

5th International Symposium on Photopharmacology

8-10 April 2026, Sète, France

Plenary Speakers



Pr. Amadeu Llebaria
Institut de Química Avançada de Catalunya, Barcelona, Spain



Pr. Andrea Rentmeister
Ludwig-Maximilians-Universität, Munich, Germany



Dr. Céline Frochot
LRGP Univ Lorraine, Nancy, France



Pr. Dirk Trauner
University of Pennsylvania, Philadelphia, USA



Pr. Weiping Wang
Hong-Kong University, Hong-Kong



Pr. Wiktor Szymanski
University of Groningen, The Netherlands

Keynote Speakers

Pr. Andrea Hupfeld
Pr. Andrew Woolley
Pr. Angel Marti
Pr. Angela Casini
Dr. Charleine Zussy
Pr. Francisco Ciruela

Pr. Jörg Standfuss
Dr. Julie Le Merrer
Dr. Laetitia Mony
Dr. Laia Josa-Culleré
Pr. Matthew J. Fuchter
Dr. Michel De Waard

Pr. Oliver Thorn Seshold
Dr. Pau Gorostiza
Pr. Rob Leurs
Pr. Wan-Chen Lin
Dr. Xavier Rovira



For more information contact:
ispp2026@sciencesconf.org
<https://ispp2026.scienceconf.org>



Organizers

Pr. Olalla Vázquez (U. Marburg) & Cyril Goudet (IGF, U. Montpellier)

Partners and Sponsors





5th International Symposium on
Photopharmacology
8 -10 April 2026, Sète, France

Program

Wednesday, 8 April 2026

11:00-12:30	Welcome / Registrations	
12:30-14:00	Lunch break	
14:00-14:20	Olalla Vázquez & Cyril Goudet	Introduction, presentation of the symposium
14:20-15:00	Prof. Amadeu Llebaria (IQAC-CSIC, Barcelona, Spain)	Plenary lecture 1: “Demystifying photopharmacology: a personal view of a promising technology”
Session 1 “Photoswitches and beyond” Chairs: Olalla Vázquez & Amadeu Llebaria		
15:00-15:20	Prof. Andrea Hupfeld (University of Regensburg, Germany)	“Photoxenase Engineering - Photocontrol of enzymes with unnatural amino acids”
15:20-15:40	Prof. Andrew Woolley (University of Toronto, Canada)	“Adventures with acylhydrazone photoswitches”
15:40-16:00	Prof. Matthew J. Fuchter (University of Oxford, UK)	“Design and discovery methodologies in photopharmacology”
16:00-17:00	Coffee break	Collecting room keys and hanging posters (odd numbers)
17:00-17:20	Prof. Oliver Thorn-Seshold (U Dresden, Germany)	“Azobenzenes for NIR switching, Chromocontrol, and Fluorescence Imaging”
17:20-17:30	Lucia Vina Lopez (Massachusetts Institute of Technology, USA)	“Toward Predictive Photopharmacology: AI-Accelerated Excited-State Simulations for High-Throughput Photoswitch Screening”
17:30-17:40	Nikita Durandin (Tampere University, Finland)	“Traceless Photopolymerization with Non-Pulsed Red Light for Cell-Laden Bioscaffold Fabrication”
17:40-18:20	Prof. Dirk Trauner (U. Pennsylvania, Philadelphia, USA)	Plenary lecture 2: “Controlling Transcription, Translation, and Cellular Excitability with Photopharmacology”
19:00	Welcome drink	
20:00	Dinner	

Thursday, 9 April 2026

7:30-8:30 Breakfast

8:30-9:10	Prof. Andrea Rentmeister (Ludwig-Maximilians-Universität, Munich, Germany)	Plenary lecture 3: “Light-Activated mRNA Translation: From Proof-of-Concept to Genome Editing and In Vivo Control”
-----------	--	--

Session 2 “Optical engineering and novel applications”

Chairs: Guillaume Lebon & Laia Josa-culleré

9:10-9:30	Dr. Pau Gorostiza (Institute for Bioengineering of Catalonia, Barcelona, Spain)	“Photopharmacology with infrared light”
-----------	---	---

9:30-9:50	Prof. Angela Casini (Technical University of Munich, Garching bei München, Germany)	“Photo-cleavable Ruthenium-based mass tags for mass spectrometry imaging of proteins in tissue sections”
-----------	---	--

9:50-10:10	Prof. Jorg Standfuss (PSI, Switzerland)	“Time-resolved GPCR photopharmacology at next-generation X-ray sources”
------------	--	---

10:10-10:15	Kathrin Brenker (Optobiolabs)	Sponsor talk: “Cell Equality: Because Every Cell Deserves Equal Light”
-------------	----------------------------------	--

10:15-10:20	Artem Kondratskiy (Nanion technologies)	Sponsor talk: “Lighting up ion channels at scale”
-------------	--	---

10:20-11:50 Poster session 1 (odd numbers) + coffee break

11:50-12:10	Prof. Angel Marti (Rice University, USA)	“Amphiphilic Ruthenium(II) Metallosurfactants for Lysosome-Targeted Photodynamic Therapy”
-------------	---	---

12:10-12:20	Eszter Kozma (Institute of Organic Chemistry, Budapest, Hungary)	“Three-colour Photopharmacology: Chromatically Orthogonal Photocages for Precision Optical Control of G-protein Coupled Receptors”
-------------	--	--

12:20-12:30	Anastasiia Babych (Ghent University, Ghent, Belgium)	“Soft self-written waveguides enable photorelease of a photocaged adenosine A1 receptor agonist for local suppression of neuronal excitability in the brain”
-------------	---	--

12:30-14:00 Lunch break + group picture

14:00-15:30 Poster session 2 (even numbers)

15:30-16 :10	Dr. Céline Frochot (LRGP Univ Lorraine, Nancy, France)	Plenary lecture 4: “Photodynamic therapy: Advancement in therapeutic application for targeted treatment”
--------------	---	--

Session 3 “Emerging targets and therapeutic potential”

Chairs: Laurent Givalois & Laetitia Mony

16:10-16:30	Dr. Laia Josa-Culleré (IQAC-CSIC, Barcelona, Spain)	“Photoswitches for oncology: From target-driven design to phenotypic discovery”
-------------	--	---

16:30-16:50	Prof. Rob Leurs (Vrije Universiteit Amsterdam, Amsterdam, The Netherlands)	“Lights on.....time to play with pharmacology”
-------------	--	--

16:50-17:10	Dr. Xavier Rovira (IQAC-CSIC, Barcelona, Spain)	“Optimal Light-Activated Photoswitches Targeting the Vitamin D Receptor for Therapeutic Applications in Psoriasis”
-------------	--	--

17:10-17:30	Dr. Michel De Waard (Institut du Thorax, Nantes, France)	“Photopharmacological tuning of hERG channel block using diazirine-containing analogues of the toxin BeKm-1”
-------------	---	--

17:30-17:50 Coffee break

17:50-18:00	Kirrthana Makenthirathan (Univ Lorraine, Vandoeuvre les Nancy, France)	“Light-induced photothermal transport of ion and water channels mediated by a two-photon-responsive molecular transducer”
-------------	--	---

18:00-18:10	Albert Schulte (Univ Groningen, Groningen, The Netherlands)	“X-ray activated Photopharmacology”
-------------	---	-------------------------------------

18:10-18:20	Dr. Serena Notartomaso (IRCCS Neuromed, Pozzilli, Italy)	“Circuit-Specific Control of mGlu5 Receptors by Photopharmacology in Neuropathic Pain and Stroke Recovery”
-------------	---	--

18:20-18:30	Dr. Dimitri De Bundel (Vrije Universiteit Brussel, Brussel, Belgium)	“A photoswitchable cannabinoid enables precise, low-side-effect seizure control in a mouse model of drug-resistant epilepsy”
-------------	--	--

18:30-19:10	Prof. Weiping Wang (Hong-Kong University, Hong-Kong)	Plenary lecture 5: “Photocleavage-based photoresponsive drug delivery”
-------------	---	--

19:10-19:30 Best young researcher’s posters and oral communications awards

20:00 Dinner and music

Friday, 10 April 2026

8:00-9:00 Breakfast

9:00-9:40 Prof. Wictor Szymanski
(U. Groningen, The Netherlands) Plenary lecture 6: “New tools, applications and considerations for Photopharmacology”

Session 4 “Brain, diseases and photopharmacology”

Chairs: Cyril Goudet & Andrea Rentmeister

9:40-10:00 Dr. Charleine Zussy
(Institut de Génomique Fonctionnelle,
Montpellier, France) “Photopharmacology to dissect and correct brain pathology in Alzheimer’s disease”

10:00-10:20 Prof. Wan-Chen Lin
(Academia Sinica, Taiwan) “Developing photopharmacological and optogenetic tools for high-precision control of neurotransmission”

10:20-10:40 Dr. Julie Le Merrer
(iBrain, Tours, France) “Photopharmacological modulation of mGlu4 to rescue autistic-like behaviors in mouse models”

10:40-11:10 Coffee break

11:10-11:30 Prof. Francisco Ciruela
(University of Barcelona, Barcelona,
Spain) “In vivo photopharmacology: advancing optical therapeutics”

11:30-11:50 Dr. Laetitia Mony
(Ecole Normale Supérieure, Paris,
France) “Interrogation of NMDA receptor diversity using photopharmacology”

12:00-14:00 Lunch break

14:00 End of the symposium

Guest speakers

Plenary lectures



Prof. Amadeu LLEBARIA, Institut de Química Avançada de Catalunya, Barcelona, Spain
<https://www.iqac.csic.es/mcs/>



Prof. Andrea RENTMEISTER, Ludwig-Maximilians-Universität, Munich, Germany
<https://www.rentmeister-group.com/rentmeister>



Dr. Céline FROCHOT, LRGP Univ Lorraine, Nancy, France
<https://lrgp-nancy.cnrs.fr/axes-recherche/biopromo/>



Prof. Dirk TRAUNER, University of Pennsylvania, Philadelphia, USA
<https://www.traunergroup.org/>



Prof. Weiping WANG, Hong-Kong University, Hong-Kong
<https://wanglab.org/>



Prof. Wictor SZYMANSKI, University of Groningen, The Netherlands
<https://www.szymanski-lab.nl/>

Keynote lectures



Prof. Andrea Hupfeld, University of Regensburg, Germany
<https://www.uni-regensburg.de/en/biology-preclinical-medicine/research/working-groups/ag-hupfeld>



Prof. Andrew Woolley, University of Toronto, Canada
<https://www.chemistry.utoronto.ca/people/directories/all-faculty/andrew-woolley>



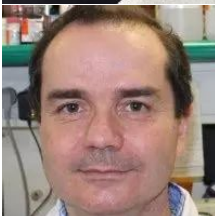
Prof. Angel Marti, Rice University, USA
<https://profiles.rice.edu/faculty/angel-marti>



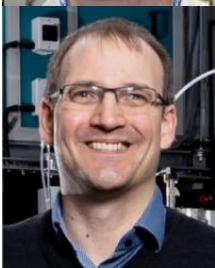
Prof. Angela Casini, Technical University of Munich (TUM),
München
Germany
<https://www.ch.nat.tum.de/mbc/home/>



Dr. Charleine Zussy, Institut de Génomique Fonctionnelle, Montpellier,
France
<https://www.igf.cnrs.fr/equipes/equipe-marin/>



Prof. Francesco Ciruela, University of Barcelona, Barcelona, Spain
<https://www.neurociencias.ub.edu/research-group/neuropharmacology-and-pain/>



Prof. Jörg Standfuss, Paul Scherrer Institute, Villigen, Switzerland
<https://www.psi.ch/en/lbr/people/jorg-standfuss>



Dr. Julie Le Merrer, iBrain, Tours, France
<https://ibrain.univ-tours.fr/english-version/directory/julie-le-merrer>



Dr. Laetitia Mony, Ecole Normale Supérieure, Paris, France
<https://qbio.ens.psl.eu/annuaire/laetitia-mony>



Dr. Laia Cullere-Sans, IQAC-CSIC, Barcelona, Spain
<https://www.iqac.csic.es/josaculleregroup/>



Prof. Matthew J. Fuchter, University of Oxford, UK
<https://www.chem.ox.ac.uk/people/matthew-fuchter>



Dr. Michel De Waard, Institut du thorax, Nantes, France
(<https://umr1087.univ-nantes.fr/research/research-teams/team-ii-members>)



Prof. Oliver Thorn Seshold, University of Technology Dresden, Germany
<https://tu-dresden.de/mn/chemie/oc/chembio/forschung>



Dr. Pau Gorostiza, Institute for Bioengineering of Catalonia, Barcelona, Spain
<https://www.icrea.cat/community/icreas/17559/pau-gorostiza-langa/>



Prof. Rob Leurs, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands

<https://research.vu.nl/en/persons/rob-leurs/>



Prof. Wan-Chen Lin, Academia Sinica, Taiwan
<https://www.ibms.sinica.edu.tw/wan-chen-lin/>



Dr. Xavier Rovira, Institut de Química Avançada de Catalunya, Barcelona, Spain

<https://www.iqac.csic.es/mcs/>

Posters

N°	First author et al.	Title	Page
		Session 1: Photoswitches and beyond	9
1	Yanis Achouba	Photoisomerization of Azobenzene-Extended Charybdotoxin for the Optical Control of Kv1.2 Potassium Channel Activity	10
2	Carla Arenós Bach	Light-controlled inhibition of COX-2 using photoswitchable derivatives	12
3	Edoardo Armano	Structure–Activity Relationship Study of 8-Bromo-7-Hydroxyquinoline based photoremovable protecting groups for Enhanced Blue-Light Photorelease	14
4	Jörn Bargstedt	Fully Reversible Optical Regulation of 8-17 DNAzyme Catalysis by Nucleoside-Based Diarylethenes	15
5	Sofia Batres Ardón	In vitro pharmacological evaluation of a photoswitchable modulator in dopaminergic receptors	16
6	Benedikt Baumgartner	NIR Switching: Single photon, singlet manifold azobenzene photoswitching at up to 1000 nm	17
7	Song Chen	Deuteration as a General Strategy to Enhance Azobenzene-Based Photopharmacology	18
8	Alessio Colleoni	Targeting Pseudomonas aeruginosa LecB with Photoswitchable Glycomimetic Ligands	19
9	Pierre-Jean Corringer	An optonanobody for reversible photoactivation of recombinant and native $\alpha 7$ nicotinic receptors	21
10	Ilaria Dagrada	Engineering Quinoline-Based Photoremovable Protecting Groups for Blue-Light Activation of Tertiary Aliphatic Amines	22
11	Anaëlle Dumazer	A series of photoswitchable antagonists for a precise spatiotemporal control of adenosine A2A receptors with light	23
12	Thilo Duvé	Coarse-grained Molecular Dynamics Simulations of Photoswitches in Photopharmacological Systems	25
13	Kai Eisenhardt	Photo-modulated cell-penetrating peptides for light-triggered release and delivery of RNA	26
14	Zak Elliott	Manipulating Physicochemistry with Light	28
15	Marta Ghidoli	Membrane-Targeted Azobenzene Photoswitches for Optical Control of Bacteria	29
16	Sina Katharina Goetzfried	Light-activated MDM2 inhibitors: Toward spatiotemporal control in cancer therapy	31
17	David Grantz	Fully reversible control over DNA-intercalation with visible light	32
18	Romane Guisiano	Design and Synthesis of Photoswitchable Ligands for Light-Controlled Modulation of Melatonin Receptors	33
19	Enrico Hupfeld	Photoxenase engineering: establishing and optimizing reversible photocontrol in enzymes	35
20	Fabian Klotz	Natural Product-Inspired Diketopiperazine Core Engineering for Tunable Hemipiperazine-Based Photoswitches	36
21	Ruibin Liang	Elucidating Photochemical Structure-Activity Relationships in Photopharmacology via Multiscale Simulations	38
22	Aline Makhloutah	Design and Synthesis of Styryl-Substituted Cyclic Enone Photoswitches for Photolipid-Mediated Membrane Modulation	39
23	Fanny Malhaire	A photoswitchable positive allosteric modulator to control the activation of the metabotropic glutamate receptor 5 by light	41

N°	First author et al.	Title	Page
24	Gabriele Manenti	Light-Modulable AChE Inhibition Through Aurone-Based Molecular Photoswitches	42
25	Ahmed Mansour Ali	Optical control of the Gastrin-releasing peptide receptor, GRPR, using photoswitchable peptides	43
26	Rosa Marquez-Garcia	Molecular Photoswitches as Next Generation Contrast Agents for Photoacoustic Medical Imaging	45
27	Karlijn Meerman	Red-Light-Responsive Stapled Peptide for Optical Control of the MDM2/MDMX-p53 Interaction	47
28	Cédric Mittelheisser	Unified Determination of Photoisomerization and Fluorescence Quantum Yields for Accurate Photochemical Profiling of Styryl-Substituted Cyclic Enones	48
29	Maxim Nikolaev	Design of photochromic blocker for complete optical control of calcium-permeable AMPA receptor	50
30	Ilayda Peduk	Motor-based DNA-binder with photocontrolled affinity	51
31	Alexandre Potfer	Development of photoswitchable monoamine oxidase B inhibitors targeting inflammation in osteoarthritis	52
32	Martin Reinschmidt	Introducing Visible-Light Addressability into Nucleoside-Based Diarylethenes	54
33	Guillem Rivera I Feliu	Modeling photoswitchable β -Blockers to uncover their Binding Mode	55
34	Albert Ruiz Soriano	Development of tetra-ortho-methoxylated azobenzene amino acids to access photoswitchable antimicrobial peptides	57
35	Carina Schmitt	Fluorescence: How dark quencher azobenzenes actually make fluorophores better	58
36	Judith Serrano Juanós	Development of photoswitchable antipsychotic drugs	59
37	Nadja Simeth	Engineering Opto-Chemical Tools – Towards Complex Function in Biological Environment	60
38	Shi Sophie	Reaching subunit stoichiometry selectivity with optogenetic pharmacology: selective control of GluN1/GluN2A/GluN2B NMDA receptors with light	61
39	Rosalba Sortino	In vivo photoreversible neuromodulation with infrared light	63
40	Jessica Starrett	Diketopiperazines: Biocompatible Photoswitches for Cell Culture Matrices and Medical Applications	65
41	Contena Stefano	Self-assembling photoacidic systems featuring merocyanine/spiropyran amphiphiles	67
42	Camille Thevenin	Synthesis and evaluation of photoswitchable peptides to modulate cell penetration with visible light	68
43	Zsombor Unyi	Unlocking Tetrazine Reactivity with Light	70
44	Francesca Urbano	Mechanisms of Ziapin2-Mediated Cardiac Action Potential Generation: A Computational Study	71
45	Mislav Vrdoljak	Synthesis of photoswitchable fgfr3 inhibitors for improving chemotherapy against bladder cancer	73
46	Zhiwei Zhang	Thermo-Bistable Red and Sensitized Near-Infrared Photoswitches	74
47	Pere Álvarez	Light-regulated molecules to improve the pharmacology of cancer drugs	75
48	Nikita Durandin	Traceless Photopolymerization with Non-Pulsed Red Light for Cell-Laden Bioscaffold Fabrication	76

N°	First author et al.	Title	Page
49	Lucia Vina Lopez	Toward Predictive Photopharmacology: AI-Accelerated Excited-State Simulations for High-Throughput Photoswitch Screening	77
Session 2: Optical engineering and novel applications			78
50	Anastasiia Babych	Soft self-written waveguides enable photorelease of a photocaged adenosine A1 receptor agonist for local suppression of neuronal excitability in the brain	79
51	Pankaj Bharmoria	Non-invasive Cardiac Modulation via Triplet-Sensitized Photocontrol of Muscarinic Agonist	81
52	Kim Boddum	Optical modulation of ion channels using Automated Patch-Clamp	82
53	Angela Casini	Photocleavable Ruthenium polypyridyl-based mass-tags for targeted mass spectrometry imaging in cancer tissues	84
54	Rochelin Dalangin	Engineering a genetically encoded fluorescent biosensor for relaxin-3	85
55	Matthias Dereli	Localized photopharmacology using a wireless cardiac implant to modulate cardiac electrical function via photoactivatable peptides	86
56	Jorge Gandía	Design and characterization of a light-controlled ion transporter modulator: in vitro and in vivo protective role in myocardial ischemia/reperfusion injury models	88
57	Quynh Le	How to time GltTk transporter: towards kinetic probing with photo-triggered substrate release	90
58	Jia Li	Photoresponsive prodrug-based loaded nanoparticles for enhanced anti-retinoblastoma therapy	91
59	Mathilde Poulet	Photocontrolled hERG Channel Blockade by Diazirine Integrated into BeKm-1 Pharmacophore	92
60	Jan Philip Prohaska	Multiplexing: Caging the central step in chemigenetic ligation for multipurpose imaging and photocontrol	94
61	Glòria Salort	Towards in vivo brain bioluminescence of a G protein-coupled receptor photodrug	95
62	Guillaume Sandoz	Switching Pain On and Off with Light: Photopharmacology and Drug-Free Analgesia through Two-Pore-Domain K ⁺ Channels	97
63	Ramona Santini	Targeted covalent photoswitch for two-photon control of endogenous receptors	98
64	Tibor Molnár	Rhodamine-based photocages in chemical biology and drug delivery	99
65	Quentin Vivien	Limiting the phototoxicity of meso-Methyl BODIPY photocages using Contact-Ion Pair stabilization strategies	100
66	Jana Volaric	Photocaging Enables Optical Control of S-acyltransferase Activity in Mammalian Cells	102
67	Shuxian Wen	Photocontrolled Delivery of a STING Agonist Using Photoresponsive Lipid Nanoparticles	104
68	Yichi Zhang	Metronomic photodynamic immunotherapy via wireless LED-triggered drug release for postsurgical care of breast cancer	105
69	Eszter Kozma	Three-colour Photopharmacology: Chromatically Orthogonal Photocages for Precision Optical Control of G-protein Coupled Receptors	106

N°	First author et al.	Title	Page
		Session 3: Emerging targets and therapeutic potential	108
70	Diego Abad-Montero	NIR-responsive Ru-COUBPY complexes as potent next-generation phototherapeutic agents	109
71	Lisa Dollhopf	Arylazopyrazoles enable high affinity photoswitchable inhibitors of N-myristoyltransferase	111
72	Alexis Grosjean	PhotoCORMs Rhenium(I) complexes: impact of isomerism on 1O ₂ /CO production	113
73	Michael Kienzler	Recent progress in the photopharmacology of select potassium and calcium channels	115
74	Kirrrthana Makenthirathasan	Light-induced photothermal transport of ion and water channels mediated by a two-photon-responsive molecular transducer	116
75	Tibor Molnár	Optimized xanthenium photocages with fused ring systems for photoactivated chemotherapy and GPCR photopharmacology	118
76	Joaquín Martínez Tambella	Restoration of edge detection and visually guided behavior in ambient white light with photoswitchable small molecules	119
77	Sinead Mc Cann	Azoheteroarene-stapled peptides for the photoregulation of protein-protein interactions	121
78	Santiago Milla Navarro	A novel non-invasive photoswitchable molecule restores light sensitivity and visual acuity in blind animal models	123
79	Ekin Opar	Novel 3D-Printed Biophotonic Scaffold Displaying Luminescence under Near-Infrared Light for Photopharmacological Activation	125
80	Sandrine Piguel	When Light Meets Protein Kinase Inhibition: The Promise and Obstacles of pi-Extended Coumarin as Photolabile Protecting Groups	127
81	Nayeli Fernanda Pérez	Photocontrol of zebrafish behavior with a photoswitchable antagonist of $\alpha 7$ nicotinic acetylcholine receptors	128
82	Álex Pérez-Sánchez	Spatiotemporal Control of Inflammation via Light-Responsive Anti-Inflammatory Agents	129
83	Ailín Ramírez Abreu	Light-controlled modulation of neuronal activity with photoswitchable sodium channel blockers	131
84	Prieto Rivero	Light-Regulated Agonists Spatiotemporally Activating the Vitamin D Receptor Mitigate Psoriasis-like Inflammation in Mice without Inducing Hypercalcemia	132
85	Zoe Sessions	Obtaining Optical Control of the Glucocorticoid Receptor	134
86	Rosalba Sortino	Validation of mGlu6 as novel photoswitchable drug target to restore vision	135
87	Huiyan Sun	Silencing alanyl-tRNA synthetase AARS1 Gene Based on Photosensitive Lipid Nanoparticles for Esophageal Cancer Immunotherapy	137
88	Alba Villar-Yanez	Computational Design of Photoswitchable Aspirin Analogues for Targeted Inflammation and Metastasis Control	138
89	Jinming Xing	A Novel Photoresponsive Curcumin-PAMAM Conjugate for Co-Delivery of VEGF siRNA and Chemotherapeutics in Uveal Melanoma	139
90	Chang Yang	Multifunctional BODIPY Photocages for Photoactivatable Combination Therapy	140
91	Michael Zott	Development of Photoswitchable Cholesterol Derivatives through Side Chain Replacement	141

N°	First author et al.	Title	Page
92	Albert Schulte	X-ray activated Photopharmacology	142
		Session 4: Brain, diseases and photopharmacology	143
93	Marcus Angermann	In Silico to in Cerebro - Development of the Orexin Receptor Antagonist 'Photorexant' for Photomodulation in Vitro and in Mouse Brains	144
94	Jose Miguel Arcas	Optochemical modulation of cold-activated TRPM8 channels	146
95	Florian Bolot	Light-controlled uncaging of a mGlu4 positive allosteric modulator restores social behavior in a mouse model of autism	148
96	Mayan Baues	Targeting epilepsy with photoactivatable drugs in post-surgical human brain tissue	150
97	Nathalie Bouquier	Photoactuation of mGlu5–Homer Interactions to Control Synaptic Plasticity	152
98	Luisa Camerin	Control of Wildtype Zebrafish Optomotor Response with a Photoswitchable Drug	154
99	Víctor Cilleros-Mañé	Photocontrol of muscarinic receptor activity in the mouse somatosensory cortex monitored by two-photon calcium imaging	156
100	Susana Colinas Fischer	Functional mapping of the extrasynaptic dopaminergic neurotransmission and dopaminergic circuits of <i>C. elegans</i>	158
101	Dimitri De Bundel	A photoswitchable cannabinoid enables precise, low-side-effect seizure control in a mouse model of drug-resistant epilepsy	159
102	Aida Garrido Charles	Photoswitching endogenous glutamate receptors in neural ensembles and single synapses in vivo	161
103	Galyna Maleeva	Light-Activated Agonist-Potentiator of GABAA Receptors for Reversible Neuroinhibition in Wildtype Mice	163
104	Serena Notartomaso	Circuit-Specific Control of mGlu5 Receptors by Photopharmacology in Neuropathic Pain and Stroke Recovery	165
105	Angelika Seliwjorstow	Photomodulation of Plinabulin – a Tubulin Polymerization Inhibitor with low-nanomolar Toxicity	167
106	Ruben Tack	Photopharmacological Targeting of the Adenosine A1 Receptor: From Concept to Photochemical Pitfalls	169
107	Laura Tournois	Investigating the role of peripheral metabotropic glutamate receptors mGlu5 in inflammatory pain using photopharmacology	170
108	Marijke Vergaelen	Towards Therapeutic Innovation in Temporal Lobe Epilepsy: Spatially Selective and Closed-loop Adenosinergic Modulation of Dentate Gyrus Excitability through Photopharmacology	171
109	Ilavarasan Vickraman	Bioorthogonal Chemistry of Water-Soluble Blue Fluorescent Coumarin-Substituted Azole Derivatives for Bioimaging and Bioconjugation Applications	173
110	Alexander Jimmy Wiegand	Chromocontrol: Ideal Efficacy Photoswitching for Photopharmacology in vivo	174
111	Zhiwei Zhang	Construction of Drug-Active Acylhydrazone Photoswitches for Photopharmacology	175

**highlighted in yellow = selected for oral presentation*

Sponsors and partners



UM

Université de Montpellier



Pole Biologie-Santé - Université de Montpellier

The Pole Biologie Santé (Biology-Health Cluster) is a structure bringing together research, teaching, and scientific outreach activities within the University of Montpellier.



PEPR LUMA

Priority research program and equipment for light-matter interaction



CNRS

The National Centre for Scientific Research, better known by its acronym CNRS, is France's largest public scientific research organisation. It is active in all fields of knowledge.



Inserm

Inserm is the National Institute of Health and Medical Research. Its' one goal: to improve the health of all by advancing knowledge of life and disease, innovation in treatment, and public health research.



IGF

Institut de Génomique Fonctionnelle



EuChemS

EuChemS, the European Chemical Society, is an umbrella organisation representing national Chemical Societies and other chemistry-related organisations in Europe.



France Alzheimer

For more than 30 years, France Alzheimer et maladies apparentées (France Alzheimer and Related Diseases) has been working alongside families, medical and social professionals, researchers, and institutional actors to optimize short-term care and improve the long-term fight against Alzheimer's and related diseases.



Optobiolabs

Opto Biolabs develops customized LED lighting devices for optogenetic research.



Optolumina

OptoLumina AG advances optogenetics, photopharmacology, and other light-based biological techniques with the Lumiplate, a high-quality well plate illumination device.



BMG labtech

BMG LABTECH is one of the world's leading manufacturers of innovative, high-quality and highly reliable microplate readers.



HelloBio

Hello Bio, Voted Researchers Choice 2023 for highly validated, affordable reagents, supporting scientists worldwide



Sophion Bioscience

Sophion Bioscience is a leading global life science company founded in 2000 by a group of passionate electrophysiologists, with the aim of making patch clamping objective and independent of user skills.



Nanion

Committed to high performance electrophysiology Nanion combines trusted scientific support with exceptional instrumentation to accelerate successful drug development and scientific discoveries. Our broad range of applications and user-friendly assay solutions can be tailored to your needs to enhance and improve your research projects. Our mission is to become your first-choice partner in life science research, by providing outstanding instrumentation and expertise in order to accelerate scientific development, drug discovery and ultimately improve lives.



Dutscher

Dutscher, specialist in the sale of laboratory equipment, consumables, reagents and chemicals for research, industry and the food industry.