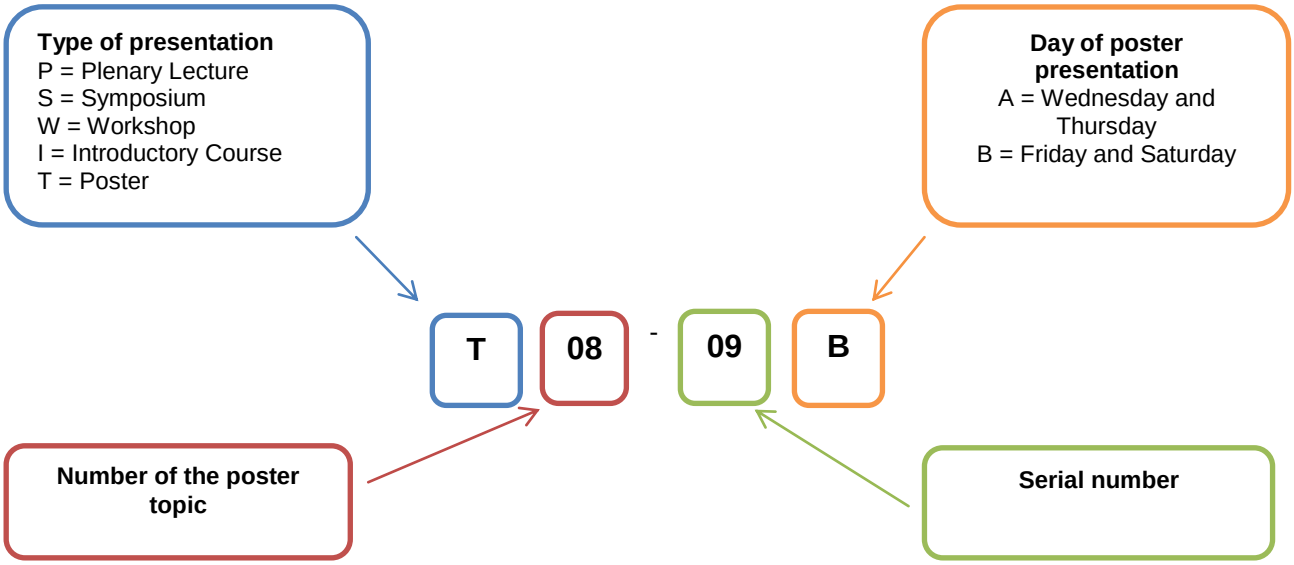
Explanation of poster numbers



There is one poster session per day, i.e. one on Wednesday, Thursday, Friday and Saturday. Posters with poster numbers ending with an A are displayed on Wednesday and Thursday, posters with a poster number ending with a B are displayed on Friday and Saturday.

Each poster session (120 min) is divided into two parts (each 60 min): uneven and even serial numbers. In the first part of a session of a day posters with uneven serial numbers will be discussed. In the second 60 min of a session posters with even serial numbers will be discussed. So every poster will be discussed during two days. Authors of poster numbers ending with an A are requested to take down their posters on Thursday, July 16, after the poster session.

Poster session I	Wednesday, July 15, 2015 from 17:15 h to 19:15 h Thursday, July 16, 2015 from 13:15 h to 15:15 h
Poster session II	Friday, July 17, 2015 from 13:15 h to 15:15 h Saturday, July 18, 2015 from 13:00 h to 15:00 h

Poster Topics

T1	Cell migration
T2	Cell proliferation, lineages and differentiation
T3	Cell signalling
T4	Cytoskeleton
T5	Degenerative disease, toxicity and neuroprotection
T6	Extracellular matrix and cell adhesion molecules
T7	Gene expression and transcription factors
T8	Glial-neuronal interactions
T9	Ischemia and hypoxia
T10	Myelin
T11	Neural stem/progenitor cells
T12	Neuroimmunology and neuroinflammation
T13	Neurovascular interactions
T14	Regeneration and repair
T15	Transmitter receptors, ion channels and gap junctions
T16	Trophic factors
T17	Tumours

Example: T10-07B

T10 = number of the poster topic, i.e. Myelin

07 = serial number (uneven number, i.e. first 60 min of each session)

B = indicates the day, i.e. Friday and Saturday

➔ Poster T10-07B belongs to the poster topic "Myelin" and will be presented on Friday, July 17, from 13:15 to 14:15 and on Saturday, July 18, from 13:00 to 14:00.

Poster topics – Overview

Poster Topic	Wednesday	Thursday	Friday	Saturday
T1 Cell migration	T01-01A – T01-04	T01-01A – T01-04	T01-01B – T01-03B	T01-01B – T01-03B
T2 Cell proliferation, lineages and differentiation	T02-01A – T02-22A	T02-01A – T02-22A	T02-01B – T02-23B	T02-01B – T02-23B
T3 Cell signalling	T03-01A – T02-17A	T03-01A – T02-17A	T03-01B – T03-17B	T03-01B – T03-17B
T4 Cytoskeleton	T04-01A – T04-02A	T04-01A – T04-02A	T04-01B – T04-02B	T04-01B – T04-02B
T5 Degenerative disease, toxicity and neuroprotection	T05-01A – T05-42A	T05-01A – T05-42A	T05-01B – T05-42B	T05-01B – T05-42B
T6 Extracellular matrix and cell adhesion molecules	T06-01A – T06-02A	T06-01A – T06-02A	T06-01B – T06-02B	T06-01B – T06-02B
T7 Gene expression and transcription factors	T07-01A – T07-13A	T07-01A – T07-13A	T07-01B – T07-13B	T07-01B – T07-13B
T8 Glial-neuronal interactions	T08-01A – T08-45A	T08-01A – T08-45A	T08-01B – T08-45B	T08-01B – T08-45B
T9 Ischemia and hypoxia	T09-01A – T09-10A	T09-01A – T09-10A	T09-01B – T09-10B	T09-01B – T09-10B
T10 Myelin	T10-01A – T10-28A	T10-01A – T10-28A	T10-01B – T10-27B	T10-01B – T10-27B
T11 Neural stem/progenitor cells	T11-01A – T11-16A	T11-01A – T11-16A	T11-01B – T11-16B	T11-01B – T11-16B
T12 Neuroimmunology and neuroinflammation	T12-01A – T12-71A	T12-01A – T12-71A	T12-01B – T12-70B	T12-01B – T12-70B
T13 Neurovascular interactions	T13-01A – T13-05A	T13-01A – T13-05A	T13-01B – T13-06B	T13-01B – T13-06B
T14 Regeneration and repair	T14-01A – T14-27A	T14-01A – T14-27A	T14-01B – T14-27B	T14-01B – T14-27B
T15 Transmitter receptors, ion channels and gap junctions	T15-01A – T15-13A	T15-01A – T15-13A	T15-01B – T15-13B	T15-01B – T15-13B
T16 Trophic factors	T16-01A	T16-01A	T16-01B – T16-02B	T16-01B – T16-02B
T17 Tumours	T17-01A – T17-09A	T17-01A – T17-09A	T17-01B – T17-08B	T17-01B – T17-08B

T1 Cell migration

T01-01A

PAR-3 and Syndecan-4 are involved in astrocyte adhesion induced by neuronal Thy-1

A. Cárdenas[1], M. Kong[1], A. Alvarez[1], A. Valdivia[1], A. F. Quest[1,2,3], L. Leyton[1,4,3]
[1]Universidad de Chile, Laboratorio de Comunicaciones Celulares, Santiago, Chile
[2]Universidad de Chile, Advanced Center for Chronic Diseases (ACCDiS), Santiago, Chile
[3]Universidad de Chile, Institute of Biomedical Sciences (ICBM), Faculty of Medicine, Santiago, Chile
[4]Universidad de Chile, Biomedical Neuroscience Institute (BNI), Santiago, Chile

T01-02A

Two-Photon polymerized microstructures for guiding cell growth in neuron and astrocyte co-cultures

T. Joki[1], S. Turunen[2], M. Kellomäki[2], S. Narkilahti[1]
[1]BioMediTech, University of Tampere, NeuroGroup, Tampere, Finland
[2]BioMediTech, Tampere University of Technology, Department of Electronics and Communications Engineering/Biomaterials and Tissue Engineering Group, Tampere, Finland

T01-03A

G_s protein coupled receptor signalling strongly represses PI3Kγ -driven microglial migration

N. Schneble[1], C. Schmidt[1], R. Bauer[1], J. Müller[1], R. Wetzker[1]
[1]University Hospital Jena, Institute of Molecular Cell Biology, Jena, Germany

T01-04A

Water fluxes and aquaporins in migrating oligodendrocyte progenitor cells

D. Thatenhorst[1], C. von Bassewitz[1], P. Happel[2], I. D. Dietzel[1]
[1]Ruhr-Universität, Biochemistry II, Electrobiochemistry of Neural Cells, Bochum, Germany
[2]Ruhr-Universität, Central Unit for Ionbeams and Radionuclides (RUBION), Bochum, Germany

T01-01B

Crosstalk between early fate determinant and chemotropism controls collective glial migration

T. Gupta[1], A. Kumar[2], A. Giangrande[1]
[1]IGBMC, Illkirch Graffenstaden, France
[2]University of California Riverside, Riverside, United States

T01-02B

Myelin proteolipid protein mediates the association of alpha V integrin and the AMPA glutamate receptor *in vivo* and regulates glutamate-induced migration of oligodendrocyte progenitor cells through GluR2 internalization

D. Harlow[1], K. Saul[1], H. Komuro[2,3], W. Macklin[1,3]
[1]University of Colorado School of Medicine, Dept. of Cell & Developmental Biology, Aurora, United States
[2]Yale University, Dept. of Neuroscience, New Haven, United States
[3]Cleveland Clinic, Lerner Research Institute, Cleveland, United States

T01-03B

Role of ERK and Rho associated protein kinase (ROCK) signalling in PDGF-A induced Oligodendrocyte progenitor cells migration and cytoskeleton reorganization

J. Singh[1], K. Sharma[1], P. Pillai[1]
[1]The M.S.University of Baroda, Zoology, Vadodara, India

T2 Cell proliferation, lineages and differentiation

T02-01A

Dissecting the role of *Etv5* in oligodendrocyte development in the neocortex

L. Adnani[1], A. Balakrishnan[1], S. Li[1], J. Chan[2], C. Schuurmans[1]
[1]University of Calgary, Biochemistry and Molecular Biology, Calgary, Canada
[2]University of Calgary, Department of Pathology & Laboratory Medicine , Calgary, Canada

T02-02A

Evidence for oligodendrocyte dedifferentiation and subsequent formation of astrocytes after acute brain injury

X. Bai[1], N. Zhao[1], W. Huang[1], A. Cupido[1], R. Zhao[1], J. Hirrlinger[2,3], W. Walz[4], F. Kirchhoff[1], A. Scheller[1]
[1]University of Saarland, Molecular Physiology, Homburg, Germany
[2]University of Leipzig, Carl-Ludwig-Institute of Physiology, Leipzig, Germany
[3]Max-Planck-Institute for Experimental Medicine, Department of Neurogenetics, Göttingen, Germany
[4]University of Saskatchewan, Department of Psychiatry, Saskatoon, Canada

T02-03A

Clonal distribution pattern reveals glial heterogeneity

A. Bribian[1], M. Figueres-Oñate[1], L. Lopez-Mascaraque[1]
[1]Instituto CAJAL, Madrid, Spain

T02-04A

Origin and generation of different astroglial phenotypes in the cerebellum

V. Cerrato[1], E. Parmigiani[1], K. Leto[1], E. Fucà[1], M. Figueres-Oñate[2], L. López-Mascaraque[2], A. Buffo[1]
[1]NICO (Neuroscience Institute Cavalieri Ottolenghi), Dept of Neuroscience Rita Levi Montalcini, University of Turin, Orbassano (TO), Italy
[2]Cajal Institute, Madrid, Spain

T02-05A

Regulatory T cells enhance oligodendrocyte differentiation *in vitro*

M. Dittmer[1], T. O'Hagan[1], P. Bankhead[2], R. Medina[3], Y. Dombrowski[1], D. Fitzgerald[1]
[1]Queen's University Belfast, Centre for Infection and Immunity, Belfast, United Kingdom
[2]Queen's University Belfast, Centre for Cancer Research and Cell Biology, Belfast, United Kingdom
[3]Queen's University Belfast, Centre for Experimental Medicine, Belfast, United Kingdom

T02-06A

Peptidylarginine deiminases as regulators of the epigenetic state of oligodendrocyte precursor cells

A. Falcao[1], S. Marques[1], M. Varas[1], M. L. Nielsen[2], G. Castelo-Branco[1]
[1]Karolinska Institutet, Medical Biochemistry and Biophysics, Stockholm, Sweden
[2]University of Copenhagen, Department of proteomics, The Novo Nordisk Foundation Center for Protein Research, Copenhagen, Denmark

T02-07A

Clathrin-mediated endocytosis is critical for Schwann cell myelination

M. Ghidinelli[1], E. Tinelli[1], U. Suter[1]
[1]ETH Zurich, Molecular Health Sciences, Zurich, Switzerland

T02-08A

A novel automated dissociation procedure allows efficient immunomagnetic isolation of astrocytes, oligodendrocytes, and neurons from adult rodent brain tissue

M. Jungblut[1], S. Reiß[1], A. Bosio[1]
[1]Miltenyi Biotec, Bergisch-Gladbach, Germany

T02-09A

Self-renewal capacity of reactive astrocytes *in vivo*

L. Lange Canhos[1,2], S. Sirko[1,2], M. Götz[1,2,3]
[1]Ludwig-Maximilians-University (LMU), Institute for Physiology, Department of Physiological Genomics, Munich, Germany
[2]Helmholtz Zentrum, Institute for Stem Cell Research, Munich, Germany
[3]Munich Cluster for Systems Neurology (Synergy), Munich, Germany

T02-10A

Exogenous FGF-1 hault differentiation of NKX2.2+pre- OPC to NG2+ OPC in a rat spinal cord transection model

M.- J. Lee[1], C. J. Chen[2], W.- C. Chang[2], H. Cheng[3]
[1]Chaoyang University of Technology, Applied Chemistry, Taichung, Taiwan
[2]Taipei Veterans General Hospital, Taipei, Center for Neural Regeneration, Department of Neurosurgery, Taipei, Taiwan
[3]National Yang-Ming University, Department and Institute of Pharmacology, Taipei, Taiwan

T02-11A

DMT1 is expressed and required for adequate maturation in oligodendrocytes

L. Marziali[1], V. Cheli[2], V. Spreuer[2], J. Pasquini[1], P. Paez[2]
[1]University of Buenos Aires-School of Pharmacy and Biochemistry, IQUIFIB-CONICET, Buenos Aires, Argentina
[2]University at Buffalo, State University of New York , Hunter James Kelly Research Institute (HJKRI), Buffalo, NY, United States

T02-12A

NG2 and S100B co-localization in the developing mouse hippocampus

B. Moshrefi-Ravasdjani[1], P. Dublin[1], K. W. Kafitz[1], G. Seifert[2], C. Steinhäuser[2], C. R. Rose[1]
[1]Heinrich-Heine University, Institute of Neurobiology, Düsseldorf, Germany
[2]University of Bonn, Institute of Cellular Neurosciences, Medical Faculty, Bonn, Germany

T02-13A

Role of microRNAs miR-124 and miR-137 in directing neuronal reprogramming of astrocytes

E. Papadimitriou[1], P. Koutsoudaki[1], K. Aravantinou-Fatorou[1], D. Thomaidou[1]
[1]Hellenic Pasteur Institute, Department of Neurobiology, Athens, Greece

T02-14A

Oligodendrocyte maturation through gestational iron deprivation

V. rosato siri[1], M. E. Guitart[1], J. M. Pasquini[1]
[1]IQUIFIB-CONICET. UBA. Argentina., Departamento de Química Biológica, Buenos Aires, Argentina

T02-15A

Ependymal Cilia Polarization and IIIG9 Expression is a Synchronous Process

K. Salazar[1], V. Baeza[1], F. Martínez[1], F. Nualart[1], M. Cifuentes[2]
[1]University of Concepcion, Cell Biology/Center for Advanced Microscopy CMA BIOBIO, Concepcion, Chile
[2]University of Malaga, Cell Biology, Genetic and Physiology, Malaga, Spain

T02-16A

Postnatal hyperoxia affects OPC and GCP proliferation

T. Scheuer[1,2], V. Brockmöller[1], K. Marggraf [1], C. Bührer[1], S. Endesfelder[1], T. Schmitz[1]
[1]Charité University Medical Center, Department for Neonatology, Berlin, Germany
[2]Technische Universität Berlin, Institute of Bioanalytics, Berlin, Germany

T02-17A

Umbilical cord blood stem cells-derived microglia

K. Takahashi[1,2], H. Yamazaki[2], M. Yamada[2]
[1]National Hospital Organization Iou Hospital, Kanazawa, Japan
[2]Kanazawa University, Kanazawa, Japan

T02-18A

SNX27 regulation of GPR17 recycling is important for the correct differentiation of oligodendrocytes

A. F. Ulivi[1], V. Meraviglia[2], A. Fratangeli[2], F. Valenza[2], D. Lecca[3], M. P. Abbracchio[3], P. Rosa[2]
[1]CNR and University of Milan, Institute of Neuroscience, Milan, Italy
[2]CNR, Institute of Neuroscience, Milan, Italy
[3]University of Milan, Dept. of Pharmachology and Biomolecular Sciences, Milan, Italy

T02-19A

Role of Ascl1 in NG2 Cells in the Embryonic and Adult Spinal Cord

T. Y. Vue[1], D. Kelenis[1], J. Johnson[1]
[1]UT Southwestern Medical Center, Neuroscience, Dallas, United States

T02-20A

Dynamic regulation of Olig2 expression in oligodendrocyte differentiation

M. Yamada[1], I. Imayoshi[2]
[1]Graduate school of medicine, Kyoto University, SK project, Medical Innovation Center, Kyoto, Japan
[2]Kyoto University, Institute for virus Research, Kyoto, Japan

T02-21A

Ex-vivo analysis of astrocyte subpopulations

C. Grit[1], I. D. Vainchtein[2], N. Brouwer[2], B. J. L. Eggen[2], H. W. G. Boddeke[2]
[1]University Medical Center Groningen, Dept Neuroscience, Medical Physiology, Groningen, Netherlands
[2]University of Groningen, University Medical Center Groningen, Dept Neuroscience, Section Medical Physiology, Groningen, Netherlands

T02-22A

OPC heterogeneity in the optic nerve

S. Förster[1], A. Crawford[1], P. Van Wijngaarden[1], R. Tripathi[2], W. Richardson[2], R. Franklin[1]
[1]Wellcome Trust - Medical Research Council Cambridge Stem Cell Institute, Clinical Neuroscience, Cambridge, United Kingdom
[2]The Wolfson Institute for Biomedical Research, London, United Kingdom

T02-01B

Profiling of the different genes regulated during astrocyte differentiation

C. Birck[1], P. Heuschling[1], L. Grandbarbe[1]
[1]University of Luxembourg, Life Science Research Unit, Luxembourg, Luxembourg

T02-02B

Phenotypic heterogeneity of dividing oligodendrocyte progenitor cells and of their progeny: characterization and modulation by aging and extrinsic factors

E. Boda[1], S. Di Maria[1], C. Rolando[2], P. Rosa[3], V. Taylor[2], M. P. Abbracchio[4], A. Buffo[1]
[1]University of Turin, Dept. of Neuroscience and Neuroscience Institute Cavalieri Ottolenghi, Orbassano, Italy
[2]University of Basel, Embryology and Stem Cell Biology, Department of Biomedicine, Basel, Switzerland
[3]CNR, Institute of Neuroscience, Milan, Italy
[4]University of Milan, Department of Pharmacological and Biomolecular Sciences, Milan, Italy

T02-03B

Microglial cells during embryonic development of the mouse brain - mature team players or young bench sitters?

B. Brone[1], N. Swinnen[1], S. Smolders[1], P. Legendre[2,3], J.- M. Rigo[1]
[1]University Hasselt, BIOMED research institute, Hasselt, Belgium
[2]Centre National de la Recherche Scientifique (CNRS), UMR 7224, Paris, France
[3]UMPC Université Paris 06, Paris, France

T02-04B

Calmodulin inhibition affects proliferation and cell viability in unchallenged and LPS-challenged pure microglial cultures

K. Dulka[1], M. Szabo[1], K. Gulya[1]
[1]University of Szeged, Cell Biology and Molecular Medicine, Szeged, Hungary

T02-05B

Rapid and efficient generation of human oligodendrocytes from induced pluripotent stem cells

M. Ehrlich[1,2], S. Albrecht[1], K.- P. Kim[2], J. Sterneckert[2], H. Zaehres[2], H. Schöler[2], T. Kuhlmann[1]
[1]University Hospital Münster, Institute of Neuropathology, Münster, Germany
[2]Max Planck Institute for molecular Biomedicine, Münster, Germany

T02-07B

RXR-VDR signaling regulates oligodendrocyte precursor cell differentiation

A. Guzman de la Fuente[1], O. Errea[1], C. Kerninon[2], P. van Wijngaarden[3], G. A. Gonzalez[1], J. K. Huang[4], C. Zhao[1], B. Nait Oumesmar[2], C. ffrench-Constant[5], R. J. Franklin[1]
[1]University of Cambridge, Welcome Trust- MRC Stem Cell Institute, Cambridge, United Kingdom
[2]INSERM, Centre de Recherche de l'Institut du Cerveau et de la Moelle Epinière, Paris, France
[3]University of Melbourne, Centre for Eye Research, Melbourne, Australia
[4]University of Georgetown, Dept. of Biology, Georgetown, United States
[5]University of Edinburgh, MRC Centre for Regenerative Medicine, Edingburgh, United Kingdom

T02-08B

Characterization of Tensin3 (*Tns3*) function in oligodendrogenesis and remyelination

H. Hmidan[1], C. Parras[1]
[1]Institut du Cerveau et de la Moelle épinière - ICM, Origin of oligodendrocytes and neurovascular reaction, Paris, France

T02-09B

Cell fate of NG2 glia in the developing mouse spinal cord

W. Huang[1], X. Bai[1], L. Schlosser[1], A. Scheller[1], F. Kirchhoff[1]
[1]University of Saarland, Molecular Physiology, Homburg, Germany

T02-10B

Activity-dependent effects on oligodendrocyte precursors and mature oligodendrocytes in the adult sensorimotor cortex and corpus callosum

S. Keiner[1], F. Niv[1], T. Steinbach[1], O. W. Witte[1], C. Redecker[1]
[1]Hans-Berger-Department of Neurology, Jena, Germany

T02-11B

Mature astrocytes regain stem cell potential and give rise to neurons

S. Kirner[1], M. Leist[1]
[1]Universität Konstanz, Konstanz, Germany

T02-12B

Interleukin-33 (IL-33) as a factor involved in the regulation of oligodendrocyte precursor cells biology

K. Konarzewska[1], B. Wylot[1], B. Kaza[1], J. Ulańska-Poutanen[1], M. Zawadzka[1]
[1]Nencki Institute of Experimental Biology Polish Academy of Sciences, Laboratory of Molecular Neurobiology, Warszawa, Poland

T02-13B

Characterization of the role of RET on enteric progenitors using Mosaic Analysis with Double Markers (MADM)

R. Lasrado[1], D. Bell[1], V. Pachnis[1]
[1]National Institute for Medical Research, Division on Molecular Neurobiology, Mill Hill, London, United Kingdom

T02-14B

Characterization of Chd7 expression and function in oligodendrogenesis and (re)myelination

C. Marie[1], M. Frah[1], C. Parras[1]
[1]Institute of Brain and Spinal cord, Origin of oligodendrocytes, Paris, France

T02-15B

Identification and Characterization of Distinct Astroglia Subpopulations in Health and Disease

S. J. Miller[1], Z. Chen[1], T. Philips[1], M. Robinson[2], R. Sattler[1], J. Rothstein[1]
[1]Johns Hopkins University School of Medicine, Neurology, Baltimore, United States
[2]University of Pennsylvania, Philadelphia, United States

T02-16B

The PI3K/Akt inhibitor LY294002 induces astrogliosis in mouse cerebellar slices

F. Pieropan[1], A. D. Rivera[1], K. Azim[1,2], A. V. Patel[1], R. Gibbs[1], P. Cox[1], A. M. Butt[1]
[1]university of Portsmouth, St Michael's building-Pharmacy and Biomedical Sciences, Portsmouth, United Kingdom
[2]University of Zürich/ETHZ, Brain Research Institute, Zurich, Switzerland

T02-17B

Cell genesis and dendritic plasticity: A neuroplastic pas de deux in the onset and remission from depression

L. Pinto[1,2], A. Mateus-Pinheiro[1,2], A. R. Machado-Santos[1,2], P. Patricio[1,2], N. D. Alves[1,2], J. Oliveira[1,2], N. Sousa[1,2]
[1]Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho,

Neurosciences, Braga, Portugal
[2]ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Neurosciences, Braga, Portugal

T02-18B

Nastructured interface promoting astrocytes molecular and functional differentiation in vitro

A. Pistone[1,2], T. Posati[3], P. Nicchia[2], A. Sparaneo[2], M. Caprini[4], F. Formaggio[1], E. Saracino[1], M. Nocchetti[5], A. Sagnella[3], S. Bonetti[1], G. P. Ruani[1], M. Muccini[1], B. Valentina[6]
[1]ISMN-CNR, Bologna, Italy
[2]Università degli Studi di Bari "Aldo Moro", Bari, Italy
[3]Mist E R, Bologna, Italy
[4]Dipartimento di Farmacia e Biotecnologie, Bologna, Italy
[5]CEMIN, Perugia, Italy
[6]Isof-CNR, Bologna, Italy

T02-19B

S100B modulates oligodendrocyte development process

G. Santos[1], V. Afonso[1], A. Barateiro[1], A. Fernandes[1,2], D. Brites[1,2]
[1]Research Institute for Medicines (iMed.ULisboa), Lisboa, Portugal
[2]Department of Biochemistry and Human Biology, Lisboa, Portugal

T02-22B

Genetic ablation of proliferating NG2-glia in the adult brain

S. Schneider[1,2], C. Simon[1], G. Eichele[3], M. Götz[1,2,4], L. Dimou[1,2,4]
[1]Ludwig-Maximilians-Universität München, Institute of Physiology, Munich, Germany
[2]Helmholtz Zentrum Munich, Institute of Stem Cell Research, Munich, Germany
[3]MPI of Biophysical Chemistry, Department of Genes and Behavior, Göttingen, Germany
[4]Munich Cluster for Systems Neurology, Munich, Germany

T02-23B

Chimeric OHSCs as culture system to study microglia phenotypes

C. A. van der Pijl[1], H. R. van Weering[1], A. Masuch[2], K. P. H. Biber[2], B. J. L. Eggen[1], H. W. G. Boddeke[1]
[1]University of Groningen, University Medical Centre Groningen, Department of Neuroscience, section Medical Physiology, Groningen, Netherlands
[2]University Clinics Freiburg, Department of Psychiatry, section Molecular Psychiatry, Freiburg, Germany

T3 Cell signalling

T03-01A

Activated Microglia/Macrophage Whey Acidic Protein (AMWAP) inhibits NFκB signaling and induces a neuroprotective phenotype in microglia

A. Aslanidis[1], M. Karlstetter[1], R. Scholz[1], S. Fauser[1], C. Fried[2], H. Neumann[3], M. Pietsch[2], T. Langmann[1]
[1]University of Cologne, Department of Ophthalmology, Cologne, Germany

[2]University of Cologne, Department of Pharmacology, Cologne, Germany
[3]University of Bonn, Institute of Reconstructive Neurobiology, Bonn, Germany

T03-02A

Prenatal stress alters microglial and inhibitory neuron development in an animal model of infantile spasms

H. Baek[1,2], M.- H. Yi[1], E. Zhang[1], S. Kim[1], N. Shin[1], J. W. Kang[2], D. W. Kim[1]
[1]Brain Research Institute, Chungnam National University School of Medicine, Department of Anatomy, Daejeon, Republic of Korea
[2]Chungnam National University Hospital, Chungnam National University School of Medicine, Department of Pediatrics, Daejeon, Republic of Korea

T03-03A

Involvement of transcription factors NF-κB, AP-1 and STAT-3 in death of crayfish glial and neuronal cells induced by photodynamic impact

E. Berezhnaya[1], M. Neginskaya[1], S. Sharifulina[1], V. Kovaleva[1], A. Uzdensky[1]
[1]Southern Federal University, Academy of Biology and Biotechnology, Laboratory of Molecular Neuroscience, Rostov-on-Don, Russian Federation

T03-04A

Growth differentiation factor 15 (GDF15) Expression in Astrocytes After Excitotoxic Lesion in the Mouse Hippocampus

S. Kim[1,2], M.- H. Yi[1], E. Zhang[1], H. Baek[1], N. Shin[1], S.- H. Oh[2], D. W. Kim[1]
[1]Brain Research Institute, Chungnam National University School of Medicine, Department of Anatomy, Daejeon, Republic of Korea
[2]Chungnam National University Hospital, Department of Plastic and Reconstructive Surgery, Daejeon, Republic of Korea

T03-05A

Calcium-induced calcium release and gap junctions mediate large-scale calcium waves in olfactory ensheathing cells *in situ*

M. Stavermann[1,2], P. Meuth[3], M. Doengi[4], A. Thyssen[2], J. W. Deitmer[2], C. Lohr[1]
[1]University of Hamburg, Division of Neurophysiology, Hamburg, Germany
[2]University of Kaiserslautern, General Zoology, Kaiserslautern, Germany
[3]University of Münster, Department for Neurology, Münster, Germany
[4]University of Bonn, Institute of Physiology, Bonn, Germany

T03-06A

Protein Tyrosine Phosphatase Alpha (PTPa)-mediated Akt activation is required for oligodendrocyte differentiation and myelination

P. Ly[1,2], Y. Shih[1,2,3], J. Wang[1,2], C. Pallen[1,2,3]
[1]University of British Columbia, Pediatrics, Vancouver, Canada
[2]Child & Family Research Institute, Vancouver, Canada
[3]University of British Columbia, Pathology and Laboratory Medicine, Vancouver, Canada

T03-07A

An interactive model of astrocyte in 3D geometry

L. Savtchenko[1], C. Henneberger[2], L. Bard[1], I. Kraev[3], N. Medvedev[4], M. Stewart[3], D. Rusakov[1]
[1]University College London, Clinical and Experimental Epilepsy, London, United Kingdom
[2]University of Bonn, Bonn, Germany
[3]The Open University, Milton Keynes, United Kingdom
[4]University of Greifswald, Greifswald, Germany

T03-08A

The role of DNA methylation and histone deacetylation in reactions of glial cells to photodynamic treatment

S. Sharifulina[1], M. Komandirov[1], A. Uzdensky[1]
[1]Academy of biology and biotechnology, laboratory of molecular neurobiology, Rostov-on-Don, Russian Federation

T03-09A

Astrocytic expression of CTMP following an excitotoxic lesion in the mouse hippocampus

N. shin[1], M.- H. Yi[1], E. Zhang[1], S. Kim[1], H. Baek[1], S. Lee[2], D. Kim[1]
[1]Chunnam National University school of medicine, Department of anatomy, Daejeon, Republic of Korea
[2]Chunnam National University Hospital, Department of Anesthesia and Pain Medicine, Deajeon, Republic of Korea

T03-11A

Effect of long-term culture on telomere length and telomerase activity in murine brain microglia

M. Stojiljkovic[1], Q. Ain[1], T. Bondeva[2], O. Witte[1], C. Schmeer[1]
[1]University Hospital Jena, Hans Berger Department of Neurology, Jena, Germany
[2]University Hospital Jena, Clinic of Internal Medicine III, Jena, Germany

T03-12A

$P2X_7$ receptor stimulation in the presence or absence of calcium leads to antagonic signaling pathways activation in neurons

B. Urzelai[1], F. Llavero[2], A. Artaso[1], J. Zugaza[2]
[1]University of the Basque Country, Department of Genetics, Physical Anthropology and Animal Physiology, Leioa, Spain
[2]Achucarro Basque Center for Neuroscience, Leioa, Spain

T03-13A

Integrin b1 triggers amyloid b-induced astrocyte reactivity through NOX2 activation in Alzheimer disease models

A. Wyssenbach[1,2], F. Llavero[1,2], J. L. Zugaza[1,2], C. Matute[1,2], E. Alberdi[1,2]
[1]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[2]Universidad del País Vasco- Euskal Herriko Unibertsitatea, Neuroscience, Leioa, Spain

T03-14A

Primary radial glial cell culture as a model for dopaminergic regulation of neuroestrogen synthesis

L. Xing[1], V. Trudeau[1]
[1]University of Ottawa, Biology, Ottawa, Canada

T03-15A

The role of CD200R/Foxp3 signaling as enhancer of alternative activation of microglia

M.- H. YI[1], E. Zhang[1], N. Shin[1], H. Baek[1], S. Kim[1], D. W. Kim[1]
[1]Brain Research Institute, Department of Anatomy, Daejeon, Republic of Korea

T03-16A

ER stress induces autophagy impairment in the spinal dorsal horn in a model of neuropathic pain

E. Zhang[1], M.- H. Yi[2], N. Shin[2], H. Beak[2], S. Kim[2], O.- Y. Kwon[2], W. Lee[1], D. W. Kim[2]
[1]Chungnam National University School of Medicine, Department of Anesthesia and Pain Medicine, Deajeon, Republic of Korea
[2]Chungnam National University School of Medicine, Department of Anatomy, Deajeon, Republic of Korea

T03-17A

Analysis of the expression of the wnt family of proteins in activated astroglial cells

P. Gonzalez[1], F. J. Rodriguez[1]
[1]National Hospital for Paraplegics, Laboratory of Molecular Neurology, Toledo, Spain

T03-01B

Thyroid hormone and AMPc/PKA pathway play a role in the elongation of oligodendroglial processes

L. O. Felgueiras[1], C. Oliveira da Silva[1], V. Younes-Rapozo[1], E. Giestal de Araújo[2], A. Pereira da Costa[1], J. Vailant[1], F. Tenório[1], P. C. Barradas[1]
[1]UERJ, Departamento de Farmacologia, Rio de Janeiro, Brazil
[2]UFF, Neurobiologia, Rio de Janeiro, Brazil

T03-02B

Phospholipases A2 isolated from *Micrurus lemniscatus* snake venom inhibits cell proliferation through the activation of p53 in cultured astrocytes

S. Castro Afeche[1], D. Augusto Maria[2], M. Garcia Laveli da Silva[2], M. R. Lopes Sandoval[1], A. de Souza Imberg[1], L. Bartlewski[1], E. Osorio Frare[1]
[1]Butantan Institute, Pharmacology, São Paulo, Brazil
[2]Butantan Institute, Biochemistry, São Paulo, Brazil

T03-03B

The role of CPI-17 in Merlin-dependent small GTPase regulation in oligodendrocytes

C. Dornblut[1], H. Morrison[1]
[1]Leibniz Institute for Age Research, Jena, Germany

T03-04B

Astrocytic endfeet show unique Ca^{2+} response to osmotic stress

M. Eilert-Olsen[1,2], W. Tang[1,2], R. Enger[1,2,3], V. Jensen[1,2], A. E. Thoren[1,2], E. A. Nagelhus[1,2,3]
[1]University of Oslo, GliaLab, Department of Physiology, Institute of Basic Medical Sciences, Oslo, Norway
[2]Centre for Molecular Medicine Norway, The Nordic EMBL Partnership, University of Oslo, Oslo, Norway
[3]Oslo University Hospital, Department of Neurology, Oslo, Norway

T03-05B

Astrocyte calcium microdomains in response to sensory stimulation *in vivo*

K. Ferrari[1], J. L. Stobart[1], M. Barrett[1], B. Weber[1]
[1]Universität Zürich, Institute of Pharmacology & Toxicology, Zürich, Switzerland

T03-06B

c-Jun is activated by LDL receptor-related protein-1 (LRP1) in Schwann cells

A. Flütsch[1], K. Henry[1], S. L. Gonias[2], W. M. Campana[1]
[1]University of California, San Diego, Department of Anesthesiology, San Diego, United States
[2]University of California, San Diego, Department of Pathology, San Diego, United States

T03-07B

IL-6 family cytokines selectively activate different signaling pathways in sensory-neuron associated glia and modulate each other signaling in a time and concentration specific manner

A. Garza-Carbajal[1], S. Brosig[1], T. Hucho[1]
[1]Uniklinik Köln, Experimental Anesthesiology, Cologne, Germany

T03-08B

Calcium regulation of mitochondrial respiration in astrocytes

I. Juaristi[1,2,3], A. del Arco[1,2,3,4], J. Satrustegui[1,2,3], I. Llorente-Folch[1,2,3]
[1]Centro de Biologia Molecular-Severo Ochoa CSIC-UAM, Madrid, Spain
[2]Centro de Investigación Biomédica en Red de Enfermedades Raras (CIBERER), Madrid, Spain
[3]Instituto de Investigación Sanitaria Fundación Jiménez Díaz (IIS-FJD), ISCIII, Madrid, Spain
[4]Centro regional de Investigaciones Biomédicas, Facultad de Ciencias Ambientales y Bioquímica, Universidad de Castilla La Mancha, Toledo, Spain

T03-09B

Cross-talk of signaling and energy-delivering processes in astrocytes: interaction of carnitine transporter OCTN2 with phosphatase PP2A

B. Juraszek[1], K. Nalecz[1]
[1]Nencki Institute of Experimental Biology, LABORATORY OF TRANSPORT THROUGH BIOMEMBRANES, Warsaw, Poland

T03-10B

An organic device for stimulation and optical read-out of calcium signalling in primary rat cortical astrocytes

S. Karges[1], S. Bonetti[2], A. I. Borrachero Conejo[2], A. Pistone[2], S. D. Quiroga[2], M. Natali[2], I. Grishin[3], S. Pecqueur[3], F. Mercuri[2], M. Caprini[4], G. Generali[3], M. Muccini[2], S. Toffanin[2], V. Benfenati[1]
[1]ISOF-CNR, Bologna, Italy
[2]ISMN-CNR, bologna, Italy
[3]E.T.C. s.r.l., Bologna, Italy
[4]Università di Bologna, Dipartimento di Farmacia e Biotecnologie, Bologna, Italy

T03-11B

CREB: a new player in the regulation of astrocytic calcium signalling

A. Eraso[1], E. Vicario[2], L. Pardo[1], E. Galea[1], R. Masgrau[1]
[1]Universitat Autònoma de Barcelona, Instutut de Neurociències, and, Dept. Biochemistry and Molecular Biology, Cerdanyola del Vallès, Spain
[2]University of California, Department of Neurosciences, San Diego, United States

T03-12B

A functional metabotropic-like NMDAR in rat cultured astrocytes

P. Montes de Oca Balderas[1], P. Aguilera[1]
[1]Instituto Nacional de Neurologia, Unidad de Neurobiologia Dinamica/Neurochemistry Dept., Mexico City, Mexico

T03-13B

Differential secretion of peptidergic vesicles in astrocytes and neurons

V. Pla[1], S. Paco[1], E. Pozas[2], N. Lauzurica[3], M. García-San Frutos[3], J. Pérez-Clausell[1], T. Fernández-Agulló[3], F. Aguado[1]
[1]University of Barcelona, Cellular Biology, Barcelona, Spain
[2]Institute of Biomedical Research of Barcelona, CSIC, Barcelona, Spain
[3]Universidad Rey Juan Carlos, Departamento de Ciencias Básicas de la Salud, Madrid, Spain

T03-14B

Src-like tyrosine kinases mediate amyloid ß-induced myelin dysregulation in Alzheimer´s disease models

T. Quintela[1,2,3], A. Wyssenbach[1,2,3], C. Matute[1,2,3], E. Alberdi[1,2,3]
[1]Universidad del País Vasco (UPV/EHU), Leioa, Spain
[2]Achucarro Basque Center for Neuroscience (UPV/EHU), Zamudio, Spain
[3]Centro de Investigación Biomédica en Red en Enfermedades Neurodegenerativas (CIBERNED), Leioa, Spain

T03-15B

Astrocyte shape changes and tonic cAMP signalling

N. Vardjan[1,2], M. Kreft[1,3,2], R. Zorec[1,2]
[1]Celica BIOMEDICAL, Laboratory of Cell Engineering, Ljubljana, Slovenia
[2]Faculty of Medicine, University of Ljubljana, LN-MCP, Institute of Pathophysiology, Ljubljana, Slovenia
[3]Biotechnical Faculty, University of Ljubljana, Ljubljana, Slovenia

T03-16B

Schwann cell autophagy, myelinophagy, initiates myelin clearance from injured nerves

J. A. Gomez-Sanchez[1], L. Carty[1], M. Iruarrizaga-Lejarreta[2], M. Palomo-Irigoyen[2], M. Varela-Rey[2], R. Mirsky[1], A. Woodhoo[2], K. R. Jessen[1]
[1]University College London, CDB, London, United Kingdom
[2]CIC bioGUNE, Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBERehd), Bilbao, Spain

T03-17B

A CROSSTALK BETWEEN ROCK AND NADPH-OXIDASE MEDIATES THE MICROGLIAL INFLAMMATORY RESPONSE

A. Borrajo[1,2], A. I. Rodriguez-Perez[1,2], J. Rodriguez-Pallares[1,2], P. Garrido-Gil[1,2], M. J. Guerra[1,2], J. L. Labandeira-Garcia[1,2]
[1]University of Santiago de Compostela, Morphological Sciences, Santiago de Compostela, Spain
[2]Networking Research Center on Neurodegenerative Diseases (CIBERNED), Spain, Spain

T4 Cytoskeleton

T04-01A

JMY, a new player in oligodendrocyte process extension and early axon-glia interaction

M. M. Azevedo[1,2], A. I. Seixas[1], H. S. Domingues[1], J. Relvas[1]
[1]Institue for Molecular and Cell Biology, Glial Cell Biology Group, Porto, Portugal
[2]Instituto de Ciências Biomédicas Abel Salazar, Porto, Portugal

T04-02A

Dystonin loss-of-function in oligodendrocytes does not impair migration, differentiation, or myelination

A. Lynch-Godrei[1,2], S. Kornfeld[1,2], S. Bonin[1], Y. De Repentigny[1], S. Gibeault[1], R. Kothary[1,2,3,4]
[1]The Ottawa Hospital Research Institute, Kothary Lab, Ottawa, Canada
[2]The University of Ottawa, Cellular and Molecular Medicine, Ottawa, Canada
[3]The University of Ottawa, Department of Medicine, Ottawa, Canada
[4]The University of Ottawa, Center for Neuromuscular Disease, Ottawa, Canada

T04-01B

Astroglial architecture of Squamata as compared to the astroglia of Crocodilia and Testudines. A GFAP study

M. Kalman[1], D. Lorincz[1]
[1]Semmelweis University, Dept. Anatomy, Histology and Embryology, Budapest, Hungary

T04-02B

Stress in mice rapidly changes enteric glial morphology through cytoskeletal reorganization.

B. Lee[1], K. Sharkey[1]
[1]University of Calgary, Hotchkiss Brain Institute, Calgary, Canada

T5 Degenerative disease, toxicity and neuroprotection

T05-01A

Microglial phagocytosis-apoptosis coupling: a widespread response disturbed in epilepsy

O. Abiega Etxabe[1,2], S. Beccari[1,2], I. Diaz-Aparicio[1,2], A. L. Brewster[3], A. E. Anderson[3], A. Nadjar[4], Q. Leyrolle[4], S. Layé[4], M. Maletic-Savatic[3], C. Matute[1,2], J. M. Encinas[1], A. Sierra[1]
[1]Achucarro basque center for neuroscience, Bilbao, Spain
[2]University of the basque country, Neuroscience, Bilbao, Spain
[3]Neurological Research Institute, Baylor College of Medicine, Houston, United States
[4]Universite de Bordeaux, Bordeaux, France

T05-02A

Microglial phagocytosis is impaired in chronic mouse and human MTLE and correlates with inflammation

S. Beccari [1], O. Abiega[1], I. Diaz-Aparicio[1], L. Zaldumbide[2], L. Galbarriatu[2], A. Marinas[2], M. Maletic-Savatic[3], C. Matute[1], J. M. Encinas[1], A. Sierra[1]
[1]Achucarro Basque Center for Neuroscience, Neuroscience, Zamudio, Spain
[2]University Hospital of Cruces, Bilbao, Spain
[3]Baylor College of Medicine, Texas, United States

T05-03A

Neuronal hyperactivity uncouples microglial phagocytosis and leads to delayed self-clearance and inflammation

I. Diaz Aparicio[1], O. Abiega[1], S. Beccari[1], V. Sánchez Zafra[1], A. Nadjar[2], Q. Leyrolle[2], S. Layé[2], M. Vivanco[3], M. Maletic-Savatic[4], C. Matute[1], J. M. Encinas[1,5], A. Sierra[1,5]
[1]Achucarro Basque Center for Neuroscience, Neuroscience, Zamudio, Spain
[2]Université Bordeaux Segalen, Bordeaux, France
[3]Center for Cooperation in Research BioGune, Derio, Spain
[4]Baylor College of Medicine, Texas, United States
[5]Ikerbasque Foundation, Bilbao, Spain

T05-04A

The synthetic microneurotrophin BNN27 in demyelination: the role of glia in neuroprotection

G. Bonetto[1], I. Charalampopoulos[2], A. Gravanis[2], D. Karagogeos[1]
[1]School of Medicine, University of Crete and Institute of Molecular Biology and Biotechnology (IMBB)-FORTH, Department of Basic Science, Heraklion, Greece
[2]School of Medicine, University of Crete and Institute of Molecular Biology and Biotechnology (IMBB)-FORTH, Department of Pharmacology, Heraklion, Greece

T05-05A

Role of extracellular calcium and mitochondrial oxygen species in psychosine-induced oligodendrocyte cell death

V. Voccoli[1], I. Tonazzini[1,2], M. Caleo[3], M. Cecchini[1]
[1]NEST, Istituto Nanoscienze-CNR and Scuola Normale Superiore, Pisa, Italy

[2]Fondazione Umberto Veronesi, Milano, Italy
[3]CNR Neuroscience Institute, Pisa, Italy

T05-06A

Relationship between glial activation and neuroprotection induced by cannabinoid system modulation in the chronic MPTP mouse model

M. Celorrio[1], E. Rojo-Bustamante[2], M. S. Aymerich[1,2]
[1]Center for Applied Medical Research, Neurosciences, Pamplona, Spain
[2]University of Navarra, Neurosciences, Pamplona, Spain

T05-07A

Reactive Oxygen Species (ROS) Regulate ERK1/2 Signaling and FGF Expression in Retinal Gliosis

T. Cotter[1], F. Doonan[1]
[1]university College Cork, Biochemistry, Cork, Ireland

T05-08A

Dysregulation of the S100B-RAGE pathway in the ALS-linked neuroinflammatory process

N. D'Ambrosi[1], C. Donno[1], F. Michetti[1]
[1]Università Cattolica del Sacro Cuore, Institute of Anatomy and Cell Biology, Rome, Italy

T05-09A

The role of the ERAD pathway in the physiology and disease of peripheral myelination

V. G. Volpi[1], C. Ferri[1], E. Pettinato[1], C. Scapin[1], F. Bianchi[2], U. DelCarro[2], M. Molinari[3], S. Dougan[4], H. Ploegh[4], M. L. Feltri[5], L. Wrabetz[5], M. D'Antonio[1]
[1]San Raffaele Scientific Institute, Division of Genetics and Cell Biology, Milan, Italy
[2]San Raffaele Scientific Institute, Division of Neuroscience, Milan, Italy
[3]Institute for Research in Biomedicine, Bellinzona, Switzerland
[4]Whitehead Institute for Biomedical Research, Cambridge, United States
[5]Hunter James Kelly Research Institute, University of Buffalo School Of Medicine and Biomedical Sciences, Buffalo, United States

T05-10A

Loss of acid sphingomyelinase activity causes changes in retinal microglial morphology and function in mice

K. Dannhausen[1], M. Karlstetter[1], A. Caramoy[1], O. Utermöhlen[1], T. Langmann[1]
[1]University of Cologne, Department of Ophthamology, Cologne, Germany

T05-11A

Targeting myelin as potential interventional strategy for multiple system atrophy

B. Ettle[1], S. Reiprich[2], M. Wegner[2], E. Masliah[3], J. Winkler[1]
[1]University Hospital Erlangen, Molecular Neurology, Erlangen, Germany
[2]Friedrich-Alexander-University Erlangen-Nürnberg, Institute of Biochemistry, Erlangen, Germany
[3]University of California, San Diego, Departments of Neuropathology and Neurosciences, San Diego, United States

T05-12A

Macroautophagy dysfunction in oligodendroglial cells reduces the internalization of α-synuclein

L. Fellner[1], D. Brück[1], G. K. Wenning[1], N. Stefanova[1]
[1]Medical University Innsbruck, Department of Neurology, Innsbruck, Austria

T05-14A

Impact of aging and Alzheimer's disease β-amyloid on microglial autophagy

J. Houtman[1], F. L. Heppner[1], M. Jendrach[1]
[1]Charite Universitätsmedizin Berlin, Department of Neuropathology, Berlin, Germany

T05-15A

GENE DELIVERY TARGETED TO MYELINATING CELLS TO TREAT INHERITED NEUROPATHIES

A. Kagiava[1], I. Sargiannidou[1], S. Bashiardes[2], J. Richter[2], N. Schiza[1], C. Christodoulou[2], K. Kleopa K.A.[3]
[1]The Cyprus Institute of Neurology and Genetics, Neuroscience Laboratory, Nicosia, Cyprus
[2]The Cyprus Institute of Neurology and Genetics, Department of Molecular Virology, Nicosia, Cyprus
[3]The Cyprus Institute of Neurology and Genetics, Neuroscience Laboratory and Neurology Clinics, Nicosia, Cyprus

T05-16A

Consequences of the chronic activation of hemichannels in astrocytes of a murine model of Alzheimer's disease

C. Yi[1], P. Ezan[1], C. Giaume[1], A. Koulakoff[1]
[1]Collège de France, CIRB, Paris, France

T05-17A

Prolonged astrocytes dysfunction and dopaminergic neurons degeneration cause small changes in mitochondrial complex I and IV activity and supercomplexes assembly in substantia nigra

K. Kuter[1], L. Olech[1], N. A. Dencher[1]
[1]Institute of Pharmacology, Polish Academy of Sciences, Neuropsychopharmacology, Kraków, Poland

T05-18A

Expression of PDGFR-β positive NG2 cells in the hippocampus after status epilepticus

J. Kyyriäinen[1], X. E. Ndode-Ekane[1], A. Pitkänen[1]
[1]University of Eastern Finland, A. I. Virtanen Institute, Neurobiology/ Epilepsy Research Laboratory, Kuopio, Finland

T05-19A

ANTIOXIDANT EFFECT OF AN ALPHA-MSH ANALOGUE IN PRIMARY ASTROCYTES CULTURES

M. Lasaga[1], D. Ramirez[1], L. Carniglia[1], J. Saba[1], D. Durand[1], C. Caruso[1]
[1]School of Medicine, University of Buenos Aires, INBIOMED, Buenos Aires, Argentina

T05-20A

Calcineurin-mediated deregulation of astroglial Ca^{2+} signaling by β-amyloid: implications for neuronal dysfunction in Alzheimer's disease

D. Lim[1], A. Grolla[1], V. Ronco[1], E. Marcello[2], A. Iyer[3], M. Di Luca[2], A. Verkhratsky[4], E. Aronica[3], A. A. Genazzani[1]
[1]Università del Piemonte Orientale, Department of Farmaceutical Sciences, Novara, Italy
[2]University of Milan, Department of Pharmacological Sciences, Milan, Italy
[3]University of Amsterdam, Department of (Neuro)Pathology, Amsterdam, Netherlands
[4]University of Manchester, Faculty of Life Sciences, Manchester, United Kingdom

T05-21A

MICROGLIAL LIPID MARKERS BY USING MALDI-IMAGING MASS SPECTROMETRY IN A BASAL FOREBRAIN CHOLINERGIC LESION MODEL

A. Llorente Ovejero[1], J. Martínez-Gardeazabal[1], M. Moreno[1], E. González de San Román[1], I. Manuel [1], M. T. Giralt [1], R. Rodríguez-Puertas[1]
[1]University of the Basque Country, Pharmacology, Leioa, Spain

T05-22A

IFNß treatment as a therapy targeting microglia in a murine model of retinal degeneration

A. Lückoff[1], A. Caramoy[1], M. Karlstetter[1], U. Kalinke[2], T. Langmann[1]
[1]University of Cologne, Ophthalmology, Cologne, Germany
[2]TWINCORE, Centre for Experimental and Clinical Infection Research, a joint venture between the Helmholtz-Centre for Infection Research and the Hannover Medical School, Experimental Infection Research, Hannover, Germany

T05-24A

Dichloroacetate modulation of mitochondrial function reduces toxicity to motorneurons in aged glia from Amyotrophic Lateral Sclerosis rat model

L. Martinez-Palma[1], A. Cassina[2], E. Miquel[1], V. Lagos-Rodriguez[1], R. Radi[2], L. Barbeito[3], P. Cassina[4]
[1]Facultad de Medicina, Universidad de la República, Depto. de Histología y Embriología, Montevideo, Uruguay
[2]Facultad de Medicina, Universidad de la República, Depto. de Bioquímica & CEINBIO, Montevideo, Uruguay
[3]Institut Pasteur de Montevideo, Laboratorio de Neurodegeneración, Montevideo, Uruguay
[4]Facultad de Medicina, Universidad de la República, Depto. de Histología y Embriología & CEINBIO, Montevideo, Uruguay

T05-25A

Reactive astrocytes secrete exosomes that induce motor neuron death. Implications for ALS

E. Miquel[1], P. Cassina[1]
[1]Facultad de Medicina, Universidad de la República, Departamento de Histología y Embriología, Montevideo, Uruguay

T05-27A

GLIA IN PRION DISEASES

M. Monzón[1], R. S. Hernández[1], M. Garcés[1], R. Sarasa[1], J. J. Badiola[1]
[1]University of Zaragoza, Zaragoza, Spain

T05-28A

Activation of the S1P Receptor Attenuates Psychosine-Induced Demyelination and Astrocyte Dysfunction

C. O'Sullivan[1], K. Dev[2]
[1]Trinity College Dublin, Medicine, Dublin, Ireland
[2]Trinity College Dublin, Physiology, Dublin, Ireland

T05-29A

Effect of astrocytes prolonged dysfunction on dopaminergic system degeneration and functional compensation of motor deficits, in relation to early Parkinson's disease

Ů Olech[1], U. Głowacka[1], K. Kuter[1]
[1]Institute of Pharmacology, Polish Academy of Sciences, Neuropsychopharmacology, Kraków, Poland

T05-30A

Expression of Kir4.1 channel in spinal cord oligodendrocytes of the ALS rat model

M. Peric[1], P. Andjus[1], D. Bataveljic[1]
[1]Faculty of Biology, Center for Laser Microscopy, Belgrade, Serbia

T05-31A

MODULATION OF RAS ACTIVITY BY ESTROGEN TAKES PLACE IN BOTH ASTROCYTES AND MICROGLIA. IMPLICATIONS IN DOPAMINERGIC CELL DEGENERATION

A. I. Rodriguez Perez[1,2], A. Borrajo[1,2], R. Valenzuela[1,2], B. Villar-Cheda[1,2], M. Guerra[1,2], J. L. Labandeira-Garcia[1,2]
[1]University of Santiago de Compostela, Morphological Sciences, Santiago de Compostela, Spain
[2]Networking Research Center on Neurodegenerative Diseases (CIBERNED), Spain, Spain

T05-32A

MITOCHONDRIAL DIVISION INHIBITOR 1 INDUCES MITOCHONDRIAL AND ENDOPLASMIC RETICULUM STRESS THAT EXACERBATES EXCITOTOXIC OLIGODENDROCYTE DEATH

A. Ruiz[1,2], E. Alberdi[1,2], C. Matute[1,2]
[1]Achucarro Basque Centre for Neuroscience/University of the Basque Country, Neuroscience, Leioa, Spain
[2]Centro de Investigación Biomédica en Red en Enfermedades Neurodegenerativas (CIBERNED), Leioa, Spain

T05-33A

Indications for Gliosis in Niemann-Pick Type C1 Patient-Specific iPSC Derived Glia Cells

F. Runge[1], M. Trilck[1], A. Rolfs[1], M. Frech[1]
[1]Albrecht-Kossel-Institute for Neurodegeneration, Rostock, Germany

T05-34A

Fumaric acid esters induce hypoxia-induced factor 1α signaling in oligodendrocyte precursor cells

K. Schmauder[1], D. Wiesner[1], H. Bayer[1], A. C. Ludolph[2], A. Witting[1]
[1]Ulm university, experimental neurology, WG neuroinflammation, Ulm, Germany
[2]Ulm university, neurology, Ulm, Germany

T05-35A

Microglia induce neuroprotective astrocytes via $P2Y_1$ receptor down-regulation

Y. Shinozaki[1], K. Tanaka[2], K. Ikenaka[3], S. Koizumi[1]
[1]Univ. yamanashi, Dept. Neuropharmacol., Yamanashi, Japan
[2]Keio university, Tokyo, Japan
[3]NIPS, Aichi, Japan

T05-36A

Study of the CD163 receptor in Parkinson's Disease: A prospective Biomarker?

K. Shrivastava[1], N. Tentillier [1], G. Halliday [2], H. J. Møller [3], M. Romero-Ramos [1]
[1]Aarhus University, NEURODIN, CNS disease modeling group, Aarhus, Denmark
[2]University of New South Wales, School of Medical Sciences, Sydney, Australia
[3]Aarhus University Hospital, Dep. of Clinical Biochemistry, Aarhus, Denmark

T05-37A

Towards the understanding of the molecular mechanism of vanishing white matter

L. Wisse[1], R. Penning[2], J. Kenney[3], M. Bugiani[1], E. Polder[1], C. Van Berkel[1], M. Altelaar[2], C. Proud[3], M. Van der Knaap[1], T. Abbink[1]
[1]VUMC, Pediatrics, Amsterdam, Netherlands
[2]University of Utrecht, Mass Spectrometry and Proteomics group, Utrecht Institute for Pharmaceutical Sciences and Bijvoet Center for Biomolecular Research, Utrecht, Netherlands
[3]University of Southampton, Centre for Biological Sciences, Southampton, United Kingdom

T05-38A

Soluble epoxide hydrolase inhibition provides multi-target therapeutic effects in rats after spinal cord injury

M. Xie[1], X. Chen[1], C. Qin[1], Y. Liu[1], W. Wang[1]
[1]Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Department of Neurology, Wuhan, China

T05-39A

Activation of NO synthase and NO production in crayfish neurons modulates survival and death of satellite glial cells induced by photodynamic impact

V. Kovaleva[1], A. Uzdensky[1]
[1]Southern Federal University, Academy of Biology and Biotechnology, Rostov-on-Don, Russian Federation

T05-40A

A DAP12-dependent signal promotes pro-Inflammatory polarization in microglia following nerve injury and exacerbates degeneration of injured neurons

M. Kobayashi[1], H. Konishi[1,2], T. Takai[3], H. Kiyama[1,2]
[1]Nagoya University Graduate School of Medicine, Department of Functional Anatomy and Neuroscience, Nagoya, Japan
[2]Nagoya University Graduate School of Medicine, CREST, JST, Nagoya, Japan
[3]Tohoku University, Department of Experimental Immunology, Institute of Development, Aging and Cancer, Sendai, Japan

T05-41A

Neurofibrillary degeneration upregulated Hsp27 expression in astrocytes in transgenic rat brain

T. Smolek[1,2], P. Filipčík[1,2], M. Čente[1,2], N. Žilka[1,2], M. Novak[1,2]
[1]Institute of Neuroimmunology, Neuroscience, Bratislava, Slovakia
[2]Axon Neuroscience SE, Bratislava, Slovakia

T05-42A

Understanding ApoD neuroprotective function: ApoD distribution in pH-dependent subdomains of the astroglial lysosomal compartment upon metabolic and oxidative stress

R. Pascua-Maestro[1], D. Sanchez[1], M. Ganfornina[1]
[1]IBGM, Bioquímica y Biología Molecular y Fisiología, Valladolid, Spain

T05-01B

A_{2A} receptor blockade prevents microglia reactivity triggered by elevated hydrostatic pressure

I. Aires[1], R. Boia[1], C. Neves[1], M. Madeira[1], F. Ambrósio[1,2,3], A. R. Santiago[1,2,3]
[1]IBILI - Faculty of Medicine, University of Coimbra, Centre of Ophthalmology and Vision Sciences, Coimbra, Portugal
[2]CNC.IBILI, Coimbra, Portugal
[3]Association for Innovation and Biomedical Research on Light and Image (AIBILI), Coimbra, Portugal

T05-02B

Neuroprotective effects of the nucleoside guanosine under acute hiperamonemia in a rat model of hepatic encephalopathy

P. Arend Guazzelli[1], G. dos Santos[1], L. Paniz[1], M. E. Calcagnotto[1], J. Souza[1], G. Hansel[1], C. Zenki[1], E. Kalinine[1], D. Souza[1], A. de Assis[1]
[1]UFRGS, Bioquímica, Porto Alegre, Brazil

T05-03B

EAE is associated with increased expression of mitochondrial proteins within the dorsal spinal cord: implications for pain in the disease

C. Benson[1,2], M. S. Yousuf[2], B. Kerr[2,3]
[1]University of Alberta, Edmonton, Canada
[2]University of Alberta, Neuroscience and Mental Health Institute, Edmonton, Canada
[3]University of Alberta, Anesthesiology and Pain Medicine, Edmonton, Canada

T05-04B

Blockade of adenosine A_{2A} receptor confers neuroprotection against retinal ischemia-reperfusion injury through the control of neuroinflammation

R. Boia[1], M. Madeira[1], F. Elvas[1], T. Martins[1], F. Ambrósio[1,2,3], A. R. Santiago[1,2,3]
[1]IBILI - Faculty of Medicine, University of Coimbra, Centre of Ophthalmology and Vision Sciences, Coimbra, Portugal
[2]CNC.IBILI, Coimbra, Portugal
[3]Association for Innovation and Biomedical Research on Light and Image (AIBILI), Coimbra, Portugal

T05-05B

Inhibition of Casein Kinase 2 reduces AMPA-induced oligodendrocyte death through JNK signaling and ER stress regulation

M. Canedo[1,2], F. Llavero[1,3], J. Zugaza[1,3], C. Matute[1,2], M. Sánchez-Gómez[1,2]
[1]Achucarro Basque Center for Neuroscience, Zamudio , Spain
[2]Universidad del País Vasco (UPV/EHU), CIBERNED, Departamento de Neurociencias, Leioa, Spain
[3]Universidad del País Vasco (UPV/EHU), Departamento de Genética, Antropología Física y Fisiología Animal, Leioa, Spain

T05-06B

Intravital microglial lysosome imaging

E. Capetillo-Zarate[1,2,3,4], S. Solé Domenech[1,5], D. Cruz[1], C. Matute[2,3], F. R. Maxfield[1]
[1]Weill Cornell Medical College, Department of Biochemistry, New York, United States
[2]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[3]University of the Basque Country UPV/EHU, Department of Neuroscience, Leioa, Spain
[4]IKERBASQUE, Basque Foundation for Science, Bilbao, Spain
[5]University of Lund, Dept. of Experimental Medical Science, Lund, Sweden

T05-07B

Knocking out the Na^+/Ca^{2+} Exchanger NCX3 impairs oligodendrocyte lineage responses, anticipates the onset, and increases the severity of Experimental Autoimmune Encephalomyelitis

A. Casamassa[1], C. La Rocca[2], G. Matarese[3], L. Annunziato[1], F. Boscia[1]
[1]Federico II University of Naples, Dept. Neuroscience, Division of Pharmacology, Naples, Italy
[2]IEOS-CNR, Naples, Italy
[3]University of Salerno, Department of Medicine, Salerno, Italy

T05-08B

A role of SRY on gender-selective modulation of astrocytic cell viability by oxidative stress

K. S. Cho[1], S. M. Yang[1], K. J. Kwon[1], C. Y. Shin[1]
[1]Institute of Biomedical Science and Technology, Konkuk University School of Medicine, Department of Neuroscience, Center for Neuroscience Research, Seoul, Republic of Korea

T05-09B

Neuroprotective effects of guanosine in an glutamatergic excitotoxic condition in hippocampal slices from adult mice

A. de Assis[1], Y. Nonose[1], J. Souza[1], P. Egon Gewehr[1], P. de Freitas[1], L. Pellerin[2], D. O. Souza[1]
[1]Federal University of Rio Grande do Sul, Biochemistry, Porto Alegre, Brazil
[2]University of Lausanne, Physiology, Lausanne, Switzerland

T05-10B

Galactosylceramidase (GALC) enzymatic activity and psychosine accumulation in central and peripheral nervous system cells and tissues from wild-type and Twitcher mice

A. Del Grosso[1,2], S. Antonini[1], I. Tonazzini[1,3], G. Signore[4], M. Cecchini[1,2]
[1]NEST, IstitutoNanoscienze-CNR, Pisa, Italy
[2]NEST, ScuolaNormaleSuperiore, Pisa, Italy
[3]Fondazione Umberto Veronesi, Milano, Italy
[4]Center for Nanotechnology Innovation@NEST, IstitutoItaliano di Tecnologia, Pisa, Italy

T05-11B

Anti-Il34 treatment reduces microglia density

C. Easley-Neal[1], R. Weimer[1], A. Zarrin[1]
[1]Genentech, Biomedical Imaging, South San Francisco, United States

T05-12B

Glial cell-dysfunction and therapeutic potential of trehalose in an early Huntington's disease cellular model

A. GAUDIOSO[1], J. PERUCHO[1], E. EDO[1], M. P. MUÑOZ[1], A. GOMEZ[1], Z. HOZOVA[1], P. G-ROZAS[1], M. A. MENA[1], M. A. FERNANDEZ ESTEVEZ[1], J. A. RODRIGUEZ NAVARRO[1], M. J. CASAREJOS[1]
[1]INSTITUTO RAMON Y CAJAL INVESTIGACIONES SANITARIAS, NEUROBIOLOGIA INVESTIGACION, MADRID, Spain

T05-13B

Schwann Cells Regulate Synaptic Function at Developing Neuromuscular Synapses

D. Heredia[1], A. Scurry[1], C. Feng[1], G. Hennig[1], T. Gould[1]
[1]University of Nevada School of Medicine, Depy Physiology and Cell Biology, Reno, United States

T05-14B

Erythropoietin affects the dynamic brain edema response following experimental traumatic brain injury

E. Gunnarson[1], J. Blixt[2], M. Wanecek[2]
[1]Karolinska Institutet, Dept Women's and Children's Health, Stockholm, Sweden
[2]Karolinska Institutet, Dept of Physiology and Pharmacology, Stockholm, Sweden

T05-15B

Iron loading with ferrocene induces iron mismanagement in organotypic hippocampal slices

S. Healy[1], J. McMahon[1], U. FitzGerald[1]
[1]National University of Ireland, Galway, Multiple Sclerosis Research Group, Galway Neuroscience Centre, Biosciences, Galway, Ireland

T05-16B

Biochemical and pharmacological evidence for the existence of spare glutamate transporters - the concept of transporter reserve

E. HERMANS[1], C. Ingelbrecht[1], N. Desmet[1]
[1]Univesite catholique de Louvain, Institute of Neuroscience, Brussels, Belgium

T05-17B

A methodology for isolation and culture of adult astrocytes for Alzheimer's Disease research

T. Iram[1], D. Frenkel[2]
[1]Tel Aviv University, Tel Aviv, Israel
[2]Tel Aviv University, Sagol School of Neuroscience, Department of Neuroscience, Faculty of Life Siences, Tel Aviv, Israel

T05-20B

Early activation of microglia plays a central role in the disease pathogenesis of progressive myoclonus epilepsy, EPM1

I. Körber[1], T. Joensuu[1], S. Katayama[2], P. Hakala[1], E. Einarsdottir[2], J. Kere[2], A.- E. Lehesjoki[1]
[1]Folkhälsan Institute of Genetics and University of Helsinki, Neuroscience Center, Helsinki, Finland
[2]Karolinska Institutet, Department of Biosciences and Nutrition, Stockholm, Sweden

T05-21B

Influence of autoimmune inflammation on remyelination in cuprizone-induced demyelination

P. Kunz[1], A. Escher[1], A. Barrantes-Freer[1], S. Nessler[1], W. Brück[1], C. Stadelmann-Nessler[1]
[1]University Medical Center Göttingen, Department of Neuropathology, Göttingen, Germany

T05-22B

INHIBITION OF MICROGLIAL ACTIVITY IS A MAJOR MECHANISM IN NEUROPROTECTION OF DOPAMINERGIC NEURONS BY INHIBITION OF RHO-KINASE

J. L. Labandeira-Garcia[1,2], A. Borrajo[1,2], A. I. Rodriguez-Perez[1,2], J. Rodriguez-Pallares[1,2], C. Diaz-Ruiz[1,2], M. J. Guerra[1,2]
[1]University of Santiago de Compostela, Morphological Sciences, Santiago de Compostela, Spain
[2]Networking Research Center on Neurodegenerative Diseases (CIBERNED), Spain, Spain

T05-23B

ALTERATIONS OF ASTROCYTES PROTEOME INDUCED BY BETA-AMYLOID PEPTIDE : IMPLICATIONS FOR ALZHEIMER DISEASE PATHOGENESIS

P. Leprince[1], C. Monoyer[1], A. Bentaib[1]
[1]ULg, GIGA-Neuroscience, Liege, Belgium

T05-24B

LIF Haplodeficiency Desynchronizes Glial Reactivity Prolonging Damage and Functional Deficits After a Concussive Brain Injury

S. Levison[1], M. Goodus[1], N. Ahmed[1], R. Talwar[1], D. Buziashvili[1], K. Pang[1]
[1]Rutgers University-NJMS, Neurology and Neuroscience, Newark, United States

T05-25B

Neuroprotective effect of pre-treatment with vitamin D against homcysteine-induced cellular dysfunction in cerebral cortex slices of rats

A. Longoni[1], J. Kolling [1], C. Siebert [1], J. dos Santos [1], J. Souza[1], L. Pettenuzzo [1], C. A. Gonçalves [1], A. M. de Assis[1], A. T. Wyse[1]
[1]Federal University of Rio Grande do Sul, Biochemistry, Porto Alegre, Brazil

T05-26B

Caffeine attenuates neuroinflammatory response and retinal ganglion cell loss in an ocular hypertension animal model

M. H. Madeira[1,2], A. Ortin-Martinez [3,4], F. M. Nadal-Nicolas [3,4], M. Agudo-Barriuso [3,4], M. Vidal-Sanz[3,4], A. Ambrósio[1,2,5], A. R. Santiago[1,2,5]
[1]Faculty of Medicine, IBILI, University of Coimbra, Combra, Portugal
[2]CNC.IBILI, University of Coimbra, Coimbra, Portugal
[3]Facultad de Medicina, Universidad de Murcia, Murcia, Spain
[4]Instituto Murciano de Investigacion Biosanitaria Hospital Virgen de la Arrixaca (IMIB-Arrixaca), Murcia, Spain
[5]AIBILI, Coimbra, Portugal

T05-27B

Increased vulnerability to excitotoxicity in spermine oxidase overexpressing mouse: astrocyte-dependency

M. Marcoli[1], C. Cervetto[2], L. Vergani[3], M. Passalacqua[4], N. Berretta[5], M. D'Amelio[6,7], G. Maura[2], P. Mariottini[8,9], A. Voci[3], M. Cervelli[8,9]
[1]University of Genova, Departmento of Pharmacy, Genova, Italy
[2]University of Genova, Department of Pharmacy , Genova, Italy
[3]University of Genova, Department of Earth, Environment and Life Sciences, Genova, Italy
[4]University of Genova, Department of Experimental Medicine, Genova, Italy
[5]IRCCS Fondazione Santa Lucia, Laboratory of Experimental Neurology, Roma, Italy
[6]IRCCS Fondazione Santa Lucia, Department of Experimental Neurosciences, Roma, Italy
[7]University of Roma, Medical School Campus Bio-Medico , Roma, Italy
[8]University of Rome "Roma Tre", Department of Sciences, Roma, Italy
[9]Interuniversity Consortium of Structural and Systems Biology, Roma, Italy

T05-28B

Regulation of the fractalkine ligand in human astrocytes

S. O'Sullivan[1], F. Gasparini[2], A. Mir[2], K. Dev[1]
[1]Trinity Biomedical sciences institute, Physiology Department, Dublin, Ireland
[2]Novartis Pharma, Autoimmunity, Transplantation and Inflammatory Disease, Basel, Switzerland

T05-29B

Platelet Derived Growth Factor and Retinal Neuroprotection: the impact on Microglia

A. Osborne[1], R. Chong[1], K. Martin[1]
[1]University of Cambridge, Clinical Neuroscience, Cambridge, United Kingdom

T05-30B

Characterization of astroglial contribution to *C9ORF72* Amyotrophic Lateral Sclerosis (ALS) using patient-derived iPS astrocytes

J. Pham[1], R. Sattler[1,2], J. Rothstein[1,2,3]
[1]Johns Hopkins School of Medicine, Neurology, Baltimore, United States
[2]Johns Hopkins School of Medicine, Brain Science Institute, Baltimore, United States
[3]Johns Hopkins School of Medicine, Neuroscience, Baltimore, United States

T05-31B

The neuroprotective role of microglia against amyloid beta toxicity in organotypic hippocampal slice cultures

M. Richter[1], A. Dolga[2], K. Biber[3], C. Culmsee[2], R. Dodel[4]
[1]Philipps-University Marburg, Department of Neurology, Marburg, Germany
[2]Philipps-University Marburg, Institute for Pharmacology and Clinical Pharmacy, Marburg, Germany
[3]University of Freiburg, Molecular Psychiatry, Freiburg, Germany
[4]Philipps-University Marburg, Department of Neurology, Marburg, Germany

T05-32B

Lysyl oxidase is a novel target of lithium that regulates astrogliogenesis in adult CNS white matter

A. D. Rivera[1], E. Green[1], R. O. Carare[2], A. M. Butt[1]
[1]University of Portsmouth, Institute of Biomedical and Biomolecular Sciences, School of Pharmacy and Biomedical Science, Southsea, United Kingdom
[2]University of Southampton, Clinical and Experimental Sciences, Faculty of Medicine, Southampton, United Kingdom

T05-33B

Specific expression of the neurotoxic microRNA family *let-7* in the cerebrospinal fluid of patients with Alzheimer's disease

R. Rößling[1], K. Derkow[1], C. Schipke[2], J. Bauer[1], C. Krüger[1], O. Peters[3], S. Lehnardt[1,4,5]
[1]Charité - Universitaetsmedizin Berlin, Department of Neurology, Berlin, Germany
[2]Charité - Universitaetsmedizin Berlin, Department of Neuropathology, Berlin, Germany
[3]Charité - Universitaetsmedizin Berlin, Department of Psychiatry, Berlin, Germany
[4]Charité - Universitaetsmedizin Berlin, Cluster of Excellence NeuroCure, Berlin, Germany
[5]Charité - Universitaetsmedizin Berlin, Institute of Cell Biology and Neurobiology, Center for Anatomy, Berlin, Germany

T05-34B

Caffeine modulates retinal neuroinflammation and cell survival in retinal ischemia

A. R. Santiago[1,2,3], R. Boia[1,2], P. Tralhão[1], M. H. Madeira[1,2], F. Elvas[1,3], E. C. Szabó[4], î Tomé[4], A. Ambrósio[1,2,3]
[1]IBILI - Faculty of Medicine, University Coimbra, Coimbra, Portugal
[2]CNC.IBILI, University of Coimbra, Coimbra, Portugal
[3]AIBILI, Coimbra, Portugal
[4]Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal

T05-35B

Mechanism of nimodipine-dependent inhibition of amyloid b stimulated interleukin 1-beta production from microglia

J. M. Sanz[1], P. Chiozzi[1], G. Zuliani[1], F. Di Virgilio[1]
[1]University of Ferrara, Ferrara, Italy

T05-36B

Demyelination induces functional deficit in the non-human primate optic nerve.

N. Sarrazin[1], S. Gilardeau[1], P. Moisonnier[2], S. Rosolen[3], C. Lamirel[4], S. Picaud[3], J. Lorenceau[5], P. Pouget[1], A. Baron-Van Evercooren[1]
[1]Institut du cerveau et de la moelle épinière, ICM-A-IHU, UPMC 06 UM 75,, Paris, France
[2]Ecole Nationale Vétérinaire d'Alfort, Maison- Alfort, France
[3]Institut de la vision, INSERM U968, CNRS UMR 7210, UPMC, Paris, France
[4]Fondation Ophtalmologique Adolphe de Rothschild, Paris, France
[5]Laboratoire des systèmes perceptifs, Département d'Etude Cognitive, Ecole Normale Supérieure, CNRS ULMR 8248, Paris, France

T05-37B

Astrocytes increase fatty acid oxidation following traumatic brain injury in the developing brain

S. Scafidi[1], J. Jernberg[1], C. Bowman[2], M. Wolfgang[2]
[1]Johns Hopkins University School of Medicine, Anesthesiology and Critical Care Medicine, Baltimore, United States
[2]Johns Hopkins University School of Medicine, Biological Chemistry, Baltimore, United States

T05-38B

Low molecular weight polysialic acid shows anti-inflammatory effects on human THP1 macrophages

A. Shahraz[1], J. Kopatz[1], H. Neumann[1]
[1]Institute of Reconstructive Neurobiology, Bonn, Germany

T05-39B

Effect of Long-term Paroxetine Treatment on Ab Pathology and Microgliosis in the $APP_{swe}PS1_{\Delta E9}$ Mouse Model of Alzheimer's Disease

M. Sivasaravanaparan[1], M. Severino[1], L. Ørum Olesen[2], R. Jordan Tenney[1], E. Bouzinova[2], A. Babcock[1], J. Hasselstrøm[3], J. B. Gramsbergen[1], O. Wiborg[2], B. Finsen[1]
[1]University of Southern Denmark, Institute for molecular medicine, Department of neurobiology, Odense C, Denmark
[2]Aarhus University Hospital, Center of Psychiatric research , Risskov, Aarhus, Denmark
[3]Aarhus University, Forensic Chemistry Department, Aarhus, Denmark

T05-40B

Alzheimer's amyloid degradation by secreted lysosomal enzymes

S. Sole Domenech[1,2], D. Wakefield[3], E. Capetillo Gonzalez de Zárate[2,4], D. Cruz[2], B. Baird[3], F. Maxfield[2]
[1]Lund University, Department of Experimental Medical Science, Lund, Sweden

[2]Weill Cornell Medical College, Department of Biochemistry, Maxfield Lab, New York, United States
[3]Cornell University, Department of Chemistry and Chemical Biology, Ithaca, United States
[4]University of the Basque Country, Department of Neuroscience, Leioa, Spain

T05-41B

Traumatic brain injury in the mouse leads to proliferation of oligodendrocyte progenitor cells in important white matter tracts

J. Flygt[1], F. Clausen[1], N. Marklund[1]
[1]Uppsala University, Neuroscience/Neurosurgery, Uppsala, Sweden

T05-42B

siRNA screen of microglia to identify neuroprotective drug targets in Parkinson´s disease

M. Delgado[1], M. Pedreño[1], E. González-Rey[1], V. E. Neubrand[1]
[1]IPBLN - CSIC, Cell Biology and Immunology, Armilla - Granada, Spain

T6 Extracellular matrix and cell adhesion molecules

T06-01A

Astrocytes as a crossroad for plasminogen activation

A. Briens[1], I. Bardou[1], F. Cassé[1,2], D. Vivien[1], F. Docagne[1]
[1]Inserm, Caen, France
[2]CNRS UMR 7275, Institut of Molecular & Cellular Pharmacology, Sophia-Antipolis, France

T06-02A

The expression of a type-4 disintegrin and metalloproteinase with thrombospondin motifs (ADAMTS-4) in the oligodendrocyte lineage

M. Pruvost[1], C. Leonetti[1], E. Maubert[1], E. Emery[1], F. Docagne[1], D. Vivien[1]
[1]INSERM, U919, CAEN, France

T06-01B

Investigation of Oligodendrocyte Differentiation in the Inhibitory Multiple Sclerosis Lesion Microenvironment *In Vitro*

S. Cummings[1], R. Kothary[1]
[1]Ottawa Hospital Research Institute, Regenerative Medicine, Ottawa, Canada

T7 Gene expression and transcription factors

T07-01A

Human Microglia Transcriptome and Cross-species Analysis

T. F. de A. Galatro[1,2], I. R. Holtman[2], N. Brouwer[2], P. Sola[1], G. N. Reis[1], I. D. Vainchtein[2], M. Veras[3], T. Pereira[4], C. Pasqualucci[3], M. C. Sogayar[4], E. W. G. Boddeke[2], S. K. N. Marie[1,4], B. J. L. Eggen[2]

[1]University of São Paulo, School of Medicine, Department of Neurology, Section of Molecular and Cellular Biology, São Paulo, Brazil
[2]University of Groningen, University Medical Center Groningen, Dept of Neuroscience - Section of Medical Physiology, Groningen, Netherlands
[3]University of São Paulo, Department of Pathology, São Paulo, Brazil
[4]University of São Paulo, Institute of Chemistry, Department of Biochemistry, NUCEL, São Paulo, Brazil

T07-02A

Phosphorylation state of ZFP191 regulates maturation of late-stage oligodendrocytes

B. Elbaz[1], J. D. Aker[1], B. Popko[1]
[1]University of Chicago, Department of Neurology, Chicago, United States

T07-03A

Axonal and presynaptic RNAs are synthesized in the nearby glial cells

A. Giuditta[1], C. Cefaliello[1], M. Crispino[1]
[1]Federico II University, Dept. Biology, Naples, Italy

T07-04A

Glia Open Access Database (GOAD): A web-tool to study glia phenotypes in health and disease (www.goad.education)

I. Holtman[1,2], M. Noback[3], M. Bijlsma[3], M. van der Geest[3], K. Duong[3], P. Ketelaars[3], I. Vainchtein[1,2], E. Boddeke[1,2], B. Eggen[1,2]
[1]University Medical Center Groningen, Medical Physiology and Neuroscience, Groningen, Netherlands
[2]University of Groningen, Groningen, Netherlands
[3]Hanze University of Applied Science, School for Life Science and Technology, Groningen, Netherlands

T07-05A

Role of glial NF-kB in a mouse model of Multiple Sclerosis

P. Frambach[1], R. Haenold[2], K.- H. Herrmann[3], J. Reichenbach[3], F. Weih[2], O. W. Witte[1], A. Kretz[1]
[1]Jena University Hospital, Hans Berger Department of Neurology, Jena, Germany
[2]Leibniz Institute for Age Research, Fritz Lipmann Institute (FLI), Immunology Group, Jena, Germany
[3]Jena University Hospital, Institute of Diagnostic and Interventional Radiology I, Medical Physics Group, Jena, Germany

T07-06A

The role of zinc finger transcription factor Zfp276 during glial development

M. Küspert[1], M. Wegner[1]
[1]Medizinische Fakultät der Friedrich-Alexander-Universität Erlangen-Nürnberg, Institut für Biochemie, Erlangen, Germany

T07-07A

Single-cell transcriptomics of the oligodendrocyte lineage in the mouse brain

S. Marques[1], A. Zeisel[1], S. Samudyata[1], D. Vanichkina[2], A. Munoz Manchado[1], S. Codeluppi[1], R. Taft[2], J. Hjerling-Leffler[1], S. Linnarsson[1], G. Castelo-Branco[1]
[1]Karolinska Institutet, Department Medical Biochemistry and Biophysics, Stockholm, Sweden
[2]University of Queensland, Institute for Molecular Bioscience, Brisbane, Australia

T07-08A

Sox2 beyond its stem cell role - New functions in oligodendroglial differentiation

S. Reiprich[1], S. A. Hoffmann[1], D. Hos[1], M. Küspert[1], R. A. Lang[2], R. Lovell-Badge[3], M. Wegner[1]
[1]Universität Erlangen-Nürnberg, Department of Biochemistry, Erlangen, Germany
[2]Cincinnati Childrens Hospital Research Foundation, Cincinnati, United States
[3]MRC National Institute for Medical Research, London, United Kingdom

T07-09A

Microglial transcriptome diversity in the healthy adult brain reveals regional heterogeneity in immunoregulatory and metabolic function and selective sensitivity to ageing

K. Renault[1], T. Michoel[1], M. Karavalos[1], M. Stevens[1], T. Freeman[1], K. Summers[1], B. McColl[1]
[1]The Roslin Institute (University of Edinburgh), Edinburgh, United Kingdom

T07-10A

Role of Inhibitor of DNA binding 4 (Id4) in adult neurogenesis

B. Rocamonde Esteve[1], S. Lepannetier[1], V. Herranz Pérez[2], J. García Verdugo[2], E. Huillard[1]
[1]Institute du Cerveau et de la Moelle Épinière, Paris, France
[2]Instituto Cavanilles de Biodiversidad y Biología Evolutiva, Paterna, Spain

T07-11A

AAV-MEDIATED GENE THERAPY IN DYSTROPHIN-Dp71 DEFICIENT MOUSE LEADS TO BLOOD-RETINAL BARRIER RESTORATION

O. VACCA[1,2,3], B. EL MATHARI[1,2,3], H. CHARLES-MESSANCE[1,2,3], A. SENE[1,2,3], P. BARBE[1,2,3], S. FOUQUET[1,2,3], M. PAQUES[1,4,2,3], J.- A. SAHEL[1,4,2,3], R. TADAYONI[1,5,2,3], D. DALKARA[1,2,3], A. RENDON[1,2,3]
[1]Sorbonne Universités, UPMC Univ Paris 06, UMR_S 968, Institut de la Vision, PARIS, France
[2]INSERM, U968, Paris, France
[3]CNRS, UMR_7210, PARIS, France
[4]CHNO des Quinze-Vingts, DHU ViewMaintain, INSERM-DHOS CIC 1423, PARIS, France
[5]Hôpital Lariboisière, Ophthalmology, PARIS, France

T07-12A

Increased Sox10 Levels Directly Convert Satellite Glia into Oligodendrocyte-like Cells In Vivo

A. Wegener*[1], M. Weider*[1], C. Schmitt[1], M. Küspert[1], S. Hillgärtner[1], M. R. Bösl[2], I. Hermans-Borgmeyer[3], B. Nait-Oumesmar[4], M. Wegner[1]
[1]Institut für Biochemie, Emil-Fischer-Zentrum, Friedrich-Alexander-Universität Erlangen- Nürnberg, Erlangen, Germany
[2]Experimentelle Biomedizin, Rudolf-Virchow-Zentrum, Universitätsklinikum Würzburg, Würzburg, Germany
[3]ZMNH, Universitätsklinikum Eppendorf, Hamburg, Germany
[4]Institut du Cerveau et de la Moelle Epinière, ICM, Inserm U1127, Université Pierre et Marie Curie, Sorbonne Paris Cité, UMR-S1127, CNRS UMR 7225, Paris, France

T07-13A

The Role of FoxO3a in Oligodendrocyte Precursor Cell Differentiation

S. Ali Abdulla[1], Y. Syed[1], A. Amaral[1], M. Kotter[1]
[1]University of Cambridge, Cambridge, United Kingdom

T07-01B

Deciphering the role of *Etv5* in neural crest progenitor development and Schwann cell fate specification

A. Balakrishnan[1,2,3], Y. Touahri[1,2,3], D. Zinyk[1,2,3], J. Biernaskie[2,3,4], C. Schuurmans[1,2,3]
[1]University of Calgary, Department of Biochemistry and Molecular Biology, Calgary, Canada
[2]Hotchkiss Brain Institute, Calgary, Canada
[3]Alberta Children's Hospital Research Institute, Calgary, Canada
[4]University of Calgary, Comparative Biology and Experimental Medicine, Calgary, Canada

T07-02B

DIRECT CONVERSION OF FIBROBLASTS INTO FUNCTIONAL ASTROCYTES BY DEFINED TRANSCRIPTION FACTORS

V. Broccoli[1], M. Caiazzo[1], S. Giannelli[1], P. Valente[1], G. Lignani[1], A. Sessa[1], F. Benfenati[1]
[1]San Raffaele Scientific Institute, Division of Neuroscience, Milan, Italy

T07-03B

Brca1 is expressed in human microglia and is deregulated in human and animal model of ALS

H. Noristani[1], J. C. Sabourin[1], Y. Gerber[1], M. Teigell[1], A. Sommacal[2], M. dM Vivanco[3], M. Webber[2], F. Perrin[1,4,5]
[1]INSERM U1051, Institute for Neurosciences, Montpellier, France
[2]Kantonspital St. Gallen. FachMuskelzentrum/, ALS clinic, St. Gallen, Switzerland
[3]CIC bioGUNE, Cell Biology & Stem Cells Unit, Technological Park of Bizkaia, Derio, Spain
[4]Integrative Biology of Neuroregeneration", Department "Biologie-Mécanismes du Vivant" Faculty of Science, University of Montpellier, Montpellier, France
[5]Integrative Biology of Neurodegeneration", IKERBASQUE Basque Foundation for Science , Neuroscience Department, University of the Basque Country, Bilbao, Spain

T07-04B

Rapid and highly efficient induction of oligodendrocytes from human pluripotent stem cells by forward programming

M. Pawlowski[1], D. Ortmann[2], A. Bertero[2], L. Vallier[2], M. Kotter[1]
[1]Cambridge Stem Cell Institute, Anne McLaren Laboratory, Clinical Neurosciences, Cambridge, United Kingdom
[2]Cambridge Stem Cell Institute, Anne McLaren Laboratory, Surgery, Cambridge, United Kingdom

T07-05B

IDENTIFICATION OF A NEW POTENTIAL MARKER FOR A SUBPOPULATION OF ASTROCYTES

A. Quiroga[1], W. D. Richardson[1], H. Li[1]
[1]Wolfson Institute for Biomedical Research-University College London, London, United Kingdom

T07-06B

Interactions of Sox10 with TGF-B SIGNALING in Schwann cells

J. Rodríguez-Molina[1], C. Zhang[1], J. Svaren[1]
[1]University of Wisconsin - Madison, Comparative Biosciences, Madison, United States

T07-07B

Impact of transcription factor Sox13 on oligodendrocyte development in the embryonic mouse spinal cord

T. Baroti[1], E. Sock[1], M. Wegner[1], C. Stolt[1]
[1]Friedrich-Alexander-Universität Erlangen-Nürnberg, Institut für Biochemie, Erlangen, Germany

T07-08B

Astrocyte-specific transcriptional response to glucocorticoid receptor stimulation - metabolic implications

M. Tertil[1], S. Golda[1], A. Wawrzczak-Bargiela[1], M. Korostynski[1], M. Piechota[1], M. Slezak[1], R. Przewlocki[1]
[1]Institute of Pharmacology PAS, Department of Molecular Neuropharmacology, Krakow, Poland

T07-09B

Local self-renewing of microglia is dependent on Interleukin-1 signaling

J. Bruttger[1], K. Karram[1], S. Woertge[1], T. Regen[1], F. Marini[2], N. Hoppmann[3], M. Klein[4], T. Blank[5], S. Yona[6], Y. Wolf[6], E. Pinteaux[7], M. Mack[8], W. Müller[7], F. Zipp[3], H. Binder[2], T. Bopp[4], M. Prinz[5], S. Jung[6], A. Waisman[1]
[1]Universitätsmedinzn Mainz, Institut for Molecular Medicine, Mainz, Germany
[2]Universitätsmedizin Mainz, Institute for Medical Biometry, Epidemiology and Informatics, Mainz, Germany
[3]Universitätsmedizin Mainz, Department of Neurology, Mainz, Germany
[4]Universitätsmedizin Mainz, Institute for Immunology, Mainz, Germany
[5]University of Freiburg, Department of Neuropathology & BIOSS Centre for Biological Signalling Studies, Freiburg, Germany
[6]The Weizmann Institute of Science, Department of Immunology, Rehovot, Israel
[7]University of Manchester, Faculty of Life Science, Manchester, United Kingdom
[8]Universitätsklinikum Regensburg, Depatment for Internal Medicine, Regensburg, Germany

T07-10B

Astrocytic CREB is a therapeutic target in acute brain injury

L. Pardo Fernández[1], A. Schlüter[2], L. M. Valor[3], A. Barco[3], M. Giralt[4], J. Hidalgo[4], Z. Zhao[5], P. Jia[5], M. Jové[6], M. Portero-Otin[6], M. Ruiz[2], L. Giménez-Llort[7], R. Masgrau[8], A. Pujol[2,9], E. Galea[8,9]
[1]Universidad Autónoma de Barcelona, Bioquímica y Biología molecular, Bellaterra (Cerdanyola del Vallès), Spain
[2]Institut d'investigació biomédica de Bellvitge (IDIBELL), Barcelona, Spain
[3]Instituto de Neurociencias de Alicante, Alicante, Spain
[4]Institut de Neurociències and Department of Cellular Biology, Physiology and Immunology, Bellaterra, Spain
[5]Departments of Biomedical Informatics and Psychiatry, Vanderbilt University School of Medicine, Nashville, United States
[6]Department of Experimental Medicine, University of Lleida-Biomedical Research Institute of Lleida, Lleida, Spain
[7]Institut de Neurociènces and Department of Psychiatry and Forensic Medicine, School of Medicine, Universitat Autònoma de Barcelona, Bellaterra, Spain
[8]Institut de Neurociències and Unitat de Bioquímica, Bellaterra, Spain
[9]Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain

T07-11B

Development and validation of flexible system for selective genetic manipulation of astrocytes in wild-type mouse.

M. Slezak[1,2], F. De Vin[1,2], A. Vandebroek[1,2], M. Holt[1,2]
[1]KU Leuven, Department of Human Genetics, Leuven, Belgium
[2]VIB, Laboratory of Glia Biology, Leuven, Belgium

T07-12B

Definition of the microglial activome from individual mice revealed by RNAseq

H. Hirbec[1], C. Roubert[2], I. Richard[3], C. Marmai[1], A. Esclangon[2], M. Didier[2], N. Civic[4], R. Peyroutou[1], M. Boulpicante[1], C. Rey[5], M. Docquier[4], F. Rassendren[1]
[1]IGF, Montpellier, France
[2]Sanofi, Montpellier, France
[3]Inserm U844, Montpellier, France
[4]University of Geneva, iGE3 Genomics Plateform, Geneva, France
[5]ProfilExpert Platform, Lyon, France

T07-13B

Targeting microglia using the specific transcription factor Sall1

A. Buttgereit[1], I. Lelios[1], R. Nishinakamura[2], B. Becher[1], M. Greter[1]
[1]University of Zurich, Institute of Experimental Immunology, Zurich, Switzerland
[2]Kumamoto University, Institute of Molecular Embryology and Genetics, Kumamoto, Japan

T8 Glial-neuronal interactions

T08-01A

Role of astroglia (pituicytes) in the hypothalamo-neurohypophyseal system - a major brain-to-blood neuro-endocrine interface

S. Anbalagan[1], J. Biran[1], L. Gordon[1], M. Gliksberg[1], E. Wircer[1], J. Blechman[1], G. Levkowitz[1]
[1]Weizmann Institute of Science, Dept. of Molecular Cell Biology, Rehovot, Israel

T08-02A

NEURON AND GLIA INTERACTION REGULATES $GABA_A$ RECEPTOR EXPRESSION IN THE OLIGODENDROCYTE MEMBRANE

R. Arellano[1], M. V. Sanchez-Gomez[2], E. Alberdi[2], M. Canedo[2], A. Palomino[2], A. Perez-Samartin[2], C. Matute[2]
[1]Universidad Nacional Autonoma de Mexico INB, Neurofisiologia Celular, Queretaro, Mexico
[2]Achucarro Basque Center for Neuroscience, CIBERNED y Departamento de Neurociencias, Universidad del País Vasco, Neurociencias, Leioa, Spain

T08-03A

Astrocytic activity controls neuronal excitability upon brain ischemia

K. Beppu[1], K. Matsui[1]
[1]Tohoku University, Graduate School of Medicine, Sendai, Japan

T08-04A

Analysis of purinergic P2Y1 receptors in cortical astrocytes and cerebellar Bergmann glia

C. Bohn[1], H. Jahn[1], X. Bai[1], A. Scheller[1], F. Kirchhoff[1]
[1]University of Saarland, Molecular Physiology, Homburg, Germany

T08-05A

Fractalkine-receptor knock-out mice show unaffected depressive-like behavior and reduced microglia hyper-ramification after chronic-stress exposure

S. Hellwig[1,2], S. Brioschi[1], S. Dieni[1], L. Frings[2,3], A. Masuch[1], T. Blank[4], K. Biber[1,5]
[1]University Hospital Freiburg, Department of Psychiatry and Psychotherapy, Freiburg, Germany
[2]University Hospital Freiburg, Centre of Geriatrics and Gerontology, Freiburg, Germany
[3]University Hospital Freiburg, Department of Nuclear Medicine, Freiburg, Germany
[4]University Hospital Freiburg, Department of Neuropathology, Freiburg, Germany
[5]University Medical Center Groningen, Department for Neuroscience, Groningen, The Netherlands

T08-06A

D-SERINE ACTING ON RAPHE NUCLEUS AND VENTRAL RESPIRATORY COLUMN CAN MEDIATE RESPIRATORY RESPONSES INDUCED BY HYPERCAPNIA IN NEONATAL MICE

J. Eugenin[1], S. Beltrán-Castillo[1], I. Llona[1], G. Zúñiga[1], R. von Bernhardi[2]
[1]USACH, Lab Sistemas Neurales, Santiago, Chile
[2]P. Universidad Católica de Chile, Neurology, CIM, Santiago, Chile

T08-07A

Neuronal ndrg4 is essential for Nodes of Ranvier organization and myelination in zebrafish

L. Fontenas[1], B. Chambraud[1], M. Tawk[1]
[1]INSERM / Université Paris Sud, U 1195, Le Kremlin Bicetre, France

T08-08A

Astroglial-mediated remodeling of the interhemispheric midline is exclusive to eutherian mammals and underlies the formation of the corpus callosum

I. Gobius[1], L. Morcom[1], R. Suarez[1], J. Bunt[1], E. Sherr[2], L. Richards[1]
[1]Queensland Brain Institute, The University of Queensland, Brisbane, Australia, Australia
[2]University of California, San Francisco, Department of Neurology, San Francisco, United States

T08-09A

Glutamatergic astrocyte-neuron signaling is disrupted in Fragile X Syndrome

R. Gómez[1], A. Araque[1,2]
[1]Instituto Cajal (CSIC), Madrid, Spain
[2]University of Minnesota, Dept. Neuroscience, Minneapolis, United States

T08-10A

VAMP expression in healthy and gliotic murine Müller glia cells

A. Hauser[1], A. Barthelemy[2], V. Demais[2], F. W. Pfrieger[2], A. Grosche[1]
[1]Institute of Human Genetics, Regensburg, Germany
[2]Institute of Cellular and Integrative Neurosciences, Strasbourg, France

T08-11A

On the role of Ca^{2+} in apoptosis and necrosis of distant glial cells surrounding the axotomized sensory neuron in the crayfish stretch receptor

A. Haytin[1], M. Rudkovskii[1], A. Uzdensky[1]
[1]Academy of Biology and Biotechnology, Southern Federal University, Rostov-on-Don, Russian Federation

T08-12A

Boosting astrocyte-neuron signaling by optical tools

A. Hernández Vivanco[1], S. Mederos Crespo[1], G. Perea Parrilla[1]
[1]Instituto Cajal, Madrid, Spain

T08-13A

Investigation of a glial-specific G-Protein-Coupled Receptor

S. Jolly[1], N. Bazargani[2], N. Pringle[1], D. Attwell[2], W. D. Richardson[1], H. Li[1]
[1]University College London, WIBR, London, United Kingdom
[2]University College London, Department of Neuroscience, Physiology and Pharmacology, London, United Kingdom

T08-14A

Astrocytes limit epileptiform discharge duration and restrict neuronal sodium loads

C. Karus[1], M. A. Mondragao[1], D. Ziemens[1], C. R. Rose[1]
[1]Heinrich Heine University Düsseldorf, Institute of Neurobiology, Düsseldorf, Germany

T08-15A

Lipopolysaccharide stimulated microglia up-regulate Na^+current density in cultured hippocampal neurons

L. Klapal[1], B. A. Igelhorst[1], I. D. Dietzel[1]
[1]Ruhr-Universität Bochum, Biochemistry II, Electrobiochemistry of Neural Cells, Bochum, Germany

T08-16A

Glial phagocytosis of apoptotic neurons in developing and mature CNS

E. Kurant[1], B. Shklyar[1], J. Shklover[1], K. Mishnaevski[1], F. Levy-Adam[1]
[1]Technion, Genetics and Developmental biology, Haifa, Israel

T08-17A

Glutamate-induced astrocytic $[Na^+]_i$ elevation - a mechanism to increase K^+ clearance via the Na^+/K^+-ATPase?

B. R. Larsen[1], A. Stoica[1], R. Holm[2], B. Vilsen[2], N. MacAulay[1]
[1]University of Copenhagen, Department of Cellular and Molecular Medicine, Copenhagen N, Denmark
[2]Aarhus University, Department of Biomedicine, Aarhus, Denmark

T08-18A

Axo-glia interaction preceding CNS myelination is regulated by bidirectional Eph-ephrin signaling

C. Linneberg[1], M. Harboe[1], L. Laursen[1]
[1]Aarhus Univeristy, Department of Molecularbiology and Genetics, Aarhus, Denmark

T08-19A

Extracellular Vesicles (EVs) from leech microglia: a tool for understanding the dialog with damaged neurons

F. Le Marrec-Croq[1], C. Van Camp[1], F. Drago[1], C. Slomianny[2], P.- E. Sautiere[1], I. Prada[3], C. Verderio[3], J. Vizioli[1], C. Lefebvre[1]
[1]Université de Lille, Sciences et Technologies, Laboratoire PRISM, Inserm U1192, Villeneuve d'Ascq, France
[2]Université de Lille, Sciences et Technologies, Laboratoire Physiologie Cellulaire, Inserm U1003, Villeneuve d'Ascq, France
[3]CNR, Neuroscience Institute, Milano, Italy

T08-20A

Astrocytic lactate release mediated by NH_4^+-dependent mitochondrial pyruvate shunting

R. Lerchundi[1,2], I. Fernández-Moncada[1,2], Y. Contreras-Baeza [1,2], T. Sotelo-Hitchfeld[1,2], P. Mächler[3], B. Weber[3], L. F. Barros[1]
[1]Centro de Estudios Científicos, Biological Laboratory, Valdivia, Chile
[2]Universidad Austral de Chile, Valdivia, Chile
[3]University of Zurich, Institute of Pharmacology and Toxicology, Zurich, Switzerland

T08-21A

Cell-type specific responses to antidepressants - the epigenetic makeup of the glia-neuron interface

M. Jakovcevski[1], V. Malik[2,1], I. Neumann[3], R. Rupprecht[1,4], B. Di Benedetto[2,1]
[1]Max Planck Institute of Psychiatry, Munich, Germany
[2]Universitätsklinikum Regensburg , Department of Psychiatry and Psychotherapy; RG DiBenedetto, Regensburg, Germany
[3]University of Regensburg , Department of Neurobiology, Regensburg, Germany
[4]Universitätsklinikum Regensburg, Department of Psychiatry and Psychotherapy, Regensburg, Germany

T08-22A

CIRCUIT-SPECIFIC SIGNALING IN ASTROCYTE-NEURON NETWORKS IN BASAL GANGLIA PATHWAYS

R. Martín[1], R. Bajo-Grañeras[1], R. Moratalla[1], G. Perea[1], A. Araque[2]
[1]Instituto Cajal (CSIC), Madrid, Spain
[2]University of Minnesota, Department of Neuroscience, Minneapolis, United States

T08-23A

CHANGES OF MICRORNA EXPRESSION IN GLIAL CELLS OF THE AMBLYOPIC VISUAL CORTEX SUBMITTED TO MODIFIED GEOMAGNETIC FIELDS

L. Martínez Millán[1], F. Zallo Díaz[2], A. Portero Landa[2]
[1]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[2]University of The Basque Country, Departament of Neuroscience, Lejona, Spain

T08-24A

Microglia contribute to dendritic spine formation in postnatal mice somatosensory cortex

A. Miyamoto[1], H. Wake[1,2], H. Murakoshi[2,3], K. Eto[1], J. Nabekura[1,2,3]
[1]National Institute for Physiological Sciences, Department of Developmental Physiology, Aichi, Japan
[2]SOKENDAI (The Graduate University for Advanced Studies), Department of Physiology, Kanagawa, Japan
[3]National Institute for Physiological Sciences, Supportive Center for Brain Research, Aichi, Japan

T08-25A

Astrocyte molecular and functional heterogeneity in neural circuit formation

A. V. Molofsky[1], J. Miller[1], K. Kelley[2], E. Ullian[2,3], D. Rowitch[2]
[1]University of California-San Francisco, Department of Psychiatry, San Francisco, CA, United States
[2]University of California-San Francisco, Pediatrics, San Francisco, CA, United States
[3]University of California-San Francisco, San Francisco, CA, United States

T08-26A

Energy metabolism of microglial cells

A. Nagy[1], E. Torok[1], R. Fekete[2], Z. Kornyei[2], V. Adam-Vizi[1], L. Tretter[1]
[1]Semmelweis University, Department of Medical Biochemistry and MTA-SE, Laboratory for Neurobiochemistry, Budapest, Hungary
[2]Institute of Experimental Medicine of the Hungarian Academy of Sciences, Budapest, Hungary

T08-27A

Radachlorin as a glia-specific photosensitizer

M. Neginskaya[1], E. Berezhnaya[1], A. Uzdensky[1]
[1]Southern Federal University, Academy of Biology and Biotechnology, Rostov-on-Don, Russian Federation

T08-28A

Glioendocrine system of thyroid hormone and its effect on microglia

M. Noda[1], T. Yoahimura[1], L. Jiadai[1], Y. Yoshii[1]
[1]Kyushu University, Grad. Sch. Pharm. Sci., Fukuoka, Japan

T08-29A

Effect of human pluripotent stem cell -derived astrocytes in the development and functionality of neuronal networks

T. Paavilainen[1], D. Fayuk[1], A. Pelkonen[1], M. Mäkinen[1], L. Ylä-Outinen[1], S. Narkilahti[1]
[1]University of Tampere, BioMediTech/Neuro Group, Tampere, Finland

T08-30A

Enhanced Astroglial GABA Uptake attenuates Tonic $GABA_A$ Inhibition of Pre-sympathetic Hypothalamic Paraventricular Nucleus Neurons in Heart Failure

S. Pandit[1], J. B. Park[1]
[1]Chungnam Nat`l University, School of Medicine, Department of Physiology, Daejeon, Republic of Korea

T08-31A

Role of astrocytes in functional maturation of human neural network

A. Pelkonen[1], T. Paavilainen[1], D. Fayuk[1], M. Mäkinen[1], L. Ylä-Outinen[1], S. Narkilahti[1]
[1]University of Tampere, BioMediTech/NeuroGroup, Tampere, Finland

T08-32A

Modeling neuron-astrocyte interactions at network level

E. Räisänen[1], K. Lenk[1], J. Hyttinen[1]
[1]Tampere Univeristy of Technology, BioMediTech, Tampere, Finland

T08-33A

Microglial CX3CR1 deficiency delays the maturation of adult born neurons in the olfactory bulb

R. Reshef[1], N. Harrari[1], A. Mizrahi[1], R. Yirmiya[1]
[1]The Hebrew University of Jerusalem, Jerusalem, Israel

T08-34A

Glial cells influence synaptic plasticity of competing nerve terminals and alter the outcome of synaptic competition at the mammalian neuromuscular junction

R. Robitaille[1], H. Darabid[1]
[1]Université de Montréal, Neurosciences, Montreal, Canada

T08-35A

Imaging dynamics of energy metabolites in hippocampal astrocytes during neuronal activity

I. Ruminot[1], J. Schmälzle [1], H. Heidtmann[1], L. F. Barros[2], J. W. Deitmer[1]
[1]University of Kaiserslautern, Department of General Zoology, Kaiserslautern, Germany
[2]Centro de Estudios Científicos, Biology, Valdivia, Chile, Chile

T08-36A

Analysis of astrocyte-specific and inducible $GABA_B$ receptor deletion in the mouse brain

L. Schlosser[1], H. M. Jahn[1], X. Bai[1], A. Scheller[1], F. Kirchhoff[1]
[1]University of Saarland, Molecular Physiology, Homburg, Germany

T08-37A

Localization of several acid-base regulating, lactate transporting proteins and Carbonic Anhydrase II in astrocytes & neurons in mouse hippocampus

S. Schütte[1], A. Weise[1]
[1]RUB, Cellphysiology, Bochum, Germany

T08-38A

A nonsense point mutation in a novel SLC25 family member of mitochondrial carriers causes severe recessive neurological disease and epilepsy in mice

A. SEGKLIA[1], M.- E. TERZENIDOU[2], F. PAPASTEFANAKI[1], E. DOUNI[2], R. MATSAS[1]
[1]HELLENIC PASTEUR INSTITUTE, LABORATORY OF CELLULAR AND MOLECULAR NEUROBIOLOGY, ATHENS, Greece
[2]B.S.R.C. Alexander Fleming, Athens, Greece

T08-39A

The role of glial lipid metabolism in synaptic plasticity

A.- L. van Deijk[1], N. Camargo[1], T. Heistek[2], J. Timmerman[2], H. Mansvelder[2], J. Brouwers[3], D. Gutmann[4], L. Broersen[5], A. Smit[1], M. Verheijen[1]
[1]Center for Neurogenomics and Cognitive Research, Neuroscience Campus Amsterdam, VU University, Dept. of Molecular and Cellular Neurobiology, Amsterdam, Netherlands
[2]Center for Neurogenomics and Cognitive Research, Neuroscience Campus Amsterdam, VU University, Dept. of Integrative Neurophysiology, Amsterdam, Netherlands
[3]Veterinary Medicine, Utrecht University, Dept. of Biochemistry and Cell Biology, Utrecht, Netherlands
[4]Washington University School of Medicine, Dept. of Neurology, St. Louis, United States
[5]Nutricia Advanced Medical Nutrition, Danone Research, Utrecht, Netherlands

T08-40A

BDNF effect on LTP is modulated by astrocytes in rat hippocampus

S. Vaz[1], A. M. Sebastião[1]
[1]University of Lisbon, IMM and Faculty of Medicine, Lisboa, Portugal

T08-41A

Revealing the locally translated mRNA repertoire at synapses between neurons and NG2-expressing glial cells

H. Yigit[1], S. Schick[2], A. Pataskar[2], J. Hartwig[2], V. Tiwari[2], J. Trotter[1]
[1]Mainz University, Molecular Cell Biology, Mainz, Germany
[2]nstitute of Molecular Biology, Mainz, Germany

T08-42A

Disturbances in microglial functioning underlie stress-induced depressive-like behavior and suppressed neurogenesis

T. Kreisel[1], M. Frank[2], T. Licht[1], R. Reshf[1], O. Ben-Menachem-Zidon[1], S. Maier[2], R. Yirmiya[1]
[1]The Hebrew University of Jerusalem, Jerusalem, Israel
[2]University of Colorado, Boulder, United States

T08-43A

Contactin-2/TAG-1 affects oligodendrocyte populations and CNS myelination

L. Zoupi[1], M. Savvaki[1], A. Kalemaki[1], I. Kalafatakis[1], D. Karagogeos[1]
[1]Medical School, University of Crete & I.M.B.B.- FoRTH, Heraklion, Greece

T08-44A

Astrocytic networks are determinant for generation of rhythmic bursting by assemblies of trigeminal neurons involved in mastication

A. Kolta[1], S. Condamine[1], P. Morquette[1], D. Verdier[1]
[1]University of Montreal, Neuroscience, Montreal, Canada

T08-45A

Investigating glia-neuron cross-talk during Parkinson´s disease pathogenesis using patient-specific iPSC-derived cells

A. di Domenico[1], N. Bayó-Puxan[1], Y. Richaud[2], A. Raya[2], A. Consiglio[1]
[1]Institute of Biomedicine of the University of Barcelona, Barcelona, Spain
[2]Institute for Bioengineering of Catalonia, Barcelona, Spain

T08-46A

Myelin and cognition: beyond conduction velocity

L. de Hoz[1], S. Moore[1], K.- A. Nave[1]
[1]Max Plank Institue of Experimental Medicine, Neurogenetics, Goettigen, Germany

T08-47A

Cerebral glucose uptake measurements on a single cell level reveal higher transport in astrocytes *in vivo*

M. Wyss[1,2], P. Mächler[1,2], R. Gutierrez[3], M. Zünd[1,2], S. Lengacher[4], B. Schneider[4], P. Magistretti[4,5], F. Barros[3], B. Weber[1,2]
[1]University of Zurich, Institute of Pharmacology and Toxicology, Zürich, Switzerland
[2]Neuroscience Center Zürich, Zürich, Switzerland
[3]3Centro de Estudios Cientificos (CECs), Valdivia, Chile
[4]Ecole Polytechnique Federale de Lausanne, Brain Mind Institute, Lausanne, Switzerland
[5]KAUST, Division of Biological and Environmental Sciences and Engineering, Saudi Arabia

T08-01B

GLAST-CreERT2/KOeif2b a relevant mouse model for the CACH/VWM leukodystrophy

R. Abdel Rassoul[1]
[1]INERM, Paris, France

T08-02B

OPPOSING EFFECTS OF A TOLL-LIKE RECEPTOR 9 ANTAGONIST ON SPINAL CORD NEURONAL VIABILITY THROUGH DIRECT VERSUS ASTROCYTE-MEDIATED ACTIONS

C. Acioglu[1,2], A. T. Baykal[3], R. F. Heary[1], S. Elkabes[1]
[1]Rutgers, The State University of New New Jersey, New Jersey Medical School, Department of Neurological Surgery, Reynolds Family Spine Laboratory, New Jersey, United States
[2]Kilis 7 Aralik University, Faculty of Arts and Sciences, Department of Molecular Biology and Genetics, Kilis, Turkey
[3]Istanbul Medipol University, School of Medicine, Department of Medical Biochemistry, Istanbul, Turkey

T08-03B

A differential astrocyte reactivity is induced by omega-3 fatty acid deficiency in nuclei of rat basal ganglia

B. Andrade-da-Costa[1], D. Santana[1], H. Cardoso[1], C. Pimentel[1], E. Santos-Junior[1], P. Passos[1], M. Rodrigues[1]
[1]Federal University of Pernambuco, Physiology and Pharmacology Department, Recife, Brazil

T08-04B

Mouse embryo dorsal root ganglia neuron survival was decreased in the absence of microglia

M. Angelim[1], L. Maia[1], A. Amancio-dos-Santos[2], C. Mouffle[1], E. Bullier[1], F. Guinoux[3], H. Le Corronc [1], P. Legendre[1]
[1]INSERM U 1130, CNRS UMR 1130 UPMC/NPS, Team Developpement Spinal Cord Organization, Paris, France
[2]Federal University of Pernambuco, neurophysiology and pharmacology laboratory, REcife, Brazil
[3]Agency for Science, Technology and Research , Singapore Immunology Network, Singapore, Singapore

T08-05B

How does neuronal activity regulate the formation and function of myelinated axons *in vivo*?

M. Baraban[1], S. Mensch[1], D. Lyons[1]
[1]Edinburgh University, Centre for Neuroregeneration, Edinburgh, United Kingdom

T08-06B

Glial cells in the enteric nervous system are sensitive to synaptic and non-synaptic neuronal activity

W. Boesmans[1], M. M. Hao[1], V. Pachnis[2], P. Vanden Berghe[1]
[1]KU Leuven, Laboratory for Enteric NeuroScience, TARGID, Leuven, Belgium
[2]MRC National Institute for Medical Research (NIMR), London, United Kingdom

T08-07B

Functional GABA-A receptors in Schwann Cells are cross-regulated in GABA-B Null mice

L. F. Castelnovo[1], S. Melfi[1], V. Bonalume[1], A. Faroni[2,3], A. Reid[2], P. Procacci[4], L. Wrabetz[5], A. Verkhratsky[3], V. Magnaghi[1]
[1]Università degli Studi di Milano, Department of Pharmacological and Biomolecular Sciences, Milano, Italy
[2]University of Manchester, Blond McIndoe Laboratories, Institute of Inflammation and Repair, Manchester, United Kingdom
[3]University of Manchester, Faculty of Life Sciences, Manchester, United Kingdom
[4]Università degli Studi di Milano, Department of Biomedical Sciences for Health, Milano, Italy

[5]State University of New York at Buffalo, Hunter James Kelly Research Institute, School of Medicine and Biomedical Sciences, Buffalo, United States

T08-08B

Purinergic $P2Y_2$ receptors on satellite glial cells as new potential targets for the pharmacological control of trigeminal sensitization

G. Magni[1,2], D. Merli[1], C. Verderio[3], M. P. Abbracchio[1], S. Ceruti[1]
[1]Università degli Studi di Milano, MILAN, Italy
[2]Italian Institute of Technology (IIT), Dept. Drug Discovery and Development, Genoa, Italy
[3]CNR, Institute of Neuroscience, Milan, Italy

T08-09B

Glial abnormalities parallel neuronal impairment in human enteric nervous system

C. Cirillo[1], A.- S. Desmet[1], J. Tack[1], P. Vanden Berghe[1]
[1]University of Leuven, Laboratory for Enteric Neuroscience (LENS), Leuven, Belgium

T08-10B

mGluR5-mediated calcium signalling in rat cortical primary astrocytes is modulated by adenosine A1 and A2A receptors

H. de Castro Abrantes[1], P. Avelar[1], M. J. Diógenes[1], A. Sebastião[1], S. Vaz[1]
[1]Institute of Molecular Medicine, Institute of Pharmacology and Neurosciences. Neuroscience Unit, Lisbon, Portugal

T08-12B

Neuronal alarmin IL-1α evokes astrocyte-mediated protective signals against oxaliplatin neurotoxicity

L. Di Cesare Mannelli[1], M. Zanardelli[1], B. Tenci[1], A. Pacini[1], C. Ghelardini[1]
[1]University of Florence, Neurofarba, Florence, Italy

T08-14B

Astroglial networks modulation of bursting activity dynamics

E. Dossi[1], O. Chever[1], U. Pannasch[1], M. Derangeon[1], N. Rouach[1]
[1]Collège de France, CIRB, Paris, France

T08-15B

Dynamics of ionic shifts in cortical spreading depression

R. Enger[1], W. Tang[1], G. F. Vindedal[1], V. Jensen[1], P. J. Helm[1], R. Sprengel[2], L. L. Looger[3], E. A. Nagelhus[1]
[1]University of Oslo, Oslo, Norway
[2]Max Planck Institute for Medical Research, Department of Molecular Neurobiology, Heidelberg, Germany
[3]Howard Hughes Medical Institute,Janelia Farm Research Campus, Ashburn, United States

T08-16B

NEUROFILAMENTS ENTER IN OLIGODENDROCYTES VIA CLATHRIN-DEPENDENT ENDOCYTOSIS TO PROMOTE THEIR GROWTH AND SURVIVAL IN VITRO

J. Eyer[1], C. Fressinaud[1]
[1]INSERM & Angers University, Angers, France

T08-17B

Role of the alpha-secretase TACE in Central Nervous System myelination

E. Fredrickx[1,2,3], E. Colombo[1,2,3], G. Dina[2,3], A. Quattrini[2,3], C. Taveggia[2,3]
[1]Vita-Salute San Raffaele University, Milan, Italy
[2]San Raffaele Scientific Institute, Division of Neuroscience, Milan, Italy
[3]San Raffaele Scientific Institute, INSPE, Milan, Italy

T08-18B

AGE-RELATED COGNITIVE IMPACT IN A TRANSGENIC MODEL OF ASTROCYTIC DYSFUNCTION

S. Guerra-Gomes[1], V. Sardinha[1,2], G. Tavares[1,2], J. Correia[1,2], M. Martins[1,2], N. Sousa[1,2], L. Pinto[1,2], J. Oliveira[1,2]
[1]Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho, Neurosciences Research Domain, Braga, Portugal
[2]ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal, Portugal

T08-19B

An astrocyte-dependent mechanism that links increased TNFα levels to a persistent change of function in cognitive circuits: relevance to multiple sclerosis

S. Habbas[1], M. Santello[1], H. Stubbe[1], G. Zappia[1], N. Liaudet[1], F. Klaus[2], G. Kollias[3], A. Fontana[4], C. Pryce[2], T. Suter[5], A. Volterra[1,5]
[1]University of Lausanne, Department of Fundamental Neurosciences, Lausanne, Switzerland
[2]University of Zurich, Department of Psychiatry, Psycotherapy and Psychosomatics, Zurich, Switzerland
[3]B.S.R.C. , "Alexander Fleming", Vari, Greece
[4]University of Zurich , Institute of Experimental Immunology Inflammation and Sickness Behaviour, Zurich, Switzerland
[5]University Hospital Zurich, Neuroimmunology and MS Research, Zurich, Switzerland

T08-20B

Nanofiber-Platform for Human Pluripotent Stem Cell -Derived Neural Cells

A. Hyysalo[1], M. Ristola[1], T. Joki[1], S. Narkilahti[1]
[1]University of Tampere, BioMediTech/NeuroGroup, Tampere, Finland

T08-21B

Generation of astrocytes from human induced pluripotent stem cells to investigate astrocyte biology in neurodegenerative diseases

K. Janssen[1], R. De Filippis[1], S. Hoerner[1], D. Gomm[1], C. Kiefer[1], B. Liebel[1], V. Lakic[1], G. C. Terstappen[1], M. H. M. Bakker[1]
[1]AbbVie Deutschland GmbH & Co KG, Biology Department, Neuroscience Discovery, Ludwigshafen, Germany

T08-22B

Astrocytes gate synaptic transmission from unmyelinated sensory afferents

J.- F. Jean-Francois PERRIER[1], R. Christensen[1], R. Delgado-Lezama[1], R. Russo[1], B. Lykke Lind[1], E. Loeza Alcocer[1], G. Fabbiani[1], N. Schmitt[1], M. Lauritzen[1], A. V. Petersen[1], E. Meier Carlsen[1]
[1]University of Copenhagen, Department of Neuroscience and Pharmacology, Copenhagen, Denmark

T08-23B

Metabolic modulation of mitochondria reduced glial reactivity and hyperalgesia in inflammatory and neuropathic chronic pain models

N. Lago[1], V. Lagos-Rodríguez[2], L. Martínez-Palma[2], A. Cassina[3], P. Cassina[2]
[1]Institut Pasteur Montevideo, Neuroinflammation and Gene Therapy, Montevideo, Uruguay
[2]Universidad de la República, Histología y Embriología, Montevideo, Uruguay
[3]Universidad de la República, Bioquímica, Montevideo, Uruguay

T08-24B

3D volume imaging of calcium dynamics in astrocytes

N. Liaudet[1], E. Bindocci[1], I. Savtchouk[1], C. Dürst[1], A. Volterra[1]
[1]Université de Lausanne, Département des Neurosciences Fondamentales, Lausanne, Switzerland

T08-25B

Fractalkine Signaling is Not Required for Ocular Dominance Plasticity

R. Lowery[1], C. Charbonneau[1], B. Hopkins[1], A. Majewska[1]
[1]University of Rochester SMD, Rochester, United States

T08-26B

Electrophysiological characterization of human pluripotent stem cell derived oligodendrocyte precursor cells

M. Mäkinen[1], A. Hyysalo[1], S. Narkilahti[1]
[1]University of Tampere, BioMediTech/NeuroGroup, Tampere, Finland

T08-27B

FLAVONOID HESPERIDIN MODULATES SYNAPSE FORMATION ON CEREBRAL CORTEX AND INCREASES THE SYNAPTOGENIC POTENTIAL OF ASTROCYTES

I. Matias[1], L. Diniz[1], A. Buosi[1], A. P. Araújo[1], J. Stipursky[1], F. Carvalho Alcantara Gomes[1]
[1]Federal University of Rio de Janeiro, Institute of Biomedical Sciences, Rio de Janeiro, Brazil

T08-28B

Neuronal activity dependent regulation of CNS-precursor cells in health and disease

M. Matthey[1], J. Stockley[1], C. Watts[2], R. T. Káradóttir[1]
[1]University of Cambridge, Stem Cell Institute, Cambridge, United Kingdom
[2]University of Cambridge, Department of Clinical Neurosciences, Cambridge, United Kingdom

T08-29B

Purines released from astrocytes inhibit excitatory synaptic transmission in the ventral horn of the spinal cord

E. M. Meier Carlsen[1], J.- F. Perrier[1]
[1]University of Copenhagen, Department of Neuroscience and Pharmacology, Copenhagen, Denmark

T08-30B

Membrane mobility of the astroglial glutamate transporter GLT-1

P. Michaluk[1], D. Rusakov[1]
[1]UCL, Clinical and Experimental Epilepsy/Synaptic Imaging, London, United Kingdom

T08-31B

EphB3 regulates gliotransmission following traumatic brain injury

E. Perez[1], D. Liebl[1]
[1]University of Miami Miller School of Medicine, Neurosurgery, Miami, United States

T08-32B

Microglia changes in rat dorsal cochlear nucleus correlate to behavioural tinnitus evidence

P. Perin[1], A. Venturino[1], A. Oda[1], A. Capetta[1], G. Colombo[1], G. Sanchini[1], V. Vitale[1], V. Bertone[1], R. Pizzala[1]
[1]University of Pavia, Pavia, Italy

T08-33B

Glia-to-neuron shuttling of miR-146a via extracellular microvesicles modulates synaptotagminI translation in neurons

I. Prada[1], E. Turola[2], L. Amin[3], M. Gabrielli[2], F. Drago[4], J. Franck[4], G. Legname[3], R. Furlan[5], J. Vizioli[4], D. Cojoc[6], F. Peruzzi[7], C. Verderio[1]
[1]CNR-IN Institute of neuroscience, Department of Medicine, Milan, Italy
[2]University of Milan, Department of Medicine, Milan, Italy
[3]Scuola Internazionale Superiore di Studi Avanzati (SISSA), Department of Neuroscience, Trieste, Italy
[4]Université de Lille, Laboratoire PRISM, INSERM U1192, Villeneuve d'Ascq, France
[5]San Raffaele Scientific Institute, Institute of Experimental Neurology – INSpe, Division of Neuroscience, Milan, Italy
[6]CNR-IOM Institute of materials, Optical Manipulation Lab, Trieste, Italy
[7]Scott Cancer Center, Department of Medicine, New Orleans LA, United States

T08-34B

Development of co-culture platfrom for neuron-oligodendrocyte research

M. Ristola[1], M. Mäkinen[1], A. Hyysalo[1], L. Sukki[2], T. Ryynänen[2], J. Kreutzer[2], L. Ylä-Outinen[1], J. Lekkala[2], P. Kallio[2], S. Narkilahti[1]
[1]University of Tampere, BioMediTech, NeuroGroup, Tampere, Finland
[2]Tampere University of Technology, BioMediTech, Department of Automation Science and Engineering, Tampere, Finland

T08-35B

MÜLLER CELLS HETEROGENEITY IN VITRO

N. Ruzafa[1], X. Pereiro[1], Y. Filali-Mouncef[1], E. Vecino[1]
[1]University of Basque Country UPV/EHU, Department of Cell Biology and Histology, Bilbao, Spain

T08-36B

ELECTROPHYSIOLOGICAL CHARACTERIZATION OF THE PREFRONTAL CORTEX AND HIPPOCAMPUS CONNECTION IN A GENETIC MODEL OF ASTROCYTIC DYSFUNCTION

V. Sardinha[1], S. Guerra-Gomes[1,2], G. Tavares[1,2], J. Correia[1,2], M. Martins[1,2], N. Sousa[1,2], J. Oliveira[1,2]
[1]Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho, Neurosciences Research Domain, Braga, Portugal
[2]ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal, Portugal

T08-37B

The pros and cons of studying astrocytic Ca^{2+} dynamics with genetically-encoded Ca^{2+} indicators: a high-resolution two-photon comparative analysis with synthetic dyes

I. Savtchouk[1], E. Bindocci[1], N. Liaudet[1], A. Agarwal[2], D. Bergles[2], A. Volterra[1]
[1]University of Lausanne, Department of Basic Neurosciences, Lausanne, Switzerland
[2]Johns Hopkins University School of Medicine, Baltimore, Maryland, United States

T08-38B

Release of glutamate and ATP induced by optogenetic activation of astrocytes

W. SHEN[1], C. Meunier[1], E. Audiant[1]
[1] University of Pairs Descartes, INSERM U1128 Neurophysiology & New Microscopies Laboratory, Paris, France

T08-39B

Activity-dependent neuroglial remodeling enhances extrasynaptic glutamate signaling and optimizes adaptive neuronal responses to a physiological challenge

J. Stern[1], K. Naskar[1]
[1]Georgia Regents University, Physiology, Augusta, United States

T08-40B

A NOVEL OPEN SOURCE TOOL TO STUDY ASTROCYTIC MORPHOLOGY

G. Tavares[1], V. Morais Sardinha[1,2], S. Guerra Gomes[1,2], J. Correia[1,2], M. Martins[1,2], A. R. Machado Santos[1,2], N. Sousa[1,2], L. Pinto[1,2], J. Oliveira[1,2]
[1]Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho, Neurosciences Research Domain, Braga, Portugal
[2]ICVS/3B's - PT Government Associate Laboratory, Neurosciences Research Domain, Braga, Portugal

T08-41B

Microglia in the early development of inhibitory cortical circuits

M. Thion[1], P. Squarzoni[1], M. Coralie-Anne[2], D. Low[3], F. Ginhoux[3], E. Audinat[2], S. Garel[1]
[1]Institut de Biologie de l'ENS (IBENS), INSERM U1024, CNRS UMR8197, Brain Development and Plasticity, Paris, France
[2]Inserm U603, Paris, France; CNRS UMR 8154, Paris, France; Paris Descartes University, Paris, France
[3]Singapore Immunology Network (SIgN), Agency for Science, Technology and Research (A*STAR), Singapore, Singapore

T08-42B

Implication of microglial fractalkine receptor in hypothalamic control of metabolism

Z. Winkler[1], î Polyák[1], D. Kuti[1], S. Ferenczi[1], D. Kővári[1], K. J. Kovács[1]
[1]Institute of Experimental Medicine, Molecular Neuroendocrinology, Budapest, Hungary

T08-43B

IGF-1 producing CD11c+ microglia emerge during postnatal neurodevelopment

A. Wlodarczyk[1], N. Martin[2], T. Owens[1]
[1]Institute of Molecular Medicine, SDU, Odense, Denmark
[2]Clinical Institute, Odense University Hospital, Odense, Denmark

T9 Ischemia and hypoxia

T09-01A

Sonic hedgehog controls NG2 glia differentiation following focal cerebral ischemia

M. Anderova[1,2], J. Kriska[1,2], D. Kirdajova[1], P. Honsa[1,2]
[1]Institute of Experimental Medicine AS CR, Cellular Neurophysiology, Prague 4- Krc, Czech Republic
[2]2nd Faculty of Medicine, Charles University, Neuroscience, Prague, Czech Republic

T09-02A

DOCOSAHEXANOIC ACID CONFERS NEUROPROTECTION IN PERINATAL HYPOXIA-ISCHEMIA IN RATS

O. Arteaga Cabeza[1], M. Revuelta[1], L. Urigüen[1], A. Álvarez[1], E. Hilario[1]
[1]University of the Basque Country, Cell Biology and Histology, School of Medicine, Leioa, Spain

T09-03A

Mitochondrial dysfunction and aggravated oxidative stress mediate increased vulnerability of aging white matter to ischemia

S. Baltan[1], S. Katharine[1], C. Bastian[1], S. Griffith[1], S. Brunet[1]
[1]Cleveland Clinic, Neurosciences, Cleveland, United States

T09-04A

Neonatal hypoxic ischemic brain damages: early neuroprotective effect of lactate.

L. Mazuel[1], N. Alberti[1], G. Raffard[1], S. Sanchez[1], J.- M. Franconi[1], J.- F. Chateil[1], A.- K. Bouzier-Sore[1]
[1]CNRS/Université de Bordeaux, Centre RMSB, Bordeaux, France

T09-05A

Phagocytic astrocytes after brain ischemia

Y. Morizawa[1], Y. Hirayama[1], S. Shibata[2], S. Koizumi[1]
[1]University of Yamanashi, Neuropharmacology, Chuo, Yamanashi, Japan
[2]Keio University, Physiology, Tokyo, Japan

T09-06A

Antioxidant treatments recover the auditory evoked potentials alteration and reduce morphological damage in the inferior colliculus after perinatal asphyxia in rat

M. Revuelta[1], O. Arteaga[1], H. Montalvo[1], E. Hilario[1], A. Martinez[1], A. Alvarez[1]
[1]University of the Basque Country, Department of Cell Biology and Histology, Leioa, Spain

T09-09A

Characterization of the polarization state of microglia and infiltrating peripheral macrophages in a transient Middle Cerebral Artery Occlusion model in mice

J. G. Zarruk[1], S. David[1]
[1]McGill University, Center for Research in Neuroscience, Montréal, Canada

T09-10A

Glutamate Release Mechanisms in Pre-myelinated CNS White Matter

S. Doyle[1], R. Fern[2]
[1]Plymouth University, Peninsula School of Medicine and Dentistry (PUPSMD), Plymouth, United Kingdom
[2]Plymouth University, Peninsula School of Medicine and Dentistry (PUPSMD), Plymouth, United Kingdom

T09-01B

Astrocyte diversity in response to stroke

A. Gleichman[1], R. Kawaguchi[1], Z. Guo[2], M. Sofroniew[1], P. Yu[2], G. Coppola[1], S. T. Carmichael[1]
[1]University of California - Los Angeles, Los Angeles, United States
[2]Texas A&M University, College Station, Texas, United States

T09-02B

Impact of an ischemic episode on the physiology of Bergmann glial cells

R. Helleringer[1], O. Chever[2], H. Daniel[1], M. Galante[1]
[1]Université Paris Sud, Neuropsi, CNRS UMR9196, Orsay, France
[2]IPMC, CNRS UMR7275, Valbonne, France

T09-03B

The immune receptor Mincle in microglia is a key initiator of tissue damage in ischemic stroke

S. Manzanero[1], T. V. Arumugam[2,3], Y.- H. Hsieh[3], M. Gelderblom[4], K. P. MacDonald[5], G. R. Hill[5], R. B. Ashman[6], T. Magnus[4], C. A. Wells[7,8]
[1]The University Of Queensland, AIBN, Brisbane, Australia

[2]National University of Singapore, Department of Physiology, Yong Loo Lin School of Medicine, Singapore, Singapore
[3]The University Of Queensland, School of Biomedical Sciences, Brisbane, Australia
[4]University Hospital Hamburg-Eppendorf, Department of Neurology, Hamburg, Germany
[5]Queensland Institute for Medical Research, Brisbane, Australia
[6]The University Of Queensland, School of Dentistry, Brisbane, Australia
[7]The University Of Queensland, AIBN, Brisbane, Australia
[8]University of Glasgow, Institute for Infection, Immunity and Inflammation, College of Medical, Veterinary and Life Sciences, Glasgow, United Kingdom

T09-04B

Brain energy metabolism is impaired by the propagation of focal ischemic damage

Y. Nonose[1], P. Egon Gewehr[1], P. de Freitas[1], G. Müller[1], R. F. Almeida[1], D. Gomes de Souza[1], A. Martimbianco de Assis[1]
[1]UFRGS, Dept Biochemistry, Porto Alegre, Brazil

T09-05B

A new *in vitro* model of focal ischemia: towards the understanding of re-oxygenation specific damage in the white matter

A. O. Rosa[1], R. Fern[1]
[1]Plymouth University, Peninsula School of Medicine and Dentistry, Plymouth, United Kingdom

T09-06B

Differential effects of intranasal epidermal growth factor treatment on the subventricular zone and dentate gyrus after chronic perinatal hypoxia

J. Scafidi[1], J. Edwards[1], V. Gallo[2]
[1]Children's National Medical Center, Neurology and Neuroscience, Washington, United States
[2]Children's National Medical Center, Center for Neuroscience Research, Washington, United States

T09-07B

Protein profiling in penumbra after local photothrombotic infarction in the rat cerebral cortex

A. Uzdensky[1], S. Demyanenko[1]
[1]Southern Federal University, Laboratory of Molecular neurobiology, Academy of Biology and Biotechnology, Rostov-on-Don, Russian Federation

T09-08B

Antihypoxic properties of Glial cell-derived neurotrophic factor(GDNF) in the acute normobaric hypoxia *in vitro*

M. Vedunova[1], T. Mishchenko[1,2], E. Mitroshina[1,2], T. Shishkina[1], T. Astrakhanova [1], I. Mukhina[1]
[1]Lobachevsky State University of Nizhni Novgorod, Nizhny Novgorod Neuroscience Centr, Nizhny Novgorod, Russian Federation
[2]Nizhny Novgorod State Medical Academy, Central Research Laboratory, Moleculare and Cell Tecnologies Group, Nizhny Novgorod, Russian Federation

T09-09B

Chronic stress exacerbates neuronal loss associated with secondary neurodegeneration and suppresses microglial-like cells following focal motor cortex ischemia in the mouse

F. R. Walker[1], I. Zouikr[1], M. Patience[1], A. Clarkson[1], J. Isgaard[1], S. Johnson[1], N. Spratt[1], M. Nilsson[2]
[1]Univeristy of Newcastle, School of Biomedical Sciences, Newcastle, Australia
[2]Hunter Medical Research Institute, Newcaslte, Australia

T09-10B

Rapid microglial actions contribute to excitotoxic responses and brain injury after cerebral ischemia

B. Martinecz[1], G. Szalay[2], N. Lénárt[1], E. Csaszar[1], B. Rózsa[2], A. Denes[1]
[1]IEM HAS, Molecular Neuroendocrinology, Budapest, Hungary
[2]Two Photon Imaging Center, Femtonics, Budapest, Hungary

T10 Myelin

T10-01A

The TAM receptor Tyro3 acts as a promyelinating factor on oligodendrocytes

R. Akkermann[1], T. J. Kilpatrick[1], M. D. Binder[2]
[1]The University of Melbourne, Anatomy and Neuroscience, Melbourne, Australia
[2]The University of Melbourne, The Florey Institute of Neuroscience and Mental Health, Melbourne, Australia

T10-02A

Membrane glycoprotein M6B is a novel component of the Node of Ranvier

M. L. Bang[1], Y. Eshed Eisenbach[1], E. Peles[1]
[1]Weizmann Institute of Science, Laboratory of Prof. Elior Peles, Rehovot, Israel

T10-03A

Myelin-Associated Glycoprotein (*MAG)* mutation causes Pelizaeus Merzbacher Disease-Like disorder

N. Elazar[1], A. Lossos[2], I. Lerer[3], N. Schaeren-Wiemmers[4], M. Harel[5], T. Geiger[5], Y. Eshed-Eisenbach[1], V. Meiner[3], E. Peles[1]
[1]Weizmann Institute of Science, Molecular Cell Biology, Rehovot, Israel
[2] Hebrew University-Hadassah Medical Center, Jerusalem, Israel, Department of Neurology and Agnes Ginges Center for Human Neurogenetics, Jerusalem, Israel
[3] Hebrew University-Hadassah Medical Center, Jerusa, Department of Genetics and Metabolic Diseases, Jerusalem, Israel
[4]University Hospital Basel, Department of Biomedicine, Basel, Switzerland
[5]Tel Aviv University, Department of Human Molecular Genetics and Biochemistry, Tel Aviv, Israel

T10-04A

mTORC1 regulation of Schwann cell myelination

G. Figlia[1], C. Norrmén[1], D. Gerber[1], U. Suter[1]
[1]ETH Zürich, Institute for Molecular Health Sciences, Zürich, Switzerland

T10-05A

Upregulation of early differentiation factors (Id2, Sox2) in neuropathic nerve: Pathogenetic or Protective?

F. Florio[1], C. Scapin[1], C. Ferri[1], E. Pettinato[1], M. L. Feltri[2], L. Wrabetz[1], M. D'Antonio[1]
[1]Istituto Scientifico San Raffaele, Myelin Biology Unit, Milan, Italy
[2]Istituto Scientifico San Raffaele, Neuroglia, Milan, Italy

T10-06A

The influence of mDomino/p400 on Schwann cell development in mice

F. Fröb[1], M. Küspert[1], E. Sock[1], E. Tamm[2], R. Fukunaga[3], M. Wegner[1]
[1]Friedrich-Alexander-Universität, Institut für Biochemie, Erlangen, Germany
[2]Universität Regensburg, Institut für molekulare und zelluläre Anatomie, Regensburg, Germany
[3]Osaka University of Pharmaceutical Sciences, Department of Biochemistry, Osaka, Japan

T10-07A

Microglia-derived extracellular vesicles regulate the proliferation and differentiation of oligodendrocyte precursor cells

M. Fumagalli[1], M. Lombardi[2], E. Bonfanti[1], E. Boda[3], A. Buffo[3], M. P. Abbracchio[1], C. Verderio[4]
[1]Università degli Studi di Milano, Department of Pharmacological and Biomolecular Sciences, Milan, Italy
[2]University degli Studi di Milano, Dep. of Biotechnology and Translational Medicine, Milan, Italy
[3]Università degli Studi di Torino, Dep. of Neuroscience, Neuroscience Institute Cavalieri Ottolenghi (NICO), Turin, Italy
[4]CNR Institute of Neuroscience, Milan, Italy

T10-08A

Dysfunctional NF-κB and brain myelin formation

R. Haenold[1], C. Engelmann[1], K.- H. Herrmann[2], J. Reichenbach[2], O. W. Witte[3], F. Weih[1], A. Kretz[3]
[1]Leibniz Institute for Age Research - Fritz Lipmann Institute (FLI), Immunology, Jena, Germany
[2]Jena University Hospital, Institute of Diagnostic and Interventional Radiology I, Medical Physics Group, Jena, Germany
[3]Jena University Hospital, Hans Berger Department of Neurology, Jena, Germany

T10-09A

Differential Modulation of the Juxtaparanodal Complex in Multiple Sclerosis

M.- E. Kastriti[1], K. A. Kleopa[2,3], I. Sargiannidou[3], D. Karagogeos[1]
[1]School of Medicine, University of Crete and IMBB-FORTH, Crete , Department of Basic Science, Heraklion, Greece
[2]The Cyprus Institute of Neurology and Genetics, Cyprus, Neurology Clinics, Nicosia, Cyprus
[3]The Cyprus Institute of Neurology and Genetics, Cyprus, Neuroscience Laboratory, Nicosia, Cyprus

T10-10A

N-WASP-dependent molecular mechanisms involved in PNS myelination

C. Katanov[1], E. Peles[1]
[1]Weizmann institute of science, Molecular cell biology, Rehovot, Israel

T10-11A

MicroRNA miR-145-5p represents a novel MS therapeutic target through its regulation of critical myelination regulator MYRF

S. Kornfeld[1], R. Kothary[1]
[1]Ottawa Hospital Research Institute, ORCC C4332, Ottawa, Canada

T10-12A

Investigating the mechanistic basis of cholesterol-mediated myelination

E. Mathews[1], B. Appel[1]
[1]University of Colorado, Pediatrics, Aurora, United States

T10-13A

Investigation of myelin maintenance and turnover by inducible MBP knock-out in adult mice

W. Möbius[1], M. Meschkat[1], K. Kusch[1], H. Werner[1], K.- A. Nave[1]
[1]Max-Planck-Institute of Experimental Medicine, Neurogenetics, Göttingen, Germany

T10-14A

Characterization of DUSP15/VHY as a regulatory target of Sox10 and Myrf

K. N. Muth[1], M. Küspert[1], E. Sock[1], M. Wegner[1]
[1]Institut für Biochemie, Erlangen, Germany

T10-15A

Role of Jun activating binding protein 1 (Jab1) in Central Nervous System (CNS) myelination

C. Rivellini[1,2], E. Porrello[1], G. Dina[1], K.- A. Nave[3], C. Lappe-Siefke[3], U. Suter[4], R. Pardi[5], A. Quattrini[6], S. C. Previtali[1]
[1]San Raffaele Scientific Institute, Neuromuscular Repair Unit - Institute of Experimental Neurology-INSPE, Milan, Italy
[2]Vita e Salute'' San Raffaele University, Division of Neuroscience, Milan, Italy
[3]Max Planck Institute of Experimental Medicine, Department of Neurogenetics, Goettingen, Germany
[4]Swiss Federal Institute of Technology Zurich, Institute of Molecular Health Sciences Department of Biology, Switzerland
[5]San Raffaele scientific Institute, Division of Immunology, Transplantation and Infectious Disease , Milan, Italy
[6]San Raffaele scientific Institute, Division of Neuroscience, Milan, Italy

T10-16A

Analysing the role of Sox2 in regulating Schwann cell myelination during development and after injury

S. Roberts[1], X. P. Dunn[1], R. Doddrell[1], D. Parkinson[1]
[1]Plymouth University, Peninsular School of Medicine and Dentistry, Plymouth, United Kingdom

T10-17A

***In vivo* pathogenesis of demyelination in an animal model of multiple sclerosis**

E. Romanelli[1], S. Potz[1], D. Merkler[2], M. Weber[3], D. Bishop[4], T. Misgeld[5], M. Kerschensteiner[1]
[1]Institut für Klinische Neuroimmunologie, LMU, Forschungseinheit Therapieforschung, Munich, Germany
[2]University of Geneva, Department of Pathology and Immunology, Geneva, Switzerland
[3]Universitätsmedizin Göttingen, Department of Neuropathology, Göttingen, Germany
[4]Indiana university School of Medicine, Department of Physiology, Muncie, IN, United States
[5]Technische Universität München, Institute for Neuronal Cell Biology, Munich, Germany

T10-19A

Cystine/glutamate antiporter is essential for oligodendrocyte survival and its blockage exacerbates experimental autoimmune encephalomyelitis

F. Soria[1], O. Pampliega[1], J. C. Chara[1], A. Pérez-Samartín[1], H. Sato[2], C. Matute[1], M. Domercq[1]
[1]Universidad del País Vasco, Departamento de Neurociencias, Leioa, Spain
[2]Yamagata University, Department of Food and Applied Life Sciences, Tsuruoka, Japan

T10-20A

CNS Myelin Sheath is Stochastically Built by Homotypic Fusion of Myelin Membranes within the Bounds of an Oligodendrocyte Process

S. Szuchet[1], L. Nielsen[1], M. Domowicz[2], J. Austin II[3], D. Arvanitis[4]
[1]The University of Chicago, Neurology, MC2030, Chicago, United States
[2]The University of Chicago, Pediatrics, Chicago, United States
[3]The University of Chicago, Molecular Genetics and Cell Biology, Chicago, United States
[4]University of Thessaly, Anatomy, Histology, Embryology, Larissa, Greece

T10-21A

Role of Ire1/Xbp-1 pathway in S63del neuropathy

T. Touvier[1], C. Ferri[1], L. Glimcher[2], M. L. Feltri[3], L. Wrabetz[3], M. D'Antonio[1]
[1]San Raffele Scientific Institute, DIBIT, Biology of Myelin Unit, Milan, Italy
[2]Sandra and Edward Meyer Cancer Center of Weill Cornell Medical College, New York, United States
[3]Hunter James Kelly Research Institute, Department of Biochemistry and Department of Neurology, Buffalo, United States

T10-22A

Oligodendrocyte death in *DTA* mice results in late-onset immune-mediated CNS demyelination

M. Traka[1], J. Podojil[2], D. McCarthy[2], S. Miller[2], B. Popko[1]
[1]University of Chicago, Neurology, Chicago, IL, United States
[2]Northwestern University Feinberg School of Medicine, Department of Microbiology-Immunology and Interdepartmental Immunobiology Center, Chicago, IL, United States

T10-23A

Role of Schwann Cell in regulation of myelin sheath properties during nerve fiber excitation and activation of purinergic receptors

E. Verdiyan[1], E. Bibineyshvili[1], N. Kutuzov[1], G. Maksimov[1]
[1]Lomonosov Moscow State University, Faculty of Biology, Department of Biophysics, Moscow, Russian Federation

T10-24A

Impaired motor learning as the result of myelin disruption

H. WAKE[1]
[1]National Institute for Physiological Science, Okazaki, Japan

T10-25A

Cdon, a cell surface protein, mediates oligodendrocyte differentiation and myelination

L.- C. Wang[1], G. Almazan[1]
[1]McGill University, Pharmacology and Therapeutics, Montreal, Canada

T10-26A

Molecular mechanism of myelin disassembly

M.- T. Weil[1], W. Möbius[2], T. Ruhwedel[2], S. Frey[3], P. Kursula[4], A. Winkler[5], C. Stadelmann-Nessler[5], E. Romanelli[6], M. Kerschensteiner [6], M. Simons[1]
[1]Max-Planck Institute for experimental medicine , Cellular Neurosciences, Göttingen, Germany
[2]Max-Planck Institute for experimental medicine, Göttingen, Germany
[3]Max Planck Institute for Biophysical Chemistry, Göttingen, Germany
[4]University of Bergen, Bergen, Germany
[5]University Medical Center, Göttingen, Germany
[6]University Medical Center, Munich, Germany

T10-27A

Distinct modulation of myelination efficiency by cortical and non-cortical astrocytes

I. Werkman[1], D. Hoekstra[1], W. Baron[1]
[1]University Medical Centre Groningen, Cell Biology, Groningen, Netherlands

T10-28A

Extreme longevity of myelinating oligodendrocytes in mouse

R. Tripathi[1], W. Richardson[1]
[1]University College London, London, United Kingdom

T10-01B

A key role of the androgen receptor in the sexual dimorphism of myelin

C. ABI GHANEM[1], C. DEGERNY[1], M. SCHUMACHER[1], A. GHOUMARI[1]
[1]Inserm UMR1195, le kremlin bicetre, France

T10-02B

Axon path and peripheral nerve structure is altered in the trembler-J mouse model of Charcot Marie Tooth disease

L. Alvey[1], J. Jones[2], M. Pickering[3]
[1]University College Dublin, Department of Physiology, Belfield, Ireland
[2]University College Dublin, Department of Anatomy, Belfield, Ireland
[3]University College Dublin, Department of Physiology, Belfield, Ireland

T10-03B

Demonstration of pyruvate carboxylaxion, pentose phosphate pathway, and mitochondrial activity in cultured oligodendrocytes using ^{13}C-labelled isotopes

A. Amaral[1], M. Ghezu Hadera[2], M. Kotter[1], U. Sonnewald[2]
[1]University of Cambridge, Clinical Neurosciences, Cambridge, United Kingdom
[2]Norwegian University of Science and Technology, Faculty of Medicine, Trondheim, Norway

T10-04B

Development of transgenic tools to decipher the role of SOX17 in remyelination

K. BENARDAIS[1], M. FAUVEAU[1], C. KERNION[1], B. NAIT-OUMESMAR[1]
[1]Institute of Brain and Spinal Cord, Molecular and cellular approaches of myelin repair, Paris, France

T10-05B

Modulation of endocannabinoid signalling and therapeutic effects of MAGL and ABHD6 blockade in the cuprizone model of primary demyelination

A. Bernal Chico[1,2], A. Manterola[1,2], K.- L. Hsu[3], B. Cravatt[4], C. Matute[1,2], S. Mato[1,2]
[1]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[2]University of the Basque Country, Department of Neurosciences, Leioa, Spain
[3]University of Virginia, Department of Chemistry, Charlottesville, United States
[4]The Scripps Research Institute, Department of Chemical Physiology, La Jolla, United States

T10-06B

The history of myelin

A. Boullerne[1]
[1]University of Illinois at Chicago, Anesthesiology, Chicago, United States

T10-07B

A novel role for Endothelin receptor B signalling in the peripheral nervous system

B. G. Brinkmann[1], S. Quintes[1,2], M. Ebert[1], N. Keric[3], A. Matz[1], H. Ehrenreich[4], K.- A. Nave[5], M. W. Sereda[1,2]
[1]Max-Planck-Institute of Experimental Medicine, Research Group Translational and Molecular Neurology, Goettingen, Germany
[2]University medical center Goettingen, Clinical neurophysiology, Goettingen, Germany
[3]University medical center Johannes-Gutenberg University of Mainz, Neurosurgery, Mainz, Germany
[4]Max-Planck-Institute of Experimental Medicine, Division of Clinical Neuroscience, Goettingen, Germany
[5]Max-Planck-Institute of Experimental Medicine, Neurogenetics, Goettingen, Germany

T10-09B

Molecular analysis of the axon initial segment in a cuprizone-induced demyelination model of Multiple Sclerosis

A. Dilsizoglu Senol[1], M. J. Hossain[1], V. Guillemot[2], D. Theodorou[1], C. Lubetzki[1,3], M. Davenne[1]
[1]Institut du Cerveau et de Moelle Epiniere (ICM), Paris, France
[2]The Institute for Translational Neurosciences of Paris (IHU-A-ICM), Paris, France
[3]AP-HP Hopital de la Pitie Salpetriere, Paris, France

T10-10B

The oligodendrocyte "processosome": identification of new regulators of differentiation and myelination

H. S. Domingues[1], A. Cruz[2], F. Boucanova[1], M. M. Azevedo[1], A. I. Seixas[1], J. Relvas[1]
[1]Institute for Molecular and Cell Biology, Glial Cell Biology Group, Porto, Portugal
[2]Institute for Molecular and Cell Biology, Gene Regulation Group, Porto, Portugal

T10-11B

Lanthionine ketimine ester provides benefit in a mouse model of multiple sclerosis

D. Feinstein[1], J. Dupree[2], K. Hensley[3]
[1]University of Illinois, Chicago, United States
[2]Virginia Commonwealth University, Anatomy and Neurobiology, Richmond, United States
[3]University of Toledo, Pathology, Toledo, United States

T10-12B

Gas6/TAM signalling promotes oligodendrocyte differentiation, maturation, and remyelination after toxic injury in culture

S. Goudarzi[1], A. Butt[1], S. Hafizi[1]
[1]University of Portsmouth, Portsmouth, United Kingdom

T10-13B

The nootropic agent nefiracetam enhances myelin repair

E. A. Keogh[1], S. D. O'Shea[1], R. P. Murphy[1], M. Pickering[2], K. J. Murphy[1]
[1]University College Dublin, Neurotherapeutics Research Group, UCD Conway Institute, School of Biomolecular and Biomedical Science, Dublin, Ireland
[2]University College Dublin, School of medicine and Medical Science, Dublin, Ireland

T10-14B

CNS-Pericytes Promote Oligodendrocyte Fate Decision and Differentiation Contributing to Myelin Development and Repair

S. Lange[1,2], A. Guzman De La Fuente[3], P. Rotheneichner[2,4], P. van Wijngaarden[3], G. A. Gonzalez[3], H. Tempfer[2,5], A. Trost[1,2,6], C. Zhao[3], S. Couillard-Despres[2,4], J. Andrae[7], C. Betsholtz[7,8], R. J. M. Franklin[3], L. Aigner[1,2], F. J. Rivera[1,2,3]
[1]Paracelsus Medical University, Molecular Regenerative Medicine, Salzburg, Austria
[2]Paracelsus Medical University, Spinal Cord Injury and Tissue Regeneration Center, Salzburg, Austria
[3]University of Cambridge, Wellcome Trust and MRC Cambridge Stem Cell Institute & Department of Veterinary

Medicine, Cambridge, United Kingdom
[4]Paracelsus Medical University, Institute of Experimental Neuroregeneration, Salzburg, Austria
[5]Paracelsus Medical University, Institute for Tendon and Bone Regeneration, Salzburg, Austria
[6]Paracelsus Medical University, Ophthalmology/Optometry and Research Program for Experimental Ophthalmology, Salzburg, Austria
[7]Uppsala University, Dept. Immunology, Genetics and Pathology, Rudbeck Laboratory, Uppsala, Sweden
[8]Karolinska Institute, Dept. Medical Biochemistry and Biophysics, Div. Vascular Biology, Stockholm, Sweden

T10-15B

***In vivo* and *in vitro* evaluation of MAGL and ABHD6 as novel therapeutic targets in multiple sclerosis**

A. Manterola[1,2,3], A. Bernal-Chico[1,2,3], M. Canedo[1,2,3], M. Sánchez-Gómez[1,2,3], R. Rodríguez-Puertas[4], K.- L. Hsu[5], B. Cravatt[6], C. Matute[1,2,3], S. Mato[1,2,3]
[1]University of the Basque Country- UPV/EHU, Department of Neuroscience, Leioa, Spain
[2]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[3]Instituto de Salud Carlos III (ISCIII; CIBERNED), Leioa, Spain
[4]University of the Basque Country- UPV/EHU, Department of Pharmacology, Leioa, Spain
[5] University of Virginia, Department of Chemistry, Charlottesville, United States
[6]The Scripps Research Institute, Department of Chemical Physiology, La Jolla, United States

T10-16B

AN EGR2 LONG ANTISENSE-RNA REGULATES PERIPHERAL MYELINATION

M. Martinez Moreno[1], A. Olaru[1], J. Ness[1], N. Tapinos[1]
[1]Weis Center for Research, Geisinger Clinic, Molecular Neuroscience & Neuro-Oncology Laboratory, Danville, United States

T10-17B

***De novo* synthesis of fatty acids in oligodendrocytes is critical for CNS myelination**

L. Montani[1], P. Dimas[1], A. L. Dätwiler[1], D. Moreno[1], M. Trötzmüller[2], H. C. Köfeler[2], C. F. Semenkovich[3], U. Suter[1]
[1]Molecular Health Sciences, Department of Biology, Swiss Federal Institute of Technology, ETH Zürich, Zürich, Switzerland
[2]Lipidomics Center for Medical Research, Medical University, Graz, Austria
[3]Division of Endocrinology, Metabolism and Lipid Research, Washington University Medical School, St. Louis, United States

T10-18B

Nefiracetam is ineffective in reversing myelin damage in the trembler-J model of Charcot Marie Tooth disease

R. Murphy[1], L. Alvey[2], J. Jones[2], K. Murphy[1], M. Pickering[2]
[1]University College Dublin, Neurotherapeutics Research Group, UCD Conway Institute, School of Biomolecular and Biomedical Science, Dublin, Ireland
[2]University College Dublin, School of Medicine and Medical Science, Dublin, Ireland

T10-19B

Non-coding RNAs in the differentiation of oligodendrocyte precursor cells

S. Samudyata[1], S. Marques[1], D. Vanichkina[2], G. Castelo-Branco[1]
[1]Karolinska Institute, Molecular Neurobiology, MBB, Stockholm, Sweden
[2]Institute of Molecular Bioscience, Queensland, Australia

T10-20B

Proper myelin maturation during postnatal development depends on Apolipoprotein D function

N. García-Mateo[1], C. Lillo[2], M. A. Gijón[3], R. Murphy[3], D. Sanchez[1], M. Ganfornina[1]
[1]Instituto de Biología y Genética Molecular, Universidad de Valladolid, Bioquimica y Biología Molecular y Fisiología, Valladolid, Spain
[2]Instituto de Neurociencias de Castilla y León, Universidad de Salamanca, Salamanca, Spain
[3]University of Colorado Denver, 3Department of Pharmacology, Aurora, CO, United States

T10-21B

Regulatory Role of the Thrombin Receptor in Myelination

H. Yoon[1], M. Radulovic[1], K. Drucker[1], I. Scarisbrick[1]
[1]Mayo Clinic, Physical Medicine & Rehabilitation, Neurobiology of Disease, Rochester, United States

T10-22B

Aquaporin 1 is localized in the Schmidt-Lanterman incisures and at the paranodes of the nodes of Ranvier in the rat sciatic nerve

E. Segura-Anaya[1], A. Martínez-Gómez[1], M. Dent[1]
[1]Universidad Autonoma del Estado de Mexico, Laboratorio de Neurociencias, Toluca, Estado de México, Mexico

T10-24B

The Role of Endothelin Signalling in Myelination

M. Swire[1,2], D. Lyons[1], C. ffrench-Constant[2]
[1]The University of Edinburgh, Centre For Neuroregeneration, Edinburgh, United Kingdom
[2]The University of Edinburgh, Scottish Centre For Regenerative Medicine, Edinburgh, United Kingdom

T10-25B

The role of fibroblast growth factor 9 in multiple sclerosis: inhibition of myelination and induction of pro-inflammatory environment

K. Thuemmler[1], M. Lindner[1], C. Stadelmann[2], H. Lassmann[3], N. Schaeren-Wiemers[4], E. Meinl[5], C. Linington[1]
[1]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom
[2]Georg August University, Department of Neuropathology, Göttingen, Germany
[3]Medical University of Vienna, Center for Brain Research, Vienna, Austria
[4]University of Basel, Department of Biomedicine, Basel, Switzerland
[5]Ludwig-Maximilians-Universität, Institute of Clinical Neuroimmunology, Munich, Germany

T10-26B

L-PGDS/GPR44: new regulators of Peripheral Nervous System myelination.

A. Trimarco[1], M. G. Forese[1], P. Brambilla[1], G. Dina[1], D. Pieragostino[2], F. Martinelli Boneschi[1], A. Quattrini[1], C. Taveggia[1]

[1]San Raffaele Scientific Institute, Division of Neuroscience and INSPE, Milan, Italy
[2]University "G. D'Annunzio", Department of Experimental and Clinical Sciences, Chieti, Italy

T10-27B

CNS myelin and axon morphology in demyelination and dysmyelination in mouse models

S. Yoshida[1], Y. Bando[1]
[1]Asahikawa Medical University, Asahikawa, Hokkaido, Japan

T11 Neural stem/progenitor cells

T11-01A

MOLECULAR AND ULTRASTRUCTURAL ALTERATIONS OF THE NEURAL STEM CELLS FROM DYSTROPHIC MDX MOUSE

T. Annese[1], P. Corsi[1], S. Ruggieri[1], R. Tamma[1], S. Picocci[1], C. Marinaccio[1], A. De Luca[1], D. Ribatti[1], B. Nico[1]
[1]University of Bari, Italy, Department of SMBNOS/Nico-Ribatti Group, Bari, Italy

T11-02A

Mitochondrial dysfunction mimics the impact of ageing on hippocampal neurogenesis

R. Beckervordersandforth[1], B. Ebert[2], K. Steib[2], I. Schäffner[1], S. Keiner[3], C. Redecker[3], S. Schuster[1], V. Eulenburg[1], N. Toni[4], J. Moss[4], J. von Wittgenstein[1], N.- G. Larsson[5], M. Götz[6], J. Schlachetzki[7], R. Jagasia[8], C. D. Lie[1,2]
[1]University of Erlangen, Institute of Biochemistry, Erlangen, Germany
[2]Helmholtz Centre Munich, Institute of Developmental Genetics, Munich, Germany
[3]University Hospital Jena, Neurology, Jena, Germany
[4]University of Lausanne, Dept. of Neuroscience, Lausanne, Switzerland
[5]Max Planck Institute for Biology of Ageing, Cologne, Germany
[6]Helmholtz Centre Munich, Institute of Stem Cell Research, Munich, Germany
[7]University Hospital Erlangen, Dept. of Molecular Neurology, Erlangen, Germany
[8]Pharma Research and Early Development, Basel, F. Hoffmann-La Roche Ltd, CNS Discovery, Basel, Switzerland

T11-03A

Activation of Adenosine A1 Receptor shifts neural stem cells fate from neurogenesis to astrogliogenesis

M. Benito[1], C. Matute[1], F. Cavaliere[1]
[1]Achucarro Basque Center for Neuroscience & UPV/EHU, Neuroscience, Zamudio (Bizkaia), Spain

T11-04A

Implementation of the stem cell properties of NG2+ cells: focus on the epigenetic modulator VPA and the purinergic receptor GPR17

M. Boccazzi[1], S. Ceruti[1], M. P. Abbracchio[1]
[1]Università degli Studi di Milano, Department of Pharmacological and Biomolecular Sciences, Milan, Italy

T11-05A

Emx2* expression levels in NSCs modulate astrogenesis rates by regulating EgfR and *Fgf9

C. Falcone[1], C. Filippis[1], M. Granzotto[1], A. Mallamaci[1]
[1]SISSA, Laboratory of Cerebral Cortex Development, Trieste, Italy

T11-06A

ACTIVATION OF NFAT TRANSCRIPTION FACTORS IN NEURAL PRECURSOR CELLS INDUCES ASTROCYTE AND NEURON DIFFERENTIATION

M. FERNANDEZ[1], M. C. Serrano-Pérez[1], F. Neira[2], M. Berjón-Otero[1], S. Mellado[1], E. Doncel-Pérez[3], E. Cano[2], P. Tranque[1]
[1]UNIVERSITY OF CASTILLA-LA MANCHA, PHYSIOLOGY, Albacete, Spain
[2]Instituto de Salud Carlos III, Unidad de Neuroinflamación, Unidad Funcional de Investigaciones en Enfermedades Crónicas (UFIEC), Madrid, Spain
[3]Hospital Nacional de Parapléjicos, Grupo de Química Neuro-regenerativa, Toledo, Spain

T11-07A

The ependymal region of the adult human spinal cord differs from other species and shows ependymoma-like features

D. Garcia-Ovejero[1], A. Arevalo-Martin[1], B. Paniagua-Torija[1], J. Florensa-Vila[2], I. Ferrer[3], L. Grassner[4,5], E. Molina-Holgado[1]
[1]Hospital Nacional de Paraplejicos, Neuroinflammation Lab, Toledo, Spain
[2]Hospital Nacional de Paraplejicos, Radiology Unit, Toledo, Spain
[3]IDIBELL-Hospital Universitari de Bellvitge, Institut de Neuropatologia, L'Hospitalet de Llobregat, Spain
[4]Trauma Center Murnau, Center for Spinal Cord Injuries, Murnau, Austria
[5]Institute of Molecular Regenerative Medicine, SCI-TReCS, Salzburg, Austria

T11-08A

Boundary Caps give rise to neurogenic stem cells and terminal glia in the skin

A. Gresset[1], F. Coulpier[1], G. Gerschenfeld[2], P. Charnay[1], P. Topilko[1]
[1]Institut of Biology of the Ecole Normale Superieure, Developmental Biology, Paris, France
[2]Sorbonne University, UPMC Paris 06, Paris, France

T11-09A

***Foxg1* antagonizes cortico-cerebral astrogenesis**

C. Grudina[1], C. Falcone[1], N. Blecich[1], A. Mallamaci[1]
[1]SISSA, Laboratory Cerebral Cortex Development, Trieste, Italy

T11-10A

Neurotransmitter and neurotrophin receptor expression by human dental pulp stem cells: Implications for neural differentiation

J. Luzuriaga[1], V. Uribe-Etxebarria[1], C. Gomis[2], P. Chamero[3], A. Villarroel[2], F. Unda[1], G. Ibarretxe[1]
[1]University of the Basque Country, Cell Biology & Histology Department, Leioa, Spain

[2]University of the Basque Country, CSIC Biophysics, Leioa, Spain
[3]University of Saarland, Physiology department, Homburg, Germany

T11-11A

Aged Neural Stem Cells in the Hippocampus

S. Martín Suárez[1,2], R. Valcárcel Martín[1,2], J. M. Encinas Pérez[1,2,3]
[1]Achucarro Basque Center for Neuroscience- Universidad del País Vasco, Neuroscience, Zamudio, Spain
[2]University of the Basque Country (UPV/EHU), Leioa, Spain
[3]Ikerbasque Foundation, Bilbao, Spain

T11-12A

The HS-modifying enzyme Sulf2 controls generation of a novel glial precursor cell sub-type in the ventral spinal cord

D. OHAYON[1], N. Escalas[1], P. Cochard[1], B. Glise[1], C. Danesin[1], C. Soula[1]
[1]Centre de Biologie du Developpement, Morphogens and Glial specification team, Toulouse, France

T11-13A

Region-specific differences in astrocyte plasticity in the mouse forebrain

S. Ohlig[1], S. Sirko[1], M. Götz[1,2,3]
[1]Ludwig-Maximilians-University, Institute for Physiological Genomics, Munich, Germany
[2]Helmholtz Center , Institute for Stem Cell Research, Munich, Germany
[3]Ludwig-Maximilians-University, SYNERGY, Excellence cluster of systemic neurology, Munich, Germany

T11-14A

Do Umbilical Cord Stem Cells Direct Neural Progenitor Cells Towards an Oligodendroglial Fate through Paracrine Factors or Cell-to-Cell Contact?

B. Oppliger[1,2,3], M. Jörger-Messerli[1,2], U. Reinhart[1,2], D. V. Surbek[1,2], A. Schoeberlein[1,2]
[1]University of Bern, Department of Clinical Research, Bern, Switzerland
[2]University Hospital, Department of Obstetrcis and Gynecology, Bern, Switzerland
[3]University of Bern, Graduate School for Cellular and Biomedical Sciences (GCB), Bern, Switzerland

T11-15A

Compensatory mechanisms in the age-induced decline of adult hippocampal neurogenesis

S. Beccari[1,2], S. Martín-Suárez[1,2], J. M. Encinas[1,2], A. Sierra[1,2]
[1]Achucarro Basque Center for Neuroscience, Glial Cell Biology Lab, Bizkaia, Spain
[2]University of the Basque Country, Neurosciences, Leioa, Spain

T11-16A

Towards mobilizing the brain's own neural stem cells to restore striatal dysfunction in Parkinson patients

M. van Strien[1], J. Sluijs[1], E. Hol[1]
[1]Brain Center Rudolf Magnus, University Medical Center Utrecht, Translational Neuroscience, Utrecht, Netherlands

T11-01B

DNA methylation in ageing adult oligodendrocyte progenitor cells

R. Baror[1], D. Ma[1], S. Dietmann[2], M. Paramor[2], R. Franklin J M[1]
[1]University of Cambridge, Wellcome Trust, MRC Cambridge Stem Cell Institute, Department of Clinical Neurosciences, Cambridge, United Kingdom
[2]University of Cambridge, Wellcome Trust-Medical Research Council Stem Cell Institute, Cambridge, United Kingdom

T11-02B

The impact of TNFα on the developing brain

A. Breton[1], H. Stolp[2], L. Ferrara[1], L. Lundberg[1], I. Sá-Pereira[1], B. Finsen[3], B. Clausen[3], K. Lambertsen[3], D. Anthony[1]
[1]University of Oxford, Oxford, United Kingdom
[2]King's College, London, United Kingdom
[3]University of Southern Denmark, Odense, Denmark

T11-03B

Study of the capability of endogenous neural stem cells to protect from glutamatergic excitotoxicity by sensing danger signals

E. Butti[1], D. De Feo[1], E. Brambilla[1], M. Bacigaluppi[1,2], I. Zanoni[3], F. Granucci[3], G. Martino[3]
[1]San Raffaele Hospital, Division of Neuroscience, Milan, Italy
[2]Università Vita-Salute San Raffaele, Milan, Italy
[3]University of Milano-Bicocca, Department of Biotechnology and Biosciences, Milan, Italy

T11-04B

Enteric Glia: S100b, GFAP and beyond

D. Grundmann[1], D. Simon[1], F. Markwart[1], A. Scheller[2], F. Kirchhoff[2], K.- H. Schäfer[1]
[1]University of Applied Sciences, IMST/AGENS, Zweibrücken, Germany
[2]University of Saarland, Institute of Physiology, Homburg, Germany

T11-05B

Molecular and cellular characterization of the dormant and injury- activated mouse and human spinal cord stem cell niches

J.- P. hugnot[1], D. Mamaeva[1], C. Ripoll[1], L. Bauchet[1], F. Perrin[1], H. Noristani[1], V. rigau[1], B. Rothhut[1]
[1]INM-INSERM, Montpelier, France

T11-06B

Mining the sorting machinery of extracellular miRNAs in neural stem/precursor cells

N. Iraci[1], T. Leonardi[1], A. Enright[2], S. Pluchino[1]
[1]University of Cambridge, Cambridge, United Kingdom
[2]EMBL-EBI, Hinxton, United Kingdom

T11-07B

Mesenchymal Stem Cell-Secreted Factors Prevent p57^{kip2} Nuclear Translocation in Neural Stem/Progenitor Cells: Role in Oligodendroglial Fate Decision?

J. Jadasz[1], J. Domke[1], L.- S. Spitzhorn[2], R. Oreffo[3], H.- P. Hartung[1], J. Adjaye[2], P. Küry[1]
[1]Department of Neurology, Medical Faculty, Heinrich-Heine-University, Düsseldorf, Germany, Düsseldorf, Germany
[2]Institute for Stem Cell Research and Regenerative Medicine, Medical Faculty, Heinrich-Heine University, Düsseldorf, Germany, Düsseldorf, Germany
[3]Faculty of Medicine, University of Southampton, Southampton General Hospital, Mailpoint 801, South Academic Block, Tremona Road, Southampton SO16 6YD, United Kingdom

T11-09B

Neural Stem Cell Therapy for Spinal Cord Injury

C. López[1], A. Torres[1], J. Hernández[1], X. Navarro[1], M. Edel[2]
[1]Autonomous University of Barcelona, Group of Neuroplasticity and Regeneration, Barcelona, Spain
[2]University of Barcelona, Pluripotency Group, Barcelona, Spain

T11-10B

Neuroinflammation influences the viability, distribution and therapeutic efficacy of transplanted neural stem cells in a mouse model of multiple sclerosis

A. Merlini[1], D. De Feo[1], F. Ruffini[1], A. Finardi[1], G. Comi[2], G. Martino[1]
[1]San Raffaele Scientific Institute, Institute of Experimental Neurology -Neuroimmunology Unit, Milan, Italy
[2]San Raffaele Scientific Institute, Department of Neurology, Milan, Italy

T11-11B

Neurogenesis and lateral ventriclar extension in the adult guinea pig brain

F. Nualart[1], N. Jara[1], M. Cifuentes[2], K. Salazar[1], F. Martinez[1]
[1]University of Concepcion, Cell Biology/Center for Advanced Microscopy CMA BIOBIO, Concepcion, Chile
[2]Malaga University, Cell Biology, Genetic and Physiology, BIONAND, Malaga, Spain

T11-12B

Myelinating oligodendrocytes generated by direct cell reprogramming from adult rat adipose tissue

C. L. Paíno[1], M. P. Muñoz[1], L. C. Barrio[2], D. González-Nieto[3], L. Vellosillo[1,3]
[1]Hospital Ramón y Cajal, Servicio de Neurobiología-Investigación, Madrid, Spain
[2]Hospital Ramón y Cajal - IRYCIS, Unidad de Neurología Experimental, Madrid, Spain
[3]Universidad Politécnica de Madrid, Center for Biomedical Technology, CTB, Pozuelo de Alarcón, Madrid, Spain

T11-13B

Fate potential and clonal analysis of neural progenitors in distinct germinal niches of the postnatal cerebellum

E. Parmigiani[1], K. Leto[1], C. Rolando[2], A. Buffo[1], F. Rossi[1]
[1]Neuroscience Institute Cavalieri Ottolenghi, University of Turin, Department of Neuroscience, Turin, Italy
[2]University of Basel, Department of Biomedicine, Basel, Switzerland

T11-14B

Low density lipoprotein receptor-related protein 1 (LRP1) - a novel modulator of neural stem cells' properties in the developing cortex and spinal cord.

D. Safina[1], R. Romeo[1], F. Schlitt[1], F. Edenhofer[1], A. Faissner[1]
[1]Ruhr University Bochum, Cell morphology and molecular neurobiology, Bochum, Germany

T11-15B

Characterization of neural stem cell-derived reactive astrocytes in LPAR1-EGFP mice

R. Valcárcel-Martín[1,2], S. Martín-Suárez[1,2], J. M. Encinas[1,2,3]
[1]Achucarro Basque Center for Neuroscience, Zamudio, Spain
[2]Universidad del País Vasco, Neuroscience, Leioa, Spain
[3]Ikerbasque Foundation, Bilbao, Spain

T11-16B

EFFICIENT DERIVATION OF MYELINATING OLIGODENDROCYTES FROM NKX2.1-GFP HUMAN EMBRYONIC STEM CELL REPORTER LINE

M. Kim[1], J. Y. Lee[1], E. Stanley[2], A. Elefanty[2], S. Petratos[1]
[1]Monash University, Medicine, Prahran, Australia
[2]Murdoch Childrens Research Institute, Parkville, Australia

T12 Neuroimmunology and neuroinflammation

T12-01A

Intravenous Immunoglobulin Protects Oligodendrocytes in an Organotypic Slice Culture Model for Demyelination

C. Baksmeier[1], M. Winter[1], J. Steckel[1], M. Harrer-Kuster[2], N. Goebels[1], H.- P. Hartung[1]
[1]Uniklinikum Düsseldorf, Neurologie, Düsseldorf, Germany
[2]AbbVie AG, Baar, Germany

T12-02A

Age-related changes in glial functionality in hippocampal astrocytes: the role of NFκB, p38, Nrf-2 and HO-1 pathways in inflammatory response

B. Bellaver[1], D. Guerini de Souza[1], D. Gomes de Souza[1], A. Quincozes-Santos[1]
[1]Federal University of Rio Grande do Sul, Department of Biochemistry, Porto Alegre, Brazil

T12-03A

Translational investigation of microglia and antipsychotic medication

P. Bloomfield[1], S. Selvaraj[1], I. Bonoldi[2], M. Veronese[2], D. Owen[1], N. Kalk[1], M. Bloomfield[1], F. Turkheimer[2], P. McGuire[2], V. de Paola[1], O. Howes[1,2]
[1]Imperial College London, London, United Kingdom
[2]King's College London, London, United Kingdom

T12-04A

Green tea extract decreases astrogliosis and oxidative stress in the frontal cortex of obese rats

E. BONDAN[1,2], R. D. C. MACEDO DOS SANTOS[3], R. OTTON[3]
[1]UNIVERSITY PAULISTA, Environmental and Experimental Pathology, SÃO PAULO, Brazil
[2]UNIVERSITY CRUZEIRO DO SUL, SÃO PAULO, Brazil
[3]UNIVERSITY CRUZEIRO DO SUL, Institute of Physical Activity and Sports Sciences, SÃO PAULO, Brazil

T12-05A

IL-4 INDUCES AN ACUTE PRO-INFLAMMATORY BURST AND ACTIVATES AN ALTERNATIVE GENE PROGRAM MEDIATED BY THE JAK1/JAK3/STAT6 PATHWAY IN MICROGLIA

E. Bonfill[1], M. Dabrowski[2], B. Kaminska[3], A. M. Planas[1]
[1]IIBB-CSIC, IDIBAPS, Department of Brain Ischemia and Neurodegeneration, Barcelona, Spain
[2]Nencki Institute of Experimental Biology, Laboratory of Bioinformatics, Warsaw, Poland
[3]Nencki Institute of Experimental Biology, Laboratory of Molecular Neurobiology, Warsaw, Poland

T12-06A

Early neuroinflammation biomarkers in the Experimental Allergic Encephalomyelitis (EAE), an animal model for Multiple Sclerosis

N. Borjini[1,2,3], M. Fernandez[2], L. Giardino [2,3], L. Calzà[2,3]
[1]CHIESI FARMACEUTICI S.p.A. , Preclinical R&D , Parma, Italy
[2]University of Bologna, Health Science and Technologies Interdepartmental Center for Industrial Research (HST-ICIR), Ozzano Emilia (Bologna), Italy
[3]IRET Foundation, Ozzano Emilia (Bologna), Italy

T12-07A

MICROIMMUNOTHERAPEUTIC ADMINISTRATION OF CYTOKINES IMPROVE THE CLINICAL SYMPTOMS IN EAE, AN ANIMAL MODEL OF MULTIPLE SCLEROSIS

A. Camps Puig[1], B. Almolda[1], B. Castellano[1], B. González [1]
[1]Institute of Neuroscience , Histology Unit. Faculty of Medicine& Dept. Cell Biology, Physiology and Immunology, Barcelona, Spain

T12-09A

Altered immune signaling (TLR4 deficiency) impairs oligodendrocyte lineage cell responses and functional recovery after spinal cord injury in mice

J. Church[1], P. Popovich[1], D. McTigue[1]
[1]Ohio State University - OSU (OH), Neuroscience, Columbus, United States

T12-10A

FTY720 attenuates excitotoxicity and neuroinflammation

R. Cipriani [1], J. C. Chara[1], A. Rodríguez-Antigüedad[2], C. Matute[1]
[1]Achucarro Basque Center for Neuroscience & UPV/EHU, Zamudio, Spain
[2]Hospital de Basurto, Servicio de Neurología, Bilbao, Spain

T12-11A

The Abundance of Myeloid-Derived Suppressor Cells Protects Against Myelin Damage in EAE

D. Clemente[1], C. Melero-Jerez[1], F. de Castro[1]
[1]Hospital Nacional de Parapléjicos de Toledo, Group of Developmental Neurobiology, Toledo, Spain

T12-12A

SK channels modulate alpha-synuclein-dependent microglial activity and mitochondrial metabolism

A. Dolga[1], L. Matschke[2], F. Wilhelmy[1], M. Gold[3], R. Dodel[3], N. Decher[2], C. Culmsee[1]
[1]Philipps University Marburg, Institute of Pharmacology and Clinical Pharmacy, Marburg, Germany
[2]Philipps University Marburg, Inst. of Physiol. and Pathophysiology, Marburg, Germany
[3]Philipps University Marburg, Dept. of Neurology, Marburg, Germany

T12-13A

Differentially activated microglia release Extracellular Vesicles (EVs) presenting specific contents and functions in a model of nerve repair

F. DRAGO[1], T. Arab[1], C. Van Camp[1], F. Le Marrec-Croq[1], J. Franck[1], J.- P. Gimeno[1,2], M. Salzet[1], P.- E. Sautiere[1], C. Lefebvre[1], J. Vizioli[1]
[1]Université de Lille, Sciences et Technologies, laboratoire PRISM, Inserm U1192, Villeneuve d'Ascq, France
[2]SIRIC ONCOLILLE, Maison Régionale de la Recherche Clinique, 6 Rue du Professeur Laguesse, 59037, Lille, France

T12-14A

Profiling glial CXCL12 receptor expression during experimental autoimmune encephalomyelitis

J. Engele[1], F. Pelkner[1], A. Flügel[2], M. Puchert[1]
[1]University of Leipzig, Institute of Anatomy, Leipzig, Germany
[2]University of Göttingen, Institute for Multiple Sclerosis, Göttingen, Germany

T12-15A

Activation of the Alternative (RelB-dependent) NF-kB Pathway in Microglia is required for Brain Inflammation in Experimental Autoimmune Encephalomyelitis

C. Engelmann[1], R. Wilke[1,2], R. Grimlowski[1], M. Riemann[1], F. Weih[1], R. Haenold[1]
[1]Leibniz Institute for Age Research - Fritz Lipmann Institute (FLI), Immunology, Jena, Germany
[2]Biologisch-Pharmazeutische Fakultät, Friedrich Schiller Universität Jena, Zentrum für Molekulare Biomedizin (CMB), Jena, Germany

T12-16A

Sulforaphane exerts protective effects in microglial cells by switching polarization phenotypes

E. Eren[1], K. U. Tufekci[2,3], K. B. Isci[2,3], S. Genc[2,3]
[1]Dokuz Eylul University, Institute of Health Sciences, Department of Neuroscince, Izmir, Turkey
[2]Dokuz Eylul University, Institute of Health Sciences, Department of Neuroscince, Izmir, Turkey
[3]Dokuz Eylul University, Izmir Biomedicine and Genome Center, Izmir, Turkey

T12-17A

The role of microglial P2Y12 in controlling neurotrophic virus infection in the brain

R. Fekete[1], B. Sperlágh[2], î Kittel[2], Z. Boldogkői[3], Z. Környei[1], î Dénes[4]
[1]Institution of Experimental Medicine, Cellular and Developmental Neurobiology, Budapest, Hungary
[2]Institute of Experimental Medicine, Cellular Pharmacology, Budapest, Hungary
[3]University of Szeged, Depatment of Medical Biology, Szeged, Hungary
[4]Institute of Experimental Medicine, Molecular Neuroendocrinology, Budapest, Hungary

T12-18A

High Fat Diet Effects on Brain Inflammatory Mechanisms and Hypothalamic Progenitor cells

L. Fernandez de Cossio Gomez[1,2], J. Kim[1], Q. Leyrolle[2], A. Nadjar[2], S. Laye[2], G. Luheshi[1]
[1]Douglas Mental Health University Institute, Dr. Giamal Luheshi, Montreal, Canada
[2]Université de Bordeaux , NutriNeuro Lab, Bordeaux, France

T12-19A

DNGR-1+ dendritic cells are located in meningeal and choroid plexus membranes of the non-injured brain

A. Fernández Gil[1], E. Quintana[1], P. Velasco[1], B. de Andres[2], I. Liste[3], D. Sancho[4], M. Gaspar[2], E. M. Cano López[1]
[1]Instituto de Salud Carlos III, Neuroinflamación, Madrid, Spain
[2]Instituto de Salud Carlos III, Inmunología, Majadahonda, Spain
[3]Instituto de Salud Carlos III, Regeneración Neural, Majadahonda, Spain
[4]Centro Nacional de Investigaciones Cardiovasculares, Inmunology of Inflammation, Madrid, Spain

T12-20A

Chronic cortical inflammation as a novel experimental model of progressive Multiple Sclerosis. Influence of the innate immune system

C. Ferrari[1], B. Silva[1], M. C. Leal[2], M. I. Farias[2], V. Cavaliere Candedo[2], F. Pitossi[2]
[1]Hospital Italiano, Institute of Basci Sciences and Experimental Medicine, CABA, Argentina
[2]Fundacion Instituto Leloir, CABA, Argentina

T12-21A

Effect of an omega-3/antioxidants supplemented diet on emotional and cognitive alterations and neuroinflammatory processes associated with obesity

C. Fourrier[1,2], J. Sauvant[1,2], A. Aubert[1,2], S. Layé[1,2], C. Joffre[1,2], N. Castanon[1,2]
[1]INRA, Nutrition and Integrative Neurobiology, UMR1286, 33076 Bordeaux, France, France
[2]Université de Bordeaux, Nutrition and Integrative Neurobiology UMR1286, 33076 Bordeaux, France, France

T12-22A

Characterization of inflammatory response after mouse spinal cord injury

I. FRANCOS-QUIJORNA[1], R. LOPÉZ-VALES[1]
[1]UNIVERSITAT AUTONOMA DE BARCELONA, Facultad de medicina - Departament de Biologia Cel·lular, Fisiologia i Immunologia, Institut de Neurociències, Centro de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas (CIBERNED), Bellaterra - Barcelona, Spain

T12-23A

CX3CR1 delection restricts inflammatory signaling in microglia and promotes axon sprouting and synapse preservation after spinal cord injury.

C. Freria[1], J. Hall[1], D. McTigue[1], P. Popovich[1]
[1]The Ohio State University, Neuroscience, Columbus, United States

T12-24A

CD14 control over microglial TLR4 functions involves an IFNß-mediated feedback mechanism

C. Fritsche[1], H. Janova[2], U.- K. Hanisch[1,3]
[1]University Medical Center Göttingen, Institute of Neuropathology, Göttingen, Germany
[2]University of Virginia, Department of Neuroscience, Charlottesville, United States
[3]Universität Leipzig, Paul-Flechsig-Institut für Hirnforschung, Leipzig, Germany

T12-25A

A phosphorous-based dendrimer with anti-inflammatory properties towards microglia

S. Fruchon[1], A.- M. Caminade[2], C. Turrin[2], R. Poupot[1]
[1]INSERM, CPTP, TOULOUSE, France
[2]CNRS, LCC, TOULOUSE, France

T12-26A

Microglia tolerance to LPS is mediated by RelB-dependent epigenetic silencing

X. Zhang[1], W. Schaafsma[1], E. Boddeke[1], B. Eggen[1]
[1]University Medical Center Groningen, Department of Neuroscience, Groningen, Netherlands

T12-27A

Autoantibody-driven astrocytopathy: creation of an *in vivo* model to decipher the pathophysiological mechanisms of Neuromyelitis optica

P. Giraudon[1], A. RUIZ[1], S. CAVAGNA[1], C. WATRIN[1], S. PARROT[2], G. MALLERET[3], C. BENETOLLO[4], N. AUVERGNON[1], S. VUKUSIC[5], R. MARIGNIER[1,5]
[1]Lyon Neuroscience Research Center, Neurooncology Neuroinflammation team, Lyon, France
[2]Lyon Neuroscience Research Center, NeuroDiaLytics facilities, Lyon, France
[3]Lyon Neuroscience Research Center, SLEEP team, Lyon, France
[4]Lyon Neuroscience Research Center, NGFO facilities, Lyon, France
[5]Lyon Neurological Hospital, Neurology A, Lyon, France

T12-28A

Modulation of the glial niche by the neuropeptide Cortistatin: involvement in neuroinflammation and neurodegeneration

E. GONZALEZ-REY[1], M. PEDREÑO[1], M. CARO[1], I. FORTE[1], G. ROBLEDO[1], J. M. VILLAESCUSA[1], M. DELGADO[1]
[1]INSTITUTE OF PARASITOLOGY AND BIOMEDICINE-CSIC-Q2818002D, GRANADA, Spain

T12-29A

Culturing adult mouse microglia

A. Greenhalgh[1], K. Renault[2], B. McColl[2], S. David[1]
[1]Research Institute of the McGill University Health Centre, Centre for Research in Neuroscience, Montreal, Canada
[2]The Roslin Institute and Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh, United Kingdom

T12-30A

***Ccr2* deletion dissociates cavity size and Tau pathology after mild traumatic brain injury**

S. Gyoneva[1], D. Kim[2], A. Katsumoto[1], B. Lamb[1], R. Ransohoff[3,1]
[1]Cleveland Clinic Foundation, Lerner Research Institute Dept. of Neurosciences, Cleveland, United States
[2]Case Western Reserve University, Cleveland, United States
[3]Biogen Idec, Neuro/Immuno Discovery Biology, Cambridge, United States

T12-31A

Differential balance in STAT1 and STAT3 activation and transcriptional responses to gp130 cytokines in astrocytes versus microglia

M.- P. Hsu[1], S. Rose-John[2], I. L. Campbell[1]
[1]University of Sydney, School of Molecular Bioscience and Bosch Institute, Darlington, Australia
[2]University of Kiel, Department of Biochemistry, Kiel, Germany

T12-32A

Functional analysis of TN-C and GFAP induced upregulation in the reactive astrocytes in the injured brain and in primary culture

H. IKESHIMA-KATAOKA[1,2], S. INUI[2], M. IMAMURA[2], M. YASUI[2]
[1]Waseda University, Faculty of Science and Engineering, Bld 56, Rm 301, Tokyo, Japan
[2]Keio University School of Medicine, Department of Pharmacology & Neuroscience, Tokyo, Japan

T12-33A

CD11c-positive cells from brain, spleen, lung, and liver exhibit site-specific immune phenotypes

K. Immig[1], M. Gericke[1], F. Menzel[1], F. Merz[1], M. Krueger[1], F. Schiefenhövel[1], U. K. Hanisch[2], K. Biber[3], I. Bechmann[1]
[1]Leipzig University, Institute of Anatomy, Leipzig, Germany
[2]University of Göttingen, Institute of Neuropathology, Göttingen, Germany
[3]University of Freiburg, Department of Psychiatry and Psychotherapy, Section of Molecular Psychiatry, Freiburg, Germany

T12-34A

SULFORAPHANE INHIBITS INFLAMMASOME ACTIVATION IN MURINE MICROGLIAL CELLS

K. ISCI[1], E. Eren[2,3], Ů Genç[2,3]
[1]Izmir Institute of Technology, Molecular Biology and Genetics, Izmir, Turkey

[2]Dokuz Eylul University, Izmir Biomedicine and Genome Center, Izmir, Turkey
[3]Dokuz Eylul University, Institute of Health Science, Department of Neuroscience, Izmir, Turkey

T12-35A

The role of autophagy in microglial activation

M. Jendrach[1], F. L. Heppner[1]
[1]Charité - Universitätsmedizin Berlin, Institute of Neuropathology, Berlin, Germany

T12-36A

RNA-based regulation of Neuroinflammatory responses

I. Jou[1]
[1]Ajou University School of Medicine, Dept. of Pharmacology, Suwon, Republic of Korea

T12-37A

Interferon-beta induced within the CNS plays a protective role in EAE

R. M. H. Khorooshi[1], M. Thorsen Mørch[1], T. Hellesøe Holm[2], C. Tue Berg[1], R. Truong Dieu[1], D. Dræby[1], S. Weiss[3], S. Lienenklaus[3], T. Owens[1]
[1]Institute for Molecular Medicine, Neurobiology Research, Odense, Denmark
[2]Department of Biomedicine, Aarhus University, Aarhus, Denmark
[3]Department of Molecular Immunology, Helmholtz Centre for Infection Research, Braunschweig, Germany

T12-38A

The role of NG2 in inflammatory disease of the CNS

M. Kitic[1], K. Karram[1], N. Israel[1], F. Wanke[1], F. C. Kurschus[1], A. Waisman[1]
[1]University Medical Center of the Johannes Gutenberg University Mainz, Institute for Molecular Medicine, Mainz, Germany

T12-39A

Targeting the CSF-1 receptor alleviates two forms of Charcot-Marie-Tooth disease in mice.

D. Klein[1], î Patzkó[1], D. Schreiber[1], A. van Hauwermeiren[1], M. Baier[1], J. Groh[1], B. L. West[2], R. Martini[1]
[1]Department of Neurology, Developmental Neurobiology, Wuerzburg, Germany
[2]Plexxikon Inc., Berkeley CA, United States

T12-40A

Augmentation of neuropathic pain by DAP12 mediated signal in microglia

H. Konishi[1], M. Kobayashi[1], T. Takai[2], H. Kiyama[1]
[1]Nagoya University Graduate School of Medicine, Department of Functional Anatomy and Neuroscience, Nagoya, Japan
[2]Tohoku University, Department of Experimental Immunology, Institute of Development, Aging and Cancer, Sendai, Japan

T12-41A

Local inflammatory cell infiltration in marmosets with experimental autoimmune encephalomyelitis is associated with retinal ganglion cell activation and subpial cortical demyelination

N. Kramann[1], K. Neid[1], M. L. Ton[1], E. Fuchs[2], W. Brück[1], C. Wegner[1]
[1]Department of Neuropathology, Göttingen, Germany
[2]German Primate Center, Göttingen, Germany

T12-42A

Toll-like receptor 3 contributes to inflammatory Schwann cell activation and Wallerian degeneration after peripheral nerve injury

H. Lee[1], J. Baek[1], S. J. Lee[1]
[1]Seoul national university, Department of Neuroscience, Seoul, Republic of Korea

T12-43A

Developmental priming of microglia by n-3 PUFAs deficiency

Q. Leyrolle[1], C. Lacabanne[1,2], V. Labrousse[1,2], A. Seré[1,2], A. Aubert[1,2], C. Joffre[1,2], S. Layé[1,2], A. Nadjar[1,2]
[1]INRA, Nutrition and Integrative Neurobiology, UMR1286, 33076 Bordeaux, France
[2]University of Bordeaux, Nutrition and Integrative Neurobiology, UMR1286, 33076 Bordeaux, France

T12-44A

IGF1R signaling in oligodendrocytes regulates neuroinflammation without affecting cell survival

G. Locatelli[1,2], M. Krueger[3], B. Ingold-Heppner[4], O. Prazeres da Costa[5], L. Koch[6], A. Dolga[7], M. Huber[8], M. Gold[9], J. Brüning[6], C. Culmsee[7], A. Waisman[10], I. Bechmann[3], B. Becher[2], T. Buch[2,5]
[1]LMU University Munich, Munich, Germany
[2] University of Zürich, Institute of Experimental Immunology, Zurich, Switzerland
[3]University of Leipzig, Institute of Anatomy, Leipzig, Germany
[4] Campus Mitte, Charité –Universitätsmedizin , Institute of Pathology, Berlin, Germany
[5]Technische Universität München, Institute for Medical Microbiology, Immunology and Hygiene, München, Germany
[6]University of Cologne, Institute for Genetics, Cologne, Germany
[7]Philipps-Universität Marburg, Institute for Pharmacology and Clinical Pharmacy, Marburg, Germany
[8] Philipps University of Marburg, Institute for Medical Microbiology and Hospital Hygiene, Marburg, Germany
[9]Philipps University of Marburg, Department of Neurology, Marburg, Germany
[10]University of Mainz, Institute for Molecular Medicine, University Medical Center of the Johannes Gutenberg, Mainz, Germany

T12-45A

Inducible nitric oxide synthase (NOS2) modulation after chronic minocycline in neurpathic pain and influence of selective NOS2 inhibitor on opioid analgesia

W. Makuch[1], E. Rojewska[1], M. Zychowska[1], B. Przewłocka[1], J. Mika[1]
[1]Institute of Pharmacology, Polish Academy of Sciences, Department of Pain Pharmacology, Krakow, Poland

T12-46A

Novel approaches to image the neuroinflammatory response after stroke by PET

A. Martin[1], V. Gómez-Vallejo[1], B. Szczupak[1], A. Arrieta[1], A. Cano[1], C. Muñoz[1], D. Padro[1], A. Damont[2], F. Dolle[2], J. Llop[1]
[1]CICbiomaGUNE, Molecular Imaging Unit, San Sebastian, Spain
[2]CEA, I2BM, Service Hospitalier Frédéric Joliot, Orsay, France

T12-49A

Exploring IFN-ß-mediated new effects on tissue damage prevention in EAE: enhancement of Myeloid-Derived Suppressor Cell immunosuppressive activity

C. Melero-Jerez[1], M. Suardíaz[2], C. Marín-Bañasco[2], î Fernández[2], F. de Castro[1], D. Clemente[1]
[1]Hospital Nacional de Parapléjicos de Toledo, Group of Developmental Neurobiology, Toledo, Spain
[2]Hospital Regional Universitario Carlos Haya- FIMABIS, Málaga, Málaga, Spain

T12-50A

TLR2-induced astrocyte MMP9 activation compromises the blood brain barrier and exacerbates collagenase-induced intracerebral hemorrhage

H. Min[1], J. Hong[1], Y. H. Jang[1], H. Lee[1], D. Kim[2], S.- W. Yu[3], S. Lee[4], S. J. Lee[1]
[1]Seoul National University, Department of Neuroscience, Seoul, Republic of Korea
[2]Chungnam National Universit, Department of Anatomy, Daejeon, Republic of Korea
[3]Gyeongbuk Institute of Science and Technology, Department of Brain Science, Daegu, Republic of Korea
[4]Chungnam National University, Department of Microbiology, Daejeon, Republic of Korea

T12-51A

Macrophage activation in perinatal brain injury

G. Ireland[1], B. Fleiss[2], J.- C. Becher[3], D. Rowitch[4], C. Smith[5], J. Norman[1], P. Gressens[2], J. Pollard[1], V. Miron[1]
[1]The Queen's Medical Research Institute, The University of Edinburgh, MRC Centre for Reproductive Health, Edinburgh, United Kingdom
[2]King's College London, Perinatal Imaging and Health, London, United Kingdom
[3]Royal Infirmary of Edinburgh, Simpson Centre for Reproductive Health, Edinburgh, United Kingdom
[4]University of California San Francisco, Neurological Surgery, San Francisco, United States
[5]The University of Edinburgh, Centre for Clinical Brain Sciences, Edinburgh, United Kingdom

T12-52A

The role and impact of A20 expression by microglia in neuroinflammation

A. Mohebiany[1], A. Waisman[1]
[1]University Medical Center of Mainz, Institute for Molecular Medicine, Mainz, Germany

T12-53A

Neurodegeneration by a microglial complement-phagosome pathway

L. Bodea[1], B. Linnartz-Gerlach[1], J. Kopatz[1], L. Sinkkonen[2], R. Balling[2], H. Neumann[1]
[1]University of Bonn, Bonn, Germany
[2]University of Luxembourg, Luxembourg

T12-54A

Increased transcripts evidenced in laser-capture microdissected white matter astrocytes during experimental autoimmune encephalomyelitis in relation to immune cell infiltrate

A. B. Nicot[1,2,3], F. Guillot[1,2,3], A. Garcia[1,2,3], M. Salou[1,2,3], S. Brouard[1,2,3], D. A. Laplaud[1,2,3]
[1]INSERM , UMR 1064, Nantes, France
[2]University of Nantes, Nantes, France
[3]CHU Nantes, ITUN, Nantes, France

T12-55A

Astrocyte bioenergetics in multiple sclerosis: novel insights to combat neuroinflammation and -degeneration

P. Nijland[1], S. van der Pol[1], P. van der Valk[2], H. E. de Vries[1], J. van Horssen[1]
[1]VU university medical center, Molecular cell biology and immunology, Amsterdam, Netherlands
[2]VU university medical center, pathology, Amsterdam, Netherlands

T12-56A

Pharmacological inhibition of CSF1R blocks microglial proliferation and prevents the progression of Alzheimer's-like pathology

A. Olmos-Alonso[1], S. T. Schetters[1], S. Sri[1], K. Askew[1], M. Vargas-Caballero[1], C. Holscher[2], V. H. Perry[1], D. Gomez-Nicola[1]
[1]University of Southampton, Centre for Biological Sciences, Southampton, United Kingdom
[2]Lancaster University, Division of Biomedical and Life Sciences, Faculty of Health and Medicine, Lancaster, United Kingdom

T12-57A

Roles of Cx47 and Cx32 in experimental autoimmune encephalomyelitis

C. Papaneophytou[1], I. Sargiannidou[1], E. Georgiou[1], C. Abrams[2], K. Kleopa[1]
[1]The Cyprus Institute of Neurology and Genetics, Neuroscience Laboratory and Neurology Clinics, Nicosia, Cyprus
[2]SUNY Downstate Medical Center, Departments of Neurology and Physiology and Pharmacology, New York, United States

T12-58A

THERAPEUTIC ROLE OF ADRENOMEDULLIN IN MULTIPLE SCLEROSIS: INVOLVEMENT IN REMYELINATION PROCESSES

M. PEDRENO MOLINA[1], I. FORTE[1], L. CARBALLO[1], M. DELGADO[1], E. GONZALEZ-REY[1]
[1]CSIC, GRANADA, Spain

T12-59A

Changes of microglia cells associated to aging in a mouse model of accelerated senescence: the SAM P8 mice

E. Quintana[1], P. Velasco[1], A. Fernández[1], H. Mira[1], M. Vilar[1], S. M. Arribas[2], E. Cano[1]
[1]Instituto de Salud Carlos III. , Unidad Funcional de Investigación de Enfermedades Crónicas (UFIEC), Madrid, Spain
[2]Universidad Autónoma de Madrid, Departamento de Fisiología, Madrid, Spain

T12-60A

Resolvins and lipoxin promote resolution of brain inflammation

C. Rey[1,2,3], A. Aubert[1,3], S. Layé[1,3], B. Buaud[2], C. Vaysse[2], C. Joffre[1,3]
[1]INRA, Nutrition and Integrative Neurobiology, UMR1286, 33076 Bordeaux, France
[2]ITERG, Institut des corps gras, 33600 Pessac, France
[3]University of Bordeaux, Nutrition and Integrative Neurobiology, UMR1286, 33076 Bordeaux, France

T12-61A

Functional properties of microglia in mouse models of Alzheimer's disease

N. Saiepour[1], T. A. Bayer[2], H. W. G. Boddeke[3], U.- K. Hanisch[1,4]
[1]University medicine Goettingen, Department of Neuropathology, Goettingen, Germany
[2]University Medical Center Goettingen, Department for Psychiatry, Division of Molecular Psychiatry, Goettingen, Germany
[3]University Medical Center Groningen, Department of Neuroscience, Groningen, Netherlands
[4]Universität Leipzig, Paul-Flechsig-Institut für Hirnforschung, Leipzig, Germany

T12-62A

Nitric oxide-mediated microglial phagocytosis and why carbon monoxide could be good for the inflamed brain

H. Scheiblich[1], G. Bicker[1]
[1]University of Veterinary Medicine Hannover, Division of Cell Biology, Hannover, Germany

T12-63A

Immune-mediated axono-glial damage - an *in vivo* two-photon imaging approach

V. Siffrin[1]
[1]Charité - Universitätsmedizin Berlin and Max-Delbrück-Centrum Berlin-Buch, ECRC/Neuroimmunology Lab, Berlin, Germany

T12-64A

Modulation of S1P receptors at the Blood Brain Barrier: do astrocytes play an essential role?

S. Spampinato[1,2], B. Obermeier[2,3], A. Cotleur[2,3], A. Love[2], Y. Takeshita[2,4], R. Ransohoff[2,3]
[1]University of Catania, Biomedical and Biotechnological Science- section Pharmacology, Catania, Italy
[2]Cleveland Clinic Fundation, Neuroscience, Cleveland- OH, United States
[3]Biogen Idec, Cambridge-MA, United States
[4]Yamaguchi University, Yamaguchi, Japan

T12-65A

Role of STAT3-dependent reactive astrocytes in the spinal dorsal horn in chronic itch

M. Shiratori-Hayashi[1], K. Inoue[2], M. Tsuda[1]
[1]Kyushu University, Department of Life Innovation, Graduate School of Pharmaceutical Sciences, Fukukoka, Japan
[2]Kyushu University, Department of Molecular and System Pharmacology, Graduate School of Pharmaceutical Sciences, Fukuoka, Japan

T12-66A

ENDOTHELIAL PROTEIN C RECEPTOR EXPRESSION IN MICROGLIA IS REGULATED BY SP1

K. U. Tufekci[1,2], E. Eren[1,2], H. Ates[3], S. Genc[1,2]
[1]Dokuz Eylul University, Department of Neuroscience, Izmir, Turkey
[2]Dokuz Eylul University, Izmir Biomedicine and Genome Center, Genc Lab., Izmir, Turkey
[3]Dokuz Eylul University, Institute of Oncology, Izmir, Turkey

T12-67A

Microglia are involved in apoptotic clearance during chronic-relapsing EAE

I. Vainchtein[1], J. Vinet[2], S. Al-Izki[3], G. Pryce[3], C. Grit[1], N. Brouwer[1], S. Amor[4], D. Baker[3], B. Eggen[1], E. Boddeke[1]
[1]University Medical Center Groningen, Department of Neuroscience, Groningen, United Kingdom
[2]University of Modena and Reggio Emilia, Department of Biomedical, Metabolic and Neural Sciences, Modena, Italy
[3]Blizard Institute, Barts and the London, Department of Neuroimmunology, London, United Kingdom
[4]VU Medical Center Amsterdam, Department of Pathology, Amsterdam, Netherlands

T12-68A

Inhibition of the JNK pathway as a treatment for perinatal diffuse white matter injury

E. van Tilborg[1], C. Heijnen[2], M. Benders[3], F. van Bel[3], C. Nijboer[1]
[1]UMC Utrecht, Laboratory of Neuroimmunology and Developmental Origins of Disease (NIDOD), Utrecht, Netherlands
[2]MD Anderson Cancer Center, Houston, United States
[3]UMC Utrecht, Department of Neonatology, Utrecht, Netherlands

T12-69A

The phenotypes of microglia and macrophages during epileptogenesis

J. Vinet[1], I. D. Vainchtein[2], C. Spano[3], C. Giordano[1], D. Boldrini[1], M. Dominici[3], B. J. L. Eggen[2], G. Biagini[1]
[1]University of Modena and Reggio Emilia, Biomedical, Metabolic and Neural Sciences, Modena, Italy
[2]University of Groningen, Neuroscience, Groningen, Netherlands
[3]University of Modena and Reggio Emilia, Department of Medical and Surgical Sciences for Children & Adults, Modena, Italy

T12-70A

Atopic diathesis model mice express tactile allodynia (Atopy-related allodynia) with glial inflammation in spinal cord

R. Yamasaki[1], J.- I. Kira[2]
[1]Kyushu University, Department of Neurotherapeutics, Fukuoka, Japan
[2]Kyushu University, Department of Neurology, Fukuoka, Japan

T12-71A

TUDCA skews microglia towards M2 phenotype through the G-protein coupled bile acid receptor GPBAR1/TGR5

N. Yanguas Casás[1], M. de la Barreda Manso[1], M. Nieto Sampedro[1], L. Romero Ramírez[2]
[1]Instituto Cajal, CSIC, Neural Plasticity Group, Madrid, Spain
[2]Hospital Nacional de Parapléjicos, Neural Plasticity Group, Toledo, Spain

T12-72A

Multiple Sclerosis: Studying lipocalin 2 as a novel player in the pathophysiology of the disease.

S. Neves[1,2], S. Mesquita[1,2], C. Ferreira[1,2], J. Sousa[1,2], J. Cerqueira[1,2], N. Sousa[1,2], M. Correia-Neves[1,2], J. Palha[1,2], F. Marques[1,2]
[1]Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho, Braga, Portugal
[2]ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal

T12-01B

Role of Glial Cells in the Neuroinflammatory Damage induced by Ethanol through TLRs/NLRs receptors

S. ALFONSO-LOECHES[1], J. UREÑA-PERALTA[1], M. MORILLO-BARGUES[1], J. OLIVER-de la CRUZ[1], U. GÓMEZ-PINEDO[2], C. GUERRI[1]
[1]PRINCE FELIPE RESEARCH CENTER, CELLULAR AND MOLECULAR PATHOLOGY OF ALCOHOL, VALENCIA, Spain
[2]NEUROSCIENCE INSTITUTE. HOSPITAL CLÍNICO SAN CARLOS, Department of Regenerative Medicine/Neurology and Neurosurgery, MADRID, Spain

T12-02B

Neuropeptide Y Y_1 receptor modulates microglia activation in the rat retina

A. Ambrósio[1,2,3], F. Elvas[1,2,4], M. H. Madeira[1,3], T. Martins[1,2], C. Cavadas[4,3], A. R. Santiago[1,2,3]
[1]IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal
[2]AIBILI, Coimbra, Portugal
[3]CNC.IBILI, University of Coimbra, Coimbra, Portugal
[4]Faculty of Pharmacy, University of Coimbra, Coimbra, Portugal

T12-03B

Differential inflammasome expression and activation in glial cells

A. Gustin[1], M. Kirchmeyer[1], E. Koncina[1], P. Felten[1], P. Heuschling[1], C. Dostert[1]
[1]University of Luxembourg, Luxembourg, Luxembourg

T12-04B

IL4 exposure broadly represses TLR-induced cytokine responses in primary microglia

C. van der Putten[1], E. Zuiderwijk-Sick[1], J. Veth[1], S. Burm[1], E. Pasini[2], H. Kuipers[3], M. van Eggermond[3], L. van Straalen[1], I. Kondova[4], P. van der Valk[3], P. van den Elsen[3], S. Amor[3], J. Bajramovic[1]
[1]Biomedical Primate Research Centre, Alternatives, Rijswijk, Netherlands
[2]Biomedical Primate Research Centre, Parasitology, Rijswijk, Netherlands
[3]Free University Medical Centre, Pathology, Amsterdam, Netherlands
[4]Biomedical Primate Research Centre, Animal Science, Rijswijk, Netherlands

T12-05B

Phagocytic gliapses precede cellular elimination leading to targeted phagoptosis in the brain

E. Saavedra[1], P. Casanova[1], C. Barcia[1]
[1]Universitat Autonoma de Barcelona, Biochemistry and Molecular Biology/Neuro-Immunity, Bellaterra, Barcelona, Spain

T12-06B

Antibody and complement-mediated glial response and demyelination.

C. Berg[1], R. Khorooshi[1], N. Asgari[1], C. Linington[2], P. B. Morgan[3], T. Owens[1]
[1]University of Southern Denmark, Department of Neurobiology Research, Odense, Denmark
[2]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom
[3]Cardiff University, Institute of Infection and Immunity, Cardiff, United Kingdom

T12-07B

Intracerebroventricular insulin presents different neuroinflammatory effects in young and aged hippocampus of Wistar rats.

C. Branco Haas[1,2], A. Kopczynski de Carvalho[1], A. Pastoris Müller[1,3], L. V. Cruz Portela[1]
[1]UFRGS, Biochemistry Department, Porto Alegre, Brazil
[2]University of Groningen, Department of Neuroscience, Groningen, Netherlands
[3]UNESC, Health Sciences Unit, Criciúma, Brazil

T12-08B

Inflammasome-induced IL-1β secretion in microglia is characterized by delayed kinetics and is only partially dependent on inflammatory caspases

S. Burm[1], E. Zuiderwijk-Sick[1], A. 't Jong[1], C. van der Putten[1], J. Veth[1], I. Kondova[2], J. Bajramovic[1]
[1]Biomedical Primate Research Centre, Alternatives Unit, Rijswijk, Netherlands
[2]Biomedical Primate Research Centre, Animal Science Department, Rijswijk, Netherlands

T12-09B

Astrocytes as a key partner in Methamphetamine-induced Microglia activation

T. Canedo[1], C. C. Portugal[1], R. Socodato[1], J. Relvas[1], T. Summavielle[1]
[1]Instituto de Investigação e Inovação em Saúde and Instituto de Biologia Molecular e Celular, Universidade do Porto, Porto, Portugal

T12-10B

Microglial Microvescicles as therapeutic vector for neuroinflammation

G. Casella[1], F. Colombo[1], R. Furlan[1]
[1]Ospedale San Raffaele, Clinical Neuroimmunology, MILANO, Italy

T12-12B

Influence of the anti-epileptic drug lacosamide (LCM) on glial properties in astrocyte/microglia co-cultures

H. Dambach[1], Z. Moinfar[1,2], F. Corvace[1], E. Förster[1], P. M. Faustmann[1,2]
[1]Ruhr-Universität , Neuroanatomie und Molekulare Hirnforschung, Bochum, Germany
[2]Ruhr-Universität, International Graduate School of Neuroscience (IGSN), Bochum, Germany

T12-13B

IN MICE RETINA CONTRALATERAL TO EXPERIMENTAL GLAUCOMA INCREASED MICROGLIAL CELL NUMBER AND RETRACTION OF MICROGLIAL PROCESSES OCCURS BEYOND THE GCL

R. DE HOZ[1,2], A. I. RAMIREZ[1,2], B. I. GALLEGO[1], B. ROJAS[1,3], J. J. SALAZAR[1,2], F. J. VALIENTE-SORIANO[4], M. AVILES-TRIGUEROS[4], M. P. VILLEGAS-PEREZ[4], M. VIDAL-SANZ[4], A. TRIVIÑO[1,3], J. M. RAMIREZ[1,3]
[1]UNIVERSIDAD COMPLUTENSE DE MADRID, INSTITUTO DE INVESTIGACIONES OFTALMOLOGICAS RAMON CASTROVIEJO, MADRID, Spain
[2]UNIVERSIDAD COMPLUTENSE DE MADRID, FACULTAD DE OPTICA Y OPTOMETRIA, MADRID, Spain
[3]UNIVERSIDAD COMPLUTENSE DE MADRID, FACULTAD DE MEDICINA, MADRID, Spain
[4]UNIVERSIDAD DE MURCIA, LABORATORIO OFTALMOLOGIA EXPERIMENTAL, MURCIA, Spain

T12-14B

Inflammasome expression in demyelinated CNS lesions

S. Fleville[1], M. Dittmer[1], D. Fitzgerald[1], Y. Dombrowski[1]
[1]Queen's University Belfast, Centre for Infection and Immunity, Belfast, United Kingdom

T12-15B

Temporal gene expression profile related to microglia reactivity in 3xTgAD mice

A. Fernandes[1], C. Caldeira[1], A. S. Falcão[1], C. Cunha[1], A. R. Vaz[1], D. Brites[1]
[1]Faculdade de Farmácia, Universidade de Lisboa, Dep. Biochemistry and Human Biology/iMed.ULisboa, Lisbon, Portugal

T12-16B

Microglial Wnt signaling inhibition promotes microglia activation and oligodendrocyte maturation blockade

B. Fleiss[1,2], J. Van Steenwinckel[1,2], A. L. Schang[2], S. Sigaut[2], M. Krishnan[1], A. Montamé[2], V. Degos[2], O. Hennebert[2], S. Lebon[2], L. Schwendimann[2], T. Le Charpentier[2], A. D. Edwards[1], H. Hagberg[1], N. Soussi-Yanicostas[2], P. Gressens[1,2]
[1]Kings College London, Paris, France
[2]Inserm U1141, Paris, France

T12-17B

Astrocytes overexpressing transforming growth factor beta1 show increase uptake and degradation of beta amyloid

S. Amram[1,2], D. Frenkel[1,2]
[1]Tel Aviv University, Sagol school for Neuroscience, Tel Aviv University, Tel Aviv, Israel
[2]Tel Aviv University, Department of Neurology, Life Sciences Faculty, Tel Aviv, Israel

T12-18B

A statistical physics-based spatial analysis in APP/PS1 mice reveals that astrocytes do not migrate to amyloid-beta plaques

E. Galea[1], W. Morrison[2], E. Hudry[3], M. Arbel-Ornath[3], B. J. Bacskai[3], T. Gómez-Isla[3], H. E. Stanley[2], B. T. Hyman[3]
[1]Universitat Autònoma de Barcelona, Institut de Neurociències, Bellaterra, Spain

[2]Boston University, Center for Polymer Studies, Boston, United States
[3]Massachusetts General Hospital, MIND, Charlestown, United States

T12-19B

Role of Tumor Necrosis Factor Receptor 2 signaling in microglia and macrophages in experimental autoimmune encephalomyelitis

H. Gao[1], P. M. Madsen[1], R. Brambilla[1]
[1]University of Miami, The Miami Project To Cure Paralysis, Miami, United States

T12-20B

Synaptophysin is a suitable marker to study axonal transport damage during experimentally induced demyelination.

V. Gudi[1], L. Gai[2], L. Salinas Tejedor[2,3], V. Herder[1], W. Baumgärtner[1,3], M. Stangel[2,3], T. Skripuletz[2]
[1]University of Veterinary Medicine Hannover, Pathology, Hannover, Germany
[2]Hannover Medical School, neurology, Hannover, Germany
[3]Centre for Systems Neuroscience, Hannover, Germany

T12-21B

CNS endothelial IL-1 signaling drives neuroinflammation

J. Hauptmann[1], T. Regen[1], A. Waisman[1]
[1]University Medical Center, Institute for Molecular Medicine, Mainz, Germany

T12-22B

Intrahippocampal clodronate administration alters CX3CR1 expression and the amount of nestin-positive cells, but does not modify the IL-1b expression after a LPS treatment in mice.

C. LACABANNE[1], J. Y. Kim[2], S. LAYE[3], G. Luheshi[2]
[1]Douglas Mental Health Institute (McGill) & Université de Bordeaux, Dr Luheshi's Lab & NutriNeuro Lab, Montréal, Canada
[2]Douglas Mental Health Institute (McGill), Dr Luheshi's Lab , Montréal, Canada
[3]Université de Bordeaux - INRA, NutriNeuro Lab, Bordeaux, France

T12-23B

The role of mTOR kinase in glioma-activated rat microglia and in human glioma.

E. Laudati[1], C. Dello Russo[1], P. Navarra[1], L. Lisi[1]
[1]Catholic University Medical School, Institute of Pharmacology, Rome, Italy

T12-24B

Oligodendroglial TNFR2 mediates transmembrane TNF-dependent repair in experimental autoimmune encephalomyelitis by promoting oligodendrocyte differentiation

P. Madsen[1], D. Motti[2], D. Szymkowski[3], K. Lambertsen[4], J. Bethea[5], R. Brambilla[1]
[1]University of Miami Miller School of Medicine, The Miami Project to Cure Paralysis, Miami, Germany
[2]Nationwide Childrens Hospital, Columbus, United States
[3]Xencor Inc, Monrovia, United States

[4]University of Southern Denmark, Neurobiology Research, Odense, Denmark
[5]Drexel University, Department of Biology, Philadelphia, United States

T12-25B

LIVER X RECEPTOR ACTIVATION IN MS LESIONS

J. Mailleux[1], T. Vanmierlo[1], J. Bogie[1], E. Wouters[1], P. Stinissen[1], J. Hendriks[1], J. van Horssen[2]
[1]Hasselt University, Neuroimmunology, Diepenbeek, Belgium
[2]VUmc Amsterdam, Molecular Cell Biology and Immunology, Amsterdam, Netherlands

T12-27B

The Effect of Microglia on Progenitor Cells During Tuberal Hypothalamic Development

C. Marsters[1], Q. Pittman[1], D. Kurrasch[1]
[1]University of Calgary, Neuroscience, Calgary, Canada

T12-28B

A novel imaging approach to monitor multiple sclerosis

M. Domercq[1], A. Martin[2], N. Vázquez-Villoldo[1], D. Padro[2], V. Gómez-Vallejo[2], F. Soria[1], B. Szczupak[2], S. Plaza[2], A. Arrieta[2], T. Reese[2], J. Llop[2], C. Matute[1]
[1]Achucarro Basque Center for Neuroscience-UPV/EHU, Leioa, Spain
[2]CICbiomaGUNE, San Sebastian, Spain

T12-29B

Elucidating the Roles of FGF Signaling in Multiple Sclerosis

D. McElroy[1], K. Thuemmler[1], M. Lindner[1], C. Schuh[2], H. Lassman[2], C. Linington[1]
[1]University of Glasgow, Glasgow, United Kingdom
[2]University of Vienna, Department of Neuroimmunology, Vienna, Austria

T12-30B

Probenecid application prevents clinical symptoms and T cell infiltration in a mouse model of experimental autoimmune encephalomyelitis

N. Hainz[1], S. Semar[1], T. Tschernig[1], C. Meier[1]
[1]Saarland University, Anatomy and Cell Biology, Homburg / Saar, Germany

T12-31B

Microglia - the radio-resistant immune cell of the brain

F. Menzel[1], K. Immig[1], F. Merz[1], I. Bechmann[1]
[1]Medical Fakulty, University of Leipzig, Institute of Anatomy, Leipzig, Germany

T12-32B

Glial changes in psychiatric disorders; towards isolating glia from the post-mortem human brain.

M. Mizee[1], K. Schuurman[1], J. Hamann[2], I. Huitinga[1]
[1]Netherlands Institute for Neuroscience, Netherlands Brain Bank, Amsterdam, Netherlands
[2]Academic Medical Center, Experimental Immunology, Amsterdam, Netherlands

T12-33B

Inflammatory response caused by GFAP mutations in Alexander disease.

M. Olabarria[1,2], M. Putilina[3], J. E. Goldman[1]
[1]Columbia University, New York, United States
[2]Ikerbasque, Neuroscience, Bilbao, Spain
[3]New York University, Neuroscience, New York, United States

T12-34B

CD163+ Macrophages in human ischemic stroke

J. Pedragosa[1], X. Urra[1,2], F. Miró[1], E. Gelpi[3], A. Chamorro[1,2], A. M. Planas[1]
[1]IIBB-CSIC, IDIBAPS, Department of brain ischemia and neurodegeneration, Barcelona, Spain
[2]Hospital Clínic, Functional Unit of Cerebrovascular Diseases, Barcelona, Spain
[3]Hospital Clínic, IDIBAPS, Neurological Tissue Bank of the Biobanc, Barcelona, Spain

T12-35B

Sonic hedgehog and vitamin D modulation of metalloproteinase expression and in vitro endothelial junction integrity

I. Pla-Navarro[1], D. Bevan[1], M. Mogensen[1], M. Hajihosseini[1], M. Lee[2], J. Gavrilovic[1]
[1]University of East Anglia, Norwich, United Kingdom
[2]Norfolk and Norwich University Hospital, Neurology, Norwich, United Kingdom

T12-36B

The Sodium Vitamin C co-Transporter-2 (SVCT2): A key molecule for microglia physiology

C. C. Portugal[1], R. Socodato[1], T. Canedo[1], C. Silva[1], T. Martins[2,3], V. Coreixas[2,4], E. C. Loiola[2,4], B. Gess[5], D. Röhr[5,6], A. R. Santiago[2,3], P. Young[5], R. Paes-de-Carvalho[4], A. Ambrósio[2,3], J. Relvas[1]
[1]Instituto de Investigação e Inovação em Saúde and Instituto de Biologia Molecular e Celular (IBMC), Universidade do Porto, Porto, Portugal
[2]Centre of Ophthalmology and Vision Sciences, IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal
[3]Association for Innovation and Biomedical Research on Light and Image (AIBILI), Coimbra, Portugal
[4]Department of Neurobiology and Program of Neurosciences, Institute of Biology, Fluminense Federal University, Niterói, Portugal
[5]Department of Neurology, University of Muenster, Muenster, Germany
[6]Department of Biology, University of Muenster, Muenster, Germany

T12-37B

IS MICROGLIAL C/EBPβ DEFICIENCY NEUROPROTECTIVE IN EAE? A NEW MOUSE MODEL TO STUDY ITS IMPLICATIONS *in vitro* AND *in vivo*

M. Pulido-Salgado[1], J. Vidal-Taboada[1], A. G. García-Díaz Barriga[2], J. Serratosa[3], T. Valente[3,1], P. Castillo[4], J. Matalonga[5], M. Straccia[3,1,2], J. M. Canals[2], C. Solà[3], J. Saura[1]
[1]University of Barcelona, Biochemistry and Molecular Biology Unit, Department of Physiological Sciences-I,

Barcelona, Spain
[2]University of Barcelona, Department of Cell Biology, Immunology and Neurosciences, Barcelona, Spain
[3]Institut d'Investigacions Biomèdiques de Barcelona, CSIC, Department of Cerebral Ischemia and Neurodegeneration, Barcelona, Spain
[4]Hospital Clinic, Department of Pathology, Barcelona, Spain
[5]University of Barcelona, Department of Physiology and Immunology, Barcelona, Spain

T12-38B

Glial activation is associated with l-DOPA induced dyskinesia and blocked by a nitric oxide synthase inhibitor in a rat model of Parkinson's disease.

R. Raisman-Vozari[1], M. Bortolanza[2,3], R. Cavalcanti-Kiwiatkoski[4,3], F. E. Padovan-Neto[3], C. da-Silva[2], M. Mitkovski[5], E. Del-Bel[2,4]
[1]INSERM U1127, CNRS UMR 7225, Brain and Spine Institute, Experimental therapeutics of neurodegeneration, Paris, France
[2] School of Odontology of Ribeirao Preto-University of São Paulo, Department of Morphology, Physiology and Basic Pathology, Riberao Preto, Brazil
[3]Center for Interdisciplinary Research on Applied Neurosciences-University of Sao Paulo, Department of Behavioral Neurosciences, Riberao Preto, Brazil
[4]Center for Interdisciplinary Research on Applied Neurosciences-University of Sao Paulo, Medical School-Department of Physiology, Riberao Preto, Brazil
[5]Max-Planck-Institute of Experimental Medicine, Light Microscopy Facility, Göttingen, Germany

T12-39B

The effects of systemic infection on neuroinflammation in Alzheimer's disease

S. Rakic[1], Y. M. A. Hung[1], J. Wild[1], J. Nicoll[1], S. Love[2], C. Holmes[1], V. H. Perry[1], W. Stewart[3], D. Boche[1]
[1]University of Southampton, Southampton, United Kingdom
[2]University of Bristol, Bristol, United Kingdom
[3]Southern General Hospital, Glasgow, United Kingdom

T12-40B

MICROGLIAL ACTIVATION BEYOND THE GANGLION-CELL LAYER IN CONTRALATERAL RETINA TO EXPERIMENTAL UNILATERAL OCULAR HYPERTENSION

A. I. RAMIREZ[1,2], B. I. GALLEGO[1], J. J. SALAZAR[1,2], B. ROJAS[1,3], R. DE HOZ[1,2], F. J. VALIENTE-SORIANO[4], M. AVILES-TRIGUEROS[4], M. P. VILLEGAS-PEREZ[4], M. VIDAL-SANZ[4], A. TRIVIÑO[1,3], J. M. RAMIREZ[1,3]
[1]UNIVERSIDAD COMPLUTENSE DE MADRID, INSTITUTO DE INVESTIGACIONES OFTALMOLOGICAS RAMON CASTROVIEJO, MADRID, Spain
[2]UNIVERSIDAD COMPLUTENSE DE MADRID, FACULTAD DE OPTICA Y OPTOMETRIA, MADRID, Spain
[3]UNIVERSIDAD COMPLUTENSE DE MADRID, FACULTAD DE MEDICINA, MADRID, Spain
[4]UNIVERSIDAD DE MURCIA, LABORATORIO OFTALMOLOGIA EXPERIMENTAL, MURCIA, Spain

T12-41B

Astrocyte-targeted IL10 production modifies expression of TREM2 and CD200R in activated microglia after perforant pathway transection.

M. Recasens Torné[1], K. Shrivastava[1], B. Almolda[1], I. Campbell[2], B. Gonzàlez[1], B. Castellano[1]
[1]Autonomous University of Barcelona, Bellaterra, Spain
[2]University of Sydney, School of Molecular Biosciences, Sydney, Australia

T12-42B

PATHOLOGIC T CELL CYTOKINES HAVE BOTH BENEFICIAL AND DELETERIOUS EFFECTS ON OLIGODENDROCYTE LINEAGE CELLS

A. Robinson[1], J. Rodgers[1], S. Miller[1]
[1]Northwestern University, Microbiology-Immunology Department, Chicago, United States

T12-43B

DIAZOXIDE ATTENUATES NEUROINFLAMMATION AND ENHANCES NEUROGENESIS AFTER NMDA-INDUCED EXCITOTOXICITY IN THE RAT HIPPOCAMPUS

M. Martinez-Moreno[1], M. Batlle[1], F. J. Ortega[1], J. M. Vidal-Taboada[1], J. Gimeno-Bayon[1], C. Andrade[1], N. Mahy[1], M. J. Rodriguez[1]
[1]School of Medicine, University of Barcelona, Dept. Ciencies Fisiologiques I, Barcelona, Spain

T12-44B

MICROGLIAL ACTIVATION IS DECTECTED IN MICE RETINA CONTRALATERAL TO EXPERIMENTAL GLAUCOMA BUT ROD-LIKE MICROGLIA IS RESTRICTED TO EYES WITH OCULAR HYPERTENSION

B. ROJAS[1,2], B. I. GALLEGO[1], R. DE HOZ[1,3], A. I. RAMIREZ[1,3], J. J. SALAZAR[1,3], F. J. VALIENTE-SORIANO[4], M. AVILES-TRIGUEROS[4], M. VIDAL-SANZ[4], M. P. VILLEGAS-PEREZ[4], A. TRIVIÑO[1,2], J. M. RAMIREZ[1,2]
[1]UNIVERSIDAD COMPLUTENSE DE MADRID, INSTITUTO DE INVESTIGACIONES OFTALMOLOGICAS RAMON CASTROVIEJO, MADRID, Spain
[2]UNIVERSIDAD COMPLUTENSE, FACULTAD DE MEDICINA, MADRID, Spain
[3]UNIVERSIDAD COMPLUTENSE DE MADRID, FACULTAD DE OPTICA Y OPTOMETRIA, MADRID, Spain
[4]UNIVERSIDAD DE MURCIA, LABORATORIO OFTALMOLOGIA EXPERIMENTAL, MURCIA, Spain

T12-45B

STRUCTURE-ACTIVITY OF NEUROSTATIN AND OTHER O-ACETYLATED GANGLIOSIDES AS ANTI-INFLAMMATORY DRUGS ON MICROGLIAL CELLS

L. Romero-Ramirez[1], N. Yanguas-Casás[2], A. Martínez-Vázquez[2,3], M. de la Barreda Manso[1,2], M. Gilbert[4], M. Nieto-Sampedro[1,2]
[1]Hospital Nacional de Paraplejicos, SESCAM, Unidad de Neurología Experimental/ Laboratorio de Plasticidad Neural, Toledo, Spain
[2]Instituto Cajal, CSIC, Neurobiología Funcional y de Sistemas/ Laboratorio de Plasticidad Neural, Madrid, Spain
[3]Universidad de Alcalá de Henares, Máster Interuniversitario de Genética y Biología Molecular, Alcalá de Henares, Spain
[4]National Research Council Canada, Human Health Therapeutics, Ottawa, Canada

T12-46B

The role of Microglia and Inflammation in an animal model of ALS

C. Rossi[1], A. Bergamaschi[1], R. Furlan[1], N. Riva[2], A. Quattrini[2], G. Comi[1], G. Martino[1], L. Muzio[1]
[1]San Raffaele Institute, Neuroimmunology Unit, Milan, Italy
[2]San Raffaele Institute, Experimental Neuropathology, Milan, Italy

T12-47B

Immune system changes after adult brain injury define scar formation

R. Sanchez Gonzalez[1], M. Irmler[2], J. Beckers[2], M. Götz[1], J. Ninkovic[1]
[1]helmholtz-muenchen, Institute for Stem Cell reseach, Munchen, Germany
[2]helmholtz-muenchen, Institute of Experimental Genetics, Munich, Germany

T12-48B

Multiple sclerosis patient's lymphocytes crosstalk with microglial cells impacts the remyelination process

C. Sanson[1], M. El Behi[1], C. Bachelin [1], L. Guillot-Noel[1], N. Sarrazin[1], B. Stankoff [1], I. Rebeix[1], B. Fontaine[1], V. Zujovic[1]
[1]Institut du cerveau et de la moelle épinière, Paris, France

T12-49B

An age-specific intravascular macrophage population is associated with the murine window of susceptibility to CNS inflammation

I. Sá-Pereira[1], J. Roodselaar[1], D. C. Anthony[1], H. B. Stolp[2]
[1]University of Oxford, Department of Pharmacology, Oxford, United Kingdom
[2]King's College London, Department of Perinatal Imaging & Health, London, United Kingdom

T12-50B

Up-regulation of the Wnt signalling pathway in the hippocampus of mice with experimental autoimmune encephalomyelitis

R. Schneider[1], B. Koop[1], F. Schröter[2], J. Ingwersen[1], H.- P. Hartung[1], O. Aktas[1], T. Prozorovski[1]
[1]Heinrich Heine University Clinics, Neurology, Düsseldorf, Germany
[2]Heinrich Heine University Clinics , Institute for Stem Cell Research and Regenerative Medicine, Düsseldorf, Germany

T12-51B

Non-lytic autoantibody mediated injury induces chemokine expression in myelinating cultures

T. Semenoff[1], K. Chapple[1], K. Thuemmler[1], J. Edgar[1], C. Linington[1]
[1]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom

T12-52B

Doxycycline decreases the inflammatory response of LPS-treated microglial cells.

J. E. SEPULVEDA DIAZ[1], F. V. SANTA CECILIA[2], S. B. SOCIAS[1], M. O. OUIDJA[1], E. DEL-BEL[3], P. P. MICHEL[1], T. M. CUNHA[2], R. RAISMAN-VOZARI[1]
[1]INSERM U1127, CNRS UMR 7225, Brain and Spine Institute, Experimental therapeutics of neurodegeneration, Paris, France
[2]Faculty of Medicine of Ribeirao Preto-University of Sao Paulo, Department of Pharmacology, Riberao Preto, Brazil
[3]Dental School of Ribeirão Preto-University of Sao Paulo, Department of Morphology Physiology and Pathology, Riberao Preto, Brazil

T12-54B

Fibronectin aggregates maintain a mixed activation phenotype of microglia and macrophages that impairs differentiation of oligodendrocytes

E. Sikkema[1], J. Stoffels[1], F. Basedow[1], W. Baron[1], D. Hoekstra[1]
[1]University Medical Center Groningen, Cell Biology, Groningen, Netherlands

T12-55B

Prenatal stress causes prolonged microglial activation and enhanced inflammatory processes in the rat brain.

J. Slusarczyk[1], E. Trojan[1], K. Glombik[1], J. Mika[2], A. Basta-Kaim[1]
[1]Institute of Pharmacology Polish Academy of Sciences, Department of Experimental Neuroendocrinology, Cracow, Poland
[2]Institute of Pharmacology Polish Academy of Sciences, Department of Pain Pharmacology, Cracow, Poland

T12-56B

Can embryonic microglia bridge the gap between maternal immune activation and neuropsychiatric disorders?

S. Smolders[1], N. Swinnen[1], S. Smolders[1], P. Legendre[2], J.- M. Rigo[1], B. Brône[1]
[1]BIOMED, Hasselt University, Physiology, Diepenbeek, Belgium
[2]Université Pierre et Marie Curie Paris 6, Development of Spinal Cord Organisation, Paris, France

T12-57B

Specific downregulation of RhoA triggers microglia pro-inflammatory signature via Rock2/Csk/c-Src signaling pathway

R. Socodato[1], C. C. Portugal[1], T. Martins[2], T. Canedo[1], C. Silva[1], I. Domith[3], N. Oliveira[3], A. R. Santiago[2], R. Paes-de-Carvalho[3], A. Ambrósio[2], J. Relvas[1]
[1]Instituto de Investigação e Inovação em Saúde and Instituto de Biologia Molecular e Celular, Universidade do Porto, Porto, Portugal
[2]Association for Innovation and Biomedical Research on Light and Image (AIBILI) and Centre of Ophthalmology and Vision Sciences, IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal
[3]Department of Neurobiology and Program of Neurosciences, Institute of Biology, Fluminense Federal University, Niterói, Portugal

T12-58B

MODULATION OF NEUROINFLAMMATION BY THE MICROGLIAL INHIBITORY RECEPTOR CD200R1

T. Valente[1], G. Dentesano[1], J. Serratosa[1], M. Pulido[2], N. Rabaneda[1], J. Saura[2], C. Solà[1]
[1]Institut d'Investigacions Biomèdiques de Barcelona (IIBB)-CSIC, IDIBAPS, Dept. Cerebral Ischemia and Neurodegeneration, Barcelona, Spain
[2]School of Medicine, University of Barcelona, IDIBAPS, Biochemistry and Molecular Biology Unit, Barcelona, Spain

T12-59B

ANTI-INFLAMMATORY THERAPY VIA CD163-MACROPHAGES IN THE 6-OHDA PARKINSON'S DISEASE MODEL

N. Tentillier[1], M. Olesen[1], A. Etzerodt[1], S. Moestrup[1], M. Romero-Ramos[1]
[1]Aarhus University, Biomedicine, Aarhus C, Denmark

T12-60B

Anti-VLA-4 treatment reduces microglial activation in a focal EAE-model

S. Vainio[1], A. M. Dickens[2], J. Tuisku[3], O. Eskola[4], O. Solin[4], D. Anthony[5], M. Haaparanta-Solin[1], J. Rinne[3], L. Airas[6]
[1]Turku PET Centre, Preclinical Imaging, Turku, Finland
[2]Johns Hopkins University School of Medicine, Department of Neurology, Baltimore, United States
[3]Turku PET Centre, Turku, Finland
[4]Turku PET Centre, Radiopharmaceutical Chemistry laboratory, Turku, Finland
[5]University of Oxford, Department of Pharmacology, Oxford, United Kingdom
[6]Turku University Hospital, Division of Clinical Neurosciences, Turku, Finland

T12-61B

CD200-CD200R1 SYSTEM IN MULTIPLE SCLEROSIS

T. Valente[1], J. Serratosa[1], U. Perpiñá[1], J. Saura[2], C. Solà[1]
[1]Institut d'Investigacions Biomèdiques de Barcelona (IIBB)-CSIC, IDIBAPS, Dept. Cerebral Ischemia and Neurodegeneration, Barcelona, Spain
[2]School of Medicine, University of Barcelona, IDIBAPS, Biochemistry and Molecular Biology Unit, Barcelona, Spain

T12-62B

Liver X receptor beta deficiency decreases neuroinflammation in an animal model of multiple sclerosis

J. Vanmol[1], T. Vanmierlo[1], J. Bogie[1], S. Timmermans[1], K. Nelissen[1], K. Wouters[2], H. de Vries[3], J.- A. Gustafsson[4], K. Steffensen[5], P. Stinissen[1], N. Hellings[1], J. Hendriks[1]
[1]Hasselt University, Neuro-Immunology, Diepenbeek, Belgium
[2]Maastricht University, CARIM School for Cardiovascular Diseases, Maastricht, Netherlands
[3]VU University Medical Center Amsterdam, Amsterdam, Netherlands
[4]University of Houston, Houston, United States
[5]Karolinska Institutet, Sweden, Sweden

T12-63B

INDUCTION OF MICROGLIA M2 POLARIZATION IN MALE AND FEMALE MICE AND IN RESPONSE TO ESTROGENS USING ICV INJECTION OF IL4

E. VEGETO[1], A. M. VILLA[1], G. PEPE[1], A. MAGGI[1]
[1]Univ of Milan, Dept Pharmacol Biomol Sci, Milan, Italy

T12-64B

Differential Expression of TREM2 in Transgenic Mice with CNS-targeted IL-6 or IL-10 production Correlates with Opposing effects on Neurodegeneration after Facial Nerve Axotomy

N. Villacampa[1], B. Almolda [1], I. L. Campbell[2], B. González[1], B. Castellano[1]
[1]Universitat Autonoma de Barcelona, Department of Cellular Biology, Physiology and Immunology, Bellaterra, Spain
[2]University of Sydney, School of Molecular Bioscience, Sydney, Australia

T12-65B

Multiplexed Synchrotron X-Ray Fluorescence Imaging of Brain Inflammation using Targeted Heavy Metal Nanoparticles

K. Wals[1], D. C. Anthony[1], B. G. Davis[2]
[1]University of Oxford, Department of Pharmacology, Oxford, United Kingdom
[2]University of Oxford, Department of Chemistry, Oxford, United Kingdom

T12-66B

Interleukin-33 is synthesized in response to the CNS injury to affect the response of microglia and macrophages

B. Wylot[1], K. Konarzewska[1], M. Zawadzka[1]
[1]Nencki Institute of Experimental Biology, Molecular Neurobiology, Warsaw, Poland

T12-67B

Characterization of the cytokine secretion profile of highly purified, activated astrocytes

H. Zhang[1], S. Reiß[1], M. Jungblut[1], A. Bosio[1]
[1]Miltenyi Biotec, Cell Biology, Bergisch Gladbach, Germany

T12-68B

THE ROLE OF CC CHEMOKINE LIGAND 3 (CCL3) IN A MOUSE DIABETIC NEUROPATHY - *IN VIVO* AND *IN VITRO* STUDIES

M. Zychowska[1], E. Rojewska[1], A. Piotrowska[1], D. Pilat[1], J. Mika[1]
[1]Institute of Pharmacology, Polish Academy of Science, Dept. of Pain Pharmacology, Krakow, Poland

T12-69B

β-amyloid plaque-associated microglia priming in transgenic mouse models of Alzheimer's disease

Z. Yin[1], D. Raj[1], N. Saiepour[2], D. Van Dam[3], N. Brouwer[1], B. Eggen[1], U.- K. Hanisch[2], E. Hol[4], W. Kamphuis[4], T. Bayer[5], P. De Deyn[3,6,7], E. Boddeke[1]
[1]University Medical Center Groningen, Neuroscience Department, section medical physiology, Groningen, Netherlands
[2]University Medicine Goettingen, Department of Neuropathology, Goettingen, Germany
[3]University of Antwerp, Laboratory of Neurochemistry & Behavior, Institute Born-Bunge, Antwerp, Belgium
[4]Netherlands Institute for Neuroscience (NIN), an Institute of the Royal Netherlands Academy of Arts and Sciences, Astrocyte Biology and Neurodegeneration, Amsterdam, Netherlands
[5]Georg-August-University Goettingen, University Medicine Goettingen, Division of Molecular Psychiatry, Goettingen, Germany
[6]University Medical Centre Groningen, Department of Neurology, Groningen, Netherlands
[7]University of Antwerp, Biobank, Institute Born-Bunge, Antwerp, Belgium

T12-70B

Mechanisms of satellite glia-dependent spinal cord microglia activation in nerve injury-induced neuropathic pain

S. J. Lee[1], H. Lim[1], H. Lee[1]
[1]Seoul National University, Seoul, Republic of Korea

T13 Neurovascular interactions

T13-01A

Extracellular vesicles from brain microvascular endothelial cell cultures promote survival, proliferation, and motility of oligodendrocyte precursor cells.

Y. Ishizaki[1], M. Kurachi[1]
[1]Gunma University Graduate School of Medicine, Molecular and Cellular Neurobiology, Maebashi, Japan

T13-02A

Blood-brain barrier disruption: microglial responses and consequences for neural function

V. Rafalski[1], M. Merlini[1], J. K. Ryu[1], C. Syme[1], D. Davalos[1], K. Akassoglou[1,2]
[1]Gladstone Institutes, Neurological Disease, San Francisco, United States
[2]University of California, San Francisco, Neurology, San Francisco, CA, United States

T13-03A

CNS Lesion-Induced Accumulation of Platelets Promotes Survival of Adult SVZ-derived Neural Stem / Progenitor Cells

F. Rivera[1,2,3], I. Kazanis[3,4], M. Feichtner[1,2,5], S. Lange[1,2], P. Rotheneichner[2,6], S. Hainzl[7], M. Öller[2,5], K. Schallmoser[2,5], E. Rohde[2,5], H. A. Reitsamer[2,8], S. Couillard-Despres[2,6], H.- C. Bauer[2,9], R. J. M. Franklin[3], L. Aigner[1,2]
[1]Paracelsus Medical University, Molecular Regenerative Medicine, Salzburg, Austria
[2]Paracelsus Medical University, Spinal Cord Injury and Tissue Regeneration Center, Salzburg, Austria
[3]University of Cambridge, Wellcome Trust and MRC Cambridge Stem Cell Institute & Department of Veterinary Medicine, Cambridge, United Kingdom
[4]University of Patras, Department of Biology, Patras, Greece
[5]Paracelsus Medical University, Department of Blood Group Serology and Transfusion Medicine, Federal , Salzburg, Austria
[6]Paracelsus Medical University, Institute of Experimental Neuroregeneration, Salzburg, Austria
[7]Paracelsus Medical University, Division of Molecular Dermatology and EB House Austria, Department of Dermatology, Salzburg, Austria
[8]Paracelsus Medical University, Ophthalmology/Optometry and Research Program for Experimental Ophthalmology, Salzburg, Austria
[9]Paracelsus Medical University, Institute for Tendon and Bone Regeneration, Salzburg, Austria

T13-04A

Increase in astrocyte-blood vessel interaction is correlated with a decrease in the permeability of blood brain barrier during postnatal development in the cerebral cortex of Wistar rats.

A. Rodriguez-Contreras[1], L. Shi[1]
[1]City University of New York, New York, United States

T13-05A

Microglia have roles in both of maturation and break down of the barrier function of blood brain barrier

K. Sato[1], Y. Shigemoto-Mogami[1], K. Hoshikawa[1], Y. Sekino[1]
[1]National Institute of Health Sciences, Lab Neuropharmacol, Div Pharmacol, Tokyo, Japan

T13-01B

Rapid tonicity induced re-localisation of endogenous aquaporin 4 in primary rat astrocytes - a therapeutic target for cytotoxic brain oedema?

R. Day[1], P. Kitchen[2], M. salman[1], R. Bill[3], A. Conner[4], M. Conner[1]
[1]Sheffield Hallam University, Biomolecular sciences research centre, Sheffield, United Kingdom
[2]University of Warwick, School of Life and Health Sciences, Coventry, United Kingdom
[3]Aston University, Birmingham, United Kingdom
[4]University of Birmingham, School of Clinical and Experimental Medicine, Birmingham, United Kingdom

T13-02B

Antidepressants increase expression of the trophic factor GDF15 in astrocytes and enhance their plasticity at the glia-vasculature interface

V. Malik[1], J. Klaus[2], S. Rajarathinam[1,2], I. Neumann[1], R. Rupprecht[1], B. Di Benedetto[1]
[1]University of Regensburg, Department of Psychiatry and Psychotherapy, Regensburg, Germany
[2]Helmholtzzentrum München, Munich, Germany

T13-03B

Volume dynamics of astroglial endfeet during cortical spreading depression

D. B. Dukefoss[1], B. Rosic[1], V. Jensen[1,2], A. Thoren[1,2], R. Enger[1,3], E. A. Nagelhus[1,2,3]
[1]University of Oslo, GliaLab and Letten Centre, Department of Molecular Medicine, Oslo, Germany
[2]University of Oslo, Centre for Molecular Medicine Oslo, Norway
[3]Oslo university Hospital, Rikshopitalet, Department of Neurology, Oslo, Norway

T13-04B

Activity-dependent dendritic release of neuropeptides regulates neurovascular coupling in the hypothalamic supraoptic nucleus.ΔΔ

W. Du[1], J. Stern[1], J. Filosa[1]
[1]Georgia Regents Univeristy, Physiology, Augusta, United States

T13-05B

Aquaporin 4 is involved in brain edema and blood-brain barrier disruption induced by methamphetamine

R. Leitão[1,2], C. A. Fontes-Ribeiro[1,2], A. P. Silva[1,2]
[1]Laboratory of Pharmacology and Experimental Therapeutics, Faculty of Medicine, University of Coimbra, Coimbra, Portugal
[2]Institute for Biomedical Imaging and Life Sciences, Faculty of Medicine, University of Coimbra, Coimbra, Portugal

T13-06B

Mechanosensitive Piezo2 channels are functionally expressed in retinal astrocytes: implications for blood flow autoregulation.

M. McGahon[1], A. O'Neill[1], G. McGeown[1], T. Curtis[1]
[1]Queen's University Belfast, Centre for Experimental Medicine, Belfast, United Kingdom

T14 Regeneration and repair

T14-01A

Functions of histone deacetylases in Schwann cells during regeneration

V. Brügger[1], S. Ruff[1], E. Münger[1], P. Matthias[2], U. Suter[3], C. Jacob[1]
[1]Institute of Zoology, Department of Biology, University of Fribourg, 1700 Fribourg, Switzerland
[2]FMI for Biomedical Research, Novartis Research Foundation, 4058 Basel, Switzerland
[3]Institute of Molecular Health Sciences, Department of Biology, ETH Zurich, 8093 Zurich, Switzerland

T14-02A

Applying mechanistic models to prove that an M1-to-M2 polarization switch in microglia and macrophages can happen at the initiation of remyelination in cuprizone-induced demyelinating lesions

J. Cañete-Valdeón[1]
[1]Universidad de Sevilla, Sevilla, Spain

T14-03A

Region and dynamic specificities of adult neural stem cells and oligodendrocyte precursors in myelin regeneration in the mouse brain

M. Cayre[1], B. Brousse[1], K. Magalon[1], P. Durbec[1]
[1]CNRS, IBDM UMR7288, Marseille, France

T14-04A

Non-steroidal anti-inflammatory drug enhances endogenous remyelination

S. Albrecht[1], A. Preisner[1], Q.- L. Cui[2], S. Hucke[3], C. Hartmann[4], M. M. Taketo[5], J. Antel[2], L. Klotz[3], T. Kuhlmann[1]
[1]University Hospital Muenster, Institute of Neuropathology, Muenster, Germany
[2] McGill University, Montreal Neurological Institute, Montreal, Canada
[3]University Hospital Muenster, Department of Neurology, Muenster, Germany
[4]University Hospital Muenster, Institute of Musculosceletal Medicine, Muenster, Germany
[5]Kyoto University Graduate School of Medicine Yoshida- Konoé-cho, Department of Pharmacology, Kyoto, Japan

T14-05A

Intraventricular injection of mesenchymal stem cells in a chronic demyelinated murine model, promotes functional recovery by stimulating the endogenous oligodendrogenic program

P. Cruz Martinez[1], J. Jones[1], S. Martinez[1,2]
[1]Institute of Neuroscience, Experimental Embriology, Alicante, Spain
[2]IMIB-Hospital Universitario Virgen de la Arrixaca, Universidad de Murcia, Murcia, Spain

T14-06A

Tissue plasminogen activator (tPA) acts on oligodendrocytes and promotes remyelination after white matter damage

C. Leonetti[1], J. Bronsard[1], D. Vivien[1], D. Clemente[2], F. de Castro[2], E. Maubert[1], F. Docagne[1], R. Macrez[1]
[1]INSERM, U919, CAEN, France
[2]Hospital Nacional de Parapléjicos, Developmental Neurobiology Lab, TOLEDO, Spain

T14-07A

Spatio-temporal proteins study of rat spinal cord injury and glial cells involvement

S. Devaux[1], D. Cizkova[2], L. Slovinska[2], J. Blasko[2], M. Nagyova[2], C. Lefebvre[1], I. Fournier[1], M. Salzet[1]
[1]PRISM Laboratoire, INSERM U1192, Villeneuve d'Ascq, France
[2]Institute of Neurobiology, Slovak Academy of Sciences, Center of Excellence for Brain Research, Kosice, Slovakia

T14-08A

Control of oligodendrocyte plasticity by histone demethylases after spinal cord injury

O. M. Duman[1], C. Jacob[1]
[1]University of Fribourg, Fribourg, Switzerland

T14-09A

Role of Heparan sulfate in the control of myelin regeneration

B. El Waly[1], M. Macchi[1], C. Zimmer[1], K. Grobe[2], M. Cayre[1], P. Durbec[1]
[1]CNRS IBDM-UMR7288, Aix-Marseille université, Marseille, France
[2]Institute for Physiological Chemistry and Pathobiochemistry, Munster, Germany

T14-10A

Juvenile ependymal cells show greater self-renewal potential and generate more oligodendrocytes than adult cells after spinal cord injury

E. Floriddia[1], X. Li[1], N. Guerot[1,2], K. Toskas[1], F. Barnabe-Heider[1]
[1]Karolinska Institutet, Department of Neuroscience, Stockholm, Sweden
[2]University of Rouen, Institute for Research and Innovation in Biomedicine, Rouen, France

T14-11A

Role of L-PGDS in PNS regeneration and remyelination

M. G. Forese[1,2], M. Pellegatta[1], A. Trimarco[1], C. Rivellini[2,3], S. Previtali[3], C. Taveggia[1]
[1]San Raffaele Scientific Institute, Axo-glia interactions unit, Milan, Italy
[2]Vita-Salute San Raffaele University, Milan, Italy
[3]San Raffaele Scientific Institute, Neuromuscular repair unit, Milan, Italy

T14-12A

Vulnerability and fate of oligodendroglia in areas of secondary degeneration following neurotrauma

M. Giacci[1,2], C. Bartlett[1,2], N. Hart[2], M. Fitzgerald[1,2]
[1]The University of Western Australia, Experimental and Regenerative Neurosciences, Perth, Australia
[2]The University of Western Australia, School of Animal Biology, Perth, Australia

T14-13A

Mitochondrial regulation of astrocyte reactivity in response to inflammatory insult

J. Göbel[1], E. Motori[2], T. M. Eriksson[1], G. Wani[1], B. Fernando[1], M. Bergami[1]
[1]University Hospital Cologne, CECAD, Cologne, Germany
[2]MPI Ageing, Mitochondrial Biology, Cologne, Germany

T14-14A

Analyses of epigenetic change in the injured mouse spinal cord

K. Hori[1], J. Kohyama[2], T. Sanosaka[2], A. Iwanami[1], H. Okano[2], M. Matsumoto[1], M. Nakamura[1]
[1]Keio University School of Medicine, Department of Orthopaedic Surgery, Tokyo, Japan
[2]Keio University School of Medicine, Department of Physiology, Tokyo, Japan

T14-15A

17β-estradiol augments axotomy-induced cell-type specific changes in P2X7 receptor expression in the mouse hypoglossal nucleus

Z. Hoyk[1], B. Barabási[1], A. Csondor[1], T. Martín-Pozas[2], A. M. Pulupa Sánchez[2], L. Siklós[1], U. Gómez-Pinedo[2], A. Párducz[1]
[1]Biological Research Center of the Hungarian Academy of Sciences, Institute of Biophysics, Szeged, Hungary
[2]Universidad Complutense, Instituto de Neurociencias, IdISSC, Hospital Clínico San Carlos, Madrid, Spain

T14-16A

Alternatively activated brain-infiltrating macrophages facilitate recovery from intracerebral hemorrhage

H. Kim[1], Y. H. Jang[1], H. Min[1], S. J. Lee[1]
[1]Seoul national university, Department of Neuroscience, Seoul, Republic of Korea

T14-17A

Cend1 and Neurogenin-2 drive neuronal reprogramming of astrocytes *in vitro* and *in vivo* following brain injury

P. Koutsoudaki[1], I. Thanou[1], K. Aravantinou-Fatorou[1], D. Thomaidou[1]
[1]Hellenic Pasteur Institute, Department of Neurobiology, Athens, Greece

T14-18A

Glutaredoxin 2 Increases Oligodendroglial Capacity for Regeneration after Neuroinflammatory Damage

K. Lepka[1], K. Volbracht[1], E. Schaberg[1], H. P. Hartung[1], N. Goebels[1], O. Aktas[1], C. Berndt[1]
[1]Uniklinik Düsseldorf, Neurologie, Düsseldorf, Germany

T14-19A

The role of NgR and P75NTR on the glia scar formation after traumatic brain injury

H. Liao[1], J. Ni[1], G. Liu[1], J. Yan[1], Y. Fang[1]
[1]China Pharmaceutical University, Nanjing, China

T14-20A

Development of an *in vitro* microfluidic device of spinal cord injury to identify novel compounds for repair

M. McGrath[1], G. Robertson [2], M. Zagnoni[2], M. Riehle[3], S. Barnett[1]
[1]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom
[2]University of Strathclyde, Centre for Microsystems and Photonics, Glasgow, United Kingdom
[3]University of Glasgow, Institute of Molecular Cell and Systems Biology, Glasgow, United Kingdom

T14-21A

Differential abilities of acutely and chronically denervated nerve derived and skin derived Schwann cells to support axonal regeneration and remyelination

R. Midha[1], R. Kumar[1], J. Biernaskie[1], S. Sinha[1], J. A. Stratton[1]
[1]University of Calgary, Clinical Neurosciences, Calgary, Canada

T14-22A

The Merlin tumour suppressor is critical for peripheral nerve regeneration and repair

T. Mindos[1], S. Roberts[1], X.- P. Dun[1], P. Edwards[2], R. Doddrell[1], A. Shivane[2], D. Parkinson[1]
[1]University of Plymouth, Peninsula School of Medicine and Dentistry, Plymouth, United Kingdom
[2]Derriford Hospital, Department of Cellular and Anatomical Pathology, Plymouth, United Kingdom

T14-23A

Intraspinal delivery of polyethylene glycol coated gold nanoparticles promotes functional recovery after spinal cord injury

F. Papastefanaki[1], I. Jakovcevski[2], N. Poulia[1], N. Djogo[2], F. Schulz[3], T. Martinovic[4], D. Ciric[4], G. Loers[2], T. Vossmeyer[3], H. Weller[3], M. Schachner[2], R. Matsas[1]
[1]Hellenic Pasteur Institute, Laboratory of Cellular and Molecular Neurobiology, Athens, Greece
[2]Universitätsklinikum Hamburg-Eppendorf, Universität Hamburg, Zentrum für Molekulare Neurobiologie, Hamburg, Germany
[3]Universität Hamburg, Institut für Physikalische Chemie, Hamburg, Germany
[4]School of Medicine, University of Belgrade, Institute of Histology and Embryology, Belgrade, Serbia

T14-24A

Control of Schwann cell phenotype after nerve injury

V. Sergio[1], G.- C. CLARA[1,2], G.- S. JOSE A.[1,2], C. HUGO[1,2]
[1]INSTITUTO DE NEUROCIENCIAS, MOLECULAR CONTROL OF NEURONAL AXON MYELIZATION, SAN JUAN (ALICANTE), Spain
[2]Fundación para el Fomento de la Investigación Sanitaria y Biomédica de la Comunitat Valenciana (FISABIO), MOLECULAR NEUROBIOLOGY, ALICANTE, Spain

T14-25A

***De novo* expression of parvalbumin in ependymal cells in response to brain injury promotes ependymal remodeling and wound repair**

V. Szabolcsi[1], M. R. Celio[1]
[1]University of Fribourg, Dept of Medicine, Anatomy, Fribourg, Switzerland

T14-26A

Light activation of astrocytes promotes neuronal differentiation of stem cells and improves neurological deficit in stroke rats

J. TU[1], Y. Liu[1], F. Yang[1], Y. Liu[1], L. Wang[1]
[1]Shenzhen Institutes of Advanced Technology, Shenzhen, China

T14-27A

Comparison of HDAC Functions in Oligodendrocyte and Schwann Cell Plasticity After Axon Injury

A. Vaquié[1], S. Ruff[1], E. Münger[1], C. Pattaroni[1], N. L. Jeon[2], C. Lamy[3], C. Jacob[1]
[1]University of Fribourg, Biology Zoology, Fribourg, Switzerland
[2]Seoul National University, School of Mechanical and Aerospace Engineering, Seoul, Republic of Korea
[3]University of Fribourg, Medicine, Fribourg, Switzerland

T14-01B

PDGFRα-positive progenitor cells form myelinationg oligodendrocytes and Schwann cells following contusion spinal cord injury

P. Assinck[1], G. J. Duncan[2], J. R. Plemel[3], M. J. Lee[4], J. Liu[4], D. E. Bergles[5], W. Tetzlaff[6]
[1]University of British Columbia, Neuroscience/ICORD, Vancouver BC, Canada
[2]University of British Columbia, Zoology/ICORD, Vancouver BC, Canada
[3]University of Calgary, Hotchkiss Brain Institute, Calgary AB, Canada
[4]University of British Columbia, ICORD, Vancouver BC, Canada
[5]Johns Hopkins University School of Medicine, Solomon H. Snyder Department of Neuroscience, Baltimore MD, United States
[6]University of British Columbia, ICORD, Zoology, Surgery, Vancouver BC, Canada

T14-02B

Human olfactory derived mesenchymal stem cell transplantation as candidate for CNS repair

S. Lindsay[1], A. Toft[1], J. Griffin[1], A. Emraja[1], J. Riddell[1], S. Barnett[1]
[1]University of Glasgow, Institute of Infection Immunity and Inflammation, Glasgow, United Kingdom

T14-03B

DUAL EFFECT OF SALUBRINAL AFTER A CORTICAL STAB WOUND INJURY IN MICE

M. A. Barreda-Manso[1,2], N. Yanguas-Casás[1,2], M. Nieto-Sampedro[1,2], L. Romero-Ramírez[2]
[1]Instituto Cajal, CSIC, Grupo Plasticidad Neural, Madrid, Spain
[2]Unidad de Neurología Experimental, Hospital Nacional de Parapléjicos, Grupo Plasticidad Neural, Toledo, Spain

T14-04B

STAT3 is required for the long-term maintenance of the repair Schwann cell phenotype in injured nerves

C. BENITO SASTRE[1], C. M. DAVIS[1], R. MIRSKY[1], K. R. JESSEN[1]
[1]UNIVERSITY COLLEGE LONDON, CELL AND DEVELOPMENTAL BIOLOGY, LONDON, United Kingdom

T14-05B

Control of Oligodendrocyte Precursor Cell function by their microenvironment

E. Borger[1], T. Carr[1], A. Williams[1]
[1]University of Edinburgh, Centre for Regenerative Medicine, Edinburgh, United Kingdom

T14-06B

Essential role of endogenous fatty acid synthesis in CNS myelin regeneration

P. Dimas[1], L. Montani[1], J. A. Pereira[1], C. F. Semenkovich[2], U. Suter[1]
[1]ETH Zurich , Institute of Molecular Health Science, Zurich, Switzerland
[2]Washington University School of Medicine, Division of Endocrinology, Metabolism & Lipid Research, St. Louis, United States

T14-07B

A Co-culture System to Study Interactions Between Sympathetic Neurons and Glial Progenitors

J. Dore[1,2], L. Patriarca[1], J. Volpe[2], A. McNally[3], J. Spinney[3]
[1]Stonehill College, Neuroscience Program, Easton, Ma, United States
[2]Stonehill College, Department of Biology, Easton, Ma, United States
[3]Stonehill College, Biochemistry Program, Easton, Ma, United States

T14-08B

Schwann Cell Dynamics and Function During Peripheral Nerve Regeneration

M. Ducommun[1], M. Granato[1]
[1]University of Pennsylvania, Cell and Developmental Biology, Philadelphia, United States

T14-09B

Human Schwann-like adipose-derived stem cells combined with synthetic biodegradable polymer scaffolds for nerve regeneration

A. Faroni[1], A. Mobasseri[2], J. Gough[2], G. Terenghi[1], A. Reid[1,3]
[1]University of Manchester, Blond McIndoe Laboratories, Manchester, United Kingdom
[2]University of Manchester, School of Materials, Manchester, United Kingdom
[3]University Hospital of South Manchester, Department of Plastic Surgery & Burns, Manchester, United Kingdom

T14-10B

Schwann cells in the proximal stump of injured nerves activate c-Jun to control the intrinsic growth state and regeneration potential of DRG sensory neurons

S. Fazal[1], K. Bartus[2], M. Iberl[2], D. Wilton[3], E. J. Bradbury[2], R. Mirsky[1], K. R. Jessen[1]
[1]University College London, Cell and Developmental Biology, London, United Kingdom
[2]Kings College London, Institute of Psychiatry, Psychology and Neuroscience, Wolfson Centre for Age-Related Diseases, Kings College London, UK, London, United Kingdom
[3]Boston Children's Hospital, F.M. Kirby Neurobiology Centre, Boston, USA, Boston, United States

T14-11B

Bridging the gap in spinal cord injury using novel super-macroporous polymer scaffolds

S. Hosseinzadeh[1], D. Wellings[2], M. Riehle[3], S. Barnett [1]
[1]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom
[2]SpheriTech Ltd, Runcorn, United Kingdom
[3]University of Glasgow, Centre for Cell Engineering, Glasgow, United Kingdom

T14-12B

The role of GSK3β in regulating astrogliosis

A. Kalam[1,2], A. Rivera[1], A. Didangelos[2], E. Bradbury[2], A. Butt[1]
[1]University of Portsmouth, Institute of Biomedical and Biomolecular Sciences, Portsmouth, United Kingdom
[2]King's College London, Wolfson CARD, London, United Kingdom

T14-13B

Daam2-PIP5K is a novel regulatory pathway for Wnt signaling and therapeutic target for remyelination in the CNS

H. K. Lee[1], L. S. Chaboub[1], W. Zhu[1], D. Zollinger [2], M. N. Rasband [2], S. P. Fancy [3], B. Deneen[1]
[1]Baylor College of Medicine, Center for Cell and Gene Therapy, Neuroscience, Houston, United States
[2]Baylor College of Medicine, Neuroscience, Houston, United States
[3]University of California, San Francisco, Department of Neurology, San Francisco, United States

T14-15B

Deciphering mechanisms by which olesoxime promotes oligodendrocyte maturation and remyelination

K. MAGALON[1], J. TRACZ[1], M. LE GRAND[2], M. MOULIS[3], P. BELENGUER[3], M. CARRE[2], P. DURBEC[1]
[1]IBDM-CNRS-UMR 7288, MARSEILLE, France
[2]CRO2 UMR S 911, MARSEILLE, France
[3]CBD-UMR5547, TOULOUSE, France

T14-16B

Clonal oligodendrocyte progenitor cell dynamics in spinal cord remyelination

C. McClain[1,2], R. Franklin[2], B. Simons[1,2,3]
[1]University of Cambridge, Cavendish Laboratory, TCM, Cambridge, United Kingdom
[2]University of Cambridge, Wellcome Trust-MRC Cambridge Stem Cell Institute, Cambridge, United Kingdom
[3]University of Cambridge, The Wellcome Trust/Cancer Research UK Gurdon Institute, Cambridge, United Kingdom

T14-17B

Microglial changes at the base of a diminished regenerative potential in the aged zebrafish retina

L. Moons[1], I. Bollaerts[1], J. Van houcke[1], A. Beckers[1], K. Lemmens[1], I. Van Hove[1], L. De Groef[1]
[1]KU Leuven, Biology/Neural Circuit Development & Regeneration, Leuven, Belgium

T14-18B

Transduction of an immortalized olfactory ensheathing glia line with the green fluorescent protein (GFP) gene: evaluation of its neuroregenerative capacity

N. PLAZA[1], J. SIERRA[1], M. T. MORENO FLORES[1]
[1]UNIVERSIDAD FRANCISCO DE VITORIA, BIOTECHNOLOGY, POZUELO DE ALARCÓN, MADRID, Spain

T14-19B

The role of Hippo/YAP signalling in Schwann cell development and peripheral nerve repair

K. North[1], T. Mindos[1], X.- P. Dun[1], D. Parkinson[1]
[1]Plymouth University, Peninsula Medical School, Plymouth, United Kingdom

T14-20B

Intralesional transplantation of mesenchymal stem cells in the toxic demyelinating cuprizone model

L. Salinas Tejedor[1,2], K. Jacobsen[1], G. Berner[1], V. Gudi[1], N. Jungwirth[3,2], F. Hansmann[3], W. Baumgärtner[3,2], T. Skripuletz[1], M. Stangel[1,2]
[1]Hannover Medical School, Neurology, Hannover, Germany
[2]Center for Systems Neuroscience, Hannover, Germany
[3]University of veterinary medicine Hannover, Pathology, Hannover, Germany

T14-22B

The P2X7 receptor is involved in normal re-myelination following sciatic nerve injury

R. Smith[1], A. Faroni[1], S. Martin[1], P. Procacci[2], V. Conte[2], E. Puccianti[2], L. Castelnovo[3], A. Reid[1], V. Magnaghi[3], A. Verkhratsky[4]
[1]University of Manchester, Blond McIndoe, Manchester, United Kingdom
[2]University of Milan, Dipartimento di Scienze Biomediche per la Salute, Milan, Italy
[3]University of Milan, Dipartimento di Scienze Farmacologiche e Biomolecolari, Milan, Italy
[4]University of Manchester, Faculty of Life Sciences, Manchester, United Kingdom

T14-23B

Olfactory ensheathing cells overexpressing prostacyclin synthase improves functional restoration after transplantation to transected rat spinal cord

M.- J. Tsai[1], C.- T. Huang[2], C.- F. Weng[3], D.- Y. Liou[1], S.- K. Shyue[4], Y.- S. Huang[2], H. Cheng[1]
[1]Taipei Veterans General Hospital, Neurological Institute, Taipei, Taiwan
[2]National Chung-Hsing University, Department of Veterinary Medicine, Taichung, Taiwan
[3]National Dong Hwa University, Department of Life Science, Hualien, Taiwan
[4]Academia Sinica, Institute of Biomedical Sciences, Taipei, Taiwan

T14-24B

RNA nanoparticles for targeted delivery of siRNAs against reactive astroglial cells - an *in vitro* study

J. Verheyen[1], J. Smith[1], S. Basilico[1], P. Guo[2], S. Pluchino[1]
[1]Cambridge University, Department of Clinical Neurosciences, Cambridge, United Kingdom
[2]University of Kentucky, College of Pharmacy, Lexington, United States

T14-25B

Astrocytes enhance the dopaminergic differentiation of stem cells and promote brain repair through bFGF

F. yang[1], Y. Liu[1], J. Tu[1], L. Wang[1]
[1]shenzhen institutes of advanced technology, Chinese Academy of Sciences, Shenzhen, China

T14-26B

Increasing AMPA signalling to improve myelin repair

K. Volbracht[1,2], M. Kovács[1], A. Denizot[2], H. Gautier[1,2], R. T. Káradóttir[1,2,3]
[1]University of Cambridge, Wellcome Trust - Medical Research Council Stem Cell Institute, Cambridge, United Kingdom
[2]University of Cambridge, Department of Veterinary Medicine, Cambridge, United Kingdom
[3]University of Cambridge, John van Geest Centre for Brain Repair, Cambridge, United Kingdom

T14-27B

Transcriptional regulation of AMPA-type glutamate receptors in the oligodendrocyte lineage

G. Begum[1], U. Ahmed[1], A. Stevens[2], D. Fulton[1]
[1]University of Birmingham, Neurobiology, Birmingham, United Kingdom
[2]University of Manchester, Manchester Academic Health Sciences Centre, Manchester, United Kingdom

T15 Transmitter receptors, ion channels and gap junctions

T15-01A

Changes in glial glutamate transporters protein levels in TMEV model of viral-induced epilepsy

G. Albertini[1], J. Loewen[2], J. Van Liefferinge[1], E. Bentea[3], T. Demuyser[1], E. Merckx[3], L. Deneyer[3], I. Smolders[1], K. Wilcox[2], A. Massie[3]
[1]Vrije Universiteit Brussel, FASC, Brussels, Belgium
[2]University of Utah, Interdepartmental Program in Neuroscience, Salt Lake City, United States
[3]Vrije Universiteit Brussel, MICH, Brussels, Belgium

T15-02A

Regulation from cytosolic alkalosis by reversed sodium-bicarbonate cotransporter NBCe1 in mouse cortical astrocytes

S. Theparambil[1], Z. Naoshin[1], A. Thyssen[1], J. Deitmer[1]
[1]University of Kaiserslautern, General Zoology, Kaiserslautern, Germany

T15-03A

HCO3--independent pH Regulation in Astrocytes in situ is Dominated by V-ATPase

D. B. Hansen[1], N. Garrido-Comas[2], M. Salter[3], R. Fern[1]
[1]Plymouth University, Peninsula Schools of Medicine and Dentistry, Plymouth, United Kingdom
[2]University of Leicester, Department of Cell Physiology and Pharmacology, Leicester, United Kingdom
[3]University of Leeds, Institute of Membrane and Systems Biology, Leeds, United Kingdom

T15-04A

Connexin channel inhibitor promotes the anti-hyperalgesic effect of amitriptyline in sciatic nerve-ligated rats

T. Jeanson[1], A. C. Figueiredo[2], D. Richard[3], A. Duchène[2,4], S. Bourgoin[2], C. Picoli[4], F. Mouthon[4], C. Giaume[1], M. Hamon[2], M. Charvériat[4]
[1]Collège de France, Paris, France
[2]La Pitié Salpêtrière, INSERM U894, Paris, France
[3]CHU Clermont-Ferrand, Service de pharmacologie, Clermont-Ferrand, France
[4]Theranexus, Lyon, France

T15-05A

Gating of aquaporin 4 - phosphorylation versus protonation

M. Assentoft[1], S. Kaptan[2], R. A. Fenton[3], S. Z. Hua[4], B. L. deGroot[2], N. MacAulay[1]
[1]University of Copenhagen, Department of Cellular and Molecular Medicine, Copenhagen, Denmark
[2]Max Planck Institute for Biophysical Chemistry, Computational Biomolecular Dynamics Group, Gottingen, Germany
[3]Aarhus University, Department of Biomedicine, Aarhus, Denmark
[4]State University of New York in Buffalo, Department of Physiology and Biophysics, Buffalo, United States

T15-06A

Prenatal exposure to inflammatory conditions increases hemichannel opening and activation of astrocytes in the offspring: repercussion on neuronal survival

J. A. Orellana[1], B. Avendaño[1], T. Montero[1], C. Chavez[1], R. von Bernhardi[1]
[1]Pontificia Universidad Catolica de Chile, Departamento de Neurología, Santiago, Chile

T15-07A

Expression of functional ionotropic glutamate and GABA receptors in astrocytes of the ventrobasal thalamus

G. Seifert[1], S. Höft[1], S. Griemsmann[1], C. Steinhäuser[1]
[1]University of Bonn, Institute of Cellular Neurosciences, Bonn, Germany

T15-08A

DYE COUPLING BETWEEN CELLS FROM SUBVENTRICULAR ZONE NEUROSPHERES AND GLIA

R. Talaverón[1], P. Fernández[2], R. Escamilla[2], î M. Pastor[1], J. C. Sáez[2], E. R. Matarredona[1]
[1]University of Seville, Physiology, Seville, Spain
[2]Pontificia Universidad Católica de Chile, Physiology, Santiago de Chile, Chile

T15-09A

The HYS-32-enhanced Cx43 stability at plasma membrane is caveolae-dependent

J.- C. Wu[1], C.- H. Chang[1], C.- K. Liao[2], C.- C. Shen[3], C.- C. Wang[4], H.- S. Wang[1]
[1]National Yang-Ming University, Anatomy and Cell Biology, Taipei, Taiwan
[2]National Taiwan University, Anatomy and Cell Biology, Taipei, Taiwan
[3]National Research Institute of Chinese Medicine, Division of Medicinal Chemistry, Taipei, Taiwan
[4]Fu-Jen Catholic University, School of Medicine, Hsin Bei, Taiwan

T15-10A

Functional Characterization of Astrocytes within the Ventral Midbrain

W. Xin[1], A. Bonci[2]
[1]Johns Hopkins / National Institute on Drug Abuse, Neuroscience, Baltimore, United States
[2]National Institute on Drug Abuse, Synaptic Plasticity, Baltimore, United States

T15-11A

Regulation of BDNF mRNA expression in astrocytes by catecholamines

I. Koppel[1], A. Pennert[1], K. Jaanson[1], T. Tiirik[1], T. Timmusk[1]
[1]Tallinn University of Technology, Tallinn, Estonia

T15-12A

AMPA receptor signalling in oligodendrocyte development

E. Kougioumtzidou[1], R. Sprengel[2], D. Attwell[3], W. D. Richardson[4]
[1]UCL, WIBR/ Richardson group, London, United Kingdom
[2]Max Planck Institute for Medic, Heidelberg, Germany
[3]UCL, Department of Neuroscience, Physiology and Pharmacology, London, United Kingdom
[4]UCL, Wolfson Institute for Biomedical Research, London, United Kingdom

T15-01B

Short-term modulation of astrocyte plasma membrane extensions by GPCRs

M. Chisari[1], A. Scuderi[1], M. A. Sortino[1]
[1]University of Catania, Department of Biomedical and Biotechnological Sciences, Section of Pharmacology, Catania, Italy

T15-02B

Unravelling the mechanisms causing astrocytic uncoupling in the epileptic hippocampus

T. Deshpande[1], P. Bedner[1], C. Steinhäuser[1]
[1]Institute of Cellular Neurosciences, Bonn, Germany

T15-03B

Inducible astrocyte specific Kir4.1 knockout mice exhibit a blunted ventilatory response to CO_2

V. hawkins[1], D. mulkey[1]
[1]University of Connecticut, Physiology and Neurobiology, Storrs, United States

T15-04B

Subcellular distribution and trafficking of astroglial receptors monitored with super-resolution microscopy

J. Heller[1], D. Rusakov[1]
[1]University College London, Institute of Neurology, London, United Kingdom

T15-05B

Glutamine synthetase stability is by regulated by g-aminobutyric type B receptors.

D. Huyghe[1], M. Terunuma[2], M. Pangalos[3], S. Moss[1]
[1]Tufts University, Neurosciences, Boston, United States
[2]Leicester University, Leicester, United Kingdom
[3]AztraZeneca, Innovative Medicines, Macclesfield, United Kingdom

T15-06B

Functional expression of GABAρ in astrocytes from neostriatum

D. Reyes-Haro[1], E. Mora-Loyola[1], M. L. Martínez-Mendoza[1], A. Martínez-Torres[1]
[1]Universidad Nacional Autónoma de México, Instituto de Neurobiología, Querétaro, Mexico

T15-07B

Astrocyte swelling in response to neural activation: Role of cotransporters

K. Rothenfusser[1], D. Boss[1,2], P. Jourdain[1,2], P. Magistretti[2,3], P. Marquet[1,2]
[1]CHUV CNP, URIP, Prilly-Lausanne, Switzerland
[2]EPFL, LNDC, Lausanne, Switzerland
[3]KAUST, BESE, Thuwal, Switzerland

T15-08B

Astrocytic pH-regulation in cell culture of mice

A. Seidinger[1], A. Weise[1]
[1]RUB, Cellphysiology, Bochum, Germany

T15-09B

Molecular mechanisms underlying nodal protein assembly prior to myelination in the CNS

N. Sol-Foulon[1], S. Freeman[1], A. Desmazières[1], C. Lubetzki[1,2]
[1]ICM/INSERMU1127/CNRSUMR7225/UPMC, Glial pathology and repair, Paris, France
[2]APHP, Hôpital Salpétrière, Paris, France

T15-10B

Mechanosensitive ion channel, Piezo1, is expressed in myelinated regions of the rat brain

M. Velasco[1], G. Sheridan[1]
[1]University of Brighton, Pharmacy & Biomolecular Sciences, Brighton, United Kingdom

T15-11B

The role of L-type calcium channels subtypes Cav1.2 and Cav1.3 in NG2 glia

N. Zhao[1], F. Kirchhoff[1], W. Huang[1], A. Scheller[1]
[1]University of Saarland, Molecular Physiology, Homburg, Germany

T15-12B

ANATOMICAL ANALYSIS OF MUTANT MICE EXPRESSING TYPE-I CANNABINOID RECEPTORS IN ASTROCYTES OF THE HIPPOCAMPUS

A. GUTIERREZ[1,2,3], N. PUENTE[1,2], G. MARSICANO[4,3], P. GRANDES[1,2]
[1]ACHUCARRO BASQUE CENTER FOR NEUROSCIENCE BIZKAIA, Neurosciences, ZAMUDIO, Spain
[2]UNIVERSITY OF BASQUE COUNTRY /FACULTY MEDICINE AND DENTISTRY, Neurosciences/LABSINAPS , LEIOA, Spain
[3]UNIVERSITY BORDEAUX SEGALEN, BORDEAUX, France
[4]INSERM, Neurocentre Magendie, Physiopathologie de la Plasticité Neuronale, Endocannabinoids and Neuroadaptation, BORDEAUX, France

T15-13B

Generation of conditional knockout mouse lines for Opioid receptors in Microglia

H. MAURIN[1], L.- A. ROECKEL[1], D. REISS[1], C. GAVERIAUX-RUFF[1,2]
[1]IGBMC, Translational Medicine and Neurogenetic Department, ILLKIRCH, Germany
[2]UdS Université de Strasbourg, INSERM U964, CNRS UMR7104, STRASBOURG, France

T16 Trophic factors

T16-01A

Changes in expression and localisation of Sphingosine 1-Phosphate Receptor-1 ($S1P_1R$) in the young and middle-age rat brain

G. Sheridan[1], M. Velasco[1]
[1]University of Brighton, Pharmacy & Biomolecular Sciences, Brighton, United Kingdom

T16-01B

Neuroprotection and reduction of astroglial reaction by human embryonic stem cell engrafting following spinal cord ventral root avulsion

M. Araujo[1], A. Spejo[1], R. Ferreira Jr[2], B. Barraviera[2], S. Kyrylenko[1], A. Oliveira[1]
[1]University of Campinas, Campinas, Brazil
[2]UNESP Botucatu, Botucatu, Brazil

T16-02B

Age related loss of oligodendrocyte metabolic support

T. Philips[1], E. Hughes[2], B. Morrison[1], Y. Lee[1], R. Sattler[1], D. Bergles[2], J. Rothstein[1]
[1]Johns Hopkins University, Department of Neurology, Baltimore, United States
[2]Johns Hopkins University, The Solomon H Snyder Department of Neuroscience, Baltimore, United States

T17 Tumours

T17-01A

Glioma-initiating cells upregulate IL-6 secretion in microglia/brain macrophages via Toll-like receptor 4 signaling

O. a Dzaye[1], F. Hu[1], K. Derkow[2], P. Euskirchen[2], C. Harms[2], S. Lehnardt[2], M. Synowitz[3], S. Wolf[1], H. Kettenmann[1]
[1]Max-Delbrück-Center for Molecular Medicine, Cellular Neuosciences, Berlin, Germany
[2]Charité-Universitätsmedizin Berlin, Department of Neurology, Berlin, Germany
[3]Charité-Universitätsmedizin Berlin, Department of Neurosurgery, Berlin, Germany

T17-02A

Inhibition of glioma progression by a newly discovered CD38 inhibitor

E. Blacher[1], B. Ben Baruch[1], A. Levy[1], N. Geva[1], K. D. Green[2], S. Garneau-Tsodikova[2], M. Fridman[3], R. Stein[1]
[1]Tel-Aviv University, Department of Neurobiology, George S. Wise Faculty of Life Sciences, Tel-Aviv, Israel
[2]University of Kentucky, College of Pharmacy, Department of Pharmaceutical Sciences, Lexington, KY, United States
[3]Tel-Aviv University, School of Chemistry, Raymond and Beverly Sackler Faculty of Exact Sciences, Tel-Aviv, Israel

T17-03A

Adoptive M1/M2 modulation of microglia as an immunotherapeutic strategy against glioma

L. D. R. Cisneros Castillo[1]
[1]Johannes Gutenberg Universität-Mainz, Institute für Molekulare Zellbiologie, Mainz, Germany

T17-04A

A cell division cycle 7-related protein kinase inhibitor suppresses glioblastoma cell growth *in vitro*

E. P. Erkan[1], M. Dinc[2], E. Eren[1], J. Allmer[3], T. Yalcin[2], S. Genc[1]
[1]Dokuz Eylul University, Department of Neuroscience, Izmir, Turkey
[2]Izmir Institute of Technology, Department of Chemistry, Izmir, Turkey
[3]Izmir Institute of Technology, Department of Molecular Biology and Genetics, Izmir, Turkey

T17-06A

A promising therapy against human glioblastoma stem cells: cell-penetrating peptides based on the interaction between connexin43 and c-Src

M. Jaraíz Rodríguez[1], M. Domínguez Prieto[1], J. Medina[1], A. Tabernero[1]
[1]Universidad de Salamanca, Instituto de Neurociencias de Castilla y León, Salamanca, Spain

T17-07A

Light-controlled inhibition of malignant glioma by opsin gene transfer

Y. Liu[1], F. Yang[1], J. Tu[1], L. Wang[1]
[1]shenzhen institutes of advanced technology,Chinese Academy of Sciences, Shenzhen, China

T17-08A

The role of Cytoplasmic Polyadenylation Element Binding proteins in the pathogenesis of gliomas

M. Skubal[1], M. Theis[1], C. Steinhäuser[1], A. Waha[2]
[1]University of Bonn, Institute of Cellular Neurosciences , Bonn, Germany
[2]University of Bonn, Institute of Neuropathology, Bonn, Germany

T17-09A

GFAP in astrocytic tumors

E. van Bodegraven[1], O. Stassen[2], M. Moeton[2], M. van Strien[1], P. Robe[3], E. Hol[1]
[1]Brain Centre Rudolf Magnus, Translational Neuroscience, Utrecht, Netherlands
[2]Netherlands Institute for Neuroscience, Amsterdam, Netherlands
[3]UMC Utrecht - Brain Centre Rudolf Magnus, Neurosurgery, Utrecht, Netherlands

T17-01B

Diffuse low grade gliomas: characterization and development of in vitro model for designing innovative therapeutic approaches

S. Azar[1], A. genentier[1], F. lorcy[2], V. rigau[2], H. duffau[1,2], B. rothhut[1], J. P. hugnot[1]
[1]institute for neurosciences of montpellier, inserm u1051, team 4 "plasticity, stem cells and glial tumors", montpellier, France
[2]guy de chauliac hospital, anatomic pathology departement, montpellier, France

T17-02B

Aquaporin 4 related orthogonal arrays of particles undergo drastic changes in pathological conditions like Astrocytomas WHO-Grade II to IV

P. Fallier-Becker[1,2], M. Hoffmeister[1,2], S. Mitrovic[1,2], S. Noell[1,2]
[1]University of Tuebingen, Institute of pathology and neuropathology, Tuebingen, Germany
[2]university of tuebingen, Institute of pathology and neuropathology, Tuebingen, Germany

T17-03B

Molecular mechanisms of Notch1-induced pericyte-like transdifferentiation of glioblastoma stem cells

S. Guelfi[1], P.- O. Guichet[1], M. Teigell[2], L. Hoppe[1], N. Bakalara[1], L. Bauchet[1], H. Duffau[1], K. Lamszus[3], B. Rothhut[1], J.- P. Hugnot[1]
[1]INSERM U1051 - Institute for Neuroscience of Montpellier, "Cerebral plasticity, stem cells and glial tumors" team, Montpellier, France
[2]RHEM-INM, CNRS Montpellier, Montpellier, France
[3]University Medical Center Hamburg- Eppendorf, Martinistrasse 52, Laboratory for Brain Tumor Biology, Department of Neurosurgery, Hamburg, Germany

T17-04B

Role of the RNA-binding protein HuR in Neurofibromas and Malignant Peripheral Nerve Sheath Tumour

M. Palomo[1], M. Iruarrizaga-Lejarreta[1], M. Varela-Rey[1], A. Woodhoo[1]
[1]CIC bioGUNE, Metabolomics Unit, Derio, Spain

T17-05B

Human monocyte-derived macrophages exposed to glioblastoma cells and tumor-associated microglia/macrophages differ in glutamatergic gene expressions

J. Choi[1], B. Stradmann-Bellinghausen[1], N. Savaskan[2], A. Regnier-Vigouroux[1]
[1]Johannes Gutenberg University-Mainz, Zoology/Molecular Cell Biology, Mainz, Germany
[2]University of Erlangen-Nürnberg, Department of Neurosurgery, Erlangen, Germany

T17-06B

Transport of branched-chain ketoacids is mediated by monocarboxylate transporters in brain tumor cells

L. Silva[1], H. Becker[2], N. Kneisel[1], G. Poschet[3], I. Helbing[1], P. Lichter[1], R. Hell[3], B. Radlwimmer[1]
[1]German Cancer Research Center (DKFZ), Division of Molecular Genetics (B060), Heidelberg, Germany
[2]FB Biologie, TU Kaiserslautern, AG Zoologie / Membrantransport, Kaiserslautern, Germany
[3]Centre for Organismal Studies,University of Heidelberg , Metabolomics Core Technology Platform, Heidelberg, Germany

T17-07B

Identification of a gene mutated in 7.5% of anaplastic oligodendrogliomas

I. Simeonova[1], K. Labreche[2], A. Kamoun[3], V. Gleize[1], D. Chubb[2], E. Letouzé[3], Y. Riazalhosseini[4,5], S. Dobbins[2], N. Elarouci[3], F. Ducray[6], A. de Reyniès[3], D. Zelenika[7], C. Wardell[8], M. Frampton[2], O. Saulnier[1], T. Pastinen[4,5], S. Hallout [9], D. Figarella-Branger[10], C. Dehais [11], A. Idbaih[1,11], K. Mokhtari[9,12], J.- Y. Delattre[1,11], E. Huillard[1], M. Lathrop[4,5], M. Sanson[1,11], R. Houlston[2]
[1]Brain and Sipne Institute (ICM), UPMC S975/Inserm U1127/CNRS UMR 7225, Paris, France
[2]The Institute of Cancer Research, Division of Genetics and Epidemiology, Sutton, United Kingdom
[3]Ligue Nationale Contre Le Cancer, Programme Cartes d'Identité des Tumeurs (CIT), Paris, France
[4]McGill University, Department of Human Genetics, Montreal, Canada
[5]McGill University and Genome Quebec Innovation Centre, Montreal, Canada
[6]Hopital neurologique, Hospices civils de Lyon, Lyon Neuroscience Research Center, Neuro-Oncology and Neuro-Inflammation Team, Lyon, France
[7]IG/CEA, Centre National de Génotypage, Evry, France
[8]The Institute of Cancer Research, Division of Molecular Pathology, Sutton, United Kingdom
[9]Brain and Sipne Institute (ICM), Inserm U1127/CNRS UMR 7225, Paris, France
[10]AP-HM, Hôpital de la Timone, Service d'anatomie pathologique et de neuropathologie, Marseille, France
[11]AP-HP, Groupe Hospitalier Pitié-Salpêtrière, Service de neurologie 2-Mazarin, Paris, France
[12]AP-HP, Groupe Hospitalier Pitié-Salpêtrière, Laboratoire de Neuropathologie R. Escourolle, Paris, France

T17-08B

Ash2L and p300 mediate histone H3 modifications at *EGFR* during its developmental silencing and re-expression in gliomas

J. TOME GARCIA[1,2], P. ERFANI[1,3], P. CANOLL[3], F. DOETSCH[3,4], N. TSANKOVA[1,3]
[1]MOUNT SINAI SCHOOL OF MEDICINE, NEUROSCIENCE, NEW YORK, United States
[2]HOSPITAL, NEUROSCIENCE, NEW YORK, United States
[3]Columbia University Medical Center, Pathology and Cell Biology, New York, United States
[4]Columbia University Medical Center, NEUROSCIENCE, NEW YORK, United States