEMENT LEARNING**

*Presenter: Heather Mahoney*

**M60. DPR AND DIP CELL-SURFACE MOLECULES GATE CIRCADIAN INFORMATION FROM DROSOPHILA CIRCADIAN NEURONS**

*Presenter: Nicholas Herndon*

**M61. THE DORSAL CLOCK NEURONS OF DROSOPHILA MELANOGASTER – NEW INSIGHTS INTO THEIR CONNECTIVITY AND MORPHOLOGY**

*Presenter: Nils Reinhard*

**M62. AN AUXIN-INDUCIBLE GENE EXPRESSION SYSTEM FOR CONDITIONAL MANIPULATION OF DROSOPHILA CIRCADIAN BEHAVIOR**

*Presenter: Annika Barber*

**M63. VISUAL CIRCUITS UNDERLYING THREAT ANTICIPATION**

*Presenter: Tiffany Schmidt*

**M64. CIRCADIAN RHYTHM DISRUPTIONS IN MYOTONIC DYSTROPHY TYPE 1 (DMI) – A MULTI-SYSTEMIC GENETIC DISEASE WITH MAJOR CNS INVOLVEMENT**

*Presenter: Belinda Pinto*

**M65. SCN-MEDIATED RHYTHMS REGULATE NEUROPATHOLOGICAL HALLMARKS IN A LIGHT-DEPENDENT MANNER**

*Presenter: Melvin King*

# Poster Titles – Monday, May 16

**M66. COMPARING DOSE-DEPENDENCY AND TIME-DEPENDENCY OF EXCITOTOXIC SUSCEPTIBILITY IN THE SUPRACHIASMATIC NUCLEUS, ANTERIOR HYPOTHALAMUS AND CORTEX**

*Presenter: Debalina Acharyya*

**M67. PRENATAL CIRCADIAN RHYTHM DISRUPTION INDUCES SEX-SPECIFIC SUBSTANCE USE-RELATED PHENOTYPES IN MICE**

*Presenter: Lauren DePoy*

**M68. FASTER ADJUSTMENT OF LOCOMOTOR ACTIVITY AND LIVER GENE EXPRESSION TO PHOTIC PHASE ADVANCE WITH CHOCOLATE FOR BREAKFAST**

*Presenter: Zhen Nie*

**M69. HUMAN CLOCK ENHANCES COGNITIVE FLEXIBILITY BY ALTERING CORTICAL EXCITATORY NEURON FUNCTION**

*Presenter: Yuxiang Liu*

**M70. BEYOND THE BIOCLOCK WORKSHOP: A “FREE-RUNNING” CIRCADIAN BIOLOGY COURSE**

*Presenter: Karen Tonsfeldt*

**M71. ADVANCEMENT OF THE CIRCANNUAL RHYTHM OF REPRODUCTION IN PREGNANT MARES: INFLUENCE OF PREPARTUM DELIVERY OF BLUE LIGHT TO ONE EYE ON PREGNANCY LENGTH, FOAL MATURITY AND POST-FOALING FERTILITY**

*Presenter: Barbara Murphy*

**M72. THE ENLIGHT DELPHI CONSENSUS PROJECT: TOWARDS STANDARD DOCUMENTATION AND REPORTING GUIDELINES FOR HUMAN LABORATORY-BASED LIGHT EXPOSURE INTERVENTIONS**

*Presenter: Laura Kervezee*

**M73. IPRGC INPUT TO THE SUBSTANTIA INNOMINATA**

*Presenter: Jacob Bhoi*

**M74. BRIEF EXPOSURES TO SEQUENCES OF FLASHING LIGHT SHIFT THE HUMAN CIRCADIAN TIMING SYSTEM**

*Presenter: Jamie Zeitzer*

**M75. VARIANT-TO-GENE-MAPPING FOLLOWED BY CROSS-SPECIES GENETIC SCREENING IDENTIFIES GPI-ANCHOR BIOSYNTHESIS AS NOVEL REGULATOR OF SLEEP**

*Presenter: Justin Palermo*

**M76. CIRCADIAN AND SLEEP DISRUPTION IN A MOUSE MODEL OF CHRONIC TRAUMATIC BRAIN INJURY**

*Presenter: Andrew Morris*

**M77. SLEEP FRAGMENTATION CAUSES PERSISTENT IMPAIRMENTS IN ALCOHOL TOLERANCE AND INCREASES ALCOHOL TOXICITY**

*Presenter: Natalie Storch*

# Poster Titles – Monday, May 16

**M78. CLOCK-MEDIATED CHANGES IN THE ACTIVITY OF A HOMEOSTATIC SLEEP CENTER CONTRIBUTE TO DAYTIME SLEEP IN DROSOPHILA**

*Presenter: Cynthia Hsu*

**M79. CRY1 AND CRY2 DEFICIENT MICE AS TOOLS TO STUDY THE DIFFERENTIAL EFFECT OF SOCIAL JETLAG ON EARLY AND LATE CHRONOTYPES**

*Presenter: Inês Chaves*

**M80. INCREASING EXPRESSION OF THE PENTOSE PHOSPHATE PATHWAY AFFECTS SLEEP:WAKE CYCLES**

*Presenter: Jessica Schwarz*

**M81. PERSONALIZED SLEEP-WAKE PATTERNS ALIGNED WITH CIRCADIAN RHYTHM RELIEVE DAYTIME SLEEPINESS**

*Presenter: Hyukpyo Hong*

**M82. ALTERED LIGHT RESPONSES IN MICE LACKING THE CIRCADIAN DEUBIQUITINASE USP2**

*Presenter: Shashank Srikanta*

**M83. TARGETING CRYPTOCHROME PROTEINS FOR DEGRADATION USING PROTACS**

*Presenter: Jack Munns*

**M84. THE GSK-3 $\beta$ -FBXL21 AXIS REGULATES SARCOMERE ARCHITECTURE AND MYOBLAST DIFFERENTIATION VIA MYOZ1 UBIQUITINATION AND NFAT SIGNALING**

*Presenter: Ji Ye Lim*

**M85. RENAL MITOCHONDRIAL BIOENERGETICS AND FUNCTION ARE DIMINISHED IN BMAL1 KNOCKOUT RATS**

*Presenter: Anne Ramsey*

**M86. INSULIN SIGNALING: A PRIMARY AXIS CONTROLLING THE CIRCADIAN PROGRAM IN THE LIVER?** *Presenter: Rafael Bravo*

**M87. REVERSIBLE ASSEMBLIES OF CLOCK GIRDERS CIRCADIAN RESILIENCE DURING STRESS**

*Presenter: Jonathan Lipton*

**M88. ANALYSIS OF CLOCK: BMAL1 ACTIVITY AT MOUSE LIVER ENHANCERS IN VIVO BY SINGLE MOLECULE FOOTPRINTING**

*Presenter: Xinyu Nie*

**M89. LOCALIZATION OF AN UBIQUITIN LIGASE-BINDING SITE TO THE N-TERMINUS OF REV-ERB $\alpha$  PROTEIN**

*Presenter: Ting-Chung Suen*

**M90. INTERACTION MAPPING OF INDIVIDUAL CIRCADIAN CLOCK PROTEINS IN SINGLE CELLS**

*Presenter: James Bagnall*

# Poster Titles – Monday, May 16

**M92. THE PHOSPHORYLATION STATE OF KAIC COORDINATES STRUCTURAL AND FUNCTIONAL CHANGES WITHIN THE CYANOBACTERIA CIRCADIAN CLOCK**

*Presenter: Alfred Freeberg*

**M93. OSCILLATION OF PER1 IN RAT CALCITONIN AND PARATHYROID HORMONE PRODUCING CELLS** *Presenter: Birgitte Georg*

**M94. VIP CELL COMPOSITION IN THE SCN OF THE BTBR MOUSE MODEL**

*Presenter: Katelyn Horsley*

**M95. THE FREQUENCY ISOFORMS OF NEUROSPORA CRASSA PLAY A DYNAMIC ROLE IN NEGATIVE ARM CIRCADIAN CLOCK REGULATION**

*Presenter: Jacqueline Pelham*

**M96. MECHANISMS UNDERLYING RHYTHMIC EXCITABILITY IN MAMMALIAN CLOCK NEURONS**

*Presenter: Priyam Narain*

**M97. A TALE OF TWO TAILS: INVESTIGATING HOW SPLICE VARIANTS OF CKIDELTA INFLUENCE KINASE ACTIVITY**

*Presenter: Rachel Harold*

**M98. DISSECTING THE DYNAMICS OF THE ZEBRAFISH CIRCADIAN CLOCK IN RESPONSE TO ENVIRONMENTAL STIMULI**

*Presenter: Raina Sacksteder*

**M99. CKIA-DEPENDENT PHOSPHORYLATION REDUCES CLOCK DNA BINDING AND TRANSCRIPTIONAL ACTIVITY TO REGULATE CIRCADIAN RHYTHMS**

*Presenter: Yao Cai*

**M100. RIBOSOMAL S6 KINASE REGULATES THE TIMING AND ENTRAINMENT OF THE MASTER CIRCADIAN CLOCK LOCATED IN THE MAMMALIAN SUPRACHIASMATIC NUCLEUS**

*Presenter: Kari Hoyt*

**M101. INTRINSIC RHYTHMS IN A GIANT SINGLE-CELLED ORGANISM AND THE INTERPLAY WITH TIME-DEPENDENT DRIVE, EXPLORED VIA SELF-ORGANIZED MACROSCOPIC WAVES**

*Presenter: Eldad Afik*

**M102. A LEPTIN RESPONSIVE HYPOTHALAMIC CIRCADIAN CIRCUIT**

*Presenter: Qijun Tang*

**M103. PHYSIOLOGICAL SIGNIFICANCE OF INTESTINAL CLOCKS IN THE DEVELOPMENT OF IBD**

*Presenter: Yunhui Niu*

**M104. MUSCLE-SPECIFIC CRY2 INFLUENCES EXERCISE PERFORMANCE AND MUSCLE METABOLISM**

*Presenter: Lara-Leonie Fetzer*

# Poster Titles – Monday, May 16

## **M105. A MINIMAL CIRCADIAN CLOCK NETWORK FOR GLUCOSE TOLERANCE**

*Presenter: Kevin Koronowski*

## **M106. REDOX REGULATION OF THE CLOCK-CONTROLLED NADP(H) PHOSPHATASE NOCTURNIN**

*Presenter: Crystal Olivas*

## **M107. A MATHEMATICAL MODEL OF STRIATAL EXTRACELLULAR DOPAMINE REGULATION IN THE PRODUCTION OF ULTRADIAN RHYTHMS**

*Presenter: An Qi Zhang*

## **M108. INFERRING THE NETWORK TOPOLOGY OF THE MAMMALIAN SUPRACHIASMATIC NUCLEUS**

*Presenter: Nikhil Lokesh*

## **M109. DIURNAL RHYTHMS IN SEROTONERGIC NEURON CLOCK GENE, CFOS, AND TPH2 MRNA EXPRESSION IN THE DORSAL RAPHE AND MEDIAN RAPHE NUCLEI OF ADULT MALE RATS**

*Presenter: Helen Strnad*

## **M110. VIPERGIC FIBER DENSITY CHANGES ACROSS THE LIGHT DARK CYCLE**

*Presenter: Alexandra Neitz*

## **M111. DIRECT, REAL-TIME IN VIVO MEASUREMENT OF DISTINCT CIRCADIAN CLOCKS IN DROSOPHILA**

*Presenter: Deniz Top*

## **M112. CIRCATIDAL RHYTHMS OF ACTIVITY IN PARHYALE HAWAIENSIS REQUIRE BMAL1**

*Presenter: Erica Kwiatkowski*

## **M113. SKELETAL MUSCLE BMAL1 KNOCKOUT ALTERS THE EXERCISE-RESPONSIVE TRANSCRIPTOME AND CHROMATIN ACCESSIBILITY**

*Presenter: Mark Viggars*

## **M114. CLOCKOLOGY—A COMMUNITY-DRIVEN CONSENSUS ON CIRCADIAN TERMS AND PHRASES USED IN CHRONOBIOLOGY**

*Presenter: Nina Rzechorzek*

## **M115. NITECAP: AN EXPLORATORY CIRCADIAN ANALYSIS WEB APPLICATION**

*Presenter: Thomas Brooks*

## **M116. ARE SOCIAL DEFEAT STRESS-INDUCED PHASE SHIFTS OF PERIPHERAL CLOCKS MEDIATED BY GLUCOCORTICIDS?**

*Presenter: Roelof Hut*

# Poster Titles – Tuesday, May 17

## **T1. PHARMACOLOGICAL TARGETING OF ROR BENEFITS CARDIAC REPAIR AFTER HEART ATTACK**

*Presenter: Janan Shoja Doost*

## **T2. INVESTIGATING CIRCADIAN REGULATION OF ONCOGENIC FACTORS IN RENAL CELL CARCINOMA**

*Presenter: Rebecca Mello*

## **T3. TIMED TEMOZOLOMIDE TREATMENT REDUCES TUMOR SIZE AND PROLIFERATION INDEX, AND CONFERS A SURVIVAL BENEFIT IN ORTHOTOPIC MODELS OF GLIOBLASTOMA MULTIFORME**

*Presenter: Anna Damato*

## **T4. ONCOGENIC MYC LEVELS ALTERS CELLULAR RESPIRATION AND PROLIFERATION THROUGH INDUCTION OF REV-ERB PROTEINS**

*Presenter: Jamison Burchett*

## **T5. THE MOLECULAR CLOCK IS A NOVEL PHARMACOLOGICAL TARGET TO REGULATE UTERINE CONTRACTIONS IN PREGNANCY**

*Presenter: Hanne Hoffmann*

## **T7. PER2 DOWNREGULATION IS ASSOCIATED WITH TUMOR PROGRESSION IN HEAD AND NECK SQUAMOUS CELL CARCINOMA**

*Presenter: Liubov Lobanova*

## **T8. BEHAVIOURAL BUT NOT MOLECULAR RHYTHMS IN VIPR2-/- MICE ARE RESTORED BY SCHEDULED VOLUNTARY EXERCISE**

*Presenter: Hugh Piggins*

## **T10. THE CLOCK IS TICKING FOR HIV-1**

*Presenter: Helene Borrman*

## **T11. HIGH-FAT FEEDING DISRUPTS EATING BEHAVIOR RHYTHMS IN PREGNANT FEMALE MICE AND INCREASES OFFSPRING MORTALITY**

*Presenter: Cameron Rostron*

## **T12. DAILY VARIATION IN GLUCOSE CONTROL IN CRITICALLY ILL PATIENTS IN THE INTENSIVE CARE UNIT: A RETROSPECTIVE OBSERVATIONAL STUDY USING THE MIMIC-IV DATABASE**

*Presenter: Laura Kervezee*

## **T13. CIRCADIAN DYSSYNCHRONY, A SUSCEPTIBLE STATE FOR AIR POLLUTION-INDUCED METABOLIC DISEASE**

*Presenter: Petra Haberzettl*

## **T14. THE CLOCK MODULATOR NOBILETIN MITIGATES ASTROGLIOSIS-ASSOCIATED NEUROINFLAMMATION AND DISEASE HALLMARKS IN AN ALZHEIMER'S DISEASE MODEL**

*Presenter: Marvin Wirianto*



# Poster Titles – Tuesday, May 17

**T15. A NOVEL TOOL FOR INVESTIGATING THE CIRCADIAN SECRETOME OF SKELETAL MUSCLE**

*Presenter: Ryan Martin*

**T16. EFFECT OF SEROTONERGIC MEDICATIONS ON MSLT DEPENDS ON THE TIME OF THE NAP**

*Presenter: Milena Pavlova*

**T17. SEX-SPECIFIC ROLE OF THE CIRCADIAN TRANSCRIPTION FACTOR NPAS2 IN THE MODULATION OF FENTANYL WITHDRAWAL AND HYPERALGESIA**

*Presenter: Benjamin Williams*

**T18. ENVIRONMENTAL CIRCADIAN DISRUPTION EXTENSIVELY REMODELS LIVER CIRCADIAN PROTEOMES**

*Presenter: Hao Duong*

**T19. CIRCADIAN TRANSCRIPTOMIC ALTERNATIVE POLYADENYLATION SITES IN MAMMALIAN BRAIN**

*Presenter: Jason Gerstner*

**T20. MAMMALIAN CORE CLOCK MODELS REVISITED**

*Presenter: Hanspeter Herzel*

**T21. INTERNAL DESYNCHRONY OF CIRCADIAN RHYTHMS IN POPULATIONS WITH MILD TRAUMATIC BRAIN INJURY**

*Presenter: Yitong Huang*

**T22. A HYBRID EXPERIMENTAL/INFORMATIC APPROACH IDENTIFIES RHYTHMS AND TARGETS IN BREAST CANCER**

*Presenter: Jan Hammarlund*

**T23. COMPARATIVE GENE EXPRESSION ANALYSIS IN DROSOPHILA CLOCK NEURONS AND DOPAMINERGIC NEURONS AT SINGLE CELL LEVEL**

*Presenter: Dingbang Ma*

**T24. DISTINCT METHODS OF SLEEP DEPRIVATION PRODUCE DIVERGENT PATTERNS OF GENE EXPRESSION IN DROSOPHILA BRAINS**

*Presenter: Clark Rosensweig*

**T26. COMPARISON OF RHYTHMS ACROSS THE HUMAN AND MOUSE STRIATUM**

*Presenter: Kaitlyn Petersen*

**T27. THE TICKING CLOCK, AN AGING STUDY OF A COLONIAL CHORDATE LINKING STEM CELL AGING TO MOLECULAR DECLINE OF CIRCADIAN REGULATION**

*Presenter: Ayelet Voskobaynik*

# Poster Titles – Tuesday, May 17

## **T28. TEMPORAL NICHE CHOICE IN DROSOPHILA MELANOGASTER**

*Presenter: Angelica Coculla*

## **T29. ROS AND HYPOXIA SIGNALING REGULATE PERIODIC INFRADIAN METABOLIC AROUSAL CYCLES DURING INSECT DORMANCY - ARE FLESH FLIES JUST CRUNCHY GROUND SQUIRRELS?**

*Presenter: Dan Hahn*

## **T30. CHARACTERIZATION OF FUSARIUM OXYSPORUM VVD REVEALS A DIVERGENT MECHANISM OF SIGNAL TRANSDUCTION**

*Presenter: Julia Lara*

## **T31. DIVERSITY IN REST-ACTIVITY PATTERNS AMONG LAKE MALAWI CICHLID FISHES SUGGESTS A NOVEL AXIS OF HABITAT PARTITIONING**

*Presenter: Evan Lloyd*

## **T32. CIRCADIAN RHYTHMICITY OF STRESS REACTIVITY TO A SOCIALLY EVALUATED COLD-PRESSOR TEST**

*Presenter: Omar Ordaz*

## **T33. CIRCADIAN CONTRIBUTION TO SYSTOLIC BLOOD PRESSURE DIPPING IS MINIMAL UNDER CONSTANT CONDITIONS**

*Presenter: Gabrielle Glaston*

## **T34. CHARACTERIZATION OF CRISPR KNOCK-IN CELLULAR MODELS OF PATHOGENIC MTOR ALLELES INVOLVED IN SMITH-KINGSMORE SYNDROME**

*Presenter: Yang Shen*

## **T35. CIRCADIAN DISTURBANCES PREDICT INCIDENT PHYSICAL FRAILITY IN COMMUNITY-DWELLING OLDER ADULTS**

*Presenter: Ruixue Cai*

## **T36. YOUNG CHILDREN'S EVENING MELATONIN LEVELS VARY WITH LUNAR PHASE**

*Presenter: Lauren Hartstein*

## **T37. LATE CHRONOTYPE IN YOUNG SEDENTARY MEN, BUT NOT WOMEN, IS ASSOCIATED WITH POOR CARDIORESPIRATORY FITNESS**

*Presenter: Matthew Thomas*

## **T38. DEPRESSION, FAMILY MENTAL HEALTH AND LONGITUDINAL PATTERNS OF HEART RATE RHYTHMICITY DURING PREGNANCY**

*Presenter: Crystal Epstein*

## **T39. HOMOGENATE AND SYNAPTIC PROTEOMICS REVEALS ALTERATIONS IN CIRCADIAN PATHWAYS IN THE BRAINS OF PEOPLE WITH OPIOID USE DISORDER**

*Presenter: Stephanie Puig*

# Poster Titles – Tuesday, May 17

**T40. DIFFERENCES IN 24H RHYTHMS WITHIN THE SKELETAL MUSCLE METABOLOME BETWEEN YOUNG HEALTHY AND OLDER INSULIN-RESISTANT MEN**

*Presenter: Jan-Frieder Harmsen*

**T41. ALTERNATIONS IN DAILY ACTIVITY PATTERNS IN UNMEDICATED WOMEN WITH MAJOR DEPRESSIVE DISORDER**

*Presenter: Hui-Wen Yang*

**T42. LOSS OF THE SKELETAL MUSCLE CIRCADIAN CLOCK RESULTS IN CHANGES IN Z-DISC PROTEIN EXPRESSION AND SPATIAL ORIENTATION OF TITIN**

*Presenter: Collin Douglas*

**T43. CIRCADIAN VARIATION OF EEG SPECTRAL POWER IN POSTMENOPAUSAL WOMEN**

*Presenter: Diane B. Boivin*

**T44. DELETION OF CRY1 ALTERS NEUROGENESIS IN ADULT SYRIAN HAMSTERS**

*Presenter: Michael Seifu Bahiru*

**T45. EFFECTS OF DIM LIGHT IN THE EVENING ON ACTIVITY, METABOLISM AND THE LIVER CLOCK**

*Presenter: Selma Tir*

**T46. MATHS MEETS LIGHT AND CIRCADIAN DATA TO DESIGN PERSONALISED INTERVENTIONS FOR IMPROVED SLEEP TIMING IN PEOPLE LIVING WITH SCHIZOPHRENIA**

*Presenter: Anne Skeldon*

**T47. BROAD SPECTRUM DAYTIME LIGHT EXPOSURE IMPROVES COGNITION INDEPENDENT OF CHANGES IN ALERTNESS**

*Presenter: Renske Lok*

**T48. ESTRADIOL PROTECTS CIRCADIAN ROBUSTNESS IN OVARECTOMIZED MICE WHEN IN CONSTANT LIGHT**

*Presenter: Julie Michaud*

**T49. CIRCADIAN RHYTHM DISRUPTION AND ARGININE VASOPRESSIN ALTER GLYMPHATIC FLUID TRANSPORT WITHIN HIPPOCAMPUS AND SCN**

*Presenter: Eman Hamed*

**T50. TIMED DAILY RESTRICTED FEEDING SUPPRESSES THE FEMALE REPRODUCTIVE SYSTEM IN MICE**

*Presenter: Madison Trissel*

**T51. VISUALIZING EXPRESSION OF DIFFERENT PDF RECEPTOR ISOFORMS IN VIVO, IN DROSOPHILA**

*Presenter: Paul Taghert*

**T52. THE SEARCH FOR A GENETIC BASIS FOR RAPID PHASE SHIFTING IN BALB/CJ MICE.**

*Presenter: Todd Weber*

# Poster Titles – Tuesday, May 17

**T53. PARAMETRIC EFFECTS OF LIGHT VIA MULTIPLE PHOTORECEPTOR TYPES CONTRIBUTE SIGNIFICANTLY TO CIRCADIAN ENTRAINMENT IN DROSOPHILA MELANOGASTER**

*Presenter: Lakshman Abhilash*

**T54. DAILY CANNABINOID ANTAGONIST INJECTIONS DO NOT MIMIC THE CIRCADIAN PHENOTYPE OF CANNABINOID RECEPTOR 1 KNOCKOUT MICE**

*Presenter: Hunter Frey-Burkart*

**T55. CONNECTOMIC ANALYSIS OF THE DROSOPHILA LATERAL NEURON CLOCK CELLS REVEALS THE SYNAPTIC BASIS OF FUNCTIONAL PACEMAKER CLASSES**

*Presenter: Maria de la Paz Fernandez*

**T56. EXPOSURE TO ROOM LIGHT IMPACTS CIRCADIAN PHASE ESTIMATES DERIVED FROM PLASMA MELATONIN BUT NOT FROM URINE 6-SULPHATOXYMELATONIN**

*Presenter: Steven Lockley*

**T57. NEUROMODULATORY SIGNAL INTEGRATION IN A DROSOPHILA CLOCK OUTPUT REGION**

*Presenter: Naureen Hameed*

**T58. ROLE OF SLEEP IN LIPID HOMEOSTASIS**

*Presenter: Elana Pyfrom*

**T59. DIURNAL VARIATION OF ASTROCYTE GAP JUNCTION DYNAMICS IN THE MOLECULAR LAYER OF THE HIPPOCAMPAL DENTATE GYRUS**

*Presenter: Taylor Jorgensen*

**T60. THE GATING OF SLEEP BY DYNAMIC DOPAMINE EXPRESSION IN CIRCADIAN LND NEURONS**

*Presenter: Jasmine Quynh Le*

**T61. CIRCADIAN RHYTHMS IN CONDITIONED FEAR EXTINCTION RECALL ARE ASSOCIATED WITH TIME-OF-DAY DIFFERENCES IN INFRALIMBIC PREFRONTAL CORTEX NEURAL ACTIVITY IN RATS**

*Presenter: Matthew Hartssock*

**T62. NEURAL SUBSTRATES INVOLVED IN THE SOCIAL INTERACTION MODULATION OF THE LIGHT-INDUCED ACTIVATION OF THE SUPRACHIASMATIC NUCLEUS OF MICE**

*Presenter: Paola Fernandes*

**T63. DIURNAL VARIATION IN PARVALBUMIN INTERNEURON ELECTROPHYSIOLOGY IN MOUSE PREFRONTAL CORTEX**

*Presenter: Jennifer Burns*

**T65. CIRCADIAN REGULATION OF LEARNING AND MEMORY BY THE MNK-EIF4E SIGNALING AXIS IN THE MOUSE BRAIN**

*Presenter: Hao Lin*

# Poster Titles – Tuesday, May 17

**T66. INVESTIGATING NEURONAL TISSUE RESPONSE IN THE PRESENCE OF AMYLOID-BETA AND TAU**

*Presenter: Victoria Norman*

**T67. MESO-LIMBIC DOPAMINE NEURONS ARE REQUIRED FOR INFRADIAN AROUSAL RHYTHM EMERGENCE**

*Presenter: Pratap Singh Markam*

**T68. INFLUENCE OF LIGHT ON ACTIVITY-REGULATED GENE EXPRESSION AND CIRCADIAN BEHAVIOR**

*Presenter: Melina Perez Torres*

**T69. BRAIN CELL-SPECIFIC GENETIC ACTIVATION OF NF- $\kappa$ B DISRUPTS CIRCADIAN RHYTHM AND SLEEP HOMEOSTASIS**

*Presenter: Mehari Mengistu*

**T70. EXPLORING THE INFLUENCE OF PNNS ON PHOTIC PHASE DELAY BEHAVIOUR IN HAMSTERS AND SCN CELL ACTIVITY**

*Presenter: Patricia Blakely*

**T71. IMPACT OF TIME-OF-DAY ON ELEVATED PLUS MAZE IN MICE**

*Presenter: Andrew Morris*

**T72. EVALUATING GENETIC TOOLS FOR THE IDENTIFICATION OF INTRINSICALLY PHOTOSENSITIVE RETINAL GANGLION CELLS**

*Presenter: Molishka Flores-Narvaez*

**T73. TO CLEAVE OR NOT TO CLEAVE? THE ONE MILLION DOLLAR QUESTION REGARDING THE EFFECT OF QUASIMODO ON THE CLOCK**

*Presenter: Maite Ogueta Gutierrez*

**T74. THE OPPOSING CHLORIDE COTRANSPORTERS KCC AND NKCC CONTROL LOCOMOTOR ACTIVITY IN CONSTANT LIGHT AND DURING LONG DAYS**

*Presenter: Anna Katharina Eick*

**T75. THE NEUROPEPTIDE PDF CONVEYS PHOTOPERIODIC AND THERMAL CUES TO MODULATE EYES ABSENT AND REGULATES SEASONAL PHYSIOLOGY**

*Presenter: Sergio Hidalgo Sotelo*

**T76. A ROLE FOR BMAL1 PHOSPHORYLATION IN TIMING OF SLEEP ARCHITECTURE AND SEROTONERGIC SIGNALING**

*Presenter: Nicole Gillette*

**T77. A PREBIOTIC DIET ALTERS THE FECAL MICROBIOME AND IMPROVES SLEEP IN RESPONSE TO SLEEP DISRUPTION IN RATS**

*Presenter: Keith Summa*

# Poster Titles – Tuesday, May 17

**T78. MONITORING OF CIRCADIAN RHYTHM DISRUPTION FOR EARLY DIAGNOSIS AND PROGNOSIS OF AUTOIMMUNE DISEASE TRIGGER AND PROGRESSION**

*Presenter: Petros Papagerakis*

**T79. THE ANTI-PROLIFERATIVE PROTEIN TOB REGULATES SLEEP ONSET TIMING**

*Presenter: Emily Han*

**T80. SLEEP CONFERS RESILIENCE TO SOCIAL DEFEAT STRESS**

*Presenter: Brittany Bush*

**T81. A LONGITUDINAL, OBJECTIVE ASSESSMENT OF FATIGUE AND FATIGUE RISK IN EMERGENCY PHYSICIANS**

*Presenter: Lauren Fowler*

**T82. ALTERATIONS IN CIRCADIAN GENE EXPRESSION IN MAMMARY GLANDS FROM PUBERTAL MMTV-PYMT MICE FED A HIGH-FAT DIET**

*Presenter: Lin Yan*

**T83. SYNERGIES OF MULTIPLE ZEITGEBERS TUNE ENTRAINMENT**

*Presenter: Saskia Grabe*

**T84. ROLE OF RORS IN REGULATING AMPLITUDE OF CLOCK-CONTROLLED GENES**

*Presenter: Evan Littleton*

**T85. THE CIRCADIAN NATURE OF LYSOSOMAL CLEARANCE IN THE RETINAL PIGMENT EPITHELIUM MAY BE MEDIATED BY  $\beta$ A3/A1-CRYSTALLIN**

*Presenter: Anastasiya Strizhakova*

**T86. PROTEIN SOLUBILITY AS A POTENTIAL RESERVOIR OF CIRCADIAN RHYTHMICITY OF BIOCHEMICAL STATE**

*Presenter: Mallory Caron*

**T87. A FUZZY COMPLEX IN THE NEGATIVE ARM REGULATES CIRCADIAN CLOCK ROBUSTNESS**

*Presenter: Meaghan Jankowski*

**T88. EARLY BIRDS AND FLUORESCENT WORMS: INVESTIGATING THE ROLE OF THE PER2 C. ELEGANS HOMOLOG, LIN-42, IN NEMATODE DEVELOPMENTAL TIMING**

*Presenter: Rebecca Spangler*

**T89. QUANTIFICATION OF PROTEIN ABUNDANCE AND INTERACTION DEFINES A MECHANISM FOR OPERATION OF THE CIRCADIAN CLOCK**

*Presenter: Alexander Koch*

**T90. TRITHORAX-DEPENDENT ARGININE METHYLATION OF HSP68 MEDIATES CIRCADIAN REPRESSION BY PERIOD IN THE MONARCH BUTTERFLY**

*Presenter: Christine Merlin*

# Poster Titles – Tuesday, May 17

## **T91. CHRONOCODE: IMPLICATION FOR PROTEIN OSCILLATOR IN MAMMALIAN CIRCADIAN CLOCK**

*Presenter: Hikari Yoshitane*

## **T92. FUNCTIONAL CHARACTERISATION OF HUMAN PERIOD2**

*Presenter: Andrei Mihut*

## **T93. DECIPHERING THE TRANSCRIPTIONAL REGULATORY MECHANISM OF A RHYTHMIC LONG NON-CODING RNA, PER2AS**

*Presenter: Lin Miao*

## **T94. A CASE FOR THE KINASES: A ROLE FOR CKI IN TEMPERATURE COMPENSATION OF THE NEUROSPORA CIRCADIAN CLOCK**

*Presenter: Elizabeth-Lauren Stevenson*

## **T95. THE INTRACELLULAR BEHAVIOURS OF PERIOD AND CRYPTOCHROME WITHIN THE SCN**

*Presenter: Nicola Smyllie*

## **T97. DEVELOPMENT AND CHARACTERIZATION OF AN INDUCIBLE, TISSUE-SPECIFIC REPORTER OF DROSOPHILA CIRCADIAN TRANSCRIPTIONAL ACTIVITY**

*Presenter: Daniel Cavanaugh*

## **T98. DETERMINING THE IMPACT OF CKI $\alpha$ -DEPENDENT PHOSPHORYLATION ON CLK DNA-BINDING AFFINITY AND TRANSCRIPTIONAL ACTIVITY BY BIOLAYER INTERFEROMETRY**

*Presenter: Gary Chow*

## **T99. CIRCADIAN ARRHYTHMIA IN PER2(M/M) MICE IS AFFECTED BY PRIOR PHOTOPERIODIC ENTRAINMENT**

*Presenter: Jonathan Riggle*

## **T100. CIRCADIAN CLOCK IN THE CHOROID PLEXUS AND ITS SENSITIVITY TO EXTRACELLULAR AND INTRACELLULAR SIGNALS**

*Presenter: Alena Sumova*

## **T101. LIGHT-EXCITED NEURONS OF THE SUPRACHIASMATIC NUCLEUS INITIATE ENTRAINMENT TO SHIFTED LIGHT CYCLES**

*Presenter: Anouk van Beurden*

## **T102. CIRCADIAN RHYTHMS IN PARASITIC DISEASES: AN UNDERLYING CLOCK OF MALARIA PARASITES**

*Presenter: Filipa Rijo-Ferreira*

## **T103. MICROBIAL ENTRAINMENT OF THE CIRCADIAN CLOCK**

*Presenter: Jacqueline Kimmey*

# Poster Titles – Tuesday, May 17

**T104. ESTROGEN RECEPTOR ALPHA REGULATES CIRCADIAN ORGANIZATION IN FEMALE MICE**

*Presenter: Oluwabukola Omatola*

**T105. ARRHYTHMICITY OF THE GUT MICROBIOME DURING CIRCADIAN DESYNCHRONIZATION PROMOTES METABOLIC ALTERATIONS**

*Presenter: Baraa Altaha*

**T106. ANGIOPOIETIN-LIKE 4 DICTATES THE DIURNAL RHYTHM OF METABOLIC BROWN ADIPOSE TISSUE ACTIVITY**

*Presenter: Wietse In het Panhuis*

**T107. DISTINCT MOLECULAR CLOCKWORKS IN HIERARCHICALLY ORGANIZED PACEMAKER NEURONS**

*Presenter: Euimin Jeong*

**T108. ORCHESTRATING THE CIRCADIAN EXPRESSION OF IMPLICIT TIME MEMORY IN MICE**

*Presenter: Martin Ralph*

**T109. IN VIVO DARK PULSE-MEDIATED TRANSIENT AND STEADY-STATE PHASE-RESETTING OF CALCIUM OSCILLATIONS IN MAMMALIAN CIRCADIAN CLOCKS**

*Presenter: Byeongha Jeong*

**T110. THE ROLE OF REV-ERB NUCLEAR RECEPTORS IN DETERMINING CIRCADIAN PERIOD LENGTH AND INTERCELLULAR COHERENCE**

*Presenter: Michael Tackenberg*

**T111. THE ROLE OF BMAL1 IN NEUROINFLAMMATION AFTER SPINAL CORD INJURY**

*Presenter: Kathryn Mahach*

**T112. THE ROLE OF RETINOIC ACID BIOSYNTHESIS IN THE INFRADIAN RHYTHM OF THE HAIR CYCLE**

*Presenter: Kelli Goggans*

**T113. IMPACT OF INTERMITTENT HYPOXIA ON CIRCADIAN PHYSIOLOGY AND GENE EXPRESSION IN MICE**

*Presenter: Bala Subrahmanya Chakravarthy Koritala*

**T114. YOUR SKIN IS GLOWING: MEASURES FROM A PERIPHERAL CLOCK IN THE SKIN**

*Presenter: Hongtong Lin*

**T115. MECHANISM OF CIRCADIAN CLOCK CONTROL OF RHYTHMIC TRANSLATION IN NEUROSPORA CRASSA**

*Presenter: Ebimobawe Preh*

**T116. A CRISPR-BASED DROSOPHILA STRATEGY FOR CELL-SPECIFIC GENE KOS OUTPERFORMS RNAI**

*Presenter: Shlesha Richhariya*





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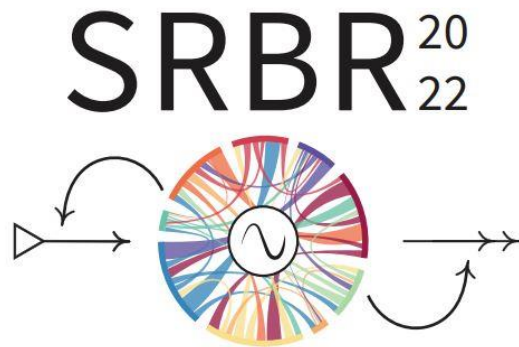
**NINA RZECHORZEK**

**MRC LABORATORY OF MOLECULAR BIOLOGY, CAMBRIDGE**



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**CONGRATULATIONS TO THE RUNNERS UP!**



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Maria Jabbur, Vanderbilt University



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