



SLTBR

Society for Light Treatment
and Biological Rhythms



29th Annual Meeting Program
June 23-25, 2017 - Berlin, Germany
In Partnership with DIN



Berlin, June 2017

Dear Friends & Colleagues,

On behalf of the 2016-2017 board of directors, scientific and planning committees, I would like to welcome you to the 29th Annual Society for Light Treatment and Biological Rhythms meeting in Berlin in collaboration with the DIN (German Institute for Standardization).

This year, the SLTBR Annual Meeting is immediately following the DIN Experts Panel on the topic of “Biological light effects on humans.” Together, we have selected internationally renowned speakers. We are very excited to hear from all of our speakers; I am grateful for their participation in the meeting! I also welcome them to join as members and being an active part of the SLTBR.

The travel grants and the J Christian Gillin Young Investigator Award have been major incentives for students to participate in the annual meeting. Each year, the number of applicants continues to rise, and this year we had hit a record high number of applicants. We are grateful for the support of our sponsors, who have made these travel grants and award possible.

We are also quite pleased to welcome back a record number of past presidents and current board members who will be attending the meeting. These participants will surely add to lively discussions during the program.

Last, but certainly not least, I would like to express my gratitude to the SLTBR board of directors who have contributed countless hours to making this annual meeting possible. Without your support, the meeting would not have been possible.

Without their active involvement and dedication to the meeting and society, the SLTBR would be unable to provide a solid platform needed to promote active discussion and debate in the field of light therapy and biological rhythms.

Thank you again for your support and participation, and I hope that you'll enjoy this year's meeting!



Best wishes,

Mirjam Münch, PhD

SLTBR President, 2016-2018

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SLTBR Meeting 2017, Berlin in Partnership with DIN, June 23 – June 25 2017
 German Institute for Standardization (DIN), Burggrafenstraße 6, 10787 Berlin, Germany

SLTBR Meeting Program Berlin 2017

Thursday, June 22 nd	
16:00 - 18:00	SLTBR Board Meeting (board members and past presidents only) Hotel Sofitel Kurfürstendamm, Augsburger Str. 41, 10789 Berlin, Germany
15:00 - 17:00	Social Events for SLTBR members and spouses/family Museum Tour – see separate announcement (registration necessary)
Friday, June 23 rd	
8:30 - 9:00	Registration
9:00 - 9:15	Welcome from the President
9:15 - 10:45	<u>CME TEACHING COURSE (PART 1)</u> Chair: Dieter Kunz (DE)
9:15 - 10:00	History of light therapy Anna Wirz-Justice (CH) A65
10:00 - 10:45	Photoreception for circadian, neuroendocrine and neurobehavioral regulation George Brainard (USA) A11
10:45 - 11:15	Coffee Break
11:15 - 12:45	<u>CME TEACHING COURSE (PART 2)</u>
11:15 - 12:00	Light at night – darkness during the day Dieter Kunz (DE) A37
12:00 - 12:45	Overview of clinical applications of light therapy Dorothy Sit (USA) A52

12:45 - 13:45	Lunch Break	
13:45 - 16:00	<u>DAYLIGHT SYMPOSIUM: THE IMPACT OF DAYLIGHT ON HUMAN HEALTH</u> Chair and Introduction: Jean-Louis Scartezzini (CH)	
14:00 - 14:30	Usage of daylight in the built environment; impact on health Marielle Aarts (NL)	A1
14:30 - 15:00	Daylight in living environments and its influence on health Katharina Wulff (UK)	A68
15:00 - 15:30	Natural light in a psychiatric ward and length of stay according to room orientation Klaus Martiny (DK)	A26
15:30 - 16:00	The Daylight Academy or how to use daylight to boost science Lukas von Orelli (CH)	A63
16:00 - 16:30	Coffee Break	
16:30 - 17:30	Panel discussion, moderated by Oliver Stefani (DE) Guests: Speakers of the CME teaching course & the daylight symposium, representatives of the lighting industry	
18:00 - 21:00	Poster session; wine & cheese, Foyer DIN	

Saturday, June 24th

8:00 - 8:30	Registration	
8:30 - 10:15	<u>SYMPOSIUM 1:</u> <u>NEW INSIGHTS OF THE IMPACT OF LIGHT ON SLEEP, WAKEFULNESS & MOOD</u> Chair: Kathryn Roecklein (USA)	
8:30 - 9:05	Hypothalamic responses to visual features other than irradiance Robert Lucas (UK)	A41
9:05 - 9:40	The role of melanopsin in the regulation of sleep and arousal Stuart Peirson (UK)	A46

9:40 - 10:15	Molecular markers to assess circadian phase Achim Kramer (DE)	A3
10:15 - 10:45	Coffee break	
10:45 - 12:15	ORAL PRESENTATIONS I Chair: Michael Young (USA)	
10:45 - 11:00	Nocturnal exposure to white light without melatonin suppression: using spectral tuning to turn light into biological darkness Jan L. Souman (NL)	A57
11:00 - 11:15	Can light improve alertness during the daytime in a dose-dependent manner? Renske Lok (NL)	A40
11:15 - 11:30	Differences of the pupil response during exposure to light of different spectral compositions and intensities: preliminary findings Jan de Zeeuw (DE)	A21
11:30 - 11:45	Effects of lighting color temperature on effort intensity for cognitive and listening tasks Ruta Lasauskaite (CH)	A38
11:45 - 12:00	Turn down the light at night? Investigating the effect of blocking blue light exposure in the evening on sleepiness and sleep Karin C.H.J. Smolders (NL)	A54
12:00 - 12:15	Local mid-day concentration of carbon monoxide in arterial blood in the mammalian head area during summer vs. winter Anna Koziorowska (PL)	A35
12:15 - 13:15	Lunch Break	
13:15 - 15:00	<u>SYMPOSIUM 2: FROM BENCH TO BEDSIDE - IMPACT OF LIGHT ON METABOLISM, SLEEP & COGNITION</u> Chair: Dan Oren (USA)	
13:15 - 13:50	Light exposure, circadian entrainment, and metabolism Kenneth Wright Jr. (USA)	A67

13:50 - 14:25	Metabolic effects of light Konstantin Danilenko (RU)	A19
14:25 - 15:00	The impact of light on neurobehavioral performance Steven Lockley (USA)	A39
15:00 - 15:30	Coffee break	
15:30 - 16:15	Presentation of the Christian Gillin Young Investigator Awardee 2017	
16:15 - 17:15	Keynote Lecture Christian Cajochen (CH) Non-visual impact of light on human sleep and circadian physiology	A15
17:15 - 18:00	SLTBR Annual Membership Meeting	
19:00 - 22:00	Banquet Dinner at the Hotel Sofitel Kurfürstendamm	

Sunday, June 25 th 2017		
8:00 - 8:30	Registration	
8:30 - 10:15	<u>SYMPOSIUM 3: CLINICAL, GENETIC AND NEURAL BIOMARKERS OF SEASONAL MOOD DISORDERS AND RESPONSE TO LIGHT THERAPY</u> Chair: Francesco Benedetti (IT)	
8:30 - 9:05	Imaging and genetic of response Francesco Benedetti (IT)	A7
9:05 - 9:40	Bright light effects on blood Dan Oren (USA)	A45
9:40 - 10:15	Melanopsin driven pupillary reflexes in seasonal affective disorder Kathryn Roecklein (USA)	A49
10:15 - 10:45	Coffee break	

10:45 - 12:15	ORAL PRESENTATIONS II Chair: Stuart Pierson (UK)	
10:45 - 11:00	Determining retinal exposure - the importance of field-of-view David H. Sliney (USA)	A53
11:00 - 11:15	The effects of light exposure on circadian phase in seasonal affective disorder Caitlin M. DuPont (USA)	A24
11:15 - 11:30	Wake and light therapy for moderate to severe depression Mette Kragh (DK)	A36
11:30 - 11:45	Light exposure via head-mounted devices suppresses melatonin and improves vigilant attention without affecting cortisol and subjective comfort Christina Schmidt (BE)	A51
11:45 - 12:00	Chronotype as a predictor of future status of depressive and anxiety disorder diagnosis Stella J.M. Druiven (NL)	A23
12:00 - 12:15	DIM-LIGHT-MELATONIN ONSET – the influences of season and weekly structure Giulia Zerbini (NL)	A70
12:15 - 12:45	Poster & Travel Awards	
12:45 - 13:00	Closing Remarks and Farewell	
13:00 - 16:00	Lunch & Tour at the Clinic for Sleep & Chronomedicine, St. Hedwig Hospital Berlin	

POSTER PRESENTATION – FRIDAY, JUNE 23, 18:00 – 21:00 h

Delayed sleep onset latency, poor sleep quality and blunted positive affect in evening types: experimental findings and implications for treatment

Niki Antypa (NL) A4

Lunar tidal cycles in a rapid cycling bipolar patient

David H. Avery (USA) A5

Proceedings of the bright up study: light therapy in antepartum depression

Babette Bais (NL) A6

On the integration of non-image-forming (NIF) effects of light on venetian blinds and electric lighting control

Marta Benedetti (CH) A8

Sand rats see the light: use of diurnal rodents for the study of depression

Carmel Bilu (IL) A9

Melatonin production in essential hypertension under common and modified light schedules

Mikhail L. Blagonravov (RU) A10

A novel brain circuitry modulates depression following aberrant light exposure

Olivier Brock (UK) A12

Bright-study: light exposure, circadian rhythm and sleep problems in elderly with intellectual disabilities

Mylène N. Böhmer (NL) A13

Spatial distribution of lighting scenes and its impact on non-visual effects

Kai Broszio (DE) A14

Chronotype assessments of three monozygotic child twins

Kateřina Červená (CZ) A16

A double blind, placebo controlled randomized trial of light therapy for non-seasonal bipolar vs. unipolar depression

Magdalena Chojnacka (PL) A17

Internal synchrony and mood: a study of circadian misalignment in bipolar depression

Sara Dallaspezia (IT) A18

6-day combined partial wake and light therapy for depression

Konstantin V. Danilenko (RU) A20

A pilot replication study of two per3 single nucleotide polymorphisms as potential genetic markers for morning and evening earliness-lateness

Vladimir B. Dorokhov (RU) A22

The “life-on” project: chronobiology, sleep-related risk factors and light therapy in perinatal depression

Corrado Garbazza (CH) A25

A multicenter randomized controlled trial for bright light therapy in adults with intellectual disability and depression: study protocol

Pauline C.M. Hamers (NL) A27

Higher light color temperature positively impacts preschoolers’ cognitive performance

Lauren E. Hartstein (USA) A28

The combined effects of dawn simulation and a sleep state before awakening on the sleepiness just after awakening

Kazuhiro Hatta (JP) A29

Luminaires with non-visual characteristics – photometric measurements and comparison of five electric lighting systems

Caroline Hoffmann (CH) A30

Relationship between cytokines, body mass index and chronotype of people

Taganmyrat Hojageldiyev (TM) A31

Acute non-image forming effects of diurnal light exposure: the role of prior light exposure

Laura M. Huiberts (NL) A32

Constructing a new psychiatric ward using new technology and chronotherapeutic principles

Håvard Kallestad (NO) A33

Circadian rhythm disturbances in patients with bipolar disorder, unaffected siblings and healthy controls

Stefan E. Knapen (NL) A34

Social jetlag and dysfunctional circadian rhythm entrainment associate with ADHD symptoms in adults

Niall M. McGowan (IRL) A42

Bright morning light exposure reduces daytime cortisol concentrations and increases REM sleep duration

Claudia Nowozin (DE) A44

Evening light exposure relationship between morning-evening preference and sleep timing Anna M. Narbut (RU)	A47
Influence of monochromatic light on melatonin suppression and EEG data in patients with bipolar I disorder in comparison to healthy subjects Philipp Ritter (DE)	A48
Increase of alertness due to spectral power distribution and illuminance at eye level in a lecture hall Inga Rothert (DE)	A50
Modelling inter-individual variations in daily rhythms in students' sleepiness and self-control as a function of chronotype Karin C.H.J. Smolders (NL)	A55
Towards human-centric lighting for office buildings: pilot study on the interactions of visual, perceptual and non-visual effects of workplace (day) lighting Victoria Eugenia Soto Magan (CH)	A56
Two hours of 10 lux light exposure induced suppression in melatonin of humans Katarína Stebelová (SK)	A58
A pilot metabonomic study of major depressive disorder with winter-type seasonal pattern Walter Swardfager (CA)	A59
Correlated colour temperature effects of morning light exposure on alertness and body temperatures Marije te Kulve (NL)	A60
Chronotherapy in the Netherlands Esmée Verwijk (NL)	A61
Room-light: dynamic led-light as treatment for depressed inpatients - a randomized clinical trial Carlo Volf (DK)	A62
The effect of naturalistic light on depressive mood, fatigue, subjective sleep quality and melatonin and cortisol blood levels in stroke patients admitted for rehabilitation Anders West (DK)	A64
Effectiveness of visual vs. auditory closed-loop stimulation on delta sleep brain oscillations in humans Sergei V. Yarosh (RU)	A69



SLTBR

Society for Light Treatment
and Biological Rhythms

SLTBR J. Christian Gillin Young Investigator Award 2017

Annual award given for already-published or preliminary results in the field of basic or clinical research on light therapy, light applications and/or biological rhythms

Congratulations to Tom Woelders

PhD Candidate, Chronobiology Unit
University of Groningen, The Netherlands



Saturday, June 24, 2017, 15:30-16:15

Award recognition and presentation of the awardee:

“Daily light exposure patterns reveal phase and period of the human circadian”

2017 Committee

Ybe Meesters (PhD), Chair - The Netherlands

Kim Boddum (PhD), 2016 Winner - Denmark

Konstantin Danilenko (MD) - Russian Federation

Mirjam Münch (PhD) - Germany

Kathryn Roecklein (PhD) – USA



Student Travel Grant Recipients

Merit-based Travel Grants

Congratulations to

Stella J. M. Druiven,

Department of Psychiatry (ICPE),
University of Groningen, Groningen, the Netherlands

Lauren Hartstein,

The Department of Psychological and Brain Sciences,
University of Massachusetts Amherst, USA

Mette Kragh,

Department of Affective Disorders Q,
Aarhus University Hospital, Risskov, Denmark

Renske Lok,

The Groningen Institute of Evolutionary Life Sciences,
University of Groningen, The Netherlands

Outreach Travel Grant

Kateřina Červená,

National Institute of Mental Health,
Klecaný, Czech Republic

Requirements for Travel Grants:

1. Updated Student Membership
2. Submitted abstract to annual meeting
3. Registration to annual meeting
4. Attendance at annual meeting
5. Proof of student status

Do you do daylight?

VELUX STIFTUNG

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our focus areas that will have
an impact? Please do not hesitate
to contact us.

Kirstin Kopp, PhD
Scientific Officer

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FUNDING AREAS

VELUX STIFTUNG funds research projects with a focus on:

- **Daylight and Human:**
How does daylight influence humans?
- **Daylight and Nature:**
How does daylight influence nature?
- **Daylight and Technology:**
How can we use daylight to improve the situation of the society
or the environment?
- **Healthy Aging:**
How can quality of life at higher age be increased or stabilised?
- **Ophthalmology:**
What solutions are needed to cure the various diseases of the eye?

IMPACT

The VELUX STIFTUNG funds excellent research that has an impact on
science and/or society. Impact means:

- The topic is **relevant**. Your project addresses a need.
- Your project has potential for **change** in science and/or beyond.
- Your project has potential for **transfer**: The research results can be
understood and used by other scientific disciplines or by the society.

Please find more
information on our website:
www.veluxstiftung.ch

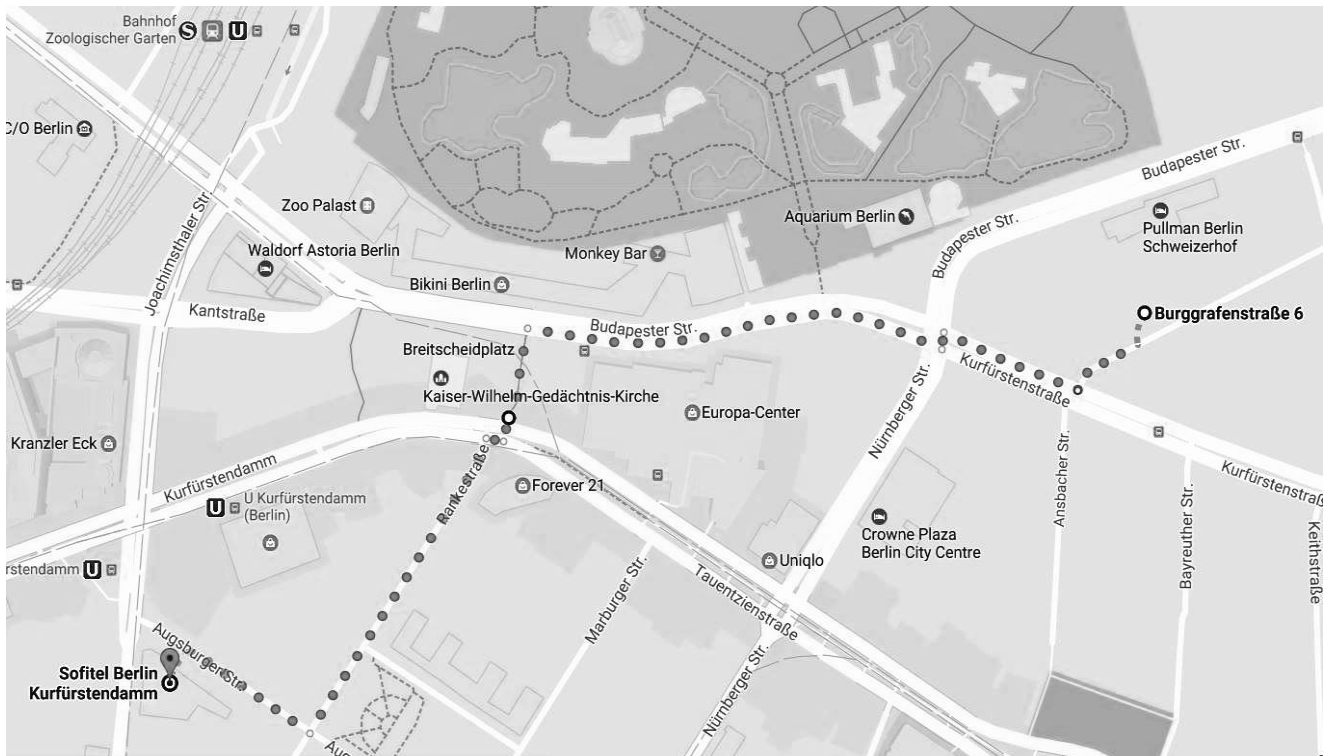
29th Annual SLTBR Meeting - Directions

Conference Venue:

German Institute for Standardization (DIN) Burggrafenstr. 6, 10787 Berlin, Germany

Accommodation:

Hotel Sofitel Kurfürstendamm, Augsburger Str. 41, 10789 Berlin, Germany



Directions from the Airport Berlin-Tegel:

Bus 109 → stop: 'Kurfürstendamm' or Express Bus X9 → stop: Zoologischer Garten (29-31 min)

Directions from the Airport Berlin Schönefeld:

Subway S9 (direction: Pankow) → change at 'Ostkreuz' to S7 (direction Potsdam) → stop: Zoologischer Garten (1h)



The Daylight Academy wants to promote international and interdisciplinary cooperation among scientists, engineers and architects as well as other professionals involved in daylight research or with a strong interest in daylight-related topics.

For more information please visit our website
www.daylight.academy

or send us an email to
office@daylight.academy

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J. Christian Gillian Young Investigator Award



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Special Acknowledgments

Lasse Nørregaard & Philp Kaare Løventoft

Thank you for your continued support with the SLTBR website and joining us at this year's meeting!

Volunteers

Thank you for your time and dedication in taking care of the details!

DIN – German Institute of Standardization

Thank you for the partnership and collaboration in hosting the annual meeting at your facilities!

Sven Haedel from Haedel Computerhardware

Thank you for providing the onsite technical and audio-visual support!

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Thank you for publishing our SLTBR meeting abstracts in a Special Issue of Neuropsychobiology!

Dieter Kunz, Intellux Berlin GmbH

Thank you for supporting the SLTBR Meeting 2017!

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