



XV European Meeting on Glial Cells in Health and Disease Online | July 5–9, 2021



Welcome to the virtual European Glial Meeting 2021

We are very much appreciated to welcome you to the virtual meeting! Around 1,100 attendees joined the meeting with the following structure:

- **Phase 1 (from June 28): Pre-recorded presentations of symposia and workshops and posters are available for registered participants**
- **Phase 2 (July 5 to 9): Live plenary lectures; live discussions of symposia, workshops, networking and individual poster discussions via networking tool**
- **Introductory Course: Virtual live event on July 1 and 2.**
- **Phase 3 (until August 31): Presentations and recordings of live discussions on demand**

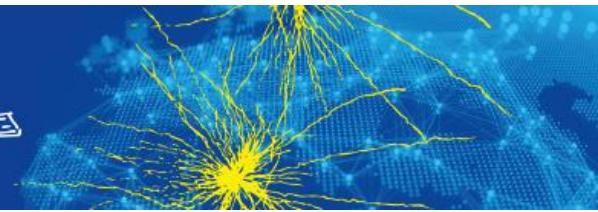
The virtual conference officially opened on Monday, June 28.

Committees

Program Committee	Organizing Committee	Local Organizing Committee
Leda Dimou, Chair (Germany) Dwight Bergles (USA) Rommy von Bernhardt Montgomery (Chile) Benedikt Berninger (United Kingdom) João Bettencourt Relvas (Portugal) Roman Chrast (Sweden) Pascale Durbec (France) Cagla Eroglu (USA) Robin Franklin (United Kingdom) Claire Jacob (Germany) Shane Liddelow (USA) Brian MacVicar (Canada) Ana Martin-Villalba, (Germany) Axel Nimmerjahn, (USA) Mengsheng Qiu (China) Aiman S. Saab (Switzerland)	Helmut Kettenmann, Chair (Germany) João Bettencourt Relvas (Portugal) Anne Baron-Van Evercooren (France) Hendrikus W. G. M. Boddeke (Netherlands) Peter Brophy (United Kingdom) Bernardo Castellano (Spain) Pascale Durbec (France) Charles French-Constant (United Kingdom) Kristjan Jessen (United Kingdom) Rebecca Matsas (Greece) Carlos Matute (Spain) Rhona Mirsky (United Kingdom) Monica Sousa (Portugal) Eva Sykova (Czech Republic)	Pascale Durbec, Chair (Aix-Marseille Université) Maria Cecilia Angulo (Université Paris Descartes) Rémi Bos Aix-Marseille Université) Anne-Karine Bouzier-Sore (Université Bordeaux Segalen) Myriam Cayre (Aix-Marseille Université) Catherine Faivre Sarrailh (Aix-Marseille Université) Francois Féron (Aix-Marseille Université) Emmanuelle Huillard (ICM, Paris) Brahim Nait Oumesmar (ICM, Paris) Olivier Pascual (INSERM, Lyon)



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Programme

Thursday, July 1, 2021		Friday, July 2, 2021	
14:00 - 17:30	<p>IC01: Introductory Course on Glial Cell Biology</p> <p>Welcome Pascale Durbec (Marseille, France), Brahim Nait Oumesmar (Paris, France)</p> <p>Development of glial cells Carlos Parras (Paris, France)</p> <p>Astrocytes in health and diseases Aude Panatier (Bordeaux, France)</p> <p>Neuron-oligodendroglia interactions Maria Cecilia Angulo (Paris, France)</p> <p>Myelin plasticity and regeneration Myriam Cayre (Marseille, France)</p> <p><i>with kindly support of NeuroSchool/ NeuroMarseille; NeurATRIS; Fondation ARC</i></p>	14:00 - 20:00	<p>IC02: Introductory Course on Glial Cell Biology</p> <p>Microglia origin and function Alain Bessis (Paris, France)</p> <p>PNS glial cells Piotr Topilko (Creteil, France)</p> <p>Forgotten glial cells Ariane Sharif (Lille, France)</p> <p>The role of glial cells in behavioral control Ethan G. Hughes (Aurora, Colorado, USA)</p> <p>Insights into glioma development and cancer stem cells Emmanuelle Huillard (Paris, France)</p> <p>Open chat session with speakers</p>



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Monday, July 5, 2021			
<p>14:00 - 15:00</p>	<p>W01: Imaging white matter function and structure</p> <p>Imaging functional interactions between axons and oligodendrocytes in vivo Rafael Almeida (Edinburgh, UK)</p> <p>Optic nerve imaging to study axon-glia functions Zoe J. Looser (Zurich, Switzerland)</p> <p>The many ways to image myelin with the electron microscope Wiebke Möbius (Göttingen, Germany)</p> <p>Myelin on Tape –3D Ultrastructure and Targeted Electron Microscopy Martina Schifferer (München, Germany)</p>	<p>W02: Physiological functions of adult microglia: implications for plasticity, learning and memory</p> <p>Microglial calcium signaling is attuned to neuronal activity in the awake mouse Anthony D. Umpierre (Rochester, USA)</p> <p>Investigation of Microglial Morphodynamics during Vigilance States by Two-Photon imaging Kassandre Combet (Lyon, France)</p> <p>Studying the microglia cytoskeleton: impact of Rho GTPase ablation in microglia morphology and function Tiago de Oliveira Almeida (Porto, Portugal)</p> <p>Defective neuron-microglia crosstalk: impact on functional maturation of hippocampal synapses Bernadette Basilico (Rome, Italy)</p> <p>Microglial phagocytosis modulates adult hippocampal neurogenesis Noelia Rodríguez-Iglesias (Leioa, Spain)</p> <p>Behavioral outcomes of microglial dysfunction across the life span Giulia Albertini (Paris, France)</p>	<p>W03: Thyroid hormone action in glial biology</p> <p>Modeling Thyroid Hormone Action in human glia by using Induced Pluripotent Stem Cell Nilhan Gunhanlar (Rotterdam, Netherlands)</p> <p>The role of transthyretin in oligodendrocyte development and central nervous system myelination in rodents. Maurice Pagnin (Bundoora, Melbourne, Australia)</p> <p>Hypothalamic tanycyte-neuron interaction evokes global changes in thyroid hormone economy Richárd Sinkó (Budapest, Hungary)</p> <p>A multidisciplinary approach exploring the role of the thyroid hormone transporter MCT8 in oligodendrocyte maturation and myelination. Víctor Valcárcel-Hernánde (Madrid, Spain)</p> <p>Developmental thyroid hormone action determines the later-life neuro/glia output in the murine subventricular zone Pieter Vancamp (Paris, France)</p>
<p>15:00 - 16:30</p>	<p>L01: Opening & Plenary Lecture of Magdalena Götz Chair: Leda Dimou (Ulm, Germany)</p> <p>Welcome Helmut Kettenmann (Berlin, Germany), Pascale Durbec (Marseille, France)</p> <p>Astrocyte heterogeneity: from stem cells to repair Magdalena Götz (Neuherberg-Munich, Germany)</p>		
<p>16:30 - 18:00</p>	<p>Networking and Poster Session A</p>		



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<p>18:00 - 19:00</p>	<p>S03: Microglial immunometabolism: relevance in normal and disease states</p> <p>Role of TREM2 and APOE in microglial lipid metabolism Bettina Van Lengerich (South San Francisco, USA)</p> <p>Role of lipid nutrients on microglial function in the developing brain Agnes Nadjar (Bordeaux, France)</p> <p>Targeting Mitochondrial Metabolism in Neuroinflammation with Neural Stem Cells and their Cargo Vesicles Stefano Pluchino (Cambridge, UK)</p> <p>Hypothalamic microglia-neuron interaction in obesity and type 2 diabetes. Chun-Xia Yi (Amsterdam, Netherlands)</p>	<p>S13: Advances in cellular reprogramming: where biology meets physics</p> <p>Mathematical models of cellular identity converge with models of neural networks and provide framework for cellular identity Ton Coolen (London, UK)</p> <p>An integrated multi-omics-analysis provides mechanistic insight into the process of iPSC-to-neuron reprogramming. Mark Kotter (Cambridge, UK)</p> <p>Programming human pluripotent stem cells into microglia – a new model to study CNS disease Anna Speicher (Muenster, Germany)</p> <p>Next generation cell therapies for the brain Marius Wernig (Stanford, USA)</p> <p><i>with kindly support of bit.bio</i></p>	<p>S17: Mechanics of glial cells in development and disease</p> <p>Mechanosensing Controls Myelin Sheath Elongation in the CNS Marie Bechler (Syracuse, USA)</p> <p>Brain tissue mechanics and mechanobiology of glial cells Katarzyna Pogoda (Krakow, Poland)</p> <p>Machine learning in direct glia-to-neuron reprogramming to a neuronal fate: Learning from cell mechanics for fate prediction Marcelo Salierno (London, UK)</p> <p>How do oligodendrocytes add new membrane to build the myelin sheath? Bradley Zuchero (Stanford, USA)</p>
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Tuesday, July 6, 2021

<p>13:30 - 14:30</p>	<p>S07: Molecular Mechanisms Controlling Neural Stem Cell Dynamics During Aging</p> <p>Mathematical modeling of age-dependence of adult neurogenesis Anna Marciniak-Czochra (Heidelberg, Germany)</p> <p>Glucocorticoid circadian oscillations control the architecture of the adult hippocampal neurogenic niche in the aging brain. Carlos Fitzsimons (Amsterdam, Netherlands)</p> <p>Progressive changes in hippocampal stem cell properties ensure lifelong neurogenesis Lachlan Harris (London, UK)</p> <p>Origin and Aging of Adult Hippocampal Neural Stem Sells Juanma Encinas (Leioa, Spain)</p>	<p>S09: Glial cells in the limelight of metabolic signaling: experiments in mouse and fly</p> <p>Astroglial insights to the paradox of brain aerobic glycolysis L.Felipe Barros (Valdivia, Chile)</p> <p>Glia-neuron metabolic interactions beyond lactate Stefanie Schirmeier (Münster, Germany)</p> <p>Glial Lactate fuels neuronal activity, a fly view Jimena Sierralta (Santiago, Chile)</p> <p>Astrocytes store and release lactate on demand: Evidence derived from awake behaving mice. Bruno Weber (Zurich, Switzerland)</p>	<p>S14: Perisynaptic astroglial processes: activity-dependent regulation and function</p> <p>Investigating astrocytic Ca²⁺ signals with STED and lattice light sheet microscopy Misa Arizono (Bordeaux Cedex, France)</p> <p>Activity-dependent regulation of the molecular repertoire in perisynaptic astroglial processes Nathalie Rouach (Paris, France)</p> <p>Activity-driven plasticity of perisynaptic astroglial environment Dmitri Rusakov (London, UK)</p> <p>Proteomic and functional analyses of perisynaptic astroglial process dynamics Mark Verheijen (Amsterdam, Netherlands)</p>
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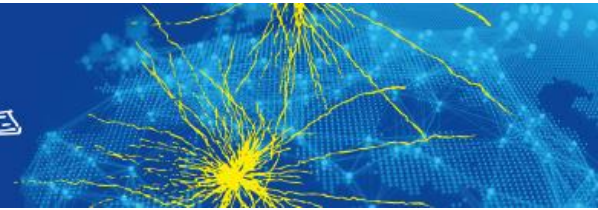
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<p>14:30 - 15:30</p>	<p>L02: Plenary Lecture of Sonia Garel Chair: Pascale Durbec (Marseille, France)</p> <p>Neuroimmune interactions in early brain wiring Sonia Garel (Paris, FR)</p> <p><i>with kindly support of International Society for Developmental Neuroscience (ISDN)</i></p>		
<p>15:30 - 17:00</p>	<p>Networking and Poster Session B</p>		
<p>15:30 - 16:15</p>	<p>Workshop by Miltenyi Biotec BV & Co. KG: Whole brain imaging at subcellular resolution with the fully automated UltraMicroscope Blaze™</p> <p>Speaker: Dr. Elisa Nent, Dr. Hussein Hamzeh</p> <p>Light sheet microscopy in combination with tissue clearing enables 3D visualization of intact rodent brains and even an entire mouse body at cellular and subcellular level. In this workshop, we will introduce you to large-scale 3D fluorescence imaging with the brand-new UltraMicroscope Blaze – the first fully automated light sheet microscope for large or multiple samples. With cutting-edge light sheet optics, the microscope operates as a virtual microtome which performs section-free high-resolution 3D imaging. You will learn how light sheet imaging enables you to obtain an unbiased view at large samples such as cleared brains or brain organoids, from neural networks down to subcellular details, at an accelerated pace.</p>		
<p>17:00 - 18:00</p>	<p>S01: Microglia shape white matter health</p> <p>Microglia refine myelin formation by phagocytosis during development Bruce Appel (Aurora, USA)</p> <p>Microglial interaction with nodes of Ranvier in physiological and pathological contexts Anne Desmazieres (Paris, France)</p> <p>Microglia regulate the integrity of myelin in the central nervous system Veronique Miron (Edinburgh, UK)</p> <p>Single cell mass cytometry of human white matter microglia in health and disease Josef Priller (Berlin, Germany)</p>	<p>S02: Transcriptional control of reactive astrocyte responses across neurological diseases</p> <p>Developmental insight into diverse reactive astrocyte responses after injury and degeneration Benjamin Deneen (Houston TX, USA)</p> <p>Role of reactive astrogliosis in Alzheimer’s disease and stroke Gabor C. Petzold (Bonn, Germany)</p> <p>Transcriptional regulation of astrocyte plasticity in brain homeostasis, injury and tumor-associated astrocytes Florian Siebzehnruhl (Cardiff, UK)</p> <p>Systematic analysis of astrocytes after spinal cord injury unveils heterogeneity and important regulatory genes in astrogliosis Jiaqian Wu (Houston TX, USA)</p>	<p>S24: Glia-axonal communication in nervous system injury and disease</p> <p>Do injured axons signal to Schwann cells prior to axon degeneration? Peter Arthur-Farraj (Cambridge, UK)</p> <p>Probing cellular and molecular mechanisms of peripheral nerve regeneration using zebrafish Michael Granato (Philadelphia, USA)</p> <p>Exploring transcriptional responses that govern glial immune responses to injury in Drosophila. Mary Logan (Portland, USA)</p> <p>Neuregulin-1 signaling in repair responses of peripheral nerve diseases Ruth Stassart (Leipzig, Germany)</p>
<p>18:00 - 19:00</p>	<p>L03: Plenary Lecture of Jonah Chan Chair: Dwight Bergles (Baltimore, USA)</p> <p>Oligodendrocytes and myelin: sculpting circuits in development and in adulthood Jonah Chan (San Francisco, US)</p>		



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Wednesday, July 7, 2021			
<p>13:30 - 14:30</p>	<p>S16: Microglia; from development to ageing</p> <p>The role of glia cells in Alzheimer's Disease Bart de Strooper (London, UK)</p> <p>Human microglia in the healthy and diseased CNS Bart J. L. Eggen (Groningen, Netherlands)</p> <p>A human(ized) system to study microglial biology ex vivo Deborah Kronenberg-Versteeg (Tuebingen, Germany)</p> <p>Microglia shape the development of neuronal network Balazs V. Varga (Cambridge, UK)</p>	<p>S20: Metabolic control of glial identity phenotype and function</p> <p>How lipid metabolism regulates adult neural stem cells Marlen Knobloch (Lausanne, Switzerland)</p> <p>Mitochondrial metabolism governs myeloid cell function in the chronically inflamed central nervous system. Luca Peruzzotti-Jametti (Cambridge, UK)</p> <p>Title tba. Marco Prinz (Freiburg, Germany)</p> <p>Control of astrocyte heterogeneity in CNS inflammation Francisco Javier Quintana (Boston MA, USA)</p>	<p>S27: Emerging pathways and therapies to enhance Repair Schwann cells functions</p> <p>Different cell types cooperate with repair Schwann cells to promote nerve regeneration inside a hollow conduit used to repair a nerve gap. Giovanna Gambarotta (Torino, Italy)</p> <p>The well documented failures of nerve repair seen during aging and chronic denervation involve reduced Schwann cell c-Jun, and are rescued by restoring c-Jun levels. Kristjan Jessen (London, UK)</p> <p>YAP and TAZ regulate Schwann cell proliferation and differentiation during peripheral nerve regeneration Yannick Poitelon (ALBANY, USA)</p> <p>Mechanisms controlling pns myelin maintenance Carla Taveggia (Milan, Italy)</p>
<p>14:30 - 15:30</p>	<p>L04: Plenary Lecture of David Lyons Chair: Robin Franklin (Cambridge, UK)</p> <p>Studying myelinated axon biology in vivo using zebrafish David Lyons (Edinburgh, UK)</p>		
<p>15:30 - 17:00</p>	<p>Networking and Poster Session C</p>		
<p>17:00 - 18:00</p>	<p>S04: Glial regulation and remodeling of the extracellular matrix across the lifespan</p> <p>Microglia, memories, and the extracellular matrix Anna Victoria Molofsky (San Francisco, USA)</p> <p>Niche stiffness underlies the ageing of oligodendrocyte progenitor cells Kevin Chalut (Cambridge, UK)</p>	<p>S05: Mechanisms and effects of endocannabinoid signaling in glial cells</p> <p>Functional consequences of endocannabinoid signaling at Tripartite Synapses Alfonso Araque (Minneapolis, USA)</p> <p>Cortical cannabinoid receptor type-2 signalling in microglia-to-neuron communication Silvia Marinelli (Roma, Italy)</p>	<p>S06: Myelin Dynamics in Neurological Function and Dysfunction</p> <p>Oligodendrogenesis and Myelin Formation in Memory Consolidation Patrick Steadman (Toronto, Canada)</p> <p>Glia-mediated Mechanisms of Chemotherapy-related Cognitive Impairment Erin Gibson (Palo Alto, USA)</p>



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	<p>Super-resolution imaging of the dynamics of glial cells and the extracellular space Valentin Nägerl (Bordeaux, France)</p> <p>Ankyrin-dependent regulation of glia-derived extracellular matrix Matthew Rasband (Houston, USA)</p>	<p>Mitochondrial CB1 receptors: beyond the metabolic and synaptic dichotomy of astroglial functions Giovanni Marsicano (Bordeaux, France)</p> <p>Endocannabinoid-mediated control of astrocytes in multiple sclerosis Susana Mato (Leioa, Spain)</p>	<p>Social experience-dependent myelin plasticity: an epigenetic view Jia Liu (New York, USA)</p> <p>Myelin influences synaptic plasticity in the adult mouse cortex Kaylene Young (Tasmania, Australia)</p>
<p>18:00 - 19:00</p>	<p>L05: Plenary Lecture of Nicola Allen Chair: Brian MacVicar (Vancouver, BC, Canada)</p> <p>Astrocyte regulation of neuronal synapses Nicola Allen (La Jolla, US)</p>		

Thursday, July 8, 2021

<p>13:30 - 14:30</p>	<p>S12: Metabolic aspects in myelinating glia: implications for health and disease</p> <p>The role of autophagy in the development and maintenance of myelin in oligodendrocytes Domna Karagogeos (Heraklion, Greece)</p> <p>Schwann cells autophagy: fast and immediate clearance of aggregates for counteracting peripheral neurodegeneration. Sara Marinelli (Rome, Italy)</p> <p>Myelin lipids are energy reserves of the nervous system Klaus Armin Nave (Göttingen, Germany)</p> <p>Single-cell Sequencing Reveals Brain/Spinal Cord Oligodendrocyte Precursor Heterogeneity and Requirement for mTOR in Cholesterol Biosynthesis and Myelin Maintenance Teresa Wood (Newark NJ, USA)</p>	<p>S25: Satellite glial cells - unique glia of the peripheral nervous system</p> <p>Recent insight into the SGC transcriptional injury response Sara Jager (London, UK)</p> <p>The pharmacology of satellite glial cells Stefania Ceruti (Milan, Italy)</p> <p>Neuron-satellite glia interactions and pain Menachem Hanani (Jerusalem, Israel)</p> <p>Diversity of satellite glia in sympathetic and sensory ganglia Aurelia Mapps (Baltimore, USA)</p>	<p>S26: Innate Immunity and Microglia</p> <p>Microglial opsonins, chaperones and alarmins Guy Brown (Cambridge, UK)</p> <p>Immune memory and microglial phagocytosis Jonas Neher (Tuebingen, Germany)</p> <p>Intact sialylation prevents complement C3-mediated loss of neurons in the brain of mice Harald Neumann (Bonn, Germany)</p> <p>Phagocytosis of apoptotic cells: the light at the end of the tunnel for microglia Amanda Sierra (Leioa, Spain)</p>
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<p>14:30 - 15:30</p>	<p>S15: Glial modulation of circuit assembly and behavior: insights from different model organisms</p> <p>C. elegans glia drive brain assembly through specialized morphogenesis and crosstalk with neurons Georgia Rapti (Heidelberg, Germany)</p> <p>Glia-MB acetylcholine-mediated synaptic connections underlie Drosophila long term memory Margaret Ho (Shanghai, China)</p> <p>Title tba. Misha Ahrens (VA, USA)</p> <p>Astroglial control of C. elegans behavior Shai Shaham (New York, USA)</p>	<p>S29: Extracellular vesicles shape glia-neuron interplay in health and disease of the nervous system</p> <p>Extracellular vesicles secreted by ethanol-treated astrocytes participates in glial-neuron communication spreading the neuroinflammation via TLR4 Consuelo Guerri (Valencia, Spain)</p> <p>Oligodendrocyte-derived exosomes in axon-glia interaction and glial support Eva Maria Krämer-Albers (Mainz, Germany)</p> <p>Extracellular vesicles act as disease propagator in amyotrophic lateral sclerosis and frontotemporal dementia Davide Trotti (Philadelphia, USA)</p> <p>Dysfunctional astroglial exosome signaling to (motor) neuron axon in ALS models Yongjie Yang (Boston, USA)</p>	<p>S30: Exploring the regenerative properties of Müller glia for retinal repair</p> <p>Müller glial cell reprogramming and retina regeneration in zebrafish Daniel Goldman (Ann Arbor, USA)</p> <p>Müller cells respond to focal laser injury with either retinal regeneration or reactive gliosis Volker Enzmann (Bern, Switzerland)</p> <p>Interplay between Müller glia and microglia during retinal regeneration Muriel Perron (Orsay, France)</p> <p>Insights into the inhibitory controls that prevent murine Müller glia regeneration in the retina Carol Schuurmans (Toronto Ontario, Canada)</p>
<p>15:30 - 17:00</p>	<p>Networking and Poster Session D</p>		
<p>17:00 - 18:00</p>	<p>S08: Blood brain barrier, neuronal activity and glia</p> <p>Neurovascular Interactions: Mechanisms, Imaging, Therapeutics Katerina Akassoglou (San Francisco, USA)</p> <p>Astrocyte-derived Wnt growth factors are required for endothelial blood-brain barrier maintenance Stefan Liebner (Frankfurt/Main, Germany)</p> <p>Blood-brain barrier pericytes reactivity and MRI in epilepsy: from pathophysiology to target strategies Nicola Marchi (Montpellier Cedex, France)</p> <p>The impact of enhanced neuronal activity on neuron-OPC interactions in the hippocampus Friederike Pfeiffer (Storrs, Germany)</p>	<p>S10: Where do Glia Come From? Evolution and Diversification of CNS Glia</p> <p>Interlaminar astrocytes evolution in mammals Carmen Falcone (Sacramento, USA)</p> <p>Glial and microglial functions: connecting the nervous and the immune system in evolution Angela Giangrande (Strasbourg, France)</p> <p>Evolution of the oligodendrocyte cell type and adaptive myelination phenotype Jacob H. Hines (Winona, USA)</p> <p>Human-specific gene expression patterns in oligodendrocytes Genevieve Konopka (Dallas, USA)</p>	<p>S28: Modulating reactive astrogliosis: a therapeutic strategy</p> <p>Parsing out the role of resting and reactive astrocytes in disease Lynette Foo (Basel, Switzerland)</p> <p>Astrocyte microglia cross-talk in prion diseases and beyond Susanne Krasemann (Hamburg, Germany)</p> <p>Astrocyte unfolded protein response induces a specific reactivity state that causes non-cell autonomous neuronal degeneration Giovanna Mallucci (Cambridge, UK)</p> <p>Effects of modulating astrocyte reactivity via loss-of-function manipulations Michael V. Sofroniew (Los Angeles, USA)</p> <p><i>supported by F. Hoffmann-La Roche Ltd.</i></p>



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**18:00 -
19:00**

L06: Plenary Lecture of Jonas Frisé

Chair: Benedikt Berninger (London, UK)

Scar formation in the injured spinal cord – mechanisms and opportunities

Jonas Frisé (Stockholm, Sweden)

Friday, July 9, 2021

**13:30 -
14:30**

S11: Neuron to Microglia communication: neuromodulators and purines get on the front scene

Microglia-neuron interactions through somatic purinergic junctions

Adam Denes (Budapest, Hungary)

Microglial dynamics impact synaptic surveillance and plasticity

Anna Majewska (Rochester, USA)

Serotonergic control of microglia during development controls innate behaviors and response to systemic inflammation in adulthood

Anne Roumier (Paris, France)

Neuronal regulation of microglial TNF release controls synaptic strength and circuit function

David Stellwagen (Montreal, Canada)

S19: Studying glia with single cell resolution (Special Trainee Symposium)

Nightlife of the astrocytes: Insights into astrocytic Ca²⁺ signaling in mice during natural sleep

Laura Bojarskaite (Oslo, Norway)

On the discovery of population-specific state transitions from multi-sample multi-condition scRNA-seq data

Helena Lucia Crowell (Zurich, Switzerland)

Neuroinflammatory astrocyte subtypes in the mouse brain

Philip Hasel (New York, USA)

Oligodendrocyte heterogeneity during myelin regeneration

Sarah Neely (Edinburgh, UK)

Single nuclei transcriptomic profiling of human astrocytes and oligodendrocytes in Alzheimer's disease

Jessica Sadick (New York, USA)

S23: Mitochondrial regulation of astrocyte function in physiological and pathological conditions

Mitochondrial structure and calcium dynamics in astrocytes

Amit Agarwal (Heidelberg, Germany)

Mitochondrial network dynamics in reactive astrocytes

Matteo Bergami (Cologne, Germany)

Mitochondrial biogenesis in developing astrocytes regulates astrocyte maturation and synapse formation: implication for 22q11 deletion syndrome

Paola Bezzi (Lausanne, Switzerland)

Astrocytic Mitochondrial Dysfunctions During Dementia

Kevin Richetin (Prilly-Lausanne, Switzerland)

**14:30 -
15:30**

S18: Targeting glial cell activation for treatment of neurodegenerative disease

Neuroimmune cell atlas for the human brain reveals gene networks activated in neurological disorders

Seth A. Ament (Baltimore, USA)

Targeting a signal of glial activation: clinical evaluation of Semaphorin 4D blocking antibody pepinmab

Elizabeth Evans (Rochester, USA)

S21: Sex differences in glia

A cell-autonomous pathway that controls sexually dimorphic gene expression in glia

Maxwell Heiman (Boston MA, USA)

Microglia sexual differentiation

Adriana Maggi (Milan, Italy)

Microglia developmentally regulate astrocyte and neuron number creating enduring sex-specific behavioral changes

S22: Understanding the role of glia in neurodevelopmental disorders using pluripotent stem cell-derived human glia

Modeling neurodevelopmental disorders using induced astrocytes

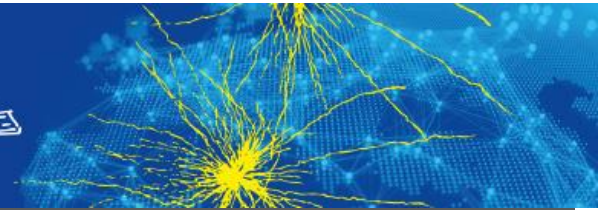
Ella Quist (Lund, Sweden)

Suppression of PLP1 for Pelizaeus Merzbacher Disease

Paul Tesar (Cleveland, USA)



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	<p>White matter microglia activation and cognitive impairment Shawn Whitehead (London, Canada)</p> <p>Imaging glucose metabolism Eduardo Zimmer (Porto Alegre, Brazil)</p>	<p>Margaret McCarthy (Baltimore MD, USA)</p> <p>Sexual dimorphism of microglia molecular states Susanne Wolf (Berlin, Germany)</p>	<p>Modeling Neurodevelopmental Disorder Using Human iPSC-Based Microglial Mouse Chimeras Peng Jiang (Piscataway, USA)</p> <p>Human Astrocytes in Neurological Diseases Su-Chun Zhang (Singapore, Singapore)</p> <p><i>with kindly support of International Society for Developmental Neuroscience (ISDN)</i></p>
<p>15:30 - 17:00</p>	<p>Networking and Poster Session E</p>		
<p>17:00 - 18:30</p>	<p>L07: Plenary Lecture of Alison Lloyd & Closing Chair: Claire Jacob (Fribourg, Switzerland)</p> <p>Peripheral nerve homeostasis, damage and repair Alison Lloyd (London, UK)</p> <p>Closing & Invitation to GLIA 2023 Helmut Kettenmann (Berlin, Germany), Pascale Durbec (Marseille, France)</p>		



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Conference fees

Virtual conference included services: admission to the virtual conference for online participation with pre-recorded lectures; live plenary lectures; live discussions in week July 5 to 9, 2021; online poster presentation; online sponsoring presentation and online networking with other delegates; video on demand until August 31, 2021

	Early registration (by February 24, 2021)	Regular registration (by June 28, 2021)	Late registration (from June 29, 2021)	On demand (until August 31, 2021)
Scientist	320.00 EUR	410.00 EUR	445.00 EUR	320.00 EUR
Students, PhD Students (proof required; document must be valid at the time of the congress)	200.00 EUR	255.00 EUR	270.00 EUR	
Workshop Speaker	320.00 EUR	410.00 EUR	445.00 EUR	
Commercial	400.00 EUR	450.00 EUR	495.00 EUR	
Day ticket (each)	150.00 EUR	150.00 EUR	150.00 EUR	
Introductory course on glial biology				40.00 EUR
Scientists/ Commercial Students	80.00 EUR 40.00 EUR	80.00 EUR 40.00 EUR	80.00 EUR 40.00 EUR	