**Program**

**Optogenetics**

**Monday 14 March 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00-10:00</td>
<td>Arrival, registration and coffee</td>
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<tr>
<td>10:00-10:15</td>
<td>Welcome (Lorentz Center)</td>
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<tr>
<td>10:15-10:30</td>
<td>Explanation of format and goals of the workshop</td>
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<tr>
<td>10:30-11:00</td>
<td>Who-is-who, interactive way to get to highlight the participant’s background</td>
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<tr>
<td>11:00-11:30</td>
<td>Andreas Möglich - Building an Optogenetic Inventory – Modules</td>
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<tr>
<td>11:30-12:00</td>
<td>Andreas Möglich and Thomas Oertner - Building an Optogenetic Inventory – Applications</td>
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<tr>
<td>12:00-12:30</td>
<td>Lukas Kapitein and John Kennis - Discussing the Grand Challenges &amp; deciding on topical workshops</td>
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**Potential topical workshops / round-table discussions:**
- Protein engineering
- Multispectral optogenetics and imaging
- Photopharmacology
- Fluorescent proteins and sensors
- Protein discovery by genome mining
- Instrumentation (imaging and stimulation)
- Instrumentation (neuroscience)
- Applications in cell biology
- Applications in neurobiology
- Clinical applications
- European Consortia / Training networks

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<tr>
<td>12:30-14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00-15:40</td>
<td>Channelrhodopsin: from the algae to the clinic? Peter Hegemann - Open Questions in Microbial Rhodopsin Research</td>
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<td>Tobias Moser - Optogenetic Stimulation of the Auditory Pathway for Research and Future Prosthetics</td>
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<td>15:40-16:00</td>
<td>Coffee and tea break</td>
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<td>16:00-17:00</td>
<td>Poster pitches (augmenting the inventory and challenges)</td>
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<td>17:00-</td>
<td>Wine and Cheese Party</td>
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Tuesday 15 March 2016

Chairs: Maarten Merkx and Barbara di Ventura

9:00-9:30 Georg Nagel - Photomodulation of cyclic nucleotides
9:30-10:00 Pau Gorostiza - Photocontrol of endogenous receptors with light-regulated drugs

10:00-10:30 Coffee and tea break

10:30-11:00 Keith Moffat - How is a signal actually generated by absorption of a photon?
11:00-11:30 Ben Feringa
11:30-12:00 Brian Kuhlmann - Controlling Protein Localization with Light

12:00-14:00 Lunch

'This weeks discovery' - Sitterzaal (ground floor, Oort building)
12:30 – 13:15 Klaus Hahn

14:00-14:30 Klaus Hahn - Designed allosteric photo-control using insertable protein domains (20’+ 10’ discussion)

14:30-15:30 Topical workshops / round-table discussions
15:30-16:30 Topical workshops / round-table discussions

16:30-18:00 Posters and non-plenary discussions

Wednesday 16 March 2016

Chairs: Jared Toettcher and Brian Kuhlmann

9:00-9:30 Nathan Rockwell - Cyanobacteriochromes: all of the colors, but is there a big picture?
9:30-10:00 Martin Zurbriggen - Plant and Mammalian Synthetic biology for the control and understanding of cellular processes

10:00-10:30 Coffee and tea break

10:30-11:00 Vladislav Verkhusha
11:00-11:30 Adam Cohen
11:30-12:00 Valentina Emilliani

12:00-14:00 Lunch

14:00-15:00 Topical workshops / round-table discussions
15:00-16:00  Topical workshops / round-table discussions

16:30 -  Departure by bus to boat (Zijldijk, Leiderdorp)
17:00 - 21:00  Boat tour and workshop dinner
21:00 -  Departure from boat to Leiden train station, Lorentz Center of hotel Van der Valk

Thursday 17 March 2016

Chairs: Thomas Oertner and Wilfried Weber

9:00-9:30  Jared Toettcher
9.30-10.00  Barbara di Ventura - Moving proteins around with LOV
10.00-10.30  Coffee and tea break
10.30-11.00  Dagmar Wachten - How to control ciliary function by light
11.00-11.30  Stefan Herlitze - Optogenetic control of GPCR pathways in mouse brain
11.30-12.00  Andrew Hires - Reverse engineering the sense of touch with optogenetics
12.00  Lunch
14:00-14:30  Elena Govorunova - Natural anion channelrhodopsins (ACRs): A new family of light-gated channels as tools for optogenetic inhibition
14.30-15.30  Topical workshops / round-table discussions
15.30-16.30  Topical workshops / round-table discussions
16.30-18.00  posters and non-plenary discussions

Friday 18 March 2016

Chairs: Klaus Hahn and Sylvestre Bonnet

9:00-9:30  Ivan Soltesz - Closed-loop optogenetic control of epilepsy
9:30-10:00  Linn Carstensen - Ultra High Throughput Screening at Bayer
10:00-10:30  Coffee and tea break
10:30-11:00  Malgorzata Borowiak - light-sensitive tubulin drugs
11:00-11:30  Philipp Sasse - Lightly Forced: Principles for translational optogenetics to restore heart and skeletal muscle function
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<td>11:30-12:00</td>
<td><strong>Wiktor Szymanski</strong> - Photopharmacology: from Basic Concepts to Proof-of-Principle, and Beyond</td>
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<td>12:00-14:00</td>
<td>Lunch</td>
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<td>14:00-14:50</td>
<td><strong>Wilfried Weber</strong> - Optogenetic Biomaterials to Engineer Stem Cell Fate</td>
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<td>14:50-15:30</td>
<td>Plenary discussion, wrap-up and closure</td>
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Participants may still use the Lorentz Center facilities after the closure of the workshop.