



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

Meeting Program

www.bilbao2015.gliameeting.eu

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Helping all people
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Breathtaking solo performance.

The BD FACSJazz™ system begins a new era in cell sorting with stellar performance, benchtop fit, and an affordable price.

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Meeting Program

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Welcome

A WARM WELCOME TO ALL OF YOU!

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.

A handwritten signature in black ink, appearing to read 'C. Matute', with a horizontal line underneath.

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 Bio-
mèdiques August Pi i Sunyer
(IDIBAPS), Barcelona



Hospital Nacional de Paraplégicos
(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



BRONZE SPONSOR



LOCAL SPONSORS



SPONSORS



Exhibitors

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

Femtonics Ltd. Booth No. 4



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

Jackson ImmunoResearch Europe Ltd. Booth No. 2



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

Leica Microsystems Booth No. 5



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

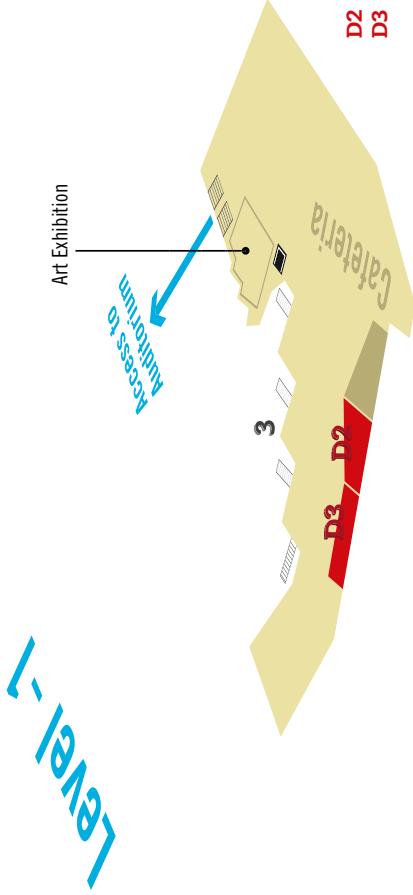
Booth No. 3



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

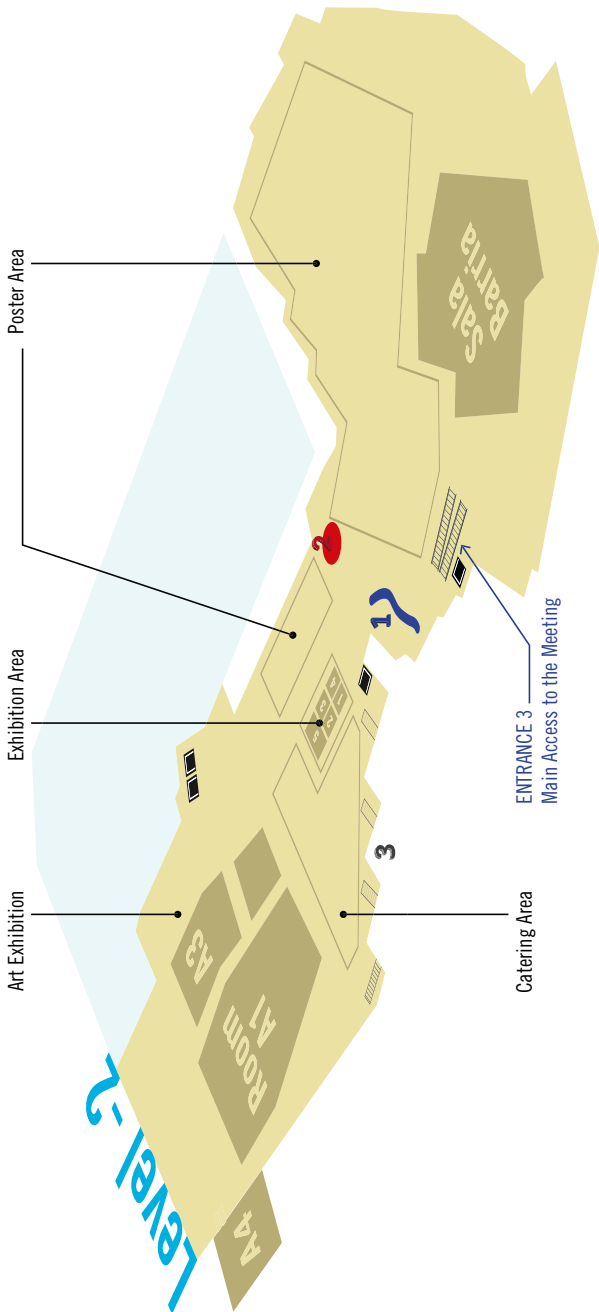
Floor Plan



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

Floor Plan



Surrounding Map

BANKS

- 1 Banco Popular**
Calle Ybarra Rafaela, 27
48014 Bilbao
- 2 Banco Sabadell**
Gran Vía Don Diego López de Haro, 64
48011 Bilbao
- 3 Bnp Paribas**
Gran Vía Don Diego López de Haro, 60
48011 Bilbao
- 4 Targobank**
Calle de Rodríguez Arias, 65
48013 Bilbao
- 5 Deutsche Bank**
Plaza de Emilio Campuzano, 3
48011 Bilbao

SHOPPING

- 6 Shopping Center Zubiarte**
Calle Lehendakari Leizaola, 2
48001 Bilbao
- 7 Supermarket Bm**
Calle Iruña, 9
48014 Bilbao
- 8 Supermarket Carrefour**
Calle María Diaz de Haro, 14
48013 Bilbao
- 9 Supermarket Ercoreca**
Calle de Rodríguez Arias, 61
48013 Bilbao
- 10 Supermarket Carrefour**
Calle Colón de Larreategui, 40
48009 Bilbao

RESTAURANTS

- 11 Foro Pizza**
Botica Vieja, 27
48014 Bilbao
- 12 McDonald's**
Shopping Centre Zubiarte
Calle Lehendakari Leizaola, 2
48001 Bilbao
- 13 Cocktail Bar Jaime**
Gran Vía Diego López de Haro, 86
48009 Bilbao
- 14 Restaurant Le bol blanc**
Gran Vía Don Diego López de Haro, 87
48911 Bilbao
- 15 Restaurant Foster's Hollywood**
Gran Vía de Don Diego López de Haro, 68
48011 Bilbao
- 16 Restaurant Lúpulo**
Calle María Diaz de Haro, 7
48013 Bilbao
- 17 Restaurant La Galea**
Calle de Rodríguez Arias, 71
48013 Bilbao
- 18 Café Estoril**
Plaza Emilio Campuzano, 3
48011 Bilbao
- 19 Restaurant El Huevo Frito**
Calle del Maestro García River, 1
48011 Bilbao
- 20 Pizzeria La Foca Nicanora**
Calle de Iparraguirre, 3
48009 Bilbao

21

Restaurant Yandiola
Plaza Arrikibar, 4
48010 Bilbao

22

Restaurant La Florinda
Plaza Arrikibar, 4
48010 Bilbao



Guggenheim Museum



Metro Stops



Tramway Stops Euskalduna and Arriaga



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)

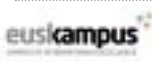
Scientific Program

TUESDAY, JULY 14, 2015

09:00–17:45 **Introductory Course**

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

supported by



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 Ca²⁺ dynamics using an ultrasensitive Ca²⁺ indicator
- 12:20–13:00** **Kenji Tanaka** Tokyo, Japan
KENGE-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

Choose *GLIA* for your research

Edited by **Bruce R. Ransom** and **Helmut Kettenmann**

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.

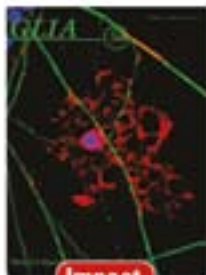
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THURSDAY, JULY 16, 2015

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

Daniela 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

supported by



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 GFR α /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.

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FRIDAY, JULY 17, 2015

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

10:15-12:15 **Symposia IV**

Sala Barria **Symposium S16** supported by
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
Myrf 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-PIP5K 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-1 α -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

- S19-03** Vincent Prévot Lille, France
Tanycytes: the hypothalamic hyperdrive for hormones
- S19-04** Nicholas Dale Coventry, UK
Tanycyte nutrient sensing and communication in the hypothalamus

Auditorium **Symposium S20**
EARLY GLIAL CELL CHANGES IN BRAIN DEGENERATIVE DISEASES
Organizers: Anne-Marie Van Dam Amsterdam, Netherlands
Dan Frenkel Tel Aviv, Israel

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

15:15-17:15 Symposia V

Auditorium

Symposium S21

**THE ASTROCYTE-MICROGLIAL
CELL NEXUS**

Organizers: **Iain Campbell** Sydney, Australia

Bernardo Castellano Barcelona, Spain

supported by



- S21-01** **Marina Lynch** Dublin, Ireland
The functional impact of astrocyte-microglial cell activation on synaptic function and amyloid pathology
- S21-02** **Rommy von Bernhardt Montgomery** Santiago, Chile
Astrocyte-derived TGF β 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

Room A1

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

supported by



Organizers: Christian Giaume Paris, France
 Arantxa Taberero 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 Taberero 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

SATURDAY, 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 PPAR γ modulating drugs in Alzheimer's disease****S26-02****Charbel Massaad** Paris, France**Role of LXR α 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**LXRbeta 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**

- S27-04** **Robert Skoff** Detroit, USA
The function of proteolipid protein in mitochondria: the cell's weapon for murder and self-destruction
-

Auditorium **Symposium S28**
AGING-RELATED CHANGES AND THEIR EFFECTS ON ASTROCYTES IN THE HEALTHY AND DAMAGED CNS
Organizers: Svetlana Sirko Munich, Germany
Elly Hol Utrecht, Netherlands

- S28-01** **José Julio Rodríguez Arellano** Bilbao, Spain
Astroglial complex senescent phenotype and its contribution to neurodegeneration
- S28-02** **Elly Hol** Utrecht, Netherlands
Astrocytes in the aging brain and in Alzheimer's disease
- S28-03** **Svetlana Sirko** Munich, Germany
Age-related alterations of proliferative capacity and the stem cell potential in reactive astrocytes
- S28-04** **James Goldman** New York, USA
Phenotypic plasticity of astrocytes in aging and disease a model of multiple sclerosis
-

Room A4 **Symposium S29**
ENTERIC GLIA: NOVEL ROLES IN ENTERIC NEURAL CIRCUITRY AND GUT PATHOPHYSIOLOGY
Organizers: Keith Sharkey Calgary, Canada
Vassilis Pachnis London, UK

- S29-01** **Keith Sharkey** Calgary, Canada
Emerging roles for enteric glia in the gastrointestinal tract
- S29-02** **Vassilis Pachnis** London, UK
Development and homeostasis of enteric glial cells
- S29-03** **Pieter Vanden Berghe** Leuven, Belgium
Glial functions in enteric neural circuits
- S29-04** **Brian Gulbransen** East Lansing, USA
Interactions between enteric glia and neurons in disease

Room A3**Symposium S30**

**A DISRUPTED GLIOGENIC/NEUROGENIC
EQUILIBRIUM IS ESSENTIAL FOR THE
INJURY RESPONSE OF ADULT NEURAL
STEM CELLS**

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**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.

Network Glia

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

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Poster Sessions

POSTER SESSION I

Wednesday, July 15
Thursday, July 16

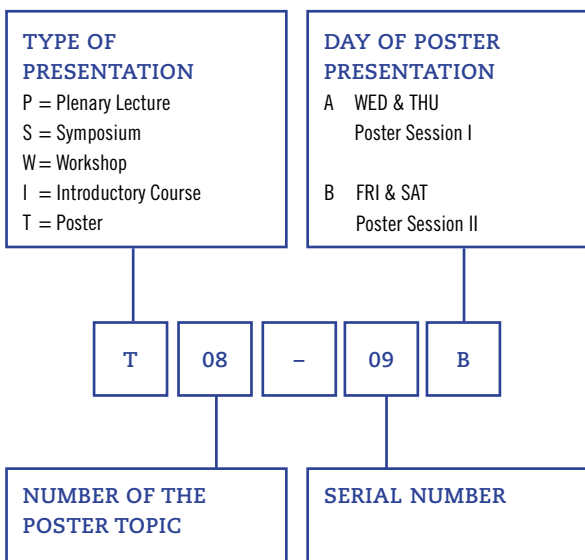
17:15–19:15
13:15–15:15

POSTER SESSION II

Friday, July 17
Saturday, July 18

13:15–15:15
13:00–15:00

Explanation of Abstract Numbers



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 (= poster session I), posters with a poster number ending with a B are displayed on Friday and Saturday (= poster 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** Glial-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***

M. Dittmer, T. O'Hagan, P. Bankhead, R. Medina, Y. Dombrowski, D. Fitzgerald

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. Ghidinelli, 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**

M.-J. Lee, C. J. Chen, W.-C. Chang, H. Cheng

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**

B. Moshrefi-Ravasdjani, P. Dublin, K. W. Kafitz, G. Seifert, C. Steinhäuser, C. R. Rose

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 Siri, M. E. Guitart, J. M. Pasquini

T02-15A**Ependymal cilia polarization and IIG9 expression is a synchronous process**

K. Salazar, V. Baeza, F. Martínez, F. Nualart, M. Cifuentes

T02-16A**Postnatal hyperoxia affects OPC and GCP proliferation**

T. Scheuer, V. Brockmöller, K. Marggraf, C. Bühner, 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 NF κ B signaling and induces a neuro-protective 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**

H. Baek, M.-H. Yi, E. Zhang, S. Kim, N. Shin, J.W. Kang, D.W. Kim

T03-03A**Involvement of transcription factors NF- κ B, 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**

S. Kim, M.-H. Yi, E. Zhang, H. Baek, N. Shin, S.-H. Oh, D.W. Kim

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

M. Stavermann, P. Meuth, M. Doengi, A. Thyssen, J.W. Deitmer, C. Lohr

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

P2X₇ receptor stimulation in the presence or absence of calcium leads to antagonistic signaling pathways activation in neurons

B. Urzelaj, F. Llaverro, A. Artaso, J. Zugaza

T03-13A

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

A. Wyssenbach, F. Llaverro, 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

M.-H. Yi, E. Zhang, N. Shin, H. Baek, S. Kim, D. W. Kim

T03-16A

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

E. Zhang, M.-H. Yi, N. Shin, H. Baek, S. Kim, O.-Y. Kwon, W. Lee, D. W. Kim

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

O. Abiega Etxabe, S. Beccari, I. Diaz-Aparicio, A. L. Brewster, A. E. Anderson, A. Nadjar, Q. Leyrolle, S. Layé, M. Maletic-Savatic, C. Matute, J. M. Encinas, A. Sierra

T05-02A

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

S. Beccari, O. Abiega, I. Diaz-Aparicio, L. Zaldumbide, L. Galbarriatu, A. Marinas, M. Maletic-Savatic, C. Matute, J. M. Encinas, A. Sierra

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. Karageorgos

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. Celorrio, 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

V. G. Volpi, C. Ferri, E. Pettinato, C. Scapin, F. Bianchi, U. DelCarro, M. Molinari, S. Dougan, H. Ploegh, M. L. Feltri, L. Wrabetz, M. D'Antonio

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

B. Eittle, S. Reiprich, M. Wegner, E. Masliah, J. Winkler

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**

A. Kagiava, I. Sargiannidou, S. Bashiardes, J. Richter, N. Schiza, C. Christodoulou, K. Kleopa K.A.

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. Koulakoff

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. Kyyriäinen, 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. Martínez-Gardeazabal, M. Moreno, E. González de San Román, I. Manuel, M. T. Giralt, R. Rodríguez-Puertas

T05-22A**IFN β treatment as a therapy targeting microglia in a murine model of retinal degeneration**

A. Lückhoff, 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

Ū. 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 1 α 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?**

K. Shrivastava, N. Tentillier, G. Halliday, H.J. Møller, M. Romero-Ramos

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

L. Wisse, R. Penning, J. Kenney, M. Bugiani, E. Polder, C. Van Berkel, M. Altelaar, C. Proud, M. Van der Knaap, T. Abbink

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

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

T07-02A

Phosphorylation state of ZFP191 regulates maturation of late-stage oligodendrocytes

B. Elbaz, J. D. Aker, B. Popko

T07-03A**Axonal and presynaptic RNAs are synthesized in the nearby glial cells**

A. Giuditta, C. Cefaliello, M. Crispino

T07-04A**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

T07-05A**Role of glial NF- κ B in a mouse model of Multiple Sclerosis**

P. Frambach, R. Haenold, K.-H. Herrmann, J. Reichenbach, F. Weih, O. W. Witte, A. Kretz

T07-06A**The role of zinc finger transcription factor Zfp276 during glial development**

M. Küspert, M. Wegner

T07-07A**Single-cell transcriptomics of the oligodendrocyte lineage in the mouse brain**

S. Marques, A. Zeisel, S. Samudyata, D. Vanichkina, A. Munoz Manchado, S. Codeluppi, R. Taft, J. Hjerling-Leffler, S. Linnarsson, G. Castelo-Branco

T07-08A**Sox2 beyond its stem cell role—New functions in oligodendroglial differentiation**

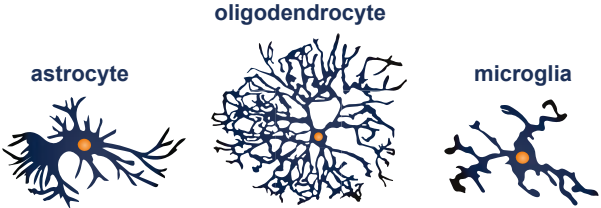
S. Reiprich, S. A. Hoffmann, D. Hos, M. Küspert, R. A. Lang, R. Lovell-Badge, M. Wegner

T07-09A**Microglial transcriptome diversity in the healthy adult brain reveals regional heterogeneity in immunoregulatory and metabolic function and selective sensitivity to ageing**

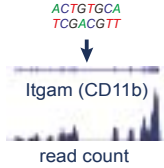
K. Renault, T. Michoel, M. Karavalos, M. Stevens, T. Freeman, K. Summers, B. McColl

T07-10A**Role of Inhibitor of DNA binding 4 (Id4) in adult neurogenesis**

B. Rocamonde Esteve, S. Lepannetier, V. Herranz Pérez, J. García Verdugo, E. Huillard



publicly available glia transcriptome profiles
 microarray RNA-seq



www.goad.education



GOAD
 Glia Open Access Database



umcg

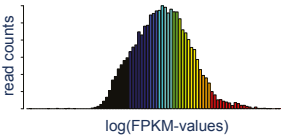
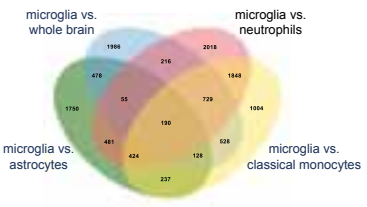


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∨ Differential Gene Expression Analysis

∨ Quantitative Gene Expression Analysis



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

T07-11A**AAV-mediated gene therapy in dystrophin-Dp71 deficient mouse leads to blood-retinal barrier restoration**

O. Vacca, B. El Mathari, H. Charles-Messance, A. Sene, P. Barbe, S. Fouquet, M. Paques, J.-A. Sahel, R. Tadayoni, D. Dalkara, A. Rendon

T07-12A**Increased Sox10 levels directly convert satellite Glia into oligodendrocyte-like cells in vivo**

A. Wegener, M. Weider, C. Schmitt, M. Küspert, S. Hillgärtner, M. R. Bösl, I. Hermans-Borgmeyer, B. Nait-Oumesmar, M. Wegner

T07-13A**The role of FoxO3a in oligodendrocyte precursor cell differentiation**

S. Ali Abdulla, Y. Syed, A. Amaral, M. Kotter

T08 GLIAL-NEURONAL INTERACTIONS

T08-01A**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

T08-02A**Neuron and glia interaction regulates GABA_A receptor expression in the oligodendrocyte membrane**

R. Arellano, M. V. Sanchez-Gomez, E. Alberdi, M. Canedo, A. Palomino, A. Perez-Samartin, C. Matute

T08-03A**Astrocytic activity controls neuronal excitability upon brain ischemia**

K. Beppu, K. Matsui

T08-04A**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 Ca^{2+} 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

T08-14A**Astrocytes limit epileptiform discharge duration and restrict neuronal sodium loads**

C. Karus, M. A. Mondragao, D. Ziemens, C. R. Rose

T08-15A**Lipopolysaccharide stimulated microglia up-regulate Na^+ current density in cultured hippocampal neurons**

L. Klupal, B. A. Igelhorst, I. D. Dietzel

T08-16A**Glial phagocytosis of apoptotic neurons in developing and mature CNS**

E. Kurant, B. Shklyar, J. Shklover, K. Mishnaevski, F. Levy-Adam

T08-17A**Glutamate-induced astrocytic $[\text{Na}^+]_i$ elevation — a mechanism to increase K^+ clearance via the Na^+/K^+ -ATPase?**

B. R. Larsen, A. Stoica, R. Holm, B. Vilsen, N. MacAulay

T08-18A**Axo-glia interaction preceding CNS myelination is regulated by bidirectional Eph-ephrin signaling**

C. Linneberg, M. Harboe, L. Laursen

T08-19A**Extracellular Vesicles (EVs) from leech microglia: a tool for understanding the dialog with damaged neurons**

F. Le Marrec-Crog, C. Van Camp, F. Drago, C. Slomianny, P.-E. Sautiere, I. Prada, C. Verderio, J. Vizioli, C. Lefebvre

T08-20A**Astrocytic lactate release mediated by NH_4^+ -dependent mitochondrial pyruvate shunting**

R. Lerchundi, I. Fernández-Moncada, Y. Contreras-Baeza, T. Sotelo-Hitchfeld, P. Mächler, B. Weber, L. F. Barros

T08-21A**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

T08-22A**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 amblyopic 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. Tretter

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_A 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. Hyttinen

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**

I. Ruminot, J. Schmälzle, H. Heidtmann, L. F. Barros, J. W. Deitmer

T08-36A**Analysis of astrocyte-specific and inducible GABA_B 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. Segklia, M.-E. Terzenidou, F. Papastefanaki, E. Douni, R. Matsas

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

A.-L. van Deijk, N. Camargo, T. Heistek, J. Timmerman, H. Mansvelde, J. Brouwers, D. Gutmann, L. Broersen, A. Smit, M. Verheijen

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. Karagozeos

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*

M. Wyss, P. Mächler, R. Gutierrez, M. Zünd, S. Lengacher, B. Schneider, P. Magistretti, F. Barros, B. Weber

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

L. Mazuel, N. Alberti, G. Raffard, S. Sanchez, J.-M. Franconi, J.-F. Chateil, A.-K. Bouzier-Sore

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

N. Elazar, A. Lossos, I. Lerer, N. Schaeren-Wiemers, M. Harel, T. Geiger, Y. Eshed-Eisenbach, V. Meiner, E. Peles

T10-04A

mTORC1 regulation of Schwann cell myelination

G. Figlia, C. Norrmén, D. Gerber, U. Suter

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

F. Fröb, M. Küspert, E. Sock, E. Tamm, R. Fukunaga, M. Wegner

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. Abbracchio, C. Verderio

T10-08A

Dysfunctional NF- κ B and brain myelin formation

R. Haenold, C. Engelmann, K.-H. Herrmann, J. Reichenbach, O.W. Witte, F. Weih, A. Kretz

T10-09A

Differential modulation of the juxtaparanodal complex in Multiple Sclerosis

M.-E. Kastriti, K.A. Kleopa, I. Sargiannidou, D. Karageorgos

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 target 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**

C. Rivellini, E. Porrello, G. Dina, K.-A. Nave, C. Lappe-Siefke, U. Suter, R. Pardi, A. Quattrini, S.C. Previtali

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**

E. Romanelli, S. Potz, D. Merkler, M. Weber, D. Bishop, T. Misgeld, M. Kerschensteiner

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. Verdiyán, 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

M.-T. Weil, W. Möbius, T. Ruhwedel, S. Frey, P. Kursula, A. Winkler, C. Stadelmann-Nessler, E. Romanelli, M. Kerschensteiner, M. Simons

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**

T. Annese, P. Corsi, S. Ruggieri, R. Tamma, S. Picocci, C. Marinaccio, A. De Luca, D. Ribatti, B. Nico

T11-02A**Mitochondrial dysfunction mimics the impact of ageing on hippocampal neurogenesis**

R. Beckervordersandforth, B. Ebert, K. Steib, I. Schäffner, S. Keiner, C. Redecker, S. Schuster, V. Eulenburg, N. Toni, J. Moss, J. von Wittgenstein, N.-G. Larsson, M. Götz, J. Schlachetzki, R. Jagasia, C. D. Lie

T11-03A**Activation of Adenosine A1 Receptor shifts neural stem cells fate from neurogenesis to astroglialogenesis**

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

D. Garcia-Ovejero, A. Arevalo-Martin, B. Paniagua-Torija, J. Florensa-Vila, I. Ferrer, L. Grassner, E. Molina-Holgado

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. Jörgen-Messerli, U. Reinhart, D. V. Surbek, A. Schoeberlein

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

T12 NEUROIMMUNOLOGY AND NEUROINFLAMMATION

T12-01A

Intravenous immunoglobulin protects oligodendrocytes in an organotypic slice culture model for demyelination

C. Baksmeier, M. Winter, J. Steckel, M. Harrer-Kuster, N. Goebels, H.-P. Hartung

T12-02A

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

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

T12-03A

Translational investigation of microglia and antipsychotic medication

P. Bloomfield, S. Selvaraj, I. Bonoldi, M. Veronese, D. Owen, N. Kalk, M. Bloomfield, F. Turkheimer, P. McGuire, V. de Paola, O. Howes

T12-04A

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

T12-05A

IL-4 induces an acute pro-inflammatory burst and activates an alternative gene program mediated by the JAK1/JAK3/STAT6 pathway in microglia

E. Bonfill, M. Dabrowski, B. Kaminska, A. M. Planas

T12-06A

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

N. Borjini, M. Fernandez, L. Giardino, L. Calzà

T12-07A

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. Rodríguez-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

F. Drago, T. Arab, C. Van Camp, F. Le Marrec-Croq, J. Franck, J.-P. Gimeno, M. Salzet, P.-E. Sautiere, C. Lefebvre, J. Vizioli

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- κ B pathway in microglia is required for brain inflammation in experimental autoimmune encephalomyelitis

C. Engelmann, R. Wilke, R. Grimlowski, M. Riemann, F. Weih, 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. Sperlág, Á. Kittel, Z. Boldogkői, Z. Környei, Á. 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**

A. Fernández Gil, E. Quintana, P. Velasco, B. de Andres, I. Liste, D. Sancho, M. Gaspar, E. M. Cano López

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. Sauvart, 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 IFN β -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 astrocytopathy: creation of an *in vivo* model to decipher the pathophysiological mechanisms of Neuromyelitis optica**

P. Giraudon, A. Ruiz, S. Cavagna, C. Watrin, S. Parrot, G. Malleret, C. Benetollo, N. Auvergnon, S. Vukusic, R. Marignier

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**

K. Immig, M. Gericke, F. Menzel, F. Merz, M. Krueger, F. Schiefenhövel,
U. K. Hanisch, K. Biber, I. Bechmann

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**

R. M. H. Khorrooshi, M. Thorsen Mørch, T. Hellesøe Holm, C. Tue Berg, R. Truong Dieu, D. Dræby, S. Weiss, S. Lienenklaus, T. Owens

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, İ 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

G. Locatelli, M. Krueger, B. Ingold-Heppner, O. Prazeres da Costa, L. Koch, A. Dolga, M. Huber, M. Gold, J. Brüning, C. Culmsee, A. Waisman, I. Bechmann, B. Becher, T. Buch

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. Suardíaz, C. Marín-Bañasco, î 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. Schettters, 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 lipoxin 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-glia 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

I. Vainchtein, J. Vinet, S. Al-Izki, G. Pryce, C. Grit, N. Brouwer, S. Amor, D. Baker, B. Eggen, E. Boddeke

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, I. 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**

S. Neves, S. Mesquita, C. Ferreira, J. Sousa, J. Cerqueira, N. Sousa, M. Correia-Neves, J. Palha, F. Marques

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

F. Rivera, I. Kazanis, M. Feichtner, S. Lange, P. Rotheneichner, S. Hainzl, M. Öller, K. Schallmoser, E. Rohde, H. A. Reitsamer, S. Couillard-Despres, H.-C. Bauer, R. J. M. Franklin, L. Aigner

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 break down 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. Mürnger, 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**

S. Albrecht, A. Preisner, Q.-L. Cui, S. Hucke, C. Hartmann, M. M. Taketo, J. Antel, L. Klotz, T. Kuhlmann

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**

C. Leonetti, J. Bronsard, D. Vivien, D. Clemente, F. de Castro, E. Maubert, F. Docagne, R. Macrez

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

S. Devaux, D. Cizkova, L. Slovinska, J. Blasko, M. Nagyova, C. Lefebvre, I. Fournier, M. Salzet

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

Z. Hoyk, B. Barabási, A. Csondor, T. Martín-Pozas, A. M. Pulupa Sánchez, L. Siklós, U. Gómez-Pinedo, A. Párducz

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**

T. Mindos, S. Roberts, X.-P. Dun, P. Edwards, R. Doddrell, A. Shivane, D. Parkinson

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

F. Papastefanaki, I. Jakovcevski, N. Poulia, N. Djogo, F. Schulz, T. Martinovic, D. Ciric, G. Loers, T. Vossmeier, H. Weller, M. Schachner, R. Matsas

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**

A. Vaquié, S. Ruff, E. Münger, C. Pattaroni, N.L. Jeon, C. Lamy, C. Jacob

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

T. Jeanson, A. C. Figueiredo, D. Richard, A. Duchène, S. Bourgoïn, C. Picoli, F. Mouthon, C. Giaume, M. Hamon, M. Charvériat

T15-05A

Gating of aquaporin 4—phosphorylation versus protonation

M. Assentoft, 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

R. Talaverón, P. Fernández, R. Escamilla, î M. Pastor, J. C. Sáez, E. R. Matarredona

T15-09A**The HYS-32-enhanced Cx43 stability at plasma membrane is caveolae-dependent**

J.-C. Wu, C.-H. Chang, C.-K. Liao, C.-C. Shen, C.-C. Wang, H.-S. Wang

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**

O. a Dzaye, F. Hu, K. Derkow, P. Euskirchen, C. Harms, S. Lehnardt, M. Synowitz, S. Wolf, H. Kettenmann

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

T17-03A**Adoptive M1/M2 modulation of microglia as an immunotherapeutic strategy against glioma**

L. D. R. Cisneros Castillo

T17-04A**A cell division cycle 7-related protein kinase inhibitor suppresses glioblastoma cell growth *in vitro***

E. P. Erkan, M. Dinc, E. Eren, J. Allmer, T. Yalcin, S. Genc

T17-06A**A promising therapy against human glioblastoma stem cells: cell-penetrating peptides based on the interaction between connexin43 and c-Src**

M. Jaraíz Rodríguez, M. Domínguez Prieto, J. Medina, A. Taberner

T17-07A**Light-controlled inhibition of malignant glioma by opsin gene transfer**

Y. Liu, F. Yang, J. Tu, L. Wang

T17-08A**The role of Cytoplasmic Polyadenylation Element Binding proteins in the pathogenesis of gliomas**

M. Skubal, M. Theis, C. Steinhäuser, A. Waha

T17-09A**GFAP in astrocytic tumors**

E. van Bodegraven, O. Stassen, M. Moeton, M. van Strien, P. Robe, E. Hol

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.

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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. Sternecker, 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. French-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

S. Keiner, F. Niv, T. Steinbach, O. W. Witte, C. Redecker

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. Ulańska-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**

L. Pinto, A. Mateus-Pinheiro, A. R. Machado-Santos, P. Patricio, N. D. Alves, J. Oliveira, N. Sousa

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

A. Pistone, T. Posati, P. Nicchia, A. Sparaneo, M. Caprini, F. Formaggio, E. Saracino, M. Nocchetti, A. Sagnella, S. Bonetti, G. P. Ruani, M. Muccini, B. Valentina

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**

L. O. Felgueiras, C. Oliveira da Silva, V. Younes-Rapozo, E. Giestal de Araújo, A. Pereira da Costa, J. Vailant, F. Tenório, P.C. Barradas

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. Bartlewski, 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 Ca²⁺ response to osmotic stress**

M. Eilert-Olsen, W. Tang, R. Enger, V. Jensen, A. E. Thoren, E. A. Nagelhus

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-Carbajal, 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**

S. Karges, S. Bonetti, A. I. Borrachero Conejo, A. Pistone, S. D. Quiroga, M. Natali, I. Grishin, S. Pecqueur, F. Mercuri, M. Caprini, G. Generali, M. Muccini, S. Toffanin, V. Benfenati

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 Crocodylia 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_{2A} 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**

P. Arend Guazzelli, G. dos Santos, L. Paniz, M. E. Calcagnotto, J. Souza, G. Hansel, C. Zenki, E. Kalinine, D. Souza, A. de Assis

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. Llaveró, 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⁺/Ca²⁺ 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**

A. de Assis, Y. Nonose, J. Souza, P. Egon Gewehr, P. de Freitas, L. Pellerin, D. O. Souza

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**

A. Gaudio, J. Perucho, E. Edo, M. P. Muñoz, A. Gomez, Z. Hozova, P. G-Rozas, M. A. Mena, M. A. Fernandez Estevez, J. A. Rodriguez Navarro, M. J. Casarejos

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. Iram, 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**

A. Longoni, J. Kolling, C. Siebert, J. dos Santos, J. Souza, L. Pettenuzzo, C. A. Gonçalves, A. M. de Assis, A. T. Wyse

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**

M. Marcoli, C. Cervetto, L. Vergani, M. Passalacqua, N. Berretta, M. D'Amelio, G. Maura, P. Mariottini, A. Voci, M. Cervelli

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 astroliogenesis 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**

R. Röbling, K. Derkow, C. Schipke, J. Bauer, C. Krüger, O. Peters, S. Lehnardt

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

A. R. Santiago, R. Boia, P. Tralhão, M. H. Madeira, F. Elvas, E. C. Szabó, î Tomé, A. Ambrósio

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**

N. Sarrazin, S. Gilardeau, P. Moissonnier, S. Rosolen, C. Lamirel, S. Picaud, J. Lorenceau, P. Pouget, A. Baron-Van Evercooren

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 APP_{swe}PS1_{ΔE9} 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 Zárata, 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

Bra1 is expressed in human microglia and is deregulated in human and animal model of ALS

H. Noristani, J. C. Sabourin, Y. Gerber, M. Teigell, A. Sommacal, M. dM Vivanco, M. Webber, F. Perrin

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- β SIGNALING in Schwann cells

J. Rodríguez-Molina, C. Zhang, J. Svaren

T07-07B**Impact of transcription factor Sox13 on oligodendrocyte development in the embryonic mouse spinal cord**

T. Baroti, E. Sock, M. Wegner, C. Stolt

T07-08B**Astrocyte-specific transcriptional response to glucocorticoid receptor stimulation—metabolic implications**

M. Tertilt, 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**

J. Bruttger, K. Karram, S. Woertge, T. Regen, F. Marini, N. Hoppmann, M. Klein, T. Blank, S. Yona, Y. Wolf, E. Pinteaux, M. Mack, W. Müller, F. Zipp, H. Binder, T. Bopp, M. Prinz, S. Jung, A. Waisman

T07-10B**Astrocytic CREB is a therapeutic target in acute brain injury**

L. Pardo Fernández, A. Schlüter, L. M. Valor, A. Barco, M. Giralt, J. Hidalgo, Z. Zhao, P. Jia, M. Jové, M. Portero-Otin, M. Ruiz, L. Giménez-Llort, R. Masgrau, A. Pujol, E. Galea

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**

H. Hirbec, C. Roubert, I. Richard, C. Marmai, A. Esclangon, M. Didier, N. Civic, R. Peyroutou, M. Boulpicante, C. Rey, M. Docquier, F. Rassendren

T07-13B**Targeting microglia using the specific transcription factor Sall1**

A. Buttgerit, I. Lelios, R. Nishinakamura, B. Becher, M. Greter

T08 GLIAL-NEURONAL INTERACTIONS

T08-01B

GLAST-CreERT2/KOeif2b 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. Acioglu, 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

B. Andrade-da-Costa, D. Santana, H. Cardoso, C. Pimentel, E. Santos-Junior, P. Passos, M. Rodrigues

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

L. F. Castelino, S. Melfi, V. Bonalume, A. Faroni, A. Reid, P. Procacci, L. Wrabetz, A. Verkhratsky, V. Magnaghi

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-1 α 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**

R. Enger, W. Tang, G. F. Vindedal, V. Jensen, P. J. Helm, R. Sprengel, L. L. Looger, E. A. Nagelhus

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 TNF α levels to a persistent change of function in cognitive circuits: relevance to multiple sclerosis

S. Habbas, M. Santello, H. Stubbe, G. Zappia, N. Liaudet, F. Klaus, G. Kollias, A. Fontana, C. Pryce, T. Suter, A. Volterra

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

K. Janssen, R. De Filippis, S. Hoerner, D. Gomm, C. Kiefer, B. Liebel, V. Lacic, G. C. Terstappen, M. H. M. Bakker

T08-22B

Astrocytes gate synaptic transmission from unmyelinated sensory afferents

J.-F. Perrier, R. Christensen, R. Delgado-Lezama, R. Russo, B. Lykke Lind, E. Loeza Alcocer, G. Fabbiani, N. Schmitt, M. Lauritzen, A. V. Petersen, E. Meier Carlsen

T08-23B

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

N. Lago, V. Lagos-Rodríguez, L. Martínez-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**

I. Matias, L. Diniz, A. Buosi, A. P. Araújo, J. Stipursky, F. Carvalho Alcantara Gomes

T08-28B**Neuronal activity dependent regulation of CNS-precursor cells in health and disease**

M. Matthey, J. Stockley, C. Watts, R. T. Káradóttir

T08-29B**Purines released from astrocytes inhibit excitatory synaptic transmission in the ventral horn of the spinal cord**

E. M. Meier Carlsen, J.-F. Perrier

T08-30B**Membrane mobility of the astroglial glutamate transporter GLT-1**

P. Michaluk, D. Rusakov

T08-31B**EphB3 regulates gliotransmission following traumatic brain injury**

E. Perez, D. Liebl

T08-32B**Microglia changes in rat dorsal cochlear nucleus correlate to behavioural tinnitus evidence**

P. Perin, A. Venturino, A. Oda, A. Capetta, G. Colombo, G. Sanchini, V. Vitale, V. Bertone, R. Pizzala

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

I. Prada, E. Turola, L. Amin, M. Gabrielli, F. Drago, J. Franck, G. Legname, R. Furlan, J. Vizioli, D. Cojoc, F. Peruzzi, C. Verderio

T08-34B**Development of co-culture platform for neuron-oligodendrocyte research**

M. Ristola, M. Mäkinen, A. Hyysalo, L. Sukki, T. Ryyänen, J. Kreutzer, L. Ylä-Outinen, J. Lekkala, P. Kallio, S. Narkilahti

T08-35B**Müller cells heterogeneity in vitro**

N. Ruzafa, X. Pereiro, Y. Filali-Mounecef, 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**

G. Tavares, V. Morais Sardinha, S. Guerra Gomes, J. Correia, M. Martins, A. R. Machado Santos, N. Sousa, L. Pinto, J. Oliveira

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, $\hat{\text{I}}$ Polyák, D. Kuti, S. Ferenczi, D. Kővári, K. J. Kovács

T08-43B**CD11c⁺ microglia are potent producers of IGF-1 during postnatal neurodevelopment**

A. Włodarczyk, 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 multidisciplinary 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, BioCruces, BioDonostia, CIC biomaGUNE, Tecnalia and the three main University Hospitals of the three provinces.

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

F.R. Walker, I. Zouikr, M. Patience, A. Clarkson, J. Isgaard, S. Johnson, N. Spratt, M. Nilsson

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 carboxylase, pentose phosphate pathway, and mitochondrial activity in cultured oligodendrocytes using ¹³C-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. Boullerne

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**

S. Lange, A. Guzman De La Fuente, P. Rotheneichner, P. van Wijngaarden, G. A. Gonzalez, H. Tempfer, A. Trost, C. Zhao, S. Couillard-Despres, J. Andrae, C. Betsholtz, R. J. M. Franklin, L. Aigner, F. J. Rivera

T10-15B**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

T10-16B**An Egr2 long antisense-RNA regulates peripheral myelination**

M. Martínez Moreno, A. Olaru, J. Ness, N. Tapinos

T10-17B**De novo synthesis of fatty acids in oligodendrocytes is critical for CNS myelination**

L. Montani, P. Dimas, A. L. Dätwiler, D. Moreno, M. Trötz Müller, H. C. Köfeler, C. F. Semenkovich, U. Suter

T10-18B**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

T10-19B**Non-coding RNAs in the differentiation of oligodendrocyte precursor cells**

S. Samudiyata, S. Marques, D. Vanichkina, G. Castelo-Branco

T10-20B**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

T10-21B**Regulatory role of the thrombin receptor in myelination**

H. Yoon, M. Radulovic, K. Drucker, I. Scarisbrick

T10-22B**Aquaporin 1 is localized in the Schmidt-Lanterman incisures and at the paranodes of the nodes of Ranvier in the rat sciatic nerve**

E. Segura-Anaya, A. Martínez-Gómez, M. Dent

T10-24B**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**

K. Thuemmler, M. Lindner, C. Stadelmann, H. Lassmann, N. Schaeren-Wiemers, E. Meinl, C. Lington

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

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

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 TNF α 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**

D. Grundmann, D. Simon, F. Markwart, A. Scheller, F. Kirchhoff, K.-H. Schäfer

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 p57^{kip2} nuclear translocation in neural stem/progenitor cells: role in oligodendroglial fate decision?

J. Jadasz, J. Domke, L.-S. Spitzhorn, R. Oreffo, H.-P. Hartung, J. Adjaye, P. Küry

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

C. L. Paíno, M. P. Muñoz, L. C. Barrio, D. González-Nieto, L. Vellosillo

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. Edenhofer, 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 NKX2.1-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. Khorrooshi, N. Asgari, C. Linington, P.B. Morgan, T. Owens

T12-07B**Intracerebroventricular insulin presents different neuro-inflammatory effects in young and aged hippocampus of Wistar rats**

C. Branco Haas, A. Kocpczynski de Carvalho, A. Pastoris Müller, L. V. Cruz Portela

T12-08B**Inflammasome-induced IL-1 β secretion in microglia is characterized by delayed kinetics and is only partially dependent on inflammatory caspases**

S. Burm, E. Zuiderwijk-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

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R. de Hoz, A.I. Ramirez, B. I. Gallego, B. Rojas, J. J. Salazar, F.J. Valiente-Soriano, M. Aviles-Trigueros, M. P. Villegas-Perez, M. Vidal-Sanz, A. Triviño, J.M. Ramirez

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**

A. Fernandes, C. Caldeira, A. S. Falcão, C. Cunha, A. R. Vaz, D. Brites

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

B. Fleiss, J. Van Steenwinckel, A. L. Schang, S. Sigaut, M. Krishnan, A. Montamé, V. Degos, O. Hennebert, S. Lebon, L. Schwendimann, T. Le Charpentier, A. D. Edwards, H. Hagberg, N. Soussi-Yanicostas, P. Gressens

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. Luheshi

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

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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**

S. Neves, S. Mesquita, C. Ferreira, J. Sousa, J. Cerqueira, N. Sousa, M. Correia-Neves, J. Palha, F. Marques

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-Vallejo, F. Soria, B. Szczupak, S. Plaza, A. Arrieta, T. Reese, J. Llop, C. Matute

T12-29B**Elucidating the roles of FGF signaling in Multiple Sclerosis**

D. McElroy, K. Thuemmler, M. Lindner, C. Schuh, H. Lassman, C. Linington

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. Olabarria, M. Putilina, J. E. Goldman

T12-34B**CD163+ Macrophages in human ischemic stroke**

J. Pedragosa, X. Urrea, F. Miró, E. Gelpi, A. Chamorro, A. M. Planas

T12-35B**Sonic hedgehog and vitamin D modulation of metalloproteinase expression and *in vitro* endothelial junction integrity**

I. Pla-Navarro, D. Bevan, M. Mogensen, M. Hajihosseini, M. Lee, J. Gavrilovic

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

C. C. Portugal, R. Socodato, T. Canedo, C. Silva, T. Martins, V. Coreixas, E. C. Loiola, B. Gess, D. Röhr, A. R. Santiago, P. Young, R. Paes-de-Carvalho, A. Ambrósio, J. Relvas

T12-37B**Is microglial C/EBP β deficiency neuroprotective in EAE? A new mouse model to study its implications *in vitro* and *in vivo***

M. Pulido-Salgado, J. Vidal-Taboada, A. G. García-Díaz Barriga, J. Serratosa, T. Valente, P. Castillo, J. Matalonga, M. Straccia, J. M. Canals, C. Solà, J. Saura

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-Kiwiatkoski, 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

S. Rakic, Y.M.A. Hung, J. Wild, J. Nicoll, S. Love, C. Holmes, V.H. Perry, W. Stewart, D. Boche

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

A.I. Ramirez, B.I. Gallego, J.J. Salazar, B. Rojas, R. de Hoz, F.J. Valiente-Soriano, M. Aviles-Trigueros, M.P. Villegas-Perez, M. Vidal-Sanz, A. Triviño, J.M. Ramirez

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. Batlle, 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

B. Rojas, B.I. Gallego, R. de Hoz, A.I. Ramirez, J.J. Salazar, F.J. Valiente-Soriano, M. Aviles-Trigueros, M. Vidal-Sanz, M.P. Villegas-Perez, A. Triviño, J.M. Ramirez

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. Irmeler, 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. Semenov, K. Chapple, K. Thuemmler, J. Edgar, C. Linington

T12-52B**Doxycycline decreases the inflammatory response of LPS-treated microglial cells**

J.E. Sepulveda Diaz, F.V. Santa Cecilia, S.B. Socias, M.O. Ouidja, E. Del-Bel, P.P. Michel, T.M. Cunha, R. Raisman-Vozari

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

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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

R. Socodato, C. C. Portugal, T. Martins, T. Canedo, C. Silva, I. Domith, N. Oliveira, A. R. Santiago, R. Paes-de-Carvalho, A. Ambrósio, J. Relvas

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Modulation of neuroinflammation by the microglial inhibitory receptor CD200R1

T. Valente, G. Dentesano, J. Serratosa, M. Pulido-Salgado, N. Rabaneda, J. Saura, C. Solà

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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

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

S. Vainio, A. M. Dickens, J. Tuisku, O. Eskola, O. Solin, D. Anthony, M. Haaparanta-Solin, J. Rinne, L. Airas

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CD200-CD200R1 system in multiple sclerosis

T. Valente, J. Serratosa, U. Perpiñá, J. Saura, C. Solà

T12-62B**Liver X receptor beta deficiency decreases neuroinflammation in an animal model of multiple sclerosis**

J. Vanmol, T. Vanmierlo, J. Bogie, S. Timmermans, K. Nelissen, K. Wouters, H. de Vries, J.-A. Gustafsson, K. Steffensen, P. Stinissen, N. Hellings, J. Hendriks

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**

Z. Yin, D. Raj, N. Saiepour, D. Van Dam, N. Brouwer, B. Eggen, U.-K. Hanisch, E. Hol, W. Kamphuis, T. Bayer, P. De Deyn, E. Boddeke

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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

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

R. Day, P. Kitchen, M. Salman, R. Bill, A. Conner, M. Conner

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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

M. McGahon, A. O'Neill, G. McGeown, T. Curtis

T14 REGENERATION AND REPAIR

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PDGFR α -positive progenitor cells form myelinating oligodendrocytes and Schwann cells following contusion spinal cord injury

P. Assinck, G. J. Duncan, J. R. Plemel, M. J. Lee, J. Liu, D. E. Bergles, W. Tetzlaff

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

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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

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

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Bridging the gap in spinal cord injury using novel super-macroporous polymer scaffolds

S. Hosseinzadeh, D. Wellings, M. Riehle, S. Barnett

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The role of GSK3 β in regulating astrogliosis

A. Kalam, A. Rivera, A. Didangelos, E. Bradbury, A. Butt

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

H. K. Lee, L. S. Chaboub, W. Zhu, D. Zollinger, M. N. Rasband, S. P. Fancy, B. Deneen

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Deciphering mechanisms by which olesoxime promotes oligodendrocyte maturation and remyelination

K. Magalon, J. Tracz, M. Le Grand, M. Moulis, P. Belenguer, M. Carre, P. Durbec

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Clonal oligodendrocyte progenitor cell dynamics in spinal cord remyelination

C. McClain, R. Franklin, B. Simons

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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

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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

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The role of Hippo/YAP signalling in Schwann cell development and peripheral nerve repair

K. North, T. Mindos, X.-P. Dun, D. Parkinson

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Intralesional transplantation of mesenchymal stem cells in the toxic demyelinating cuprizone model

L. Salinas Tejedor, K. Jacobsen, G. Berner, V. Gudi, N. Jungwirth, F. Hansmann, W. Baumgärtner, T. Skripuletz, M. Stangel

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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. Verkhratsky

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

M.-J. Tsai, C.-T. Huang, C.-F. Weng, D.-Y. Liou, S.-K. Shyue, Y.-S. Huang, H. Cheng

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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

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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

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Short-term modulation of astrocyte plasma membrane extensions by GPCRs

M. Chisari, A. Scuderi, M. A. Sortino

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Unravelling the mechanisms causing astrocytic uncoupling in the epileptic hippocampus

T. Deshpande, P. Bedner, C. Steinhäuser

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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 astroglial receptors monitored with super-resolution microscopy

J. Heller, D. Rusakov

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Glutamine synthetase stability is by regulated by g-aminobutyric type B receptors

D. Huyghe, M. Terunuma, M. Pangalos, S. Moss

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Functional expression of GABA_A 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

T15-10B

Mechanosensitive ion channel, Piezo1, is expressed in myelinated regions of the rat brain

M. Velasco, G. Sheridan

T15-11B

The role of L-type calcium channels subtypes Cav1.2 and Cav1.3 in NG2 glia

N. Zhao, F. Kirchhoff, W. Huang, A. Scheller

T15-12B

Anatomical analysis of mutant mice expressing type-I cannabinoid receptors in astrocytes of the hippocampus

A. Gutierrez, N. Puente, G. Marsicano, P. Grandes

T15-13B

Generation of conditional knockout mouse lines for opioid receptors in microglia

H. Maurin, L.-A. Roeckel, D. Reiss, C. Gaveriaux-Ruff

T16 TROPHIC FACTORS

T16-01B

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. Barraviera, S. Kyrlyenko, A. Oliveira

T16-02B

Age related loss of oligodendrocyte metabolic support

T. Philips, E. Hughes, B. Morrison, Y. Lee, R. Sattler, D. Bergles, J. Rothstein

T17 TUMOURS

T17-01B

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

S. Guelfi, P.-O. Guichet, M. Teigell, L. Hoppe, N. Bakalara, L. Bauchet, H. Duffau, K. Lamszus, B. Rothhut, J.-P. Hugnot

T17-04B

Role of the RNA-binding protein HuR in neurofibromas and malignant peripheral nerve sheath tumour

M. Palomo, M. Iruarizaga-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

I. Simeonova, K. Labreche, A. Kamoun, V. Gleize, D. Chubb, E. Letouzé, Y. Riazalhosseini, S. Dobbins, N. Elarouci, F. Ducray, A. de Reyniès, D. Zelenika, C. Wardell, M. Frampton, O. Saulnier, T. Pastinen, S. Hallout, D. Figarella-Branger, C. Dehais, A. Idbaih, K. Mokhtari, J.-Y. Delattre, E. Huillard, M. Lathrop, M. Sanson, R. Houlston

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

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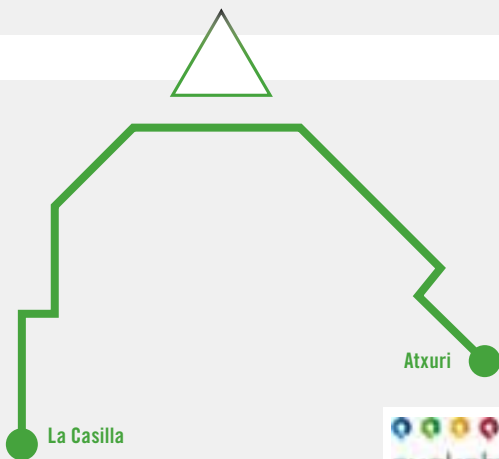
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Program at a Glance

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17:15			Plenary Lecture P-03 p.30	Plenary Lecture P-05 p.37	
17:30–18:30					
19:15–20:15		Informal Get-Together with Drinks			

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- **Everything you need to know about microglia isolation**
- **Gain reproducible results fast**

Check out our video using the code or URL



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