



**SLTBR**

Society for Light Treatment  
and Biological Rhythms



**34th Annual Meeting of the  
Society for Light Treatment and Biological Rhythms**

Lausanne, Switzerland

May 30th – June 1st, 2023



## Dear Friends & Colleagues,

On behalf of the Society for Light Treatment and Biological Rhythms (SLTBR), it is my great pleasure to welcome you all to the Annual Meeting in the picturesque city of Lausanne, Switzerland. This year we are pleased to announce that our meeting will be held in conjunction with the Daylight Academy, further enhancing the exchange of knowledge and ideas in the field of light therapy and biological rhythms.


I am delighted to report that our gathering has seen a surge in participation. This overwhelming response speaks volumes about the importance of our shared mission and the growing interest in exploring the profound impact of light on human health and well-being. The conference promises to be an enriching experience with a variety of high quality submissions reflecting the latest research and advances in our field. We have curated an exceptional panel of speakers, among whom we are honoured to have Professor Debra Skene deliver the keynote address. Her expertise and contributions have been instrumental in shaping our understanding of the intricate relationship between light, circadian rhythms and human physiology.

In addition to the stimulating sessions and engaging discussions, I encourage you to take the opportunity to visit the enlightening "Lighten Up" exhibition at the École Polytechnique Fédérale de Lausanne (EPFL). Through the lens of art, Lighten Up! On Biology and Time, explores the connection of living organisms with the natural cycle of light and dark.

None of this would have been possible without the unwavering support and dedication of the SLTBR Board. Their tireless efforts have paved the way for a successful and inspiring meeting. I extend my heartfelt thanks to each and every member for their invaluable contributions. In particular, I would like to thank the Chair of the Scientific Committee, Lisa Wu, as well as Renske Lok and Louise Ince for their diligent organisation of the Young Scientist Symposium. Their commitment to nurturing the next generation of researchers is truly commendable. Last but not least, I would like to acknowledge the exceptional administrative support provided by Annick Goijarts. Her meticulous attention to detail and seamless coordination have been instrumental in ensuring the smooth running of this event.

As we gather here, united by our passion for understanding the interplay between light, biology and circadian health, let us take this opportunity to forge new collaborations, share our knowledge and inspire each other. Together, we can continue to light the way to unlocking the potential of chronobiological research and its impact on chronomedicine.

I wish you all a rewarding and memorable conference.



Christian Cajochen  
President, Society for Light Treatment and Biological Rhythms (SLTBR)



## Tuesday, May 30th, 2023 (Starling Hotel)

CET	Monday, May 29th, 2023	EPFL Pavilions A & B
16:00 - 18:00	Lighten Up! On Biology and Time (exhibit viewing)	

CET	Tuesday, May 30th, 2023	Starling Room I-IV
<b>08:15 - 08:45</b>	<b>Registration</b>	
<b>08:45 - 10:15</b>	<b>CME Part I: Chronotherapy and Chronomedicine</b>	<b>Chair: Corrado Garbazza, Co-chair: Michael Osthoff</b>
08:45 - 09:15	John Blaikley, United Kingdom <i>The prevalence and impact of circadian disruption in hospitalised patients</i>	
09:15 - 09:45	Francis Levi, United Kingdom <i>Digital circadian health toward personalised cancer chronotherapy</i>	
09:45 - 10:15	Sara Montagnese, Italy <i>Circadian rhythms and liver disease</i>	
<b>10:15 - 10:30</b>	<b>Coffee Break</b>	
<b>10:30 - 12:00</b>	<b>CME Part II: Chronotherapy and Chronomedicine</b>	<b>Chair: Corrado Garbazza, Co-chair: Michael Osthoff</b>
10:30 - 11:00	David Ray, United Kingdom <i>Circadian misalignment and its impact on liver metabolic function and inflammation</i>	
11:00 - 11:30	Lisette Rops, Netherlands <i>Step into the LightCafe: Predictors and effects of light therapy for mood disorders in the LightCafe in Eindhoven</i>	
11:30 - 12:00	Panel discussion and Q&A	
<b>12:00 - 13:30</b>	<b>Lunch (+ SLTBR Board Meeting)</b> <b>Exhibit viewing: Lighten Up! On Biology and Time</b>	

CET	Tuesday, May 30th, 2023	Starling Room I-IV
<b>13:30 - 15:00</b>	<b>Symposium I: Basic</b>	<b>Chair: Marijke Gordijn, Co-chair: Francesco de Virgiliis</b>
13:30 - 14:00	Renske Lok, United States <i>Beyond day and night: Effects of light exposure on sleepiness and sleep</i>	
14:00 - 14:30	Christoph Scheiermann, Switzerland <i>The circadian immune system in cancer</i>	
14:30 - 15:00	Silke Kiessling, United Kingdom <i>Targeting the intestinal circadian clock for disease prevention</i>	
<b>15:00 - 15:15</b>	<b>Coffee Break</b>	
<b>15:15 - 16:15</b>	<b>Oral session I</b>	<b>Chair: John Hanifin</b>
15:15 - 15:30	Shai Sabbah, Israel <i>Prefrontal cortex neurons encode ambient light intensity differentially across regions and layers</i>	
15:30 - 15:45	Manuel Spitschan, Germany <i>ENLIGHT consensus checklist and guidelines for reporting laboratory studies on the non-visual effects of light in humans</i>	
15:45 - 16:00	Rafael Lazar, Switzerland <i>Real-world variation of pupil size during activities of daily living across the lifespan</i>	
16:00 - 16:15	Urs Albrecht, Switzerland <i>Light affects behavioral despair involving the clock gene Period 1</i>	
<b>16:15 - 17:30</b>	<b>Young Investigator Meeting</b>	<b>Chair: Renske Lok, Co-chair: Rafael Lazar</b>
16:15 - 16:45	Panel discussion and Q and A: Resilience in academia with Andrew Coogan (Ireland), Kathryn Reid (United States), and Debra Skene (United Kingdom)	
16:45 - 17:30	Young Investigator Award winner talk by Anthony Hand, Australia <i>Measuring light regularity: Sleep regularity is associated with regularity of light exposure in adolescents</i>	
<b>17:30 - 18:00</b>	<b>Data Blitz</b>	<b>Chair: Lisa Wu</b>
<b>18:00 - 20:00</b>	<b>Poster Session Reception (Wine &amp; Cheese)</b>	<b>Starling Room V</b>

## Wednesday, May 31st, 2023 (Starling Hotel)

CET	Wednesday, May 31st, 2023	Starling Room I-IV
08:30 - 09:30	General Assembly (for SLTBR members only)	
<b>09:30 - 11:00</b>	<b>Symposium II: Translational</b>	<b>Chair: Renske Lok, Co-chair: Mirjam Münch</b>
09:30 - 10:00	Charlotte Helfrich-Förster, Germany <i>Synchronisation between menstrual cycles and the luminance and gravimetric cycles of the moon</i>	
10:00 - 10:30	Andrew Coogan, Ireland <i>What does the public think when asked about Daylight Saving Time? Reconciling chronobiological and popular perspectives</i>	
10:30 - 11:00	Erin Flynn-Evans (NASA), United States <i>Sleep and circadian rhythms in space</i>	
<b>11:00 - 11:15</b>	<b>Coffee Break</b>	
<b>11:15 - 12:45</b>	<b>Oral session II</b>	<b>Chair: Aleksandar Videnovic</b>
11:15 - 11:30	Anne Skeldon, United Kingdom <i>Identifying whether extreme sleep phenotypes are driven by endogenous circadian factors or environmental factors by combining light and sleep timing data with mathematics: A step towards designing light interventions for 21st century living</i>	
11:30 - 11:45	Roya Sharifpour, Belgium <i>Modulatory effects of melanopic irradiance on executive brain activity in late teenagers and young adults</i>	
11:45 - 12:00	Carlo Volf, Denmark <i>Daylight quality: High-transmittance glass versus low transmittance glass: Effects on daylight, quality, health, comfort and energy consumption</i>	
12:00 - 12:15	Mirjam Münch, Switzerland <i>Non-linear relationship for reaction time and melanopic EDI – Is there an optimum for office lighting?</i>	
12:15 - 12:30	Cheryl Isherwood, United Kingdom <i>Phase shifting of circadian glucose rhythms in response to large meals</i>	
12:30 - 12:45	Marine Dourte, Belgium <i>Effect of daytime napping on skin-temperature regulation and sleep in healthy older adults</i>	

CET	Wednesday, 31st May, 2023	Starling Room I-IV
12:45 - 13:45	<b>Lunch</b>	
13:45 - 14:45	<b>Symposium III: Technology and Innovations in Chronobiology and Sleep</b>	<b>Chair: Lisa Wu, Co-chair: Urs Albrecht</b>
13:45 - 14:00	Ali Amidi, Denmark <i>In search of the optimal treatment components for insomnia using the Multiphase Optimization Strategy: Development of a smartphone-delivered CBT-I</i>	
14:00 - 14:15	Robert Lucas, United Kingdom <i>Spectrawear: An open source, reasonably priced, wearable dosimeter suitable for longitudinal monitoring of light exposure in alpha-opic units in everyday life</i>	
14:15 - 14:30	Jakob Weber, Switzerland <i>Technologies to reliably determine melatonin and DLMO</i>	
14:30 - 14:45	Panel discussion and Q&A	
14:45 - 15:00	<b>Coffee Break</b>	
15:00 - 16:30	<b>Year in Review</b>	<b>Chair: Paul Franken, Co-chair: Marijke Gordijn</b>
15:00 - 15:30	Paul Franken, Switzerland <i>Basic/Animal</i>	
15:30 - 16:00	Christine Blume, Switzerland <i>Translational/Human</i>	
16:00 - 16:30	Corrado Garbazza, Switzerland <i>Clinical</i>	
19:00 - late	<b>SLTBR Conference diner</b> Restaurant Bleu Léopard Rue Enning 10 1001 Lausanne	
		Please scan the QR code for directions: 

# Thursday, June 1st, 2023 (Starling Hotel & Rolex Learning Center & CM1 4)

CET	Thursday, June 1st, 2023	Starling Room I-IV
<b>09:00 - 10:00</b>	<b>Oral session III</b>	<b>Chair: John Hanifin</b>
09:00 - 09:15	Stella Druiven, Netherlands <i>Measuring activity, rhythm and sleep with actigraphy during chronotherapy in the clinical treatment of depression</i>	
09:15 - 09:30	Karin van Rijn, Netherlands <i>NON-24H-sleep-wake disorder in sighted individuals</i>	
09:30 - 09:45	Barbara Parry, United States <i>Sleep and light interventions for premenstrual, peripartum and perimenopausal depression</i>	
09:45 - 10:00	Adriane Soehner, United States <i>Melanopsin driven pupil responses and vulnerability to mania</i>	
<b>10:00 - 10:20</b>	<b>Change meeting room &amp; Coffee Break</b>	<b>Rolex Learning Center</b>
<b>10:35 - 10:40</b>	<b>Welcome by President SLTBR Christian Cajochen</b>	<b>Forum Rolex</b>
<b>10:40 - 11:50</b>	<b>Common Plenary with the Daylight Academy</b>	<b>Chair: Marilyne Andersen</b>
10:40 - 11:50	Marijke Gordijn (Netherlands), Lisa Heschong (United States), Christoph Küffer (Switzerland) <i>Out of sync in indoor lifestyles? Do we need to reconnect with natural rhythms?</i>	
<b>11:50 - 12:30</b>	<b>Marketplace: SLTBR and DLA present their projects</b>	
<b>12:30 - 13:15</b>	<b>Lunch, then change meeting room</b>	<b>Room CM1 4</b>
<b>13:30 - 15:00</b>	<b>Symposium IV: Clinical</b>	<b>Chair: Aleksandar Videnovic, Co-chair: Anna Wirz-Justice</b>
13:30 - 14:00	Joseph R. Winer, United States <i>Characterizing relationships between sleep-wake rhythms and cognition in aging and neurodegenerative disease</i>	
14:00 - 14:30	Jeroen Dudink, Netherlands <i>Beginning to see the light: Optimizing light conditions in the neonatal intensive care unit</i>	
14:30 - 15:00	Kathryn J. Reid, United States <i>Impact of light on health: Time matters</i>	



CET	Thursday, June 1st, 2023	Room CM1 4
15:00 - 15:15	Coffee Break	
13:30 - 15:00	Keynote speaker	Chair: Christian Cajochen
15:00 - 16:15	Debra Skene, United Kingdom <i>Metabolic profiling of shift work</i>	
16:15 - 16:45	Awards and Closing Remarks Christian Cajochen, Lisa Wu, Annick Goijarts	

## ACCREDITATION

We are pleased to announce that the SLTBR - 34th Annual Meeting has been accredited with 20 CME credits by the Swiss Society for Sleep Research, Sleep Medicine and Chronobiology (SSSSC)

Tuesday, 30 May: 9 credits

Wednesday, 31 May: 5,5 credits

Thursday, 1 June: 5,5 credits

## Poster program

	Circadian Rhythms and Psychiatric Disorders	Presenting author
#01	40 Hz masked flickering light as a potential treatment of depression	Laura Sakalauskaite
#02	Circadian disruption in cancer: Associations with cancer- and treatment-related symptoms	Lisa Wu
#03	Bringing light into the night: pilot study on the addition of biodynamic lighting in the psychiatric ward to improve vitality of nurses during shift work	Stella Druiven
#04	A preliminary investigation of morning, wearable, short-wavelength light therapy in adolescents with Tourette's disorder: Subjective outcomes	Emily Ricketts
#05	Living without light/dark cycle: The consequences on the sleep/wake cycle – Deep Time mission	Virginie Gabel
#06	Seasonality of human sleep: PSG in urban neuropsychiatric patients	Katy Sarah Wehrich
#07	Variations in fractal patterns of motor activity across sleep-wake cycles among individuals with varying recency of depression	Olga Minaeva
#08	Light therapy and associated improvements in mood, sleep, and circadian rhythms in individuals with depression; A randomized control trial	Ashley Nixon
#09	The efficacy of a transdiagnostic sleep intervention for outpatients with sleep problems and concurrent bipolar disorder, major depression, or attention deficit disorder: A randomized controlled trial	Mette Kragh
#10	Chronobiotic use of melatonin improves DaT-Binding in iRBD	Dieter Kunz
#11	The moderating effect of antidepressive agents on the change in sleep quality and sleep-wake pattern after receiving light therapy for depression.	Emma Visser
#12	Acute effect of a novel lighting source on mood of psychotic disorder outpatients	Kateřina Červená
#13	Sensitivity and variations of self-reported sleepiness and skin temperature field metrics following chronic sleep restriction	Vaida Verhoef
#14	“Rise & Shine”: Effects of morning light exposure on EEG alpha wave activity in patients with insomnia	Jan de Zeeuw
#15	Does one night of short sleep matter? Meta-analytic evidence for decreases in alertness	Larissa Wüst
#16	From dawn to dusk – mimicking natural daylight exposure improves circadian rhythm entrainment in patients with severe brain injury	Monika Angerer
#17	Light sensitivity in the nucleus accumbens and dorsomedial striatum	Elyashiv Zangen

	<b>Fundamental Science</b>	<b>Presenting author</b>
#18	Regional difference in response to light across the human hypothalamus	Islay Campbell
#19	Retino-recipient brain regions in a diurnal rodent, <i>rhabdomys pumilio</i>	Asshen Dedigama Acharige
#20	Photic sneezing in response to naturalistic and parametric light stimuli: A protocol and pilot study (n=1)	Manuel Spitschan
#21	Prediction of retinal irradiance across the visual field through physically realistic spectral rendering incorporating a parametric headshape model	Uday Nakade
#22	Daylight variability and its role in shaping visual and non-visual responses	Cehao Yu
#23	Can too much light during daytime make us sleepier?	Ruta Lasauskaite
#24	Cone-photoreceptor contribution to melatonin suppression and subjective sleepiness	Fatemeh Fazlali
#25	Physiologically-relevant multi-modal characterization of natural scenes across time, space and spectrum	Niloufar Tabandeh
#26	Cortical responses to daytime light exposure: Investigating objective EEG markers in metameric light conditions	Elifnaz Gecer
#27	Frequency analysis of sustained pupil size under various melanopic irradiance in young healthy individuals	Elise Beckers
#28	Bright beginnings – artificial dawn light intervention for the long-term augmentation of psychological well-being and cognitive functioning in young healthy adults: A proof-of-concept study	Maria Korman
#29	Selecting, implementing and evaluating control and placebo conditions for light therapy and light-based interventions: An $\alpha$ -opic framework	Manuel Spitschan

## Poster program

	Translational Chronobiology Research	Presenting author
#30	Circadian intervention study in elderly with low sleep quality: A randomized controlled trial	Johanna Otte
#31	Diurnal patterns in the spread of misinformation	Elisabeth Stockinger
#32	Melanopic irradiance-dependent effects on pupil size and cognitive performance using metameric display light	Isabel Schöllhorn
#33	Pilot field study to investigate the relationships between social jetlag, food intake and glucose patterns in night workers	Michelle Luxwolda
#34	Assessing genetic variation for effects of lithium on circadian clock period, sleep behavior, and mortality in fruit flies	Noah Fryou
#35	The effect of melatonin in treatment of nocturnal hypertension according to circadian rhythm of patients	Yklym Bolmammedov
#36	Melanopic irradiance of metameric display light in the evening affects objective sleepiness as indexed by a change in the Alpha Attenuation Test	Oliver Stefani
#37	A higher illuminance reduces momentary exhaustion in exhausted employees: Results from a field study	Sophia Frick
#38	Beneficial effects of daytime light exposure and physical activity on human circadian rhythms and sleep – A study protocol	Ann-Sophie Loock
#39	Solar exposure and seasonality in incident depression, bipolar disorder and purchase of antidepressants	Carlo Volf
#40	Children's daily light-exposure and sleep across seasons in Northern Sweden	Maja Heyden
#41	Advancing sleep timing to improve depression	Klaus Martiny
#42	Optimizing tunable lighting for human health	John Hanifin

Translational Chronobiology Research		Presenting author
#43	The impact of blue-light absence in indoor lighting on salivary cortisol levels	Katarína Stebelová
#44	Effect of the short-wavelength light reduction during the work hours on 6-sulfatoxymelatonin in morning human urine	Zuzana Dzirbikova
#45	Modulating evening responses to light by afternoon light exposure in teenagers	Rafael Lazar
#46	Perils of the nighttime: Late timing of behavior increases the likelihood of physical and mental health disorders across chronotypes in 73,888 community-dwelling adults	Renske Lok
#47	Preliminary Results: Effects of evening smartphone use on sleep and declarative memory consolidation in adolescents and young adults	Christopher Höhn

Other		Presenting author
#48	The daytime effect of light directionality on mood, alertness, and cognitive performance	Nikodem Derengowski
#49	Light, activity and sleep in my daily life: Usability and feasibility of an online intervention in a field study	Kiran Maini Gerhardsson
#50	Impact of daytime napping on circadian markers, cognition and brain integrity in the aged	Christina Schmidt
#51	Modern lifestyle and desynchronization – what factors do really matter?	Oksana Mykytyuk
#52	Environmental therapeutics: A coaching model for the public	Renske Lok
#53	The effect of blue-light blocking glasses on depressive symptoms in women in the early postpartum period - A pilot study	Anna Sochůrková
#54	Effectiveness of individualized chronotherapy in individuals with subclinical sleep problems – Pilot study	Katarína Evansová
#55	Timing matters: Non-visual effects of light on brain activity during morning and evening sessions using 7T MRI and an auditory oddball task	Fermin Balda

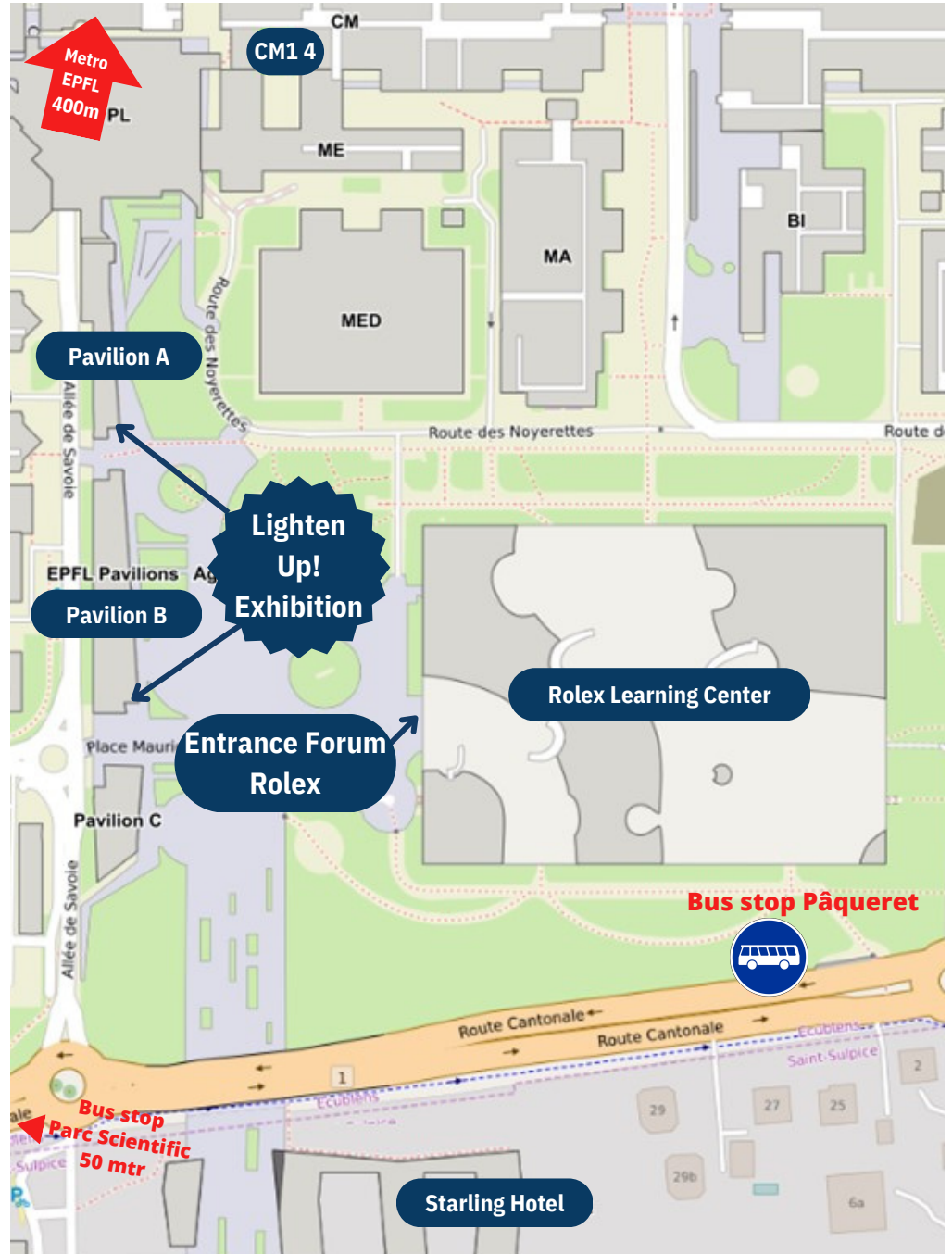
# MAP EPFL CAMPUS

## WIFI: Starling (Meeting Rooms)

Login: SLTBR3005  
Password: sltbr3005

## WIFI: EPFL Campus

Name: x-lightcap  
Password: illque77  
or: Public WiFi "EPFL"  
(accessible through an SMS code)



## Poster Award sponsors

Center for Environmental Therapeutics generously sponsors three Poster Awards.  
Each winner will receive a \$200 award.

## Student Travel Award sponsors

Clocks & Sleep (4) and CamNtech (1) generously sponsor the Student Travel Awards of \$200 each.

## J. Christian Gillin Young Investigator Award 2023 (YIA) sponsor

Novalogy generously sponsors the J. Christian Gillin Young Investigator Award of \$500.

## Organising Committee

### SLTBR President, 2022-2024

Christian Cajochen, PhD  
Corrado Garbazza, MD, PhD (VP)

### Board of Directors

Marijke Gordijn, PhD  
Renske Lok, PhD  
Lisa Wu, PhD  
Louise Ince, PhD  
Aleksandar Videnovic, MD

### Administrative team

John Hanifin, PhD  
*Treasurer*

Annick Goijarts  
*Administrative manager*  
JCC Congress Consultancy & Events  
M. +31 (0) 6 1667 1881  
E. agoijarts@jcc-congressen.nl

The SLTBR proudly collaborates with its 2023 industrial partners



SEOUL SEMICONDUCTOR

lumie®



L/S



SLTBR  
Society for Light Treatment  
and Biological Rhythms