XVII

EUROPEAN BIOLOGICAL RHYTHMS SOCIETY CONGRESS

in Zürich, Switzerland

PROGRAM

WELCOME TO

ZÜRICH

SWITZERLAND

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Committees

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General Information

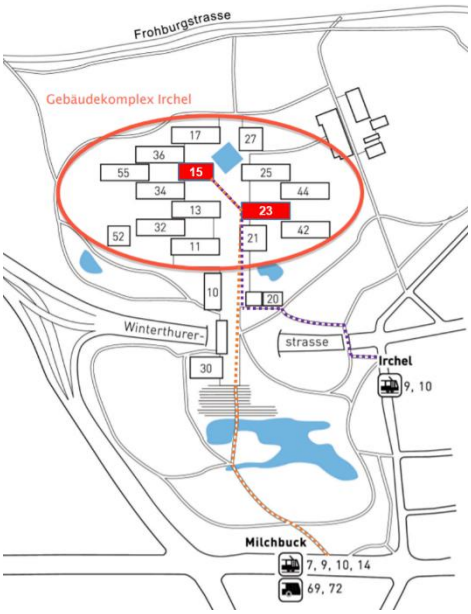
Dates and opening hours

	Congress	Registration	Poster Sessions	Exhibition	Trainee Day
Sunday, 24. July	16:00 – 20:00	14:00 – 20:00			09:00 – 15:30
Monday, 25. July	09:00 – 18:00		12:40 – 14:00	08:30 – 19:00	
Tuesday, 26. July	09:00 – 17:30		12:30 – 14:00	08:30 – 19:00	
Wednesday, 27. July	09:00 – 12:30			08:30 – 19:00	
Thursday, 28. July	09:00 – 18:00		12:30 – 14:00	08:30 – 19:00	

Venue address:

University of Zürich
Irchel Campus
Winterthurerstrasse 190
8057 Zürich
Switzerland

Map and more details are also available on the website of the congress www.ebrs2022.uzh.ch



Congress Dinner

Wednesday, 27. July at 19:30h
Please register if you wish to attend

Badges

Each registered participant will receive a name badge upon arrival. For organizational and security reasons, we ask that all participants and exhibitors wear their badges at all times during the congress activities.

Abstract book

Abstract book is available on the website of the congress: **www.ebrs2022.uzh.ch**

WIFI

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Acknowledgement

EBRS 2022 is grateful to the following institutions and organizations for their support of the XVII Congress of the European Biological Rhythms Society.

University of Zurich UZH

Swiss National Science Foundation

ebrs European Biological Rhythms Society

Japanese Society for Chronobiology

Microsynth THE SWISS DNA COMPANY

Boehringer Ingelheim Stiftung

ACTIMETRICS

Neurim PHARMACEUTICALS

CHRONOLIGHT

Zürich, Switzerland.

DLA DAYLIGHT ACADEMY

FEBS Letters

frontiers | Frontiers in Physiology

Program

Sunday 24. July 2022

09:00 – 15:30	**Trainee Day** Organized by the Young Researchers Committee of the EBRS	
09:00 – 09:15 Rm Y15-G20	**Welcome**	Young Researcher Committee
09:15 – 10:00 Rm Y15-G20	**Keynote** >An unexpected journey from spatial to temporal gene expression	Ueli Schibler, CH
10:15 – 11:00 Rm Y15-G40	**Trainee Day Session 1** >Translational research: bridging the gap between basic and clinical science in chronobiology	Phyllis Zee, US
Rm Y15-G20	>From mimosas to -omics… history of chronobiology	Martha Merrow, DE
Rm Y15-G60	>Long term effects of flight pollution on rodents and amphibians	Noga Kronfeld-Schor, IL
11:00 – 11:15	**Coffee Break**	
11:15 – 12:00 Rm Y15-G40	**Trainee Day Session 2** >Asking the right questions in science	Till Roenneberg, DE
Rm Y15-G20	>Getting your message across…at the talk, the poster and the bar	Steven Brown, CH
Rm Y15-G60	>Lives of researchers in different countries	David Virshup, US & Yoshitaka Fukada, JP
12:00 – 13:15	**LUNCH BREAK**	
12:30 – 13:15	**NETWORKING GAME** *Moderators: Ruth Li, JP & Sara Bernardez-Noya, US*	
13:15 – 15:00	**Trainee Day Session 3**	
13:15 – 14:00 Rm Y15-G40	>High tech methods in chronobiology	Erik Herzog, US & Debra Skene, UK
Rm Y15-G20	>Circadian clocks: a driving force of rhythmic physiology	Charna Dibner, CH
13:15 – 15:00 Rm Y15-G60	>Analyzing circadian rhythms with “Big Data” and/or machine learning	Bharath Ananthasubramaniam, DE
14:15 – 15:00 Rm Y15-G40	**Trainee Day Session 4** >Transitions to postdoc or industry?	Achim Kramer, DE & Andrea Spinnler, CH
Rm Y15-G20	>Mental health in graduate students – challenges and empowerment strategies	Madalina Hostiuc, CH & Laura Meister, CH
15:15 – 15:30 Rm Y15-G20	**Closing Remarks**	Young Researcher Committee

14:00 – 16:00 Lichthof	**Registration at info desk for main conference**	
16:00 Rm Y15-G40	**Congress Opening / Meeting Welcome** *Martha Merrow, DE & Steven Brown, CH*	
16:15 – 18:30 Rm Y15-G40	**Daylight Academy Symposium:** **Daylight and Healthy Ageing in Modern Society** *Chair: Oliver Stefani, CH*	
16:15	>Introduction: The importance of daylight	Oliver Stefani, CH
16:30	>How much sleep do we need? How much social jetlag can we tolerate? New insights thanks to Corona.	Till Roenneberg, DE
17:00	>Timing of light exposure and food intake on cardio-metabolic disease risk.	Phyllis Zee, US
17:30	>Metabolomics of shifted clocks, sleep and food timing.	Debra Skene, UK
18:00	**Posterblitz**: Around the Week in 30 Posters *Chair: Anna Biller, DE (See farther below for a schedule of presented posters.)*	Diverse participants
18:30 Lichthof	**Welcome Reception** sponsored by the Canton and City of Zurich, and Zurich Tourism	

Monday 25. July 2022

08:30 - 09:00 Lichthof	Coffee available in foyer	
09:00 - 09:45 Rm Y15-G40	**Kappers Lecture** *Chair: Steven Brown, CH* >Why is the SCN such a brilliant timepiece?	Michael Hastings, UK
09:45 - 10:15	**Coffee Break**	
10:15 - 12:30	**Parallel Sessions 1**:	
	1. The Right Time for Immune Health	
Rm Y15-G20	*Chair: Chun-Xia Yi, NL*	
10:15	> Circadian rhythms in adaptive immunity	Julie Gibbs, UK
10:40	> Circadian control of the immune system	Christoph Scheiermann, CH
11:05	> The impact of time of day of vaccine administration on anti-spike IgG antibody levels	Kyriaki Papantoniou, AT
11:20	> Hypercaloric diet and time-restricted feeding reprogram microglial day-night immunity	Chun-Xia Yi, NL
11:45	> Circadian control of inflammation	David Ray, UK
12:10	> The clock is ticking for HIV-1	Helene Borrmann, UK
10:15 - 12:30	**2. The Nuts and Bolts of Circadian Function in Diverse Species**	
Rm Y15-G40	*Chair: Eva Wolf, DE*	
10:15	> A structural understanding of clock function	Eva Wolf, DE
10:40	> A reductionist approach to the circadian clockwork	Hanspeter Herzel, DE
11:05	> CLOCK-BMAL1 and MYC-MAX leverage histone contacts for DNA motif recognition	Alicia Michael, CH
11:20	> Molecular clock mechanisms in crop and model plants	Alex Webb, UK
11:45	> Casein kinase 1 and disordered clock proteins form functionally equivalent phospho-based circadian modules in fungi and mammals	Michael Brunner, DE
12:10	> Pick your phosphosite-pick your timing: Casein Kinase 1 regulation of PER2	David Virshup, US
10:15 - 12:30	**3. Clocks: Symbiosis and Biome**	
Rm Y15-G60	*Chair: Silke Kiessling, UK*	
10:15	> Biological clocks in cnidarians: symbiotic aspects	Oren Levy, IL
10:40	> Malaria parasite development is rhythmic and is synchronized with host feeding-fasting rhythms: How? Why? Huh?	Aidan O'Donnell, UK
11:05	> Self-organized macroscopic waves reveal intrinsic rhythms in a giant single-celled organism feeding on light	Eldad Afik, US
11:20	> The circadian regulation of microbiota and gastrointestinal health	Silke Kiessling, UK
11:45	> Microbial exposure resets cellular circadian rhythmicity	Priya Crosby, US
12:10	> The role of the gut microbiome in chronotype tuning	Eran Tauber, IS
10:15 – 12:30	**4. Genetic and Neural Networks Specifying Circadian Function**	
Rm Y15-G19	*Chair: Juergen Ripperger, CH*	
10:15	> A circadian circuit for social interactions	Han Kyoung Choe, KO
10:40	> Multi-omics correlates of insulin resistance and circadian function mapped directly from human serum	Hien Ngoc Du, CH
11:05	> Clock-to-clock communication in the adrenal gland	Iwona Olejniczak, DE
11:20	> Function of the SCN to promote food searching in mice	Juergen Ripperger, CH

11:45	> Naturally occurring Circadian-clock variation in Arabidopsis: lab and field studies	Seth Davis, UK
12:10	> Peripheral clocks gate-keep external signals to ensure continued tissue homeostasis	Thomas Mortimer, ES

12:30 – 12:40 **Group Photo of All Participants**
Lichthof

12:40 - 14:00 **LUNCH BREAK & POSTER SESSION A**

14:00 - 16:10 **Parallel Sessions 2:**

5. Diverse Approaches to Understanding Clocks and Sleep in Disease

Rm Y15-G20 *Chair: Sara Montagnese, IT*

14:00	> Contribution from sleep & circadian research to the understanding of cognition and brain ageing	Christina Schmidt, BE
14:25	> Disturbance of daily rhythms in chronic illness	Sara Montagnese, IT
14:50	> Chronic inflammatory arthritis drives systemic changes in circadian energy metabolism	Polly Downton, UK
15:05	> Circadian control of dopaminergic neurodegeneration.	Emi Nagoshi, CH
15:30	> Epigenetic cause of human narcolepsy	Mehdi Tafti, CH
15:55	> Circadian rhythms telemonitoring for individualizing cancer risk and cancer care in real time	Francis Levi, FR

14:00 - 16:10

6. Understanding Clock Circuits

Rm Y15-G40 *Chair: Mino Belle, UK*

14:00	> How the liver breaks the SCN clock: Hepatic encephalopathy	Erik Herzog, US
14:25	> Pathways from the master clock to the brain	Tim Brown, UK
14:50	> Circadian rhythms of RNA-Binding Motif 3 (Rbm3) in the suprachiasmatic nucleus (SCN)	Marieke Hoekstra, UK
15:05	> The glial glue of circadian control	Marco Brancaccio, UK
15:30	> Daily electrophysiology of SCN cells	Mino Belle, UK
15:55	> Circadian plasticity of dendritic spines	Elzbieta Pyza, PO

14:00 - 16:10

7. Clocks in the Wild

Rm Y15-G60 *Chair: Barbara Helm, CH*

14:00	> Self-organized social synchronization of circadian activity in honeybee colonies	Guy Bloch, IL
14:25	> Rhythms in the life of the marine diatoms	Angela Falciatore, FR
14:50	> The role of light in commensalism vs. anthropophobia in wild mice	Mila Kasavchinsky, IL
15:05	> Evolution of the sensory inputs to the circalunar clock of Clunio marinus	Dušica Briševac, DE
15:30	> Multiple time points, far away: timing bird migration in a changing world	Barbara Helm, CH
15:55	> The abyss keeps time too	Audrey Mat, AT

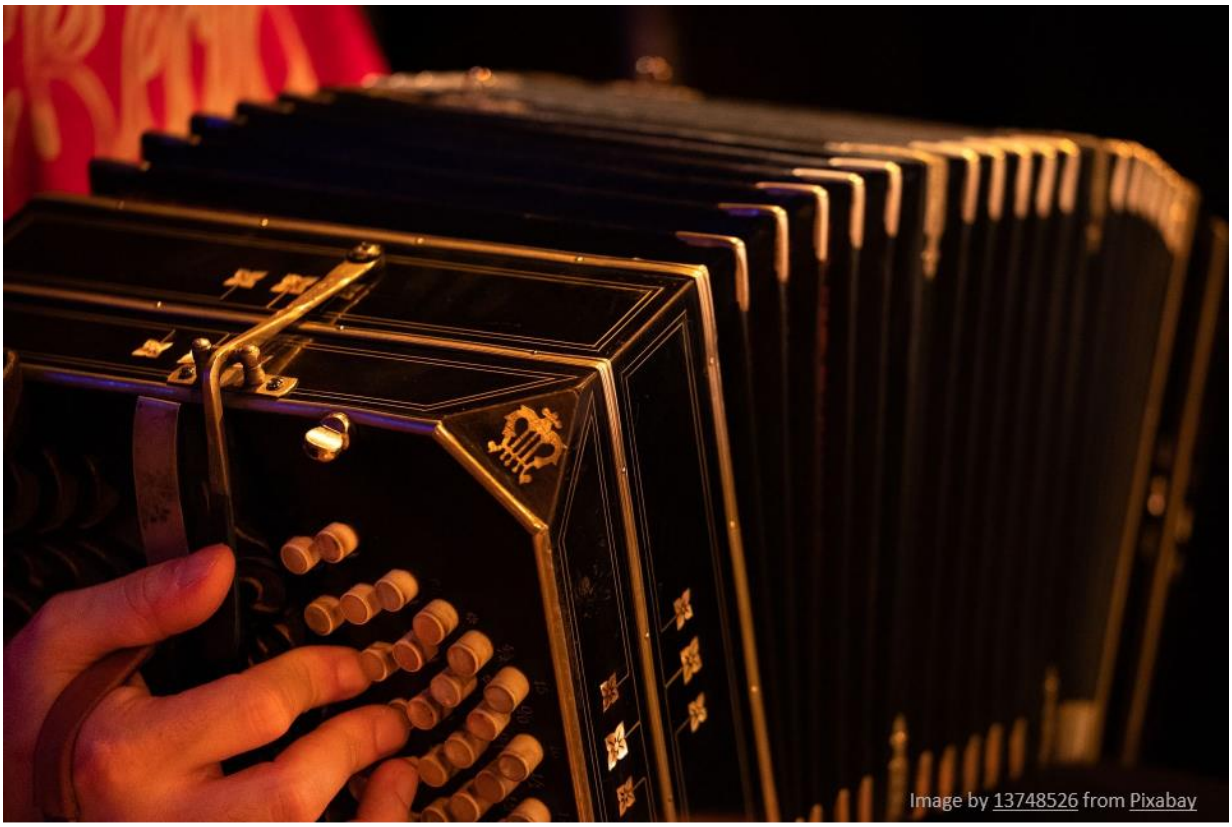
14:00 - 16:10

8. Timing Across Tissues

Rm Y15-G19 *Chair: Achim Kramer*

14:00	> Rhythmic expression of glucocorticoid hormones	Stafford Lightman, UK
14:25	> Endocrine regulation of circadian metabolism	Henrik Oster, DE
14:50	> Resetting the clock is a molecular tug-of-war	Nina Rzechorzek, UK
15:05	> Molecular mechanisms connecting peripheral clocks	Achim Kramer, DE
15:30	> Internal desynchrony and the circadian CK1e tau mutation - unexpected impact on peripheral clockwork	Andrew Loudon, UK

15:55	> Circadian clocks during development	Alena Sumová, CZ
16:10 - 16:40	**Coffee Break**	
16:40 - 18:05	**Organizer's Symposium: A Toolkit in Modern Neuroscience (Zürich Edition)**	
Rm Y15-G40	*Chair: Steven Brown, CH*	
16:50	> Learning and sleep in artificial neuronal networks	Benjamin Grewe, CH
17:15	> Noninvasive optoacoustic and fluorescence approaches for brain interrogation	Luis Dean-Ben, CH
17:40	> Single-cell transcriptomic survey of neuronal identity and circuit connectivity	Csaba Földy, CH
20:30	**Teatro di Capua: Tango!!!**	



Tuesday 26. July 2022

08:00 - 09:00 Rm Y17-J05	EBRS Board Meeting (by invitation only)	
08:30 - 09:00 Lichthof	Coffee available in foyer	
09:00 – 09:45 Rm Y03-G40	**Axelrod Lecture** *Chair: Alena Sumová, CZ* Chronocode on clock proteins signed by kinase signaling	Yoshitaka Fukada, JP
09:45 - 10:15 Lichthof	**Coffee Break**	
10:15 - 12:35	**Parallel Sessions 3**:	
	9. The Path from Data to Insight	
Rm Y15-G20	*Chair: Daniel Forger, US*	
10:15	> Shiftwork and the Epidemiological Risk of Disease	Eva Schernhammer, AT
10:40	> Tracking sleep and circadian rhythms in the real world with wearables	Daniel Forger, US
11:05	> Post-transcriptional regulation of the proteome	Holly Kay, UK
11:20	> Organization of human gene expression in a 24 hr periodic world	Felix Naef, CH
11:45	> Objective circadian phase, sleep and performance in elite athletes	Elise Facer-Childs, AU
12:10	> The past is not dead, it's not even past	Rona Aviram, IS
10:15 - 12:35	**10. The SCN and its Neighborhood: From Neurons to Physiology**	
Rm Y15-G40	*Chair: Hugh Piggins, UK*	
10:15	> Lateral hypothalamic influences beyond sleep and eating	Dennis Burdakov, CH
10:40	> Aging changes excitation-inhibition balance in the SCN neuronal network.	Stephan Michel, NL
11:05	> Phase organization of multiple circadian clocks	Jihwan Myung, TW
11:20	> Brain oscillators beyond the SCN	Hugh Piggins, UK
11:45	> Dissecting the central circadian pacemaker	Jun Yan, CN
12:10	> SCN-mediated glucose entry into the arcuate nucleus determines the daily rhythm in blood glycemia	Betty Rodriguez-Cortez, MX
10:15 - 12:35	**11. Connecting Clocks to Metabolic Homeostasis**	
Rm Y15-G60	*Chair: Ganna Panasyuk, FR*	
10:15	> Genetic insights into circadian metabolism	Damjana Rozman, SI
10:40	> Mitochondrial control of adaptive thermogenesis in insects a circadian perspective	Rodolfo Costa, IT
11:05	> Diurnal regulation of hepatic metabolism by the glucocorticoid receptor	Konstantinos Makris, DE
11:20	> Temporal feeding strategies reprogram physiology	Carolina Escobar, MX
11:45	> Nutrient sensing mechanisms for the clock	Ganna Panasyuk, FR
12:10	> Timing exercise to synchronize disturbed metabolic rhythms	Andries Kalsbeek, NL
10:15 – 12:25	**12. Post-translational Mechanisms and Novel Timing**	
Rm Y15-G19	*Chair*: Robert Dallmann, UK	
10:15	> Phosphorylation of GAPVD1 Is regulated by the PER complex and linked to GAPVD1 degradation	Hans Reinke, DE

10:40	> Why are circadian clock cells also ultradian clocks?	Monika Stengl, DE
11:05	> Circadian rhythm of protein-protein interactions and post-translational modifications in the clock protein complex	Yuta Otobe, JP
11:20	> Distinct molecular clockworks underlying hierarchically organized pacemaker neurons	Jae Kyoung Kim, KO
11:45	> Circadian regulation of blood brain barrier permeability is regulated by Claudin-5	Robert Dallmann, UK
12:10	> Mechanical control of the fibroblast circadian clock via YAP/TAZ	Juan Abenza, ES

12:35 - 14:00 **LUNCH BREAK & POSTER SESSION B**

14:00 - 16:10 **Joint Session 1: Japanese Society for Chronobiology**

Rm Y15-G20 *Chair: Masao Doi, JP & Martha Merrow, DE*

14:00	> Clocks and temporal orders in physiology	Kazuhiro Yagita, JP
14:25	> Circadian steroidogenesis and ageing-associated disease	Masao Doi, JP
14:50	> GRP Neurons in the SCN play an essential role in regulating behavioral and molecular circadian rhythms	Ruth Li, JP
15:05	> Circadian clocks: Major players in the stem cell niche	Salvador Benitah, ES
15:30	> Interplay between clocks, sleep and metabolism in humans	Kenneth Wright, US
15:55	> Rhythmic transcription of Bmal1 stabilizes the circadian timekeeping system in mammals.	Hikari Yoshitane, PJ

14:00 - 16:10 **Joint Session 2: European Sleep Research Society**

The Two-Process Model of Sleep Regulation: Forty Years

Rm Y15-G40 *Chair: Tom de Boer, NL & Steven Brown, CH*

14:00	> Introductory Remarks	Alexander Borbély and Irene Tobler, CH
14:15	> The two-process model: theory and application	Peter Achermann, CH
14:30	> Interactions between the circadian pacemaker and sleep	Tom De Boer, NL
14:55	> The in vivo circadian transcriptome behaves according to a sleep-wake driven harmonic oscillator	Paul Franken, CH
15:20	> Mechanisms of sleep homeostasis	Vlad Vyazovskiy, UK
15:45	> The-two process model and the -omics of human sleep and circadian health	Derk-Jan Dijk, UK

16:10 - 16:40 **Coffee break**

16:40 - 17:25 **JSC Lecture:**

Y15-G40 *Chair: Yoshitaka Fukada, JP*

Phosphorylation hypothesis of sleep — Hiroki Ueda, JP

19:30 **Züri Gastro!!!** Reservations at restaurants of all sorts. Meet with new friends and old, organized by the Young Researchers Committee.

Wednesday 27. July 2022

08:15 - 09:00	**EBRS Members' Assembly: Where do we go from here?**	
Y15-G40	Coffee and croissants provided. Bring a mobile phone to vote.	
09:00 – 09:45	**Gwinner Lecture**	
Rm Y15-G40	*Chair: Noga Kronfeld-Schor, IS*	
	Decoding time information from sun and moon	Kristin Tessmar-Raible, AT
09:45 - 10:15	**Coffee Break**	
10:15 - 12:35	**Parallel Sessions 4:**	
	13. From Clocks to Health and Function	
Rm Y15-G20	*Chair: Charna Dibner, CH*	
10:15	> Tissue clocks make metabolism run	Charna Dibner, CH
10:40	> It's not the time of the clock, it's the time of your clock: Impact of sleep and circadian timing on cardiometabolic health	Andrew McHill, US
11:05	> Chronodisruption of immune and metabolic response to endotoxin by light at night exposure	Monika Okuliarová, SK
11:20	> Cell-autonomous regulation of viral infection	Rachel Edgar, UK
11:45	> Circadian disruption and schizophrenia: insights from mouse models	Nicolas Cermakian, CA
12:10	> Light affects behavioral despair involving the clock gene Period1	Urs Albrecht, CH
10:15 - 12:35	**14. The Elephant in the Room: Are Clocks What we Think?**	
Rm Y15-G40	*Chair: Martin Ralph, CA*	
10:15	> Temporal regulation of biological function	John O'Neill, UK
10:40	> Potassium rhythms couple the cell- and circadian cycle	Gerben van Ooijen, UK
11:05	> The molecular oscillators of the protochordate Botryllus schlosseri	Rachel Ben-Schlomo, IL
11:20	> You don't need a clock to tell time	Ak Reddy, USA
11:45	> An idea worth Akting on	Gad Asher, IL
12:10	> Time sense and sensibility: An alternative perspective on temporal regulation and time memory	Martin Ralph, CA
10:15 - 12:35	**15. Clocks and Sleep in My Family and Other Animals**	
Rm Y15-G60	*Chair: Eva Winnebeck, DE*	
10:15	> How start and recovery times in shift work determine sleep duration	John Axelsson, SE
10:40	> Cryptochrome and magnetosensitivity in Drosophila	Charalambos Kyriacou, UK
11:05	> Co-expression of diurnal and ultradian rhythms in the plasma metabolome of common voles	Daan van der Veen, UK
11:20	> North-South, East-West & DST: human sleep and rhythms year-round	Eva Winnebeck, DE
11:45	> Arctic strategies for sleep and metabolism	Sara Meier & Melanie Furrer, CH
12:10	> Changing daylight length and human sleep-wake regularities at high latitude	Katharina Wulff, SE
12:35 - 18:30	**Free Time or Organized Excursions**	
18:30	City Tours (offered by Zurich Tourism)	
19:30	Banquet: Zunfthaus zur Saffran	
	Presentation of the Kappers Medal 2022 Recipient	Anna Wirz-Justice, CH

Thursday 28. July 2022

08:30 - 09:00 Lichthof	Coffee available in foyer	
09:00 - 09:45 Rm Y15-G40	**Keynote Lecture** *Chair: Jonathan Johnston, UK* Timing is medicine; time-restricted eating for the prevention and management of chronic diseases	Satchin Panda, US
09:45 - 10:15	**Coffee Break**	
10:15 - 12:35	**Parallel Sessions 5:**	
	16. Circadian Regulation at the -Omics Scale	
Rm Y15-G20	*Chair: Charo Robles, DE*	
10:15	> Phosphoproteomics of circadian signaling	Charo Robles, DE
10:40	> Cellular mechanisms connecting clocks to sleep	Aarti Jagannath, UK
11:05	> Mistimed sleep in humans disrupts glucocorticoid signaling transcripts driven by SP1, but not plasma cortisol	Simon Archer, UK
11:20	> Regulation of clock outputs in mammals and their translational application	Bharath Ananthasubramaniam, DE
11:45	> Understanding circadian transcription	Jérôme Menet, US
12:10	> The effect of night shifts on the 24-h regulation of the human transcriptome and metabolome	Laura Kervezee, NL
10:15 - 12:35	**17. Inputs: From Light to the Clock**	
Rm Y15-G40	*Chair: Stuart Peirson, UK*	
10:15	> Photoreceptive circuits for the drosophila brain clock	Francois Rouyer, FR
10:40	> Plants see light too	Christian Fankhauser, CH
11:05	> Sub-regions of the SCN receive a heterogeneous synaptic input from the retina	Hugo Calligaro, US
11:20	> What the SCN sees	Bea Banos, UK
11:45	> Dim light in the evening – mechanisms and consequences	Stuart Peirson, UK
12:10	> Retinal clocks and their influence upon circadian physiology	Marie-Paule Felder-Schmittbuhl, FR
10:15 - 12:35	**18. Genetics and Epigenetics of Circadian Clocks, from Plants to Mammals**	
Rm Y15-G60	*Chair: Kiran Padmanabhan, FR*	
10:15	> Chromatin and licensing in plant clocks	Paloma Mas, ES
10:40	> Circadian transcriptional programming by hormonal responses	Henriette Uhlenhaut, DE
11:05	> Genetic regulation of chromatin accessibility regulation during sleep deprivation	Carlos Neves, CH
11:20	> Chromatin-state regulation of circadian function	Kiran Padmanabhan, FR
11:45	> Excess S-Adenosylmethionine disrupts rhythms and inhibits methylation via catabolism to adenine	Jean-Michel Fustin, UK
12:10	> Searching for novel SCN enhancer marks that could drive daily timekeeping	Akanksha Bafna, UK
10:15 - 12:35	**19. A Season for Metabolism, Sleep, and Reproduction**	
Rm Y15-G19	*Chair: Valérie Simmoneaux, FR*	
10:15	> The Winter's Tale: circadian rhythms and metabolic challenges	Roelof Hut, NL
10:40	> RNA-sequencing unveils nuclei-specific patterns of transcription in seasonal Siberian hamsters	Calum Stewart, UK

11:05	> The winter blue-greens: how cyanobacteria predict winter	Maria Luisa Jabbur, US
11:20	> Species conservation: How applied chronobiology improves reintroduction programs of the European hamster	Stefanie Monecke
11:45	> Rhythms of reproduction, from mice to camel	Valérie Simonneaux, FR
12:10	> Perinatal photoperiod Influences adult period and locomotor activity	Rick van Dorp, NL

12:35 - 14:00 **LUNCH BREAK & POSTER SESSION C**

13:15 - 14:00 **TOPICAL DISCUSSION: The Circadian Dictionary**
Rm Y15-G40 *Moderators: John O'Neill, UK and Charlotte Helfrich-Förster, DE*

14:00 - 15:40 **Parallel Sessions 6:**

20. Sleep: From Circuitry to Physiology
Rm Y15-G20 *Chair: Anita Lüthi, CH*

14:00	> Thalamic and hypothalamic circuitry of sleep and wake	Carolina Gutierrez Herrera, CH
14:25	> Imaging sleep and DNA repair	Lior Appelbaum, IL
14:50	> Gating of sleep's internal dynamics by the noradrenergic locus coeruleus	Anita Lüthi, CH
15:15	> Understanding paradoxical sleep	Pierre-Hervé Luppi, FR

14:00 – 15:40 **21. Diverse Approaches to Adaptation and Evolution**
Rm Y15-G40 *Chair: Noga Kronfeld-Schor, IS*

14:00	> Using linked models to understand how clock gene sequences build whole-organism traits	Andrew Millar, UK
14:25	> Light at night as a selective agent on avian clocks	Marcel Visser, NL
14:50	> Integration of circadian and environmental cues	Antony Dodd, UK
15:15	> Effects of light pollution on fitness in rodents and amphibians	Noga Kronfeld-Schor, IL

14:00 – 15:40 **22. Insights into Human Circadian Function**
Rm Y15-G60 *Chair: Elizabeth Klerman, US*

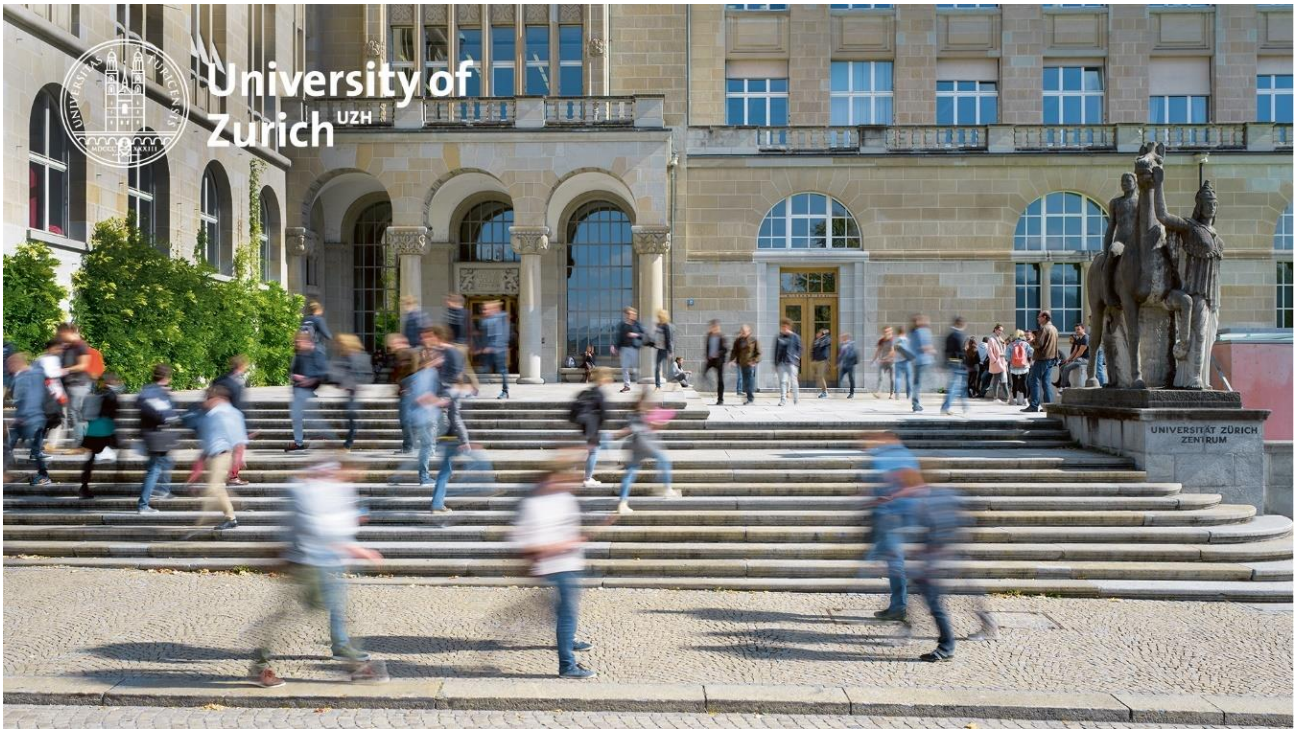
14:00	> Light at night and human health	Claude Gronfier, FR
14:25	> Light alters our need to sleep	Christian Cajochen, CH
14:50	> The value of chrononutrition	Jonathan Johnston, UK
15:15	> Two examples of time-of-day effects in clinical outcomes	Elisabeth Klermann, US

14:00 – 15:40 **23. Connections from Clocks to Outputs**
Rm Y15-G19 *Chair: Alessandra Stangherlin, DE*

14:00	> Dynamic network organization of the SCN	Johanna Meijer, NL
14:25	> Circadian ion rhythms and the regulation of cellular physiology	Alessandra Stangherlin, DE
14:50	> Nonsense-mediated mRNA decay regulates circadian timekeeping in mammals	Georgia Katsioudi, CH
15:15	> Suprachiasmatic nucleus interaction with the Arcuate nucleus determines our daily physiology	Ruud Buijs, MX

15:40 – 16:10 **Coffee Break**

16:10 – 17:40	**Presidential Symposium**	
Rm Y15-G40	*Chair: Martha Merrow, Germany*	
16:10	> Introduction	Martha Merrow, DE
16:25	> Human reproduction and the lunar cycle: the tale goes on	Charlotte Helfrich-Förster, DE
16:50	> Melatonin sensitivity and circadian rhythmicity in the enteric commensalism bacterium, Klebsiella aerogenes	Vincent Cassone, US
17:15	> Clock control of mRNA translation and translation fidelity	Deborah Bell-Pedersen, US
17:40 – 17:50	**Closing Remarks**	Steven Brown, CH



List of speakers and their affiliations

(in alphabetical listing)

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Jérôme	Menet	Texas A & M, USA

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Stephan	Michel	University of Leiden, Netherlands
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Stefanie	Monecke	Institute for Chronoecology, Germany
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Jihwan	Myung	Taipei Medical University, Taiwan
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Emi	Nagoshi	University of Geneva, Switzerland
Monika	Okuliarová	Comenius University, Slovakia
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Aidan	O'Donnell	University of Edinburgh, Scotland
John	O'Neill	MRC Laboratory of Molecular Biology, England
Henrik	Oster	University of Lübeck, Germany
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Anna	Wirz-Justice	University of Basel, Switzerland
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Kazuhiro	Yagita	Kyoto Prefectural University of Medicine, Japan
Jun	Yan	Chinese Academy of Sciences, China
Chun-Xia	Yi	Amsterdam University Medical Center, Netherlands
Hikari	Yoshitane	University of Tokyo, Japan
Phyllis	Zee	Northwestern University, USA

Around the meeting in almost 30 Posters…the Posterblitz speakers:

(in order of presentation)

1. Immune Health: Acute sleep restriction predisposes the liver to inflammation. Pawan Jha, US
2. Nuts and Bolts: Characterization of transcriptionally active clock complexes in time and space using quantitative proteomics Fatih Aygenli, DE
3. Symbiosis and Biome: The intestinal circadian clock drives microbialrhythmicity to maintain gastrointestinal homeostasis Baraa Altaha, DE
4. Networks: Clocks over two timescales: how is the clockrewired during ageing in Arabidopsis thaliana? Ethan Redmond, UK
5. Disease: Disruption of the circadian clock component BMAL1 elicits an endocrine adaption impacting on insulin sensitivity and liver disease. Celine Jouffe, DE
6. SCN Circuits: Astrocytes regulate spatiotemporal circadian patterns of neuronal activity in the suprachiasmatic nucleus Natalie Ness, UK
7. The Wild: Rhythmic fruit fly species in constant light – what are cause and purpose? Peter Deppisch, DE
8. Timing Across Tissues: Lack of Per2 increases aquaporin-4 localization to astrocytic endfeet contacting the peri-vascular space of the glymphatic system Katrin Wendrich, CH

*Züri Neuroscience: A single atypical phosphoswitch in specific SCN neurons gates winter seasonality in mice Sara Pierre-Ferrer, CH

9. Data to Insight: A 6-month time-restricted eating (TRE)intervention does not have an unfavourable impact on bone metabolism and health Maria Papageorgiou, CH
10. Other clock circuits: Spatiotemporal organisation ofPER2::LUC expression in the mouse dorsal vagal complex – a multicomponent circadian timing centre Lukasz Chrobok, UK
11. Metabolic Homeostasis: Endurance capacity is shaped by clock proteins and exercise training in a day-time dependent manner Yaarit Adamovich, IS
12. Post-translational Mechanisms: Circadian regulation of protein turnover by muscle peripheral clock is required for muscle mass homeostasis Jeffrey Kelu, UK

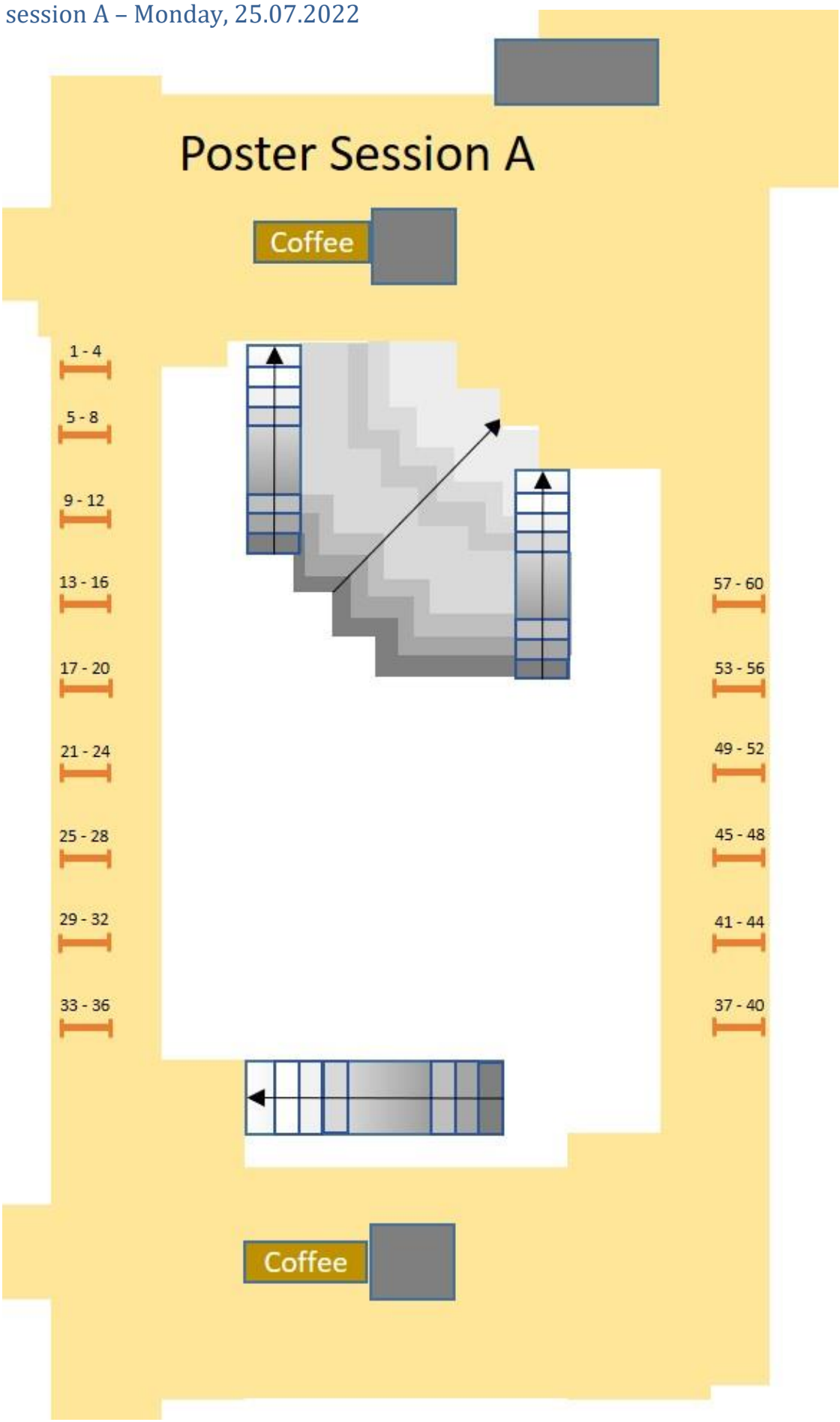
*Joint1, JSC: The plastic shift in the endogenous rhythm in tidal adaptation of the freshwater snail Takumi Yokomizo, JP

*Joint2 ESRS: Fractal regulation of human motor activity, hypothalamic integrity and napping during ageing Gregory Hammad, BE

13. Health and Performance: The synchrony between chronotype and school timing Guadalupe Rodriguez Ferrante, AR
14. Novel Clocks: Light is a zeitgeber for the circadian clock of a non-photosynthetic prokaryote Francesca Sartor, DE
15. My Family and other Animals: Effects of evening candlelight exposure in the home on the circadian melatonin rhythm Katrina Rodheim, US
16. Omics: It's time we talk about sex – Sexual dimorphism of circadian-regulated metabolites in humans Thomas Hancox, UK
17. Light: Retinal organoids: The model to study the effects of light on the retinal circadian rhythms Kamila Weissova, CZ
18. Genetics: Circadian regulation of homeologous gene expression in polyploids Hannah Rees, UK
19. Reproduction: Chronic shift impairs the daily reproductive rhythms of female mice Marine Simmoneaux, FR
20. Sleep: Synaptic plasticity induces sleep-wake transitions in large-scale computational models Guanhua Sun, US
21. Adaptation: Time-memory in the bumble bee Bombus terrestris Özlem Gönülkiemaz Çançalar, IS
22: Humans: Food-log app-based chrono-nutritional analysis reveals an association between low-carbohydrate at dinner and weight loss Yu Tahara, JP
23. Clocks to Outputs: The circadian clock and tight junctions interact in epithelial cells Nemanja Milićević, FI
24. Looking Backwards: Determining the membrane circadian clock across evolution. Edgar Buhl, UK
25. Overtime: Eastward jet lag is associated with impaired performance and game outcome in the national basketball association Josh Leota, AU

Posters sessions

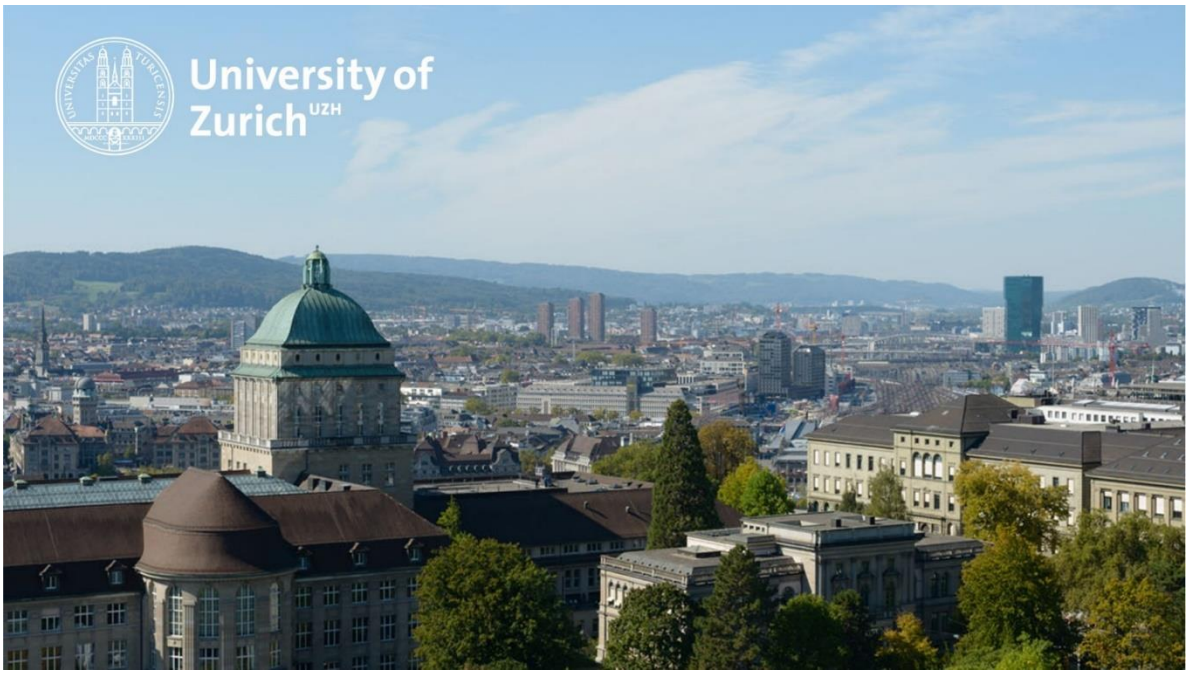
Poster session A – Monday, 25.07.2022



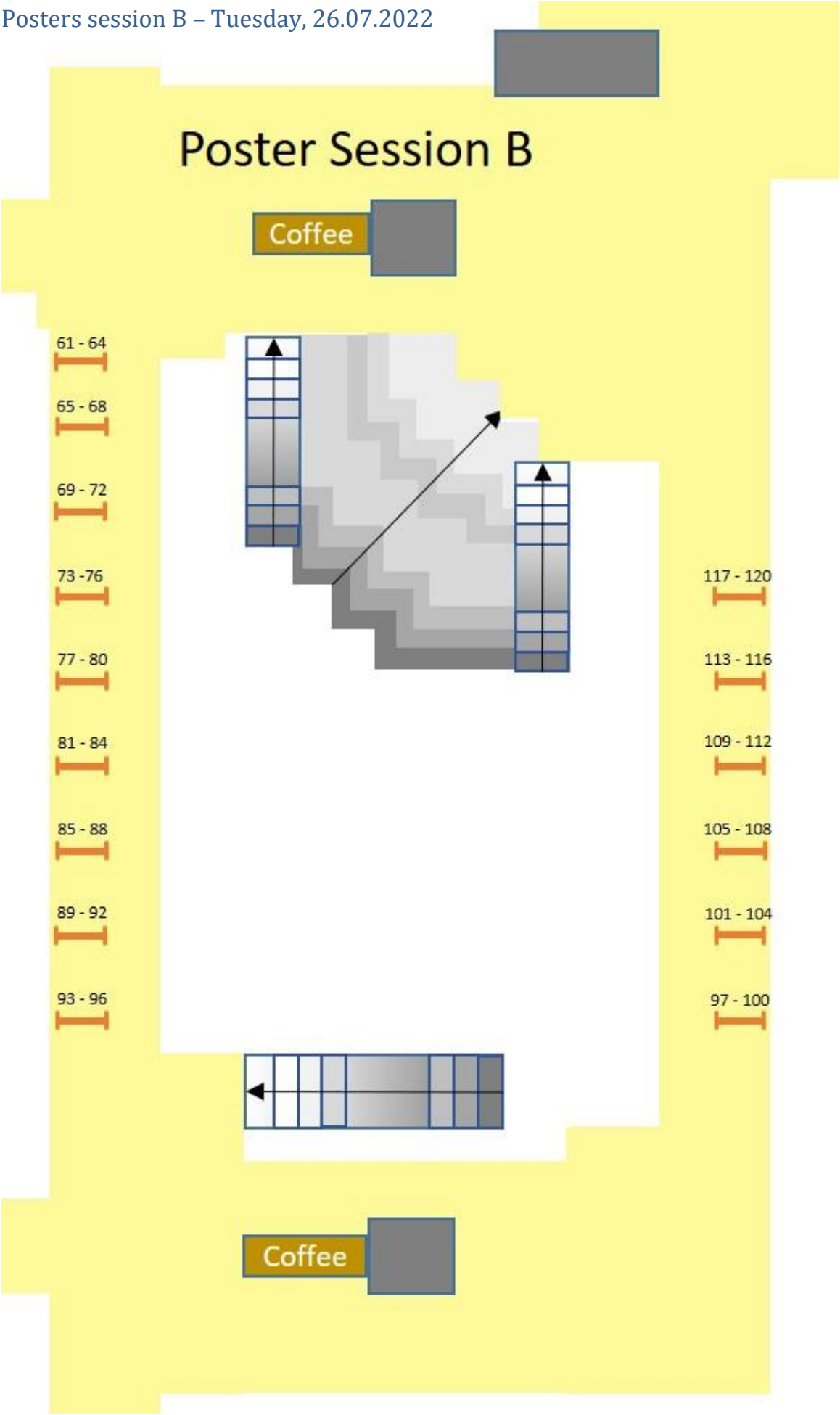
Title of abstract – poster session A – Monday 25. July 2022	main author
1. Circadian regulation of the transcriptome in a complex polyploid crop	Hannah Rees
2. A single atypical phosphoswitch in specific SCN neurons gates winter seasonality in mice	Sara Pierre-Ferrer
3. Food-log app-based chrono-nutritional analysis reveals an association between low-carbohydrate at dinner and weight loss	Yu Tahara
4. Clock proteins and training modify exercise capacity in a daytime-dependent manner	Vaishnavi Dandavate
5. Metabolic disorders and circadian dysfunction are intertwined: metabolic disorders disrupt circadian function and disrupted circadian systems in turn worsen metabolic disorders.	Ngoc-Hien Du
6. Synchronizing family rhythms, work rhythms and biological rhythms	Camilla Kring
7. The clock is ticking for HIV-1	Helene Borrmann
8. The circadian clock component BMAL1 regulates SARS-CoV-2 entry and replication	Alan Xiaodong Zhuang
9. Circadian control of hepatitis B virus replication	Alan Xiaodong Zhuang
10. The regulation of circadian rhythms by the natural light environment	Laura Steel
11. Non-canonical circadian repressor CHRONO regulates TTFL components through multiple interactions'	Priya Crosby
12. Distinct molecular clockworks underlying hierarchically organized pacemaker neurons	Jae Kyoung Kim
13. Light is a zeitgeber for the circadian clock of a non-photosynthetic prokaryote	Francesca Sartor
14. The strong circadian influence in psychiatric disorders opens up for new opportunities to increase efficacy of personalized medicine.	John Axelsson
15. Chronogauge: a machine-learning framework for circadian phase inference using gene expression	Connor Reynolds
16. Hypercaloric diet and time-restricted feeding reprogram microglial day-night immunity in the mediobasal hypothalamus and intermediolateral nucleus of spinal cord	Chun-Xia Yi
17. Machine learning classification of temporal gating of temperature-responsive transcriptome dynamics in nature	Pirita Paajanen
18. The role of the gut microbiome in chronotype tuning	Eran Tauber
19. Searching for novel SCN enhancer marks that could drive daily timekeeping	Akanksha Bafna
20. Disruption of the circadian clock component BMAL1 elicits an endocrine adaption impacting on insulin sensitivity and liver disease.	Céline Jouffe
21. The synchrony between chronotype and school timing explains adolescents' academic achievement	Guadalupe Rodriguez Ferrante
22. Beneficial effects of timed exercise on the circadian system	Ayano Shiba
23. Rewiring of liver diurnal transcriptome rhythms by triiodothyronine (T3) supplementation	Leonardo V M de Assis
24. Food entrainment modifies the quantity but not the circadian rhythm of neurtransmitter content in the rat spinal cord	Shantal Jimenez-Zarate
25. Perinatal photoperiod influences adult period and locomotor activity	Rick van Dorp
26. Time-memory in the bumble bee Bombus terrestris	Özlem Gönülkırmaz Çançalar
27. Suprachiasmatic nucleus-mediated glucose entry into the arcuate nucleus determines the daily rhythm in blood glycemia	Betty Rodriguez-Cortes
28. The impact of time of day of ChAdOx1 nCoV-19 vaccine administration on SARS-CoV-2 anti-spike IgG antibody levels	Kyriaki Papantoniou

Title of abstract – poster session A – Monday 25. July 2022	main author
29. Circadian clock genes are regulated by rhythmic corticosterone in the rat hippocampus	Martin Fredensborg Rath
30. The intestinal circadian clock drives microbial rhythmicity to maintain gastrointestinal homeostasis	Baraa Altaha
31. Objective: Determine if there are trait-like individual differences in cardiovascular reactivity to cold pressor stress test after days of combined sleep restriction and circadian misalignment.	Sabrina Linton
32. Run for your live(r): Exercise training at different times of day differentially modulates hepatic inflammation in early NAFLD	Artemiy Kovynev
33. Thermoneutral zone, rhythm of activity, and circadian O2 consumption in Opn4 -/- mice	Giovanna Zanetti
34. Chronic mistimed snacking promotes obesity in mice	Kimberly Begemann
35. Circadian rhythms in melatonin and cortisol are disturbed in critically ill children	Arnout Cramer
36. Circadian rhyme misalignment and risk of nonalcoholic fatty liver disease (NAFLD) in free-living adults	Yikyung Park
37. The role of clock genes in circadian function of the mammalian pineal gland	Aurea Susana Blancas-Velazquez
38. Therapeutic nuclear magnetic resonance redirects the metabolism of NIH-3T3 cells	Viktoria Thöni
39. Sleep as a major determinant for mental health outcomes in elite athletes	Elise Facer-Childs
40. Circadian rhythm of protein-protein interactions and post-translational modifications in the clock protein complex	Yuta Otobe
41. Synergistic effect of prenatal LPS and constant light during early postnatal development on circadian and immunity system.	Veronika Spišská
42. Acute sleep restriction predisposes the liver to inflammation by elevation of uric acid	Pawan Jha
43. Combining lineage correlations and a small molecule inhibitor to detect circadian control of the cell cycle	Shaon Chakrabarti
44. Rhythmic transcription of Bmal1 stabilizes the circadian timekeeping system in mammals.	Hikari Yoshitane
45. Self-organized macroscopic waves reveal intrinsic rhythms in a giant single-celled organism feeding on light	Eldad Afik
46. The abyss keeps time too	Audrey Mat
47. Metabolic effects of acute circadian desynchronization	Anhui Wang
48. Feasibility of time-restricted eating and impacts on cardiometabolic health in 24-hour shift workers: The healthy heroes randomized clinical trial	Emily N.C. Manoogian
49. Mechanical loading and hyperosmolarity as a daily resetting cue for skeletal circadian clocks	Michal Dudek
50. In vivo characterization of candidate gene associated with Alzheimer's disease using Drosophila circadian rhythm and sleep assays	James Hodge
51. The peripheral muscle clock is not sufficient to prevent sarcopenia	Mireia Vaca-Dempere
52. Determining the membrane circadian clock across evolution.	Edgar Buhl
53. Malaria parasite development is rhythmic and is synchronised with host feeding-fasting rhythms: How? Why? Huh?	Aidan O'Donnell
54. Co-expression of diurnal and ultradian rhythms in the plasma metabolome of common voles (Microtus Arvalis)	Daan R Van der Veen
55. Clocks over two timescales: how is the clock rewired during ageing in Arabidopsis thaliana?	Ethan Redmond

Title of abstract – poster session A – Monday 25. July 2022	main author
56. Sterols act on circadian expression of Wnt signalling but not on RORC signalling	Cene Skubic
57. Gastrin-releasing peptide-producing neurons in the suprachiasmatic nucleus play an essential role in regulating behavioral and molecular circadian rhythms	Ruth Li
58. Individual differences in subjective mood response to combined sleep restriction and circadian misalignment	Rebecca Cox
59. The effect of estrogen on coupling in the SCN via gap junctions	Violetta Pilorz
60. Post-transcriptional regulation of the proteome	Holly Kay



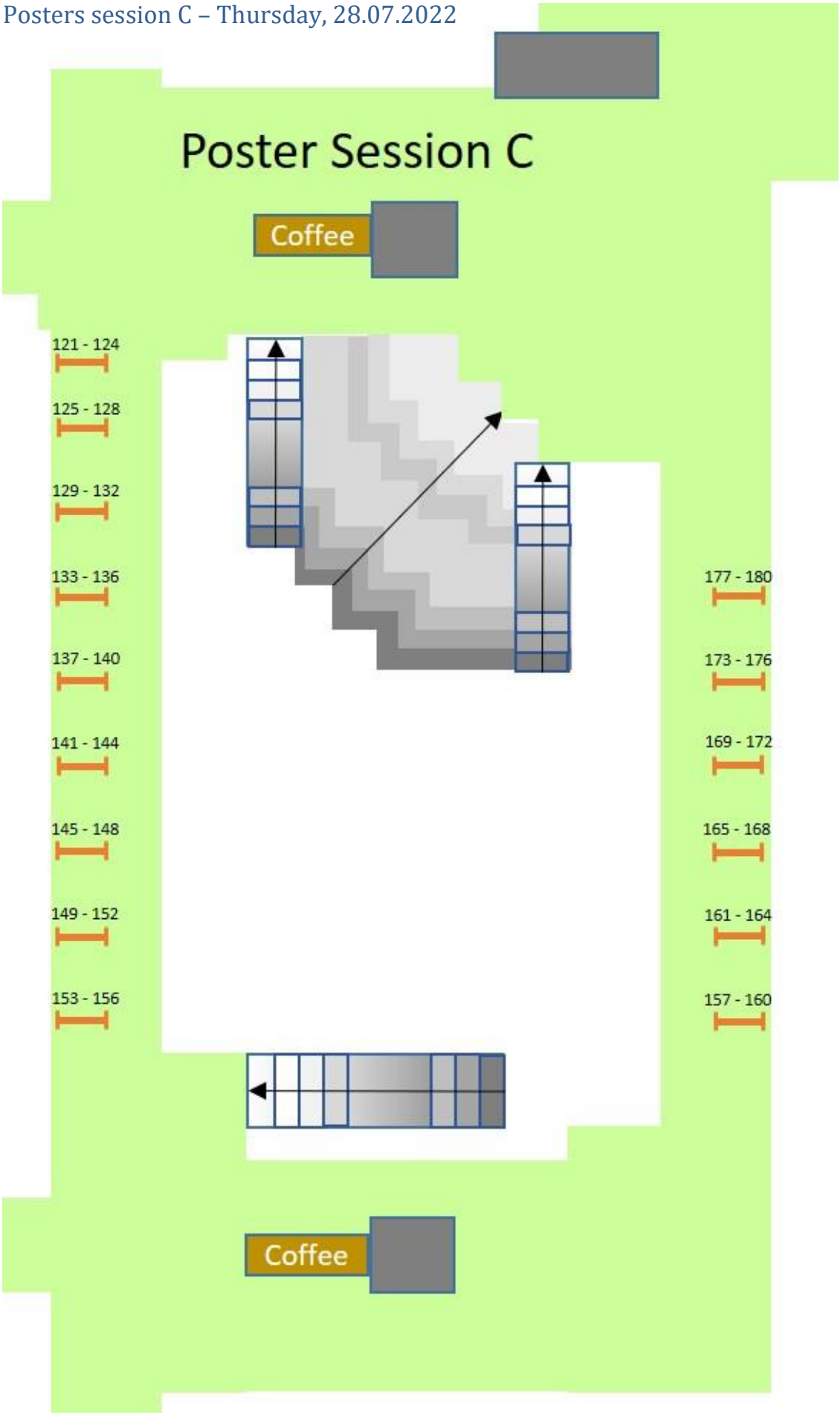
Posters session B – Tuesday, 26.07.2022



Title of abstract – poster session B – Tuesday 26. July 2022	main author
61. Retinal organoids: The model to study the effects of light on the retinal circadian rhythms	Kamila Weissova
62. RNA-sequencing unveils nuclei-specific patterns of transcription in seasonal siberian hamsters	Calum Stewart
63. Chronotype, sleep quality, and shift work preference among nurses	Linske de Bruijn
64. Evolution of the sensory inputs to the circalunar clock of Clunio marinus	Dušica Briševac
65. Associations between night shift work and weight change among nurses within the prospective Nightingale Study	Henriëtte van Duijne
66. Life beyond transcription: circadian rhythms in alternative splicing in Arabidopsis thaliana	Andres Romanowski
67. Disruption of daily rhythms in metabolic pathways and energy metabolism by dim light at night in rats	Valentina Rumanova
68. Infradian rhythms in cerebral oxygenation and blood volume in humans at rest: A 5 year-long study	Felix Scholkmann
69. The developmental clock of C. elegans constitutes a rhythmic (phospho)proteome	Abhishek Upadhyay
70. Clocks, COVID, CRISPR: tracing contemporary history of science through Wikipedia's data	Rona Aviram
71. Deciphering the impact of the reversed restricted feeding on the circadian clock in choroid plexus	Tereza Mičkerová
72. A 6-month time-restricted eating (TRE) intervention does not have an unfavourable impact on bone metabolism and health	Maria Papageorgiou
73. Chronotype has been shown to depend not only on genetic and environmental factors, but also on age and sex.	Tali Sagiv
74. Artificial light at night disturbs time-of-day-dependent reactivity of neutrophils to lipopolysaccharide in rats	Viera Jerigová
75. The role of light in commensalism vs. anthropophobia in wild mice	Mila Kazavchinsky
76. Regulation of PER1 phosphorylation and its interactome	Antoine Torchiat
77. Changing daylight length on sleep-wake regularities at high latitude	Katharina Wulff
78. An animal model of chemotherapy related fatigue shows misalignment of behavioural and SCN electrical activity	Yumeng Wang
79. Diurnal regulation of hepatic metabolism by the glucocorticoid receptor	Konstantinos Makris
80. Sub-regions of the SCN receive a heterogeneous synaptic input from the retina	Hugo Calligaro
81. Chronic inflammatory arthritis drives systemic changes in circadian energy metabolism	Polly Downton
82. Genetic regulation of chromatin accessibility regulation during sleep deprivation	Carlos Sousa Neves
83. Eastward jet lag is associated with impaired performance and game outcome in the national basketball association	Josh Leota
84. Resetting the clock is a molecular tug-of-war	Nina Rzechorzek
85. Chronophenotyping atrial fibrillation using machine learning	Jonathan Sobel
86. Office lighting and cognitive functions: can it be too bright?	Mirjam Münch
87. Astrocytes regulate spatiotemporal circadian patterns of neuronal activity in the suprachiasmatic nucleus	Natalie Ness
88. Clock-to-clock communication in the adrenal gland	Iwona Olejniczak
89. Daily profile in expression of components of SARS-CoV-2 entrance pathway in the lungs and colon of male Wistar rat during 24h LD cycle and how it is influenced by 17β-estradiol administration	Iveta Herichova
90. The molecular oscillators of the protochordate Botryllus schlosseri	Rachel Ben-Shlomo
91. Why are circadian clocks also ultradian clocks?	Monika Stengl

92.	The role of biological sex in the relationship between circadian alignment and well-being in elite athletes	Luis Mascaro
93.	Uncoupling of behavioural and metabolic rhythms in an arctic ruminant	Sara Meier
94.	Are the benefits of bright light therapy dependent on the activity of the SCN?	Dan-Adrian Epuran
95.	Spatiotemporal organisation of PER2::LUC expression in the mouse dorsal vagal complex – a multicomponent circadian timing centre	Lukasz Chrobok
96.	Light-dependent rhythms in Per2 knock-out mice	Andrey Lazopulo
97.	Plasma metabolite rhythms in entrained vs constant routine protocols using targeted LC-MS/MS metabolomics	Namrata Chowdhury
98.	Alterations in Adar2 rhythm expression and RNA editing of Kcna1, 5-HT2CR and Gria2 in the hippocampus in adulthood, as the result of constant light during early postnatal development	Aneta Kubištová
99.	The multiverse of human light exposure analyses	Anna M Biller
100.	Chronic shift impairs the daily reproductive rhythms of female mice	Marine Simonneaux
101.	Circadian rhythms of RNA-Binding Motif 3 (Rbm3) in the suprachiasmatic nucleus (SCN)	Marieke Hoekstra
102.	The circadian clock and tight junctions interact in epithelial cells	Nemanja Milićević
103.	Mechanical control of the fibroblast circadian clock via YAP/TAZ	Juan F. Abenza
104.	Spontaneous and GRP-evoked activity in the tuberoinfundibular dopaminergic network of the rat mediobasal hypothalamus	Jake Ahern
105.	Selection for synchronised development using timeseries properties of the circadian clock	Sarah Lock
106.	Ultradian excitation-inhibition temporal dynamics in dorsal hippocampus across the circadian day	Nicolette Ognjanovski
107.	Effects of the postnatal methamphetamine administration on the clock and immune status of suprachiasmatic nuclei and extra-SCN brain oscillators	Kateryna Semenovykh
108.	Synaptic Plasticity Induces Sleep-wake Transitions in Large-scale Computational Models	Guanhua Sun
109.	Endurance capacity is shaped by clock proteins and exercise training in a day-time dependent manner	Yaarit Adamovich
110.	Lack of Per2 increases aquaporin-4 localisation to astrocytic endfeet contacting the peri-vascular space of the glymphatic system	Katrin Wendrich
111.	Circadian regulation of protein turnover by muscle peripheral clock is required for muscle mass homeostasis	Jeffrey Kelu
112.	Disruption of dorsomedial hypothalamic rhythms under high-fat diet can be prevented by restricted nighttime feeding	Anna Sanetra
113.	Characterization of transcriptionally active clock complexes in time and space using quantitative proteomics	Fatih Aygenli
114.	Space-time organization of liver zonation	Tomaz Martini
115.	Using multiple wearable devices to extract personalised dynamic and circadian parameters that describe glucose levels, heart rate and heart rate variability	Nicholas Phillips
116.	Basic helix-loop-helix transcription factors CLOCK-BMAL1 and MYC-MAX leverage histone contacts for DNA motif recognition	Alicia Michael
117.	Adaptation to critical metabolic conditions is dependent on the circadian clock: a study in the circadian model organism Neurospora crassa	Krisztina Káldi
118.	How does daylight saving time affect patients with delayed sleep-wake phase disorder?	Cátia Reis
119.	Effect of time restricted feeding on the rhythmic behavior of peripheral tissues	Zsófia Búr
120.	Sex and circadian timing modulate oxaliplatin hematological and hematopoietic toxicities	Sandrine Dulong

Posters session C – Thursday, 28.07.2022



Title of abstract – poster session C – Thursday 28. July 2022	main author
121. A hybrid design approach revealed critical roles of ER and HER2 in regulating circadian pathways in breast cancer	Shiyang Li
122. Effects of evening candlelight exposure in the home on the circadian melatonin rhythm	Katrina Rodheim
123. Mistimed sleep and waking activity in humans disrupt glucocorticoid signalling transcripts driven by SP1, but not plasma cortisol rhythms	Simon Archer
124. Social jet-lag as a main trigger of hepatic clock disruption	Antonia Tomas-Loba
125. Rhythmic fruit fly species in constant light – what are cause and purpose?	Peter Deppisch
126. Differences in annual rhythms of spadefoot from different populations: A common garden experiment	Maya Eldar
127. BIG regulates the circadian clock and development	Dora Luz Cano Ramirez
128. Time restricted feeding enhances leukocyte rhythm and reduces inflammatory potential	Krisztina Ella
129. Modification of the human's sleep/wake cycle in free running condition – Deep Time mission	Virginie Gabel
130. It’s time we talk about sex – Sexual dimorphism of circadian-regulated metabolites in humans	Thomas Hancox
131. Peripheral clocks gate-keep external signals to ensure continued tissue homeostasis	Thomas Mortimer
132. Chronodisruption of immune and metabolic response to endotoxin by light at night exposure	Monika Okuliarova
133. Attenuated master clock and disrupted daily rhythms in neuroendocrine axis and cardiovascular system by dim light at night in rats	Michal Zeman
134. The plastic shift in the endogenous rhythm in tidal adaptation of the freshwater snail	Takumi Yokomizo
135. Rhythms in the life of the marine diatoms	Angela Falciatore
136. Light-induced c-FOS in retinal and SCN clocks: distinct role of rods	Antonin Jandot
137. Changes in reindeer sleep regulation across the year: A central role for rumination?	Melanie Furrer
138. Fractal regulation of human motor activity, hypothalamic integrity and napping during ageing	Grégory Hammad
139. Diffusion enhanced oscillations in biochemical networks	Pablo Rojas
140. The winter blue-greens: how cyanobacteria predict winter	Maria Luísa Jabbur
141. Are social defeat stress-induced phase shifts of peripheral clocks mediated by glucocorticoids?	Roelof Hut
142. Timeteller for circadian clock analysis	Maria Veretennikova
143. Effect of habitat on the daily activity rhythms of two species of wild caught African rodents	Maria Oosthuizen
144. Time-dependent protecting role of heme oxygenase in the retina of drosophila	Milena Damulewicz
145. Diurnal distributions of physical activity energy expenditure and effects on cardiometabolic health parameters in UK adults (The Fenland Study)	Philip Lewis
146. The circadian REV-ERB nuclear receptors are essential for cardiac function and modulate NAMPT-dependent NAD+ biosynthesis via E4BP4	Pieterjan Dierickx
147. CRISPR Base-editors: Highly precise and scar-proof genome-editing tool to generate unique point mutants and explore clock genes in Drosophila melanogaster	Nirav Thakkar
148. A minimal circadian clock network for glucose tolerance	Jacob Smith
149. Impact of the rodent estrous cycle on liver transcriptomics	Terry Lin
150. Circadian rhythm and physical activity fragmentation behaviours among normal and obese adolescents	Jeffrey Pagaduan
151. A circadian clock in the fly retina: deCRYpting new roles	Gabriella Mazzotta

Title of abstract – poster session C – Thursday 28. July 2022	main author
152. Exploring the role of gastrin-releasing peptide neurons in circadian time-keeping by the suprachiasmatic nucleus	Elena del Carmen Gomez Garcia
153. Nogo-A is a melatonin-driven regulator of circadian memory dynamics and learning	Jörg Stehle
154. Within-subject and between-subject variability of urinary creatinine excretion over a two-month period	Lennart Seizer
155. Theta and alpha EEG oscillations homeostatically increase in amplitude with time awake – except during the wake maintenance zone	Sophia Snipes
156. Inter-layer and inter-subject variability of circadian gene expression in human skin	Marta del Olmo
157. Targeted plasma metabolomics of endocannabinoids and acylethanolamides in response to combined sleep restriction and circadian misalignment	Dana Withrow
158. High-fat diet (HFD)-induced obesity (DIO) is secondary to HFD-induced circadian disruptions in the pattern and length (tau) of endogenous circadian rhythms.	Roee Gutman
159. Diet diurnally regulates small intestinal microbiome-epithelial-immune homeostasis and enteritis	Karina Ratiner
160. Bioelectronic Zeitgebers: towards neuromodulation of neurological disorders synchronized to biological rhythms	Alceste Deli
161. The role of RNA methylation in the crosstalk of circadian clock and neuroinflammation in suprachiasmatic nuclei	Eva Filipovská
162. Effect of Cyclic versus Continuous Enteral Nutrition on Circadian Rhythms inCritical Illness: Protocol for a Randomized Controlled Trial	Hiemstra Floor
163. Impact of Nuclear Magnetic Resonance therapy (tNMR) on the circadian clock and the associated Hypoxia Inducible Factor-1 (HIF1-α) in the mouse fibroblast cell line NIH 3T3 under normoxic and hypoxic conditions.	David Mauracher
164. Sorghum circadian system and its role in resilience to environmental stresses	Or Silberstein
165. Circadian influence on intrusive re-experiencing in trauma survivors' daily lives	Laura Meister
166. Time-memory consolidation within the engram	Alex Rosi-Andersen
167. The circadian clock and G-protein-coupled receptor signaling: RGS16 and how it controls Chronotype	Tanja Schwarzmeier
168. Circadian Transcriptome profiling, diurnal species, circadian organisation Circadian organisation in the diurnal African striped mouse, *Rhabdomys pumilio*	Rose Richardson
169. Stress-Inducible Circadian Rhythms in Gymnosperms	Nitzan Weisman
170. The muscle stem cell clock regulates muscle regeneration	Valentina Sica
171. Diurnality versus nocturnality at the level of suprachiasmatic nucleus neuronal activity.	Patrycja Orlowska-Feuer
172. The circadian clock during development: an in vivo imaging study	Miho Sato
173. The effect of continuous enteral feeding on 24-h rhythms in blood glucose control in patients in the Intensive Care Unit: a retrospective observational study	Floor Hiemstra
174. Investigating diurnal variation in the electrophysiology of retinorecipient cells in the visual thalamus	Abigail Pienaar
175. Finding new clock modifier, a proximity-labelling based approach	Manon Torres
176. Arrhythmic Tumors become Rhythmic in Mice	Audrey Schult
177. Hippocampal long-term synaptic plasticity control by histamine, orexins, and circadian clock gene Per1	Oliver Selbach

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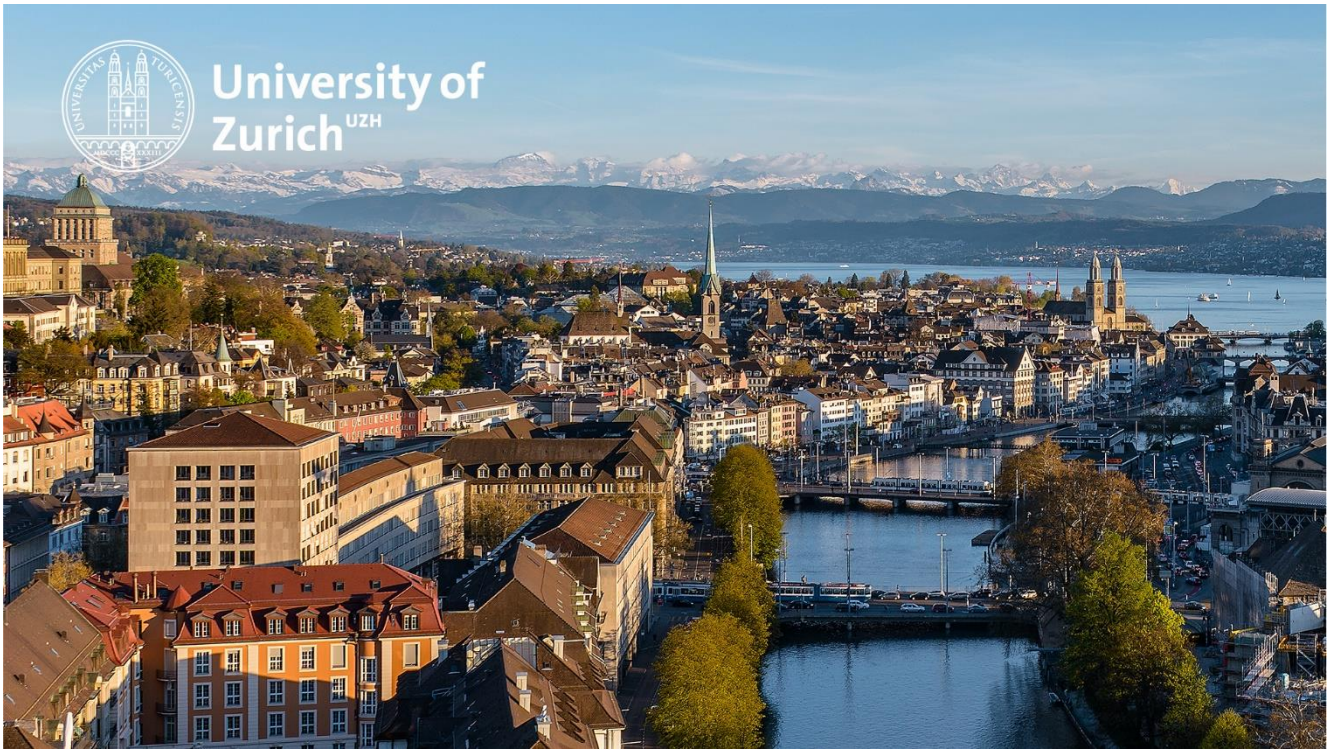
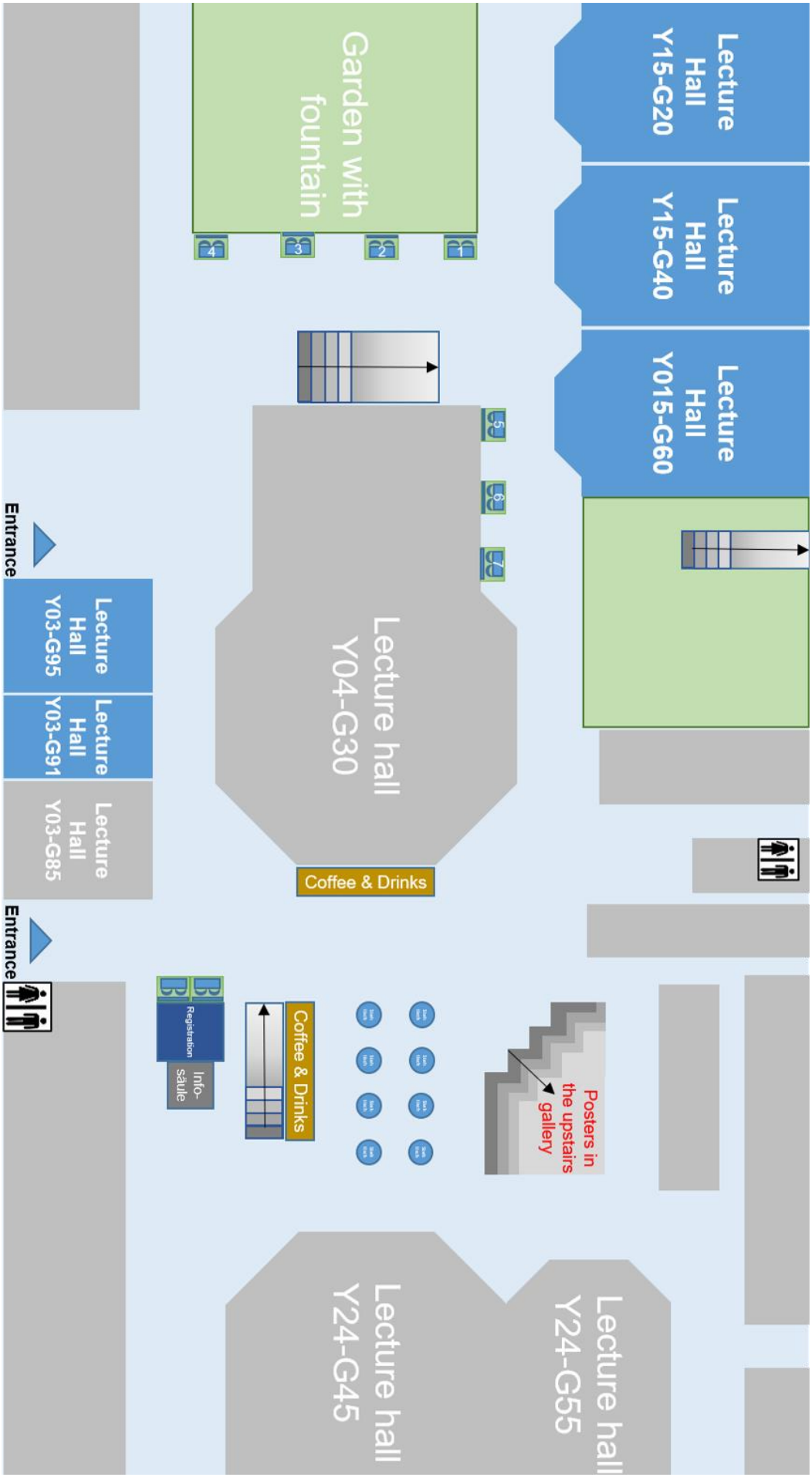
178. Investigating the Metabolic Actions of Chrono-Modulator Lithium	Brooke Prakash

179. Role of the Central Brain Clock in the Pathophysiology of Insulin Resistance – Study Protocol and Pilot Data — Esther Speksnijder
180. Investigating the molecular role of transcription factor MAFG in circadian rhythm regulation — Sejal Kapoor
181. Nanopore Direct-RNA sequencing reveals circadian splicing dynamics — Lies Chikahui



Floor plan seminar rooms & exhibitors



List of exhibitors

1. Microsynth AG, Switzerland
2. Velux Stiftung & Daylight Academy
3. Life Sciences Zürich
4. Japanese Society for Chronobiology
5. European Biological Rhythms Society
6. Social events for EBRS 2022
7. Züri Gastro

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Emergency contacts

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41 11

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Fire Department	118
Ambulance	144
Tox info Suisse	145

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