XII European Meeting on Glial Cells in Health and Disease

Bilbao | July 15–18, 2015

Meeting Program

www.bilbao2015.gliameeting.eu
The BD FACSJazz™ system begins a new era in cell sorting with stellar performance, benchtop fit, and an affordable price. The BD FACSJazz can be configured with up to 3 lasers and 8 parameters to support your application needs—offloading sorting demand at core labs or meeting the needs of individuals. Requiring just 2 x 2 ft (61 x 61 cm) of bench space, the BD FACSJazz also addresses biosafety concerns with an optional custom designed biosafety cabinet that meets Class II Type A2 NSF 49 and EU 12469 standards. In addition to factory-optimized settings, the BD FACSJazz comes standard with BD FACS™ Sortware sorter software to simplify use. This innovative software is specifically designed for cell sorting and features comprehensive control for acquisition, sorting, and analysis. For legendary results, just add your creativity. Learn how at bdbiosciences.com/eu/instruments/facsjazz.
Meeting Program

XII European Meeting
on Glial Cells in Health and Disease
Bilbao | July 15–18, 2015
# Table of Contents

Welcome .............................................................................................................. 4  
Acknowledgements ............................................................................................... 6  
Committees ............................................................................................................. 7  
Local Organizing Institutions ............................................................................... 8  
Sponsors .................................................................................................................. 9  
Exhibitors ............................................................................................................... 10  
Floor Plan .............................................................................................................. 12  
Surrounding Map .................................................................................................... 14  
General Information ............................................................................................... 16  
Schedule .................................................................................................................. 20  
Tuesday, July 14, 2015 ......................................................................................... 20  
Wednesday, July 15, 2015 .................................................................................... 21  
Thursday, July 16, 2015 ......................................................................................... 26  
Friday, July 17, 2015 ............................................................................................. 32  
Saturday, July 18, 2015 ......................................................................................... 38  
Poster Sessions ...................................................................................................... 42  
Poster Session I ...................................................................................................... 44  
Poster Session II .................................................................................................... 86  
Map of Bilbao Public Transportation ..................................................................... 128  
Notes ....................................................................................................................... 130  
Program at a Glance ............................................................................................... 132
Dear Glia Community,

On behalf of Network Glia and the organizers, I welcome you all to the XII European Meeting on Glial Cell Function in Health and Disease in Bilbao. The program committee has organized seven excellent plenary lectures and selected 30 symposia reflecting the wide range of topics in the glial field.

This is the second time that this important meeting of the glial community comes to Spain after the one held in Barcelona in 2000. The Glial Meeting series has become a tradition since the first gathering in 1994 at the University of Heidelberg where more than 600 participants got together. Subsequent Glial Meetings have been held throughout Europe every second year and have grown in size to more than 1,000 participants in the last meeting in Berlin. The Bilbao Meeting has received over 650 poster abstracts and the attendance is expected to reach near 1,200 participants from about 45 countries, a new record which reflects the growing interest in glia biology and the vibrant atmosphere surrounding this meeting. The participants, we are happy to say, will also be comprised of the young and growing local community of neuroscientists with an interest in glial cells.

The Glia Meeting 2015 is being held at the Euskalduna Conference Centre, one of the flagships of the new Bilbao, which was designed as a vessel permanently under construction on the site of the former Euskalduna Shipyard. The Euskalduna Centre is very conveniently located at the heart of Bilbao and within walking distance to major hotels, the Guggenheim Museum and the Old Quarter.

Bilbao is the economical capital of the Basque Country, a city that has experienced a tremendous modernization in recent years. It is a lively city that combines tradition with modernity. Famous for its tapa bars and restaurants, the city has become a cultural reference in Southern Europe.

The logistics of the Meeting have been arranged by the professional congress organizers, K.I.T. Group, in association with the non-profit organization Network Glia formed by the previous organizers of the European Glial Meetings. I would like to particularly thank Erik Boddeke, Kris Jessen, Meino Gibson and Helmut Kettenmann for setting this up.
We are very grateful for the generous support of Euskampus, the Basque Government, Achucarro Basque Center for Neuroscience, and IBRO Pan-European Regional Committee (IBRO-PERC) for providing stipends to support the participation of young scientists in the Introductory Course. I also acknowledge the support of Wiley-Blackwell for providing the abstracts as a USB drive as a supplement to GLIA and for providing stipends for young scientists, and the Spanish Society of Neuroscience for supporting several symposia, and all the sponsors and exhibitors.

I hope that you will enjoy the meeting and our city. With your participation I am confident this meeting will be a grand success.

Carlos Matute
Chair Local Organizing Committee
Acknowledgements

The Network Glia e. V. and the organizers of the XII European Meeting on Glial Cells in Health and Disease gratefully acknowledge the collaboration and the financial support of the following partners (in alphabetic order):

- Achucarro Basque Center for Neuroscience
- Basque Government
- IBRO Pan-European Regional Committee (IBRO-PERC)
- Ikerbasque
- Spanish Society for Neuroscience (SENC)
- University of the Basque Country
- Wiley-Blackwell
Committees

PROGRAM COMMITTEE

Anne Baron-Van Evercooren (France), Chair
Etienne Audinat (France)
Sue Barnett (UK)
Peter Brophy (UK)
Philip Haydon (USA)
Frank Heppner (Germany)
Kristjan Jessen (UK)
Helmut Kettenmann (Germany)
Wendy Macklin (USA)
Gianvito Martino (Italy)
Rebecca Matsas (Greece)
Carlos Matute (Spain)
Klaus-Armin Nave (Germany)
Hideyuki Okano (Japan)
Michael V. Sofroniew (USA)
Jacqueline Trotter (Germany)

ORGANIZING COMMITTEE

Anne Baron-Van Evercooren (France)
Hendrikus W. G. M. Boddeke (Netherlands)
Bernardo Castellano (Spain)
Christine Dijkstra (Netherlands)
Kristjan Jessen (UK)
Helmut Kettenmann (Germany), Chair
Rebecca Matsas (Greece)
Carlos Matute (Spain)
Rhona Mirsky (UK)
Eva Sykova (Czech Republic)

LOCAL ORGANIZING COMMITTEE

Carlos Matute (Achucarro Center, Bilbao), Chair
Alfonso Araque (Cajal Institute, Madrid)
Bernardo Castellano (Universidad Autónoma, Barcelona)
Fernando de Castro (Paraplegic Hospital, Toledo)
Hugo Cabedo (Neuroscience Institute, Alicante)
María Domercq (Achucarro Center, Bilbao)
Luis Miguel García Segura (Cajal Institute, Madrid)
Anna Planas (IDIBAPS, Barcelona)
Jaime Sagarduy (Achucarro Center, Bilbao)
Amanda Sierra (Achucarro Center, Bilbao)
Local Organizing Institutions

Achucarro Basque Center for Neuroscience, Bilbao

Institut d’Investigacions Biomédiques August Pi i Sunyer (IDIBAPS), Barcelona

Hospital Nacional de Parapléjicos (CSIC – SESCAM), Toledo

Institut de Neurociències (UAB), Barcelona

Instituto Cajal (CSIC), Madrid

Instituto de Neurociencias (CSIC – UMH – FISABIO), Alicante
Sponsors
We would like to thank the following sponsors for their support:

GOLD SPONSOR

![Wiley-Blackwell](image)

BRONZE SPONSOR

![BD](image)

LOCAL SPONSORS

![Euskotren](image)

![Euskampus](image)

SPONSORS

![MACS](image)

![Leica Microsystems](image)

![Peprotech](image)

![STEMCELL Technologies](image)
Exhibitors

We would like to thank the following exhibitors for their support (alphabetic order, as at June 2015):

**Femtonics Ltd.**

Femtonics Ltd. is a R&D company, operating in the field of two-photon microscopy.

Femtonics focuses on the research and development of laser scanning microscopes for the booming area of (neuro)physiological investigations. Our microscopes are tuned for the fastest, real-time 2D and 3D optical measurements and are especially suited for cutting-edge brain research and pharmaceutical development. Furthermore, their modular nature ensures that they can be easily adapted to suit other applications, including biophysical use. We can proudly state that our microscopes are widely used all around the globe. Our main strengths from the researchers’ point of view are not only our reliability and friendly prices but our unique modular systems built according to our customers’ requirements.

[www.femtonics.eu](http://www.femtonics.eu)

**Jackson ImmunoResearch Europe Ltd.**

supplies First Class Secondary Antibodies and Conjugates.

Our rapid, efficient, direct service extends throughout Europe and includes first-hand technical advice in European time. Our latest products include Alexa Fluor®680 and Alexa Fluor®790 conjugates for Far-red and Infrared detection on Western blots.

[www.jireurope.com/home.asp](http://www.jireurope.com/home.asp)

**Leica Microsystems**

Leica Microsystems develops and manufactures microscopes and scientific instruments for the analysis of microstructures and nanostructures. Ever since the company started as a family business in the nineteenth century, its instruments have been widely recognized for their optical precision and innovative technology. It is one of the market leaders in compound and stereo microscopy, digital microscopy, confocal laser scanning microscopy with related imaging systems, electron microscopy sample preparation, and surgical microscopes.
Leica Microsystems has seven major plants and product development sites around the world. The company is represented in over 100 countries, has sales and service organizations in 20 countries, and an international network of distribution partners. Its headquarters are located in Wetzlar, Germany.

www.leica-microsystems.com

Miltenyi Biotec GmbH  Booth No. 1

Miltenyi Biotec is a global provider of products and services that advance biomedical research and cellular therapy. Our innovative tools support research at every level, from basic research to translational research to clinical application. Used by scientists and clinicians around the world, our technologies cover techniques of sample preparation, cell isolation, cell sorting, flow cytometry, and cell culture. Our 25 years of expertise spans research areas including immunology, stem cell biology, neuroscience, and cancer. Today, Miltenyi Biotec has more than 1,400 employees in 25 countries — all dedicated to helping researchers and clinicians make a greater impact on science and health.

www.miltenyibiotec.com

THORLABS GmbH  Booth No. 3

Thorlabs, a vertically integrated photonics products manufacturer, was founded in 1989 to serve the laser and electro-optics research market. As that market has spawned a multitude of technical innovations, Thorlabs has extended its core competencies in an effort to play an ever increasing role serving the Photonics Industry at the research end, as well as the industrial, life science, medical, and defense segments. The organization’s highly integrated and diverse manufacturing assets include semiconductor fabrication of Fabry-Perot, DFB, and VCSEL lasers, fiber towers for drawing glass optical fibers (silica, fluoride, tellurite, and hollow core), MBE/MOCVD epitaxial wafer growth reactors, extensive glass and metal fabrication facilities, advanced thin film deposition capabilities, and optomechanical and optoelectronic shops.

www.thorlabs.com
Level -1

Art Exhibition

Access to Auditorium

D2 Room D2 MEDIA CHECK
D3 Room D3 NETWORK GLIA OFFICE

1 MEETING OFFICE
2 POSTER HELP DESK
3 Stairs between Level-2 and Level-1

STREET LEVEL
Entrance 3: Main Access to the Meeting

LEVEL -1
Media Check, Network Glia Office, Access to Auditorium

LEVEL -2
Main Area: Exhibition, Session Rooms, Posters
General Information
IN ALPHABETIC ORDER

ABSTRACTS
The meeting abstracts will be published in electronic format in GLIA and will be available onsite at the conference on a USB memory stick (free of charge for all registered participants). Additionally they are available via the online itinerary planner at the meeting website.

ART EXHIBITION
In addition to the poster presentation and the industrial exhibition, a “Glia art exhibition” will be displayed during the whole meeting. It will be divided in following sections:
– Cell on Canvas: collection from Carlos Barcia
– Pictures of Glial Cells from members of the Spanish Glial Network
– Glia in Watercolors
– Neurojewels: collection of jewels based on glial morphologies
– Deconstructed neuroscience: collection of jewels made by the students of the Massana Art School based on Neuroscience inspiration
– Glia Ceramic: collection of pottery based on glial cells.

BADGE
Upon registration at the meeting office, attendants will receive a name badge which allows entrance to the meeting. All participants are asked to wear their badge visibly at all times.
The badge gives also delegates free access to the tram network in Bilbao for the entire duration of the conference (starting from Tuesday until Saturday, see “Public transportation and travel” on page 18 for more information).

BILBAO INFORMATION POINT
During the meeting, a tourist information desk will be available at the conference centre, providing interested participants with any kind of information about Bilbao and surroundings.

CERTIFICATE OF ATTENDANCE
Certificates of attendance will be sent to every participant by e-mail after the meeting has taken place.

CREDIT POINTS FOR STUDENTS
Students can collect following ECTS credit points for attending the meeting:
Poster presentation: 1 credit point
Attendance at the Introductory Course: 1/5 credit point
Attendance per day: 1/5 credit point
Attendance at both Introductory Course and meeting: 1 credit point
For the corresponding certificates, please refer to the meeting office.

ELECTRICITY SUPPLY
230 V–50 Hz AC
INSURANCE
The organizers do not take responsibility for individual medical, travel or personal insurance. Participants are advised to carry out their own insurance policies.

INTERNET ACCESS
Wireless internet access is available free of charge throughout the conference venue.
Network Login: GLIA
Password: Bilbao15

LUNCH
Lunch boxes will be served from Thursday to Saturday. Please note that on Wednesday no lunch will be served.

MEDIA CHECK/SPEAKERS’ SERVICE
The media check for oral presentations is located in the room D2 (see floor plan on page 12). We kindly ask you to hand in your presentation on a memory stick/CD ROM about 2 hours in advance of your talk, at the latest, or the day before. Please note that using your own laptop will not be possible.

MEETING OFFICE/CLOAKROOM
Opening times:
Wednesday, July 15, 2015 08:00–20:30
Thursday, July 16, 2015 08:00–19:00
Friday, July 17, 2015 08:00–19:00
Saturday, July 18, 2015 08:00–16:30

Phone: +49 176 83466704
E-Mail: registration@glia2015.org

ORGANIZATION
Network Glia e. V.
Max Delbrueck Center for Molecular Medicine (MDC) Berlin-Buch
Robert-Rössle-Straße 10, 13092 Berlin, Germany
E-mail: gibson@mdc-berlin.de
www.networkglia.eu

K.I.T. Group GmbH
Münzgasse 2, 01067 Dresden, Germany
E-mail: info@kitdresden.de
www.kit-group.org

POSTER SESSIONS
Each poster will hang for two days: Posters with poster number ending of an A will hang on Wednesday and Thursday, posters with poster numbers ending of a B will hang on Friday and Saturday.
The presenting author of each poster is requested to be present at her/his poster during the poster session. The poster sessions are divided into even and uneven serial numbers. Each poster is presented in two sessions of 60 min.

Posters with numbers ending with A:
(Hanging of posters: Wednesday, July 15, before 10:00)

Wednesday, July 15, 2015 17:15–18:15 and
Thursday, July 16, 2015 13:15–14:15
–Uneven serial numbers (e.g. T03-03A)

Wednesday, July 15, 2015 18:15–19:15 and
Thursday, July 16, 2015 14:15–15:15
–Even serial numbers (e.g. T03-04A)

All posters must be removed on Thursday, July 16 until 16:00.

Posters with numbers ending with B:
(Hanging of posters: Thursday, July 16, from 17:00/Friday, July 17, before 10:00)

Friday, July 17, 2015 13:15–14:15 and
Saturday, July 18, 2015 13:00–14:00
–Uneven serial numbers (e.g. T03-03B)

Friday, July 17, 2015 14:15–15:15 and
Saturday, July 18, 2015 14:00–15:00
–Even serial numbers (e.g. T03-04B)

All posters must be removed on Saturday, July 18 directly after the poster session.

The size of a poster is DIN A0 landscape format (85 cm height, 119 cm width). Appropriate adhesive material to hang your poster will be available at the poster help desk.

PUBLIC TRANSPORTATION AND TRAVEL
How to reach the city center/venue from Bilbao airport
The Bilbao airport is located about 12 km away from the city. A simple and cheap way to get to and from the centre of Bilbao from the airport is to take the shuttle bus Bizkaibus A3247. The stop is located just outside of the arrival hall.

The bus runs throughout the day and takes about 20 minutes to get into the city. The nearest stop to the Euskalduna Conference Centre is the stop “Gran Via 79”. Cost for a single ticket: €1.45

Taxis generally take about 20–25 minutes and cost up to €30 per ride. There is a taxi stand outside of the arrival hall at Bilbao Airport.
Free access to the tram network of Bilbao:
From Tuesday, July 14 to Saturday, July 18 all registered participants will have free and unlimited tram access within the city. Please make sure to wear your badge while entering the tram. The tram is operated by the company Euskotren and connects the Euskalduna Conference Centre with the old town quickly and easily. **Please note that the free access is only valid for the tram.** If you want to take the metro or the bus, you have to buy a transport ticket.

**REGISTRATION**
On-site registration will be available on all conference days, registration fees can be paid in cash or by VISA, Mastercard or American Express.

**Full registration (all days):**
- Scientists: €550
- Students, PhD Students: €350
- Commercials: €595
- Introductory Course on Glial Biology: €30.00 (Students) / €65.00 (Scientists)

**Registration per day:**
- Scientists: €170
- Students, PhD Students: €120
- Commercials: €230

Students must show their valid student card!

**Registration fee includes**
- Admission to all sessions, poster area and exhibition
- Lunch boxes from Thursday to Saturday
- Informal get-together with free drinks on Wednesday evening
- Conference bag including program booklet, abstract USB stick, city map and sponsor materials
- Free access to all trams in Bilbao from Tuesday to Saturday

**TAXI**
The following taxi companies offer a 24-hour service in Bilbao, including airport transfers:
- Radio Taxi Bilbao, Tel. +34 94 444 88 88
- Radio Teletaxi, Tel. +34 94 410 21 21

**VENUE**
The Euskalduna Conference Centre and Concert Hall
Avenida Abandoibarra, 4, 48011 Bilbao
www.euskalduna.net

**VENUE INTRODUCTORY COURSE**
BIZKAIA ARETOA (Auditorium Mitxelena)
Avenida Abandoibarra, 3, 48009 Bilbao
(located in walking distance to the Euskalduna Conference Centre)
Scientific Program

TUESDAY, JULY 14, 2015

09:00–17:45 Introductory Course

Venue: BIZKAIA ARETOA
(Auditorium Mitxelena)
Avenida Abandoibarra, 3, 48009 Bilbao

09:00 Carlos Matute Bilbao, Spain
Welcome

09:00–09:45 Frank Kirchhoff Homburg, Germany
Astrocytes — an introduction —

09:45–10:30 Charles ffrench-Constant Edinburgh, UK
Oligodendrocytes

10:30–11:15 Elena Alberdi Bilbao, Spain
Glia in Alzheimer’s disease

11:15–11:45 Coffee Break

11:45–12:30 Ashwin Woodhoo Derio, Spain
Schwann cells

12:30–13:15 Juan Manuel Encinas Bilbao, Spain
Gliogenesis

13:15–14:15 Lunch Break

14:15–15:00 Alfonso Araque Minneapolis, USA
Advances and challenges in studying the role of astrocytes in neurotransmission

15:00–15:45 Brahim Nait-Oumesmar Paris, France
Experimental models of myelination and remyelination

15:45–16:15 Coffee Break

16:15–17:00 Richard M. Ransohoff Cambridge, USA
Microglia: a reintroduction

17:00–17:45 Marco Prinz Freiburg, Germany
Microglia in the universe of myeloid cells in the CNS
WEDNESDAY, JULY 15, 2015

09:00–13:00  Workshops

09:00–13:00  Workshop I  
Sala Barria  BEYOND CELL CULTURE: MODERN TECHNIQUES TO STUDY MICROGLIA  
Organizer: Knut Biber Freiburg, Germany

09:00–09:40  Annette Masuch Freiburg, Germany  
Preparation of chimeric OHSCs to study the function of ramified microglia

09:40–10:20  Erik Boddeke Groningen, Netherlands  
Acute isolation of microglia and bioinformatics

10:20–11:00  Steffen Jung Rehovot, Israel  
Studying the role of dicer and microRNAs in microglia of the developing and adult brain

11:00–11:40  Dimitrios Davalos San Francisco, USA  
In vivo imaging of microglia in the brain and spinal cord in health and disease

11:40–12:20  Martin Fuhrmann Bonn, Germany  
Imaging neuron microglia interaction in the hippocampus of awake mice

12:20–13:00  Frederick Rohan Walker Newcastle, Australia  
Improvement of classical methods and development of high throughput automated methods for the analysis of glial morphology

09:00–13:00  Workshop II  
Room A1  MANIPULATION AND VISUALIZATION OF PHYSIOLOGICAL AND PATHOPHYSIOLOGICAL FUNCTIONS OF GLIA. THE JAPANESE-EUROPE GLIAL WORKSHOP  
Organizers: Schuichi Koizumi Yamanashi, Japan  
Alexej Verkhratsky Manchester, UK

09:00–09:40  Erlend A. Nagelhus Oslo, Norway  
Neurons and glia on the edge of cortical spreading depression
09:40–10:20  Dmitri Rusakov London, UK
Understanding calcium-driven physiology of astroglia

10:20–11:00  Claudia Karus Düsseldorf, Germany
Imaging of astrocyte sodium dynamics in (patho-)physiology

11:00–11:40  Kazuhiro Ikenaka Okazaki, Aichi, Japan
How does an oligodendrocyte select axons to myelinate?

11:40–12:20  Masamitsu Iino Tokyo, Japan
In vivo imaging of glial Ca^{2+} dynamics using an ultrasensitive Ca^{2+} indicator

12:20–13:00  Kenji Tanaka Tokyo, Japan
KENG-e-tet system: promising strategy to achieve sufficient probe expression in glial cells

13:00–14:00  Break

14:00–14:15  Opening
Auditorium

14:15–15:15  Plenary Lecture P-01
Auditorium  Chair: Christine Dijkstra Amsterdam, Netherlands
Richard M. Ransohoff Cambridge, USA
Fractalkinomics: one key to the place of microglia in the CNS firmament

15:15–17:15  Symposia I

Auditorium  Symposium S01
MICROGLIA-MEDIATED CONTROL OF POSTNATAL BRAIN DEVELOPMENT
Organizer: Shigeo Okabe Tokyo, Japan

S01-01  Maki Hoshiko Osaka, Japan
Development of microglia in the mouse primary somatosensory cortex

S01-02  Valentin Nägerl Bordeaux, France
The induction of hippocampal long-term potentiation increases the motility of microglial processes and impacts their engagement with dendritic spines

S01-03  Rebecca Lowery Rochester, USA
A role for microglia in synaptic plasticity
S01-04  Shigeo Okabe  Tokyo, Japan
Imaging microglia and synapses with an optical clearing technique

Sala Barria  Symposium S02
ELUCIDATING INFLUENCE OF NEURONAL ACTIVITY ON CNS MYELINATION
Organizers: David Lyons Edinburgh, UK
Ragnhildur Karadottir Cambridge, UK

S02-01  David Lyons  Edinburgh, UK
Using zebrafish to study how neuronal activity regulates myelination in vivo

S02-02  Michelle Monje  Stanford, USA
Neuronal activity promotes oligodendrogenesis and adaptive myelination in the mammalian brain

S02-03  Stan Mitew  Melbourne, Australia
The effects of pharmacogenetic manipulation of neuronal activity on oligodendrocyte turnover and myelination in the developing mouse brain

S02-04  Ragnhildur Karadottir  Cambridge, UK
Neuronal activity regulates remyelination via glutamate signalling to oligodendrocyte progenitors

Room A1  Symposium S03
ASTROCYTE GLIOTRANSMISSION, VOLUME SIGNALLING AND WATER HOMEOSTASIS
Organizers: Robert Zorec Ljubljana, Slovenia
Vladimir Parpura Birmingham, USA

S03-01  Vladimir Parpura  Birmingham, USA
Metabolic regulation of vesicular glutamate release from cultured astrocytes

S03-02  Robert Zorec  Ljubljana, Slovenia
Astrocytic gliotransmitter vesicles and their interaction with the plasmalemma

S03-03  Linda Hildegard Bergersen  Oslo, Norway
Lactate transport and signaling in the brain: potential therapeutic targets and roles in body-brain interaction

S03-04  Ole Petter Ottersen  Oslo, Norway
Role of astrocytes in volume and water homeostasis
Room A4  Symposium S04
SCHWANN CELL-AXON INTERACTION CONTROLS PERIPHERAL NERVE DEVELOPMENT AND DISEASE
Organizers: Stefano Previtali Milan, Italy
Laura Feltri Buffalo, USA

S04-01  Stefano Previtali Milan, Italy
Nuclear control of axonal sorting in nerve development and dysmyelinating neuropathy

S04-02  Laura Feltri Buffalo, USA
Spatial mapping of polarized axo-glial interactions reveals new molecules involved in myelination

S04-03  Dies Meijer Edinburgh, UK
The functional organization of myelinated axons and the role of LGI proteins

S04-04  Alison Lloyd London, UK
Directing axonal regrowth following nerve injury

Room A3  Symposium S05
SYSTEMATIC APPROACHES TO GLIA
Organizers: Aurora Pujol Barcelona, Spain
Hauke Werner Göttingen, Germany

S05-01  Shane Liddelow Stanford, USA
What do reactive astrocytes do?

S05-02  Hauke Werner Göttingen, Germany
Proteomic approach to myelin-related neuropathology

S05-03  Aurora Pujol Barcelona, Spain
Integrative –omics analyses uncovers inflammatory lipid cascades in adrenoleukodystrophy

S05-04  Luke Lairson La Jolla, USA
Remyelination: drug discovery and pharmacology

17:15–19:15  Poster Session I
Poster Area

19:15–20:15  Informal Get-together with free drink
Exhibition Area
Advantages of Publishing in GLIA

Reaching a Multidisciplinary Audience of Dedicated Biomedical Researchers. GLIA, the journal that launched the field of glial research, is still the journal of choice for neuroscientists, neurobiologists, neurologists, cell and developmental biologists, anatomists, pathologists, and neurochemists, looking for the most comprehensive coverage in this field of study.

Securing Rapid Online Publication through EarlyView®. Your article will be posted online as soon as it is ready, before the release of the compiled print issue.

Accessing a State-of-the-Art Submission System. GLIA offers online manuscript submission and peer-review via ScholarOne Manuscripts (formerly known as Manuscript Central), a user-friendly system making manuscript submission and tracking quick, easy, and safe.

Attaining High Visibility. GLIA is available online through Wiley Online Library®, Wiley’s Internet publishing platform. Wiley Online Library® has more than 29 million user sessions per year.

Open Access Publishing Available. OnlineOpen® allows authors or funders to pay a fee to make their articles freely available and compliant with government mandates.

Joining into an Intellectual Partnership with Wiley. Publishing at Wiley is truly a collaborative process. We value the long-term relationships we have with our authors and we are committed to maintaining the standard of excellence that has been essential to Wiley’s success for nearly two centuries.

www.wileyonlinelibrary.com/journal/glia
THURSDAY, JULY 16, 2015

09:00–10:00  Plenary Lecture P-02
Auditorium  Chair: Étienne Audinat Paris, France
Stéphane H. R. Oliet Bordeaux, France
Contribution of astrocytes to synaptic transmission and plasticity

10:15–12:15  Symposia II

Auditorium  Symposium S06
MICROGLIAL DYNAMICS IN THE HEALTHY AND DISEASED BRAIN
Organizers: Diego Gomez-Nicola Southampton, UK
Marco Prinz Freiburg, Germany

S06-01  David Hume Midlothian, UK
The origins of microglia

S06-02  Marco Prinz Freiburg, Germany
Microglia in the universe of myeloid cells in the CNS

S06-03  Fabio Rossi Vancouver, Canada
Microglia polarization: myths and realities

S06-04  Diego Gomez-Nicola Southampton, UK
Microglial proliferation in chronic neurodegeneration

Room A1  Symposium S07
OLIGODENDROCYTE DIFFERENTIATION IN DEVELOPMENT AND PATHOLOGY
Organizer: Teresa Wood Newark, USA

S07-01  Catherine Lubetzki Paris, France
Demyelination-induced changes in oligodendrocyte progenitor cells in the adult CNS

S07-02  Timothy Kennedy Montreal, Canada
Wrapped up tight: netrin function in mature myelin

S07-03  Teresa Wood Newark, USA
mTOR signaling in oligodendrocyte progenitor cell differentiation and myelination

S07-04  Bernard Zalc Paris, France
Transgenic Xenopus: a model of inducible demyelination and remyelination
Sala Barria  Symposium S08
Symposium of International Society of Neurochemistry

ROLE OF GLIAL CELLS IN RARE DISEASES

Organizers: Paola Bezzi Lausanne, Switzerland
Daniel Rossi Pavia, Italy

S08-01  Baljit Khakh Los Angeles, USA
Astrocyte dysfunctions in Huntington’s disease model mice

S08-02  Paola Bezzi Lausanne, Switzerland
Astrocytes may be behind the pathogenesis of 22q11.DS

S08-03  Brian Kaspar Columbus, USA
Glial cell toxicity towards motor neurons in ALS

S08-04  Daniela Rossi Pavia, Italy
Functional deficits of the astrocytes in Amyotrophic Lateral Sclerosis

Room A4  Symposium S09
CHROMATIN REMODELING IN MYELIN DEVELOPMENT AND NERVE REGENERATION

Organizers: Claire Jacob Fribourg, Switzerland
Hugo Cabedo San Juan de Alicante, Spain

S09-01  Michael Wegner Erlangen, Germany
The role of chromatin remodeling in myelinating glia

S09-02  John Svaren Madison, USA
Chromatin dynamics in Schwann cells after nerve injury

S09-03  Claire Jacob Fribourg, Switzerland
Control of myelinating cell plasticity by chromatin-remodeling enzymes

S09-04  Hugo Cabedo San Juan de Alicante, Spain
The role of class II HDACs in the transition towards the Schwann cell repair phenotype
Room A3  Symposium S10  
DEVELOPMENTAL SIGNALING  
MECHANISMS IN GLIOGENESIS  
Organizers:  
Benedikt Berninger Mainz, Germany  
Ismael Galve-Roperh Madrid, Spain  

S10-01  Javier Palazuelos Stony Brook, USA  
A role for TACE/ADAM17 during oligodendrocyte development and regeneration  

S10-02  Carol Schuurmans Calgary, Canada  
The role of RAS-ERK signaling in specifying glial cell fates in neocortical development and gliomagenesis  

S10-03  Ismael Galve-Roperh Madrid, Spain  
The endocannabinoid system controls radial glia transition to intermediate progenitor cells via mTORC1 signalling  

S10-04  Benedikt Berninger Mainz, Germany  
From expanding to reprogramming NG2 glia  

12:15-13:15 Lunch Break  

13:15-15:15 Poster Session I  
Poster Area  

15:15-17:15 Symposia III  

Auditorium  Symposium S11  
NEURONS AND MICROGLIA: BIDIRECTIONAL  
COMMUNICATION IN HEALTH AND DISEASES  
Organizer: Marie-Ève Tremblay Québec, Canada  

S11-01  Alain Bessis Paris, France  
Microglial regulation of synaptic function  

S11-02  Amanda Sierra Bilbao, Spain  
Neuronal hyperactivity triggers microglial phagocytosis-apoptosis uncoupling  

S11-03  Wen-Biao Gan New York, USA  
In vivo studies of microglial function in synapse formation  

S11-04  Marie-Ève Tremblay Québec, Canada  
Structural interactions between microglia and synapses in contexts of neuroinflammation
| Room A1 | Symposium S12  
IMMUNITY AND REMYELINATION  
Organizers: Robin Franklin Cambridge, UK  
Veronique Miron Edinburgh, UK |
|---------|---------------------------------------------------|
| S12-01 | Robin Franklin Cambridge, UK  
Ageing macrophages and failing remyelination |
| S12-02 | Veronique Miron Edinburgh, UK  
Macrophage activation in perinatal white matter injury |
| S12-03 | Denise Fitzgerald Belfast, UK  
Regulatory T cells directly promote myelin regeneration in the Central Nervous System |
| S12-04 | V. Wee Yong Calgary, Canada  
Enhancement of the activity of M2-polarized macrophages/microglia promotes recovery from demyelination |

| Room A3 | Symposium S13  
PARADIGM SHIFT IN ASTROCYTE CALCIUM SIGNALLING  
Organizer: Alexey Semyanov Nizhny Novgorod, Russian Federation |
|---------|---------------------------------------------------------------|
| S13-01 | Yuji Ikegaya Tokyo, Japan  
Macroscopic and microscopic calcium dynamics of astrocytes |
| S13-02 | Alexey Semyanov Nizhny Novgorod, Russian Federation  
Spatiotemporal calcium dynamics in single astrocytes and its modulation by neuronal activity |
| S13-03 | Todd Fiacco Riverside, USA  
Fundamental differences between spontaneous vs. low-level evoked astrocyte calcium activity |
| S13-04 | Armando Genazzani Novara, Italy  
Glial calcium dysregulation in Alzheimer’s disease |
Room A4  Symposium S14  
THE ROLE OF GLIAL CELLS IN PERIPHERAL NEUROPATHY  
Organizer: Wendy Campana La Jolla, USA

S14-01  Wendy Campana La Jolla, USA  
Regulation of Schwann cell physiology by LRP1: role in neuroinflammation, regeneration and neuropathic pain

S14-02  Gabriel Corfas Boston, USA  
Treating small fiber neuropathy by topical application of a small molecule GFRα/RET modulator

S14-03  Ahmet Hoke Baltimore, USA  
Challenges in developing novel therapies for peripheral neuropathies: Targeting Glia

S14-04  Rudolf Martini Würzburg, Germany  
Schwann cell reactions and mutual interactions with macrophages in myelin mutants: implications for treatment of inherited neuropathies

Sala Barria  Symposium S15  
EPIGENETICS SHAPES GLIAL FUNCTIONS IN HEALTH AND DISEASE  
Organizers: Bozena Kaminska Warsaw, Poland  
Jonathan Kipnis Charlottesville, USA

S15-01  Bozena Kaminska Warsaw, Poland  
Epigenetic control of microglia polarization in brain pathologies

S15-02  Bart Eggen Groningen, Netherlands  
Epigenetic regulation of the microglia inflammatory response

S15-03  Staci Bilbo Durham, USA  
Microglia and the developing brain: implications for long-term neural function

S15-04  Jonathan Kipnis Charlottesville, USA  
Microglia phagocytic activity and autism

17:30-18:30  Plenary Lecture P-03  
Auditorium  
Chair: Anne Baron-Van Evercooren Paris, France  
Charles ffrench-Constant Edinburgh, UK  
Intrinsic and extrinsic regulation of CNS myelination
IKERBASQUE

Ikerbasque, the Basque Foundation for Science, is the institution dedicated to fostering the production, promotion and dissemination of scientific knowledge in the Basque Country.

Among other activities, Ikerbasque currently runs different programmes to attract and retain talented researchers, in different career stages, and in all the fields of knowledge. Recruited scientists are appointed to the different Basque research institutions including universities, fundamental research centres, cooperative research centres and technology centres.

*International senior and postdoctoral researchers willing to join the Achucarro centre or other neuroscience related institutions in the Basque Country are welcome to apply for any of our open calls.*

For more information: www.ikerbasque.net

BIZKAIA TALENT

Bizkaia Talent is the agency supported by the Government of Bizkaia (established in 2005) with the mission of strengthening the conditions for attracting, connecting and retaining talented professionals in the Basque territory of Biscay (Bizkaia).

Bizkaia Talent seeks to promote and improve the most important factor in the development of any region: human resources. In so doing, it takes action to attract talent with the help of the leading companies and universities in the Basque Country.

*Bizkaia Talent offers essential services for professionals and their families willing to start a career and life in the Basque Country, from support in housing and education, to leisure and personal and professional networking.*

*Join the network of professionals of Bizkaia Talent: Be Basque Network, because you can also be Basque!*

For more information: www.bizkaia Talent.org | www.bebasquetalentnetwork.org
FRIDAY, JULY 17, 2015

09:00-10:00  Plenary Lecture P-04
Auditorium   Chair: Helmut Kettenmann Berlin, Germany
Bruce R. Ransom Seattle, USA
Gliarial glycogen: a sweet and sour story full of surprises

10:15-12:15  Symposium IV
Sala Barria   Symposium S16
ROLE OF MICROGLIAL CELLS IN
THE CONTROL OF T-CELL RESPONSES
WITHIN THE CNS
Organizers: Beatriz Almolda Barcelona, Spain
            Monica Carson Riverside, USA

S16-01  Beatriz Almolda Barcelona, Spain
Role of microglia, macrophages and dendritic cells in the antigen presenting mechanisms associated to EAE

S16-02  Trevor Owens Odense, Denmark
Microglia as regulators of T cell response in the CNS

S16-03  Michal Schwartz Rehovot, Israel
Fighting Alzheimer’s disease and brain aging neuroinflammation via the brain’s choroid plexus

S16-04  Monica Carson Riverside, USA
T cell targeted attack on astrocytes triggers progressive epilepsy dependent on CNS influx of blood-derived antigen-presenting cells

Room A1   Symposium S17
TRANSCRIPTIONAL REGULATION OF OLIGODENDROGENESIS
DURING MYELINATION AND REMYELINATION
Organizers: Carlos Parras Paris, France
            Ben Emery Portland, USA

S17-01  Ben Emery Portland, USA
My rf promotes oligodendrocyte maturation both through positive regulation of myelin genes and negative regulation of OPC genes via induction of key micro-RNAs

S17-02  Carlos Parras Paris, France
Chd7 chromatin remodeler function in oligodendrogenesis during (re)myelination
S17-03 Benjamin Deneen Houston, USA
Daam2-PIPK is a novel regulatory pathway for Wnt signaling and therapeutic target for remyelination

S17-04 Richard Lu Cincinnati, USA
The transcription regulator Tcf7l2/Tcf4 in oligodendrocyte development and remyelination

Room A3 Symposium S18
ASTROCYTE METABOLIC REPROGRAMMING BY OXYGEN AND ENERGY-DEPENDENT PATHWAYS: IMPACT ON NEURONAL SURVIVAL
Organizers: Juan P. Bolanos Salamanca, Spain
Luc Pellerin Lausanne, Switzerland

S18-01 Juan P. Bolanos Salamanca, Spain
Astrocytic NMDA receptors sustains antioxidant protection of neurons through a novel Cdk5-Nrf2 pathway

S18-02 Luc Pellerin Lausanne, Switzerland
Regulation of MCT4 expression in astrocytes by both oxygen tension and nitric oxide through a HIF-1α-dependent mechanism

S18-03 Helle Waagepetersen Copenhagen, Denmark
Importance of AMPK for the regulation of astrocyte energy and amino acid homeostasis

S18-04 Maite A. Castro Valdivia, Chile
Astrocyte-Neuron (mis)interactions in Huntington’s disease

Room A4 Symposium S19
TANYCYTES - A HETEROGENEOUS EPENDYMO-GLIAL CELL POPULATION WITH DIVERSE FUNCTIONS IN THE BRAIN
Organizers: Mohammad K. Hajihosseini Norwich, UK
Nicholas Dale Coventry, UK

S19-01 Margarita Perez-Martin Malaga, Spain
IGF-1 stimulates cell proliferation in a specific area of the hypothalamic wall

S19-02 Mohammad K. Hajihosseini Norwich, UK
Identity and genetic regulation of neurogenic tanyocytes in the hypothalamus
Symposium S20
EARLY GLIAL CELL CHANGES IN BRAIN DEGENERATIVE DISEASES
Organizers: Anne-Marie Van Dam Amsterdam, Netherlands
Dan Frenkel Tel Aviv, Israel

S19-03 Vincent Prévot Lille, France
Tanyocytes: the hypothalamic hyperdrive for hormones

S19-04 Nicholas Dale Coventry, UK
Tanyocyte nutrient sensing and communication in the hypothalamus

Auditorium

S20-01 Anne-Marie van Dam Amsterdam, Netherlands
Early microglial activation beyond the substantia nigra in Parkinson’s disease

S20-02 Bente Finsen Odense, Denmark
Microglial TNF and IL-1 as early disease-modifiers in Alzheimer’s-like disease in mice

S20-03 Ari Barzilai Tel Aviv, Israel
The role of astrocyte alterations in early changes in the dynamics of cultured cerebellar networks

S20-04 Dan Frenkel Tel Aviv, Israel
Pathological changes in astrocyte TGFbeta1 levels affect astrocyte-endothelial interactions and trigger cerebrovascular amyloid deposition in Alzheimer’s disease

12:15-13:15 Lunch Break

13:15-15:15 Poster Session II
Poster Area
Symposium S21
THE ASTROCYTE-MICROGLIAL CELL NEXUS
Organizers: Iain Campbell Sydney, Australia
Bernardo Castellano Barcelona, Spain

S21-01 Marina Lynch Dublin, Ireland
The functional impact of astrocyte-microglial cell activation on synaptic function and amyloid pathology

S21-02 Rommy von Bernhardi Montgomery Santiago, Chile
Astrocyte-derived TGFβ in the regulation of age-related changes in microglia and neurodegeneration

S21-03 Iain Campbell Sydney, Australia
Achieving specificity in the astroglial and microglial response to IL-6/gp130 family cytokines

S21-04 Bernardo Castellano Barcelona, Spain
Astrocyte targeted production of either IL-6 and IL-10 promotes alterations in microglial activation and has a direct effect on neuronal survival after peripheral nerve axotomy

Symposium S22
MOLECULAR AND CELLULAR CHANGES IN CNS MYELINATING GLIA DURING DEMYELINATION AND REMYELINATION
Organizers: Domna Karagogeos Heraklion, Greece
Kleopas Kleopa Nicosia, Cyprus

S22-01 Domna Karagogeos Heraklion, Greece
Deconstructing and reconstructing the perinodal area in demyelination and remyelination

S22-02 Joseph Scafidi Washington, USA
Promoting recovery after premature brain injury: a role for enhanced epidermal growth factor receptor signaling

S22-03 Maria Cecilia Angulo Paris, France
Regulation of synaptic connectivity of oligodendrocyte precursor cells in myelination and myelin repair

S22-04 Kleopas Kleopa Nicosia, Cyprus
Junctions and gaps: glial connexins in Multiple Sclerosis and EAE
Room A3  Symposium S23  
**ASTROGLIAL CONNEXINS IN BRAIN FUNCTIONS AND PATHOLOGIES INVOLVING NEURO-GLIO-VASCULAR INTERACTIONS**  
Organizers: Christian Giaume Paris, France  
Arantxa Tabernero Salamanca, Spain

S23-01  Christian Giaume Paris, France  
Astroglial hemichannels contribute to neuronal suffering in a mouse model of Alzheimer’s disease

S23-02  Christian Lohr Hamburg, Germany  
Calcium waves in olfactory ensheathing cells: mechanism and role in neurovascular coupling

S23-03  Marijke De Bock Ghent, Belgium  
Connexin and Ca²⁺ signaling in glial and endothelial cells is implicated in inflammation-induced blood-brain barrier permeability changes *in vivo*

S23-04  Arantxa Tabernero Salamanca, Spain  
Connexin43 and Src interaction in glioma stem cells

Room A4  Symposium S24  
**SCHWANN CELL BIOLOGY OF CMT NEUROPATHIES**  
Organizers: Alessandra Bolino Milan, Italy  
Michael W. Sereda Göttingen, Germany

S24-01  Lucia Notterpek Gainesville, USA  
Protein quality control pathways in PMP22-linked neuropathies

S24-02  Lawrence Wrabetz Buffalo, USA  
Endoplasmic reticulum stress and hereditary neuropathies

S24-03  Alessandra Bolino Milan, Italy  
Phospholipid metabolism, the regulation of membrane trafficking and Charcot-Marie-Tooth neuropathies

S24-04  Michael Sereda Göttingen, Germany  
Experimental therapy of Charcot-Marie-Tooth disease 1A with soluble Neuregulin-1
Sala Barria  
**Symposium S25**
**GLIAL HETEROGENEITY AND REPROGRAMMABILITY**
**Organizers:** Gong Chen Pennsylvania University Park, USA  
Sergio Gascon Munich, Germany

**S25-01** Malin Parmar Lund, Sweden
*In vivo* reprogramming of striatal NG2 glia into functional neurons that integrate into local host circuitry

**S25-02** Chun-Li Zhang Dallas, USA
*In vivo* reprogramming of adult glia to neural progenitors and mature neurons

**S25-03** Sergio Gascon Munich, Germany
Identification and successful negotiation of a metabolic checkpoint in direct neuronal reprogramming

**S25-04** Gong Chen Pennsylvania University Park, USA
*In vivo* reprogramming: reversing glial scar back to neural tissue for brain repair

17:30-18:30  
**Plenary Lecture P-05**
**Auditorium**
Chair: Carlos Matute Bilbao, Spain  
Mikael Simons Göttingen, Germany
*Cell biology of myelin assembly and disassembly*
**SUNSHINE, JULY 18, 2015**

**09:00-10:00**  
**Plenary Lecture P-06**  
**Auditorium**  
Chair: Jacqueline Trotter  
Mainz, Germany  
Beth Stevens  
Boston, USA  
Immune mechanisms of synapse loss in health and disease

**10:15-12:15**  
**Symposia VI**

**Room A1**  
**Symposium S26**  
**NUCLEAR RECEPTORS IN CNS INFLAMMATION, DEMYELINATION AND REPAIR**  
Organizers: Jerome Hendriks  
Diepenbeek, Belgium  
Jan-Åke Gustafsson  
Houston, USA

**S26-01**  
Michael Thomas Heneka  
Bonn, Germany  
Experimental and clinical effects of PPARy modulating drugs in Alzheimer’s disease

**S26-02**  
Charbel Massaad  
Paris, France  
Role of LXRα and β in the myelination of the central and peripheral nervous system: cross-talk with Wnt/beta catenin pathway

**S26-03**  
Jan-Ake Gustafsson  
Houston, USA  
Two novel nuclear receptors in glial cell function

**S26-04**  
Jerome Hendriks  
Diepenbeek, Belgium  
LXRx deficiency attenuates neuroinflammation

**Sala Barria**  
**Symposium S27**  
**OLIGODENDROCYTE METABOLISM AND GLOBAL BRAIN HEALTH: A FORGOTTEN STORY BACK IN THE SPOTLIGHT**  
Organizer: Robert Skoff  
Detroit, USA

**S27-01**  
Jeffrey Rothstein  
Baltimore, USA  
Oligodendroglia in neurodegeneration: unexpected glial death and major role in metabolic support of neurons

**S27-02**  
I. Lorena Arancibia-Carcamo  
London, UK  
Energy deprivation alters the node of Ranvier on myelinated axons

**S27-03**  
Johannes Hirrlinger  
Leipzig, Germany  
Oligodendroglial support of axonal energy metabolism
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Speaker(s)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>S27-04</td>
<td>The function of proteolipid protein in mitochondria: the cell’s weapon for murder and self-destruction</td>
<td>Robert Skoff Detroit, USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Auditorium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symposium S28</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGING-RELATED CHANGES AND THEIR EFFECTS ON ASTROCYTES IN THE HEALTHY AND DAMAGED CNS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizers: Swetlana Sirko Munich, Germany</td>
<td>Elly Hol Utrecht, Netherlands</td>
<td></td>
</tr>
<tr>
<td>S28-01</td>
<td>Astroglial complex senescent phenotype and its contribution to neurodegeneration</td>
<td>José Julio Rodríguez Arellano Bilbao, Spain</td>
<td></td>
</tr>
<tr>
<td>S28-02</td>
<td>Astrocytes in the aging brain and in Alzheimer’s disease</td>
<td>Elly Hol Utrecht, Netherlands</td>
<td></td>
</tr>
<tr>
<td>S28-03</td>
<td>Age-related alterations of proliferative capacity and the stem cell potential in reactive astrocytes</td>
<td>Swetlana Sirko Munich, Germany</td>
<td></td>
</tr>
<tr>
<td>S28-04</td>
<td>Phenotypic plasticity of astrocytes in aging and disease a model of multiple sclerosis</td>
<td>James Goldman New York, USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Room A4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symposium S29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENTERIC GLIA: NOVEL ROLES IN ENTERIC NEURAL CIRCUITRY AND GUT PATHOPHYSIOLOGY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizers: Keith Sharkey Calgary, Canada</td>
<td>Vassilis Pachnis London, UK</td>
<td></td>
</tr>
<tr>
<td>S29-01</td>
<td>Emerging roles for enteric glia in the gastrointestinal tract</td>
<td>Keith Sharkey Calgary, Canada</td>
<td></td>
</tr>
<tr>
<td>S29-02</td>
<td>Development and homeostasis of enteric glial cells</td>
<td>Vassilis Pachnis London, UK</td>
<td></td>
</tr>
<tr>
<td>S29-03</td>
<td>Glial functions in enteric neural circuits</td>
<td>Pieter Vanden Berghe Leuven, Belgium</td>
<td></td>
</tr>
<tr>
<td>S29-04</td>
<td>Interactions between enteric glia and neurons in disease</td>
<td>Brian Gulbransen East Lansing, USA</td>
<td></td>
</tr>
</tbody>
</table>
Room A3  Symposium S30
A DISRUPTED GlioGENIC/NEUROGENIC
EQUILIBRIUM IS ESSENTIAL FOR THE
INJURY RESPONSE OF ADULT NEURAL
STEM CELLS
Organizers: Juan Manuel Encinas Bilbao, Spain
   Amelia Eisch Dallas, USA

S30-01  Juan Manuel Encinas Bilbao, Spain
Reactive neural stem cells in the adult hippocampus

S30-02  Amelia Eisch Dallas, USA
Glio- and neurogenesis after irradiation: implications for
hippocampal function

S30-03  Enric Llorens Bobadilla Heidelberg, Germany
Molecular heterogeneity of adult neural stem cells

S30-04  Moa Stenudd Stockholm, Sweden
Identity and function of neural stem cells in the spinal
cord

12:15-13:00  Lunch Break

13:00-15:00  Poster Session II
Poster Area

15:00-16:00  Plenary Lecture P-07
Auditorium
   Chair: Kristjan Jessen London, UK
   Maiken Nedergaard Copenhagen, Denmark
   The night life of the brain

16:00  Departure
Network Glia e.V. was founded in 2011 with the goal of enhancing public awareness and scientific exchange on glial cells.

The association has two major activities:

1. The WEBSITE offers material both for the general public such as
   • an introduction to glial cells and for glial researchers
   • a list of animal models for glia research
   • an online library with classic glia papers
   • a list of scientific networks in glial research

2. Organizing the EUROPEAN MEETINGS ON GLIAL CELL FUNCTION IN HEALTH AND DISEASE.

Network Glia e.V.
Max Delbrück Centrum für Molekulare Medizin (MDC) Berlin-Buch
Robert-Rössle-Str. 10, 13125 Berlin, Germany
Tel.: +49 30 9406 3336, Email: gibson@mdc-berlin.de

www.networkglia.eu

Sponsored by GLIA
Poster Sessions

POSTER SESSION I

Wednesday, July 15
Thursday, July 16

POSTER SESSION II

Friday, July 17
Saturday, July 18

Explanation of Abstract Numbers

TYPE OF PRESENTATION
P = Plenary Lecture
S = Symposium
W = Workshop
I = Introductory Course
T = Poster

DAY OF POSTER PRESENTATION
A WED & THU
   Poster Session I
B FRI & SAT
   Poster Session II

T 08 – 09 B

NUMBER OF THE POSTER TOPIC

SERIAL NUMBER
There is one poster session per day: poster session I on Wednesday and Thursday, poster session II on Friday and Saturday. Posters with poster numbers ending with an A are displayed on Wednesday and Thursday (post session I), posters with a poster number ending with a B are displayed on Friday and Saturday (post session II). So every poster will be discussed during two days.

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 (e.g. T12-03B). In the second 60 min of a session posters with even serial numbers will be discussed (e.g. T12-02B).

Posters should be mounted on the first day of presentation until 10:00 and are supposed to remain displayed during the whole poster session (two days). They must be removed until 16:00 on Thursday (Poster Session I) and directly after the poster session on Saturday (Poster Session II).

### Poster Topics

| T01 | Cell migration          |
| T02 | Cell proliferation, lineages and differentiation |
| T03 | Cell signaling          |
| T04 | Cytoskeleton            |
| T05 | Degenerative disease, toxicity and neuroprotection |
| T06 | Extracellular matrix and cell adhesion molecules |
| T07 | Gene expression and transcription factors |
| T08 | Gial-neuronal interactions |
| T09 | 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                 |
Poster Session I

Wednesday, July 15 17:15–19:15
Thursday, July 16 13:15–15:15

T01  CELL MIGRATION

T01-01A
PAR-3 and Syndecan-4 are involved in astrocyte adhesion induced by neuronal Thy-1
A. Cárdenas, M. Kong, A. Alvarez, A. Valdivia, A. F. Quest, L. Leyton

T01-02A
Two-Photon polymerized microstructures for guiding cell growth in neuron and astrocyte co-cultures
T. Joki, S. Turunen, M. Kellomäki, S. Narkilahti

T01-03A
Gs protein coupled receptor signalling strongly represses PI3Kγ-driven microglial migration
N. Schneble, C. Schmidt, R. Bauer, J. Müller, R. Wetzker

T01-04A
Water fluxes and aquaporins in migrating oligodendrocyte progenitor cells
D. Thatenhorst, C. von Bassewitz, P. Happel, I. D. Dietzel

T02  CELL PROLIFERATION, LINEAGES AND DIFFERENTIATION

T02-01A
Dissecting the role of Etv5 in oligodendrocyte development in the neocortex
L. Adnani, A. Balakrishnan, S. Li, J. Chan, C. Schuurmans

T02-02A
Evidence for oligodendrocyte dedifferentiation and subsequent formation of astrocytes after acute brain injury
X. Bai, N. Zhao, W. Huang, A. Cupido, R. Zhao, J. Hirrlinger, W. Walz, F. Kirchhoff, A. Scheller
T02-03A
Clonal distribution pattern reveals glial heterogeneity
A. Bribian, M. Figueres-Oñate, L. Lopez-Mascaraque

T02-04A
Origin and generation of different astroglial phenotypes in the cerebellum
V. Cerrato, E. Parmigiani, K. Leto, E. Fucà, M. Figueres-Oñate, L. López-Mascaraque, A. Buffo

T02-05A
Regulatory T cells enhance oligodendrocyte differentiation in vitro

T02-06A
Peptidylarginine deiminases as regulators of the epigenetic state of oligodendrocyte precursor cells
A. Falcao, S. Marques, M. Varas, M. L. Nielsen, G. Castelo-Branco

T02-07A
Clathrin-mediated endocytosis is critical for Schwann cell myelination
M. Ghedinelli, E. Tinelli, U. Suter

T02-08A
A novel automated dissociation procedure allows efficient immunomagnetic isolation of astrocytes, oligodendrocytes, and neurons from adult rodent brain tissue
M. Jungblut, S. Reiß, A. Bosio

T02-09A
Self-renewal capacity of reactive astrocytes in vivo
L. Lange Canhos, S. Sirko, M. Götz

T02-10A
Exogenous FGF-1 hault differentiation of NKX2.2+pre- OPC to NG2+ OPC in a rat spinal cord transection model

T02-11A
DMT1 is expressed and required for adequate maturation in oligodendrocytes
L. Marziali, V. Cheli, V. Spreuer, J. Pasquini, P. Paez
T02-12A
NG2 and S100B co-localization in the developing mouse hippocampus

T02-13A
Role of microRNAs miR-124 and miR-137 in directing neuronal reprogramming of astrocytes
E. Papadimitriou, P. Koutsoudaki, K. Aravantinou-Fatorou, D. Thomaidou

T02-14A
Oligodendrocyte maturation through gestational iron deprivation
V. Rosato Sirj, M. E. Guitart, J. M. Pasquini

T02-15A
Ependymal cilia polarization and IIIG9 expression is a synchronous process
K. Salazar, V. Baeza, F. Martinez, F. Nualart, M. Cifuentes

T02-16A
Postnatal hyperoxia affects OPC and GCP proliferation
T. Scheuer, V. Brockmöller, K. Marggraf, C. Bührer, S. Endesfelder, T. Schmitz

T02-17A
Umbilical cord blood stem cells-derived microglia
K. Takahashi, H. Yamazaki, M. Yamada

T02-18A
SNX27 regulation of GPR17 recycling is important for the correct differentiation of oligodendrocytes
A. F. Ulivi, V. Meraviglia, A. Fratangeli, F. Valenza, D. Lecca, M. P. Abbracchio, P. Rosa

T02-19A
Role of Ascl1 in NG2 cells in the embryonic and adult spinal cord
T. Y. Vue, D. Kelenis, J. Johnson

T02-20A
Dynamic regulation of Olig2 expression in oligodendrocyte differentiation
M. Yamada, I. Imayoshi

T02-21A
Ex-vivo analysis of astrocyte subpopulations
C. Grit, I. D. Vainchtein, N. Brouwer, B. J. L. Eggen, H. W. G. Boddeke
T02-22A
OPC heterogeneity in the optic nerve
S. Förster, A. Crawford, P. Van Wijngaarden, R. Tripathi, W. Richardson, R. Franklin

T03  CELL SIGNALING

T03-01A
Activated Microglia/Macrophage Whey Acidic Protein (AMWAP) inhibits NFκB signaling and induces a neuroprotective phenotype in microglia
A. Aslanidis, M. Karlstetter, R. Scholz, S. Fauser, C. Fried, H. Neumann, M. Pietsch, T. Langmann

T03-02A
Prenatal stress alters microglial and inhibitory neuron development in an animal model of infantile spasms

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, M. Neginskaya, S. Sharifulina, V. Kovaleva, A. Uzdensky

T03-04A
Growth differentiation factor 15 (GDF15) expression in astrocytes after excitotoxic lesion in the mouse hippocampus

T03-05A
Calcium-induced calcium release and gap junctions mediate large-scale calcium waves in olfactory ensheathing cells in situ

T03-06A
Protein Tyrosine Phosphatase Alpha (PTPa)-mediated Akt activation is required for oligodendrocyte differentiation and myelination
P. Ly, Y. Shih, J. Wang, C. Pallen

T03-07A
An interactive model of astrocyte in 3D geometry
L. Savtchenko, C. Henneberger, L. Bard, I. Kraev, N. Medvedev, M. Stewart, D. Rusakov
T03-08A
The role of DNA methylation and histone deacetylation in reactions of glial cells to photodynamic treatment
S. Sharifulina, M. Komandirov, A. Uzdensky

T03-09A
Astrocytic expression of CTMP following an excitotoxic lesion in the mouse hippocampus
N. Shin, M.-H. Yi, E. Zhang, S. Kim, H. Baek, S. Lee, D. Kim

T03-11A
Effect of long-term culture on telomere length and telomerase activity in murine brain microglia
M. Stojiljkovic, Q. Ain, T. Bondeva, O. Witte, C. Schmeer

T03-12A
P2X, receptor stimulation in the presence or absence of calcium leads to antagonic signaling pathways activation in neurons
B. Urzelai, F. Llavero, A. Artaso, J. Zugaza

T03-13A
Integrin b1 triggers amyloid b-induced astrocyte reactivity through NOX2 activation in Alzheimer disease models
A. Wyssenbach, F. Llavero, J.L. Zugaza, C. Matute, E. Alberdi

T03-14A
Primary radial glial cell culture as a model for dopaminergic regulation of neuroestrogen synthesis
L. Xing, V. Trudeau

T03-15A
The role of CD200R/Foxp3 signaling as enhancer of alternative activation of microglia

T03-16A
ER stress induces autophagy impairment in the spinal dorsal horn in a model of neuropathic pain

T03-17A
Analysis of the expression of the wnt family of proteins in activated astroglial cells
P. Gonzalez, F.J. Rodriguez
T04  CYTOSKELETON

T04-01A
JMY, an actin-nucleator involved in oligodendrocyte process extension and early axon-glia interaction
M. M. Azevedo, A. I. Seixas, H. S. Domingues, J. Relvas

T04-02A
Dystonin loss-of-function in oligodendrocytes does not impair migration, differentiation, or myelination
A. Lynch-Godrei, S. Kornfeld, S. Bonin, Y. De Repentigny, S. Gibeault, R. Kothary

T05  DEGENERATIVE DISEASE, TOXICITY AND NEUROPROTECTION

T05-01A
Microglial phagocytosis-apoptosis coupling: a widespread response disturbed in epilepsy

T05-02A
Microglial phagocytosis is impaired in chronic mouse and human MTLE and correlates with inflammation

T05-03A
Neuronal hyperactivity uncouples microglial phagocytosis and leads to delayed self-clearance and inflammation
I. Diaz Aparicio, O. Abiega, S. Beccari, V. Sánchez Zafra, A. Nadjar, Q. Leyrolle, S. Layé, M. Vivanco, M. Maletic-Savatic, C. Matute, J. M. Encinas, A. Sierra

T05-04A
The synthetic microneurotrophin BNN27 in demyelination: the role of glia in neuroprotection
G. Bonetto, I. Charalampopoulos, A. Gravanis, D. Karagogeos

T05-05A
Role of extracellular calcium and mitochondrial oxygen species in psychosine-induced oligodendrocyte cell death
V. Voccoli, I. Tonazzini, M. Caleo, M. Cecchini, S. Antonini
T05-06A
Relationship between glial activation and neuroprotection induced by cannabinoid system modulation in the chronic MPTP mouse model
M. Celorio, E. Rojo-Bustamante, M. S. Aymerich

T05-07A
Reactive oxygen species (ROS) regulate ERK1/2 signaling and FGF expression in retinal gliosis
T. Cotter, F. Doonan

T05-08A
Dysregulation of the S100B-RAGE pathway in the ALS-linked neuroinflammatory process
N. D’Ambrosi, C. Donno, F. Michetti

T05-09A
The role of the ERAD pathway in the physiology and disease of peripheral myelination

T05-10A
Loss of acid sphingomyelinase activity causes changes in retinal microglial morphology and function in mice
K. Dannhausen, M. Karlstetter, A. Caramoy, O. Utermöhlen, T. Langmann

T05-11A
Targeting myelin as potential interventional strategy for multiple system atrophy

T05-12A
Macroautophagy dysfunction in oligodendroglial cells reduces the internalization of α-synuclein
L. Fellner, D. Brück, G. K. Wenning, N. Stefanova

T05-13A Poster retracted

T05-14A
Impact of aging and Alzheimer’s disease β-amyloid on microglial autophagy
J. Houtman, F. L. Heppner, M. Jendrach
T05-15A
Gene delivery targeted to myelinating cells to treat inherited neuropathies

T05-16A
Consequences of the chronic activation of hemichannels in astrocytes of a murine model of Alzheimer's disease
C. Yi, P. Ezan, C. Giaume, A. Koukloff

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, L. Olech, N.A. Dencher

T05-18A
Expression of PDGFR-β positive NG2 cells in the hippocampus after status epilepticus
J. Kyyräinen, X.E. Ndode-Ekane, A. Pitkänen

T05-19A
Antioxidant effect of an alpha-MSH analogue in primary astrocytes cultures
M. Lasaga, D. Ramirez, L. Carniglia, J. Saba, D. Durand, C. Caruso

T05-20A
Calcineurin-mediated deregulation of astroglial Ca\(^{2+}\) signaling by β-amyloid: implications for neuronal dysfunction in Alzheimer’s disease
D. Lim, A. Grolla, V. Ronco, E. Marcello, A. Iyer, M. Di Luca, A. Verkhratsky, E. Aronica, A. A. Genazzani

T05-21A
Microglial lipid markers by using maldi-imaging mass spectrometry in a basal forebrain cholinergic lesion model
A. Llorente Ovejero, J. Martinez-Gardeazabal, M. Moreno, E. Gonzalez de San Román, I. Manuel, M.T. Giralt, R. Rodríguez-Puertas

T05-22A
IFNβ treatment as a therapy targeting microglia in a murine model of retinal degeneration
A. Lückoff, A. Caramoy, M. Karlstetter, U. Kalinke, T. Langmann
**T05-24A**
Dichloroacetate modulation of mitochondrial function reduces toxicity to motorneurons in aged glia from Amyotrophic Lateral Sclerosis rat model
L. Martinez-Palma, A. Cassina, E. Miquel, V. Lagos-Rodriguez, R. Radi, L. Barbeito, P. Cassina

**T05-25A**
Reactive astrocytes secrete exosomes that induce motor neuron death. Implications for ALS
E. Miquel, P. Cassina

**T05-27A**
Glia in Prion diseases
M. Monzón, R.S. Hernández, M. Garcés, R. Sarasa, J.J. Badiola

**T05-28A**
Activation of the S1P receptor attenuates psychosine-induced demyelination and astrocyte dysfunction
C. O’Sullivan, K. Dev

**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, U. Głowacka, K. Kuter

**T05-30A**
Expression of Kir4.1 channel in spinal cord oligodendrocytes of the ALS rat model
M. Peric, P. Andjus, D. Bataveljic

**T05-31A**
Modulation of RAS activity by estrogen takes place in both astrocytes and microglia. Implications in dopaminergic cell degeneration
A.I. Rodriguez Perez, A. Borrajo, R. Valenzuela, B. Villar-Cheda, M. Guerra, J.L. Labandeira-Garcia

**T05-32A**
Mitochondrial division inhibitor 1 induces mitochondrial and endoplasmic reticulum stress that exacerbates excitotoxic oligodendrocyte death
A. Ruiz, E. Alberdi, C. Matute
T05-33A
Indications for gliosis in Niemann-Pick type C1 patient-specific iPSC derived glia cells
F. Runge, M. Trilck, A. Rolfs, M. Frech

T05-34A
Fumaric acid esters induce hypoxia-induced factor 1α signaling in oligodendrocyte precursor cells
K. Schmauder, D. Wiesner, H. Bayer, A. C. Ludolph, A. Witting

T05-35A
Microglia induce neuroprotective astrocytes via P2Y1 receptor down-regulation
Y. Shinozaki, K. Tanaka, K. Ikenaka, S. Koizumi

T05-36A
Study of the CD163 receptor in Parkinson’s disease: a prospective biomarker?

T05-37A
Towards the understanding of the molecular mechanism of vanishing white matter

T05-38A
Soluble epoxide hydrolase inhibition provides multi-target therapeutic effects in rats after spinal cord injury
M. Xie, X. Chen, C. Qin, Y. Liu, W. Wang

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, A. Uzdensky

T05-40A
A DAP12-dependent signal promotes pro-Inflammatory polarization in microglia following nerve injury and exacerbates degeneration of injured neurons
M. Kobayashi, H. Konishi, T. Takai, H. Kiyama

T05-41A
Neurofibrillary degeneration upregulated Hsp27 expression in astrocytes in transgenic rat brain
T. Smolek, P. Filipčík, M. Čente, N. Žilka, M. Novak
**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, D. Sanchez, M. Ganfornina

**T05-43A** This poster has in the abstract book the ID 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, S. Antonini, I. Tonazzini, G. Signore, M. Cecchini

**T06  EXTRACELLULAR MATRIX AND CELL ADHESION MOLECULES**

**T06-01A**
**Astrocytes as a crossroad for plasminogen activation**
A. Briens, I. Bardou, F. Cassé, D. Vivien, F. Docagne

**T06-02A**
**The expression of a type-4 disintegrin and metallo-proteinase with thrombospondin motifs (ADAMTS-4) in the oligodendrocyte lineage**
M. Pruvost, C. Leonetti, E. Maubert, E. Emery, F. Docagne, D. Vivien

**T07  GENE EXPRESSION AND TRANSCRIPTION FACTORS**

**T07-01A**
**Human microglia transcriptome and cross-species analysis**

**T07-02A**
**Phosphorylation state of ZFP191 regulates maturation of late-stage oligodendrocytes**
B. Elbaz, J. D. Aker, B. Popko
Axonal and presynaptic RNAs are synthesized in the nearby glial cells
A. Giuditta, C. Cefaliello, M. Crispino

Glia Open Access Database (GOAD): a web-tool to study glia phenotypes in health and disease (www.goad.education)
I. Holtman, M. Noback, M. Bijlsma, M. van der Geest, K. Duong, P. Ketelaars, I. Vainchtein, E. Boddeke, B. Eggen

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

The role of zinc finger transcription factor Zfp276 during glial development
M. Küspert, M. Wegner

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

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

Microglial transcriptome diversity in the healthy adult brain reveals regional heterogeneity in immunoregulatory and metabolic function and selective sensitivity to ageing
K. Renault, T. Micheol, M. Karavalos, M. Stevens, T. Freeman, K. Summers, B. McColl

Role of Inhibitor of DNA binding 4 (Id4) in adult neurogenesis
B. Rocamonde Esteve, S. Lepannetier, V. Herranz Pérez, J. Garcia Verdugo, E. Huillard
The Glia Open Access Database (GOAD) is a comprehensive web-based tool to access and analyze glia transcriptome data. The tool has several features: 1) Differential gene Expression (DE) Analysis, 2) Quantitative gene Expression (QE) analysis and 3) a search utility where gene expression data can be searched based on gene accession numbers or gene symbols. These three features can be accessed using a drop-down menu on the home page:

www.goad.education

More information regarding the GOAD tool, expression profiling, and contact information can be found in Holtman et al., which appeared in the March 25th, 2015 issue of Glia, doi: 10.1002/glia.22810.

Comments, suggestions, and likes can be left at:
facebook.com/GOADtool
AAV-mediated gene therapy in dystrophin-Dp71 deficient mouse leads to blood-retinal barrier restoration

Increased Sox10 levels directly convert satellite Glia into oligodendrocyte-like cells in vivo

The role of FoxO3a in oligodendrocyte precursor cell differentiation
S. Ali Abdulla, Y. Syed, A. Amaral, M. Kotter

T08 GLIAL-NEURONAL INTERACTIONS

Role of astroglia (pituicytes) in the hypothalamo-neurohypophyseal system—a major brain-to-blood neuro-endocrine interface
S. Anbalagan, J. Biran, L. Gordon, M. Gliksberg, E. Wircer, J. Blechman, G. Levkowitz

Neuron and glia interaction regulates GABA<sub>A</sub> receptor expression in the oligodendrocyte membrane
R. Arellano, M. V. Sanchez-Gomez, E. Alberdi, M. Canedo, A. Palomino, A. Perez-Samartin, C. Matute

Astrocytic activity controls neuronal excitability upon brain ischemia
K. Beppu, K. Matsui

Analysis of purinergic P2Y1 receptors in cortical astrocytes and cerebellar Bergmann glia
C. Bohn, H. Jahn, X. Bai, A. Scheller, F. Kirchhoff
T08-05A
Fractalkine-receptor knock-out mice show unaffected depressive-like behavior and reduced microglia hyper-ramification after chronic-stress exposure
S. Hellwig, S. Brioschi, S. Dieni, L. Frings, A. Masuch, T. Blank, K. Biber

T08-06A
D-serine acting on raphe nucleus and ventral respiratory column can mediate respiratory responses induced by hypercapnia in neonatal mice
J. Eugenin, S. Beltrán-Castillo, I. Llona, G. Zúñiga, R. von Bernhardi

T08-07A
Neuronal ndrg4 is essential for Nodes of Ranvier organization and myelination in zebrafish
L. Fontenas, B. Chambraud, M. Tawk

T08-08A
Astroglial-mediated remodeling of the interhemispheric midline is exclusive to eutherian mammals and underlies the formation of the corpus callosum
I. Gobius, L. Morcom, R. Suarez, J. Bunt, E. Sherr, L. Richards

T08-09A
Glutamatergic astrocyte-neuron signaling is disrupted in Fragile X Syndrome
R. Gómez, A. Araque

T08-10A
VAMP expression in healthy and gliotic murine Müller glia cells
A. Hauser, A. Barthelemy, V. Demais, F.W. Pfrieger, A. Grosche

T08-11A
On the role of Ca²⁺ in apoptosis and necrosis of distant glial cells surrounding the axotomized sensory neuron in the crayfish stretch receptor
A. Haytin, M. Rudkovskii, A. Uzdensky

T08-12A
Boosting astrocyte-neuron signaling by optical tools
A. Hernández Vivanco, S. Mederos Crespo, G. Perea Parrilla

T08-13A
Investigation of a glial-specific G-protein-coupled receptor
S. Jolly, N. Bazargani, N. Pringle, D. Attwell, W.D. Richardson, H. Li
Astrocytes limit epileptiform discharge duration and restrict neuronal sodium loads
C. Karus, M. A. Mondragao, D. Ziemens, C. R. Rose

Lipoplysaccharide stimulated microglia up-regulate Na⁺ current density in cultured hippocampal neurons
L. Klapal, B. A. Igelhorst, I. D. Dietzel

Glial phagocytosis of apoptotic neurons in developing and mature CNS
E. Kurant, B. Shklyar, J. Shklover, K. Mishnaevski, F. Levy-Adam

Glutamate-induced astrocytic [Na⁺] elevation—a mechanism to increase K⁺ clearance via the Na⁺/K⁺-ATPase?
B. R. Larsen, A. Stoica, R. Holm, B. Vielsen, N. MacAulay

Axo-glia interaction preceding CNS myelination is regulated by bidirectional Eph-ephrin signaling
C. Linneberg, M. Harboe, L. Laursen

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

Astrocytic lactate release mediated by NH₄⁺-dependent mitochondrial pyruvate shunting

Cell-type specific responses to antidepressants—the epigenetic makeup of the glia-neuron interface
M. Jakovcevski, V. Malik, I. Neumann, R. Rupprecht, B. Di Benedetto

Circuit-specific signaling in astrocyte-neuron networks in basal ganglia pathways
R. Martín, R. Bajo-Grañeras, R. Moratalla, G. Perea, A. Araque
T08-23A
Changes of microRNA expression in glial cells of the ambylopic visual cortex submitted to modified geomagnetic fields
L. Martínez Millán, F. Zallo Díaz, A. Portero Landa

T08-24A
Microglia contribute to dendritic spine formation in postnatal mice somatosensory cortex
A. Miyamoto, H. Wake, H. Murakoshi, K. Eto, J. Nabekura

T08-25A
Astrocyte molecular and functional heterogeneity in neural circuit formation
A. V. Molofsky, J. Miller, K. Kelley, E. Ullian, D. Rowitch

T08-26A
Energy metabolism of microglial cells
A. Nagy, E. Torok, R. Fekete, Z. Kornyei, V. Adam-Vizi, L. Tetter

T08-27A
Radachlorin as a glia-specific photosensitizer
M. Neginskaya, E. Berezhnaya, A. Uzdensky

T08-28A
Glioendocrine system of thyroid hormone and its effect on microglia
M. Noda, T. Yoahimura, L. Jiadai, Y. Yoshii

T08-29A
Effect of human pluripotent stem cell-derived astrocytes in the development and functionality of neuronal networks
T. Paavilainen, D. Fayuk, A. Pelkonen, M. Mäkinen, L. Ylä-Outinen, S. Narkilahti

T08-30A
Enhanced astroglial GABA uptake attenuates tonic GABA, inhibition of pre-sympathetic hypothalamic paraventricular nucleus neurons in heart failure
S. Pandit, J. B. Park

T08-31A
Role of astrocytes in functional maturation of human neural network
A. Pelkonen, T. Paavilainen, D. Fayuk, M. Mäkinen, L. Ylä-Outinen, S. Narkilahti
T08-32A
Modeling neuron-astrocyte interactions at network level
E. Räisänen, K. Lenk, J. Hytinen

T08-33A
Microglial CX3CR1 deficiency delays the maturation of adult born neurons in the olfactory bulb
R. Reshef, N. Harrari, A. Mizrahi, R. Yirmiya

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, H. Darabid

T08-35A
Imaging dynamics of energy metabolites in hippocampal astrocytes during neuronal activity

T08-36A
Analysis of astrocyte-specific and inducible GABA<sub>B</sub> receptor deletion in the mouse brain
L. Schlosser, H. M. Jahn, X. Bai, A. Scheller, F. Kirchhoff

T08-37A
Localization of several acid-base regulating, lactate transporting proteins and Carbonic Anhydrase II in astrocytes & neurons in mouse hippocampus
S. Schütte, A. Weise

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. Segkla, M.-E. Terzenidou, F. Papastefanaki, E. Douni, R. Matsas

T08-39A
The role of glial lipid metabolism in synaptic plasticity

T08-40A
BDNF effect on LTP is modulated by astrocytes in rat hippocampus
S. Vaz, A. M. Sebastião
T08-41A
Revealing the locally translated mRNA repertoire at synapses between neurons and NG2-expressing glial cells
H. Yigit, S. Schick, A. Pataskar, J. Hartwig, V. Tiwari, J. Trotter

T08-42A
Disturbances in microglial functioning underlie stress-induced depressive-like behavior and suppressed neurogenesis
T. Kreisel, M. Frank, T. Licht, R. Reshf, O. Ben-Menachem-Zidon, S. Maier, R. Yirmiya

T08-43A
Contactin-2/TAG-1 affects oligodendrocyte populations and CNS myelination
L. Zoupi, M. Savvaki, A. Kalemaki, I. Kalafatakis, D. Karagogeos

T08-44A
Astrocytic networks are determinant for generation of rhythmic bursting by assemblies of trigeminal neurons involved in mastication
A. Kolta, S. Condamine, P. Morquette, D. Verdier

T08-45A
Investigating glia-neuron cross-talk during Parkinson´s disease pathogenesis using patient-specific iPSC-derived cells
A. di Domenico, N. Bayó-Puxan, Y. Richaud, A. Raya, A. Consiglio

T08-46A
Myelin and cognition: beyond conduction velocity
L. de Hoz, S. Moore, K.-A. Nave

T08-47A
Cerebral glucose uptake measurements on a single cell level reveal higher transport in astrocytes in vivo
T09  ISCHEMIA AND HYPOXIA

T09-01A
Sonic hedgehog controls NG2 glia differentiation following focal cerebral ischemia
M. Anderova, J. Kriska, D. Kirdajova, P. Honsa

T09-02A
Docosahexanoic acid confers neuroprotection in perinatal hypoxia-ischemia in rats
O. Arteaga Cabeza, M. Revuelta, L. Urigüen, A. Álvarez, E. Hilario

T09-03A
Mitochondrial dysfunction and aggravated oxidative stress mediate increased vulnerability of aging white matter to ischemia
S. Baltan, S. Katharine, C. Bastian, S. Griffith, S. Brunet

T09-04A
Neonatal hypoxic ischemic brain damages: early neuroprotective effect of lactate

T09-05A
Phagocytic astrocytes after brain ischemia
Y. Morizawa, Y. Hirayama, S. Shibata, S. Koizumi

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, O. Arteaga, H. Montalvo, E. Hilario, A. Martinez, A. Alvarez

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, S. David

T09-10A
Glutamate release mechanisms in pre-myelinated CNS white matter
S. Doyle, R. Fern
T10  MYELIN

T10-01A
The TAM receptor Tyro3 acts as a promyelinating factor on oligodendrocytes
R. Akkermann, T.J. Kilpatrick, M. D. Binder

T10-02A
Membrane glycoprotein M6B is a novel component of the Node of Ranvier
M. L. Bang, Y. Eshed Eisenbach, E. Peles

T10-03A
Myelin-Associated Glycoprotein (MAG) mutation causes Pelizaeus Merzbacher disease-like disorder

T10-04A
mTORC1 regulation of Schwann cell myelination

T10-05A
Upregulation of early differentiation factors (Id2, Sox2) in neuropathic nerve: Pathogenetic or Protective?
F. Florio, C. Scapin, C. Ferri, E. Pettinato, M. L. Feltri, L. Wrabetz, M. D’Antonio

T10-06A
The influence of mDomino/p400 on Schwann cell development in mice

T10-07A
Microglia-derived extracellular vesicles regulate the proliferation and differentiation of oligodendrocyte precursor cells
M. Fumagalli, M. Lombardi, E. Bonfanti, E. Boda, A. Buffo, M. P. Abbraccchio, C. Verderio

T10-08A
Dysfunctional NF-κB and brain myelin formation

T10-09A
Differential modulation of the juxtaparanodal complex in Multiple Sclerosis
M.-E. Kastriti, K. A. Kleopa, I. Sargiannidou, D. Karageogos
T10-10A  
N-WASP-dependent molecular mechanisms involved in PNS myelination  
C. Katanov, E. Peles

T10-11A  
MicroRNA miR-145-5p represents a novel MS therapeutic regulator through its regulation of critical myelination regulator MYRF  
S. Kornfeld, R. Kothary

T10-12A  
Investigating the mechanistic basis of cholesterol-mediated myelination  
E. Mathews, B. Appel

T10-13A  
Investigation of myelin maintenance and turnover by inducible MBP knock-out in adult mice  
W. Möbius, M. Meschkat, K. Kusch, H. Werner, K.-A. Nave

T10-14A  
Characterization of DUSP15/VHY as a regulatory target of Sox10 and Myrf  
K.N. Muth, M. Küspert, E. Sock, M. Wegner

T10-15A  
Role of Jun activating binding protein 1 (Jab1) in Central Nervous System (CNS) myelination  

T10-16A  
Analysing the role of Sox2 in regulating Schwann cell myelination during development and after injury  
S. Roberts, X. P. Dunn, R. Doddrell, D. Parkinson

T10-17A  
In vivo pathogenesis of demyelination in an animal model of multiple sclerosis  

T10-18A  
Poster retracted
T10-19A
Cystine/glutamate antiporter is essential for oligodendrocyte survival and its blockage exacerbates experimental autoimmune encephalomyelitis
F. Soria, O. Pampliega, J. C. Chara, A. Pérez-Samartín, H. Sato, C. Matute, M. Domercq

T10-20A
CNS Myelin sheath is stochastically built by homotypic fusion of myelin membranes within the bounds of an oligodendrocyte process
S. Szuchet, L. Nielsen, M. Domowicz, J. Austin II, D. Arvanitis

T10-21A
Role of Ire1/Xbp-1 pathway in S63del neuropathy
T. Touvier, C. Ferri, L. Glimcher, M. L. Feltri, L. Wrabetz, M. D’Antonio

T10-22A
Oligodendrocyte death in DTA mice results in late-onset immune-mediated CNS demyelination
M. Traka, J. Podojil, D. McCarthy, S. Miller, B. Popko

T10-23A
Role of Schwann Cell in regulation of myelin sheath properties during nerve fiber excitation and activation of purinergic receptors
E. Verdiyan, E. Bibineyshvili, N. Kutuzov, G. Maksimov

T10-24A
Impaired motor learning as the result of myelin disruption
H. Wake

T10-25A
Cdon, a cell surface protein, mediates oligodendrocyte differentiation and myelination
L.-C. Wang, G. Almazan

T10-26A
Molecular mechanism of myelin disassembly

T10-27A
Distinct modulation of myelination efficiency by cortical and non-cortical astrocytes
I. Werkman, D. Hoekstra, W. Baron
**T10-28A**

Extreme longevity of myelinating oligodendrocytes in mouse

R. Tripathi, W. Richardson

---

**T11** NEURAL STEM/PROGENITOR CELLS

**T11-01A**

Molecular and ultrastructural alterations of the neural stem cells from dystrophic mdx mouse


**T11-02A**

Mitochondrial dysfunction mimics the impact of ageing on hippocampal neurogenesis


**T11-03A**

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

M. Benito, C. Matute, F. Cavaliere

**T11-04A**

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

M. Boccazzi, S. Ceruti, M. P. Abbracchio

**T11-05A**

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

C. Falcone, C. Filippis, M. Granzotto, A. Mallamaci

**T11-06A**

Activation of NFAT transcription factors in neural precursor cells induces astrocyte and neuron differentiation

M. Fernandez, M. C. Serrano-Pérez, F. Neira, M. Berjón-Otero, S. Mellado, E. Doncel-Pérez, E. Cano, P. Tranque
**T11-07A**
The ependymal region of the adult human spinal cord differs from other species and shows ependymoma-like features

**T11-09A**
**Foxg1** antagonizes cortico-cerebral astrogenesis
C. Grudina, C. Falcone, N. Blecich, A. Mallamaci

**T11-10A**
Neurotransmitter and neurotrophin receptor expression by human dental pulp stem cells: implications for neural differentiation
J. Luzuriaga, V. Uribe-Etxebarria, C. Gomis, P. Chamero, A. Villarroel, F. Unda, G. Ibarretxe

**T11-11A**
Aged neural stem cells in the hippocampus
S. Martín Suárez, R. Valcárcel Martín, J. M. Encinas Pérez

**T11-12A**
The HS-modifying enzyme Sulf2 controls generation of a novel glial precursor cell sub-type in the ventral spinal cord
D. Ohayon, N. Escalas, P. Cochard, B. Glise, C. Danesin, C. Soula

**T11-13A**
Region-specific differences in astrocyte plasticity in the mouse forebrain
S. Ohlig, S. Sirko, M. Götz

**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, M. Jörger-Messerli, U. Reinhart, D. V. Surbek, A. Schoebelerlein

**T11-15A**
Compensatory mechanisms in the age-induced decline of adult hippocampal neurogenesis
S. Beccari, S. Martín-Suárez, J. M. Encinas, A. Sierra

**T11-16A**
Towards mobilizing the brain’s own neural stem cells to restore striatal dysfunction in Parkinson patients
M. van Strien, J. Sluijs, E. Hol
Intravenous immunoglobulin protects oligodendrocytes in an organotypic slice culture model for demyelination

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, D. Guerini de Souza, D. Gomes de Souza, A. Quincozes-Santos

Translational investigation of microglia and antipsychotic medication

Green tea extract decreases astrogliosis and oxidative stress in the frontal cortex of obese rats
E. Bondan, R. D. C. Macedo Dos Santos, R. Otton

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, M. Dabowski, B. Kaminska, A. M. Planas

Early neuroinflammation biomarkers in the Experimental Allergic Encephalomyelitis (EAE), an animal model for Multiple Sclerosis
N. Borjini, M. Fernandez, L. Giardino, L. Calzà

Microimmunotherapeutic administration of cytokines improve the clinical symptoms in EAE, an animal model of multiple sclerosis
A. Camps Puig, B. Almolda, B. Castellano, B. González
T12-09A
*Altered immune signaling (TLR4 deficiency) impairs oligodendrocyte lineage cell responses and functional recovery after spinal cord injury in mice*

J. Church, P. Popovich, D. McTigue

T12-10A
*FTY720 attenuates excitotoxicity and neuroinflammation*

R. Cipriani, J. C. Chara, A. Rodriguez-Antigüedad, C. Matute

T12-11A
*The abundance of myeloid-derived suppressor cells protects against myelin damage in EAE*

D. Clemente, C. Melero-Jerez, F. de Castro

T12-12A
*SK channels modulate alpha-synuclein-dependent microglial activity and mitochondrial metabolism*

A. Dolga, L. Matschke, F. Wilhelmy, M. Gold, R. Dodel, N. Decher, C. Culmsee

T12-13A
*Differentially activated microglia release Extracellular Vesicles (EVs) presenting specific contents and functions in a model of nerve repair*


T12-14A
*Profiling glial CXCL12 receptor expression during experimental autoimmune encephalomyelitis*

J. Engele, F. Pelkner, A. Flügel, M. Puchert

T12-15A
*Activation of the alternative (RelB-dependent) NF-κB pathway in microglia is required for brain inflammation in experimental autoimmune encephalomyelitis*

C. Engelmann, R. Wilke, R. Grimalowski, M. Riemann, F. Weihe, R. Haenold

T12-16A
*Sulforaphane exerts protective effects in microglial cells by switching polarization phenotypes*

E. Eren, K. U. Tufekci, K. B. Isci, S. Genc
T12-17A
The role of microglial P2Y12 in controlling neurotrophic virus infection in the brain
R. Fekete, B. Sperlágh, Í. Kittel, Z. Boldogkői, Z. Környei, Í. Dénes

T12-18A
High fat diet effects on brain inflammatory mechanisms and hypothalamic progenitor cells
L. Fernandez de Cossio Gomez, J. Kim, Q. Leyrolle, A. Nadjar, S. Laye, G. Luheshi

T12-19A
DNGR-1+ dendritic cells are located in meningeal and choroid plexus membranes of the non-injured brain

T12-20A
Chronic cortical inflammation as a novel experimental model of progressive Multiple Sclerosis. Influence of the innate immune system
C. Ferrari, B. Silva, M. C. Leal, M. I. Farias, V. Cavaliere Candedo, F. Pitossi

T12-21A
Effect of an omega-3/antioxidants supplemented diet on emotional and cognitive alterations and neuroinflammatory processes associated with obesity
C. Fourrier, J. Sauvant, A. Aubert, S. Layé, C. Joffre, N. Castanon

T12-22A
Characterization of inflammatory response after mouse spinal cord injury
I. Francos-Quijorna, R. Lopéz-Vales

T12-23A
CX3CR1 deletion restricts inflammatory signaling in microglia and promotes axon sprouting and synapse preservation after spinal cord injury
C. Freria, J. Hall, D. McTigue, P. Popovich

T12-24A
CD14 control over microglial TLR4 functions involves an IFNβ-mediated feedback mechanism
C. Fritsche, H. Janova, U.-K. Hanisch
T12-25A
A phosphorous-based dendrimer with anti-inflammatory properties towards microglia
S. Fruchon, A.-M. Caminade, C. Turrin, R. Poupot

T12-26A
Microglia tolerance to LPS is mediated by RelB-dependent epigenetic silencing
X. Zhang, W. Schaafsma, E. Boddeke, B. Eggen

T12-27A
Autoantibody-driven astrocystopathy: creation of an in vivo model to decipher the pathophysiological mechanisms of Neuromyelitis optica

T12-28A
Modulation of the glial niche by the neuropeptide Cortistatin: involvement in neuroinflammation and neurodegeneration
E. Gonzalez-Rey, M. Pedreño, M. Caro, I. Forte, G. Robledo, J. M. Villaescusa, M. Delgado

T12-29A
Culturing adult mouse microglia
A. Greenhalgh, K. Renault, B. McColl, S. David

T12-30A
Ccr2 deletion dissociates cavity size and Tau pathology after mild traumatic brain injury
S. Gyoneva, D. Kim, A. Katsumoto, B. Lamb, R. Ransohoff

T12-31A
Differential balance in STAT1 and STAT3 activation and transcriptional responses to gp130 cytokines in astrocytes versus microglia
M.-P. Hsu, S. Rose-John, I. L. Campbell

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, S. Inui, M. Imamura, M. Yasui
T12-33A
CD11c-positive cells from brain, spleen, lung, and liver exhibit site-specific immune phenotypes

T12-34A
Sulforaphane inhibits inflammasome activation in murine microglial cells
K. Isci, E. Eren, Ü Genç

T12-35A
The role of autophagy in microglial activation
M. Jendrach, F.L. Heppner

T12-36A
RNA-based regulation of neuroinflammatory responses
I. Jou

T12-37A
Interferon-beta induced within the CNS plays a protective role in EAE

T12-38A
The role of NG2 in inflammatory disease of the CNS
M. Kitic, K. Karram, N. Israel, F. Wanke, F.C. Kurschus, A. Waisman

T12-39A
Targeting the CSF-1 receptor alleviates two forms of Charcot-Marie-Tooth disease in mice
D. Klein, I Patzkó, D. Schreiber, A. van Hauwermeiren, M. Baier, J. Groh, B.L. West, R. Martini

T12-40A
Augmentation of neuropathic pain by DAP12 mediated signal in microglia
H. Konishi, M. Kobayashi, T. Takai, H. Kiyama

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, K. Neid, M. L. Ton, E. Fuchs, W. Brück, C. Wegner
T12-42A
Toll-like receptor 3 contributes to inflammatory Schwann cell activation and Wallerian degeneration after peripheral nerve injury
H. Lee, J. Baek, S. J. Lee

T12-43A
Developmental priming of microglia by n-3 PUFAs deficiency
Q. Leyrolle, C. Lacabanne, V. Labrousse, A. Seré, A. Aubert, C. Joffre, S. Layé, A. Nadjar

T12-44A
IGF1R signaling in oligodendrocytes regulates neuroinflammation without affecting cell survival

T12-45A
Inducible nitric oxide synthase (NOS2) modulation after chronic minocycline in neuropathic pain and influence of selective NOS2 inhibitor on opioid analgesia
W. Makuch, E. Rojewska, M. Zychowska, B. Przewłocka, J. Mika

T12-46A
Novel approaches to image the neuroinflammatory response after stroke by PET
A. Martin, V. Gómez-Vallejo, B. Szczupak, A. Arrieta, A. Cano, C. Muñoz, D. Padro, A. Damont, F. Dolle, J. Llop

T12-47A Poster retracted

T12-49A
Exploring IFN-β-mediated new effects on tissue damage prevention in EAE: enhancement of Myeloid-Derived Suppressor Cell immunosuppressive activity
C. Melero-Jerez, M. Suárdíaz, C. Marín-Bañasco, í Fernández, F. de Castro, D. Clemente

T12-50A
TLR2-induced astrocyte MMP9 activation compromises the blood brain barrier and exacerbates collagenase-induced intracerebral hemorrhage
H. Min, J. Hong, Y. H. Jang, H. Lee, D. Kim, S.-W. Yu, S. Lee, S. J. Lee
T12-51A
Macrophage activation in perinatal brain injury
G. Ireland, B. Fleiss, J.-C. Becher, D. Rowitch, C. Smith, J. Norman,
P. Gressens, J. Pollard, V. Miron

T12-52A
The role and impact of A20 expression by microglia in
neuroinflammation
A. Mohebiany, A. Waisman

T12-53A
Neurodegeneration by a microglial complement-
phagosome pathway
L. Bodea, B. Linnartz-Gerlach, J. Kopatz, L. Sinkkonen, R. Balling, H. Neumann

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, F. Guillot, A. Garcia, M. Salou, S. Brouard, D. A. Laplaud

T12-55A
Astrocyte bioenergetics in multiple sclerosis:
novel insights to combat neuroinflammation and-
degeneration
P. Nijland, S. van der Pol, P. van der Valk, H. E. de Vries, J. van Horsen

T12-56A
Pharmacological inhibition of CSF1R blocks microglial
proliferation and prevents the progression of
Alzheimer’s-like pathology
A. Olmos-Alonso, S. T. Schetters, S. Sri, K. Askew, M. Vargas-Caballero,
C. Holscher, V. H. Perry, D. Gomez-Nicola

T12-57A
Roles of Cx47 and Cx32 in experimental autoimmune
encephalomyelitis
C. Papaneophytou, I. Sargiannidou, E. Georgiou, C. Abrams, K. Kleopa

T12-58A
Therapeutic role of adrenomedullin in Multiple
Sclerosis: involvement in remyelination processes
M. Pedreno Molina, I. Forte, L. Carballo, M. Delgado, E. Gonzalez-Rey
T12-59A
**Changes of microglia cells associated to aging in a mouse model of accelerated senescence: the SAM P8 mice**
E. Quintana, P. Velasco, A. Fernández, H. Mira, M. Vilar, S. M. Arribas, E. Cano

T12-60A
**Resolvins and lipoxygen promote resolution of brain inflammation**
C. Rey, A. Aubert, S. Layé, B. Buaud, C. Vaysse, C. Joffre

T12-61A
**Functional properties of microglia in mouse models of Alzheimer’s disease**
N. Saiepour, T. A. Bayer, H. W. G. Boddeke, U.-K. Hanisch

T12-62A
**Nitric oxide-mediated microglial phagocytosis and why carbon monoxide could be good for the inflamed brain**
H. Scheiblich, G. Bicker

T12-63A
**Immune-mediated axono-glial damage—an in vivo two-photon imaging approach**
V. Siffrin

T12-64A
**Modulation of S1P receptors at the Blood Brain Barrier: do astrocytes play an essential role?**
S. Spampinato, B. Obermeier, A. Cotleur, A. Love, Y. Takeshita, R. Ransohoff

T12-65A
**Role of STAT3-dependent reactive astrocytes in the spinal dorsal horn in chronic itch**
M. Shiratori-Hayashi, K. Inoue, M. Tsuda

T12-66A
**Endothelial protein C receptor expression in microglia is regulated by Sp1**
K. U. Tufekci, E. Eren, H. Ates, S. Genc

T12-67A
**Microglia are involved in apoptotic clearance during chronic-relapsing EAE**
T12-68A
Inhibition of the JNK pathway as a treatment for perinatal diffuse white matter injury
E. van Tilborg, C. Heijnen, M. Benders, F. van Bel, C. Nijboer

T12-69A
The phenotypes of microglia and macrophages during epileptogenesis
J. Vinet, J. D. Vainchtein, C. Spano, C. Giordano, D. Bordini, M. Dominici, B. J. L. Eggen, G. Biagini

T12-70A
A mouse model of atopic diathesis displaying tactile allodynia with glial inflammation in the spinal cord
R. Yamasaki, J.-I. Kira

T12-71A
TUDCA skews microglia towards M2 phenotype through the G-protein coupled bile acid receptor GPBAR1/TGR5
N. Yanguas Casás, M. A. de la Barreda Manso, M. Nieto Sampedro, L. Romero Ramírez

T12-72A  This poster has in the abstract book the ID T12-26B.
Multiple Sclerosis: studying lipocalin 2 as a novel player in the pathophysiology of the disease

T13  NEUROVASCULAR INTERACTIONS

T13-01A
Extracellular vesicles from brain microvascular endothelial cell cultures promote survival, proliferation, and motility of oligodendrocyte precursor cells
Y. Ishizaki, M. Kurachi

T13-02A
Blood-brain barrier disruption: microglial responses and consequences for neural function
V. Rafalski, M. Merlini, J. K. Ryu, C. Syme, D. Davalos, K. Akassoglou
T13-03A
CNS lesion-induced accumulation of platelets promotes survival of adult SVZ-derived neural stem/progenitor cells

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, L. Shi

T13-05A
Microglia have roles in both of maturation and breakdown of the barrier function of blood brain barrier
K. Sato, Y. Shigemoto-Mogami, K. Hoshikawa, Y. Sekino

T14  REGENERATION AND REPAIR

T14-01A
Functions of histone deacetylases in Schwann cells during regeneration
V. Brügger, S. Ruff, E. Münger, P. Matthias, U. Suter, C. Jacob

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

T14-03A
Region and dynamic specificities of adult neural stem cells and oligodendrocyte precursors in myelin regeneration in the mouse brain
M. Cayre, B. Brousse, K. Magalon, P. Durbec
T14-04A  
Non-steroidal anti-inflammatory drug indometacin enhances endogenous remyelination  

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, J. Jones, S. Martinez

T14-06A  
Tissue plasminogen activator (tPA) acts on oligodendrocytes and promotes remyelination after white matter damage  

T14-07A  
Spatio-temporal proteins study of rat spinal cord injury and glial cells involvement  

T14-08A  
Control of oligodendrocyte plasticity by histone demethylases after spinal cord injury  
O. M. Duman, C. Jacob

T14-09A  
Role of heparan sulfate in the control of myelin regeneration  
B. El Waly, M. Macchi, C. Zimmer, K. Grobe, M. Cayre, P. Durbec

T14-10A  
Juvenile ependymal cells show greater self-renewal potential and generate more oligodendrocytes than adult cells after spinal cord injury  
E. Floriddia, X. Li, N. Guerot, K. Toskas, F. Barnabe-Heider

T14-11A  
Role of L-PGDS in PNS regeneration and remyelination  
M. G. Forese, M. Pellegatta, A. Trimarco, C. Rivellini, S. Previtali, C. Taveggia
T14-12A  
Vulnerability and fate of oligodendroglia in areas of secondary degeneration following neurotrauma  
M. Giacci, C. Bartlett, N. Hart, M. Fitzgerald

T14-13A  
Mitochondrial regulation of astrocyte reactivity in response to inflammatory insult  
J. Göbel, E. Motori, T.M. Eriksson, G. Wani, B. Fernando, M. Bergami

T14-14A  
Analyses of epigenetic change in the injured mouse spinal cord  
K. Hori, J. Kohyama, T. Sanosaka, A. Iwanami, H. Okano, M. Matsumoto, M. Nakamura

T14-15A  
17β-estradiol augments axotomy-induced cell-type specific changes in P2X7 receptor expression in the mouse hypoglossal nucleus  

T14-16A  
Alternatively activated brain-infiltrating macrophages facilitate recovery from intracerebral hemorrhage  
H. Kim, Y.H. Jang, H. Min, S.J. Lee

T14-17A  
Cend1 and Neurogenin-2 drive neuronal reprogramming of astrocytes in vitro and in vivo following brain injury  
P. Koutsoudaki, I. Thanou, K. Aravantinou-Fatorou, D. Thomaidou

T14-18A  
Glutaredoxin 2 increases oligodendroglial capacity for regeneration after neuroinflammatory damage  
K. Lepka, K. Volbracht, E. Schaberg, H.P. Hartung, N. Goebels, O. Aktas, C. Berndt

T14-19A  
The role of NgR and P75NTR on the glia scar formation after traumatic brain injury  
H. Liao, J. Ni, G. Liu, J. Yan, Y. Fang
T14-20A
Development of an in vitro microfluidic device of spinal cord injury to identify novel compounds for repair
M. McGrath, G. Robertson, M. Zagnoni, M. Riehle, S. Barnett

T14-21A
Differential abilities of acutely and chronically denervated nerve derived and skin derived Schwann cells to support axonal regeneration and remyelination
R. Midha, R. Kumar, J. Biernaskie, S. Sinha, J.A. Stratton

T14-22A
The Merlin tumour suppressor is critical for peripheral nerve regeneration and repair

T14-23A
Intraspinal delivery of polyethylene glycol coated gold nanoparticles promotes functional recovery after spinal cord injury

T14-24A
Control of Schwann cell phenotype after nerve injury
S. Velasco, C. Gomis-Coloma, J.A. Gomez-Sanchez, H. Cabedo

T14-25A
De novo expression of parvalbumin in ependymal cells in response to brain injury promotes ependymal remodeling and wound repair
V. Szabolcsi, M.R. Celio

T14-26A
Light activation of astrocytes promotes neuronal differentiation of stem cells and improves neurological deficit in stroke rats
J. Tu, Y. Liu, F. Yang, Y. Liu, L. Wang

T14-27A
Comparison of HDAC functions in oligodendrocyte and Schwann cell plasticity after axon injury
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, J. Loewen, J. Van Liefferinge, E. Bentea, T. Demuyser, E. Merckx, L. Deneyer, I. Smolders, K. Wilcox, A. Massie

T15-02A Regulation from cytosolic alkalosis by reversed sodium-bicarbonate cotransporter NBCe1 in mouse cortical astrocytes
S. Theparambil, Z. Naoshin, A. Thyssen, J. Deitmer

T15-03A HCO3-–independent pH regulation in astrocytes in situ is dominated by V-ATPase
D. B. Hansen, N. Garrido-Comas, M. Salter, R. Fern

T15-04A Connexin channel inhibitor promotes the anti-hyperalgesic effect of amitriptyline in sciatic nerve-ligated rats

T15-05A Gating of aquaporin 4—phosphorylation versus protonation
M. Assenotff, S. Kaptan, R. A. Fenton, S. Z. Hua, B. L. deGroot, N. MacAulay

T15-06A Prenatal exposure to inflammatory conditions increases hemichannel opening and activation of astrocytes in the offspring: repercussion on neuronal survival
J. A. Orellana, B. Avendaño, T. Montero, C. Chavez, R. von Bernhardi

T15-07A Expression of functional ionotropic glutamate and GABA receptors in astrocytes of the ventrobasal thalamus
G. Seifert, S. Höft, S. Griemsmann, C. Steinhäuser

T15-08A Dye coupling between cells from subventricular zone neurospheres and glia
T15-09A
The HYS-32-enhanced Cx43 stability at plasma membrane is caveolae-dependent

T15-10A
Functional characterization of astrocytes within the ventral midbrain
W. Xin, A. Bonci

T15-11A
Regulation of BDNF mRNA expression in astrocytes by catecholamines
I. Koppel, A. Pennert, K. Jaanson, T. Tiirik, T. Timmusk

T15-12A
AMPA receptor signalling in oligodendrocyte development
E. Kougioumtzidou, R. Sprengel, D. Attwell, W. D. Richardson

T16 TROPHIC FACTORS

T16-01A
Changes in expression and localisation of Sphingosine 1-Phosphate Receptor-1 (S1P₁R) in the young and middle-age rat brain
G. Sheridan, M. Velasco

T17 TUMOURS

T17-01A
Glioma-initiating cells upregulate IL-6 secretion in microglia/brain macrophages via Toll-like receptor 4 signaling

T17-02A
Inhibition of glioma progression by a newly discovered CD38 inhibitor
E. Blacher, B. Ben Baruch, A. Levy, N. Geva, K. D. Green, S. Garneau-Tsodikova, M. Fridman, R. Stein
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>T17-03A</td>
<td>Adoptive M1/M2 modulation of microglia as an immunotherapeutic strategy against glioma</td>
<td>L. D. R. Cisneros Castillo</td>
</tr>
<tr>
<td>T17-04A</td>
<td>A cell division cycle 7-related protein kinase inhibitor suppresses glioblastoma cell growth in vitro</td>
<td>E. P. Erkan, M. Dinc, E. Eren, J. Allmer, T. Yalcin, S. Genc</td>
</tr>
<tr>
<td>T17-06A</td>
<td>A promising therapy against human glioblastoma stem cells: cell-penetrating peptides based on the interaction between connexin43 and c-Src</td>
<td>M. Jaraíz Rodríguez, M. Domínguez Prieto, J. Medina, A. Tabernero</td>
</tr>
<tr>
<td>T17-07A</td>
<td>Light-controlled inhibition of malignant glioma by opsin gene transfer</td>
<td>Y. Liu, F. Yang, J. Tu, L. Wang</td>
</tr>
<tr>
<td>T17-08A</td>
<td>The role of Cytoplasmic Polyadenylation Element Binding proteins in the pathogenesis of gliomas</td>
<td>M. Skubal, M. Theis, C. Steinhäuser, A. Waha</td>
</tr>
<tr>
<td>T17-09A</td>
<td>GFAP in astrocytic tumors</td>
<td>F. van Bodegraven, O. Stassen, M. Moeton, M. van Strien, P. Robe, E. Hol</td>
</tr>
</tbody>
</table>
ACHUCARRO BASQUE CENTER FOR NEUROSCIENCE

Achucarro Basque Center for Neuroscience is devoted to the study of glial cells function in physiology and pathophysiology, a fundamental and translational research centre created by Ikerbasque – the Basque Foundation for Science and the University of the Basque Country (UPV/EHU) in mid-2012. The centre is named after Nicolas Achucarro (Bilbao, 1880–1918), an internationally recognized Basque neuroscientist who made relevant contributions to the biology of glia.

The goal of the Achucarro centre is to perform world-class research in the study of neuron-glia biology in the normal and pathological brain. This research focus will allow us to contribute to the training of future generations of neuroscientists and be an active partner in the dissemination of the human knowledge about the brain.

Our current research programme covers the following areas:
– In-depth understanding of the organisation and information processing in neural circuitries;
– Identification of genetic and molecular backgrounds of neural circuits during development and ageing;
– Characterisation of genetic, molecular and cellular mechanisms of neurodegenerative and autoimmune-mediated brain diseases; and
– Translational research aimed at the development of new strategies for the treatment of brain diseases.

For more information: www.achucarro.org | info@achucarro.org
Poster Session II

Friday, July 17 13:15–15:15
Saturday, July 18 13:00–15:00

T01  CELL MIGRATION

T01-01B
Crosstalk between early fate determinant and chemotropism controls collective glial migration
T. Gupta, A. Kumar, A. Giangrande

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, K. Saul, H. Komuro, W. Macklin

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, K. Sharma, P. Pillai

T02  CELL PROLIFERATION, LINEAGES AND DIFFERENTIATION

T02-01B
Profiling of the different genes regulated during astrocyte differentiation
C. Birck, P. Heuschling, L. Grandbarbe

T02-02B
Phenotypic heterogeneity of dividing oligodendrocyte progenitor cells and of their progeny: characterization and modulation by aging and extrinsic factors
E. Boda, S. Di Maria, C. Rolando, P. Rosa, V. Taylor, M. P. Abbracchio, A. Buffo
T02-03B
Microglial cells during embryonic development of the mouse brain—mature team players or young bench sitters?
B. Brone, N. Swinnen, S. Smolders, P. Legendre, J.-M. Rigo

T02-04B
Calmodulin inhibition affects proliferation and cell viability in unchallenged and LPS-challenged pure microglial cultures
K. Dulka, M. Szabo, K. Gulya

T02-05B
Rapid and efficient generation of human oligodendrocytes from induced pluripotent stem cells
M. Ehrlich, S. Albrecht, K.-P. Kim, J. Sterneckert, H. Zaehres, H. Schöler, T. Kuhlmann

T02-07B
RXR-VDR signaling regulates oligodendrocyte precursor cell differentiation
A. Guzman de la Fuente, O. Errea, C. Kerninon, P. van Wijngaarden, G. A. Gonzalez, J.K. Huang, C. Zhao, B. Nait Oumesmar, C. ffrench-Constant, R. J. Franklin

T02-08B
Characterization of Tensin3 (Tns3) function in oligodendrogenesis and remyelination
H. Hmidan, C. Parras

T02-09B
Cell fate of NG2 glia in the developing mouse spinal cord
W. Huang, X. Bai, L. Schlosser, A. Scheller, F. Kirchhoff

T02-10B
Activity-dependent effects on oligodendrocyte precursors and mature oligodendrocytes in the adult sensorimotor cortex and corpus callosum

T02-11B
Mature astrocytes regain stem cell potential and give rise to neurons
S. Kirner, M. Leist
T02-12B
Interleukin-33 (IL-33) as a factor involved in the regulation of oligodendrocyte precursor cells biology
K. Konarzewska, B. Wylot, B. Kaza, J. Ułańska-Poutanen, M. Zawadzka

T02-13B
Characterization of the role of RET on enteric progenitors using Mosaic Analysis with Double Markers (MADM)
R. Lasrado, D. Bell, V. Pachnis

T02-14B
Characterization of Chd7 expression and function in oligodendrogenesis and (re)myelination
C. Marie, M. Frah, C. Parras

T02-15B
Identification and characterization of distinct astroglia subpopulations in health and disease
S. J. Miller, Z. Chen, T. Philips, M. Robinson, R. Sattler, J. Rothstein

T02-16B
The PI3K/Akt inhibitor LY294002 induces astrogliosis in mouse cerebellar slices
F. Pieropan, A. D. Rivera, K. Azim, A. V. Patel, R. Gibbs, P. Cox, A. M. Butt

T02-17B
Cell genesis and dendritic plasticity: a neuroplastic pas de deux in the onset and remission from depression

T02-18B
Nastructured interface promoting astrocytes molecular and functional differentiation in vitro

T02-19B
S100B modulates oligodendrocyte development process
G. Santos, V. Afonso, A. Barateiro, A. Fernandes, D. Brites

T02-20B Poster retracted
**T02-21B**
Role of Dbx1 and Notch signalling in the specification of a subset of spinal astrocytes
M.M. Sartoretti, D. Di Bella, A. Carcagno, G. Lanuza

**T02-22B**
Genetic ablation of proliferating NG2-glia in the adult brain
S. Schneider, C. Simon, G. Eichele, M. Götz, L. Dimou

**T02-23B**
Chimeric OHSCs as culture system to study microglia phenotypes
C.A. van der Pijl, H. R. van Weering, A. Masuch, K. P.H. Biber, B. J. L. Eggen, H. W. G. Boddeke

---

**T03 CELL SIGNALING**

**T03-01B**
Thyroid hormone and AMPc/PKA pathway play a role in the elongation of oligodendroglial processes

**T03-02B**
Phospholipases A2 isolated from Micrurus lemniscatus snake venom inhibits cell proliferation through the activation of p53 in cultured astrocytes
S. Castro Afeche, D. Augusto Maria, M. Garcia Laveli da Silva, M. R. Lopes Sandoval, A. de Souza Imberg, L. Bartleewski, E. Osorio Frare

**T03-03B**
The role of CPI-17 in Merlin-dependent small GTPase regulation in oligodendrocytes
C. Dornblut, H. Morrison

**T03-04B**
Astrocytic endfeet show unique Ca$^{2+}$ response to osmotic stress

**T03-05B**
Astrocyte calcium microdomains in response to sensory stimulation in vivo
K. Ferrari, J.L. Stobart, M. Barrett, B. Weber
T03-06B  
c-Jun is activated by LDL receptor-related protein-1 (LRP1) in Schwann cells  
A. Flütsch, K. Henry, S. L. Gonias, W. M. Campana

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-Carabajal, S. Brosig, T. Hucho

T03-08B  
Calcium regulation of mitochondrial respiration in astrocytes  
I. Juaristi, A. del Arco, J. Satrustegui, I. Llorente-Folch

T03-09B  
Cross-talk of signaling and energy-delivering processes in astrocytes: interaction of carnitine transporter OCTN2 with phosphatase PP2A  
B. Juraszek, K. Nalecz

T03-10B  
An organic device for stimulation and optical read-out of calcium signalling in primary rat cortical astrocytes  

T03-11B  
CREB: a new player in the regulation of astrocytic calcium signalling  
A. Eraso, E. Vicario, L. Pardo, E. Galea, R. Masgrau

T03-12B  
A functional metabotropic-like NMDAR in rat cultured astrocytes  
P. Montes de Oca Balderas, P. Aguilera

T03-13B  
Differential secretion of peptidergic vesicles in astrocytes and neurons  
V. Pla, S. Paco, E. Pozas, N. Lauzurica, M. García-San Frutos, J. Pérez-Clausell, T. Fernández-Agulló, F. Aguado
T03-14B
Src-like tyrosine kinases mediate amyloid β-induced myelin dysregulation in Alzheimer’s disease models
T. Quintela, A. Wyssenbach, C. Matute, E. Alberdi

T03-15B
Astrocyte shape changes and tonic cAMP signalling
N. Vardjan, M. Kreft, R. Zorec

T03-16B
Schwann cell autophagy, myelinophagy, initiates myelin clearance from injured nerves
J.A. Gomez-Sanchez, L. Carty, M. Iruarrizaga-Lejarreta, M. Palomo-Irigoyen, M. Varela-Rey, R. Mirsky, A. Woodhoo, K.R. Jessen

T03-17B
A crosstalk between rock and NADPH-oxidase mediates the microglial inflammatory response
A. Borrajo, A.I. Rodriguez-Perez, J. Rodriguez-Pallares, P. Garrido-Gil, M.J. Guerra, J.L. Labandeira-Garcia

T04 CYTOSKELETON

T04-01B
Astroglial architecture of Squamata as compared to the astroglia of Crocodilia and Testudines. A GFAP study
M. Kalman, D. Lorincz

T04-02B
Stress in mice rapidly changes enteric glial morphology through cytoskeletal reorganization
B. Lee, K. Sharkey

T05 DEGENERATIVE DISEASE, TOXICITY AND NEUROPROTECTION

T05-01B
A$_2$A receptor blockade prevents microglia reactivity triggered by elevated hydrostatic pressure
I. Aires, R. Boia, C. Neves, M. Madeira, F. Ambrósio, A.R. Santiago
T05-02B
Neuroprotective effects of the nucleoside guanosine under acute hyperammonemia in a rat model of hepatic encephalopathy

T05-03B
EAE is associated with increased expression of mitochondrial proteins within the dorsal spinal cord: implications for pain in the disease
C. Benson, M. S. Yousuf, B. Kerr

T05-04B
Blockade of adenosine A_2A receptor confers neuroprotection against retinal ischemia-reperfusion injury through the control of neuroinflammation
R. Boia, M. Madeira, F. Elvas, T. Martins, F. Ambrósio, A. R. Santiago

T05-05B
Inhibition of Casein Kinase 2 reduces AMPA-induced oligodendrocyte death through JNK signaling and ER stress regulation
M. Canedo, F. LLavero, J. Zugaza, C. Matute, M. Sánchez-Gómez

T05-06B
Intravital microglial lysosome imaging
E. Capetillo-Zarate, S. Solé Domenech, D. Cruz, C. Matute, F. R. Maxfield

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, C. La Rocca, G. Matarese, L. Annunziato, F. Boscia

T05-08B
A role of SRY on gender-selective modulation of astrocytic cell viability by oxidative stress
K. S. Cho, S. M. Yang, K. J. Kwon, C. Y. Shin

T05-09B
Neuroprotective effects of guanosine in an glutamatergic excitotoxic condition in hippocampal slices from adult mice
T05-11B
Anti-IL34 treatment reduces microglia density
C. Easley-Neal, R. Weimer, A. Zarrin

T05-12B
Glial cell-dysfunction and therapeutic potential of trehalose in an early Huntington’s disease cellular model

T05-13B
Schwann cells regulate synaptic function at developing neuromuscular synapses
D. Heredia, A. Scurry, C. Feng, G. Hennig, T. Gould

T05-14B
Erythropoietin affects the dynamic brain edema response following experimental traumatic brain injury
E. Gunnarson, J. Blixt, M. Wanecek

T05-15B
Iron loading with ferrocene induces iron mismanagement in organotypic hippocampal slices
S. Healy, J. McMahon, U. FitzGerald

T05-16B
Biochemical and pharmacological evidence for the existence of spare glutamate transporters—the concept of transporter reserve
E. Hermans, C. Ingelbrecht, N. Desmet

T05-17B
A methodology for isolation and culture of adult astrocytes for Alzheimer’s Disease research
T. Irám, D. Frenkel

T05-20B
Early activation of microglia plays a central role in the disease pathogenesis of progressive myoclonus epilepsy, EPM1
I. Körber, T. Joensuu, S. Katayama, P. Hakala, E. Einarsdottir, J. Kere, A.-E. Lehesjoki
T05-21B
Influence of autoimmune inflammation on remyelination in cuprizone-induced demyelination
P. Kunz, A. Escher, A. Barrantes-Freer, S. Nessler, W. Brück, C. Stadelmann-Nessler

T05-22B
Inhibition of microglial activity is a major mechanism in neuroprotection of dopaminergic neurons by inhibition of Rho-kinase
J.L. Labandeira-Garcia, A. Borrajo, A.I. Rodriguez-Perez, J. Rodriguez-Pallares, C. Diaz-Ruiz, M.J. Guerra

T05-23B
Alterations of astrocytes proteome induced by beta-amyloid peptide: implications for Alzheimer disease pathogenesis
P. Leprince, C. Monoyer, A. Bentaib

T05-24B
LIF haplodeficiency desynchronizes glial reactivity prolonging damage and functional deficits after a concussive brain injury
S. Levison, M. Goodus, N. Ahmed, R. Talwar, D. Buziashvili, K. Pang

T05-25B
Neuroprotective effect of pre-treatment with vitamin D against homocysteine-induced cellular dysfunction in cerebral cortex slices of rats

T05-26B
Caffeine attenuates neuroinflammatory response and retinal ganglion cell loss in an ocular hypertension animal model
M.H. Madeira, A. Ortin-Martinez, F.M. Nadal-Nicolas, M. Agudo-Barriuso, M. Vidal-Sanz, A. Ambrósio, A.R. Santiago

T05-27B
Increased vulnerability to excitotoxicity in spermine oxidase overexpressing mouse: astrocyte-dependency
T05-28B
Regulation of the fractalkine ligand in human astrocytes
S. O’Sullivan, F. Gasparini, A. Mir, K. Dev

T05-29B
Platelet derived growth factor and retinal neuroprotection: the impact on microglia
A. Osborne, R. Chong, K. Martin

T05-30B
Characterization of astroglial contribution to C9ORF72 Amyotrophic Lateral Sclerosis (ALS) using patient-derived iPS astrocytes
J. Pham, R. Sattler, J. Rothstein

T05-31B
The neuroprotective role of microglia against amyloid beta toxicity in organotypic hippocampal slice cultures
M. Richter, A. Dolga, K. Biber, C. Culmsee, R. Dodel

T05-32B
Lysyl oxidase is a novel target of lithium that regulates astrogliogenesis in adult CNS white matter
A.D. Rivera, E. Green, R.O. Carare, A.M. Butt

T05-33B
Specific expression of the neurotoxic microRNA family let-7 in the cerebrospinal fluid of patients with Alzheimer’s disease

T05-34B
Caffeine modulates retinal neuroinflammation and cell survival in retinal ischemia

T05-35B
Mechanism of nimodipine-dependent inhibition of amyloid b stimulated interleukin 1-beta production from microglia
J. M. Sanz, P. Chiozzi, G. Zuliani, F. Di Virgilio
T05-36B
Demyelination induces functional deficit in the non-human primate optic nerve

T05-37B
Astrocytes increase fatty acid oxidation following traumatic brain injury in the developing brain
S. Scafidi, J. Jernberg, C. Bowman, M. Wolfgang

T05-38B
Low molecular weight polysialic acid shows anti-inflammatory effects on human THP1 macrophages
A. Shahraz, J. Kopatz, H. Neumann

T05-39B
Effect of long-term paroxetine treatment on Ab pathology and microgliosis in the APPswePS1ΔE9 mouse model of Alzheimer’s disease
M. Sivasaravanaparan, M. Severino, L. Ørum Olesen, R. Jordan Tenney, E. Bouzinova, A. Babcock, J. Hasselstrøm, J. B. Gramsbergen, O. Wiborg, B. Finsen

T05-40B
Alzheimer’s amyloid degradation by secreted lysosomal enzymes
S. Sole Domenech, D. Wakefield, E. Capetillo Gonzalez de Zárate, D. Cruz, B. Baird, F. Maxfield

T05-41B
Traumatic brain injury in the mouse leads to proliferation of oligodendrocyte progenitor cells in important white matter tracts
J. Flygt, F. Clausen, N. Marklund

T05-42B
siRNA screen of microglia to identify neuroprotective drug targets in Parkinson’s disease
M. Delgado, M. Pedreño, E. González-Rey, V. E. Neubrand
T06  EXTRACELLULAR MATRIX AND CELL ADHESION MOLECULES

T06-01B
Investigation of oligodendrocyte differentiation in the inhibitory multiple sclerosis lesion microenvironment in vitro
S. Cummings, R. Kothary

T07  GENE EXPRESSION AND TRANSCRIPTION FACTORS

T07-01B
Deciphering the role of Etv5 in neural crest progenitor development and Schwann cell fate specification
A. Balakrishnan, Y. Touahri, D. Zinyk, J. Biernaskie, C. Schuurmans

T07-02B
Direct conversion of fibroblasts into functional astrocytes by defined transcription factors
V. Broccoli, M. Caiazzo, S. Giannelli, P. Valente, G. Lignani, A. Sessa, F. Benfenati

T07-03B
Brca1 is expressed in human microglia and is deregulated in human and animal model of ALS

T07-04B
Rapid and highly efficient induction of oligodendrocytes from human pluripotent stem cells by forward programming
M. Pawlowski, D. Ortmann, A. Bertero, L. Vallier, M. Kotter

T07-05B
Identification of a new potential marker for a subpopulation of astrocytes
A. Quiroga, W. D. Richardson, H. Li

T07-06B
Interactions of Sox10 with TGF-B SIGNALING in Schwann cells
**T07-07B**

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

**T07-08B**

**Astrocyte-specific transcriptional response to glucocorticoid receptor stimulation—metabolic implications**  
M. Tertil, S. Golda, A. Wawrzczak-Bargiela, M. Korostynski, M. Piechota, M. Slezak, R. Przewlocki

**T07-09B**

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

**T07-10B**

**Astrocytic CREB is a therapeutic target in acute brain injury**  

**T07-11B**

**Development and validation of flexible system for selective genetic manipulation of astrocytes in wild-type mouse**  
M. Slezak, F. De Vin, A. Vandebroek, M. Holt

**T07-12B**

**Definition of the microglial activome from individual mice revealed by RNaseq**  

**T07-13B**

**Targeting microglia using the specific transcription factor Sall1**  
A. Buttgereit, I. Lelios, R. Nishinakamura, B. Becher, M. Greter
T08 GLIAL-NEURONAL INTERACTIONS

T08-01B
GLAST-CreERT2/KOef2b a relevant mouse model for the CACH/VWM leukodystrophy
R. Abdel Rassoul

T08-02B
Opposing effects of a toll-like receptor 9 antagonist on spinal cord neuronal viability through direct versus astrocyte-mediated actions
C. Acioğlu, A. T. Baykal, R. F. Heary, S. Elkabes

T08-03B
A differential astrocyte reactivity is induced by omega-3 fatty acid deficiency in nuclei of rat basal ganglia

T08-04B
Mouse embryo dorsal root ganglia neuron survival was decreased in the absence of microglia
M. Angelim, L. Maia, A. Amancio-dos-Santos, C. Mouffle, E. Bullier, F. Guinoux, H. Le Corronc, P. Legendre

T08-05B
How does neuronal activity regulate the formation and function of myelinated axons in vivo?
M. Baraban, S. Mensch, D. Lyons

T08-06B
Glial cells in the enteric nervous system are sensitive to synaptic and non-synaptic neuronal activity
W. Boesmans, M. M. Hao, V. Pachnis, P. Vanden Berghe

T08-07B
Functional GABA-A receptors in Schwann Cells are cross-regulated in GABA-B Null mice

T08-08B
Purinergic P2Y2 receptors on satellite glial cells as new potential targets for the pharmacological control of trigeminal sensitization
G. Magni, D. Merli, C. Verderio, M. P. Abbracchio, S. Ceruti
T08-09B
Glial abnormalities parallel neuronal impairment in human enteric nervous system
C. Cirillo, A.-S. Desmet, J. Tack, P. Vanden Berghe

T08-10B
mGluR5-mediated calcium signalling in rat cortical primary astrocytes is modulated by adenosine A1 and A2A receptors
H. de Castro Abrantes, P. Avelar, M. J. Diógenes, A. Sebastião, S. Vaz

T08-12B
Neuronal alarmin IL-1α evokes astrocyte-mediated protective signals against oxaliplatin neurotoxicity
L. Di Cesare Mannelli, M. Zanardelli, B. Tenci, A. Pacini, C. Ghelardini

T08-14B
Astroglial networks modulation of bursting activity dynamics
E. Dossi, O. Chever, U. Pannasch, M. Derangeon, N. Rouach

T08-15B
Dynamics of ionic shifts in cortical spreading depression

T08-16B
Neurofilaments enter in oligodendrocytes via clathrin-dependent endocytosis to promote their growth and survival in vitro
J. Eyer, C. Fressinaud

T08-17B
Role of the alpha-secretase TACE in Central Nervous System myelination
E. Fredrickx, E. Colombo, G. Dina, A. Quattrini, C. Taveggia

T08-18B
Age-related cognitive impact in a transgenic model of astrocytic dysfunction
S. Guerra-Gomes, V. Sardinha, G. Tavares, J. Correia, M. Martins, N. Sousa, L. Pinto, J. Oliveira
T08-19B
An astrocyte-dependent mechanism that links increased TNFα levels to a persistent change of function in cognitive circuits: relevance to multiple sclerosis

T08-20B
Nanofiber-platform for human pluripotent stem cell-derived neural cells
A. Hyysalo, M. Ristola, T. Joki, S. Narkilahti

T08-21B
Generation of astrocytes from human induced pluripotent stem cells to investigate astrocyte biology in neurodegenerative diseases

T08-22B
Astrocytes gate synaptic transmission from unmyelinated sensory afferents

T08-23B
Metabolic modulation of mitochondria reduced glial reactivity and hyperalgesia in inflammatory and neuropathic chronic pain models
N. Lago, V. Lagos-Rodriguez, L. Martinez-Palma, A. Cassina, P. Cassina

T08-24B
3D volume imaging of calcium dynamics in astrocytes
N. Liaudet, E. Bindocci, I. Savtchouk, C. Dürst, A. Volterra

T08-25B
Fractalkine signaling is not required for ocular dominance plasticity
R. Lowery, C. Charbonneau, B. Hopkins, A. Majewska

T08-26B
Electrophysiological characterization of human pluripotent stem cell derived oligodendrocyte precursor cells
M. Mäkinen, A. Hyysalo, S. Narkilahti
T08-27B
Flavonoid hesperidin modulates synapse formation on cerebral cortex and increases the synaptogenic potential of astrocytes
Matias, L. Diniz, A. Buosi, A.P. Araújo, J. Stipursky, F. Carvalho Alcantara Gomes

T08-28B
Neuronal activity dependent regulation of CNS-precur-
sor cells in health and disease
Matthey, J. Stockley, C. Watts, R.T. Káradóttir

T08-29B
Purines released from astrocytes inhibit excitatory syn-
aptic transmission in the ventral horn of the spinal cord
Meier Carlsen, J.-F. Perrier

T08-30B
Membrane mobility of the astroglial glutamate transport GLT-1
Michaluk, D. Rusakov

T08-31B
EphB3 regulates gliotransmission following traumatic brain injury
Perez, D. Liebl

T08-32B
Microglia changes in rat dorsal cochlear nucleus corre-
late to behavioural tinnitus evidence

T08-33B
Glia-to-neuron shuttling of miR-146a via extracellular microvesicles modulates synaptotagmin1 translation in neurons

T08-34B
Development of co-culture platform for neuron-oligodendrocyte research
T08-35B
Müller cells heterogeneity in vitro
N. Ruzafa, X. Pereiro, Y. Filali-Mouncef, E. Vecino

T08-36B
Electrophysiological characterization of the prefrontal cortex and hippocampus connection in a genetic model of astrocytic dysfunction
V. Sardinha, S. Guerra-Gomes, G. Tavares, J. Correia, M. Martins, N. Sousa, J. Oliveira

T08-37B
The pros and cons of studying astrocytic Ca²⁺ dynamics with genetically-encoded Ca²⁺ indicators: a high-resolution two-photon comparative analysis with synthetic dyes
I. Savtchouk, E. Bindocci, N. Liaudet, A. Agarwal, D. Bergles, A. Volterra

T08-38B
Release of glutamate and ATP induced by optogenetic activation of astrocytes
W. Shen, C. Meunier, E. Audiant

T08-39B
Activity-dependent neuroglial remodeling enhances extrasynaptic glutamate signaling and optimizes adaptive neuronal responses to a physiological challenge
J. Stern, K. Naskar

T08-40B
A novel open source tool to study astrocytic morphology

T08-41B
Microglia in the early development of inhibitory cortical circuits
M. Thion, P. Squarzoni, M. Coralie-Anne, D. Low, F. Ginhoux, E. Audinat, S. Garel

T08-42B
Implication of microglial fractalkine receptor in hypothalamic control of metabolism
Z. Winkler, Í Polyák, D. Kuti, S. Ferenczi, D. Kővári, K. J. Kovács

T08-43B
CD11c⁺ microglia are potent producers of IGF-1 during postnatal neurodevelopment
A. Wlodarczyk, N. Martin, T. Owens
THE UNIVERSITY OF THE BASQUE COUNTRY

The University of the Basque Country (UPV/EHU) is the only public university in the Basque Country. It has three campuses in the three Basque provinces (Biscay, Gipuzkoa and Alava) and covers almost all the areas of knowledge, a vibrant 30-year-old institution with 45,000 students, 5,000 world-class academic staff and state-of-the-art facilities.

The UPV/EHU is the main research institution in the Basque Country, carrying out most of the basic research made in that territory and taking advantage of the good industrial environment in the region.

The UPV/EHU counts with a number of 400 researchers and support personnel working in the different areas of neurosciences, in the Departments of Neurosciences; Pharmacology; Cell Biology and Histology; Physiology; and Genetics, Physical Anthropology and Animal Physiology.

EUSKAMPUS – CAMPUS OF INTERNATIONAL EXCELLENCE

In 2010, the Spanish Ministry for Education awarded the University of the Basque Country the “Campus of International Excellence” award for its project known as Euskampus. Under the slogan “One University, One Country, One Campus”, Euskampus seeks to combine the excellence and internationalisation of the University and link it to the Country through three (or four?) main areas of specialization or knowledge hubs: Innovative Processes and New Materials; Sustainable Eco-systems and Environmental Technologies; Quality of Life and Healthy Ageing; and Social Innovation.

The Knowledge Hub for Neurosciences, named “Mens Sana”, builds on an old ambition of the research community in this field to boost multidisciplinarity as well as intra- and inter-institutional collaboration. With this perspective, the Hub has defined strategic objectives that must guide the actions by the research and technology institutions working in the field in the Basque Country: UPV/EHU, Achucarro, BCBL, BioCrues, BioDonostia, CIC biomaGUNE, Tecnalia and the three main University Hospitals of the three provinces.

For more information www.ehu.eus | euskampus.ehu.eus
T09  ISCHEMIA AND HYPOXIA

T09-01B
Astrocyte diversity in response to stroke
A. Gleichman, R. Kawaguchi, Z. Guo, M. Sofroniew, P. Yu, G. Coppola,
S.T. Carmichael

T09-02B
Impact of an ischemic episode on the physiology of Bergmann glial cells
R. Helleringer, O. Chever, H. Daniel, M. Galante

T09-03B
The immune receptor Mincle in microglia is a key initiator of tissue damage in ischemic stroke
S. Manzanero, T.V. Arumugam, Y.-H. Hsieh, M. Gelderblom, K.P. MacDonald,
G.R. Hill, R.B. Ashman, T. Magnus, C.A. Wells

T09-04B
Brain energy metabolism is impaired by the propagation of focal ischemic damage
Y. Nonose, P. Egon Gewehr, P. de Freitas, G. Müller, R.F. Almeida, D. Gomes de Souza, A. Martimbianco de Assis

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, R. Fern

T09-06B
Differential effects of intranasal epidermal growth factor treatment on the subventricular zone and dentate gyrus after chronic perinatal hypoxia
J. Scafidi, J. Edwards, V. Gallo

T09-07B
Protein profiling in penumbra after local photothrombotic infarction in the rat cerebral cortex
A. Uzdensky, S. Demyanenko

T09-08B
Antihypoxic properties of Glial cell line-derived neurotrophic factor (GDNF) in the acute normobaric hypoxia in vitro
M. Vedunova, T. Mishchenko, E. Mitroshina, T. Shishkina, T. Astrakhanova,
I. Mukhina
**T09-09B**
Chronic stress exacerbates neuronal loss associated with secondary neurodegeneration and suppresses microglial-like cells following focal motor cortex ischemia in the mouse

**T09-10B**
Rapid microglial actions contribute to excitotoxic responses and brain injury after cerebral ischemia
B. Martinecz, G. Szalay, N. Lénárt, E. Csaszar, B. Rózsa, A. Denes

**T10  MYELIN**

**T10-01B**
A key role of the androgen receptor in the sexual dimorphism of myelin
C. Abi Ghanem, C. Degerny, M. Schumacher, A. Ghoumari

**T10-02B**
Axon path and peripheral nerve structure is altered in the trembler-J mouse model of Charcot Marie Tooth disease
L. Alvey, J. Jones, M. Pickering

**T10-03B**
Demonstration of pyruvate carboxylaxion, pentose phosphate pathway, and mitochondrial activity in cultured oligodendrocytes using $^{13}$C-labelled isotopes
A. Amaral, M. Ghezu Hadera, M. Kotter, U. Sonnewald

**T10-04B**
Development of transgenic tools to decipher the role of SOX17 in remyelination
K. Benardais, M. Fauveau, C. Kernion, B. Nait-Oumesmar

**T10-05B**
Modulation of endocannabinoid signalling and therapeutic effects of MAGL and ABHD6 blockade in the cuprizone model of primary demyelination
A. Bernal Chico, A. Manterola, K.-L. Hsu, B. Cravatt, C. Matute, S. Mato
T10-06B
The history of myelin
A. Boullenne

T10-07B
A novel role for Endothelin receptor B signalling in the peripheral nervous system
B. G. Brinkmann, S. Quintes, M. Ebert, N. Keric, A. Matz, H. Ehrenreich, K.-A. Nave, M. W. Sereda

T10-09B
Molecular analysis of the axon initial segment in a cuprizone-induced demyelination model of Multiple Sclerosis
A. Dilsizoglu Senol, M. J. Hossain, V. Guillemot, D. Theodorou, C. Lubetzki, M. Davenne

T10-10B
The oligodendrocyte “processosome”: identification of new regulators of differentiation and myelination
H. S. Domingues, A. Cruz, F. Boucanova, M. M. Azevedo, A. I. Seixas, S. O. Braz, J. Relvas

T10-11B
Lanthionine ketimine ester provides benefit in a mouse model of multiple sclerosis
D. Feinstein, J. Dupree, K. Hensley

T10-12B
Gas6/TAM signalling promotes oligodendrocyte differentiation, maturation, and remyelination after toxic injury in culture
S. Goudarzi, A. Butt, S. Hafizi

T10-13B
The nootropic agent nefiracetam enhances myelin repair
E. A. Keogh, S. D. O’Shea, R. P. Murphy, M. Pickering, K. J. Murphy

T10-14B
CNS-pericytes promote oligodendrocyte fate decision and differentiation contributing to myelin development and repair
In vivo and in vitro evaluation of MAGL and ABHD6 as novel therapeutic targets in multiple sclerosis
A. Manterola, A. Bernal-Chico, M. Canedo, M. Sánchez-Gómez, R. Rodríguez-Puertas, K.-L. Hsu, B. Cravatt, C. Matute, S. Mato

An Egr2 long antisense-RNA regulates peripheral myelination
M. Martínez Moreno, A. Olaru, J. Ness, N. Tapinos

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

Nefiracetam is ineffective in reversing myelin damage in the trembler-J model of Charcot Marie Tooth disease
R. Murphy, L. Alvey, J. Jones, K. Murphy, M. Pickering

Non-coding RNAs in the differentiation of oligodendrocyte precursor cells
S. Samudyata, S. Marques, D. Vanichkina, G. Castelo-Branco

Proper myelin maturation during postnatal development depends on Apolipoprotein D function
N. García-Mateo, C. Lillo, M. A. Gijón, R. Murphy, D. Sanchez, M. Ganfornina

Regulatory role of the thrombin receptor in myelination
H. Yoon, M. Radulovic, K. Drucker, I. Scarisbrick

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, A. Martínez-Gómez, M. Dent

The role of endothelin signalling in myelination
M. Swire, D. Lyons, C. ffrench-Constant
T10-25B
The role of fibroblast growth factor 9 in multiple sclerosis: inhibition of myelination and induction of pro-inflammatory environment

T10-26B
L-PGDS/GPR44: new regulators of Peripheral Nervous System myelination

T10-27B
CNS myelin and axon morphology in demyelination and dysmyelination in mouse models
S. Yoshida, Y. Bando

T11 NEURAL STEM/PROGENITOR CELLS

T11-01B
DNA methylation in ageing adult oligodendrocyte progenitor cells
R. Baror, D. Ma, S. Dietmann, M. Paramor, R. Franklin J M

T11-02B
The impact of TNFα on the developing brain
A. Breton, H. Stolp, L. Ferrara, L. Lundberg, I. Sá-Pereira, B. Finsen, B. Clausen, K. Lambertsen, D. Anthony

T11-03B
Study of the capability of endogenous neural stem cells to protect from glutamatergic excitotoxicity by sensing danger signals
E. Butti, D. De Feo, E. Brambilla, M. Bacigaluppi, I. Zanoni, F. Granucci, G. Martino

T11-04B
Enteric Glia: S100b, GFAP and beyond
T11-05B
Molecular and cellular characterization of the dormant and injury-activated mouse and human spinal cord stem cell niches
J.-P. Hugnot, D. Mamaeva, C. Ripoll, L. Bauchet, F. Perrin, H. Noristani, V. Rigau, B. Rothhut

T11-06B
Mining the sorting machinery of extracellular miRNAs in neural stem/precursor cells
N. Iraci, T. Leonardi, A. Enright, S. Pluchino

T11-07B
Mesenchymal stem cell-secreted factors prevent p57kip2 nuclear translocation in neural stem/progenitor cells: role in oligodendroglial fate decision?

T11-09B
Neural stem cell therapy for spinal cord injury
C. López, A. Torres, J. Hernández, X. Navarro, M. Edel

T11-10B
Neuroinflammation influences the viability, distribution and therapeutic efficacy of transplanted neural stem cells in a mouse model of multiple sclerosis
A. Merlini, D. De Feo, F. Ruffini, A. Finardi, G. Comi, G. Martino

T11-11B
Neurogenesis and lateral ventricular extension in the adult guinea pig brain
F. Nualart, N. Jara, M. Cifuentes, K. Salazar, F. Martinez

T11-12B
Myelinating oligodendrocytes generated by direct cell reprogramming from adult rat adipose tissue

T11-13B
Fate potential and clonal analysis of neural progenitors in distinct germinal niches of the postnatal cerebellum
E. Parmigiani, K. Leto, C. Rolando, A. Buffo, F. Rossi
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, R. Romeo, F. Schlitt, F. Edelhofer, A. Faissner

T11-15B
Characterization of neural stem cell-derived reactive astrocytes in LPAR1-EGFP mice
R. Valcárcel-Martín, S. Martín-Suárez, J. M. Encinas

T11-16B
Efficient derivation of myelinating oligodendrocytes from NKK2.1-GFP human embryonic stem cell reporter line
M. Kim, J. Y. Lee, E. Stanley, A. Elefanty, S. Petratos

T12  NEUROIMMUNOLOGY AND NEUROINFLAMMATION

T12-01B
Role of glial cells in the neuroinflammatory damage induced by ethanol through TLRs/NLRs receptors
S. Alfonso-Loeches, J. Ureña-Peralta, M. Morillo-Bargues, J. Oliver-de la Cruz, U. Gómez-Pinedo, C. Guerri

T12-02B
Neuropeptide Y Y₁ receptor modulates microglia activation in the rat retina
A. Ambrósio, F. Elvas, M. H. Madeira, T. Martins, C. Cavadas, A. R. Santiago

T12-03B
Differential inflammasome expression and activation in glial cells
A. Gustin, M. Kirchmeyer, E. Koncina, P. Felten, P. Heuschling, C. Dostert

T12-04B
IL4 exposure broadly represses TLR-induced cytokine responses in primary microglia
C. van der Putten, E. Zuiderwijk-Sick, J. Veth, S. Burm, E. Pasini, H. Kuipers, M. van Eggermond, L. van Straalen, I. Kondova, P. van der Valk, P. van den Elsen, S. Amor, J. Bajramovic
T12-05B
Phagocytic gliapses precede cellular elimination leading to targeted phagoptosis in the brain
E. Saavedra, P. Casanova, C. Barcia

T12-06B
Antibody and complement-mediated glial response and demyelination
C. Berg, R. Khoroooshi, N. Asgari, C. Lington, P. B. Morgan, T. Owens

T12-07B
Intracerebroventricular insulin presents different neuroinflammatory effects in young and aged hippocampus of Wistar rats
C. Branco Haas, A. Kopczynski de Carvalho, A. Pastoris Müller, L. V. Cruz Portela

T12-08B
Inflammasome-induced IL-1β secretion in microglia is characterized by delayed kinetics and is only partially dependent on inflammatory caspases
S. Burm, E. Zuidervik-Sick, A. ‘t Jong, C. van der Putten, J. Veth, I. Kondova, J. Bajramovic

T12-09B
Astrocytes as a key partner in Methamphetamine-induced Microglia activation
T. Canedo, C. C. Portugal, R. Socodato, J. Relvas, T. Summavielle

T12-10B
Microglial Microvesicles as therapeutic vector for neuroinflammation
G. Casella, F. Colombo, R. Furlan

T12-12B
Influence of the anti-epileptic drug lacosamide (LCM) on glial properties in astrocyte/microglia co-cultures
H. Dambach, Z. Moinfar, F. Corvace, E. Förster, P. M. Faustmann

T12-13B
In mice retina contralateral to experimental glaucoma increased microglial cell number and retraction of microglial processes occurs beyond the GCL
T12-14B
Inflammasome expression in demyelinated CNS lesions
S. Fleville, M. Dittmer, D. Fitzgerald, Y. Dombrowski

T12-15B
Temporal gene expression profile related to microglia reactivity in 3xTgAD mice

T12-16B
Microglial Wnt signaling inhibition promotes microglia activation and oligodendrocyte maturation blockade

T12-17B
Astrocytes overexpressing transforming growth factor beta1 show increase uptake and degradation of beta amyloid
S. Amram, D. Frenkel

T12-18B
A statistical physics-based spatial analysis in APP/PS1 mice reveals that astrocytes do not migrate to amyloid-beta plaques
E. Galea, W. Morrison, E. Hudry, M. Arbel-Ornath, B. J. Bacskai, T. Gómez-Isla, H. E. Stanley, B. T. Hyman

T12-19B
Role of Tumor Necrosis Factor Receptor 2 signaling in microglia and macrophages in experimental autoimmune encephalomyelitis
H. Gao, P. M. Madsen, R. Brambilla

T12-20B
Synaptophysin is a suitable marker to study axonal transport damage during experimentally induced demyelination
V. Gudi, L. Gai, L. Salinas Tejedor, V. Herder, W. Baumgärtner, M. Stangel, T. Skripuletz

T12-21B
CNS endothelial IL-1 signaling drives neuroinflammation
J. Hauptmann, T. Regen, A. Waisman
T12-22B
Intrahippocampal clodronate administration alters the brain inflammatory response to systemic LPS in mice
C. Lacabanne, J. Kim, A. Benmamar–Badel, S. Layé, G. Luhashi

T12-23B
The role of mTOR kinase in glioma-activated rat microglia and in human glioma
E. Laudati, C. Dello Russo, P. Navarra, L. Lisi

T12-24B
Oligodendroglial TNFR2 mediates transmembrane TNF-dependent repair in experimental autoimmune encephalomyelitis by promoting oligodendrocyte differentiation
P. Madsen, D. Motti, D. Szymkowski, K. Lambertsen, J. Bethea, R. Brambilla

T12-25B
Liver X receptor activation in MS lesions
J. Mailleux, T. Vanmierlo, J. Bogie, E. Wouters, P. Stinissen, J. Hendriks, J. van Horssen

T12-26B
Multiple Sclerosis: studying lipocalin 2 as a novel player in the pathophysiology of the disease

T12-27B
The effect of microglia on progenitor cells during tuberal hypothalamic development
C. Marsters, Q. Pittman, D. Kurrasch

T12-28B
A novel imaging approach to monitor multiple sclerosis
M. Domercq, A. Martin, N. Vázquez-Villoldo, D. Padro, V. Gómez-Valllejo, F. Soria, B. Szczupak, S. Plaza, A. Arrienda, T. Reese, J. Llop, C. Matute

T12-29B
Elucidating the roles of FGF signaling in Multiple Sclerosis
T12-30B
Probenecid application prevents clinical symptoms and T cell infiltration in a mouse model of experimental autoimmune encephalomyelitis
N. Hainz, S. Semar, T. Tschernig, C. Meier

T12-31B
Microglia—the radio-resistant immune cell of the brain
F. Menzel, K. Immig, F. Merz, I. Bechmann

T12-32B
Glial changes in psychiatric disorders; towards isolating glia from the post-mortem human brain
M. Mizee, K. Schuurman, J. Hamann, I. Huitinga

T12-33B
Inflammatory response caused by GFAP mutations in Alexander disease
M. Olabaria, M. Putilina, J. E. Goldman

T12-34B
CD163+ Macrophages in human ischemic stroke
J. Pedragosa, X. Urra, F. Miró, E. Gelpí, A. Chamorro, A. M. Planas

T12-35B
Sonic hedgehog and vitamin D modulation of metallo-proteinase expression and in vitro endothelial junction integrity
I. Pla-Navarro, D. Bevan, M. Mogensen, M. Hajhosseini, M. Lee, J. Gavrilovic

T12-36B
The Sodium Vitamin C co-Transporter-2 (SVCT2): a key molecule for microglia physiology

T12-37B
Is microglial C/EBPβ deficiency neuroprotective in EAE? A new mouse model to study its implications in vitro and in vivo
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, M. Bortolanza, R. Cavalcanti-Kiwiwtkoski, F.E. Padovan-Neto, C. da-Silva, M. Mitkovski, E. Del-Bel

T12-39B
The effects of systemic infection on neuroinflammation in Alzheimer’s disease

T12-40B
Microglial activation beyond the ganglion-cell layer in contralateral retina to experimental unilateral ocular hypertension

T12-41B
Astrocyte-targeted IL10 production modifies expression of TREM2 and CD200R in activated microglia after perforant pathway transection
M. Recasens Torné, K. Shrivastava, B. Almolda, I. Campbell, B. González, B. Castellano

T12-42B
Pathologic T cell cytokines have both beneficial and deleterious effects on oligodendrocyte lineage cells
A. Robinson, J. Rodgers, S. Miller

T12-43B
Diazoxide attenuates neuroinflammation and enhances neurogenesis after NMDA-induced excitotoxicity in the rat hippocampus
M. Martinez-Moreno, M. Battle, F. J. Ortega, J. M. Vidal-Taboada, J. Gimeno-Bayon, C. Andrade, N. Mahy, M. J. Rodriguez

T12-44B
Microglial activation is detected in mice retina contralateral to experimental glaucoma but rod-like microglia is restricted to eyes with ocular hypertension
**T12-45B**
Structure-activity of neurostatin and other O-acetylated gangliosides as anti-inflammatory drugs on microglial cells
L. Romero-Ramirez, N. Yanguas-Casás, A. Martínez-Vázquez, M. de la Barreda Manso, M. Gilbert, M. Nieto-Sampedro

**T12-46B**
The role of microglia and inflammation in an animal model of ALS
C. Rossi, A. Bergamaschi, R. Furlan, N. Riva, A. Quattrini, G. Comi, G. Martino, L. Muzio

**T12-47B**
Immune system changes after adult brain injury define scar formation
R. Sanchez Gonzalez, M. Irmler, J. Beckers, M. Götz, J. Ninkovic

**T12-48B**
Multiple sclerosis patient’s lymphocytes crosstalk with microglial cells impacts the remyelination process
C. Sanson, M. El Behi, C. Bachelin, L. Guillot-Noel, N. Sarrazin, B. Stankoff, I. Rebeix, B. Fontaine, V. Zujovic

**T12-49B**
An age-specific intravascular macrophage population is associated with the murine window of susceptibility to CNS inflammation
I. Sá-Pereira, J. Roodselaar, D. C. Anthony, H. B. Stolp

**T12-50B**
Characterization of the Wnt signalling pathway in the hippocampus of mice with experimental autoimmune encephalomyelitis
R. Schneider, B. Koop, F. Schröter, J. Ingwersen, H.-P. Hartung, O. Aktas, T. Prozorovski

**T12-51B**
Non-lytic autoantibody mediated injury induces chemokine expression in myelinating cultures
T. Semenoff, K. Chapple, K. Thuemmler, J. Edgar, C. Linington

**T12-52B**
Doxycycline decreases the inflammatory response of LPS-treated microglial cells
T12-54B
Fibronectin aggregates maintain a mixed activation phenotype of microglia and macrophages that impairs differentiation of oligodendrocytes
E. Sikkema, J. Stoffels, F. Basedow, W. Baron, D. Hoekstra

T12-55B
Prenatal stress causes prolonged microglial activation and enhanced inflammatory processes in the rat brain
J. Slusarczyk, E. Trojan, K. Glombik, J. Mika, A. Basta-Kaim

T12-56B
Can embryonic microglia bridge the gap between maternal immune activation and neuropsychiatric disorders?
S. Smolders, N. Swinnen, S. Smolders, P. Legendre, J.-M. Rigo, B. Brône

T12-57B
Specific downregulation of RhoA triggers microglia pro-inflammatory signature via Rock2/Csk/c-Src signaling pathway

T12-58B
Modulation of neuroinflammation by the microglial inhibitory receptor CD200R1

T12-59B
Anti-inflammatory therapy via CD163-macrophages in the 6-OHDA Parkinson’s disease model
N. Tentillier, M. Olesen, A. Etzerodt, S. Moestrup, M. Romero-Ramos

T12-60B
Anti-VLA-4 treatment reduces microglial activation in a focal EAE-model

T12-61B
CD200-CD200R1 system in multiple sclerosis
T12-62B
Liver X receptor beta deficiency decreases neuroinflammation in an animal model of multiple sclerosis

T12-63B
Induction of microglia M2 polarization in male and female mice and in response to estrogens using icv injection of IL4
E. Vegeto, A. M. Villa, G. Pepe, A. Maggi

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, B. Almolda, I. L. Campbell, B. González, B. Castellano

T12-65B
Multiplexed synchrotron X-Ray fluorescence imaging of brain inflammation using targeted heavy metal nanoparticles
K. Wals, D. C. Anthony, B. G. Davis

T12-66B
Interleukin-33 is synthesized in response to the CNS injury to affect the response of microglia and macrophages
B. Wylot, K. Konarzewska, M. Zawadzka

T12-67B
Characterization of the cytokine secretion profile of highly purified, activated astrocytes
H. Zhang, S. Reiß, M. Jungblut, A. Bosio

T12-68B
The role of CC chemokine ligand 3 (CCL3) in a mouse diabetic neuropathy—in vivo and in vitro studies
M. Zychowska, E. Rojewska, A. Piotrowska, D. Pilat, J. Mika

T12-69B
β-amyloid plaque-associated microglia priming in transgenic mouse models of Alzheimer’s disease
T12-70B
Mechanisms of satellite glia-dependent spinal cord microglia activation in nerve injury-induced neuropathic pain
S. J. Lee, H. Lim, H. Lee

T13 NEUROVASCULAR INTERACTIONS

T13-01B
Rapid tonicity induced re-localisation of endogenous aquaporin 4 in primary rat astrocytes—a therapeutic target for cytotoxic brain oedema?

T13-02B
Antidepressants increase expression of the trophic factor GDF15 in astrocytes and enhance their plasticity at the glia-vasculature interface
V. Malik, J. Klaus, S. Rajarathinam, I. Neumann, R. Rupprecht, B. Di Benedetto

T13-03B
Volume dynamics of astroglial endfeet during cortical spreading depression
D. B. Dukefoss, B. Rosic, V. Jensen, A. Thoren, R. Enger, E. A. Nagelhus

T13-04B
Activity-dependent dendritic release of neuropeptides regulates neurovascular coupling in the hypothalamic supraoptic nucleus.ΔΔ
W. Du, J. Stern, J. Filosa

T13-05B
Aquaporin 4 is involved in brain edema and blood-brain barrier disruption induced by methamphetamine
R. Leitão, C. A. Fontes-Ribeiro, A. P. Silva

T13-06B
Mechanosensitive Piezo2 channels are functionally expressed in retinal astrocytes: implications for blood flow autoregulation
T14  REGENERATION AND REPAIR

T14-01B
PDGFRα-positive progenitor cells form myelinating oligodendrocytes and Schwann cells following contusion spinal cord injury

T14-02B
Human olfactory derived mesenchymal stem cell transplantation as a candidate for CNS repair
S. Lindsay, A. Toft, S. Johnstone, J. Griffin, J. Riddell, S. Barnett

T14-03B
Dual effect of salubrinal after a cortical stab wound injury in mice
M. A. Barreda-Manso, N. Yanguas-Casás, M. Nieto-Sampedro, L. Romero-Ramírez

T14-04B
STAT3 is required for the long-term maintenance of the repair Schwann cell phenotype in injured nerves
C. Benito Sastre, C. M. Davis, R. Mirsky, K. R. Jessen

T14-05B
Control of Oligodendrocyte Precursor Cell function by their microenvironment
E. Borger, T. Carr, A. Williams

T14-06B
Essential role of endogenous fatty acid synthesis in CNS myelin regeneration
P. Dimas, L. Montani, J. A. Pereira, C. F. Semenkovich, U. Suter

T14-07B
A co-culture system to study interactions between sympathetic neurons and glial progenitors
J. Dore, L. Patriarca, J. Volpe, A. McNally, J. Spinney

T14-08B
Schwann cell dynamics and function during peripheral nerve regeneration
M. Ducommun, M. Granato
T14-09B
Human Schwann-like adipose-derived stem cells combined with synthetic biodegradable polymer scaffolds for nerve regeneration
A. Faroni, A. Mobasseri, J. Gough, G. Terenghi, A. Reid

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, K. Bartus, M. Iberl, D. Wilton, E. J. Bradbury, R. Mirsky, K. R. Jessen

T14-11B
Bridging the gap in spinal cord injury using novel super-macroporous polymer scaffolds
S. Hosseinzadeh, D. Wellings, M. Riehle, S. Barnett

T14-12B
The role of GSK3β in regulating astrogliosis
A. Kalam, A. Rivera, A. Didangelos, E. Bradbury, A. Butt

T14-13B
Daam2-PIP5K is a novel regulatory pathway for Wnt signaling and therapeutic target for remyelination in the CNS

T14-15B
Deciphering mechanisms by which olesoxime promotes oligodendrocyte maturation and remyelination

T14-16B
Clonal oligodendrocyte progenitor cell dynamics in spinal cord remyelination
C. McClain, R. Franklin, B. Simons

T14-17B
Microglial changes at the base of a diminished regenerative potential in the aged zebrafish retina
L. Moons, I. Bollaerts, J. Van houcke, A. Beckers, K. Lemmens, I. Van Hove, L. De Groef
T14-18B
Transduction of an immortalized olfactory ensheathing glia line with the green fluorescent protein (GFP) gene: evaluation of its neuroregenerative capacity
N. Plaza, J. Sierra, M. T. Moreno Flores

T14-19B
The role of Hippo/YAP signalling in Schwann cell development and peripheral nerve repair
K. North, T. Mindos, X.-P. Dun, D. Parkinson

T14-20B
Intralesional transplantation of mesenchymal stem cells in the toxic demyelinating cuprizone model

T14-22B
The P2X7 receptor is involved in normal re-myelination following sciatic nerve injury
R. Smith, A. Faroni, S. Martin, P. Procacci, V. Conte, E. Puccianti, L. Castelnovo, A. Reid, V. Magnaghi, A. Verkhatsky

T14-23B
Olfactory ensheathing cells overexpressing prostacyclin synthase improves functional restoration after transplantation to transected rat spinal cord

T14-24B
RNA nanoparticles for targeted delivery of siRNAs against reactive astroglial cells—an in vitro study
J. Verheyen, J. Smith, S. Basilico, P. Guo, S. Pluchino

T14-25B
Astrocytes enhance the dopaminergic differentiation of stem cells and promote brain repair through bFGF
F. Yang, Y. Liu, J. Tu, L. Wang

T14-26B
Increasing AMPA signalling to improve myelin repair
K. Volbracht, M. Kovács, A. Denizot, H. Gautier, R. T. Káradóttir

T14-27B
Transcriptional regulation of AMPA-type glutamate receptors in the oligodendrocyte lineage
G. Begum, U. Ahmed, A. Stevens, D. Fulton
T15 TRANSMITTER RECEPTORS, ION CHANNELS AND GAP JUNCTIONS

T15-01B
Short-term modulation of astrocyte plasma membrane extensions by GPCRs
M. Chisari, A. Scuderi, M. A. Sortino

T15-02B
Unravelling the mechanisms causing astrocytic uncoupling in the epileptic hippocampus
T. Deshpande, P. Bedner, C. Steinhäuser

T15-03B
Inducible astrocyte specific Kir4.1 knockout mice exhibit a blunted ventilatory response to CO2
V. Hawkins, D. Mulkey

T15-04B
Subcellular distribution and trafficking of astrogial receptors monitored with super-resolution microscopy
J. Heller, D. Rusakov

T15-05B
Glutamine synthetase stability is by regulated by G-aminobutyric type B receptors
D. Huyghe, M. Terunuma, M. Pangalos, S. Moss

T15-06B
Functional expression of GABA\(\rho\) in astrocytes from neostriatum
D. Reyes-Haro, E. Mora-Loyola, M. L. Martínez-Mendoza, A. Martínez-Torres

T15-07B
Astrocyte swelling in response to neural activation: role of cotransporters
K. Rothenfusser, D. Boss, P. Jourdain, P. Magistretti, P. Marquet

T15-08B
Astrocytic pH-regulation in cell culture of mice
A. Seidinger, A. Weise

T15-09B
Molecular mechanisms underlying nodal protein assembly prior to myelination in the CNS
N. Sol-Foulon, S. Freeman, A. Desmazières, C. Lubetzki
Mechanosensitive ion channel, Piezo1, is expressed in myelinated regions of the rat brain
M. Velasco, G. Sheridan

The role of L-type calcium channels subtypes Cav1.2 and Cav1.3 in NG2 glia
N. Zhao, F. Kirchhoff, W. Huang, A. Scheller

Anatomical analysis of mutant mice expressing type-I cannabinoid receptors in astrocytes of the hippocampus
A. Gutierrez, N. Puente, G. Marsicano, P. Grandes

Generation of conditional knockout mouse lines for opioid receptors in microglia
H. Maurin, L.-A. Roeckel, D. Reiss, C. Gaveriaux-Ruff

TROPHIC FACTORS

Neuroprotection and reduction of astroglial reaction by human embryonic stem cell engrafting following spinal cord ventral root avulsion
M. Araujo, A. Spejo, R. Ferreira Jr, B. Barraquera, S. Kyrylenko, A. Oliveira

Age related loss of oligodendrocyte metabolic support
T. Philips, E. Hughes, B. Morrison, Y. Lee, R. Sattler, D. Bergles, J. Rothstein

TUMOURS

Diffuse low grade gliomas: characterization and development of in vitro model for designing innovative therapeutic approaches
S. Azar, A. Genentier, F. Lorcy, V. Rigau, H. Duffau, B. Rothhut, J. P. Hugnot
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, M. Hoffmeister, S. Mitrovic, S. Noell

T17-03B
Molecular mechanisms of Notch1-induced pericyte-like transdifferentiation of glioblastoma stem cells

T17-04B
Role of the RNA-binding protein HuR in neurofibromas and malignant peripheral nerve sheath tumour
M. Palomo, M. Iruarrizaga-Lejarreta, M. Varela-Rey, A. Woodhoo

T17-05B
Human monocyte-derived macrophages exposed to glioblastoma cells and tumor-associated microglia/macrophages differ in glutamatergic gene expressions
J. Choi, B. Stradmann-Bellinghausen, N. Savaskan, A. Regnier-Vigouroux

T17-06B
Transport of branched-chain ketoacids is mediated by monocarboxylate transporters in brain tumor cells
L. Silva, H. Becker, N. Kneisel, G. Poschet, I. Helbing, P. Lichter, R. Hell, B. Radlwimmer

T17-07B
Identification of a gene mutated in 7.5% of anaplastic oligodendrogliomas

T17-08B
EGFR expression confers stem cell-like properties to human SVZ progenitors and gliomas
J. Tome Garcia, P. Erfani, P. Canoll, F. Doetsch, N. Tsankova
Neuroscience Research Related Cytokine Products

This informative booklet features a comprehensive collection of cytokine products relevant to your neuroscience research.

To request your copy, please email: info@peprotech.co.uk or tel: 020 7610 3062
Map of Bilbao Public Transportation
Notes
Program at a Glance

**Tuesday, July 14**
- **09:00-10:00** Introductory Course
- **10:15-13:00** Poster Session II
- **14:00-17:15** Plenary Lecture P-01

**Wednesday, July 15**
- **09:00-10:00** Workshops
- **10:15-13:00** Symposiums II S06-10, S07-20, S21-25

**Thursday, July 16**
- **09:00-10:00** Plenary Lecture P-02
- **10:15-13:00** Symposiums I S11-15, Symposiums III S01-05, Symposiums V S26-30
- **13:15-14:45** Poster Session I

**Friday, July 17**
- **09:00-10:00** Plenary Lecture P-04
- **10:15-13:00** Symposiums IV S16-20, Symposiums VI S26-30

**Saturday, July 18**
- **09:00-10:00** Plenary Lecture P-06
- **10:15-13:00** Poster Session II
- **13:15-14:45** Plenary Lecture P-07

**Symposia**
- Symposiums I S01-05
- Symposiums II S06-10
- Symposiums III S11-15
- Symposiums IV S16-20
- Symposiums V S26-30

**Plenary Lectures**
- P-01
- P-02
- P-03
- P-04
- P-05
- P-06
- P-07

**Other Events**
- Opening
- Lunch Break
- Poster Session II
- Informal Get-Together with Drinks
Call for Symposia

XIII European Meeting on Glial Cells in Health and Disease

Edinburgh | July 8–11, 2017

Deadline for symposia proposals:
March 28, 2016

www.gliameeting.eu
Pure microglia in half a day
We make it happen

• Save time with optimized tissue dissociation kits and detailed protocols
• Everything you need to know about microglia isolation
• Gain reproducible results fast

Check out our video using the code or URL

miltenyibiotec.com/microglia