

# Meeting Program



XIII European  
Meeting on  
Glial Cells in  
Health and Disease  
**Edinburgh**  
July 8–11, 2017

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# Meeting Program

**XIII European Meeting**  
on Glial Cells in Health and Disease  
Edinburgh | July 8–11, 2017

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

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

Picture: Jochen Meier, MDC, Berlin

Sponsored by



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# Welcome

Dear Glia community,

The XIII European Meeting on Glial Cells in Health and Disease welcomes neuroglia researchers from all over the world to Edinburgh.

More than 20 years after being established by an inaugural meeting in Heidelberg, the European Glial meeting has become the world's largest and most comprehensive scientific gathering on glial cell biology and medicine. After the success of the 2015 meeting in Bilbao, the conference comes to Edinburgh, the city where the Scottish pathologist W. Ford Robertson first recognised the oligodendrocyte in 1899. Here, you are being hosted by the vibrant glial research community based in Scotland whose internationally-leading work encompasses the full range of fundamental and translational glial neuroscience.

The 2017 meeting has attracted a record attendance, with 1250 registered participants and 720 posters – a sure sign of the importance of our field and the interactive and collegiate nature of our community. The meeting is being held in the Edinburgh International Conference Centre, a wonderful state of the art facility in the heart of the city that provides superb lecture, poster and other facilities. Here you can share and discuss the plenary lectures, symposia, posters and exhibits that will define and extend the cutting edges of our exciting field.

The Conference Centre is within walking distance of Edinburgh's wealth of restaurants, cafes and shops as well as the unique and spectacular historical architecture of the Castle, Old Town and New Town for which the capital city of Scotland is justly famous. A modern public transport system, including Europe's newest tramline connecting to the airport, means that your accommodation, and the full range of Edinburgh's lively cultural and social scene, is in easy reach of the Conference Centre. We, like you, are greatly looking forward to the next few days and please do seek us, or any members of the local organizing committee, out if you need help or advice about the meeting and our beautiful city.



Charles ffrench-Constant  
Center for Regenerative Medicine (MRC)  
University of Edinburgh



Peter Brophy  
Centre for Neuroregeneration  
University of Edinburgh

# Committees

## PROGRAM COMMITTEE

Bruce Ransom (USA), Chair  
Maria Cecilia Angulo (France)  
Anne Baron-Van Evercooren (France)  
Benedikt Berninger (Germany)  
Shumin Duan (China)  
Charles ffrench-Constant (UK)  
Robin Franklin (UK)  
Kazuhiro Ikenaka (Japan)  
Claire Jacob (Switzerland)  
Brian MacVicar (Canada)  
Carlos Matute (Spain)  
Veronique Miron (UK)  
Stéphane Oliet (France)  
Amanda Sierra (Spain)  
Mikael Simons (Germany)  
Michael Wegner (Germany)

## ORGANIZING COMMITTEE

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

## LOCAL ORGANIZING COMMITTEE

Peter Brophy (University of Edinburgh), Chair  
Charles ffrench-Constant (University of Edinburgh), Chair  
Susan Barnett (University of Glasgow)  
Julia Edgar (University of Glasgow)  
Giles Hardingham (University of Edinburgh)  
David Lyons (University of Edinburgh)  
Dies Meijer (University of Edinburgh)  
Veronique Miron (University of Edinburgh)  
Dirk Sieger (University of Edinburgh)  
Anna Williams (University of Edinburgh)

# Sponsors and Exhibitors

The Network Glia e. V. and the organizers of the XIII European Meeting on Glial Cells in Health and Disease would like to thank the following sponsors and exhibitors for their generous support (in alphabetic order, as of June 2017):

## GOLD SPONSOR

# WILEY

## SILVER SPONSORS





## SPONSORS



## LOCAL SPONSORS



## EXHIBITORS

## BOOTH NO.

Abcam plc	2
Carl Zeiss Ltd.	4
Femtonics Ltd.	3
Hello Bio Ltd.	5
Miltenyi Biotec GmbH	1
Thorlabs Ltd.	6

# Profiles of Supporting Foundations, Organizations and Companies

(IN ALPHABETICAL ORDER)

## Abcam plc



As an innovator in reagents and tools, Abcam's purpose is to serve life science researchers globally to achieve their mission, faster. Providing the research and clinical communities with tools and scientific support, the Company offers highly validated biological binders and assays to address important targets in critical biological pathways.

Already a pioneer in data sharing and ecommerce in the life sciences, Abcam's ambition is to be the most influential company in life sciences by helping advance global understanding of biology and causes of disease, which, in turn, will drive new treatments and improved health.

To find out more, please visit

[www.abcam.com](http://www.abcam.com)

## Anne Rowling Regenerative Neurology Clinic



The Anne Rowling Regenerative Neurology Clinic is a charitable University of Edinburgh care and research facility focusing on a wide range of neurological conditions, especially neurodegenerative diseases.

Neurological diseases represent one of the major public health threats in the industrialised world. These diseases include multiple sclerosis (MS), motor neurone disease (MND or ALS), Parkinson's disease (PD) and movement disorders, cognitive disorders and dementias and Huntington's disease (HD).

We aim to improve patients' lives through research: translating laboratory findings into clinical trials and ultimately, new therapies.

In the welcoming environment of the Anne Rowling Clinic, we provide outpatient care for people with a neurological condition. All clinical activity is undertaken in partnership with the UK's National Health Service (NHS). Importantly, patients of the Anne Rowling Clinic have first-hand access to research projects and clinical trials, should they wish to participate.

Behind the patient-clinician interface, laboratory-based and clinical research underpins the activities of the Anne Rowling Clinic. The research targets the discovery of treatments that will slow progression of neurodegenerative diseases. The ultimate goal is to repair the damage – so-called Regenerative Neurology.

[www.annerowlingclinic.com](http://www.annerowlingclinic.com)

## ARSEP



ARSEP Foundation, the French Multiple Sclerosis Research, has two missions: 1) support research (about 2 millions per year) in any basic and clinical research fields focused on MS. Financial support could be for laboratory expenses, equipment and fellowships, travel grants. Projects outside of France

can be funded provided they are integrated into a multicenter project including at least one French team with a major role in the project; 2) communicate the most relevant information on medical, scientific and therapeutic advances for people with MS (newsletter, booklets, website, meetings, cultural and sporting events) and for professionals by organizing meetings, and workshops.

[www.arsep.org](http://www.arsep.org)

## Carl Zeiss Ltd.



Carl Zeiss Microscopy is the world's only one-stop developer of light, X-ray and electron microscopes. The product range includes light microscopes, confocal systems for laser scanning microscopy, a full portfolio of electron and ion beam microscopes, and perfectly-tailored software solutions for image processing, image documentation and reporting. Join us to learn more about our microscopy solutions.

[www.zeiss.com/micro](http://www.zeiss.com/micro)

## Femtonics Ltd.



Femtonics is one of the most dynamically expanding manufacturers of two-photon laser scanning microscopy. We make unique, custom designed 2D systems and as a pioneer, we have introduced real-time 3D imaging technology to the market. By our modularity, each Femtonics microscope fits the researcher's own needs and it can suit a wide variety of biological in vivo and in vitro applications. Our other advantage is our multidisciplinary team which continually enhance and confirm the scientific applicability of our new developments.

<http://femtonics.eu>

## Hello Bio Ltd.



**Say hello to prices up to 50% less than other suppliers!**

As experienced scientists, we aim to offer high quality research tools at prices so low that as many researchers as possible will be able to afford them.

**Our range includes high quality life science reagents and biochemicals for:**

- Glial cells
- GPCRs
- DREADDs
- Ionotropic receptors
- Ion channels
- Enzymes
- Stem cells
- Signaling pathways

**We'd love you to give us a try!**

- Expert chemical manufacturers
- Endorsed by scientists worldwide
- Biologically tested products
- Hello BioPromise quality guarantee
- Free trials
- Everyday affordable prices

**Have you said hello yet?** Visit our stand! [www.hellobio.com](http://www.hellobio.com)

## IBRO



IBRO is the global federation of neuroscience organizations that aims to promote and support neuroscience training, teaching, collaborative research and advocacy around the world. More than 80 international, national and regional scientific organizations constitute IBRO's Governing Council which, together with the five IBRO Regional Committees, address the needs and advance the work of individual scientists and research communities everywhere. In addition, IBRO has partnerships with like-minded scientific societies and organizations to identify priorities and help bridge gaps in knowledge, investment and resources in the field of brain research.

[www.ibro.info](http://www.ibro.info)

## MedImmune



A member of the AstraZeneca Group

MedImmune is the global biologics research and development arm of AstraZeneca with candidate biologics and vaccines that currently compromise approximately 50 per cent of AstraZeneca's overall R&D pipeline. It has one of the most robust and promising pipelines in the biologics industry, with more than 120 biologics in research and development and over 40 projects in clinical stage development.

MedImmune is pioneering innovative research and exploring novel pathways across key therapeutic areas, including oncology; respiratory; and cardiovascular and metabolic disease. In addition, the company is opportunistic in infectious disease and vaccines. Approximately 2,200 full-time employees are in the US and UK. MedImmune is headquartered in Gaithersburg, MD – one of AstraZeneca's three global R&D centres, along with Cambridge, UK and Molndal, Sweden.

[www.medimmune.com](http://www.medimmune.com)

## Miltenyi Biotec GmbH



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 1,800 employees in 25 countries – all dedicated to helping researchers and clinicians make a greater impact on science and health.

[www.miltenyibiotec.com](http://www.miltenyibiotec.com)

## The UK MS Society



We are one of the largest not-for-profit funders of MS research in Europe and one of the key players globally.

We are committed to funding and supporting high quality, relevant research to improve the quality of life of people affected by MS and to develop better interventions to prevent and treat MS. Since 1956, we have invested over £155m in MS research and contributed to a range of important developments that, at this critical moment, provide unparalleled opportunity and hope to the global MS community.

[www.mssociety.org.uk](http://www.mssociety.org.uk)

## National MS Society



**National  
Multiple Sclerosis  
Society**

The complexity of MS requires a comprehensive research strategy that fuels knowledge and speeds better treatments, health care policies, and new disease and symptom management therapies so that there are treatments for everyone and so that people with MS can live their very best lives. The National MS Society provides grant funding, research training, and shared resources, to support the brightest scientists exploring questions underlying MS. We manage a diverse portfolio of academic and commercial research projects, provide training fellowships, foster global collaboration, and convene experts to identify strategic research priorities.

[nationalmssociety.org/For-Professionals/Researchers/Society-Funding](http://nationalmssociety.org/For-Professionals/Researchers/Society-Funding)

**Nestlé SA****Research**

Nestlé is the world's largest food and beverage company. It is present in 189 countries around the world, and its 328,000 employees are committed to Nestlé's purpose of enhancing quality of life and contributing to a healthier future. Nestlé has one of the most advanced research and development networks in the industry, employing more than 5,000 people, with 40 R&D facilities worldwide.

[www.nestle.com](http://www.nestle.com)

**Peprotech EC Ltd.**

Established in 1988 by a group of scientists, PeproTech is a privately owned biotechnology company focusing on the development and manufacture of high quality cytokine products for the life-science and cell therapy markets. Over the past 29 years the company has grown into a global enterprise with state-of-the-art manufacturing facilities in the US, and offices around the world. With over 2,000 products PeproTech has developed and refined innovative protocols to ensure quality, reliability and consistency. Our mission is to provide the highest quality products to support the needs of today's scientists and researchers.

[www.peprotech.com](http://www.peprotech.com)

**THORLABS Ltd.**

Although Thorlabs' roots are in the photonics industry, in recent years the company has grown from the laser and electro-optics markets to serve the life sciences and bio-medical segments. As a testament to its growth and dedication to these R&D and research communities, Thorlabs has expanded its portfolio to include a variety of scientific cameras, microscopes, microscopy accessories, femtosecond lasers, OCT systems, and vibration isolation systems. Thorlabs utilizes a vertically-integrated manufacturing design to design and produce custom solutions that fit specific needs in these areas.

[www.thorlabs.com](http://www.thorlabs.com)

**Wiley**

Wiley, a global company, helps people and organizations develop the skills and knowledge they need to succeed. Our online scientific, technical, medical, and scholarly journals, combined with our digital learning, assessment and certification solutions help universities, societies, businesses, governments, and individuals increase the academic and professional impact of their work.

[www.wiley.com](http://www.wiley.com)



# FEPS2017

**VIENNA · AUSTRIA  
SEPTEMBER 13<sup>th</sup> – 15<sup>th</sup>, 2017**

**JOINT MEETING OF  
THE FEDERATION OF  
EUROPEAN PHYSIOLOGICAL  
SOCIETIES AND THE AUSTRIAN  
PHYSIOLOGICAL SOCIETY WITH  
PARTICIPATION OF THE CZECH,  
FRENCH, ITALIAN, SLOVAK,  
SLOVENIAN, SWISS AND  
TURKISH PHYSIOLOGICAL  
SOCIETIES**



[WWW.FEPS2017.ORG](http://WWW.FEPS2017.ORG)

**Pentland**

Plenary Lectures  
Symposia

**Sidlaw**

Symposia

**Dressing Rooms 1-2**

Prayer Rooms

**Harris 2**

Network Glia Office

**Harris 1**

Media Check

**Carrick**

Childcare

**Tinto + Moorfoot**

Introductory Course  
Symposia

**Strathblane Hall**

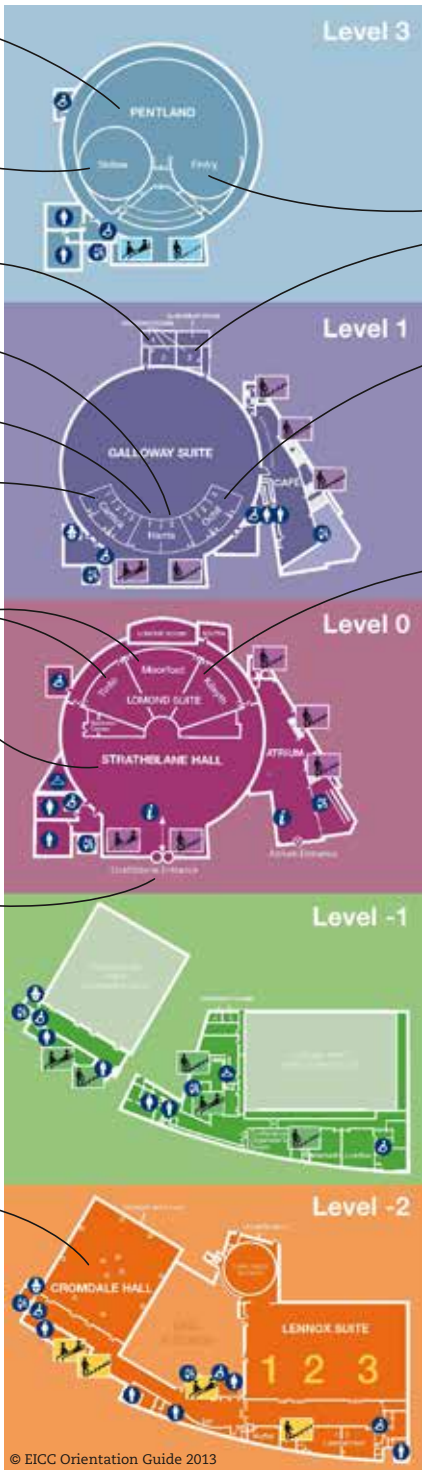
Registration  
Exhibition  
Catering  
Late Poster Session

**Strathblane Entrance**

Main Entrance

**Cromdale Hall**

Poster Sessions





# Floor Plan

## Fintry

Symposia

## Dressing Room 3

Baby Feeding Room

## Ochil

Working Area

## Kilsyth

Symposia

# Strathblane Hall



## BOOTH NO.

## EXHIBITORS

1	Miltenyi Biotec GmbH
2	Abcam plc
3	Femtonics Ltd.
4	Carl Zeiss Ltd.
5	Hello Bio Ltd.
6	Thorlabs Ltd.

**ATMs & Banks**

- 1 Bank of Scotland**  
Shandwick Pl,  
Edinburgh EH2 4RR
- 2 Nationwide**  
3 S Charlotte St, West End  
Edinburgh EH2 4AN
- 3 HSBC**  
118 Princess St  
Edinburgh EH2 4AA
- 4 Halifax ATM**  
131–133 Princess St  
Edinburgh EH2 4AH
- 5 LINK**  
11 Cowgatehead  
Edinburgh EH1 1JY

**Supermarkets**

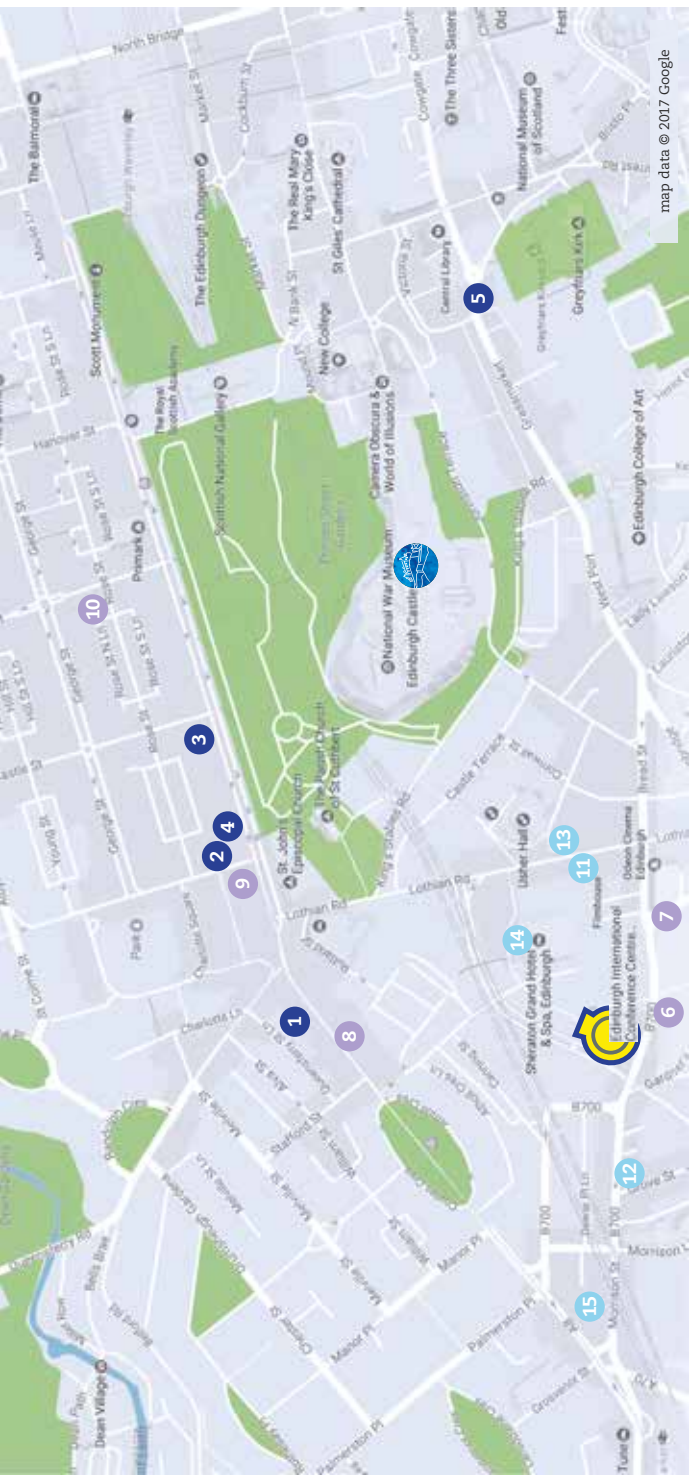
- 6 Sainsbury's Local**  
3 Morrison St  
Edinburgh EH3 8BH
- 7 Costcutter express 24HR**  
125 Lothian Rd  
Edinburgh EH3 9AD
- 8 The Co-operative Food**  
49 Shandwick Pl  
Edinburgh EH2 4SD
- 9 Tesco Express**  
141 Princes St  
Edinburgh EH2 4BL
- 10 Co-op Food Edinburgh**  
26-28 Frederick St  
Edinburgh EH2 2JR

**Restaurants & Bars**

- 11 read meets Bread**  
92 Lothian Road  
Edinburgh EH3 9BE
- 12 Bite Me**  
167 Haymarket Terrace  
Edinburgh EH3 8AG
- 13 Innis Gunn & Beer Kitchen**  
81-83 Lothian Rd  
Edinburgh EH3 9AW
- 14 The One**  
1 Festival Square  
Edinburgh EH3 9SR
- 15 The Jolly Botanist**  
260 Morrison St  
Edinburgh EH3

# Surrounding Map

map data © 2017 Google



# General Information

IN ALPHABETIC ORDER

## ABSTRACTS

The meeting abstracts are published in electronic form only and will be available online for download via the meeting's website [www.gliameeting.eu](http://www.gliameeting.eu).

## 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.

## CEILIDH (Scottish Evening Event on Friday, July 7)

For more details see page 22.

## CERTIFICATE OF ATTENDANCE

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

## CHILDCARE SERVICE

Childcare service is provided by the local-based company Super Mums in room Carrick (level 1) and is offered during the main hours of the conference 8:30–19:30 from July 8–10 and 08:30–14:00 on July 11. Parents were requested to register their child in advance. A baby feeding room is provided in level 1 as well.

## ELECTRICITY SUPPLY AND POWER ADAPTER

230 V–50 Hz AC

Most of the delegates (e.g. from Canada, France, Germany, Italy, Spain, the US) will need a power adapter for their electrical devices. Delegates who find out on-site that they need one can buy it for about £5 here (about 900 meters from the conference centre):

Currys PC World  
120 Princes St  
Edinburgh EH2 4AD

## EXHIBITION

### Exhibition opening times:

Saturday, July 8, 2017	13:00–20:00
Sunday, July 9, 2017	08:30–18:30
Monday, July 10, 2017	08:30–18:30
Tuesday, July 11, 2017	08:30–13:00

## 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.

**Login/network:** delegate

**Password:** haymarket

## LUNCH

Lunch is available from Sunday to Tuesday in form of snack bags.

## MEDIA CHECK/SPEAKERS' SERVICE

The media check for oral presentations is located in the room Harris 1 on level 1 (see floor plan on page 14). 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.

### Opening times:

Friday, July 7, 2017	16:00–18:00
Saturday, July 8, 2017	07:00–19:00
Sunday, July 9, 2017	07:30–19:00
Monday, July 10, 2017	07:30–19:00
Tuesday, July 11, 2017	07:30–12:30

## MEETING OFFICE

### Opening times:

Friday, July 7, 2017	08:00–11:00 (Registration Introductory Course only) 16:00–18:00
Saturday, July 8, 2017	07:00–20:00
Sunday, July 9, 2017	07:30–19:30
Monday, July 10, 2017	07:30–19:30
Tuesday, July 11, 2017	07:30–14:00

Phone: +49 (0)176 70921007

E-mail: [info@glia2017.eu](mailto:info@glia2017.eu)

## ORGANIZATION

Network Glia e.V.

Network Glia

Max Delbrück Center for Molecular Medicine (MDC) Berlin-Buch

Robert-Rössle-Str. 10, 13092 Berlin, Germany

E-mail: [gibson@mdc-berlin.de](mailto:gibson@mdc-berlin.de)

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

K.I.T. Group GmbH

Bautzner Str. 117–119, 01099 Dresden, Germany

E-mail: [info@kitdresden.de](mailto:info@kitdresden.de)

[www.kit-group.org](http://www.kit-group.org)



## POSTER SESSIONS

Each poster will hang for one day: Posters with poster numbers ending with an A will hang on Saturday, July 8, posters with poster numbers ending with a B will hang on Sunday, July 9 and poster numbers ending with a C will hang on Monday, July 10. There is no poster session on Tuesday, July 11.

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 one session of 90 min.

### Posters with numbers ending with A:

(Hanging of posters: Saturday, July 8, before 14:00)

#### Uneven serial numbers (e.g. T01-03A):

Saturday, July 8, 2017 14:15–15:45

#### Even serial numbers (e.g. T01-04A):

Saturday, July 8, 2017 15:45–17:15

All posters must be removed on Saturday until 18:00. Remaining posters will be disposed.

### Posters with numbers ending with B:

(Hanging of posters: Sunday, July 9, before 12:00)

#### Uneven serial numbers (e.g. T03-03B)

Sunday, July 9, 2017 12:45–14:15

#### Even serial numbers (e.g. T03-04B)

Sunday, July 9, 2017 14:15–15:45

All posters must be removed on Sunday until 16:30. Remaining posters will be disposed.

### Posters with numbers ending with C:

(Hanging of posters: Monday, July 10, before 12:00)

#### Uneven serial numbers (e.g. T05-03C)

Monday, July 10, 2017 12:45–14:15

#### Even serial numbers (e.g. T05-04C)

Monday, July 10, 2017 14:15–15:45

All posters must be removed on Monday until 16:30. Remaining posters will be disposed.

The size of a poster is DIN A0 landscape format (85 cm height, 119 cm width).

Power strips to hang your poster are available at the poster help desk.

For more details about the poster presentations see page 47.

## PUBLIC TRANSPORTATION AND TRAVEL

### Accessibility from Edinburgh Airport to the city centre/venue

#### By bus

The Edinburgh Airport is located about 13 km away from the city. A simple and cheap way to get to the centre of Edinburgh from the airport is to take the shuttle bus Airlink (Service 100). The stop is located on bus stop D. The bus runs day and night (from 4:30 to 0:35 every 10 minutes, from 0:35 to 4:30 every 30 minutes) and takes about 30 minutes to get into the city. The terminal station is “**Waverley Bridge**”, near to Waverley Railway Station. It is a 20 minutes’ walk from this station to the Edinburgh International Conference Centre (EICC).

Cost for a single ticket: £4.50

#### By taxi

Taxis generally take about 20–25 minutes and cost approx. £25 per ride. There is a taxi stand outside of the arrival hall of Edinburgh Airport.

## REGISTRATION

On-site registration will be available on all conference days, registration fees can be paid by credit card (Visa, Mastercard, AMEX) or in cash, but only in €. Cash payments in £ cannot be accepted.

#### Full registration (all days):

Scientists:	€590
Students, PhD Students:	€350
Commercials:	€650
Introductory Course on Glial Biology:	€40 (Students) / €85 (Scientists)

#### Registration per day:

Scientists:	€190
Students, PhD Students:	€140
Commercials:	€230

Students must show their valid student identity card!

#### Registration fee includes:

- Admission to all sessions, poster area and exhibition
- Lunch bags from Sunday to Tuesday
- Admission to the welcome reception
- Conference bag including program booklet, city map and sponsor materials

## TAXI

Following taxi associations offer a 24-hour service in Edinburgh, including airport transfers:

### Central Taxis

[www.taxis-edinburgh.co.uk](http://www.taxis-edinburgh.co.uk)  
phone: +44 131 2292468

### City Cabs

[www.citycabs.co.uk](http://www.citycabs.co.uk)  
phone: +44 131 2281211

## VENUE

Edinburgh International Conference Centre  
The Exchange  
Edinburgh, EH3 8EE

# Student Ceilidh

after the Introductory Course on Friday, July 7, 2017



A fun evening of traditional Scottish dancing with the Science Ceilidh Band, plus a glass of wine on arrival! There will be a pay bar for additional drinks.

**WHEN:** 20:00–23:00, Friday, July 7, 2017

**WHERE:** Debating Hall, Teviot Row House,  
3 Bristo Place, Edinburgh EH8 9AJ

**COST:** €12

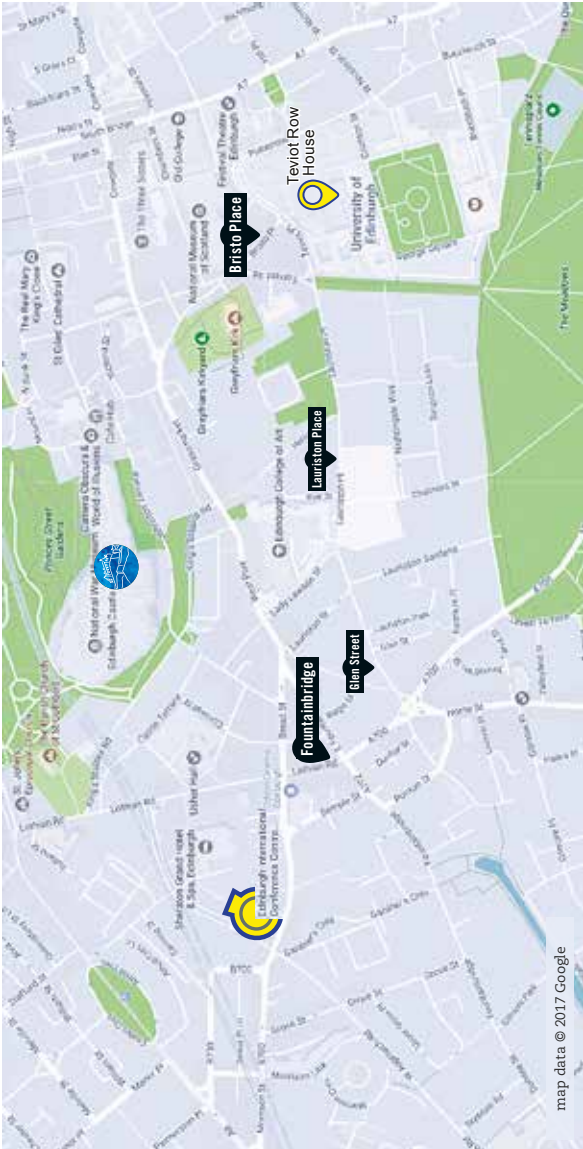
**WHO CAN ATTEND?** Delegates who have registered for the Introductory Course on Friday July 7, 2017 or for the main meeting.

**HOW TO GET TICKETS?** If you have not booked your ticket for the Ceilidh in advance please ask at the registration desk if there are still tickets available. Payment is possible by credit card (VISA, Mastercard, American Express) or in cash, but only in €.



**ABOUT THE VENUE:** Teviot Row House is the oldest purpose built Student Union in the world. It opened its doors in 1889 and it remains one of the most vibrant and well used Student Union venues in the country.

**HOW TO GET THERE:** The bus station Fountainbridge is in walking distance (about 5 min) from the Edinburgh International Conference Centre (EICC). Take **bus no. 47, direction Ladywood**. After 3 stops go out at the station **Bristo Place**. The venue Teviot Row House is about 200 meters from the bus station.



# Scientific Program

FRIDAY, JULY 7, 2017

Tinto + Moorfoot Room (Level 0)

09:30–17:00 **Introductory Course**

09:30–10:05 **Dwight Bergles** Baltimore, USA  
**Live imaging of glia** I-01

10:05–10:40 **Rory Duncan** Edinburgh, UK  
**Super resolution microscopy** I-02

10:40–11:10 **Coffee Break**

11:10–11:45 **David Lyons** Edinburgh, UK  
**Using zebrafish to understand glial biology** I-03

11:45–12:20 **Klaus-Armin Nave** Göttingen, Germany  
**A dual role of myelinating glia in axonal conduction and energy metabolism** I-04

12:20–12:55 **David Rowitch** San Francisco, USA and Cambridge, UK  
**Astrocytes** I-05

12:55–14:00 **Lunch**

14:00–14:35 **Veronique Miron** Edinburgh, UK  
**Microglia: the architects of the central nervous system in health and disease** I-06

14:35–15:10 **Steve Goldman** Rochester, USA and Copenhagen, Denmark  
**iPS cells to study glia and glial diseases** I-07

15:10–15:40 **Coffee Break**

15:40–16:15 **Steve Pollard** Edinburgh, UK  
**Glial tumours and cancer stem cells** I-08

16:15–16:50 **Anna Williams** Edinburgh, UK  
**Remyelination** I-09

Teviot Row House, Edinburgh University

20:00–23:00 **Student Ceilidh**

For further information please see page 24.

**SATURDAY, JULY 8, 2017**

**08:30–12:30 WORKSHOPS**

**Tinto + Moorfoot Room (Level 0)**

**08:30–12:30 Workshop I**

**WILLIAM FORD ROBERTSON LITTLE  
BRANCHED CELLS: PAVING THE WAY TO  
OLIGODENDROCYTE AND MICROGLIA  
DISCOVERY**

**Organizers: Anne Boullerne Chicago, USA  
George De Vries Richmond, USA**

supported by



- 08:30–09:05** **George de Vries Richmond, USA**  
**The controversy concerning the “third element” of  
Santiago Ramón y Cajal** W01-01
- 09:05–09:40** **Arthur Butt Portsmouth, UK**  
**William Ford Robertson and his little branched  
brain cells** W01-02
- 09:40–10:15** **Juan del Río-Hortega Bereciart Valladolid, Spain**  
**Microglia and Oligodendroglia: the unfortunate  
story of Pío del Río-Hortega** W01-03
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- 10:15–10:45** **Coffee Break**
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- 10:45–11:20** **Anne Boullerne Chicago, USA**  
**A brief history of myelin from 15th century to  
present** W01-04
- 11:20–11:55** **Paul Foley Sydney, Australia**  
**So misunderstood: The story of the Schwann cell** W01-05
- 11:55–12:30** **Discussion**

## Pentland Suite (Level 3)

08:30–12:30 **Workshop II**

**MICROGLIA IN PATHOLOGY:  
UNDERSTANDING AND MANIPULATING  
MICROGLIAL FUNCTIONS IN  
CNS PATHOLOGY**

Organizers: **Barry McColl** Edinburgh, UK**Dirk Sieger** Edinburgh, UK**Veronique Miron** Edinburgh, UK**Guy Brown** Cambridge, UK

supported by

08:30–09:00 **Dirk Sieger** Edinburgh, UK

**A zebrafish live imaging model to study microglia-  
glioma interactions**

W02-01

09:00–09:30 **Barry McColl** Edinburgh, UK

**Benefits and mechanisms of microglial/macrophage  
activation on injury resolution and repair in the  
brain after stroke**

W02-02

09:30–10:00 **Anna Vilalta** Cambridge, UK

**Inflammation and neurotoxic mechanisms of  
microglia**

W02-03

10:00–10:15 **Bert J. L. Eggen** Groningen, Netherlands

**The human microglia transcriptome in relation to  
aging**

W02-04

10:15–10:45 **Break**10:45–11:15 **Kim Green** Irvine, US

**Microglia in the pathogenesis of Alzheimer's  
disease**

W02-05

11:15–11:45 **José Luis Venero** Seville, Spain

**Immunomodulatory roles of galectin-3 under  
conditions of neurodegeneration**

W02-06

11:45–12:15 **Inge Huitinga** Amsterdam, Netherlands

**Microglia in multiple sclerosis pathology**

W02-07

12:15–12:30 **Stefan Milde** Cambridge, UK

**The microglial P2Y6 receptor mediates  
inflammatory neuron loss in models of Alzheimer's  
and Parkinson's disease**

W02-08

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**Pentland Suite (Level 3)****13:00–13:15** Opening

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**Pentland Suite (Level 3)****13:15–14:15** Plenary Lecture P01**Chair: Bruce Ransom** Seattle, USA**Eric A. Newman** Minneapolis, USA**Glial cell regulation of blood flow: fact or fantasy?**

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**Cromdale Hall (Level -2)****14:15–17:15** Poster Session I

Late posters are located in the Strathblane Hall (Level 0).

During 16:45 and 17:15, coffee and tea will be served at the Strathblane Hall.

**17:15–19:15** SYMPOSIA I (S01–S05)

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**Kilsyth Room (Level 0)****17:15–19:15** Symposium S01**SCHWANN CELLS AND THEIR ROLE IN MOTOR AXON REGENERATION****Organizers: Michela Rigoni** Padua, Italy**Rhona Mirsky** London, UK**17:15–17:45** **Thomas Misgeld** Munich, Germany  
**Neuro-glial interactions during motor axon remodelling**

S01-01

**17:45–18:15** **Richard Robitaille** Montreal, Canada  
**Role of persynaptic Schwann cells in the outcome of synaptic competition at the neuromuscular synapse**

S01-02

**18:15–18:45** **Rhona Mirsky** London, UK  
**Transcriptional mechanisms that maintain Schwann cell function and morphology**

S01-03

**18:45–19:15** **Michela Rigoni** Padua, Italy  
**Motor axon terminal-perisynaptic Schwann cells crosstalk at the neuromuscular junction during neuroregeneration**

S01-04

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**Sidlaw Auditorium (Level 3)**

- 17:15–19:15** **Symposium S02**  
**TRANSCRIPTIONAL STATES WITHIN THE OLIGODENDROCYTE LINEAGE**  
**Organizer: Gonçalo Castelo-Branco** Stockholm, Sweden
- 17:15–17:45** **Sarah Moyon** New York, USA  
**Integrated transcriptomic and methylomic network of the oligodendrocyte lineage** S02-01
- 17:45–18:15** **Steve Goldman** Copenhagen, Denmark  
**Human glial progenitor cell-based treatment and modeling of neurological disease** S02-02
- 18:15–18:45** **Annalisa Buffo** Torino, Italy  
**Are oligodendrocyte progenitors all born equal? Lessons from a microcephaly mouse model and fate-mapping studies** S02-03
- 18:45–19:15** **Gonçalo Castelo-Branco** Stockholm, Sweden  
**Oligodendrocyte heterogeneity in the central nervous system as revealed by single cell RNA-Seq** S02-04
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**Pentland Auditorium (Level 3)**

- 17:15–19:15** **Symposium S03**  
**GLIAL PHYSIOLOGY MEETS GLIAL METABOLISM**  
**Organizer: Pierre Magistretti** Thuwal, Saudi Arabia
- 17:15–17:45** **L. Felipe Barros** Valdivia, Chile  
**Multiscale integration of neuronal and astrocytic energy metabolism** S03-01
- 17:45–18:15** **Bruno Weber** Zurich, Switzerland  
**Glia-neuron interaction in the light of in vivo two-photon imaging** S03-02
- 18:15–18:45** **Pierre Magistretti** Thuwal, Saudi Arabia  
**Neuron-glia metabolic coupling: role in neuronal plasticity, memory and neuroprotection** S03-03
- 18:45–19:15** **Arthur Konnerth** Munich, Germany  
**Astrocytes and storage of long-term memories** S03-04

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**Fintry Auditorium (Level 3)**

- 17:15–19:15 Symposium S04**  
**GREASY ASTROCYTE-NEURON INTERACTIONS AT THE SYNAPSE**  
**Organizers: Mark Verheijen** Amsterdam, Netherlands  
**Marta Valenza** Milan, Italy
- 17:15–17:45 Frank Pfrieder** Strasbourg, France  
**Does synapse formation depend on glia-derived cholesterol: an update!** S04-01
- 17:45–18:15 Rogier Min** Amsterdam, Netherlands  
**The role of glial versus neuronal cannabinoid receptors in developmental plasticity of the visual cortex** S04-02
- 18:15–18:45 Mark Verheijen** Amsterdam, Netherlands  
**Synapse development is dependent on lipids derived from astrocytes and diet** S04-03
- 18:45–19:15 Marta Valenza** Milan, Italy  
**Connection between astrocytes, cholesterol and synaptic dysfunction in Huntington's disease** S04-04
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**Tinto + Moorfoot Room (Level 0)**

- 17:15–19:15 Symposium S05**  
**GLIAL CELLS IN CONTROL OF BLOOD-BRAIN BARRIER INTEGRITY**  
**Organizer: Luc Leybaert** Gent, Belgium
- 17:15–17:45 Luc Leybaert** Gent, Belgium  
**Connexins and calcium signaling as targets to mitigate inflammation-induced blood-brain barrier dysfunction** S05-01
- 17:45–18:15 Jorge I. Alvarez** Philadelphia, USA  
**The gliovascular interface functions as a central regulator of neuroinflammatory responses** S05-02
- 18:15–18:45 Ken Arai** Harvard, USA  
**Roles of oligodendrocyte precursor cells in blood-brain barrier under physiological and pathophysiological conditions** S05-03
- 18:45–19:15 Mirko H. H. Schmidt** Mainz, Germany  
**The neurovascular protein EGFL7 in health and disease** S05-04

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Strathblane Hall (Level 0)

19:15–20:00 Welcome Reception

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**SUNDAY, JULY 9, 2017**

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Pentland Suite (Level 3)

08:30–9:30 Plenary Lecture P02

Chair: Erik Boddeke Groningen, Netherlands

Mike W. Salter Toronto, Canada

Twists and turns in neuron-glia signalling in pain neuroplasticity

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09:30–10:00 Break

In order to allow a quick rebuilding of the Pentland Suite for the following symposia, we would like to ask all delegates to leave this room during the break.

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**10:00–12:00 SYMPOSIA II (S06–S10)**

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Pentland Auditorium (Level 3)

10:00–12:00 Symposium S06

**ROLE OF ASTROCYTES IN SYNAPTIC FUNCTION AND CHRONIC BRAIN DISEASES**

Organizers: Michelle Olsen Birmingham, UK  
Gabor Petzold Bonn, Germany

10:00–10:30 Aude Panatier Bordeaux, France

Astrocytic EphB3 receptor controls NMDAR functions at the tripartite synapse

S06-01

10:30–11:00 Andrea Volterra Lausanne, Switzerland

Astrocyte-synapse signalling in cognitive function and dysfunction: 3D Ca<sup>2+</sup> dynamics and role of TNF $\alpha$

S06-02

11:00–11:30 Michelle Olsen Birmingham, UK

A role for astrocytes in chemoreception: implications for Rett syndrome

S06-03

11:30–12:00 Gabor Petzold Bonn, Germany

Role of astrocytes in stroke and Alzheimer's disease

S06-04



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**Sidlaw Auditorium (Level 3)**

- 10:00–12:00 Symposium S07**  
**SYNAPTIC REGULATION OF NG2 CELL FUNCTION**  
**Organizer: Vittorio Gallo** Washington, USA
- 10:00–10:30** **Jonah Chan** San Francisco, USA  
**Uncoupling oligodendrocyte differentiation and myelination during development of the optic nerve: is dynamic neuronal signaling required?** S07-01
- 10:30–11:00** **Vittorio Gallo** Washington, USA  
**GABAergic regulation of NG2 cell function and myelination in cerebellum** S07-02
- 11:00–11:30** **Maria Kukley** Tübingen, Germany  
**Regulation of oligodendrocyte precursor cells differentiation by AMPA receptors in vivo** S07-03
- 11:30–12:00** **Jacqueline Trotter** Mainz, Germany  
**More than myelination: oligodendrocyte progenitor cells as receivers and transducers of neuronal network signals** S07-04

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**Fintry Auditorium (Level 3)**

- 10:00–12:00 Symposium S08**  
**SCHWANN CELL PLASTICITY IN NERVE INJURY, DEMYELINATING NEUROPATHIES AND TUMOURS OF THE PNS**  
**Organizers: David Parkinson** Plymouth, UK  
**Ashwin Woodhoo** Derio, Spain
- 10:00–10:30** **David Parkinson** Plymouth, UK  
**The Merlin tumour suppressor controls the repair capacity of Schwann cells following injury by regulating Hippo pathway signalling** S08-01
- 10:30–11:00** **Nancy Ratner** Cincinnati, USA  
**Signaling pathways critical to peripheral nerve tumorigenesis** S08-02
- 11:00–11:30** **Maurizio D'Antonio** Milan, Italy  
**Limited Schwann cell differentiation as a protective mechanism in CMT1B neuropathy with activated unfolded protein response** S08-03
- 11:30–12:00** **Ashwin Woodhoo** Derio, Spain  
**The *Borrelia burgdorferi* bacterium: a novel contact-dependent inducer of peripheral nerve demyelination** S08-04

**Tinto + Moorfoot Room (Level 0)****10:00–12:00 Symposium S09****MICROGLIA: GUIDING BRAIN DEVELOPMENT**

**Organizers:** Bert Brône Hasselt, Belgium  
Sonia Garel Paris, France

- 10:00–10:30 Florent Ginhoux** Singapore  
**Modeling microglial differentiation and function in vitro using induced pluripotent stem cells** S09-01
- 10:30–11:00 Bert Brône** Hasselt, Belgium  
**Microglial integrins switch jobs during cortical development** S09-02
- 11:00–11:30 Sonia Garel** Paris, France  
**Microglia and prenatal inflammation in the development of cortical circuits** S09-03
- 11:30–12:00 Francesca Peri** Heidelberg, Germany  
**The brain under surveillance: the role neuronal-microglial interactions in the development and repair of the CNS** S09-04

**Kilsyth Room (Level 0)****10:00–12:00 Symposium S10**

**MATHEMATICAL AND COMPUTATIONAL APPROACHES TO THE 'BIG DATA' CHALLENGE IN NEURON-GLIA INTERACTIONS**

**Organizers:** Maurizio De Pittà Chicago, USA  
Elena Galea Bellaterra, Spain

supported by



- 10:00–10:30 David Attwell** London, UK  
**Tuning of axonal conduction speed by myelinated axon morphology** S10-01
- 10:30–11:00 Maurizio De Pittà** Chicago, USA  
**Conditions for the observation of regulation of synaptic transmission by gliotransmitters** S10-02
- 11:00–11:30 Elena Galea** Bellaterra, Spain  
**Spatial analysis of astrocytes in health and in Alzheimer's disease** S10-03
- 11:30–12:00 Levi Wood** Atlanta, USA  
**Multivariate regression profiling of cytokines in Alzheimer's disease** S10-04

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**Strathblane Hall (Level 0)****12:00–12:45 Lunch Break**

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**Cromdale Hall (Level -2)****12:45–15:45 Poster Session II**

Late posters are located in the Strathblane Hall (Level 0).

**15:45–17:45 SYMPOSIA III (S11–S15)**

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**Sidlaw Auditorium (Level 3)****15:45–17:45 Symposium S11****THE ROLE AND PROMISE OF NG2-GLIA IN CNS INJURY****Organizers: Michael Schäfer Mainz, Germany****Leda Dimou Munich, Germany****15:45–16:15 Michael Schäfer Mainz, Germany****The NG2 proteoglycan counteracts adverse glial responses and neurological deficits after traumatic brain injury**

S11-01

**16:15–16:45 Leda Dimou Munich, Germany****NG2-glia in health and disease: their role in the adult brain**

S11-02

**16:45–17:15 Rebecca Matsas Athens, Greece****Neural stem cell grafts in brain injury: reciprocal interactions with the host tissue**

S11-03

**17:15–17:45 Wolfram Tetzlaff Vancouver, Canada****Fate mapping of oligodendrocyte precursor cells (OPCs) after spinal cord injury and role of oligodendrocyte remyelination in functional recovery**

S11-04

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**Tinto + Moorfoot Room (Level 0)****15:45–17:45 Symposium S12****ASTROCYTES IN COGNITIVE FUNCTION: FROM MOLECULES AND SYNAPSES TO CIRCUITS AND BEHAVIOR****Organizers: João Filipe Oliveira Braga, Portugal****Alfonso Araque Minneapolis, USA****15:45–16:15 João Filipe Oliveira Braga, Portugal****Astrocytes support hippocampal-prefrontal theta synchronization and cognitive function**

S12-01

- 16:15–16:45** **Alfonso Araque** Minneapolis, USA  
**Circuit-specific synaptic regulation by astrocytes** S12-02
- 16:45–17:15** **Nathalie Rouach** Paris, France  
**Astroglial networks orchestrate neuronal synchrony** S12-03
- 17:15–17:45** **Kira Poskanzer** San Francisco, USA  
**Astrocytic control of the cortical slow oscillation** S12-04

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**Kilsyth Room (Level 0)**

- 15:45–17:45** **Symposium S13**  
**CNS PERICYTES IN HEALTH AND DISEASE**  
**Organizers:**  
**Marisa Karow** Munich, Germany  
**Christian Göritz** Stockholm, Sweden
- supported by  

- 15:45–16:15** **Marisa Karow** Munich, Germany  
**Defining the molecular underpinnings of pericyte-to-neuron conversion** S13-01
- 16:15–16:45** **Christian Göritz** Stockholm, Sweden  
**Attenuation of pericyte-derived fibrosis promotes axonal regeneration and functional recovery following CNS injury** S13-02
- 16:45–17:15** **Paula Dore-Duffy** Detroit, USA  
**Murine microvascular pericyte differentiation along the neural lineage** S13-03
- 17:15–17:45** **Kassandra Kisler** Los Angeles, USA  
**Regulation of cerebral blood flow in pericyte-deficient mice** S13-04

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**Fintry Auditorium (Level 3)**

- 15:45–17:45** **Symposium S14**  
**THE BASIC MECHANISMS OF SUCCESSFUL NEURAL REPAIR**  
**Organizer: Kristjan Jessen** London, UK
- 15:45–16:15** **Arnau Hervera** Barcelona, Spain  
**Immune-derived NOX2 and reactive oxygen species are essential regulators of axonal regeneration** S14-01
- 16:15–16:45** **Kristjan Jessen** London, UK  
**Manipulation of repair Schwann cells to correct regeneration failures due to chronic denervation and advancing age** S14-02

- 16:45–17:15** **Kelly Monk** St. Louis, USA  
**Adhesion GPCRs in peripheral nerve repair** S14-03
- 17:15–17:45** **Ruth Stassart** Göttingen, Germany  
**The role of Schwann cell derived Neuregulin-1 in peripheral nerve diseases** S14-04

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**Pentland Auditorium (Level 3)**

- 15:45–17:45** **Symposium S15**  
**ROLE OF MICROGLIAL METABOLISM IN NEUROINFLAMMATION**  
**Organizers: Henrik Hagberg** Gothenburg, Sweden  
**Bobbi Fleiss** London, UK
- 15:45–16:15** **Bobbi Fleiss** London, UK  
**Understanding the role of lipid metabolism in microglial activation** S15-01
- 16:15–16:45** **Myriam Baes** Leuven, Belgium  
**Microglia metabolism: causes and consequences of immune activation** S15-02
- 16:45–17:15** **Henrik Hagberg** Gothenburg, Sweden  
**Effect of inhibition of mitochondrial fission with mdivi-1 on the LPS-induced metabolic, immune and mito-morphologic responses in microglia** S15-03
- 17:15–17:45** **Claudia Verderio** Milan, Italy  
**Functional roles of extracellular vesicles derived from microglia with diverse activation states** S15-04
- 17:45–18:15** **Break**

In order to allow a quick rebuilding of the auditoria in Level 3 for the following plenary lecture, we would like to ask all delegates to leave these rooms during the break.

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**Pentland Suite (Level 3)**

- 18:15–19:15** **Plenary Lecture P03**  
**Chair: Benedikt Berninger** Mainz, Germany
- Yukiko Gotoh** Tokyo, Japan  
**Regulation of astrocyte production in the mouse neocortex**

MONDAY, JULY 10, 2017

## Pentland Suite (Level 3)

## 08:30–9:30 Plenary Lecture P04

Chair: Anne Baron-Van Evercooren Paris, France

Fiona Doetsch Basel, Switzerland

Stem cells in the adult brain: glial identity and niches

## 09:30–10:00 Break

In order to allow a quick rebuilding of the Pentland Suite for the following symposia, we would like to ask all delegates to leave this room during the break.

## 10:00–12:00 SYMPOSIA IV (S16–S20)

## Fintry Auditorium (Level 3)

## 10:00–12:00 Symposium S16

**IMPLICATIONS OF GLIAL DYSFUNCTION IN LYSOSOMAL STORAGE DISEASES**

Organizer: Tammy Kielian Omaha, USA

## 10:00–10:30 Tammy Kielian Omaha, USA

**Aberrant caspase-1 activity influences juvenile Batten disease pathogenesis**

S16-01

## 10:30–11:00 Jonathan Cooper London, UK

**The nature of glial dysfunction and its impact upon neurons varies between forms of neuronal ceroid lipofuscinosis (NCLs, or Batten disease)**

S16-02

## 11:00–11:30 Tony Futerman Rehovot, Israel

**Brain pathology in neurological forms of Gaucher disease**

S16-03

## 11:30–12:00 Frances Platt Oxford, UK

**Changes in glial cell function in Niemann-Pick type C disease as therapeutic targets**

S16-04

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 Sidlaw Auditorium (Level 3)

- 10:00–12:00 Symposium S17**  
**OPPOSING ROLES OF ASTROCYTE GAP JUNCTION COUPLING IN BRAIN DISEASES: PHOSPHORYLATION MATTERS?**  
**Organizers: Christian Steinhäuser** Bonn, Germany  
**Nanna MacAulay** Copenhagen, Denmark
- 10:00–10:30 Nanna MacAulay** Copenhagen, Denmark  
**Astrocytic connexin hemichannels are regulated by PKC phosphorylation in an isoform-specific manner** S17-01
- 10:30–11:00 Christian Naus** Vancouver, Canada  
**Connexin43 phosphorylation impacts ischemic injury in stroke** S17-02
- 11:00–11:30 Christian Steinhäuser** Bonn, Germany  
**Cytokine-induced phosphorylation of Cx43 and uncoupling of hippocampal astrocytes as a cause of human temporal lobe epilepsy** S17-03
- 11:30–12:00 Frank Winkler** Heidelberg, Germany  
**Cx43 gap junctions connect malignant astrocytoma cells to a functional and resistant network** S17-04
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## Kilsyth Room (Level 0)

- 10:00–12:00 Symposium S18**  
**DROSOPHILA GLIA: RECONSTRUCTING THE NERVOUS SYSTEM**  
**Organizers: Angela Giangrande** Illkirch, France  
**Alicia Hidalgo** Birmingham, UK
- 10:00–10:30 Angela Giangrande** Illkirch, France  
**The Glide/Gcm fate determinant controls initiation of collective cell migration by regulating Frazzled** S18-01
- 10:30–11:00 Alicia Hidalgo** Birmingham, UK  
**Glial gene networks for CNS regeneration and repair: from fruit-flies to mammals** S18-02
- 11:00–11:30 Benjamin Altenhein** Cologne, Germany  
**Glial cell migration in Drosophila: individual cell identities and cell-cell communication** S18-03
- 11:30–12:00 Christian Klämbt** Münster, Germany  
**Drosophila ensheathing glial cells actively modulate locomotion behavior** S18-04

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**Pentland Auditorium (Level 3)**

- 10:00–12:00 Symposium S19**  
**SIGNALS REGULATING MICROGLIAL PHAGOCYTOSIS OF NEURONS, SYNAPSES AND MYELIN**  
**Organizers: Guy Brown** Cambridge, UK  
**Harald Neumann** Bonn, Germany
- 10:00–10:30** **Guy Brown** Cambridge, UK  
**Microglial phagocytosis of neurons via VNR, MER and P2Y6 may contribute to inflammatory brain pathology** S19-01
- 10:30–11:00** **Harald Neumann** Bonn, Germany  
**Inhibition of innate immunity by low molecular weight polysialic acid as a novel therapy approach for age related macular degeneration** S19-02
- 11:00–11:30** **Dorothy Schafer** Worcester, UK  
**A synaptic feast: microglial phagocytosis governing neural circuit plasticity** S19-03
- 11:30–12:00** **Shlomo Rotshenker** Jerusalem, Israel  
**Myelin activates and inhibits its own phagocytosis by simultaneous ligation of both activator-phagocytic and inhibitor-SIRP $\alpha$  receptors on microglia and macrophages** S19-04
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**Tinto + Moorfoot Room (Level 0)**

- 10:00–12:00 Symposium S20**  
**CYTOSKELETON DYNAMICS IN GLIA**  
**Organizers: João Bettencourt Relvas** Porto, Portugal  
**Carmen Melendez-Vasquez** New York, USA
- 10:00–10:30** **João Bettencourt Relvas** Porto, Portugal  
**Rho GTPase regulation of glia homeostasis** S20-01
- 10:30–11:00** **Carmen Melendez-Vasquez** New York, USA  
**Mechanical properties of the injured CNS: implications for remyelination and repair** S20-02
- 11:00–11:30** **Holly Colognato** Stony Brook, USA  
**Dystroglycan: a structural linker repurposed to regulate signaling pathways critical to postnatal brain development** S20-03
- 11:30–12:00** **Andrew Jarjour** Edinburgh, UK  
**Polarity signalling controls the formation and organization of CNS myelin** S20-04



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**Strathblane Hall (Level 0)****12:00–12:45 Lunch Break**

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**Cromdale Hall (Level -2)****12:45–15:45 Poster Session III**

Late posters are located in the Strathblane Hall (Level 0).

**15:45–17:45 SYMPOSIA V (S21–S25)**

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**Fintry Auditorium (Level 3)****15:45–17:45 Symposium S21****ASTROCYTE REGULATION OF NEURONAL SYNAPSE NUMBER AND STRENGTH****Organizers:** Nicola Allen La Jolla, USA  
Cagla Eroglu Durham, UK

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|--------------------|--|---------------|
| <b>15:45–16:15</b> | <b>Nicola Allen</b> La Jolla, USA<br><b>Astrocyte regulation of neuronal glutamate receptors</b>   | <b>S21-01</b> |
| <b>16:15–16:45</b> | <b>Chris Risher</b> Durham, UK<br><b>Control of synaptic connectivity by astrocytes</b>  | <b>S21-02</b> |
| <b>16:45–17:15</b> | <b>Andreas Faissner</b> Bochum, Germany<br><b>Tenascin proteins and chondroitinsulfate proteoglycans modulate formation and plasticity of the tripartite synapse</b> | <b>S21-03</b> |
| <b>17:15–17:45</b> | <b>David Rowitch</b> Cambridge, UK<br><b>Development of functionally heterogeneous astrocytes in mammalian CNS</b>   | <b>S21-04</b> |
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**Kilsyth Room (Level 0)****15:45–17:45 Symposium S22****MICROGLIA PHYSIOLOGY IN HEALTH AND DISEASE: NEW MECHANISMS AND SIGNALLING PATHWAYS****Organizers:** Christian Madry London, UK  
Renaud Jolivet Geneva, Switzerland

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|--------------------|---|---------------|
| <b>15:45–16:15</b> | <b>Christian Madry</b> London, UK<br><b>Microglial surveillance of the brain is regulated by an anaesthetic-sensitive two-pore domain K<sup>+</sup> channel</b> | <b>S22-01</b> |
| <b>16:15–16:45</b> | <b>Renaud Jolivet</b> Geneva, Switzerland<br><b>Two-photon imaging of calcium signalling in hippocampal microglia</b>   | <b>S22-02</b> |

- 16:45–17:15** Katerina Akassoglou San Francisco, USA  
**Microglia responses to BBB disruption: mechanisms, imaging, therapeutics** S22-03
- 17:15–17:45** Knut Biber Freiburg, Germany  
**Protective microglia responses are fading in models for neurodegenerative diseases** S22-04

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**Sidlaw Auditorium (Level 3)**

- 15:45–17:45** **Symposium S23**  
**DYSREGULATION OF PROTEIN TRANSLATION AND MYELIN DISORDERS**  
**Organizer: Wensheng Lin** Minneapolis, USA
- 15:45–16:15** Orna Elroy-Stein Tel Aviv, Israel  
**The importance of tight control of protein synthesis to brain homeostasis: lessons from vanishing white matter disease** S23-01
- 16:15–16:45** Christopher Proud Adelaide, Australia  
**How do mutations in the genes for eukaryotic initiation factor 2B lead to vanishing white matter disease?** S23-02
- 16:45–17:15** Kevin Ess Nashville, USA  
**Control of myelination by mTOR kinase signaling in tuberous sclerosis complex** S23-03
- 17:15–17:45** Wensheng Lin Minneapolis, USA  
**Impaired eIF2B activity in oligodendrocytes contributes to vanishing white matter disease pathogenesis** S23-04

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**Tinto + Moorfoot Room (Level 0)**

- 15:45–17:45** **Symposium S24**  
**CONFLICTING ROLES OF NEURO-GLIAL RESPONSES IN STROKE AND BRAIN INJURY**  
**Organizer: Jaroslaw Aronowski** Houston, USA
- 15:45–16:15** Eng Lo Charlestown, USA  
**Help-me signaling for CNS recovery** S24-01
- 16:15–16:45** Jaroslaw Aronowski Houston, USA  
**Ischemic neurons modulate early microglia/macrophages phenotype and post-injury brain cleanup and recovery process** S24-02

- 16:45–17:15** Jun Chen Shanghai, China  
**Microglia/macrophage polarization: a double-edged sword for brain injury and repair** S24-03
- 17:15–17:45** Maria Moro Madrid, Spain  
**Modulation of the interplay between the CNS and the innate immune system for neuroprotection and recovery in stroke** S24-04

**Pentland Auditorium (Level 3)**

- 15:45–17:45** **Symposium S25**  
**HETEROGENEITY OF REACTIVE ASTROCYTES; DISSECTING ASTROCYTE (DYS)FUNCTION IN NEUROLOGICAL DISEASE**  
**Organizers: Stefanie Robel** Roanoke, USA  
**Frank Kirchhoff** Homburg/Saar, Germany
- 15:45–16:15** Keith Murai Montreal, Canada  
**Mechanisms generating astrocyte diversity in the mature brain: Implications for the injured and diseased brain** S25-01
- 16:15–16:45** Magdalena Goetz Munich, Germany  
**The role of astrocyte heterogeneity – from stem cells to scar formation** S25-02
- 16:45–17:15** Frank Kirchhoff Homburg/Saar, Germany  
**Heterogeneity of astrocytes in the mouse cortex – how behavior or trauma affect glial properties in vivo** S25-03
- 17:15–17:45** Stefanie Robel Roanoke, USA  
**Heterogeneity of reactive astrocytes in traumatic brain injury** S25-04

**17:45–18:15** **Break**

In order to allow a quick rebuilding of the auditoria in Level 3 for the following plenary lecture, we would like to ask all delegates to leave these rooms during the break.

**Pentland Suite (Level 3)**

- 18:15–19:15** **Plenary Lecture P05**  
**Chair: David Parkinson** Plymouth, UK
- Laura Feltri** Buffalo, USA  
**Chemical and mechanical cues govern Schwann cell-axon interactions and myelination**

TUESDAY, JULY 11, 2017

Pentland Suite (Level 3)

**08:30–9:30** **Plenary Lecture P06**  
**Chair: Carlos Matute** Leioa, Spain

supported by



**Richard Daneman** San Diego, USA  
**Regulation of the blood-brain barrier**  
**in health and disease**

**9:30–10:00** **Break**

In order to allow a quick rebuilding of the Pentland Suite for the following symposia, we would like to ask all delegates to leave this room during the break.

**10:00–12:00** **SYMPOSIA VI (S26–S30)**

Sidlaw Auditorium (Level 3)

**10:00–12:00** **Symposium S26**  
**METABOLIC HOMEOSTASIS, A KEY STONE IN MYELINATED**  
**FIBER BIOLOGY**  
**Organizer: Nicolas Tricaud** Montpellier, France

**10:00–10:30** **Bogdan Beirowski** Buffalo, USA  
**Upholding nerve integrity by metabolic signaling in**  
**Schwann cells** S26-01

**10:30–11:00** **Klaus-Armin Nave** Göttingen, Germany  
**Powering axons: novel functions of oligodendrocytes**  
**in energy metabolism** S26-02

**11:00–11:30** **Kim Do** Lausanne, Switzerland  
**Redox regulation and myelin in schizophrenia: a**  
**human and mice study** S26-03

**11:30–12:00** **Nicolas Tricaud** Montpellier, France  
**Challenging the lactate production and transport in**  
**Schwann cell myelinated fibers** S26-04

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**Fintry Auditorium (Level 3)**

- 10:00–12:00** **Symposium S27**  
**BRAIN LACTATE SHUTTLING: FROM PHYSIOLOGY TO THERAPY**  
**Organizers: Anne-Karine Bouzier-Sore** Bordeaux, France  
**Lorenz Hirt** Lausanne, Switzerland
- 10:00–10:30** **Stefanie Schirmeier** Münster, Germany  
**The Drosophila glia-neuron lactate shuttle** S27-01
- 10:30–11:00** **Jérôme Clasadonte** Lille, France  
**Connexin 43-mediated astroglial metabolic networks contribute to the regulation of the sleep-wake cycle** S27-02
- 11:00–11:30** **Anne-Karine Bouzier-Sore** Bordeaux, France  
**Role of lactate in brain energy metabolism and neuroprotection** S27-03
- 11:30–12:00** **Lorenz Hirt** Lausanne, Switzerland  
**Lactate as a neuroprotectant in cerebral ischemia** S27-04
- 

**Kilsyth Room (Level 0)**

- 10:00–12:00** **Symposium S28**  
**ROLE OF PERIPHERAL AND CENTRAL GLIA IN CHRONIC PAIN**  
**Organizer: Julie Olson** Minneapolis, USA
- 10:00–10:30** **Parisa Gazerani** Aalborg, Denmark  
**Communication between satellite glial cells and ganglion neurons in sensory ganglia under normal and pathological pain signaling** S28-01
- 10:30–11:00** **Makoto Tsuda** Fukuoka, Japan  
**Purinergic stimulation of spinal microglia contributes to chronic pain** S28-02
- 11:00–11:30** **Julie Olson** Minneapolis, USA  
**Deciphering glia- neuron interactions to develop new therapies for chronic pain** S28-03
- 11:30–12:00** **Marzia Malcangio** London, UK  
**Neuroimmune communication in chemotherapy-induced neuropathic pain** S28-04

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**Pentland Auditorium (Level 3)**

- 10:00–12:00 Symposium S29**  
**GLIA-IMMUNE CELL INTERACTION IN NEUROINFLAMMATORY DISEASES**  
**Organizers: Ari Waisman Mainz, Germany**  
**Francisco Quintana Boston, USA**
- 10:00–10:30 Ari Waisman Mainz, Germany**  
**Inflammatory cues in microglia repopulation and function** S29-01
- 10:30–11:00 Francisco Quintana Boston, USA**  
**Regulation of CNS inflammation by astrocytes** S29-02
- 11:00–11:30 Roland Liblau Toulouse, France**  
**Neurons cannot ignore T cells: therapeutic implications for inflammatory neurological diseases** S29-03
- 11:30–12:00 Burkhard Becher Zürich, Switzerland**  
**How cytokines can trigger neuroinflammation** S29-04
- 

**Tinto + Moorfoot Room (Level 0)**

- 10:00–12:00 Symposium S30**  
**ASTROCYTE CONTRIBUTIONS TO NMDA RECEPTOR-DEPENDENT SYNAPTIC PLASTICITY AND LEARNING**  
**Organizers: Christian Henneberger Bonn, Germany**  
**Giovanni Marsicano Bordeaux, France**
- 10:00–10:30 Yuriy Pankratov Coventry, UK**  
**Synergistic action of glutamatergic and purinergic gliotransmitters in the neocortex** S30-01
- 10:30–11:00 Philip Haydon Boston, USA**  
**Wakefulness dependent cholinergic modulation of astrocyte-derived D-serine and NMDA receptor function** S30-02
- 11:00–11:30 Giovanni Marsicano Bordeaux, France**  
**Astroglial CB1 receptors control object recognition memory via D-serine** S30-03
- 11:30–12:00 Christian Henneberger Bonn, Germany**  
**Endocannabinoids control NMDAR-dependent supra-linear dendritic integration via astroglial co-agonist supply** S30-04

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**Strathblane Hall (Level 0)****12:00–12:45 Lunch Break**

In order to allow a quick rebuilding of the auditoria in Level 3 for the following plenary lecture, we would like to ask all delegates to leave these rooms during the lunch break.

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**Pentland Suite (Level 3)****12:45–13:45 Plenary Lecture P07**

**Chair: Mikael Simons** Munich, Germany

**Dwight Bergles** Baltimore, USA

***Sounds in silence: how glial cells in the ear shape development of the auditory system***

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**Pentland Suite (Level 3)****13:45–14:00 Closing Remarks**



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# Poster Sessions

## POSTER SESSION I

Saturday, July 8

14:15–17:15

## POSTER SESSION II

Sunday, July 9

12:45–15:45

## POSTER SESSION III

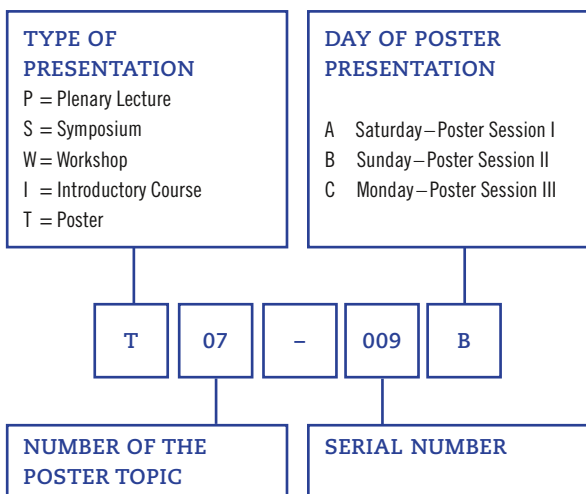
Monday, July 10

12:45–15:45

### EXPLANATION

There is one poster session per day: poster session I on Saturday, July 8, poster session II on Sunday, July 9 and poster session III on Monday, July 10. Posters with poster numbers ending with an A are displayed on Saturday (= poster session I), posters with a poster number ending with a B are displayed on Sunday (= poster session II), poster with a poster number ending with a C are displayed on Monday. So every poster will be discussed on one day.

Each poster session (180 min) is divided into two parts (each 90 min): uneven and even serial numbers. In the first part of a poster session posters with uneven serial numbers will be discussed (e.g. T12-03B). In the second 90 min of a session posters with even serial numbers will be discussed (e.g. T12-02B). Posters should be mounted on the day of presentation until 12:00 and are supposed to remain displayed until 18:00 on Saturday, July 8 (poster session I) and until 16:30 on Sunday, July 9 (poster session II) and on Monday, July 10 (poster Session III).



# Division of Poster Sessions

## POSTER SESSION I (SATURDAY, JULY 8)

<b>T01</b>	Cell migration	p.49
<b>T02</b>	Cell proliferation, lineages and differentiation	p.51
<b>T04</b>	Cytoskeleton	p.59
<b>T08</b>	Gene expression and transcription factors	p.74
<b>T11</b>	Memory and learning	p.96
<b>T14</b>	Neuroimmunology and neuroinflammation	p.109
<b>T18</b>	Trophic factors	p.138

## POSTER SESSION II (SUNDAY, JULY 9)

<b>T03</b>	Cell signaling	p.56
<b>T06</b>	(Energy) Metabolism	p.69
<b>T07</b>	Extracellular matrix and cell adhesion molecules	p.72
<b>T09</b>	Glial-neuronal interactions	p.78
<b>T10</b>	Ischemia and hypoxia	p.92
<b>T15</b>	Neurovascular interactions	p.127
<b>T17</b>	Transmitter receptors, ion channels and gap junctions	p.135

## POSTER SESSION III (MONDAY, JULY 10)

<b>T05</b>	Degenerative disease, toxicity and neuroprotection	p.60
<b>T12</b>	Myelin	p.96
<b>T13</b>	Neural stem/progenitor cells	p.106
<b>T16</b>	Regeneration and repair	p.129
<b>T19</b>	Tumours	p.138

# Posters

## T01 CELL MIGRATION

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### T01-001A

#### In- and extrinsic factors of oligodendroglial migration

J. Ghelman, S. Albrecht, K. Hagemeyer, T. Kuhlmann

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### T01-002A

#### Modulation of astroglial niche by stem cells for spinal cord regeneration

S. Erceg

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### T01-003A

#### Bilateral early activation of macroglial retinal cells in a mouse model of unilateral laser-induced experimental glaucoma

A.I. Ramírez, R. de Hoz, B. Rojas, J.J. Salazar, E. Salobar-García, M. Vidal-Sanz, A. Triviño, J.M. Ramírez

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### T01-004A

#### 3D printed substrates facilitate spatially controlled migration of Schwann cells and axons in dorsal root ganglion explant cultures

L. Alvey, K. Turner, J.F.X. Jones, M. Pickering

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### T01-005A

#### Ulcerative colitis induces the activation of microglia in the ventral mesencephalon along with dopaminergic neuronal death

R.M. de Pablos, A.M. Espinosa-Oliva, A. Boza-Serran, M. Sarmiento, R. Ruiz, M. Santiago, M.J. Oliva-Martín, M.A. Roca-Ceballos, S. Serres, V. Economopoulos, A.J. Herrera, N.R. Sibson, A. Machado, J.L. Venero

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### T01-006A

#### Tissue-type plasminogen activator influences oligodendrocyte migration during myelination and re-myelination

E. Maubert, C. Leonetti, R. Macrez, M. Pruvost, Y. Hommet, J. Bronsard, A. Fournier, M. Perrigault, I. Machín, D. Vivien, D. Clemente, F. de Castro, F. Docagne

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### T01-007A

#### Novel compounds targeting microglial nitric oxide release

P. Jordan, S.A. Wolf, E. Specker, M. Nazaré, H. Kettenmann

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**T01-008A****STAT3 controls the long-term survival and phenotype of repair Schwann cells during nerve regeneration**

C. Benito, J.A. Gomez-Sanchez, C.M. Davis, D. Meijer, R. Mirsky, K.R. Jessen

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**T01-009A****Phosphoinositide 3-kinase  $\gamma$  mediates chemoattractant and adrenergic control of microglial migration**

N. Schneble, C. Schmidt, J. Müller, S. Monajembashi, R. Wetzker, R. Bauer

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**T01-010A****Identification and isolation of dorsal Msx1+ neural stem cells in the adult spinal cord niche**

C. Ripoll, H. Gazalah, N. Leventoux, P. Guigue, S. Azar, V. Rigau, C.-F. Calvo, J.-L. Thomas, Y. Lallemand, B. Robert, L. Bauchet, J.-P. Hugnot

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**T01-011A****Astrocyte heterogeneity across layers of the cerebral cortex**

O. Bayraktar, D. Rowitch

---

**T01-012A****Distinct cell states within the oligodendrocyte lineage in the mouse brain: insights from single-cell RNA-Seq**

D. van Bruggen, S. Marques, S. Samudiyata, A. Zeisel, G. Castelo-Branco

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**T01-013A****Monoamine processing in *Drosophila* astrocytes**

S. Davla, D. Chitsaz, S. Li, D. van Meyel

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**T01-014A****Characterization of axonal-glial communication during development and its implications in glaucoma**

W. Jia, R.T. Karadottir

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## T02 CELL PROLIFERATION, LINEAGES AND DIFFERENTIATION

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### T02-001A

**The neurogenic potential of neocortical astrocytes following chronic brain injury and stroke**

M. Zamboni

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### T02-002A

**Regulatory T cells enhance oligodendrocyte differentiation**

M. Dittmer, T. O'hagan, G. Eleftheriadis, S. Fleville, J. Falconer, P. Bankhead, R. Medina, Y. Dombrowski, D.C. Fitzgerald

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### T02-003A

**Foxg1 expression levels in NSCs modulate astrogenesis rates**

C. Falcone, C. Grudina, S. Pluchino, A. Mallamaci

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### T02-004A

**Decrease in newly generated oligodendrocytes leads to changed myelin structures and motor dysfunctions that are rescued by transplanted cells**

S. Jäkel, A. Gruart, S. Grade, Y. Zhang, S. Kröger, F. Kirchhoff, G. Eichele, J.M. Delgado Garcia, L. Dimou

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### T02-005A

**Multipotency of NG2 cells after cerebral ischemia: new elements of reactive gliosis**

M. Valny, P. Honsa, E. Waloschkova, H. Matuskova, L. Valihrach, M. Anderova

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### T02-006A

**Schwann cells demonstrated lineage plasticity in culture and acquired oligodendrocyte phenotypes**

Y.-P. Tsui, K.L.K. Wu, Y.-S. Chan, D.K.Y. Shum

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### T02-007A

**Boundary cap cells: a source of mural cells for the developing peripheral vasculature**

P. Topilko, F. Couplier, G. Gerschenfeld, A. Gresset, I. Brunet, P. Charnay

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### T02-008A

**A web tool for the oligodendrocyte differentiation data and network analysis**

M. Cantone, M. Eberhardt, M. Küspert, S. Reiprich, M. Wegner, J. Vera

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**T02-009A****Self-renewal accounts for microglial repopulation after depletion *in vitro***H. Sakuma

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**T02-010A** This poster has been withdrawn.

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**T02-011A****Transcriptomic characterization of astrocyte differentiation and maturation to identify potential mechanisms restricting the neurogenic potential of mature astrocytes**M. Lattke, S. Vaga, F. Guillemot

---

**T02-012A****Proliferation and differentiation of NG2-glia following different types of brain disorders**D. Kirdajova, P. Honsa, H. Pivonkova, H. Matuskova, D. Kolenicova,  
M. Anderova, M. Anderova

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**T02-013A****Fate-mapping study of NG2 glia in the spinal cord and early embryonic brain**W. Huang, X. Bai, L. Schlosser, B. Catalin, L. Politti Cartarozzi, A. Scheller,  
F. Kirchhoff

---

**T02-014A****Self-renewal and differentiation potential of reactive astrocytes *in vivo***L. Canhos, S. Falk, S. Sirko, M. Götz

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**T02-015A****Modelling white matter diseases with induced oligodendrocyte precursor cells**M.K. Abdul Karim, M. Pawlowski, D. Ortmann, A. Bertero

---

**T02-016A****Differentiation of human astrocyte cell lines to model fragile X syndrome**U.-K. Peteri, L. Roybon, M. Castrén

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**T02-017A****An automated chemical screening pipeline for drug discovery in zebrafish**K. Cole, J. Early, D. Lyons

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**T02-018A****Automated screening to identify chemical modulators of myelination using zebrafish**

J. Early, K. Cole, D. Lyons

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**T02-019A****Satellite glial cells derived from dorsal root ganglia – candidates for cell transplantation?**

W. Tongtako, A. Lehmecker, D. Eikelberg, C. Puff, W. Baumgärtner, I. Gerhauser

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**T02-020A****Tns3, a new marker of immature oligodendrocytes during (re)myelination, is absolutely required for oligodendrocyte differentiation**

C. Parras, H. Hmidan

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**T02-021A****Role of microRNAs miR-124 and miR-125b in directing neuronal reprogramming of astrocytes in vitro**

E. Papadimitriou, A. Lamprou, A.-M. Driva, P.N. Koutsoudaki, D. Thomaidou

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**T02-022A****Endothelin-1 signaling in the postnatal subventricular zone regulates oligodendrocyte progenitor cell proliferation and maturation**

K. Adams, V. Gallo

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**T02-023A****Differentiation of functional astrocytes from mouse embryonic stem cells (mESC)**

D.S. Juneja, S.J. Nasuto, E. Delivopoulos

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**T02-024A****Oligodendrocyte precursor cells generated from induced pluripotent stem cells derived neural progenitors**

N. Gunhanlar

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**T02-025A****Oxidative stress in differentiating oligodendroglia vulnerable to secondary degeneration following neurotrauma**

M. Fitzgerald, C. Bartlett, M. Kilburn, M. Giacci

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**T02-026A****Multicolor clonal analysis to study astrocyte network development in the mouse cerebral cortex**

S. Clavreul, L. Abdeladim, E. Hernandez, S.-H. Ieng, J. Durand, R. Barry, R. Benosman, G. Bonvento, E. Beaurepaire, J. Livet, K. Loulier

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**T02-027A****Small molecule mediated differentiation of human iPSC derived neural stem cells towards low and high GFAP expressing subtypes of astrocytes**

P. Garg, K. Nieweg

---

**T02-028A****K<sub>2P</sub> channels: novel regulators of oligodendroglial cell functions**

S. Albrecht, S. Korr, L. Nowack, V. Narayanan, F. Stortz, M. Araúzo-Bravo, S.G. Meuth, P. Ehling, T. Kuhlmann

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**T02-029A****Astroglial heterogeneity in the cerebellum results from distinct embryonic and postnatal progenitors with different proliferative behaviors**

V. Cerrato, E. Parmigiani, M. Figueres-Oñate, J. Aprato, C. De'sperati, L. Lopez-Mascaraque, A. Buffo

---

**T02-030A****Cellular and molecular analysis of region-specific differences of NG2-glia in the adult mouse brain**

N. Unger, N. Kannaiyan, I. Fornè, M. Rossner, A. Imhof, L. Dimou

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**T02-031A****The study of populations of glial cells present in the central canal lining of rat spinal cord during the postnatal development**

A. Alexovič Matiašová, J. Ševc, Z. Daxnerová

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**T02-032A****Tissue interactions regulating the initiation of gliogenesis in *Xenopus***

A. Sater, C. Ulrich

---

**T02-033A****Abnormal oligodendrocyte maturation and myelination in a mouse model of Timothy syndrome**

V. Cheli, T. Lama, D. Santiago González, V. Spreuer, R. Rasmusson, G. Bett, P. Paez



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**T02-034A**

**Systematic demonstration of oligodendrocyte precursor cells functional heterogeneity depending on the animal species and age: a proof of concept for further (re)myelinating therapies for multiple sclerosis**

A. Bribian, E. Medina-Rodriguez, I. Garcia-Alvarez, S. Nocera, I. Machín, P.F. Esteban, V. Murcia-Belmonte, L. Vega-Zelaya, J. Pastor, L. Garrido, F. de Castro

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**T02-035A**

**Contorted radial glia in the telencephalon of fish**

A. Mack, U. Mattheus, P. Neckel

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**T02-036A**

**Does modulation of SIRPα in macrophages affect survival, proliferation, migration, and differentiation of oligodendrocyte lineage cells?**

C. Wang, Y.A. Syed, S. Rotshenker, M.R.N. Kotter

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**T02-037A**

**Clonal expansion of oligodendroglia from single progenitors**

M. Figueres-Oñate, N. Salvador, M. Sánchez-Villalón, L. López-Mascaraque

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**T02-038A**

**Deletion of the GFAP-cre derived TCTP leads to defects in astrogenesis and behavior in mice**

S.-H. Chen

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## T03 CELL SIGNALLING

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### T03-001B

#### Functional interaction between RGS4 and mGluR5 in astrocytes: potential implication in neuropathic pain

P. Doyen, M. Vergouts, E. Hermans

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### T03-002B

#### Dysfunction in motility and apoptotic cell recognition leads to the impairment of microglial phagocytosis in epilepsy

I. Díaz-Aparicio, O. Abiega, S. Beccari, A. Nadjar, S. Layé, Q. Leyrolle, M. Domercq, A. Pérez-Samartín, V. Sánchez-Zafra, I. Paris, J. Valero, J.C. Savage, C.W. Hui, M.-È. Tremblay, M.D.M. Vivanco, C. Matute, M. Maletic-Savatic, J.M. Encinas, A. Sierra

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### T03-003B

#### Class IIa histone deacetylases link cAMP signaling to the myelin transcriptional program of Schwann cells

S. Velasco-Aviles, C. Gomis-Coloma, J.A. Gomez-Sanchez, A. Casillas, H. Cabedo

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### T03-004B

#### miRNA profiling of exosomes from trigeminal satellite glial cells

M. Duroux, H. Vinterhøj, P. Gazerani

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### T03-005B

#### The Wnt/ $\beta$ -catenin signaling pathway alters the differentiation potential of neonatal and adult neural stem/progenitor cells *in vitro*

J. Kriska, T. Knotek, L. Janeckova, O. Butenko, D. Kolenicova, D. Dzamba, P. Honsa, Z. Nahacka, L. Andera, V. Korinek, M. Anderova

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### T03-006B

#### Recording and analysis of multi-modal brain signals in awake mice

G. Stopper, M. Schweigmann, L. Schlosser, A. Scheller, K. Koch, F. Kirchhoff

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### T03-007B

#### Changes in the OPC oligodendrocyte progenitor cell proteome with ageing

A. Guzman de la Fuente, R.M. Queiroz, G. Dangelo, W. Yu, R. Chaerkady, C.A. Jones, R.J.M. Franklin

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**T03-008B****Characterisation of chimeric optogenetic  $\alpha_1$  adrenoreceptors for investigating astrocytic calcium signalling**L. Humphrys, T. Bellamy, N. Holliday

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**T03-009B****Protein Tyrosine Phosphatase Alpha (PTP $\alpha$ ) is required for laminin-induced signaling during oligodendrocyte differentiation**P. Ly, C. Stewart, C. Pallen

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**T03-010B****Biphalin, a dimeric enkephalin, alleviates LPS-induced activation in rat primary microglial cultures in opioid receptor-dependent and -independent manners**K. Popiołek-Barczyk, A. Piotrowska, W. Makuch, J. Mika

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**T03-011B****Differences between cortical and spinal cord astrocytes in the induction of reactive gliosis**R. Hareeri, G. Hathway, T. Bellamy

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**T03-012B****Screening for new regulators of microglia development by CRISPRing zebrafish**L. Kuil, N. Oosterhof, H. van der Linde, T. van Ham

---

**T03-013B****The anatomy of astrocytic vesicles containing gliotransmitters**J. Jorgacevski, M. Kreft, C. Geisler, M. Potokar, P. Singh, A. Gucek, A. Egner, R. Zorec

---

**T03-014B****Adrenergic activation attenuates astrocyte swelling: a new strategy for the treatment of cytotoxic edema**N. Vardjan, A. Horvat, J.E. Anderson, D. Yu, D. Croom, X. Zeng, M. Kreft, Y.D. Teng, S.A. Kirov, R. Zorec

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**T03-015B****Role of serotonergic signaling in regulation of astrocytes morphology**F.E. Müller, V. Cherkas, E. Ponimaskin, A. Zeug

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**T03-016B**

**Panglial gap-junctional coupling mediates calcium signaling between olfactory bulb astrocytes and olfactory ensheathing cells**

A. Beiersdorfer, C. Lohr

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**T03-017B**

**Gap junctions are required for glia-glia communication, calcium signaling and survival in *Drosophila* peripheral nervous system (PNS)**

M. Das, V. Auld

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**T03-018B** This poster has been withdrawn.

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**T03-019B**

**The impact of astrocytes morphology on Ca<sup>2+</sup> dynamics**

A. Zeug, F.E. Müller, V. Cherkas, E. Ponimaskin

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**T03-020B**

**The JAK2-STAT3 pathway is necessary and sufficient to induce reactivity in astrocytes**

L. Ben Haim, K. Ceyzeriat, M.-A. Carrillo-de Sauvage, L. Abjean, F. Petit, M. Guillermier, C. Derbois, M.A. Palomares, M.-C. Gaillard, N. Dufour, F. Aubry, P. Gipstein, A. Bémelmans, G. Bonvento, M. Dhenain, R. Olaso, J.F. Deleuze, P. Hantraye, E. Brouillet, C. Escartin

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**T03-021B**

**Characterization of calcium signals from intensity based fluorescence indicators**

V. Cherkas, F.E. Müller, E. Ponimaskin, A. Zeug

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**T03-022B**

**Different intracellular signalling regulate Schwann cell development, maturation and plasticity: role of SRC and phospho-FAK pathways**

A. Colciago, V. Bonalume, M. Ballabio, L. Caffino, L.F. Castelnovo, D. Colleoni, F. Fumagalli, S. Melfi, V. Magnaghi

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**T03-023B**

**Distinct UPR profiles during maturation of glial and neuronal progenitors of the cerebellum**

M. Naughton, J. McMahon, U. FitzGerald

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**T03-024B**

**The lactate receptor HCAR1 promotes neuronal development and protects axons and myelin during hypoglycemia**

L.H. Kennedy, K.A. Andersson, Ø.P. Haugen, M.A. Puchades, J. Storm-Mathisen, C. Morland, L.H. Bergersen, J.E. Rinholm

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**T03-025B**

**Reactive astrocytes from the spinal cord of mSOD1 mice pups trigger microglia M1 polarization, while switch mSOD1 microglia into M1/M2 phenotypes that lately become irresponsive**

A.R. Vaz, C. Cunha, C. Gomes, D. Brites

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**T04 CYTOSKELETON**

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**T04-001A**

**Expression of the O-linked N-Acetylglucosamine containing epitope H (O-GlcNAcH) in lamb glial cells in vitro and in vivo**

D. Arvanitis, Y. Drosos, A. Zibis, S. Havaki, L. Arvanitis

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**T04-002A**

**Identification of actomyosin-based biomarkers relevant for microglia activation**

A. Cruz, S. Domingues, A.F. Maia, J.B. Relvas, I.M. Pinto

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**T04-003A**

**From stars to scars: drebrin coordinates actin dynamics in astrocytes specifically during traumatic brain injury**

K. Murk, J. Ledderose, J. Schwieck, B. Eickholt

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**T04-004A**

**Cytosolic cathepsin D regulates actin cytoskeleton dynamics during microglial migration**

L. Yijun, J. Yang, T. Zhang, D. Duan, Y. Hu, Z. Guo, H. Lou, M.S. Ho, S. Duan

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**T04-005A**

**Phospholipid re-localization induces microglial ramification**

K. Tokizane, H. Konishi, K. Makide, H. Kawana, S. Nakamuta, K. Kaibuchi, T. Ohwada, J. Aoki, H. Kiyama

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**T04-006A**

**Iba-1 silencing in BV2 microglia cell line interferes with phagocytosis and cell migration**

R.-O. Gheorghe, A. Filippi, A.F. Deftu, G. Chiritoiu, A. Tuchilus, V. Ristoiu

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**T04-007A**

**The actin nucleator Jmy is a novel regulator of oligodendrocyte morphology and myelin sheath formation**

M.M. Azevedo, F.P. Cordelières, P. Sampaio, A.I. Seixas, J.B. Relvas

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**T04-008A****The role(s) of Rnd2, an atypical Rho GTPase, in nervous system myelination**A.I. Seixas, M.M. Azevedo, J.B. Relvas

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**T05 DEGENERATIVE DISEASE, TOXICITY AND NEUROPROTECTION**

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**T05-001C****Microglial response modulation through the inhibition of colony-stimulating factor 1 receptor (CSF-1R) to promote remyelination and neuroprotection**V.S.B. Wies Mancini, J.M. Pasquini, J.D. Correale, L.A. Pasquini

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**T05-002C****Mitochondrial function in Pink1 deficient astrocytes**P. Dirscherl, M. Jastroch, D. Vogt-Weisenhorn, W. Wurst

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**T05-003C** This poster has been withdrawn.

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**T05-004C****Changes in phagocytosis and potassium channel activity in microglia of 5xFAD mice indicate alterations in purinergic signaling in Alzheimer's disease**S. Wendt, M. Maricos, N. Vana, N. Meyer, D. Güneykaya, M. Semtner, H. Kettenmann

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**T05-005C****Chronic inhibition of P2Y1-receptor signalling reduces astrocytic hyperactivity in vivo and improves cognitive outcome in an Alzheimer's disease mouse model**N. Reichenbach, A. Delekate, S. Poll, K. Keppler, B. Breithausen, A. Keller, M. Fuhrmann, C. Henneberger, G.C. Petzold

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**T05-006C****Age-associated changes of Scavenger-A in the pathophysiology of Alzheimer's disease and neurodegeneration**R. von Bernhardt, F. Cornejo, F. Heredia, P. Munoz, J. Poblete

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**T05-007C****Effect of an  $\alpha$ -MSH analogue against oxidative damage induced by saturated fatty acid in vitro and in vivo**D. Ramirez, J. Saba, J. Turati, L. Carniglia, D. Durand, C. Caruso, M. Lasaga

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**T05-008C****Alzheimer amyloid-beta transcytosis by astrocytes**

M. Domínguez-Prieto, A. Velasco, A. Taberero, J.M. Medina

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**T05-009C****The astrocytic S100B with its receptor RAGE is aberrantly expressed in SOD1-G93A ALS models and its inhibition decreases the expression of pro-inflammatory genes**

A. Serrano, C. Donno, S. Giannetti, M. Peric, S. Stamenkovic, P. Andjus, N. Dambrosi, F. Michetti

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**T05-010C****Protective effect of N-Arachidonylglycine-GPR18 signalling after excitotoxic neuronal lesion**

U. Grabiec, T. Hohmann, A. Klemenz, C. Ghadban, C. Rothgänger, K. Mackie, F. Dehghani

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**T05-011C****Effect of the anti-inflammatory neuropeptide cortistatin on the pathology of Huntington's disease**

N. Adán, M. Cherubini, L. de Lecea, S. Gines, E. González-Rey

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**T05-012C****Connexin 43 affects disease progression and motor neuron toxicity in amyotrophic lateral sclerosis**

A. Almad, C. Welsh, Y. Huo, J.-P. Richard, A. Patankar, S. Gross, N. Maragakis

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**T05-013C****Microglial phagocytosis of apoptotic cells is impaired by genetic cystatin B deficiency, a mouse model of progressive myoclonus epilepsy (Unverricht-Lundborg disease)**

V. Sierra-Torre, A. Plaza-Zabala, O. Abiega, V. Sánchez-Zafra, J. Valero, I. Díaz-Aparicio, I. Körber, A.-E. Lehesjoki, A. Sierra

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**T05-014C****Impaired glial metabolism in R6/2 mouse model of Huntington's disease**

J. Andersen, N. Skotte, A. Nørremølle, H.S. Waagepetersen

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**T05-015C****Targeted expression of disease-associated polyglutamine proteins in glia impairs blood-brain barrier in *Drosophila***

P.-A. Yeh, W.-C. Chu, J.-Y. Liu, Y.H. Sun

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**T05-016C****Astrocyte reactivity impacts mHtt aggregation in mouse models of Huntington's disease**

L. Abjean, L. Ben Haim, M.-A. Carrillo-de Sauvage, M.-C. Gaillard, A.-S. Hérard, F. Petit, P. Gipstein, M. Guillemier, S. Bernier, N. Dufour, A. Bémelmans, G. Bonvento, P. Hantraye, E. Brouillet, C. Escartin

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**T05-017C****Glial HO-1: a driver of Parkinson-like neurodegeneration in aging mice**

M. Cressatti, W. Song, A. Liberman, C. Galindez, H. Schipper

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**T05-018C****Breaking Bad: the role of microglia in retinal degeneration and neuroprotection**

S. Roche, A. Wyse-Jackson, T. Cotter

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**T05-019C****Dynamic changes in microglia in a Cx3cr1 driven Ercc1 knockout mouse model**

X. Zhang, S. Kooistra, H. van Weering, E. Wesseling, E. Boddeke, B. Eggen

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**T05-020C****The A $\beta$  protofibril selective antibody mAb158 prevents accumulation of A $\beta$  in astrocytes and rescues neurons from A $\beta$  induced apoptosis**

E. Nikitidou, S. Söllvander, M. Zysk, L. Söderberg, D. Sehlin, L. Lannfelt, A. Erlandsson

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**T05-021C****Astrocyte volume regulation during the progression of Alzheimer's disease**

D. Kolenicova, B. Eliasova, D. Kirdajova, J. Kriska, M. Valny, P. Honsa, L. Valihrach, M. Kubista, M. Anderova

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**T05-022C****Hallmarks of Alzheimer's disease in stem cell-derived human neurons transplanted into mouse brain**

A. Arranz, I. Espuny-Camacho, M. Fiers, A. Snellinx, K. Ando, S. Munck, N. Corthout, E. Radaelli, K. Leroy, J.P. Brion, P. Vanderhaeghen, B. de Strooper

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**T05-023C****Pharmacological inhibition of PDGF-R and CSF-1R in Schwann cells and macrophages prevents muscle denervation and sciatic nerve pathology in an inherited model of ALS**

E. Trias, S. Ibarburu, R. Barreto-Núñez, O. Hermine, J. Beckman, L. Barbeito



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T05-024C

**Exploring the role of astrocytic Ca<sup>2+</sup> signaling in Alzheimer's disease**

A. Lia, G. Losi, M. Zonta, G. Carmignoto, C. Fasolato

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T05-025C

**Cell autonomous and non-cell autonomous mechanisms of disease in VCP-related ALS**

G. Tyzack, C. Hall, Z. Yao, A. Lakatos, S. Gandhi, R. Patani

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T05-026C

**Alterations in glutamate transporter GLT-1 homeostasis in Lafora disease**

C. Muñoz-Ballester, E. Pérez-Jiménez, R. Viana, P. Sanz

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T05-027C

**Age-related changes in astrocyte swelling and their volume regulation**

J. Tureckova, D. Kolenicova, B. Eliasova, M. Valny, P. Honsa, J. Kriska, L. Valihrach, M. Kubista, M. Anderova

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T05-028C

**NADPH-oxidase of mononuclear phagocytes mediates neurodegeneration after repeated systemic challenge with lipopolysaccharides**

A. Shahraz, M. Mathews, P. Kruse, H. Neumann

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T05-029C

**Glial activation and its mechanisms of control in the MPTP mouse model of Parkinson's disease**

N. Rabaneda-Lombarte, J. Serratos, J. Bové, M. Vila, J. Saura, C. Solà

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T05-030C

**Reduced insulin signalling in *Drosophila* glia reduces ageing phenotypes and extends lifespan**

N. Woodling, A. Rajasingam, A. Tillmann, L. Partridge

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T05-031C

**The antibacterial drug Rifampicin prevents  $\alpha$ -Synuclein-mediated microglial cell activation**

R. Raisman-Vozari, L. Acuña, S. Hamada, N. Corbalán, F. González, J. Rocca, R.N. Chehín, D. Papy, J. Sepúlveda Diaz, P.P. Michel

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T05-032C

**Low levels of sialic acids induce early neurodegeneration in aging mice**

C. Schuy, D. Gerard, L. Sinkkonen, J.N. Hansen, A. Halle, V.S. Gnanapragassam, R. Horstkorte, H. Neumann, B. Linnartz-Gerlach

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**T05-033C****Microglia exacerbates amyloid-induced synaptic dysfunction in Alzheimer's disease**E. Capetillo-Zarate, J. Zuazo, C. Ortiz-Sanz, E. Alberdi, C. Matute

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**T05-034C** This poster has been withdrawn.

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**T05-035C****Loss of Crif1 triggers Parkinsonian abnormalities via reactive glial interaction in mice**H. Jun Young, R. Min Jeong, H. Jeong Su, J. Yun Seon, K. Soo Jeong, L. Min Jeong, R. Il Whan, J. Xianshu, C. Song Yi, C. Woosuk, K. Gi Ryang

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**T05-036C****Incretin hormones regulate microglial oxidative stress, survival and expression of trophic factors**A. Klegeris, L. Spielman, D. Gibson

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**T05-037C****Progranulin protects against exaggerated axonal injury and astrogliosis following traumatic brain injury in mice**M. Schaefer, L. Menzel, C. Friedrich, R. Hummel, L. Dangel, J. Winter, K. Schmitz, I. Tegeder

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**T05-038C****Altered expression of the GPR17 receptor in the spinal cord of SOD1G93A mice, a model of amyotrophic lateral sclerosis**M. Fumagalli, E. Bonfanti, T. Bonifacino, M. Milanese, G. Bonanno, M.P. Abbracchio

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**T05-039C****Involvement of caspase-8 in microglial activation mediated by B-amyloid**A.M. Espinosa-Oliva, E. González-Miranda, K. Tayara, R. Hornedo-Ortega, A.J. Herrera, R.M. de Pablos, J.L. Venero

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**T05-040C****Astrocytic connexin 30 deletion leads to hypersensitivity in a MPTP mouse model of Parkinson's disease**A. Fujita, H. Yamaguchi, Y. Matsuoka, K.-I. Yamada, R. Yamasaki, J.-I. Kira

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**T05-041C****Astrocytic expression of the chemokine receptor CXCR7/ACKR3 in the diseased CNS**J. Engele, F. Pelkner, G. Stein, D.N. Angelov, J. Boltze, D.-C. Wagner, F. Odoardi, A. Flügel, M. Puchert

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**T05-042C****Astrocytic hyperactivity in Alzheimer's disease**N. Blank, A. Delekate, G.C. Petzold

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**T05-043C****Establishment of human induced pluripotent stem cell derived astrocytes for modelling human prion disease *in vitro***J. Alibhai, Z. Krejciova, J. Ironside, J. Manson, S. Chandran, M. Head

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**T05-044C****Astrocyte senescence in mice is mediated by transforming growth factor beta 1**S. Amram, D. Frenkel

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**T05-045C****Long-living immunodeficient hSOD1 mice as an animal model of neurodegenerative diseases**L. Stanaszek, M. Majchrzak, P. Walczak, M. Janowski, B. Lukomska

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**T05-046C****Investigation of glutamate mediated excitotoxicity by use of inducible astrocyte reporter mice during experimental autoimmune encephalomyelitis**K. Rosiewicz, T. Crowley, A. Margineanu, M. Alisch, J. Kerkerling, V. Siffrin

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**T05-047C****The effects of S1P receptor modulation in an animal model of Krabbes disease**S. Fagan, S. Bechet, J. Yssel, S. O'Sullivan, K. Dev

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**T05-048C****The circulating microRNAs in MS pathology: from biomarkers to role in immunity and oligodendrocyte differentiation**L. D'Auria, H.A. Dang, V. van Pesch

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**T05-049C** This poster has been withdrawn.

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**T05-050C** This poster has been withdrawn.

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**T05-051C****Protecting the nervous system by protecting the vulnerable lysosomes: identification of a new glia-derived mechanism for preserving lysosomal functional integrity upon oxidative stress**R. Pascua-Maestro, S. Diez-Hernando, C. Lillo, M.D. Ganfornina, D. Sanchez

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**T05-052C****Human anti-RGMa monoclonal antibody promotes axon regeneration, neuroprotection and remyelination**Y. Cui, C. Klein, A.L. Relo, L. Huang, R. Müller, B.K. Müller

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**T05-053C****Effect of physical exercise and anti-oxidant treatment on dopaminergic neuronal death in MPTP-treated mice**A.-L. Gil-Martínez, L. Cuenca Bermejo, C. Estrada Esteban,

E. Fernández Villalba, M.T. Herrero Ezquerro

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**T05-054C****NAC prevents both dopaminergic cells death and inflammation in old-parkinsonian mice**L. Cuenca Bermejo, A.L. Gil Martínez, C. Estrada Esteban,

E. Fernández Villalba, M.T. Herrero Ezquerro

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**T05-055C****In vivo imaging of reactive astrocytes in the injured adult mouse cerebral cortex**P. d'Errico, E. Hudry, S. Waldkirch, S. Hopp, T. Blank, B.T. Hyman,

M. Meyer-Luehmann

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**T05-056C****Activation of a GABA transporter on spinal astrocytes causes enhanced glutamate release in a mouse model of amyotrophic lateral sclerosis**G. Bonanno

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**T05-057C****Exploring the effects of IGF-1 gene therapy to modulate neuroinflammation**E. Falomir Lockhart, F.J.C. Dolcetti, S. Anesetti Nelli, C.B. Herenu, M.J. Bellini

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**T05-058C****miRNA profile and expression analysis of Müller cells from the diabetic retina implicates a possible role of PDGF-mediated signaling in retinal glia for disease progression**A. Pfaller, F. Grassmann, A. Hauser, T. Pannicke, S.M. Hauck, N. Klötting,

B. Weber, A. Grosche

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**T05-059C** This poster has been withdrawn.

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**T05-060C**

**Promising role for Galectin 1 in Alzheimer' disease: reduced microglial activation and lower amyloid deposition in the hippocampus together with cognitive improvement after treatment in a transgenic mouse model**

F. Saravia, C. Pomilio, A. Vinuesa, M. Bentivegna, J. Presa, R. Morales, G. Rabinovich, J. Beauquis

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**T05-061C** This poster has been withdrawn.

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**T05-062C**

**Heparanase protects against axonal degeneration in the sciatic nerve and promotes neurite outgrowth in vitro**

M. Whitehead, H.J. Willison, S.C. Barnett

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**T05-063C**

**Involvement of the purinergic P2X4 receptor in Alzheimer's disease**

J. Hua, F. Rassendren, L. Ulmann

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**T05-064C**

**Peripheral administration of lactate produces antidepressant-like effects**

A. Carrard, M. Elsayed, M. Margineanu, B. Boury-Jamot, E. Meylan, J.-M. Petit, H. Fiumelli, P.J. Magistretti, J.-L. Martin

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**T05-065C**

**Amyloid beta oligomers modulate oligodendrocyte function: relevance to myelin pathology in Alzheimer's disease**

T. Quintela-López, A. Wyssenbach, A. Pérez-Samartín, C. Matute, E. Alberdi

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**T05-066C**

**Metabolic challenge induces glial c-Fos expression in acute mouse brain slices: a novel in vitro model for studying neurodegeneration and neuroprotection**

J. Herédi, A. Magyariné Berkó, Á. Kurilla, D. Mezei, Z. Kis, L. Vécsei, J. Toldi, L. Gellért

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**T05-067C**

**In vitro model for studying the non-autonomous degeneration of neurons containing hyperphosphorylated tau: relevance to Alzheimer's disease**

A.V. Jaisimha, C.J. McCarthy, K. Phelan, B. Boland

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**T05-068C****Role of glial cells in an in vitro model of Alzheimer's disease that combines  $\beta$ A and Tau pathology**

E. Luengo, I. Buendia, C. Fernández-Mendivil, P. Michalska, J. Garrosa, R. León, M.G. López

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**T05-069C****APP<sub>SWE</sub>/PS1A246E astroglia cells show mitochondrial dysfunction, calcium dyshomeostasis and higher vulnerability to ischemia**

M.D. Martin-de-Saavedra, E. Navarro, B. Izaskun, P. Hernansanz-Agustín, A. Martinez-Ruiz, R. León, R. Martinez, M. Duchen, M.G. López

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**T05-070C****MMP3 as a critical early mediator of retinal inflammation following optic nerve injury**

E. Lefevere, M. Salinas-Navarro, L. Andries, E. Geeraerts, I. van Hove, L. de Groef, L. Moons

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**T05-071C****CSF-cNs of murine spinal cord react to the I.P. administration of MPTP in subacute model of Parkinson's disease by their redistribution around the central canal and Lamina X**

Z. Gombalová, T. Giallongo, S. Carelli, J. Sevc, A. Alexovič Matiašová, Z. Daxnerová, A. Gorio

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**T05-072C****Intrastriatal administration of sulfite induces myelin alterations, glial reactivity and neuronal damage in rats**

M. Grings, B. Parmeggiani, A.P. Moura, J.T. Pletsch, G.M. Cardoso, A.T. Wyse, M. Wajner, G. Leipnitz

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**T05-073C****Novel generation of Nrf2 inducers for the treatment of multiple sclerosis**

P. Michalska, I. Buendia, J.Á. Morales, A. Pérez-Castillo, E. Luengo, A. Cuadrado, M. Soares, M. García-López, R. León

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**T05-074C****Stereological estimation of microglial and neuronal cell numbers in Alzheimer's disease and control brains**

B. Finsen, A.E. Larsen, A.A. Babcock, S. Darvesh

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**T05-075C** This poster has been withdrawn.

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**T05-076C**

**Resolving white matter dysfunction in Alzheimer's disease**

B. Varga, D. Kronenberg-Versteeg, M. Horrocks, J. Wong, K.A. Evans, S. Hunter, C. Brayne, G.C. Brown, M. Coleman, E. Hall, S. Lee, M. Spillantini, R.T. Káradóttir

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**T05-077C**

**Healthy dopaminergic neurons display neurodegenerative signs and alpha-synuclein accumulation when co-cultured with Parkinson's disease astrocytes**

A. di Domenico, G. Carola, A. Faella, Y. Richaud-Patin, J.P. Munoz, J. Soriano, E. Tolosa, A. Zorzano, A.M. Cuervo, A. Raya, A. Consiglio

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**T06 (ENERGY) METABOLISM**

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**T06-001B**

**Sustained neuronal activity regulates transcription in astrocytes to control their metabolic function**

Z. Jiwaji, P. Hasel, O. Dando, P.S. Baxter, A.C. Todd, S. Chandran, G.E. Hardingham

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**T06-002B**

**Direct modulation of the astrocytes in ventromedial hypothalamus regulate the bone metabolism**

J. Shao, Y. Liu, N. Hu, D. Gao, L. Zhang, J. Tu, X. Zhang, F. Yang

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**T06-003B**

**Metabolic heterogeneity of astrocytes**

J. Hirrlinger, S. Köhler, U. Winkler

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**T06-004B**

**High fat diet induces mitochondria stress and impairs myelin structure in rat hypothalamus**

H.-T. Huang, H.-H. Hsien, H.-T. Wu, S.-F. Tsai, H.-Y. Huang, Y.-M. Kuo, P.-S. Chen, C.-S. Yang, S.-F. Tzeng

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**T06-005B**

**Astrocytes as drivers of Lafora progressive myoclonus epilepsy**

C. Rubio-Villena, M.A. Garcia-Gimeno, M. Heredia, J. Bonet, P. Sanz

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**T06-006B****Acute inhibition of astrocytic O<sub>2</sub> consumption by neurons**

I. Fernandez Moncada, I. Ruminot, D. Robles-Maldonado, K. Alegría, J.W. Deitmer, L.F. Barros

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**T06-007B****Real-time activity-dependent astrocyte-to-neuron lactate shuttling**

F. Baeza-Lehnert, R. Gutierrez, L.F. Barros

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**T06-008B****The NBCe1 pathway mediates fast neurometabolic coupling in mouse organotypic hippocampal slices**

I. Ruminot, J. Schmälzle, B. Leyton, L.F. Barros, J.W. Deitmer

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**T06-009B****Regulation of the *Drosophila* trehalose transporter Tret1-1**

H. Hertenstein, A. Volkenhoff, C. Klämbt, S. Schirmeier

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**T06-010B****Mitochondrial trafficking and function in cortical astrocytes**

J.B. Kacerovsky, K.K. Murai

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**T06-011B****Regulation of metabolic pathways in astrocytes by mitochondrial ROS**

C. Vicente-Gutiérrez, N. Bonora, J.P. Bolaños

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**T06-012B****Metabolic reprogramming in pro- and anti-inflammatory microglia**

I. Geric, S. Schoors, P. Carmeliet, M. Baes

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**T06-013B****Bioinformatic analysis of *in vivo* and *in vitro* transcriptome datasets demonstrate a distinctive mitochondrial functional signature in astrocytes**

A. Eraso-Pichot, M. Brasó-Vives, A. Golbano, E. Galea, R. Masgrau

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**T06-014B****Production of FGF21 by hypothalamic tanycytes is modulated under fasting conditions by palmitate via a p38 MAPK signaling pathway**

S. Geller, L. Pellerin



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**T06-015B****Glutamate reduces the cell-to-cell variability in energy metabolism in astrocytes**

G. Azarias, H. de Castro Abrantes, J.-Y. Chatton, B. Weber

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**T06-016B****Oligodendrocyte mitochondria are regulated by netrin-1**

D. Nakamura, D. Khan, J. Antel, T. Kennedy

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**T06-017B****Activity-induced lactate increase in myelinated axons**

A.S. Saab, Z.J. Looser, M.J.P. Barrett, M.J. Stobart, L.F. Barros, J. Hirrlinger, K.-A. Nave, B. Weber

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**T06-018B****ROS signalling promotes the differentiation of oligodendrocyte precursors into mature oligodendrocytes**

J. Tavares, A. Amaral, S. Abdulla, M. Kotter

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**T06-019B****Lack of PTG involvement in glycogen regulation during sleep deprivation in mice**

J.-M. Petit, S. Buret-Godinot, J.T. Chung, G. Grenningloh, I. Allaman, E. Ruchti, P.J. Roach, A.A. Depaoli-Roach, P.J. Magistretti

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**T06-020B****The impact of astrocytic glycogen storage and gap junction coupling on neuronal function and energy metabolism**

L. Hösli, A.S. Saab, M. Zuend, Z.J. Looser, M.J. Stobart, J. Duran, J.J. Guinovart, J. Hirrlinger, C. Giaume, B. Weber

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**T06-021B****Astrocytic UCP2 is required for hypothalamic response to metabolic challenges**

C. García Cáceres, O. Lê Thuc, B. Legutko, T. Gruber, M. Jastroch, L. Varela, S. Diano, T. Horvath, M.H. Tschöp

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**T06-022B****Hypothalamic astrocyte activity state determines systemic glucose metabolism in mice**

O. Lê Thuc, B. Legutko, T. Gruber, D. Li, S. Luquet, M.H. Tschöp, C. García-Cáceres

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**T06-023B****Astrocytic leptin and insulin signals interact to maintain systemic metabolic homeostasis**

B. Legutko, T. Gruber, C. García Cáceres, O. Lê Thuc, T. Horvath, M.H. Tschöp

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**T06-024B****Lipid storage and microglial inflammation**

M. Churchward, K. Todd

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**T06-025B****Pentose pathway activation in *M. leprae*-infected Schwann cells leads to mitochondrial dysfunction and nerve damage**

B.S. Mietto, K.G.C. Vasconcellos, R.C.A. Medeiros, T.G.T. Pinto, L.S. Gomes, L.S. Rodrigues, M. Gandini, S.L.G. Antunes, P.S. Rosa, M.C.V. Pessolani, E.N. Sarno, R.L.B. Silva, M. Sola-Penna, M.F. de Oliveira, M.O. Moraes, F.A. Lara

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**T07 EXTRACELLULAR MATRIX AND CELL ADHESION MOLECULES**

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**T07-001B****Increased expression of extracellular matrix proteins in temporal lobe epilepsy and their regulation by miRNAs in astrocytic cell cultures**

A. Korotkov, D.W.M. Broekaart, B. Pustjens, J. van Scheppingen, J.C. Baayen, A.J. Becker, E.A. van Vliet, E. Aronica

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**T07-002B****Age-specific regulation of  $\alpha 5\beta 1$  integrin function during microglial migration in the embryo**

S.M.-T. Smolders, N. Swinnen, K. Arnauts, S. Smolders, B. Le Bras, J.-M. Rigo, P. Legendre, B. Brone

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**T07-003B****Perilesional PDGFR $\beta$ + vascular cells express uPAR after traumatic brain injury**

J. Kyyriäinen, X.E. Nnode-Ekane, A. Pitkänen

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**T07-004B****2AG reduces the expression of CSPGs in astrocytes and promotes remyelination in a viral model of multiple sclerosis**

A. Feliú, M. Mecha, F.J. Carrillo-Salinas, G. Hernández-Torres, S. Ortega-Gutiérrez, I. Bonilla Del Río, N. Puente, M.L. López-Rodríguez, P. Grandes, C. Guaza

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**T07-005B****Dysregulated MMP7 levels may contribute to the inability to clear remyelination-impairing fibronectin in MS lesions**

P. Wang, R.P. Gorter, J.C. de Jonge, N. Muhammad, D. Hoekstra, W. Baron

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**T07-006B****Understanding the inhibitory influence of chondroitin sulfate proteoglycans on oligodendrocyte morphology**

S. Cummings, S. Kornfeld, R. Kothary

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**T07-007B****The adhesion GPCR GPR56/ADGRG1 is required during peripheral nerve development**

M. D'Rozario, S.D. Ackerman, A. Mogha, C. Johnson, R. Luo, X. Piao, K. Monk

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**T07-008B****The pattern of distribution of extracellular matrix in ApoE  $\epsilon$ 2,  $\epsilon$ 3 and  $\epsilon$ 4 astrocytes: relevance for Alzheimer's disease**

A. Keable, D. Johnston, R. Weller, N. Smyth, R. Carare

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**T07-009B****Impact of Bral2 link protein deficiency on the perineuronal nets and extracellular space diffusion parameters in the auditory system during aging**

M. Chmelova, P. Sucha, M. Kamenicka, M. Bochin, L. Vargova

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**T07-010B****Mechanical properties of the injured CNS: implications for remyelination and repair**

M. Urbanski, C. Melendez-Vasquez

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**T07-011B****Chronic stress induced disturbances in Laminin: a significant contributor to modulating microglial pro-inflammatory tone?**

G. Pietrogrande, N. Mabotuwana, Z. Zhao, A. Mahmoud, S.J. Johnson, K. Zalewska, M. Nilsson, F.R. Walker

## T08 GENE EXPRESSION AND TRANSCRIPTION FACTORS

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### T08-001A

#### Phosphorylation state of ZFP191 controls oligodendrocyte differentiation

B. Elbaz, J.D. Aakar, S. Isaac, A. Eden, B. Popko

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### T08-002A

#### Integrated transcriptomic and methylomic network of the oligodendrocyte lineage

S. Moyon, S. Yoo, J. Huynh, D. Ma, R.J.M. Franklin, J. Zhu, P. Casaccia

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### T08-003A

#### The systematic analysis of coding and long non-coding RNAs in the sub-chronic and chronic stages of spinal cord injury reveal major pathways in gliosis

R. Cuevas-Diaz Duran, H. Yan, Y. Zheng, R. Grill, D. Kim, Q. Cao, J. Wu

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### T08-004A

#### Microglia-specific expression of translocator protein (18kDa) (TSPO)

K. Rashid, R. Scholz, M. Karlstetter, A. Wolf, T. Langmann

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### T08-005A

#### RNA-seq characterization of mouse and human glia

Y. He, X. Yao, N. Taylor, A. Bhattacharya

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### T08-006A

#### Chd7, chromatin remodeling factor, function in oligodendrogenesis and (re)myelination

C. Marie, A. Clavairoly, M. Frah, H. Hmidan, D. He, J. Yan, P. Gressens, P. Ravassard, D. Martin, R.Q. Lu, C. Parras

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### T08-007A

#### Efficient transfection of a microglia cell line using magnetofection

S. Kessels, S. Smolders, S.M.-T. Smolders, F. Poulhes, O. Zelphati, C. Sapet, B. Brône

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### T08-008A

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

F. Fröb

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**T08-009A****Transcriptional profiling of primary human microglia in normal appearing multiple sclerosis tissue**

M. van der Poel, T. Ulas, S. Miedema, M.R. Mizee, J.L. Schultze, J. Hamann, I. Huitinga

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**T08-010A****Regulation of oligodendrocyte lineage cell function by the RXR $\gamma$  nuclear receptor**

L. Di Canio, A. Guzmán de la Fuente, G. Wayne, R.J.M. Franklin

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**T08-011A****Effect of Gas6 signalling on expression of MS-related genes in mouse CNS, and influence on experimental demyelination**

S. Goudarzi, S. Hafizi

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**T08-012A****The role of zinc finger transcription factor Zfp276 during glial development**

M. Küspert, E. Sock, M. Wegner

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**T08-013A****Actions of miRNA-124 on adult human brain cells**

M. Aalderink, A.M. Smith, J. Rustenhoven, M. Dragunov

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**T08-014A****Mutations in *Adgrg6/Gpr126* or *Adgrg1/Gpr56* lead to global expression changes in developing Schwann cells of the sciatic nerve**

N.E. Sanchez, B. Harty, C. Johnson, S.D. Ackerman, K. Monk

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**T08-015A** This poster has been withdrawn.**T08-016A****Definition of the microglial activome from individual mice by RNAseq**

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

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**T08-017A****Nkx2.2 is a direct target gene of Sox10 in oligodendroglia**

M. Weider, C. Schmitt, S. Hillgaertner, M. Wegner

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**T08-018A****Microglia exhibits proliferative and ECM modulating profiles in human gliomas**

T.F. de Almeida Galatro, A. Lerario, I. Moretti, P. Sola, E.R. Bertoldi, V.G. Freitas, T. Pereira, R.C. Martinez, M.V. Maldaun, B.J.L. Eggen, S.K. Marie

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**T08-019A****The human microglia transcriptome and age-associated changes**

B. Eggen, T. Galatro, I. Holtman, A. Lerario, E. Boddeke, S. Marie

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**T08-020A****Characterization of primary and acute isolated microglia under homeostatic and inflammatory conditions**

C. Sousa, D. Coowar, A. Golebiewska, R. Balling, J.C. Schwamborn, K. Biber, A. Michelucci

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**T08-021A****Spinal cord injury induces astroglial conversion towards neural lineage**

H. Noristani, J.-C. Sabourin, H. Boukhaddaoui, E. Chan Seng, Y.N. Gerber, F. Perrin

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**T08-022A****Brca1 is expressed in human microglia and is dysregulated in human and animal model of ALS**

H.N. Noristani, J.-C. Sabourin, Y.N. Gerber, M. Teigell, A. Sommacal, M.D.M. Vivanco, M. Weber, F.E.P. Perrin

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**T08-023A****Alcohol induced changes in microglial activation**

D. Feinstein, S. Pandey, S. Kalinin

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**T08-024A****MicroRNAs in maternal peripheral blood and umbilical cord blood as biomarkers of prenatal exposure to substances of abuse and brain health**

L. Bakhireva, R. Miranda

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**T08-025A****Transcription factor Sox10 regulates oligodendroglial Sox9 levels via microRNAs**

S. Reiprich, M. Cantone, M. Weider, T. Baroti, J. Wittstatt, C. Schmitt, M. Küspert, J. Vera, M. Wegner

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**T08-026A****Epigenetic regulation of microglia phenotypes**

S. Kooistra, X. Zhang, M. Dubbelaar, W. Schaafsma, N. Brouwer, I. Holtman, E. Boddeke, B. Eggen

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**T08-027A****Identification of transcription factors setting the active distal regulatory landscape that drives astroglialogenesis**

N. Tiwari, A. Pataskar, S. Thakurela, V. Tiwari, B. Berninger

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**T08-028A****Transcript analysis of laser-microdissected white matter reactive astrocytes during chronic experimental autoimmune encephalomyelitis treated with laquinimod**

A.B. Nicot, J. Rambeau, A. Garcia, D.A. Laplaud, J. Kaye

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**T08-029A****Glial cells in the transcriptomic response to chronic psychosocial stress exposure in two inbred mouse strains**

M. Laine, K. Trontti, Z. Misiewicz, E. Sokolowska, I. Balcells, I. Hovatta

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**T08-030A****Isolation of satellite glial cells for high-quality RNA purification**

S.B. Jager, L.T. Pallesen, C.B. Vaegter

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**T08-031A****Ex-vivo analysis of astrocyte subpopulations**

C. Grit, N. Brouwer, M. Dubbelaar, I. Vainchtein, M. Borggrewe, I. Holtman, B. Eggen, E. Boddeke

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**T08-032A****Enriched environment recovers modifications of the glutamatergic system in the hippocampus of stressed young rats**

P. Comassio, S. Merlo, C. Fonseca, A.B. Nakayama, J.I. Lemos, J. Moreira

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**T08-033A****Selection of reliable reference genes for analysis of gene expression in spinal cord during postnatal development and after injury**

J. Košuth, J. Ševc, M. Farkašová, Z. Daxnerová

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**T08-034A****Involvement of glucocorticoid receptor-dependent alterations in astrocytes in morphine action**

J. Barut, U. Skupio, M. Tertil, S. Golda, L. Marut, R. Przewlocki

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**T08-035A****Mapping microglia heterogeneity in the developing brain using single-cell sequencing**

T. Hammond, A. Wysocker, B. Seicol, A. Saunders, E. Macosko, J. Nemes, S. McCarroll, B. Stevens

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**T08-036A****Low omega 6/omega 3 fatty acid ratio in maternal diet favors leukemia inhibitory factor (LIF) gene transcription in the offspring's neural cells**

B. Andrade-da-Costa, A. Isaac, E. Silva, R. Matos, R. Augusto, G. Moreno, I. Mendonça, C. Pimentel, M. Rodrigues

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**T09 GLIAL-NEURONAL INTERACTIONS**

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**T09-001B****Dystrophic microglia in culture increase alpha-synuclein expression and reduce its activity in SH-SY5Y cells**

D. Brown, D. Angelova

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**T09-002B****Sodium loading in astrocytes and neurons under ischemic conditions *in situ* and *in vivo***

N.J. Gerkau, C. Rakers, G.C. Petzold, C.R. Rose

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**T09-003B****Assembly of CNS nodes of ranvier in myelinated nerves is promoted by the axon cytoskeleton**

D. Sherman, V. Brivio, C. Faivre-Sarrailh, E. Peles, P. Brophy

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**T09-004B****Dystrophic microglia in culture increase  $\beta$ -amyloid released from SH-SY5Y cells**

D. Angelova, D.R. Brown

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**T09-005B****Spatial impact of microglial distribution on dynamics of synapses**

T. Iida, S. Tanaka, S. Okabe

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**T09-006B****PV<sup>+</sup>-astrocyte signaling modulates inhibitory synaptic activity in cortical slices**

S. Mederos, G. Perea

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**T09-007B**

**Astrocyte sodium signalling and panglial spread of sodium signals in brain white matter**

B. Moshrefi-Ravasdjani, E. Hammel, K.W. Kafitz, C.R. Rose

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**T09-008B**

**Regional heterogeneity in sodium signalling in grey matter astrocytes**

D. Ziemens, C.R. Rose

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**T09-009B**

**Cortical astrocytes rewire somatosensory cortical circuits for peripheral neuropathic pain**

S. Koizumi, S.K. Kim, J. Nabekura

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**T09-010B**

**Improved biosensor system for the detection of ATP release from dorsal horn spinal cord glial cells and its modulation by noradrenaline**

V. Eersapah, S. Hugel, R. Schlichter

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**T09-011B**

**GABAergic synapses onto oligodendrocyte precursors regulate their cellular self-maintenance**

B. Najate, M. Balia, M.C. Angulo

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**T09-012B**

**Glial overexpression of the E3 ubiquitin ligase *Dube3a* alters Na<sup>+</sup>/K<sup>+</sup> homeostasis and results in seizure susceptibility in a *Drosophila* model of Duplication 15q syndrome**

K. Hope, D. Johnson, D. Kakhniashvili, L. Reiter

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**T09-013B**

**Activity dependent synaptic refinement by microglia: a regulatory role for neurotransmitters?**

P. Ormel, M. de Goeij, A. Çelebi, E.M. Hol, R. Kahn, L. de Witte

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**T09-014B**

**Pharmacogenetic inhibiting VMH astrocytes induced anxiolytic behaviors in mice**

Y. Liu, J. Shao, X. Zhou, Q. Xiao, S. Chen, L. Wang, J. Tu, F. Yang

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**T09-015B**

**Cortical interneurons and their ontogenetically related oligodendrocyte precursors derived from the embryonic preoptic area form postnatal functional clusters**

D. Orduz, N. Benamer, E. Coppola, L. Vigier, A. Pierani, M.C. Angulo

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**T09-016B****The role of astrocytes in modulation of neural circuits for brain diseases**

X. Zhou, Q. Xiao, Y. Liu, S. Chen, F. Yang, L. Wang, J. Tu

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**T09-017B****Chronic-stress induces microglial hyper-ramification and up-regulation of cytokines in stress-responsive brain regions**

S. Brioschi, K. Biber

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**T09-018B****Astrocytes mediate hippocampal long-term depression**

M. Navarrete, A. San Agustín, A. Konomi, J.A. Esteban

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**T09-019B****Knockdown of the glucocorticoid receptor in astrocytes alters reward-associated behavior in mice**

U. Skupio, S. Golda, J. Barut, M. Tertli, L. Kudla, L. Marut, R. Przewlocki

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**T09-020B****Characterization of neuroglial cells in the sea lamprey *Petromyzon marinus***

M.-T. Weil, S. Heibeck, T. Ruhwedel, M.C. Rodicio, J.R. Morgan, K.-A. Nave, H.B. Werner, W. Möbius

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**T09-021B****Cell penetrating peptides based on Connexin43 exert neuroprotective effects through the inhibition of glial hemichannel activity**

R. Talaverón, E. Gangoso, M. Jaraíz-Rodríguez, M. Domínguez-Prieto, P. Ezan, A. Koulakoff, J.M. Medina, C. Gaume, A. Tabernero

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**T09-022B****Astrocytic modulation of neuronal network oscillations**

A. Bellot-Saez, G. Cohen, J.W. Morley, Y. Buskila

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**T09-023B****Astrocytes control dopamine homeostasis during postnatal maturation of the prefrontal cortex**

F. Petrelli, L. Pucci, G. Dallérac, C. Calí, S. Sultan, T. Zehnder, C.S. Asensio, V. Gundersen, N. Toni, G. Knott, F. Magara, F. Kirchhoff, N. Déglon, B. Giros, R.H. Edwards, J. Mothet, P. Bezzi

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**T09-024B****Structural and functional analyses of panglial coupling networks in the thalamus and its impact on brain signaling**

C. Philippot, L. Claus, S. Griemsmann, R. Jabs, C. Henneberger, H. Kettenmann, C. Steinhäuser

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**T09-025B** This poster has been withdrawn.

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**T09-026B****NG2 glia-specific gene knockout as a tool to understand the impact of neuron-glia synaptic signaling**

A. Timmermann, A. Boehlen, M. Skubal, R. Jabs, F. Kirchhoff, G. Seifert, C. Steinhäuser

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**T09-027B****Glial and neuronal dysfunctions in the anterior cingulate cortex of a mouse model of migraine**

J. Romanos, D. Pietrobon, H.U. Zeilhofer, M. Santello

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**T09-028B****Glutamatergic presynaptic terminals are supported by astroglial connexin 43**

G. Cheung, O. Chever, N. Quenech'du, N. Rouach

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**T09-029B****Axoglial synapses are formed onto pioneer oligodendrocyte precursor cells at the onset of spinal cord gliogenesis**

G. Osterstock, B. Le Bras-Cailbourdin, H. Arulkandarajah, H. Le Corronc, A. Czarnecki, C. Mouffle, E. Bullier, P. Legendre, J.-M. Mangin

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**T09-030B****Astrocytes are a primary target for neuronal BDNF: implications for the regulation of astrocyte morphological complexity**

L. Holt, M. Olsen

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**T09-031B****Kir4.1-dependent astrocyte-fast motor neuron interactions are required for peak strength**

L. Ben Haim, K.W. Kelley, L. Schirmer, G. Tyzack, M. Tolman, J. Miller, H.-H. Tsai, S. Chang, R. Patani, Y. Yang, A.V. Molofsky, A. Lakatos, E.M. Ullian, D. Rowitch

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**T09-032B****In vivo exploration of astrocytes contribution to motor learning**C. Delepine, J. Ip, K. Li, J. Petracicz, M. Sur

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**T09-033B****Study of astrocyte-specific and inducible GABA<sub>B</sub> receptor deletion in the mouse brain**L. Schlosser, X. Bai, L.C. Caudal, G. Stopper, A. Scheller, F. Kirchhoff

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**T09-034B****Behavior and relation of microglia and astrocytes in trigeminal motor nucleus following peripheral nerve injury to the masseteric nerve of the rat**S. Wakisaka, H. Ogura, S. Nagatani, S. Honma

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**T09-035B****Early-life PUFAs modulate shaping of neuronal circuits by microglia**Q. Leyrolle, C. Madore, C. Joffre, P. Gressens, S. Layé, A. Nadjar

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**T09-036B****Dopamine regulates synaptic transmission in the nucleus accumbens via the activation of astrocytes**M. Corkrum, A. Covelo, R. Quintana, K. Loke, A. Araque

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**T09-037B****Metabolic inhibition of astrocytes impairs central chemoreception in caudal brainstem slices**J. Eugenin, S. Beltrán-Castillo, M.J. Olivares, R. Contreras, G. Zúñiga

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**T09-038B****Contribution of astrocyte circadian rhythms to the timekeeping system**O. Barca Mayo, M. Pons Espinal, O. Follert, A. Armirotti, L. Berdondini, D. de Pietri Tonelli

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**T09-039B** This poster has been withdrawn.

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**T09-040B****Altered secretion of astrocyte-derived extracellular vesicles contribute to the early metabolic failure in Huntington's disease**F.A. Beltran, L. Torres, P. Troncoso-Escudero, I. Vicencio, X.-J. Li, L. Lamberti, P. Rojas, M.A. Castro

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**T09-041B****Sex-dependent effect of thyroid hormone in glial-neuronal interaction and animal behavior**M. Noda, Y. Yoshioka, Y. Kitahara, A. Nishi

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**T09-042B****Aquaporin-4 surface dynamics regulate astrocytic process motility in an isoform-dependent manner**S. Ciappelloni, D. Bouchet, N. Dubourdiou, A. Panatier, S. Oliet, T. Tourdias, L. Groc

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**T09-043B****Astrocytic-neuronal interplay controls circadian pace-making in mammals**M. Brancaccio, A.P. Patton, J.E. Chesham, E.S. Maywood, M.H. Hastings

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**T09-044B****Correct myelin targeting by oligodendrocytes in vivo requires a balance between myelin production and available axonal space**R. Almeida, D. Lyons

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**T09-045B****Physiological mitochondrial reactive oxygen species in astrocytes boost neuronal survival by up-regulating Nrf2**N. Bonora, C. Vicente-Gutiérrez, J.P. Bolaños

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**T09-046B****Neurons increase astrocytic glutamate transporter expression and uptake capacity via Notch signalling**A.C. Todd, P. Hasel, P.S. Baxter, O. Dando, Z. Jiwaji, D.J.A. Wyllie, G.E. Hardingham

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**T09-047B****Quantification of tamoxifen-dependent recombination in cortical astrocytes and cerebellar Bergmann glia**C.V. Bohn, A. Tartakowski, H.M. Jahn, X. Bai, A. Scheller, J. Walter, F. Kirchhoff

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**T09-048B****Modeling the metabolic response of astrocytes to neuronal activity**J. Coggan, D. Keller, C. Calí, H. Lehvaslaiho, F. Schürmann, H. Markram, P.J. Magistretti

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**T09-049B****The characterization of the neurodevelopmental milestones of the IP<sub>3</sub>R2KO mouse model**

S. Guerra-Gomes, V.M. Sardinha, E. Loureiro-Campos, G. Tavares, I. Caetano, N. Sousa, L. Pinto, J.F. Oliveira

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**T09-050B****Protein translation in astrocytic processes**

A. Müller, P. Landgraf, A. Stellmacher, J.L. Vázquez López, D.C. Dieterich

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**T09-051B****Role of ATP and astrocytes in the lamprey respiratory network**

L. Iovino, E. Cinelli, D. Mutolo, F. Bongianini

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**T09-052B****Neuron-astrocyte signaling is preserved in the ageing brain**

M. Martín Fernández, M. Gómez-Gonzalo, R. Martínez-Murillo, S. Mederos, A. Hernández-Vivanco, G. Perea, A. Araque

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**T09-053B****Glycine receptor in astrocytes – effect upon astrocytic communication**

T. Morais, D. Coelho, S.H. Vaz, A.M. Sebastião, C.A. Valente

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**T09-054B****Fast 3D imaging reveals new features of astrocyte Ca<sup>2+</sup> dynamics and astrocyte-synapse interactions**

I. Savtchouk, E. Bindocci, G. Carriero, D. Becker, N. Liaudet, A. Volterra

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**T09-055B****The importance of kynurenine 3-monooxygenase activated in spinal microglia for neuropathic pain**

E. Rojewska, A. Piotrowska, J. Mika

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**T09-056B****Activity-dependent local translation in NG2 cells as receivers and transducers of neuronal network signals**

H. Yigit, A. Müller, D.C. Dieterich, J. Trotter

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**T09-057B****pH<sub>i</sub> distribution and H<sup>+</sup> changes in cultured mouse hippocampal astrocytes: a compartmentalized analysis for excitatory stimuli**

A. Weise, A. Seidinger

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**T09-058B****Astrocytes protect cortical neurons via a GPR37L1-mediated mechanism**

B. Liu, A. Teschemacher, S. Kasparov

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**T09-059B****Structure-activity studies into lactate-mediated depolarisation and noradrenaline release in the rat Locus Coeruleus**

A. Rasooli-Nejad, V. Mosienko, D. Jane, S. Kasparov, A. Teschemacher

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**T09-060B****Effect of botulinum toxin type a and minocycline on lipopolysaccharide-stimulated rat microglial and astroglial cultures**

A. Piotrowska-Murzyn, K. Popiołek-Barczyk, F. Pavone, J. Mika

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**T09-061B****Monitoring astrocyte heterogeneity and protein synthesis capacities cell-type specifically in murine brain regions**

J.L. Vázquez López, A. Stellmacher, A. Müller, M. Böx, P. Landgraf, D.C. Dieterich

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**T09-062B****IL-1 $\alpha$  and modulation of spinal glutamate release: protection against oxaliplatin-induced neuropathic pain**

M. Marcoli, L. Micheli, C. Cervetto, A. Venturini, B. Tenci, G. Maura, C. Ghelardini, L. di Cesare Mannelli

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**T09-063B****Microglia synapse interaction precedes synapse elimination in mouse models of AD**

M. Chamoun, F. Nebeling, J. Schneider, J. Steffen, L. Gu, M. Fuhrmann

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**T09-064B****Epilepsy and abnormal potassium dynamics upon loss of function of the astrocyte specific protein MLC1**

R. Min, M. Dubey, E. Brouwers, E.M.C. Hamilton, O. Stiedl, M. Bugiani, H. Koch, R.C. Wykes, H.D. Mansvelder, M.S. van der Knaap

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**T09-065B****P2X7-mediated communication in cochlear glial cells**

S. Prades, G. Heard, L. Browne, J. Gale, K. Smith, D. Jagger

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**T09-066B****Spike-timing dependent plasticity in the hippocampus, affected by reactive gliosis in Alzheimer's disease?**T. Smit, W. Wadman, E.M. Hol

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**T09-067B****AstroProt: a new database at the synprot portal for the proteome of astrocytes**R. Pielot, A. Müller, F. Kirchhoff, E.D. Gundelfinger, D.C. Dieterich

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**T09-068B****Involvement of microglial P2X4 receptors in neuropathic pain: are females and males so different ?**L. Ulmann, M. Lenoir, F. Rassendren

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**T09-069B****Investigating the role of myelination during neuronal circuit formation**S. Koudelka, D. Šuminaitė, M. Livesey, D. Lyons

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**T09-070B****Conditional inactivation of the *eif2b5* gene in radial glial cell or oligodendrocyte cell lineages in mice: models for studying the CACH/VWM syndrome**A. Bark, R. Abdel Rassoul, A. Huyghe, J. Bonheur, M. Begou,

O. Boespflug-Tanguy

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**T09-071B****Rab6A identifies a system of ubiquitous, abundant exocytotic cisterns and vesicles in astrocyte processes**R. Brunkhorst, F. Keil, H.-W. Korf, H.-H. Bock, A. Derouiche

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**T09-072B****Molecular heterogeneity of CNS myelin: novel role and regional relevance of a chemokine-like signaling protein in brain function**M.A. Eichel, K.A. Lueders, W. Möbius, K.-A. Nave, O. Jahn, H.B. Werner

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**T09-073B****BDNF-mediated facilitation of LTP at the hippocampus is dependent of gliotransmitters released by astrocytes**S.H. Vaz, J. Jesus, A.M. Sebastião

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**T09-074B****Development of a novel molecular tool to selectively inhibit astrocyte-to-neurone L-lactate signalling**B. Vaccari Cardoso, S. Kasparov, A.V. Gourine, A.G. Teschemacher



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**T09-075B****Control of motor coordination through astrocytic tonic GABA release by regulating neuronal excitability in cerebellum**B.-E. Yoon

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**T09-076B****Native A2A-D2 receptor-receptor interaction in striatal astrocyte processes: modulation of glutamate release**C. Cervetto, A. Venturini, M. Passalacqua, S. Genedani, K. Fuxe, D. Borroto Escuela, P. Cortelli, A. Woods, D. Guidolin, G. Maura, L.F. Agnati, M. Marcoli

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**T09-077B****Preoptic glycine receptors: possible mediators of neuron-glia interaction affecting social behavior in male rats**Z. Zhuravleva, N. Titova, I. Mukhina, M. Druzin

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**T09-078B****The functional role of the intracellular domain of NG2 protein**T. Nayak, D. Sakry, H. Yigit, J. Trotter

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**T09-079B****Uncoupling oligodendrocyte differentiation and myelination during development: is dynamic neuronal signaling required?**S. Mayoral, A. Etxebarria, J. Chan

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**T09-080B****Plasmalogens regulate oligodendrocyte maturation and myelination**A. Malheiro, T. Silva, B. Correia, P. Brites

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**T09-081B****Novel regulator of axon caliber growth in the CNS**J. Bin, S. Benito, D. Lyons

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**T09-082B****Proteomic investigation of perisynaptic astrocyte proteins**A. Badia-Soteras, K.E. Carney, S.H.R. Oliet, A.B. Smit, M.H.G. Verheijen

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**T09-083B****Role of neuron-microglia secretome and stress-related microRNAs in Alzheimer's disease**D. Brites, M. Monteiro, A.R. Ribeiro, C. Cunha, A.R. Vaz, A. Fernandes

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**T09-084B** This poster has been withdrawn.

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**T09-085B**

**A2A-D2 receptor-receptor interaction in striatal astrocyte processes: homocysteine modulation of glutamate release**

A. Venturini, C. Cervetto, D. Guidolin, G. Maura, M. Passalacqua, C. Tacchetti, P. Cortelli, S. Genedani, L.F. Agnati, M. Marcoli

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**T09-086B**

**Microfabricated co-culture device for evaluating Schwann cell's support of axonal conduction property**

K. Sakai, K. Shimba, K. Kotani, Y. Jimbo

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**T09-087B**

**Contribution of glial transmitter receptors to pathological network function in mouse models of epilepsy**

L.C. Caudal, X. Bai, C.V. Bohn, L. Schlosser, G. Stopper, M. Schweigmann, A. Scheller, F. Kirchhoff

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**T09-088B**

**Heterogeneity of astrocyte morphology as a functional determinant of synaptic release in the hippocampal CA1 stratum radiatum**

D. Minge, S. Anders, C. Henneberger

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**T09-089B**

**Metabolic adaptations of neurons to physiological oxygen levels in the presence of astrocytes**

M. Warde, E. Fernandez, J.P. Bolaños

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**T09-090B**

**Differential glutamate buffering between cortical regions impacts synaptic functions**

J. Romanos, M. Santello

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**T09-091B**

**Peri-neuronal satellite cells in the central nervous system: isolation and characterization**

H. Ghazale, P. Guigue, B. Rothhut, J.-P. Hugnot

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**T09-092B**

**Role of glial non-coding RNAs in the pathogenesis of temporal lobe epilepsy**

K. Senthilkumar, V.R. Vangoor, P.N.E. de Graan, E.M. Hol, R.J. Pasterkamp

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**T09-093B****Autocrine purinergic signaling controls glutamate release from astrocytes**W. Shen, L. Nikolic, C. Meunier, E. Audinat

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**T09-094B****Imaging extracellular potassium dynamics in brain tissue using a potassium-sensitive nanosensor**J. Wellbourne-Wood, T.S. Rimmele, J.-Y. Chatton

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**T09-095B****Microglia-mediated synaptic pruning in the *Cstb*<sup>-/-</sup> mouse model for progressive myoclonus epilepsy, EPM1**S. Tegelberg, P. Hakala, T. Joensuu, A.-E. Lehesjoki

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**T09-096B****The phagocytic profile of microglia in the postnatal development of the spinal cord**Y. Xu, M. Fitzgerald, S. Beggs

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**T09-097B****Neuron to glia ratios adjusted by the use of FUDR and the role of glia secreted factors on the regulation of neuronal sodium current density in hippocampal cultures from rats**L. Klapal, H. Leßlich, I.D. Dietzel

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**T09-098B****Oligodendrocytes gain a plastic fate after acute brain trauma**X. Bai, N. Zhao, W. Huang, L.C. Caudal, B. Catalin, A. Cupido, R. Zhao, J. Hirrlinger, W. Walz, F. Kirchhoff, A. Scheller

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**T09-099B****Astrocytes, friends and foes at the synapse**Y. Schwarz, D. Bruns

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**T09-100B****A flexible surface microelectrode array to record electrical activity from neocortical neurons during two-photon imaging of astroglial Ca<sup>2+</sup> signals in mice**M. Schweigmann, L. Schlosser, K.P. Koch, F. Kirchhoff

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**T09-101B****Inhibition of glutamate uptake and neurotransmission by increased extracellular potassium**A.-B. Rocher, T.S. Rimmele, J. Wellbourne-Wood, J.-Y. Chatton

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**T09-102B**

**Glia-to-neuron interaction in the brainstem periaqueductal gray plays an important role in chronic morphine physical withdrawal**

S. Liu, H. Yi, T. Iida, Q. Liu, G. Zhuang, R. Levitt, S. Hao

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**T09-103B**

**Role of astrocyte exosome microRNAs in astrocyte-neuron communication and its significance in amyotrophic lateral sclerosis (ALS)**

S. Marton, E. Miquel, P. Cassina

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**T09-104B**

**Simultaneous neuronal and astrocytic network calcium dynamics in locomoting mice**

K.D. Ferrari, J.L. Stobart, M.J.P. Barrett, M. Kyburz, B. Weber

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**T09-105B**

**Synergistic interaction of L-Lactate and Glycine to potentiate NMDA receptor activity: a new form of meta-potential?**

P. Jourdain, K. Rothenfusser, I. Allaman, P. Marquet, P.J. Magistretti

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**T09-106B**

**Rapid astrocyte morphology changes support epileptic activity**

S. Anders, M. Herde, D. Minge, T. Deshpande, B. Breithausen, A. Boehlen, P. Bedner, C. Steinhäuser, C. Henneberger

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**T09-107B**

**Bioengineering a novel neuronal device to study human myelination in-vitro**

K. Michail, N.R. Leslie, D. Flynn, M. Kersaudy-Kerhoas, G. Whyte, T. Ryan, E.R. Brown

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**T09-108B**

**Evaluation of the receptor-mediated function of lactate in neuronal activity**

H. de Castro Abrantes, M. Briquet, S. Offermanns, J.-Y. Chatton

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**T09-109B**

**Alteration of axon initial segment stability and function in inflammatory in vivo and in vitro models**

K. Clark, G. Devries, J. Dupree

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**T09-110B**

**Synaptic silencing by BoNT/A results in OPCs dysregulation in vivo**

I. Chacon de la Rocha, G. Fryatt, D. Gomez-Nicola, V.H. Perry, A.M. Butt

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**T09-111B**

**Synaptic calcium signals in NG2 cells**

D. Dietrich, W. Sun, E. Matthews, S. Schoch

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**T09-112B**

**Sortilin in microglia reactivity – investigating the mechanism underlying neuropathic pain**

L.T. Pallesen, A.L.S. Svenningsen, S.B. Jager, R. Dieu, M. Richner, C.B. Vaegter

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**T09-113B**

**Myelination is essential for the establishment, but not the maintenance, of behavioral lateralization**

S. Moore, W. Möbius, M. Meschkat, C. Kassmann, K.-A. Nave, L. de Hoz

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**T09-114B**

**Astrocytes or neurons? Cell-type specific responses to antidepressants – from histone modifications to synaptic changes**

V. Malik, M. Jacovcevsky, I.D. Neumann, R. Rupprecht, B. di Benedetto

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**T09-115B**

**Computational modeling of glial-neuronal interactions**

M.-L. Linne, R. Havela, T. Manninen

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**T09-116B**

**Changes in neuronal gene expression affected by Schwann cell-axon interactions**

N. Sukhanov, Y. Eshed Eisenbach, E. Peles

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**T09-117B**

**The chemokine CXCL16 modulates neurotransmitter release in hippocampal CA1 area**

M.A. di Castro, F. Trettel, G. Milior, L. Maggi, D. Ragozzino, C. Limatola

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**T09-118B**

**Newly identified Layer specific cortical astrocytes regulate synaptic and dendritic growth**

S.J. Miller, J. Rothstein

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**T09-119B**

**A novel method for labelling mouse cortical astrocytes in-vivo and what it can reveal about astrocyte-neuron interactions**

L. Georgiou, B. Kuhn

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**T10 ISCHEMIA AND HYPOXIA**

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**T10-001B**

**Overexpression of pro- and antiapoptotic proteins in penumbra after local photothrombotic infarct in the rat cerebral cortex**

A. Uzdensky, S. Demyanenko

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**T10-002B**

**Soluble epoxide hydrolase inhibition promotes white matter integrity and long-term functional recovery after chronic hypoperfusion in mice**

M. Xie, Y. Chen, H. Tian, W. Wang

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**T10-003B**

**Expression of a novel TRP channel in astrocytes: implications for ischemic stroke**

P. Liao

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**T10-004B**

**Location matters: the role of calmodulin mediated AQP4 translocation in the human astrocyte response to hypoxia and mild hypothermia**

M. Salman, P. Kitchen, P. Heath, R. Bill, A. Conner, M.N. Woodroffe, M. Conner

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**T10-005B**

**Ischemia/stroke rapidly impairs microglial phagocytosis in vivo**

M.S. Beccari Galeano, T. Umekawa, A. Osman, W. Han, C. Dominguez, K. Blomgren, A. Sierra

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**T10-006B**

**Evaluation of oligodendrocyte survival, maturation and myelinating potential in rat model of perinatal asphyxia**

J. Sypecka, J. Janowska, M. Frontczak-Baniewicz, M. Ziemka-Nalecz

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**T10-007B**

**Inhibition of miR-181a protects male and female astrocyte cultures from glucose deprivation by targeting estrogen receptor- $\alpha$**

L. Xu, C. Stary, L. Li, X. Sun, Y.-B. Ouyang, R. Giffard

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**T10-008B**

**Dynamin-related protein (Drp-1)-dependent mitochondrial fission represents a target to promote axon function recovery after ischemia**

S. Baltan, C. Bastian, S. Politano, S. Katharine, S. Brunet

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**T10-009B**

**$\beta_2$ -adrenergic receptor mediates protection of astrocyte during ischemia/hypoxia**

S. Tapechum, N. Mahawong, K. Tilokskulchai

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**T10-010B**

**Deletion of astrocytic Na<sup>+</sup>/H<sup>+</sup> exchanger isoform 1 reduces neurovascular damage and improves CBF after ischemic stroke**

G. Begum, S. Song, S. Wang, H. Zhao, M.I. Bhuiyan, E. Li, R. Nepomuceno, Q. Ye, M. Sun, D.B. Stolz, Y. Chen, G.E. Shull, D. Sun

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**T10-011B**

**Prenatal hypoxia-ischemia causes astrogliosis and reduces nNOS positive cells in the periaqueductal gray matter accompanied by hyperalgesia in adult male rats**

L.S. de Almeida, M.C.C. Rodrigues, G. Diniz-Taveira, P.C. Araújo, O.M.M.S. de Almeida, P.C. Barradas

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**T10-012B**

**Topical administration of TNF-inhibitor XPro1595 decreases infarct volume after experimental stroke**

M. Yli-Karjanmaa, B.H. Clausen, H.G. Novrup, D. Szymkowski, M. Meyer, R. Brambilla, K.L. Lambertsen

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**T10-013B** This poster has been withdrawn.

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**T10-014B**

**The contribution of TREM2 and neuroinflammation to cerebrovascular-mediated cognitive impairment and dementia**

S. Szymkowiak

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**T10-015B**

**Impact of the oxygen-glucose deprivation on differentiation of the rat oligodendrocyte progenitor cells – in vitro model of rat neonatal hypoxia-ischemia**

J. Janowska, J. Sypecka

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**T10-016B**

**Oral corticosterone administration alone is sufficient to simulate the actions of chronic stress on glial cells but not on vasculature**

K. Zalewska, L.K. Ong, G. Pietrogrande, S.J. Johnson, M. Nilsson, F.R. Walker

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**T10-017B** This poster has been withdrawn.

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**T10-018B** This poster has been withdrawn.

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**T10-019B**

**Age-related changes in glial cells after focal cerebral ischemia**

H. Matuskova, P. Honsa, D. Kirdajova, L. Valihrach, M. Kubista, M. Anderova

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**T10-020B**

**Cannabidiol administration prevents hypoxia-ischemia-induced hypomyelination in newborn rats**

M. Ceprian, C. Vargas, F. Penna, I. Elezgarai, P. Grandes, L. Jimenez-Sanchez, J. Fernández-Ruiz, M.R. Pazos, J. Martinez-Orgado

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**T10-021B**

**Effects of cannabidiol on microglia activation state in a newborn rat model of ischemic stroke**

A. Olmos-Alonso, M. Ceprian, L. Jimenez-Sanchez, C. Vargas, L. Barata, W. Hind, J. Martinez-Orgado

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**T10-022B**

**Contribution of TRPV4 channels to astrocyte volume regulation and brain edema formation**

H. Pivonkova, D. Kirdajova, M. Chmelova, Z. Hermanova, P. Sucha, T. Awadova, J. Malinsky, D. Jirak, L. Valihrach, D. Zucha, M. Kubista, L. Vargova, M. Anderova

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**T10-023B**

**Microglial phenotypes and behavioral disorders following neonatal ischemia: a role for Poly (ADP-ribose) Polymerase according to gender?**

V. Besson, C. Leconte, M. Talatizi, R. Moretti, A.-C. Novak, C. Marchand-Leroux, O. Baud, C. Charriaut-Marlangue



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**T10-024B**

**Investigation the role of GDNF in neuron-glia networks functioning under conditions induced by substrate starvation**

T. Shishkina, T. Mishchenko, E. Mitroshina, M. Vedunova

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**T10-025B**

**Apoptosis signal-regulating kinase 1 regulates the function of microglia and macrophage after ischemic/hypoxic insults**

S.Y. Cheon, B.-N. Koo

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**T10-026B**

**Investigating the cross-talk between microglia and oligodendrocyte progenitors in brain ischemia**

E. Bonfanti, P. Gelosa, M. Lombardi, M. Cimino, L. Dimou, L. Sironi, C. Verderio, M.P. Abbracchio, M. Fumagalli

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**T10-027B**

**Mapping neuroinflammation in an experimental mouse model of stroke**

L. Buscemi, L. Hirt

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**T10-028B**

**Minocycline reduces microgliosis and improves subcortical white matter function in a model of chronic cerebral vascular disease**

J. Duncombe, Y. Manso, P. Holland, A. Kitamura, L. Searcy, M. Marangoni, S. Szymkowiak, A. Randall, J. Brown, B. McColl, K. Horsburgh

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**T10-029B**

**Effect of dehydroepiandrosterone and its sulphate ester on developing white matter injury in a combined oxygen-glucose deprivation/hypoxia model – preliminary data**

M. Urbanek, E. Huber, U. Kiechl-Kohlendorfer, E. Griesmaier-Falkner, A. Posod

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**T10-030B**

**Oxygen/glucose deprivation regulates differentially the expression and secretion of growth factors, proteases and their inhibitors, and cytokines: rat glioma versus primary glial cells**

A. Neuhoff, E.-A. Subileau, C. Chesne, C. Förster, W. Neuhaus

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**T10-031B**

**PPAR $\gamma$  promotes inflammation-resolving microglial/macrophage responses and critically contributes to neurological recovery after ischemic stroke**

M. Xu, Y. Shi, X. Jiang, R.A. Stetler, Y. Gao, R. Leak, X. Hu, J. Chen

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**T11 MEMORY AND LEARNING**

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**T11-001A**

**Altered microglial phenotype in Neuroligin-4 deficient mice as a model of autism spectrum disorder**

D. Güneykaya, A. Buonfiglioli, C. Comert, H. Ehrenreich, N. Brose, H. Kettenmann, S.A. Wolf

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**T11-002A**

**Brain region duality in the regulation of microglia morphology by adenosine A $_{2A}$  receptors: implications for anxiety and cognition**

R. Gaspar, J.M. Duarte, C. Liliana, P. Patrício, C. Cunha, A. Mateus-Pinheiro, N.D. Alves, A.R. Santos, S.G. Ferreira, V. Sardinha, J.F. Oliveira, N. Sousa, R.A. Cunha, A.F. Ambrósio, A.J. Rodrigues, L. Pinto, C.A. Gomes

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**T11-003A**

**Are hippocampal sharp wave-ripples linked to astrocytic network activity?**

T. Hondrich, H. Jakobi, P. Geschwill, A. Draguhn, R. Sprengel

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**T11-004A**

**A key role of glycogen derived lactate from astrocytes in cocaine associated memories**

B. Boury-Jamot, A. Carrard, J.-L. Martin, O. Halfon, P.J. Magistretti, B. Boutrel

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**T12 MYELIN**

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**T12-001C**

**Novel gene crucial for myelin maintenance in zebrafish embryos**

L. Kegel, M. Rubio, A. Klingseisen, S. Benito, D. Lyons

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**T12-002C**

**Mitochondrial DNA double-strand breaks induce oligodendrocyte death and an MS-like phenotype**

P. Madsen, M. Pinto, S. Patel, S. McCarthy, H. Gao, G. Dvorianchikova, D. Ivanov, K.F. Tanaka, C.T. Moraes, R. Brambilla

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**T12-003C**

**Can remyelination be enhanced by immunomodulatory therapeutic modality?**

R. Aharoni, R. Eilam, M. Sela, R. Arnon

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**T12-004C**

**Distinct roles of mTORC1 in Schwann cells for regulation of PNS myelination**

B. Beirowski, K. Men Wong, E. Babetto, J. Milbrandt

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**T12-005C**

**Activin receptors and their ligands are key drivers of remyelination**

A. Dillenburg, C. Davies, D. Soong, A. Williams, V. Miron

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**T12-006C**

**Curcumin improves remyelination and decreases astrogliosis following gliotoxic injury in the rat brainstem**

E. Bondan, C. Vieira Cardoso, M.F. Martins

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**T12-007C**

**A large-scale forward genetic screen in zebrafish to uncover novel regulators of myelination**

A. Soung, S.D. Ackerman, B. Harty, R. Almeida, S. Nandadasa, A. Herbert, C. Johnson, C. Raciti, S. Apte, D. Lyons, K. Monk

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**T12-008C**

**Defining the role of the guanine nucleotide exchange factor, *dock1*, in Schwann cell development**

R. Cunningham, B. Harty, A. Herbert, S.D. Ackerman, K. Monk

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**T12-009C**

**Development and characterization of focal demyelination models for MS**

M. Challagundla, P. Schleese, C. Klein

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**T12-010C**

**Myelin and microglia in the aging brain**

S. Safaiyan, M. Simons

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**T12-011C**

**Endoplasmic-reticulum-associated degradation (ERAD) modulates disease severity in a Charcot-Marie-Tooth-1B mouse model**

V.G. Volpi, I. Fregno, C. Ferri, U. Del Carro, F. Bianchi, E. Pettinato, R. Mastrangelo, M. Molinari, M.L. Feltri, L. Wrabetz, M. D'Antonio

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**T12-012C****Effect of increased neuronal activity on remyelination in freely moving mice**

F. Ortiz Cisternas, C. Habermacher, P.Y. Houry, M. Graciarena,  
B. Nait-Oumesmar, M.C. Angulo

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**T12-013C****Quaking dependent splicing of Neurofascin 155 is required for axoglial junction formation and maintenance**

L. Darbelli, G. Vogel, G. Almazan, S. Richard

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**T12-014C****Autophagolysosome-mediated SAD-MAD transition is the mechanism of segmental demyelination in inflammatory peripheral nerve demyelination**

S.Y. Jang, B.-A. Yoon, Y.K. Shin, S.H. Yun, Y.Y. Choi, Y.R. Jo, J.K. Kim, J.I. Park,  
H.T. Park

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**T12-015C****Schwann cells myelinate multiple axons in the absence of Fbxw7**

B. Harty, S.D. Ackerman, A.L. Herbert, C. Johnson, D.A. Lyons, K. Monk

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**T12-016C****Expression of GPR17 receptor in a murine model of perinatal brain neuroinflammation and its possible interaction with Wnt pathway**

M. Boccazzi, J. van Steenwinkel, A.-L. Schang, L. Schwendimann, B. Fleiss,  
M.P. Abbracchio, M. Fumagalli, P. Gressens

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**T12-017C****The phosphodiesterase 4 (PDE4) inhibitor roflumilast improves remyelination in a mouse model for multiple sclerosis**

M. Schepers, J. Mailleux, J. Bogie, N. van Goethem, N. Hellings, J. Hendriks,  
J. Prickaerts, T. Vanmierlo

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**T12-018C****The role of the nuclear lamina in myelin maintenance and pathology**

J. Patzig, M. Hernandez, C.L. Stewart, L. Shopland, P. Casaccia

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**T12-019C****The role of central nervous system myelination in behaviour**

M. Madden, S. Koudelka, J. Early, E. Mackay, I. Bianco, D. Lyons

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T12-020C

**Modulation of myelination by phospholipids, sphingomyelin, minerals and fatty acids in an oligodendrocyte-neuron mixed culture model**

J. Hauser, M. Oliveira, N. Schneider, M. Combes, N. Callizot, P. Steiner

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T12-021C

**Myelin remodelling in the zebrafish central nervous system**

J. Williamson, D. Lyons

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T12-022C

**Inducible MBP knock-out in adult mice: investigation of myelin maintenance and turnover**

W. Möbius, M. Meschkat, M.-T. Weil, K. Kusch, H.B. Werner, K.-A. Nave

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T12-023C

**Rally for radial sorting: RalGTPases in peripheral nerve development**

A. Ommer, G. Figlia, A.L. Dätwyler, J.A. Pereira, J. DeGeer, P. Peschard, G. Lalli, U. Suter

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T12-024C

**Promoting remyelination in the CNS using heparan sulfate mimetics**

G. McCanney, M.A. McGrath, S.E. Guimond, J.E. Turnbull, H.J. Willison, S.C. Barnett

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T12-025C

**Functional differentiation of primed human iPSC-derived glial cells into bona-fide mature oligodendrocytes following transplantation in the developing and adult demyelinated mice**

S. Mozafari, M. Ehrlich, C. Bachelin, A. Marteyn, H.R. Schöler, T. Kuhlmann, A. Baron-van Evercooren

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T12-026C

**Collagen IV activates the discoidin domain receptor 1 in human oligodendrocytes**

E. Vilella, N. Abasolo, L. Martorell

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T12-027C

**Protective properties of the JNK inhibitor D-JNKi in a rat model of diffuse white matter injury in preterm infants**

E. van Tilborg, F. Groenendaal, C.J. Heijnen, M.J. Benders, C.H. Nijboer

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**T12-028C****Progressive disorganization of paranodal junctions and motor defects in mice lacking UNC5B expression by oligodendrocytes**

O. de Faria Jr., D. Kim, D. Nakamura, E. Wong, K. Basu, J. Bin, M. Mocanu, R. Pilgram, Y. Jiang, A. Shmuel, A. Sadikot, S. Ackerman, T. Kennedy

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**T12-029C****A model of failed remyelination to examine the mechanisms and efficacy by which remyelination protects axons**

G. Duncan, B. Hilton, P. Assinck, J. Plemel, R. Hirata, A. Lim, D. Bergles, W. Tetzlaff

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**T12-030C****In vivo imaging reveals distinct roles for local Ca<sup>2+</sup> signalling in CNS myelin sheaths**

M. Baraban, S. Koudelka, D.A. Lyons

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**T12-031C****Complex roles of FGF2 in multiple sclerosis and its implications for therapeutic strategies designed to enhance endogenous repair: Wnt-dependent inhibition of myelination and FGFR1-dependent mitogen for oligodendrocytes**

K. Thuemmler, T. Zeis, D.E. Mcelroy, N. Schaeren-Wiemers, C. Linington

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**T12-032C****Endothelin receptor B influences myelin sheath formation**

M. Swire, D. Lyons, C. ffrench-Constant

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**T12-033C****Characterization of mitochondria in oligodendrocytes and their myelin sheaths**

J.E. Rinholm, K. Vervaeke, M.R. Tadross, A.N. Tkachuk, B.G. Kopek, T.A. Brown, L.H. Bergersen, M. Bjørås, D.A. Clayton

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**T12-034C****Investigating mechanisms of protein transport and assembly at the node of Ranvier**

E. Grunewald, E. Malavasi, A. Ghosh, M. Zagnoni, D. Sherman, P. Brophy

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**T12-035C****Neuroinflammation, white matter injury, cognitive and emotional deficits after traumatic brain injury in the adult mice**

T. Taib, C. Leconte, J. van Steenwinckel, A. Cho, B. Palmier, E. Torsello, C. Benedetto, K. Simon, R. Lai-Kuen, P. Gressens, C. Marchand-Leroux, V. Besson

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**T12-036C****Over-expression of Schwann cell c-Jun in vivo: effect on myelination and re-myelination**

S. Fazal, J.A. Gomez-Sanchez, R. Mirsky, K.R. Jessen

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**T12-037C****Evidence of synaptic vesicle-mediated communication between neurons and oligodendroglial cells in the zebrafish spinal cord**

M. Graciarena, M. Porte, M. Suster, D.A. Lyons, C. Wyart, B. Nait-Oumesmar

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**T12-038C****Intraventricular transplantation of canine glial restricted precursors prolongs lifespan of dysmyelinating mice**

M. Majchrzak, L. Stanaszek, J. Sanford, P. Walczak, B. Lukomska, M. Janowski

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**T12-039C****Sphingosine 1-phosphate receptor modulation reduces demyelination in a murine model of Krabbe disease**

S. Bechet, S. Fagan, S. O'Sullivan, J. Yssel, K. Dev

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**T12-040C****A “greedy” microglia is a “friendly” microglia**

C. Mamma, B. Palmier, S. Lebon, R. Lawson, A. Ishikawa, C. Leconte, A.-C. Novak, P. Gressens, C. Marchand-Leroux, V. Besson, D. Lerouet

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**T12-041C****Structural and physiological adaptations for fast and reliable action potential conduction velocity and synaptic transmission in the auditory pathway**

B. Grothe, A. Nabel, A. Stange-Marten, J. Sinclair, M. Fischl, O. Alexandrova, H. Wohlfrom, C. Kopp-Scheinflug, M. Pecka

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**T12-042C****Internodal length variability and myelination patterns in the developing mouse somatosensory cortex**

C. Pama, K.A. Evans, P. Humphreys, R.T. Karadottir

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**T12-043C****Monocarboxylate transporter (MCT1) in Schwann cells is a metabolic mediator for myelination of sensory axons during aging**M. Jha, K. Russell, Y. Lee, J. Rothstein, B. Morrison

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**T12-044C****S100B-RAGE signalling affect *de novo* myelination and remyelination**G. Santos, A. Barateiro, D. Brites, A. Fernandes

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**T12-045C****The transcriptional activator Krüppel-like factor-6 is required for CNS myelination**C. Zhang, B.M. Laitman, L. Asp, J.N. Mariani, J. Zhang, J. Liu, S. Sawai, C. Chapouly, S. Horng, E.G. Kramer, N. Mitiku, H. Loo, N. Burlant, X. Pedre, Y. Hara, G. Nudelman, E. Zaslavsky, Y.-M. Lee, D.A. Braun, Q.R. Lu, G. Narla, C.S. Raine, S.L. Friedman, P. Casaccia, G.R. John

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**T12-046C****GP130-STAT3 signaling promotes oligodendrocyte differentiation via transactivation of *Ets Variant 6***S. Sawai, J.N. Mariani, B.M. Laitman, J. Zhang, C. Chapouly, V.D. Nair, K. Kim, S. Horng, N. Mitiku, G. Nudelman, G.R. John

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**T12-047C****p38MAPK $\gamma$  inhibits OPC differentiation and myelination**L. Marziali, M. Palmisano, Y. Hwang, A. Cuenda, L. Wrabetz, M.L. Feltri

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**T12-048C****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

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**T12-049C****Planar polarity signalling in oligodendroglia organises the CNS node of Ranvier**A. Jarjour, A. Boyd, K. Topham, L. Dow, P. Humbert, D. Henderson, A. Williams, C. French-Constant

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**T12-050C** This poster has been withdrawn.



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**T12-051C****Using mouse models of peripheral neuropathies to study the development of Schmidt-Lanterman incisures**

B.G. Brinkmann, T. Kungl, M. Ebert, S. Wernick, S. Quintes, K.-A. Nave, M.W. Sereda

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**T12-052C****A novel mutation in zebrafish resulting in myelination of neuronal cell bodies**

A. Klingseisen, D. Lyons

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**T12-053C****Lipid profile of corpus callosum: a witness of demyelination after traumatic brain injury**

D. Lerouet, T. Taib, N. Auzeil, A. Regazzetti, B. Coqueran, O. Laprévôte, C. Marchand-Leroux, V. Besson

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**T12-054C****BDNF mediates neuronal activity-regulated OPC proliferation**

A. Geraghty, M. Greenberg, M. Monje

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**T12-055C****Environmental enrichment promotes generation of new oligodendrocytes and attenuates hypoxia-induced perinatal white matter injury**

T. Forbes, B. Jablonska, V. Gallo

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**T12-056C****The role of Adgrg6/Gpr126 in sensory neurons**

C. Johnson, A. Mogha, K. Monk

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**T12-057C****Selective estrogen receptor modulators significantly enhance remyelination in an estrogen receptor-independent manner**

K. Rankin

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**T12-058C****Rapid and efficient generation of human oligodendrocytes from induced pluripotent stem cells for in vitro disease modelling and drug discovery**

M. Ehrlich, L. Starost, S. Mozafari, M. Glatza, S. Velychko, Q.-L. Cui, J. Antel, H.R. Schöler, A. Baron-van Evercooren, T. Kuhlmann

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**T12-059C****Structure, function and pathology of the myelinic channel; the oligodendrocyte's highway to the axon**

L. Pardo-Fernandez, T. Vargova, S. Williamson, C. Linington, C. Kassmann, K.-A. Nave, J.M. Edgar

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**T12-060C****Oligodendrocyte-encoded potassium channel Kir4.1 regulates white matter function during aging and injury**

L. Schirmer, L. Shio, C. Zhao, A. Cruz Herranz, C. Cordano, L. Ben Haim, K.W. Kelley, G. Timmons, J. Wright, S. Chang, K. Sabeur, A. Green, R.J.M. Franklin, D. Rowitch

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**T12-061C****SIRT2 as a genetic modifier of axonal degeneration in white matter tracts**

K. Kusch, M. Uecker, T. Liepold, W. Möbius, H.B. Werner, O. Valerius, O. Jahn, K.-A. Nave

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**T12-062C****Alginate hydrogel implants improve recovery in a rat model of spinal cord injury**

O. Uckermann, R. Galli, K.H. Sitoci-Ficici, M. Gelinsky, E. Koch, G. Schackert, G. Steiner, M. Kirsch

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**T12-063C****Mir-125a-3p negatively regulates oligodendrocyte precursor cells maturation and is altered in human multiple sclerosis**

D. Marangon, E. Boda, C. Giorgi, G.T. Coppolino, R. Parolisi, A. Finardi, R. Furlan, A. Buffo, M.P. Abbracchio, D. Lecca

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**T12-064C****Citrullination modulates oligodendrocyte differentiation**

A. Falcao, M. Meijer, P. Rinwa, T. Cummings, M. Varas, J. Liang, P. Casaccia, M. Christophorou, M. Lund Nielsen, P. Ernfors, G. Castelo-Branco

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**T12-065C****Extracellular leaflet compaction require Apolipoprotein D myelin-membrane management by optimizing lysosomal-dependent recycling and glyocalix removal**

N. Garcia-Mateo, A. Perez-Castellanos, R. Pascua-Maestro, C. Lillo, D. Sanchez, M.D. Ganfornina

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**T12-066C**

**Individual CNS myelin sheath sizes are independently regulated by physical cues**

M. Bechler, L. Byrne, C. French-Constant

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**T12-067C** This poster has been withdrawn.

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**T12-068C**

**Neuropathological evaluations of DRG cultures: testing different geometrical parameters in a dysmyelinating model**

G. Capodivento, D. Visigalli, A. Schenone, L. Nobbio

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**T12-069C**

**Differential myelin degeneration during aging and Alzheimer's disease: an ultrastructural analysis in a triple transgenic mouse model**

T. Quintela-López, W. Möbius, T. Ruhwedel, K.-A. Nave, C. Matute, E. Alberdi

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**T12-070C**

**Neurofibromin expressed by oligodendrocytes regulates myelin structure and behavior through the control of notch signaling**

A. López-Juárez, H. Titus, S. Silbak, J. Pressler, T. Rizvi, M. Bogard, M. Bennett, C. Georgianne, M. Williams, C. Vorhees, N. Ratner

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**T12-071C**

**Role of Necl4 (Cadm4/SynCAM4) in CNS myelination**

N. Elazar, A. Vainshtein, Y. Eshed-Eisenbach, E. Peles

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**T12-072C**

**Chimaerins: a missing link between myelination and ephrinB3-EphA4 signalling?**

N. Martynyuk, P. Buttery, P. Rericha, Y. Syed, M. Kotter

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**T12-073C**

**New oligodendrocyte myelin does not contribute to functional recovery after moderate thoracic spinal contusion in mice**

S. Manesh, G.J. Duncan, B. Hilton, P. Assinck, J. Plemel, P. Chau, S. Naderi-Azad, J. Liu, D. Bergles, W. Tetzlaff

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**T12-074C**

**The divalent metal transporter 1 (DMT1) is required for adequate oligodendrocyte progenitor cell maturation and myelination**

V. Cheli, L. Marziali, D. Santiago González, N. Zamora, V. Spreuer, J.M. Pasquini, P. Paez

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**T12-075C****Temporal sound processing in the auditory cortex is influenced by changes in myelin integrity**S. Moore, W. Möbius, T. Ruhwedel, M.-T. Weil, K.-A. Nave, L. de Hoz

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**T12-076C****Identification of novel regulators of local MBP mRNA translation**J. Steengaard, J. Torvund-Jensen, L. Askbjerg, N. Clavsen, K. Kjaer-Sorensen, C. Oxvig, L. Laursen

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**T12-077C****Searching for inhibitory signals for myelination by combining proteomics and a CRISPR/cas9-based screen in myelinating cultures**Y. Eshed Eisenbach, B. Vijayaragav, J.R. Chan, E. Peles

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**T12-078C****High-sensitivity optical recording of Ca<sup>2+</sup> dynamics in grey matter myelin**A. Battefeld, M. Popovic, M. Kole

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## T13 NEURAL STEM/PROGENITOR CELLS

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**T13-001C****Adipose-derived stem cells differentiate into a Schwann cell phenotype and promote in vivo peripheral nerve repair**W.C. Liao, C.H. Liu, Y.T. Lin, C.T. Lan, T.J. Tseng

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**T13-002C** This poster has been withdrawn.

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**T13-003C****Transplantation of directly induced neural stem cell (iNSCs) promotes remyelination in a mouse model of experimental focal demyelination**N. Vicario, L. Peruzzotti-Jametti, A. Braga, S. Rizzi, G. Volpe, B. Balzarotti, G. Manferrari, C. Zhao, F. Edenhofer, R.J.M. Franklin, S. Pluchino

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**T13-004C****Proliferation and neural stem cell potential of diencephalic astrocytes revealed by genome-wide expression analysis is Smad4-dependent**S. Ohlig, M. Irmeler, L. Lange Canhos, J.T. Eugenin von Bernhardt, L. Dimou, S. Sirko, J. Beckers, M. Götz

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**T13-005C****Transplanted induced neural stem cells ameliorate experimental autoimmune encephalomyelitis by metabolic reprogramming of mononuclear phagocytes**

L. Peruzzotti-Jametti, J. Bernstock, N. Vicario, A.S.H. Costa, C.-K. Kwok, T. Leonardi, L. Booty, I. Bicci, B. Balzarotti, G. Volpe, G. Mallucci, G. Manferrari, N. Iraci, J.M. Hallenbeck, M.P. Murphy, F. Edenhofer, C. Frezza, S. Pluchino

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**T13-006C****Transplantation of directly induced neural stem cells (iNSCs) in mice with experimental contusion spinal cord injury**

A. Braga, J. Verheyen, J. Smith, S. Bandiera, F. Edenhofer, S. Pluchino

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**T13-007C****The extracellular enzyme Sulf 2 controls production of a yet uncharacterized Olig2-expressing glial cell subtype in the developing spinal cord**

D. Ohayon, N. Escalas, P. Cochard, B. Glise, C. Danesin, C. Soula

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**T13-008C****Molecular profiling of adult human neural stem cells in Parkinson's disease**

S.M. Burm, M.E. van Strien, O. Basak, J.A. Sluijs, I. Paliukhovic, W.D.J. van de Berg, K.W. Li, E.M. Hol

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**T13-009C****Mechanisms controlling neurogenic lineage progression – role of bifunctional hydrogels containing laminin-derived IKVAV peptide in promoting neuronal fate and differentiation of neural progenitors**

F. Ortega, A. Farrukh, W. Fan, N. Marichal, J. Paez, B. Berninger, A. Del Campo, M. Salierno

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**T13-010C****Differences of grey and white matter astrocytes in the intact and injured cerebral cortex**

N. Mattugini, S. Ohlig, J. Merl-Pham, N. Kannaiyan, S.M. Hauck, M. Rossner, M. Götz

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**T13-011C****Astrocyte-mediated fate specification of adult neural progenitor cells: a role for NF- $\kappa$ B p50**

V. Bortolotto, S. Cvijetic, M. Marcello, E. Ranzato, E. Marengo, P.L. Canonico, M. Grilli

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**T13-012C****Post-transcriptional RNA regulation in adult neurogenesis and brain homeostasis**

C. Rolando, A. Erni, A. Grison, R. Beattie, A. Engler, M. Milo, P.J. Gokhale, T. Wegleiter, S. Jessberger, V. Taylor

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**T13-013C****Postnatal astrogenesis is critical for sexual maturation**

G. Pellegrino, V. Prevot, A. Sharif

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**T13-014C****Vertebrate enteric glial cells: what the zebrafish can tell us**

S. McCallum, T. Heanue, R. Kelsh, K. Kawakami, V. Taylor, L. Bally-Cuif, V. Pachnis

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**T13-015C****Quinolinic acid-mediated activation of striatal parenchymal astrocytes: dynamics of progenitor lineage progression and phenotyping of newly generated neurons**

G. Nato, M. Fogli, A. Fanasca, P. Peretto, A. Buffo, F. Luzzati

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**T13-016C****Targeting NG2 progenitors and their adult progeny**

R. Sanchez-Gonzalez, A. Bribian, M. Figueres-Oñate, L. López-Mascaraque

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**T13-017C****The extracellular matrix glycoprotein Tenascin-C regulates the behavior of cortical neural stem cells during the neuroepithelial to radial glial transition**

M. Patsoni, I. Kazanis, C. French-Constant, A. Faissner, M. May

## T14 NEUROIMMUNOLOGY AND NEURO-INFLAMMATION

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### T14-001A

#### Prenatal immune challenge dampens demyelination lesion during adulthood

A. Mouihate, H. Al-Hashash, S. Rakhshani-Moghadam, S. Kalakh

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### T14-002A

#### Galectin-3 modulates microglia morphology and phenotype after brain ischemia

R. Rahimian, S. Sato, M. Lalancette-Hébert, L.C. Schlichter, S. Lively, J. Kriz

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### T14-003A

#### Peripheral treatment with Infliximab prevents glial activation and neuroinflammation and restores cognitive and motor alterations in rats with chronic liver failure

T. Balzano, S. Dadsetan, J. Forteza, A. Agusti, A. Cabrera-Pastor, L. Taoro-Gonzalez, V. Hernandez-Rabaza, B. Gomez-Gimenez, N. Elmili, M. Llansola, V. Felipo

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### T14-004A

#### The role of CD137 and CD137L in pathogenesis of multiple sclerosis

H.Y. Wong, H. Schwarz

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### T14-005A

#### IKK/NF- $\kappa$ B-dependent satellite glia activation induces spinal cord microglia activation and neuropathic pain after nerve injury

H. Lim, K. Noh, S. Lee, S.J. Lee

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### T14-006A

#### Role of microglia in a mouse model of retinal dystrophy

C. Yingdi, E. Sernagor, D. Steel

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### T14-007A

#### Probing microglia contributions to cuprizone-induced de- and remyelination

L. Levy, A. Shemer, Y. Wolf, S. Jung

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### T14-008A

#### Reciprocal communication between microglia and peripheral macrophages leads to divergent activity and suppression of microglia function

A. Greenhalgh, L. Healy, J. Zarruk Serrano, J. Antel, S. David

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**T14-009A**

**Qualitative and quantitative evaluation of binarization algorithms for image analysis of glial cells 3D in ex vivo slice cultures**

S. Healy, J. McMahon, P. Owens, P. Dockery, U. FitzGerald

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**T14-010A**

**ProMoIJ: a new tool for semi-automatic analysis of cell processes motility**

J. Valero, I. Paris, L. Escobar, J.C. Savage, C.-W. Hui, M.-È. Tremblay, A. Sierra

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**T14-011A**

**Astrocytic changes in kainate-induced epileptogenesis**

J. Müller, P. Bedner, C. Steinhäuser

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**T14-012A**

**Toll-like receptor-9 is also expressed by the satellite glial cells of the rat dorsal root ganglion neurons non-associated with injured nerve**

P. Dubovy, I. Klusáková, I. Hradilová-Svíženská, M. Joukal

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**T14-013A**

**Role of astrocyte activation for blood-brain barrier breakdown after the brain injury**

H. Ikeshima-Kataoka, M. Furukawa, S. Inui, M. Imamura, M. Yasui

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**T14-014A**

**Microscopy-based siRNA screen of microglia to identify neuroprotective drug targets**

V. Neubrand, M. Delgado

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**T14-015A**

**Neurosteroidogenesis is recovered by progesterone treatment of experimental autoimmune encephalomyelitis and during spontaneous remyelination in the cuprizone model of demyelination**

L. Garay, M.L. Leicaj, M.C. Gonzalez Deniselle, L.A. Pasquini, J.M. Pasquini, A. de Nicola

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**T14-016A**

**Perivascular and meningeal macrophages proliferate at blood-brain barrier interfaces in response to transient cerebral ischemia in rats**

W.D. Rajan, B. Wojtas, M. Zawadzka, A.M. Planas, B. Kaminska

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**T14-017A****Pharmacologic antagonism of dopamine receptor D3 attenuates neurodegeneration and motor impairment in a mouse model of Parkinson's disease**

D. Elgueta, M.S. Aymerich, F. Contreras, M. Celorrio, E. Rojo-Bustamente, R. Franco, R. Pacheco

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**T14-018A****IRF8 has a pivotal role in the microglial cell response to sterile nerve injury in the brain**

R.D. Xie, N. Villacampa, B. Almolda, G. Manich, B. González, B. Castellano, I.L. Campbell

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**T14-019A****Distinct phenotypes of microglia in murine models of interleukin-6- or interferon-alpha-mediated cytokinopathies of the CNS**

P.K. West, O. Butovsky, I.L. Campbell

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**T14-020A****The role of P2Y-like receptor GPR34 on microglial phagocytosis**

V. Sánchez-Zafra, A. Schulz, A. Sierra

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**T14-021A****Amelioration of lipocalin 2-mediated astroglial reactivity *in vitro* by means of RNA nanotechnology**

J. Smith, A. Braga, J. Verheyen, P. Guo, S. Pluchino

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**T14-022A****Microglia in post-mortem brain tissue of schizophrenia: normal at first, but different when taking a more closer look**

M. Sneeboer, N. Akkerman, A. van der Geest, M. Litjens, D. Macintyre, S.J.M.C. Palmen, R. Kahn, E.M. Hol, L. de Witte

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**T14-023A****Spinal versus brain microglial and macrophage activation traits determine the differential neuroinflammatory responses and analgesic effect of minocycline in chronic neuropathic pain**

L. Tian, Z. Li, H. Wei, S. Piirainen, A. Pertovaara

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**T14-024A**

**Myeloid-derived suppressor cell peripheral load is an indicator of myelin/axonal damage in the murine model of multiple sclerosis**

C. Melero-Jerez, R. Lebrón-Galán, A. Alonso-Gómez, E. Moñivas, I. Machín, F. de Castro, D. Clemente

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**T14-025A**

**Study of the role of cortistatin in retinal neurodegeneration: aging and inflammation**

C.P. Faló, F. O'Valle, L. de Lecea, E. González-Rey

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**T14-026A**

**Oligodendroglial alpha-synuclein pathology is accompanied by a severe neuroinflammation in multiple system atrophy**

A. Hoffmann, B. Ettle, J. Wihan, S. Reiprich, E. Masliah, M.J. Riemenschneider, M. Wegner, J. Winkler

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**T14-027A**

**Comparative phenotypic and functional analysis of senescent microglia in vitro and aging microglia in the old murine brain in vivo**

M. Stojiljkovic, C. Schmeer, T. Lajqi, R. Wetzker, R. Bauer, O. Witte

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**T14-028A**

**PAMPs induce long-term and dose-dependent adaptive responses in microglia cells in vitro**

T. Lajqi, R. Bauer, M. Stojiljkovic, C. Schmeer, O. Witte, R. Wetzker

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**T14-029A**

**NOTCH1 signaling in myeloid cells modulates the development of experimental autoimmune encephalomyelitis**

P. Tranque, E.M. Monsalve, S. Lopez-Lopez, S. Mellado, M.J.M. Diaz-Guerra, M. Fernandez

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**T14-030A**

**Study of the immunoregulatory and neuroprotective effect of cortistatin on demyelination and repair process of the central nervous system**

E. González-Rey, I. Forte-Lago, M. Caro, F. O'Valle, L. de Lecea, V. Ferraz-de-Paula

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**T14-031A****Human microglia in inflammatory responses, viral reproduction and transmission in Japanese encephalitis virus infection**

L. Filgueira, M. Walch, A. Summerfield, N. Lannes

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**T14-032A****Anti-inflammatory actions of tibolone in murine brain injury models**

A. Crespo Castrillo, N. Yanguas Casas, G.E. Barreto, L.M. Garcia-Segura, M.A. Arevalo Arevalo

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**T14-033A****Sex differences in the phagocytic and migratory capacity of rat microglia**

N. Yanguas Casás, A. Crespo Castrillo, M.A. Arevalo, L.M. Garcia Segura

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**T14-034A****Palmitic acid induces inflammation and cell death in cultured cortical astrocytes**

A. Ortiz Rodriguez, E. Acáz-Fonseca, L.M. Garcia-Segura, M.A. Arevalo

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**T14-035A****The endocannabinoid 2-arachydonoylglycerol promotes remyelination in a primary progressive model of MS**

M. Mecha, A. Feliú, F.J. Carrillo-Salinas, L. Mestre, K. Riecken, D. Gomez-Nicola, C. Guaza

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**T14-036A****Insulin-like growth factor-1 and angiotensin II in neuroinflammation and aging**

A.I. Rodríguez Perez, P. Garrido-Gil, R. Valenzuela-Limiñana, C. Diaz-Ruiz, J. Rodríguez-Pallares, J.L. Labandeira-García

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**T14-037A****Neurotoxin impairment of microglial function: contribution to neurodegeneration in Parkinson's disease?**

N. Rabaneda-Lombarte, E. Xicoy, J. Serratosa, J. Saura, C. Solà

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**T14-038A****Conditional ablation of myeloid TNF improves functional outcome and decreases lesion size after spinal cord injury in mice**

K.L. Lambertsen, M.C. Lund, H.G. Novrup, E.B. Lester, L.H. Jørgensen, S.A. Nedospasov, R. Brambilla, D.G. Ellman

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**T14-039A****Role of toll like receptor 9 (TLR9) in astroglial function: focus on glutamate transporters**

A. Pallottie, A. Ratnayake, L. Ni, R. Heary, S. Elkabes

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**T14-040A****Protective effect of the oxytocin receptor agonist carbetocine on brain damage induced by fetal growth restriction associated with postnatal inflammation in rat**

J. Mairesse, J. Pansiot, C. Demené, H. Pham, M. Zinni, M. Colella, R. Moretti, C. Charriaut-Marlangue, A. Rideau Batista Novais, P. Gressens, M. Tanter, O. Baud

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**T14-041A****MicroRNA and microglia in a model of neonatal white matter injury induced by inflammation: focus on microRNA 146b-5p**

C. Bokobza, E. Boscher, A. Benmamar-Badel, A. Montané, J. van Steenwinckel, P. Gressens

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**T14-042A****Oncostatin M signaling is essential for robust remyelination**

K. Janssens, A. Maheshwari, C. Vandehaute, T. Struys, I. Lambrichts, V. Baekelandt, P. Stinissen, J. Hendriks, H. Slaets, N. Hellings

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**T14-043A****Plaque-associated microglia in mice with AD-like pathology show increased and heterogeneous voltage-activated currents**

M. Plescher, G. Seifert, P. Bedner, J.N. Hansen, C. Steinhäuser, A. Halle

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**T14-044A****IFN- $\gamma$  plays a key role in preventing disease progression in experimental autoimmune encephalomyelitis by modulating myeloid cell function in the CNS**

T. Forsthuber, R. Robinson

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**T14-045A****Progression of inflammatory mediators in the organotypic hippocampal slice model of epileptogenesis**

D.M. Magalhães, N. Pereira, A.M. Sebastião, C.A. Valente

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**T14-046A****Therapeutic value of naltrexone as a glial modulator**

B. Vrooman, K. Toljan, D. Agarwal, H. Qureshi

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**T14-047A**

**The RNA binding protein HuR promotes the inflammatory phenotype of microglia and is upregulated in microglia of ALS spinal cords**

P. Matsye, L. Zheng, Y. Si, S. Kim, W. Luo, D. Crossman, P. Batchner, P. King

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**T14-048A**

**Brain TGF $\beta$  promotes resistance to hypertension via regulating microglial activation**

X. Liu, Y. Li, X. Shen, P. Shi

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**T14-049A**

**The role of angiotensin AT<sub>2</sub>-receptor stimulation and IL-10 signaling in an animal model of neuromyelitis optica spectrum disorder**

R. Khoroshi, E. Ulrikaholm Tofte-Hansen, C. Hermansen,

R. Montanana Rosell, H. Liska Limberg, N. Asgari, U.M. Steckelings, T. Owens

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**T14-050A**

**Pathophysiology and imaging of early memory impairment in multiple sclerosis**

V. Planche, A. Panatier, A. Ruet, B. Hiba, P. Coupé, E.-G. Ducourneau,

N. Dubourdieu, F. Munsch, M. Deloire, C. Guttmann, V. Dousset, A. Desmedt,

B. Brochet, S. Oliet, T. Tourdias

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**T14-051A** This poster has been withdrawn.

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**T14-052A**

**Next generation sequencing identifies miR147b as a novel key regulator of interleukin 1 beta-mediated inflammation in human astrocytes**

J. van Scheppingen, J.D. Mills, D.W.M. Broekaart, J.J. Anink, F.E. Jansen,

W.G. Spliet, J.C. Baayen, A.M. Iyer, E.A. van Vliet, E. Aronica

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**T14-053A**

**Choroid plexus trafficking of immune cells towards the rat cochlear nuclei after noise trauma or cochlear destruction**

P. Perin, A. Venturino, R. Pizzala

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**T14-054A**

**Decreased S100A8/A9 in V30M related familial amyloid polyneuropathy: a possible pathway in misregulation of Schwann cell chemotaxis**

J. Moreira, N.P. Gonçalves, M. Saraiva, M.J. Saraiva

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**T14-055A****Novel myelinogenic phenotype of microglia**

A. Wlodarczyk, I. Holtman, N. Yogev, R. Khorrooshi, A. Benmamar-Badel, J.J. de Boer-Bergsma, N.A. Martin, I. Kramer, E. Boddeke, A. Waisman, B.J.L. Eggen, T. Owens

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**T14-056A****ATP-induced IL-1 $\beta$  secretion is selectively impaired in microglia as compared to hematopoietic macrophages**

S.M. Burm, E.A. Zuiderwijk-Sick, P.M. Weert, J.J. Bajramovic

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**T14-057A****Toll-like receptor 4 (TLR4) and triggering receptor expressed on myeloid cells-2 (TREM-2) activation balance astrocyte polarization into a proinflammatory phenotype**

G. Rosciszewski, V. Cadena, V. Murta, J. Lukin, A. Villarreal, T. Roger, A.J. Ramos

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**T14-058A****Dissecting the role of NEMO/NF- $\kappa$ B in astrocytes reacting to injury and inflammation**

E. Engelhardt, J. Göbel, H.M. Jahn, M. Bergami

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**T14-059A****Deregulation of microglial apoptosis alters their functional response to an inflammatory stimulus**

D. Gomez-Nicola, K. Askew, V.H. Perry, M.S. Cragg

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**T14-060A****Inhibition of MyD88 signaling induced alternative activation of microglia and modulation of hippocampal neurogenesis in the young mice**

J.-T. Liu, Z. Fan, T.-K. Huang, C.-B. Zhang, F. Kuang

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**T14-061A****Retinal microglia contralateral to experimental glaucoma in mice exhibited early signs of activation: quantification of processes retraction and reorientation**

E. Salobar-García, R. Gonzalez-Martin, D. Ajoy, B.I. Gallego, R. de Hoz, A.I. Ramírez, B. Rojas, J.J. Salazar, M.P. Villegas-Perez, A. Triviño, J.M. Ramírez

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**T14-062A****Early microglial activation is detected in mice retina contralateral to experimental glaucoma**

R. de Hoz, A.I. Ramírez, B. Rojas, J.J. Salazar, E. Salobar-García, F.J. Valiente-Soriano, M. Avilés-Trigueros, A. Triviño, J.M. Ramírez

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**T14-063A****Astrocytic tight junctions control inflammatory CNS lesion pathogenesis**

S. Horng, C. Chapouly, A. Therattil, K. Kim, A. Gordon, A. Tadesse Argaw, Y. Hara, J. Mariani, P. Flodby, E. Crandall, Z. Borok, M. Sofroniew, G.R. John

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**T14-064A****Lysophosphatidic acid receptor 2 contributes to demyelination after spinal cord injury by inducing the release of purines in microglial cells**

C. Lopez, E. Santos-Nogueira, I. Francos-Quijorna, M. Coll-Miró, J. Chun, R. Lopez-Vales

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**T14-065A****Astrocytic junctional adhesion molecule-A promotes CNS inflammatory lesion pathogenesis**

C. Chapouly, A. Gordon, A. Therattil, G.R. John, S. Horng

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**T14-066A****TNF neutralization promotes OPC differentiation in a model of progressive EAE**

A. Valentin-Torres, C. Savarin, S. Stohlman, C. Bergmann

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**T14-067A****Microglia cell type specific NF- $\kappa$ B networks and molecular signatures in the CD11bGFPxTDP43<sup>G348C</sup> transgenic mouse model for FTL**

S.S. Thammisetty, H. Boutej, J. Kriz

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**T14-068A****Glial cell changes in the central auditory system through the lifespan of non-human primates**

B. Impey, S. Quraishe, E.T. Rogers, S. Funnell, C. Verschuur, T.A. Newman

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**T14-069A****Role of Htra1 in TGF $\beta$  signaling and microglia quiescence**

I. Akhtar, T. Langmann

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**T14-070A****The functional outcome of GM-CSF mediated effects on microglia in an in vitro model of central nervous system**

D. Arseni, C.A. Jones, J.M. Edgar, C. Linington

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**T14-071A****Characterisation and modulation of TREM2 sheddase site in primary cultures of myeloid cells**

P. Thornton, M.J. Deery, G. Fraser, S. Ståhl, E.H. Franssen, B. Gomez Perez-Nievas, L. Nicol, S. Eketjäll, J. Revell, C.A. Jones, A. Billinton, I. Chessell, D.C. Crowther

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**T14-072A****Maresin 1 promotes inflammatory resolution, neuroprotection and functional neurological recovery after spinal cord injury**

I. Francos-Quijorna, E. Santos Nogueira, K. Gronert, A.B. Sullivan, M.A. Kopp, B. Brommer, C.N. Serhan, S. David, J.M. Schwab, R. López Vales

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**T14-073A****Repeated systemic TNF $\alpha$  challenge in APP/PS1 mice as a model to elucidate the effects of systemic inflammation on Alzheimer's disease pathology**

E. Hennessy, D. Healy, J. Dover, C. Murray, C. O'Boyle, C. Cunningham

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**T14-074A****Loss of the Wnt pathway in microglia drives pro-inflammatory activation leading to perinatal white matter injury**

J. van Steenwinckel, A.-L. Schang, M. Krishnan, F. Verdonk, F. Chrétien, A.D. Edwards, H. Hagberg, N. Soussi, B. Fleiss, P. Gressens

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**T14-075A****A novel model of mechanically induced inflammation in a primary culture using parallel flow shear stress**

A. Trotier, L. McNamara, M. Biggs

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**T14-076A****Bacterial peptidoglycan in MS and EAE brain as a co-factor in demyelinating disease**

J. Laman, B. 't Hart, C. Power

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**T14-077A****Pheripheral inflammation exacerbates neuronal death in the mptp model of Parkinson's disease through microglial activation**

I. García-Domínguez, K. Veselá, A. Carrillo-Jiménez, J. García-Revilla, M. Roca-Ceballos, R. Martínez de Pablos, J.L. Venero

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**T14-078A****Gp130 signalling on astrocytes during cuprizone-induced demyelination**

S. Heckers, V. Gudi, T. Skripuletz, M. Stangel

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**T14-079A****Deficiency of TNFAIP3 (A20) in microglia leads to spontaneous neuroinflammation**A. Mohebiany, A. Moeckl, K. Karram, A. Waisman

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**T14-080A****Vulnerabilities to inflammatory exacerbation and acute cognitive dysfunction in a mouse model of Alzheimer's disease**A.B. Lopez-Rodriguez, E. Hennessy, C. Murray, N. de Barra, C. Cunningham

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**T14-081A****Localization of antibody deposition by sterile injury in the brain**M. Thorsen Mørch, S. Forsberg Sørensen, R. Khoroshi, N. Asgari, T. Owens

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**T14-082A****A novel automated dissociation procedure for efficient recovery and comprehensive detection of immune cells from inflamed brain and spinal cord**S. Reiß, A. Bosio, M. Jungblut

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**T14-083A****Pulse-modulated 1800 MHz electromagnetic fields affect microglial cell responses triggered by lipopolysaccharide**M. Mallat, J. Lameth, A. Gervais, C. Colin, P. Leveque, D. Arnaud-Cormos, T. Jay, J.-M. Edeline

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**T14-084A****Effects of simultaneous astrocyte-targeted production of IL-10 and IL-6 on glial reactivity and motor neuron survival after facial nerve axotomy**G. Manich, P. Albareda, M. Recasens, N. Villacampa, I.L. Campbell, B. González, B. Castellano

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**T14-085A****Allelic series of Csf1r mutant zebrafish microglia reveals Csf1r control of microglia density independent of differentiation and function**N. Oosterhof, L. Kuil, H. van der Linde, W. van Ijcken, T. van Ham

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**T14-086A****Integrin ligands osteopontin and lactadherin cooperate to modulate microglial phagocytosis, motility and transcriptional programs**B. Kaminska, A. Ellert-Miklaszewska, P. Gajdanowicz, E. Lewczuk, M. Gerigk

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**T14-087A**

**Type II monocytes exert regulatory functions in central nervous system during experimental autoimmune encephalomyelitis**

D. Häusler, W. Brück, M.S. Weber

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**T14-088A**

**Investigation of the NLRP3 inflammasome in microglia and the implications for Alzheimer's disease**

R. McManus, M. Heneka

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**T14-089A**

**Sulphatide-specific IgM induces a type I interferon-dependent anti-viral response in the CNS**

T. Semenoff, V. Schultz, S. Merz, K. Muecklich, C. Mckimmie, J.M. Edgar, C. Linington

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**T14-090A**

**Increased white matter inflammation in aging- and Alzheimer's disease brain**

Z. Yin, D. Raj, M. Breur, J. Doorduyn, I. Holtman, M. Olah, I.M. Otter, D. van Dam, P. de Deyn, W. Den Dunnen, B. Eggen, S. Amor, E. Boddeke

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**T14-091A**

**Identification of suitable reference genes for normalization of real-time PCR in a mouse model of neonatal neuroinflammation**

S. Lebon, A.-L. Schang, J. van Steenwinkel, P. Gressens

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**T14-092A**

**Neuropathogenic bird schistosome *Trichobilharzia regenti* activates astrocytes and microglia of infected ducks and mice**

T. Macháček, V. Krčmářová, M. Majer, H. Dvořáková, L. Panská, J. Bulantová, P. Horák

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**T14-093A**

**Establishing a human neural stem cell derived astrocyte-/neuron-culture model to investigate the role of inflammation associated mediators for neuronal damage formation**

M. Alisch, J. Kerkerling, K. Rosiewicz, V. Siffrin

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**T14-094A**

**A link between dysregulation of the plasminogen activation system and neuroinflammation in multiple sclerosis animal models**

H. Lebas, A. Fournier, A. Briens, F. Docagne, I. Bardou

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**T14-095A****The role of CNS-endogenous TLR9 and NOD2 in neuro-inflammatory disease in mice**

R. Storgaard Dieu, R. Khorrooshi, V. Wais, G. Webster, T. Owens

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**T14-096A****Blood brain barrier- IL-1 signaling drives neuroinflammation**

J. Hauptmann, T. Regen, K. Karram, F. Marini, M. Klein, M. Krüger, H. Bindner, T. Bopp, I. Bechmann, A. Waisman

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**T14-097A****Responses to LPS and  $\alpha$ -Synuclein of primary cultures of microglia-like cells derived from adult human monocytes**

J.M. Vidal Taboada, C. Belmonte-Mateos, M. Pulido-Salgado, A. Marsal-Cots, G. Aguilar-Pérez, J. Sala-Jarque, N. Rabaneda-Lombarte, J. Serratosa, C. Solà, J. Saura

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**T14-098A****Role of purinergic receptor P2X4 in experimental autoimmune encephalomyelitis**

A. Zabala, N. Vazquez-Villoldo, J. Gejo, B. Rissiek, A. Palomino, A. Pérez-Samartín, E. Capetillo-Zarate, T. Magnus, F. Koch-Nolte, F. Rassendren, C. Matute, M. Domercq

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**T14-099A****Innate immune responses in human oligodendrocytes depend on maturation state**

L. Saito, M.C. Monaco, W. Branton, E. Cohen, E. Major, C. Power

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**T14-100A****Characterization of the anti-inflammatory and antioxidant mechanism of the new derivative ITH12674**

I. Buendia Abaitua, P. Michalska, E. Luengo, C. Fernández-Mendivil, M.G. López, R. León

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**T14-101A****IL-10-dependent Tr1 cells attenuate astrocyte activation and ameliorate chronic central nervous system inflammation**

L. Mayo, A. da Cunha, A. Madi, V. Beynon, J.I. Alvarez, A. Prat, R.A. Sobel, H. Lassmann, F.J. Quintana, H.L. Weiner

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**T14-102A****In situ morphology of microglia is highly sensitive to the tissue fixation method used**

B. Catalin, L. Schlosser, A.T. Balseanu, A. Scheller

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**T14-103A**

Ageing and progressive microgliosis imposes progressive vulnerability to acute cognitive dysfunction upon systemic inflammation.

D. Healy, C. Murray, C. Cunningham

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**T14-104A**

Application of translational profiling method for the molecular characterization of the inflammatory response: divergence of mRNA and protein networks in microglia

H. Boutej, R. Rahimian, S.S. Thammisetty, L.-C. Béland, M. Lalancette-Hébert, J. Kriz

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**T14-105A**

Purinergic receptor P2Y<sub>12</sub>: a potential target for PET imaging of neuroinflammation in multiple sclerosis and EAE

W. Beaino, B. Janssen, G. Kooij, S. van der Pol, A.D. Windhorst, H.E. de Vries

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**T14-106A**

Lysophosphatidic acid (LPA) controls the migratory and inflammatory response of microglia via the LPAR5-PKDs axis

J. Plastira, E. Bernhart, B. Zucol, W. Graier, W. Sattler

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**T14-107A**

Interaction between microglia and T cells in a model of brain inflammation in zebrafish

G. Morisse, J. Mazzolini, D. Sieger, A. Astier

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**T14-108A**

MerTK mediated regulation of myelin phagocytosis in multiple sclerosis patient monocyte-derived-macrophages

L. Healy, S.-Y. Won, J.H. Jang, Y.H. Lin, S. Aljarallah, A. Bar-Or, J. Antel

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**T14-109A**

Incidence of inflammatory features in epileptic-like organotypic slices – a tool for drug screening

D.M. Magalhães, N. Pereira, D.M. Rombo, A.M. Sebastião, C.A. Valente

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**T14-110A**

Selective deletion of AMPA receptors on oligodendrocytes prevents axonal injury in autoimmune demyelination

K. Evonuk, R. Doyle, C. Moseley, H. Monyer, T. Desilva

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**T14-111A****Selective manipulation of microglia by chemogenetics: Implications for energy homeostasis and obesity pathogenesis**

A.C. Wyse-Jackson, M.D. Dorfman, J.P. Thaler

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**T14-112A****In vitro studies on the interaction of human regulatory T cells with oligodendrocyte-lineage cells**

G. Eleftheriadis, R.C. Mc Pherson, D. Magnani, S.M. Anderton, S. Chandran, D.C. Fitzgerald

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**T14-113A****The ecto-5'-nucleotidase (CD73)-derived adenosine signaling regulates microglia-triggered neuroinflammation and modulates neuronal loss in a Parkinson's disease model**

Z. Gao

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**T14-114A****A nutraceutical approach as adjuvant therapy for the prevention and treatment of trigeminal pain: role of microglia**

S. Ceruti, G. Magni, D. Lecca, A. Marinelli, D. Riccio, G.T. Coppolino, F. Tomay, M.P. Abbracchio, C. Tonelli, K. Petroni

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**T14-115A****The effect of TNF-blockade on T cell-enhanced microglial clearance of myelin debris**

K.T. Jensen, L.I. Davidsen, M. Grebing, B.H. Clausen, K.L. Lambertsen, H.H. Nielsen, B. Finsen

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**T14-116A****Exosomes derived from microglia exposed to elevated pressure elicit a pro-inflammatory response in naive cells**

I.D. Aires, T. Ribeiro Rodrigues, D. Almeida, A.F. Ambrósio, H. Girão, A.R. Santiago

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**T14-117A****CXCL16 as mediator of microglia polarization**

F. Lepore, C. Limatola, F. Trettel

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**T14-118A****Purinergic signaling through P1 and P2 receptors in enteric glial cells during inflammation**

R. Schneider, A. Miesen, M. Lysson, B. Schneiker, F.L. Christofi, J.C. Kalff, S. Wehner

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**T14-119A**

**Assessing the human glial response to pro-inflammatory immune-mediators produced during multiple sclerosis**

R. Mcpherson, G. Eleftheriadis, D. Magnani, K. Burr, S. Colville, S.M. Anderton, S. Chandran

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**T14-120A**

**An in vitro 3D model to study the cross-talk between enteric glia cells and the intestinal epithelial organoids**

S.H. Chng, A.C.B. Frauches Oliveira, R. Lasrado, L. Meran, V. Li, V. Pachnis

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**T14-121A**

**Abrogation of microglial TGF-beta signalling results in distinct microglia phenotypes**

T. Zöller, A. Schneider, C. Kleimeyer, P.S. Potru, M. Prinz, B. Spittau

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**T14-122A**

**Affinity-dependent modulation of T cell responses by DHODH inhibition**

M. Lindner, M. Eschborn, M. Liebmann, V. Posevitz, B. Torres Garrido, J. Breuer, N. Schwab, P. Ehling, K. Busch, S. Meuth, D. Zehn, H. Wiendl, L. Klotz

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**T14-123A** This poster has been withdrawn.

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**T14-124A**

**The role of P2Y<sub>6</sub> receptor signalling in inflammatory neuron loss in models of Alzheimer's and Parkinson's disease**

S. Milde, A. Vilalta, G.C. Brown

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**T14-125A**

**Differential expression of KIR4.1 in rodents, pig and human brain**

G.K. Tanti, R. Srivastava, S.R. Kalluri, M. Herwerth, C. Nowak, B. Hemmer

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**T14-126A**

**Heme-oxygenase I and PGC-1 $\alpha$  regulate mitochondrial biogenesis via microglial activation of alpha7 nicotinic acetylcholine receptors using PNU282987**

C. Fernández-Mendivil, E. Navarro, L. Gonzalez-Lafuente, I. Pérez-Liévana, I. Buendía, E. López-Bernardo, C. Sánchez-Ramos, E. Luengo, I. Prieto, A. Cuadrado, J. Satrustegui, S. Cadenas, M. Monsalve, M.G. López

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**T14-127A**

**Fate mapping analysis reveals the inflammation-related plasticity of microglia in experimental autoimmune encephalomyelitis**

T. Crowley, K. Rosiewicz, S.A. Wolf, H. Kettenmann, V. Siffrin

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**T14-128A****CD300f immunoreceptor deficiency-induced depressive and obsessive compulsive behaviours and exacerbated microglial activation after diverse inflammatory stimuli**

M.L. Negro-Demontel, N. Lago, F. Kaufmann, D. Alí, A. Cawen, R. López-Valez, J. Sayós, H. Peluffo

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**T14-129A****The immune-regulatory role of human primary repair and tumor-associated Schwann cells**

S. Taschner-Mandl, T. Weiss, J. Berner, A. Bileck, F. Rifatbegovic, R. Windhager, H. Kitzinger, C.-H. Tzou, I.A. Ambros, C. Gerner, A. Dohnal, P.F. Ambros

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**T14-130A****Retinal microglia response after peripheral nerve injury**

M. Avilés-Trigueros, Y. Caja-Matas, F.M. Nadal-Nicolás, F.J. Valiente-Soriano, M. Vidal-Sanz

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**T14-131A****Assessing toll-like receptor signalling in Multiple Sclerosis both centrally and peripherally**

J.M. Fitzpatrick, I. Sweeney, N. Boyle, R. Magee, S.-M. Yap, T. Hogan, Y. Nolan, O. O'Toole, W. Hind, E. Downer

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**T14-132A****The role of NG2-expressing cells during neuroinflammation**

M. Kitic, K. Karram, A. Waisman

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**T14-133A****Astrocyte-targeted production of Interleukin-10 and Interleukin-6 alter the physiological microglial and astroglial responses associated to aging**

P. Sanchez-Molina, B. Almolda, B. González, B. Castellano

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**T14-134A****Novel in vitro method for modelling resting and activated astrocytes**

J. Verheyen, J. Smith, A. Braga, L. Peruzzotti-Jametti, S. Rizzi, F. Edenhofer, S. Pluchino

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**T14-135A****Repair mechanisms during demyelination**

L. Taylor, K. Puranam, A. Patel, N. Muthusamy, G. Matsushima

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**T14-136A****Influence of type I IFN signalling on anti-MOG-mediated demyelination**

T. Owens, C. Berg, R. Khorooshi, N. Asgari

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**T14-137A****Developmental changes in microglia in GFAP-targeted IL-6 and GFAP-targeted IL-10 transgenic mice**

B. Almolda, K. Shrivastava, B. González, B. Castellano

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**T14-138A****CD200R1 blockade impairs functional recovery after spinal cord injury**

N. Lago, B. Pannunzio, J. Amo-Aparicio, R. López-Vales, H. Peluffo

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**T14-139A****Neuroinflammation activates an axonal degeneration program in mice carrying human PLP1 mutations**

J. Groh, L. Papp, R. Martini

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**T14-140A****The role of the B cell in the pathogenesis of multiple sclerosis**

J. Roodselaar, E. Urich, D.C. Anthony

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**T14-141A****The neurotransmitter dopamine inhibits glutamate release evoked by  $\alpha$ -Synuclein aggregates in microglial cells**

P.P. Michel, M. Dos-Santos Pereira, L. Acuña, S. Hamadat, J. Rocca, F. González, R.N. Chehín, J. Sepúlveda Diaz, E. Del Bel, R. Raisman-Vozari

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**T14-142A****The contribution of the acute phase response to the pathogenesis of relapse in chronic-relapsing experimental autoimmune encephalitis models of multiple sclerosis**

S. Mardiguan, E. Ladds, S. Campbell, D.C. Anthony

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**T14-143A****Inflammasome expression in CNS lesions and the effect of inflammasome-derived IL-1 $\beta$  and IL-18 on glial cells in vitro**

S. Fleville, N. Boylan, D. Crooks, M. Dittmer, L. Roets, D.C. Fitzgerald, Y. Dombrowski



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**T14-144A****Galectin-3 acts as an early alarmin orchestrating brain immune response and promoting neurodegeneration after traumatic brain injury**

J.L. Venero, P.K. Yip, A. Carrillo-Jiménez, P. King, A. Vilalta, K. Nomura, C.C. Chau, A.M.S. Egerton, Z.-H. Liu, A.J. Shetty, J.L. Tremoleda, M. Davies, T. Deierborg, J.V. Priestley, G.C. Brown, A.T. Michael-Titus, M.A. Burguillos

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**T15 NEUROVASCULAR INTERACTIONS**

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**T15-001B****From mice to men: astrocyte morphology is confined by functional boundaries in the mammalian cortex**

R. Eilam, R. Aharoni, R. Arnon, R. Malach

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**T15-002B****Unravelling the impact of methylphenidate on neurogliovascular function: implications for memory performance**

A.P. Silva, V. Coelho-Santos, F.L. Cardoso, R.A. Leitão, A. Magalhães, M. Ferreira-Teixeira, C. Gomes, M. Rito, M. Barbosa, C. Fontes-Ribeiro

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**T15-003B****Endothelial dysfunction drives white matter vulnerability in small vessel disease**

R. Rajani, S. Ruigrok, D. Graham, S. Harris, B. Verhaaren, M. Fornage, S. Seshadri, S. Atanur, A. Dominiczak, C. Smith, J. Wardlaw, A. Williams

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**T15-004B****Exendin-4, a glucagon-like peptide 1 analog, prevents the increase in blood-retinal barrier permeability and microglia activation in a type 1 diabetes animal model**

A. Gonçalves, M.I. Barros, J. Martins, C.A. Gomes, C. Fontes-Ribeiro, A.F. Ambrósio, R. Fernandes

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**T15-005B****Microglia promote the functional maturation of blood-brain barrier by regulating cytokine/chemokine concentrations**

Y. Shigemoto-Mogami, H. Kazue, K. Sato

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**T15-006B**

**Effects of extracellular vesicles from vascular endothelial cells on survival, proliferation, and motility of oligodendrocyte precursor cells**

Y. Ishizaki, M. Kurachi, S. Osawa, H. Shimauchi-Ohtaki, H. Yamamoto, M. Naruse, K. Shibasaki

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**T15-007B**

**Neurogliovascular unit dysfunction induced by methamphetamine: protective role of parthenolide**

R.A. Leitao, F.L. Cardoso, V. Coelho-Santos, C. Fontes-Ribeiro, A.P. Silva

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**T15-008B**

**Astrocytes role is critical to induce endothelial sensitivity to beta amyloid in an in vitro blood brain barrier model**

S. Spampinato, S. Merlo, Y. Sano, T. Kanda, M.A. Sortino

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**T15-009B**

**The role of microglia in microvascular calcification in the brain**

A. Keller, Y. Zarb, B. Johannson, C. Betsholtz, M. Greter, M. Colonna

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**T15-010B**

**Translation in astrocyte distal processes sets molecular heterogeneity at the gliovascular interface**

A.-C. Boulay, B. Saubaméa, M. Cohen-Salmon

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**T15-011B**

**Cadmium cellular signaling in the impairment of the blood brain barrier: study in a rat brain endothelial cell line**

J.J.V. Branca, G. Morucci, M. Maresca, C. Ghelardini, M. Gulisano, L. di Cesare Mannelli, A. Pacini

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**T15-012B**

**Hypercaloric environment triggers chronic remodeling of the hypothalamic vasculature via astroglial HIF1 $\alpha$  and VEGF signaling**

T. Gruber, C. García-Cáceres, O. Lê Thuc, B. Legutko, T.L. Horvath, M.H. Tschöp

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**T15-013B**

**AAV-mediated gene delivery in dp71-null mouse model and blood brain barrier permeability assessment**

O. Vacca, M. Belmaati-Cherkaoui, C. Sebríé, X. Guillonéau, D. Dalkara, C. Vaillend

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**T15-014B**

**Aquaporin-4 channel distribution and brain water homeostasis in mice lacking dystrophin Dp71**

M. Belmaati-Cherkaoui, O. Vacca, C. Sebr  , R. Helleringer, M. Galante, C. Vaillend

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**T16 REGENERATION AND REPAIR**

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**T16-001C**

**Effect of hyaluronic acid hydrogel with lithium on sciatic nerve defects**

I. Dag, E. Kocman, T. Sengel, E. Soztutar, M. Canbek

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**T16-002C**

**Parvalbumin-expressing ependymal cells in rostral lateral ventricle wall adhesions contribute to aging-related ventricle stenosis in mice**

V. Szabolcsi

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**T16-003C**

**The human repair Schwann cell phenotype – OMIC analyses identified novel proteins and functions involved in nerve regeneration**

T. Weiss, S. Taschner-Mandl, A. Bileck, A. Slany, F. Rifatbegovic, H. Dodig, C. Frech, M. Kauer, R. Windhager, H. Kitzinger, C.-H. Tzou, C. Gerner, P.F. Ambros, I. Ambros

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**T16-004C**

**Severe experimental autoimmune encephalomyelitis (EAE) is ameliorated by human olfactory-derived mesenchymal stromal cell transplantation**

S.L. Lindsay, D.E. Mcelroy, C.S. Goodyear, S.C. Barnett

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**T16-005C**

**Grey matter demyelination and synaptopathy in multiple sclerosis**

L. Zoupi, A.R. Dirkson, S. Sekizar, C. Smith, T. Spires-Jones, A. Williams

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**T16-006C**

**Role of Wnt antagonist SFRP4 as a modulator of neuroregenerative properties of olfactory ensheathing glia (OEG) immortalized cell lines**

M. Portela, D. Sim  n, M.C. Turpin, J. Sierra, M.T. Moreno-Flores

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**T16-007C****The role of oligodendroglia in regeneration after spinal cord injury in zebrafish**M.M. Reimer

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**T16-008C****Oligodendroglial regeneration and functional recovery upon spinal cord lesion in zebrafish**V. Tsata, M.M. Reimer

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**T16-009C****In vitro focal demyelination in the mouse central nervous system**S. Sekizar, L. Zoupi, B. Newland, A. Williams

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**T16-010C****Changes in microglia extracellular matrix contribute to age-associated decline in CNS remyelination**R. Baror, R.J.M. Franklin

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**T16-011C****Intrinsic changes in the proliferative program limit astrocyte homeostasis in the aged post-traumatic murine cerebral cortex**G. Heimann, L. Lange Canhos, J. Frik, G. Jäger, M. Götz, S. Sirko

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**T16-012C****Grb2-associated binder-1 and -2 are essential scaffolding proteins for peripheral nerve repair**Y.K. Shin, H.S. Park, S.Y. Jang, S.H. Yun, Y.Y. Choi, B.-A. Yoon,Y.R. Jo, S.Y. Park, P. Min Gyoung, J.I. Park, H.T. Park

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**T16-013C****Control of oligodendrocyte plasticity by histone demethylases after spinal cord injury**M. Duman, C. Jacob

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**T16-014C****A functional analysis of nanotopographically modified platinum Iridium microelectrodes**A. Kelly, G. O'Connor, M. Biggs

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**T16-015C****Identification of the pro-regenerative microglia and macrophage transcriptomes**C. Davies, V. Miron

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**T16-016C**

**Reprogramming adult SVZ-derived neuroblasts into oligodendrocytes enhances remyelination in the adult brain**

B. El Waly, M. Cayre, P. Durbec

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**T16-017C**

**Do endogenous neural stem cells contribute to myelin repair through immunomodulation?**

B. Brousse, P. Durbec, M. Cayre

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**T16-018C**

**Remyelination in germ-free mice**

C. McMurrain, O. Zidon, D.C. Fitzgerald, C.A. Jones, R.J.M. Franklin

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**T16-019C**

**Repair Schwann cells are up to 3 fold longer than Schwann cells in uninjured nerves, and often form long, parallel processes**

J.A. Gomez-Sanchez, K. Pilch, M. van der Lans, R. Mirsky, K.R. Jessen

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**T16-020C**

**MiR-145-5p targets MYRF in oligodendrocytes and stunts their differentiation – insights into the inhibitory microenvironment of the progressive multiple sclerosis lesion**

S. Kornfeld, S. Bonin, R. Kothary

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**T16-021C**

**Perivascular remodeling of astrocytic ER and mitochondrial networks following brain injury**

J. Göbel, A. Ghanem, E. Motori, H.M. Jahn, G. Wani, K.-K. Conzelmann, M. Bergami

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**T16-022C**

**Central nervous system remyelination is driven by microglia necroptosis and repopulation**

A. Lloyd

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**T16-023C**

**Mature oligodendrocytes bordering demyelinating lesions restrict demyelination and favor myelin repair via heparan sulphate production**

M. Macchi, C. Zimmer, E. Peeva, B. El Waly, B. Brousse, F. Kiefer, K. Grobe, A. Williams, M. Cayre, P. Durbec

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**T16-024C****Single-cell and large-scale analysis of myelinating cell plasticity using in vitro models of PNS and CNS lesion**

A. Vaquié, A. Sauvain, B. Egger, N.L. Jeon, L. Falquet, F. Meyenhofer, C. Lamy, S. Ruff, C. Jacob

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**T16-025C****CXCL12a/SDF-1 from perisynaptic Schwann cells promotes regeneration after motor axon terminal injury**

S. Negro, F. Lessi, E. Duregotti, P. Aretini, M. Ia Ferla, S. Franceschi, M. Menicagli, M. Pirazzini, C.M. Mazzanti, M. Rigoni, C. Montecucco

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**T16-026C****Manipulating microglial functional phenotypes rescues white matter pathology following perinatal brain injury**

G. Ireland, R. Holloway, V. Miron

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**T16-027C****Oligodendrocytes and remyelination after injury of the adult zebrafish spinal cord**

V. Kroehne, M.M. Reimer

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**T16-028C****The regulation of oligodendrocyte precursor cells in development of the zebrafish spinal cord**

C. Hoppe, V. Kroehne, V. Tsata, C. Froeb, M.M. Reimer

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**T16-029C****Acute neuroinflammation to rebuild a brain: insights from zebrafish**

I. Bollaerts, J. van Houcke, A. Beckers, S. Vanhunsel, K. Lemmens, L. de Groef, L. Moons

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**T16-030C****Neuroinflammation as a driving force of dendritic shrinkage and axonal regeneration: MMP-2 as possible modulator**

L. Andries, M. Salinas-Navarro, L. de Groef, L. Moons

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**T16-031C****Regenerating nerves with fat: harnessing the differentiation potential of adipose derived stem cells**

A. Faroni, S. Wan, J. Gough, A.J. Reid

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**T16-032C****The relationship between Schwann cell c-Jun and regeneration failures due to ageing and long-term injury**

L.J. Wagstaff, J.A. Gomez-Sanchez, R. Mirsky, K.R. Jessen

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**T16-033C**

**microRNA-124 drives reprogramming of astrocytes towards the neuronal lineage *in vivo* in a mouse model of brain injury**

P.N. Koutsoudaki, E. Papadimitriou, D. Thomaidou

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**T16-034C**

**Anti-proliferative and anti-migratory effects are mediated by M2 muscarinic receptor in Schwann-like cells induced from adipose mesenchymal stem cells: implication in nerve regeneration**

R. Piovesana, A. Faroni, V. Magnaghi, A.J. Reid, A.M. Tata

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**T16-035C**

**Fate mapping of PDGFR $\alpha$ -, Olig2-, P0-, and SMA-positive cells after contusion spinal cord injury in mice**

P. Assinck, G.J. Duncan, J. Plemel, M. Lee, M. Stykel, J.A. Stratton, J. Liu, J. Biernaskie, D. Bergles, W. Tetzlaff

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**T16-036C**

**Attenuation of pericyte-derived scarring promotes axonal regeneration and functional recovery following spinal cord injury**

D.O. Dias, H. Kim, D. Holl, B.W. Solnestam, J. Lundeberg, M. Carlén, J. Frisé, C. Göritz

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**T16-037C**

**Lecithin therapy improves disease progression in a rat model of Charcot Marie Tooth disease 1A**

R. Fledrich, T. Abdelaal, L. Rasch, B. Britta, R. Vidal, S. Bonn, T. Prukop, R.M. Stassart, K.-A. Nave, M.W. Sereda

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**T16-038C**

**Using *in vitro* models of spinal cord injury to screen glycomolecules as novel compounds for CNS repair**

M.A. McGrath, G. McCanney, S.E. Guimond, J.E. Turnbull, S.C. Barnett

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**T16-039C**

**Motile axial and peripheral lamellipodia on Schwann cells regulate cell-cell contact and phagocytosis**

J. Tello Velasquez, J.A. St John, L. Nazareth, J.A.K. Ekberg

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**T16-040C**

**Scaffolding the spinal cord: a novel strategy towards CNS repair**

S. Hosseinzadeh, D.A. Wellings, J.M. Edgar, M. Riehle, S.C. Barnett

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**T16-041C****Dysregulation of the GPR17 receptor in neuroinflammatory diseases: implications for remyelination in multiple sclerosis**

D. Lecca, G.T. Coppolino, D. Marangon, M. Fumagalli, C. Parravicini, R. Magliozzi, L. Dimou, R. Furlan, M.P. Abbracchio

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**T16-042C****Milking the postnatal brain neural stem cell niche: a method for isolating endogenous neural stem and progenitor cells from the cerebrospinal fluid**

F. McClenahan, A. Arampatzis, R. Rasool, R.J.M. Franklin, I. Kazanis

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**T16-043C****Introduction of the minimal spinal cord injury model as the appropriate tool for testing the regenerative potential of spinal cord in young and adult rodents**

J. Ševc, A. Alexovič Matiašová, Z. Gombalová, J. Košuth, Z. Daxnerová

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**T16-044C****Effects of D-aspartate on oligodendrocytes during differentiation, demyelination and remyelination processes**

V. de Rosa, A. Secondo, A. Pannaccione, R. Ciccone, L. Formisano, N. Guida, R. Crispino, A. D'aniello, R. Polishchuk, L. Annunziato, F. Boscia

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**T16-045C****PAR1 activation induces the release by Schwann cells of factors promoting cell survival and neuritogenesis**

V. Ciraci, E. Pompili, V. Correani, B. Maras, M.E. Schininà, M. Artico, L. Fumagalli, C. Fabrizi

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**T16-046C****Pericytes promote the generation of oligodendrocytes during remyelination**

A. Guzman, S. Lange, M.E. Silva, G.A. Gonzalez, H. Tempfer, P. van Wijngaarden, C. Zhao, P. Rotheneichner, A. Trost, A. O'Sullivan, S. Couillard-Despres, L. Bieler, O. Errea, M.A. Mäe, J. Andrae, L. He, A. Keller, C. Betsholtz, L. Aigner, R.J.M. Franklin, F.J. Rivera

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**T16-047C****Donor macrophages and remyelination in metachromatic leukodystrophy**

N. Wolf, A. Westerveld, D. van Rappard, M. Breur, A. Vanderver, M.S. van der Knaap, J.J. Boelens, M. Bugiani



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**T16-048C**

**Extracellular vesicles released from microglia-conditioned with mesenchymal stem cells positively regulate oligodendroglial progenitors proliferation in response to focal myelin lesion**

R. Parolisi, M. Lombardi, M. Fumagalli, E. Bonfanti, E. Boda, N. Keplero de Rosbo, A. Uccelli, C. Verderio, A. Buffo

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**T16-049C**

**Region-specific reaction of glial cells in the brain parenchyma of adult mice following spinal cord injury**

M. Li, F. Hollunder, K. Loy, F. Bareyre, S. Sirko

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**T16-050C**

**Modulating glutamate signalling to enhance myelin regeneration**

K. Volbracht, M. Kovacs, A. Denizot, H. Gautier, R.T. Karadottir

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**T16-051C**

**Multiple cellular targets of the neuroprotectant BHDPC in autoimmune mediated CNS demyelination**

C. Zhao, D. Ma, M. Yonetani, C.-M. Chong, C.-W. Li, L. Peruzzotti-Jametti, B. Balzarotti, L. Wang, Z. Wu, Y. Zheng, S. Pluchino, R.J.M. Franklin, S.M. Lee

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**T16-052C**

**An improved 3D hydrogel culture model for glial scarring**

K. Koss, M. Churchward, A. Toossi, V. Mushawar, K. Todd

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**T17 TRANSMITTER RECEPTORS, ION CHANNELS AND GAP JUNCTIONS**

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**T17-001B**

**TRPA1 channels control oligodendrocyte internodal potassium conductance**

N. Hamilton-Whitaker, K. Kolodziejczyk, E. Kougioumtzidou, D. Attwell

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**T17-002B**

**Connexins in neuromyelitis optica: a link between astrocytopathy and demyelination?**

C. Richard, A. Ruiz, S. Cavagna, S. Vukusic, J.-F. Ghersi-Egea, P. Giraudon, R. Marignier

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**T17-003B****A novel mouse models to study the localization and function of the P2X7 receptor in vivo**

J. Zhang, R. Stocklauser, B. Rissiek, K. Kaczmarek-Hajek, M. Alves, T. Engel, A. Nicke

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**T17-004B****MLC1/GlialCAM indirect modulation of volume-regulated anion channels formed by LRRc8 heteromers**

X. Elorza-Vidal, S. Sirisi, H. Gaitán-Peñas, C. Perez-Rius, M. Armand-Ugon, V. Nunes, X. Gasull, R. Estevez

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**T17-005B****Deletion of Cav1.2 and Cav1.3 genes in NG2 glia induces NMDA-dependent LTD deficiency**

N. Zhao, F. Kirchhoff

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**T17-006B****Gap junction blockade increases neural precursor differentiation to astrocytes in vitro and after implantation in the lesioned brain**

E.R. Matarredona, R. Talaverón, V. Gálvez, A.M. Pastor

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**T17-007B****Glutamate receptors in NG2 glial cells: gene profiling and functional changes after ischemic brain injury**

E. Waloschkova, M. Valny, L. Valihrach, M. Anderova

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**T17-008B****Quantal properties of glutamate release at axon – OPC synapses in the corpus callosum**

B. Nagy, B. Kula, T.-J. Chen, M. Kukley

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**T17-009B****The gap junction supramolecular nexus determines location and mobility of other glial membrane and cytoplasmic components**

R. Stout, D. Spray

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**T17-010B****The double-edged role of Pannexin1 channels**

E. Scemes, J. Veliskova

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**T17-011B****The lactate receptor HCAR1 is not localised in microglia**

S. van Den Berg, C.J. Sogn, L.H. Bergersen, V. Gundersen

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**T17-012B****Dynamic expression of Kir4.1 in cochlear glial cells during auditory nerve maturation**

K. Smith, P. Murphy, D. Jagger

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**T17-013B****Astrocytic expression of piezo-1 under LPS and psychosine treatment**

M. Velasco-Estevez, K. Dev, G.K. Sheridan

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**T17-014B****Altered post-Golgi processing of astrocytic connexins in AQP4 knockout mice**

N. Skauli, S. Katozi, S. Rahmani, M. Amiry-Moghaddam

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**T17-015B****Identification of oligodendroglial secreted factors inducing nodal protein clustering in the central nervous system**

A.-L. Dubessy, Q. Rappeneau, S. Ou, E. Mazuir, M. Fitzgibbon, M. Fleming, R. Krauss, B. Ranscht, A. Desmazières, B. Zalc, C. Lubetzki, N. Sol-Foulon

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**T17-016B****Potassium channels in dorsal horn microglial cells after spared nerve injury**

A.-F. Deftu, C. Gattlen, V. Ristoiu, I. Decosterd, M.-R. Suter

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**T17-017B****Glutamate receptor involvement in neuron-astrocyte interaction in astrocytes of the mouse olfactory bulb**

D. Droste, L. Seddar, G. Seifert, C. Steinhäuser, C. Lohr

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**T17-018B****Novel features of aquaporin-4 and TRPV4 channels in cell volume regulation and calcium signalling**

C.D. Gargano, M.G. Mola, A. Cibelli, A. Frigeri, M. Svelto, G.P. Nicchia

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**T17-019B****Intrinsic mechanisms of nodes of Ranvier formation in the central nervous system**

M. Thetiot, S. Freeman, T. Roux, A.-L. Dubessy, N. Sol-Foulon, C. Lubetzki, A. Desmazières

## T18 TROPHIC FACTORS

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### T18-001A

**S100B secretion is mediated by Ca<sup>2+</sup> from endoplasmic reticulum: a study using DMSO as a tool for intracellular Ca<sup>2+</sup> mobilization**

M. Concli Leite, F. Galland, M.C. Guerra, L. Rodrigues, P. Monteforte, H. Hirata, C. Gottfried, S. Smali, C.-A. Gonçalves

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### T18-002A

**Ketamine inhibits exocytosis and the release of astroglial brain-derived neurotrophic factor from a single vesicle**

M. Stenovec, E. Lasič, M. Božić, S. Trkov Bobnar, R.F. Stout Jr., V. Grubišić, V. Parpura, R. Zorec

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### T18-003A

**Lesion development in a rat model of fibroblast growth factor 9 overexpression: implications for multiple sclerosis**

D.E. Mcelroy, C. Wrsoz, C. Stadelmann, C. Linington

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### T18-004A

**Modulation of extracellular signal-related kinase, cyclin D1, glial fibrillary acidic protein, and vimentin expression in estradiol-pretreated astrocyte cultures treated with competence and progression growth factors**

C. Giallongo, V. Bramanti, S. Grasso, G. Camiolo, C.D. Anfuso, G. Lupo, M. Viola, G. Li Volti, R. Avola, D. Tibullo

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## T19 TUMOURS

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### T19-001C

**Role of *Emx2* in the treatment of glioblastoma multiforme**

J. Zucco, C. Falcone, A. Daga, G. Leanza, A. Mallamaci

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### T19-002C

**Role of AMP-activated protein kinase (AMPK) in the modulation of glutamate transporters in glioma cells**

I. Belo Do Nascimento, V. Joris, E. Hermans

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### T19-003C

**Water channel aquaporin4 at the healthy and impaired blood-brain barrier**

P. Fallier-Becker, S. Noell, M. Nieser, U. Wenzel, R. Ritz

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**T19-004C****Investigation of *in vitro* and *in vivo* potential of *Phoneutria nigriventer* spider venom against human glioma**

C. Rapôso, A.P. Bonfanti, N. Barreto, R. Thomé, A.L. Bombeiro,  
E. Kalapothakis, L. Verinaud, M.A. Cruz-Höfling

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**T19-005C****A cell-penetrating peptide based on connexin43 reduces glucose uptake selectively in human glioma stem cells**

S. Gutiérrez Pelaz, E. Criado Moronati, J.M. Medina, A. Tabernero

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**T19-006C****The role of STAT6 in mitochondrial homeostasis in glioma**

H. Kim, S.J. Park, I. Jou

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**T19-007C****A cell-penetrating peptide based on the connexin43-Src interacting sequence reduces patient-derived glioma stem cell migration, invasion and survival through Src, PTEN and FAK**

M. Jaraíz-Rodríguez, M.D. Tabernero, M. González-Tablas, A. Otero, A. Orfao,  
J.M. Medina, A. Tabernero

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**T19-008C****The transcriptional repressor Cic, frequently mutated in oligodendrogliomas, regulates oligodendrocyte differentiation**

V. Gleize, H. Hmidan, J. Lerond, G. Gauchotte, C. Parras, M. Sanson, E. Huillard

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**T19-009C****The role of microglia during early brain malignancies**

K. Chia, D. Sieger

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**T19-010C****The RNA-binding protein HuR is a master regulator of malignant peripheral nerve sheath tumorigenesis**

M. Iruarrizaga-Lejarreta, E. Perez-Andres, M. Palomo Irigoyen, D. Medrano,  
M. Varela-Rey, A. Woodhoo

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**T19-011C****The impact of the brain microenvironment on microglia polarization at early stages of glioblastoma formation**

J. Mazzolini, D. Sieger

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**T19-012C**

**Recalcitrant tumours require powerful medicine: a comparison of the potency of immunotoxins and an antibody:drug conjugate to kill glioma stem cells**

P. Wookey, S. Furness, A. Kourakis, R. Gilabert-Oriol, D. Hare

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**T19-013C**

**Slow proliferating glioblastoma stem cells depend on lipid metabolism and mitochondrial function**

F. Siebzehnruhl, L. Hoang-Minh, M. Schmoll, K. Amin, K. Dajac, A. Vuong, J. Huang, C. Yang, T. Garrett, M. Sarkisian, B. Reynolds, L. Deleyrolle

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**T19-014C**

**The role of extracellular microRNAs as activators of glioma-associated microglia/brain macrophages**

A. Buonfiglioli, S.A. Wolf, H. Kettenmann, S. Lehnardt

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**T19-015C**

**Toll-like receptor expressions in human astrocytomas**

I. Moretti, T. Galatro, S. Oba-Shinjo, S. Marie

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**T19-016C**

**Foci of tumoral heterogeneity within IDH1 mutated low grade glioma in adults**

N. Leventoux, S. Azar, M. Augustus, B. Rothhut, H. Duffau, J.-P. Hugnot

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**T19-017C**

**Cross interaction between M2 muscarinic receptor and Notch1/EGFR pathway in glioblastoma cancer stem cells: implication in glioma cell proliferation**

A.M. Tata, I. Cristofaro, F. Alessandrini, Z. Spinello, M. Fiore, L. Conti

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**T19-018C**

**A zebrafish live imaging model reveals differential responses of microglia toward glioblastoma cells in vivo**

L. Hamilton, K. Astell, G. Velikova, D. Sieger

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**T19-019C**

**Voltage gated potassium channels as therapeutic target for glioma**

M. Catalano, A. Grimaldi, G. D'Alessandro, C. Limatola

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**T19-020C**

**Registration of the field potentials at glioma model in vivo**

K. Yashin, A. Lebedeva, T. Mishchenko, M. Mishchenko, M. Vedunova, I. Medyanik, V. Kazantsev

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**T19-021C****Live cell imaging of cell-cell interactions during early stages of reactive gliosis**

B. Gupta, C. Hogan, F. Siebzehnrbhl

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**T19-022C****Detection of orthogonal arrays of particles in explant cultures of human glioblastoma using freeze fracture technique**

S. Mitrovic, H. Wolburg, R. Ritz, S. Noell, P. Fallier-Becker

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**T19-023C****Aquaprotein1 mediated tumor associated microglia/macrophages polarization in gliomas**

F. Hu, Y. Huang, H. Zhang, K. Shu, T. Lei

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**T19-024C****Loss of typical orthogonal arrays of particles in astrocytomas correlates with malignancy**

U. Wenzel, S. Noell, R. Ritz, P. Fallier-Becker



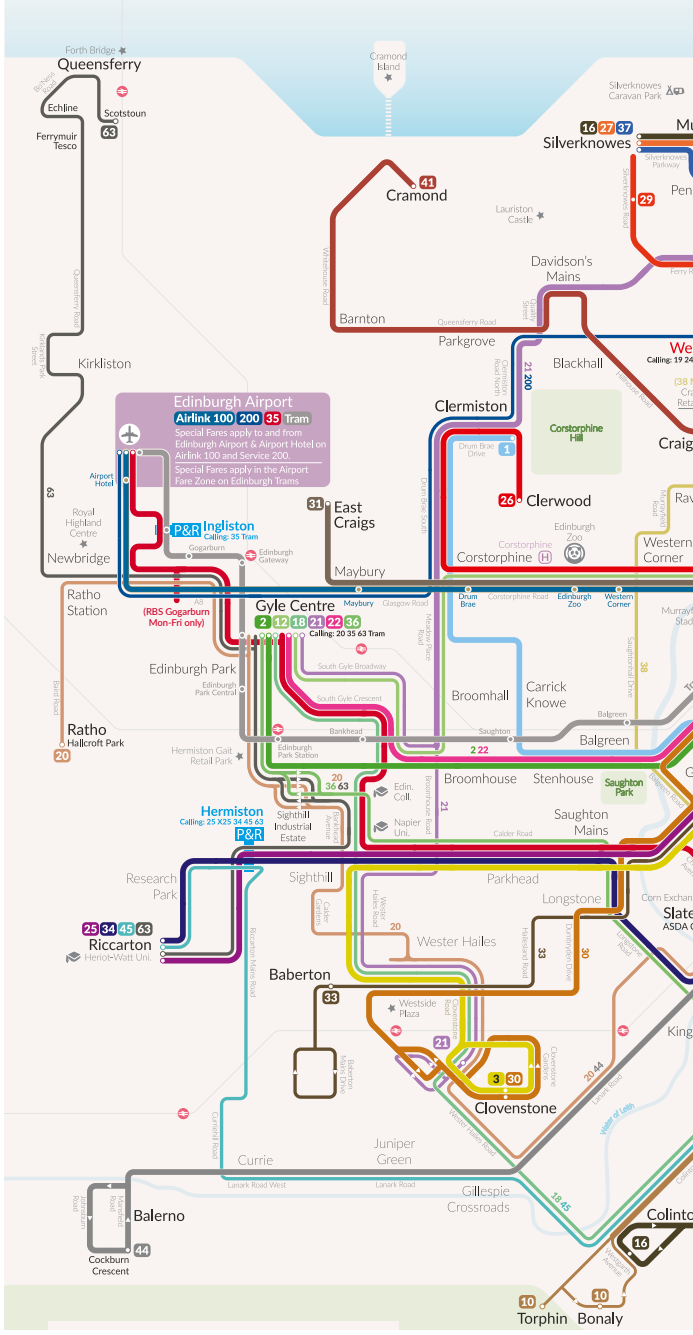




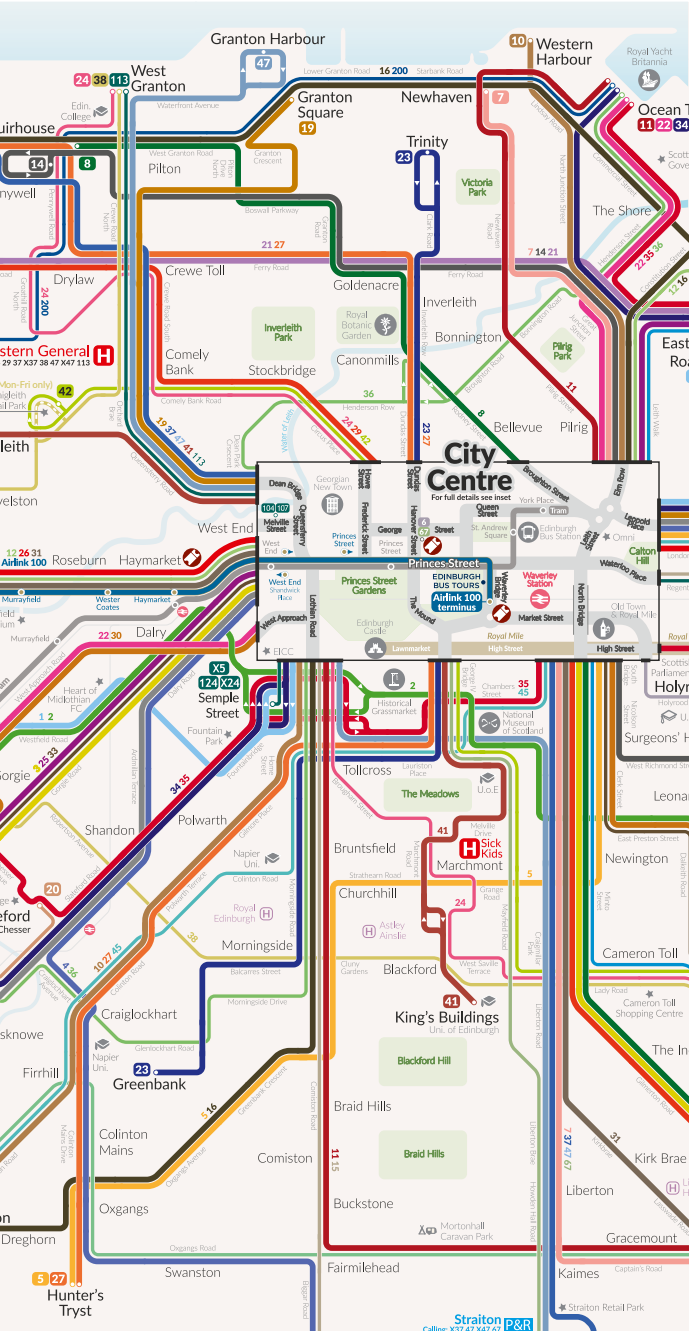




# Map of Edinburgh Public Transportation



# Travel information **Edinburgh Airport** – City Center



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Calling K37 47 X41 67

Friday, July 7, 2017		Saturday, July 8, 2017		Sunday, July 9, 2017		Monday, July 10, 2017		Tuesday, July 11, 2017	
08:30		Workshops p.25	Plenary Lecture P02 Mike W. Salter p.30	Plenary Lecture P04 Fiona Doetsch p.36	Plenary Lecture P06 Richard Daneman p.42	08:30			
09:30	Introductory Course p.24		Break (09:30–10:00) p.30	Break (09:30–10:00) p.36	Break (09:30–10:00) p.42	09:30			
10:00			Symposia II s06–10 p.30	Symposia IV s16–20 p.36	Symposia VI s26–30 p.42	10:00			
12:00			Lunch Break (12:00–12:45)	Lunch Break (12:00–12:45)	Lunch Break (12:00–12:45)	12:00			
12:45			Poster Session II p.33	Poster Session III p.39	Plenary Lecture P07 Dwight Bergles p.45	12:45			
13:00	Opening (13:00–13:15) Plenary Lecture P01 Eric A. Newman p.27					13:00			
13:15					Closing Remarks (13:45–14:00)	13:15			
13:45						13:45			
14:15	Poster Session I p.27					14:15			
15:45			Symposia III s11–s15 p.33	Symposia V s21–s25 p.39		15:45			
17:15		Symposia I s01–s05 p.27				17:15			
17:45			Break (17:45–18:15)	Break (17:45–18:15)		17:45			
18:15			Plenary Lecture P03 Yukiko Gotoh p.35	Plenary Lecture P05 Laura Feltri p.41		18:15			
19:15		Welcome Reception (19:15–20:00)				19:15			
20:00	Student Ceilidh (20:00–23:00)					20:00			

# Call for Symposia

XIV European Meeting on  
Glial Cells in Health and Disease  
**Porto** | July 10–13, 2019

**Deadline for symposia proposals:**  
April 1, 2018

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



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# Adult brain dissociation

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