Finding answers in your life sciences research.
ZEISS Axio Observer.

Your flexible inverted microscope platform

In life sciences research you come up against challenges every day - challenges that call for reproducible data from a whole range of samples in a variety of different conditions. That’s why you want a flexible microscope system that can be tailored to your needs and offer you lots of interfaces and extensions. Axio Observer is your stable inverted microscope platform for demanding multimodal imaging of living and fixed specimens.

We are currently offering a range of loyalty discounts for ZEISS customers who are looking to upgrade to the new Axio Observer.

Visit us at stand 4 to discuss your tailored offer.

www.zeiss.com/axio-observer
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.

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.
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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**

![Miltenyi Biotec](image)

**National Multiple Sclerosis Society**

![Nestlé Research](image)

![ZEISS](image)
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 e-commerce 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

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 neuron 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
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 professionnals by organizing meetings, and workshops.

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

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

We’d love you to give us a try!

- Expert chemical manufacturers
- Endorsed by scientists worldwide
- Biologically tested products

Have you said hello yet? Visit our stand! 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

MedImmune

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
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

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

National MS 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
Nestlé SA

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

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

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

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
FEPS 2017

VIENNA · AUSTRIA
SEPTEMBER 13th – 15th, 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
Floor Plan

- Fintry
  - Symposia
- Dressing Room 3
  - Baby Feeding Room
- Ochil
  - Working Area
- Kilsyth
  - Symposia

Strathblane Hall

**Floor Plan**

**Booth No.**

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<td>Abcam plc</td>
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<td>Femtonics Ltd.</td>
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<td>Carl Zeiss Ltd.</td>
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<td>5</td>
<td>Hello Bio Ltd.</td>
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<tr>
<td>6</td>
<td>Thorlabs Ltd.</td>
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</tbody>
</table>

**General Information**

- Floor Plan
- Fintry Symposia
- Dressing Room 3 Baby Feeding Room
- Ochil Working Area
- Kilsyth Symposia
- Registration Desk
- Late Posters
- Cash Bar
- Catering Areas

**Booth No.**

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<td>6</td>
<td>Thorlabs Ltd.</td>
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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
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.

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 electronical 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

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

K.I.T. Group GmbH
Bautzner Str. 117–119, 01099 Dresden, Germany
E-mail: info@kitdresden.de
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  phone: +44 131 2292468
City Cabs  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  

supported by WILLIAM FORD ROBERTSON LITTLE
BRANCHED CELLS: PAVING THE WAY TO OLIGODENDROCYTE AND MICROGLIA DISCOVERY
Organizers: Anne Boullerne Chicago, USA
George De Vries Richmond, USA

08:30–09:05  George de Vries Richmond, USA
The controversy concerning the “third element” of Santiago Ramón y Cajal  

09:05–09:40  Arthur Butt Portsmouth, UK
William Ford Robertson and his little branched brain cells  

09:40–10:15  Juan del Río-Hortega Bereciart Valladolid, Spain
Microglia and Oligodendroglia: the unfortunate story of Pío del Río-Hortega 

10:15–10:45  Coffee Break 

10:45–11:20  Anne Boullerne Chicago, USA
A brief history of myelin from 15th century to present 

11:20–11:55  Paul Foley Sydney, Australia
So misunderstood: The story of the Schwann cell 

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

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
GENERAL INFORMATION

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

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?

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)

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 persisynaptic 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-persisynaptic Schwann cells crosstalk at the neuromuscular junction during neuroregeneration S01-04
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

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
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 Pfrieger 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

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
SUNDAY, JULY 9, 2017

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

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 II (S06–S10)

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 Ca2+ dynamics and role of TNFα  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
**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  Tubingen, 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

**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

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

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**  **SYMPOSIAS III (S11–S15)**

**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**

**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
Astrogial networks orchestrate neuronal synchrony  S12-03

17:15–17:45  Kira Poskanzer San Francisco, USA
Astrocytic control of the cortical slow oscillation  S12-04

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

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

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

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.

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
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

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 glialcells actively modulate locomotion behavior  
S18-04
SYMPOSIUM S19

**SIGNALS REGULATING MICROGLIAL PHAGOCYTOSIS OF NEURONS, SYNAPSES AND MYELIN**

**Organizers:**
- Guy Brown, Cambridge, UK
- Harald Neumann, Bonn, Germany

**Pentland Auditorium (Level 3)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Location</th>
<th>Title</th>
<th>Code</th>
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<tbody>
<tr>
<td>10:00–10:30</td>
<td>Guy Brown</td>
<td>Cambridge, UK</td>
<td>Microglial phagocytosis of neurons via VNR, MER and P2Y6 may contribute to inflammatory brain pathology</td>
<td>S19-01</td>
</tr>
<tr>
<td>10:30–11:00</td>
<td>Harald Neumann</td>
<td>Bonn, Germany</td>
<td>Inhibition of innate immunity by low molecular weight polysialic acid as a novel therapy approach for age related macular degeneration</td>
<td>S19-02</td>
</tr>
<tr>
<td>11:00–11:30</td>
<td>Dorothy Schafer</td>
<td>Worcester, UK</td>
<td>A synaptic feast: microglial phagocytosis governing neural circuit plasticity</td>
<td>S19-03</td>
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<tr>
<td>11:30–12:00</td>
<td>Shlomo Rotshenker</td>
<td>Jerusalem, Israel</td>
<td>Myelin activates and inhibits its own phagocytosis by simultaneous ligation of both activator-phagocytic and inhibitor-SIRPα receptors on microglia and macrophages</td>
<td>S19-04</td>
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</tbody>
</table>

SYMPOSIUM S20

**CYTOSKELETON DYNAMICS IN GLIA**

**Organizers:**
- João Bettencourt Relvas, Porto, Portugal
- Carmen Melendez-Vasquez, New York, USA

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

<table>
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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Location</th>
<th>Title</th>
<th>Code</th>
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<tbody>
<tr>
<td>10:00–10:30</td>
<td>João Bettencourt Relvas</td>
<td>Porto, Portugal</td>
<td>Rho GTPase regulation of glia homeostasis</td>
<td>S20-01</td>
</tr>
<tr>
<td>10:30–11:00</td>
<td>Carmen Melendez-Vasquez</td>
<td>New York, USA</td>
<td>Mechanical properties of the injured CNS: implications for remyelination and repair</td>
<td>S20-02</td>
</tr>
<tr>
<td>11:00–11:30</td>
<td>Holly Colognato</td>
<td>Stony Brook, USA</td>
<td>Dystroglycan: a structural linker repurposed to regulate signaling pathways critical to postnatal brain development</td>
<td>S20-03</td>
</tr>
<tr>
<td>11:30–12:00</td>
<td>Andrew Jarjour</td>
<td>Edinburgh, UK</td>
<td>Polarity signalling controls the formation and organization of CNS myelin</td>
<td>S20-04</td>
</tr>
</tbody>
</table>
12:00–12:45  Lunch Break

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)

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

15:45–16:15  Nicola Allen La Jolla, USA
Astrocyte regulation of neuronal glutamate receptors  S21-01

16:15–16:45  Chris Risher Durham, UK
Control of synaptic connectivity by astrocytes  S21-02

16:45–17:15  Andreas Faissner Bochum, Germany
Tenascin proteins and chondroitin sulfate proteoglycans modulate formation and plasticity of the tripartite synapse  S21-03

17:15–17:45  David Rowitch Cambridge, UK
Development of functionally heterogeneous astrocytes in mammalian CNS  S21-04

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

15:45–16:15  Christian Madry London, UK
Microglial surveillance of the brain is regulated by an anaesthetic-sensitive two-pore domain K+ channel  S22-01

16:15–16:45  Renaud Jolivet Geneva, Switzerland
Two-photon imaging of calcium signalling in hippocampal microglia  S22-02
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

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

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

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**
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
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 glutamate 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
Astrogial CB1 receptors control object recognition memory via D-serine  S30-03

11:30–12:00  Christian Henneberger Bonn, Germany
Endocannabinoids control NMDAR-dependent supralinear dendritic integration via astroglial co-agonist supply  S30-04
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.

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

Pentland Suite (Level 3)
13:45–14:00  Closing Remarks
K.I.T. Group

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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).

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<thead>
<tr>
<th>TYPE OF PRESENTATION</th>
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<tr>
<td>P = Plenary Lecture</td>
<td>A  Saturday – Poster Session I</td>
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<td>S = Symposium</td>
<td>B  Sunday – Poster Session II</td>
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<tr>
<td>W = Workshop</td>
<td>C  Monday – Poster Session III</td>
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<td>I = Introductory Course</td>
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<td>T = Poster</td>
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**T** 07 – 009 **B**

**NUMBER OF THE POSTER TOPIC**  **SERIAL NUMBER**
Division of Poster Sessions

**POSTER SESSION I (SATURDAY, JULY 8)**
- T01 Cell migration p.49
- T02 Cell proliferation, lineages and differentiation p.51
- T04 Cytoskeleton p.59
- T08 Gene expression and transcription factors p.74
- T11 Memory and learning p.96
- T14 Neuroimmunology and neuroinflammation p.109
- T18 Trophic factors p.138

**POSTER SESSION II (SUNDAY, JULY 9)**
- T03 Cell signaling p.56
- T06 (Energy) Metabolism p.69
- T07 Extracellular matrix and cell adhesion molecules p.72
- T09 Glial-neuronal interactions p.78
- T10 Ischemia and hypoxia p.92
- T15 Neurovascular interactions p.127
- T17 Transmitter receptors, ion channels and gap junctions p.135

**POSTER SESSION III (MONDAY, JULY 10)**
- T05 Degenerative disease, toxicity and neuroprotection p.60
- T12 Myelin p.96
- T13 Neural stem/progenitor cells p.106
- T16 Regeneration and repair p.129
- T19 Tumours p.138
Posters

T01 CELL MIGRATION

T01-001A
In- and extrinsic factors of oligodendroglial migration
J. Ghelman, S. Albrecht, K. Hagemeier, T. Kuhlmann

T01-002A
Modulation of astroglial niche by stem cells for spinal cord regeneration
S. Erceg

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. Salobrar-García,
M. Vidal-Sanz, A. Triviño, J.M. Ramírez

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

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-Martin, M.A. Roca-Ceballos, S. Serres,
V. Economopoulos, A.J. Herrera, N.R. Sibson, A. Machado, J.L. Venero

T01-006A
Tissue-type plasminogen activator influences oligodendrocyte migration during myelination and re-myelination
E. Maubert, C. Leonetti, R. Maceez, M. Pruvost, Y. Hommet, J. Bronsard,
A. Fournier, M. Perrigault, I. Machin, D. Vivien, D. Clemente, F. de Castro,
F. Docagne

T01-007A
Novel compounds targeting microglial nitric oxide release
P. Jordan, S.A. Wolf, E. Specker, M. Nazaré, H. Kettenmann
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

T01-009A
Phosphoinositide 3-kinase χ mediates chemoattractant and adrenergic control of microglial migration
N. Schneble, C. Schmidt, J. Müller, S. Monajembashi, R. Wetzker, R. Bauer

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

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. Samudyata, A. Zeisel, G. Castelo-Branco

T01-013A
Monoamine processing in Drosophila astrocytes
S. Davla, D. Chitsaz, S. Li, D. van Meyel

T01-014A
Characterization of axonal-glial communication during development and its implications in glaucoma
W. Jia, R.T. Karadottir
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<th>T02-001A</th>
<th>The neurogenic potential of neocortical astrocytes following chronic brain injury and stroke</th>
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<td>M. Zamboni</td>
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<th>T02-002A</th>
<th>Regulatory T cells enhance oligodendrocyte differentiation</th>
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<th>T02-003A</th>
<th>Foxg1 expression levels in NSCs modulate astrogenesis rates</th>
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<td>C. Falcone, C. Grudina, S. Pluchino, A. Mallamaci</td>
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<tr>
<th>T02-004A</th>
<th>Decrease in newly generated oligodendrocytes leads to changed myelin structures and motor dysfunctions that are rescued by transplanted cells</th>
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<th>T02-005A</th>
<th>Multipotency of NG2 cells after cerebral ischemia: new elements of reactive gliosis</th>
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<td>M. Valny, P. Honza, E. Waloschkova, H. Matuskova, L. Valihrach, M. Anderova</td>
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<th>T02-006A</th>
<th>Schwann cells demonstrated lineage plasticity in culture and acquired oligodendrocyte phenotypes</th>
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<td>Y.-P. Tsui, K.L.K. Wu, Y.-S. Chan, D.K.Y. Shum</td>
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<th>T02-007A</th>
<th>Boundary cap cells: a source of mural cells for the developing peripheral vasculature</th>
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<td>P. Topilko, F. Coulpier, G. Gerschenfeld, A. Gresset, I. Brunet, P. Charnay</td>
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<th>T02-008A</th>
<th>A web tool for the oligodendrocyte differentiation data and network analysis</th>
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<td>M. Cantone, M. Eberhardt, M. Küspert, S. Reiprich, M. Wegner, J. Vera</td>
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T02-009A
Self-renewal accounts for microglial repopulation after depletion in vitro
H. Sakuma

T02-010A  This poster has been withdrawn.

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

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

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

T02-017A
An automated chemical screening pipeline for drug discovery in zebrafish
K. Cole, J. Early, D. Lyons
T02-018A
Automated screening to identify chemical modulators of myelination using zebrafish
J. Early, K. Cole, D. Lyons

T02-019A
Satellite glial cells derived from dorsal root ganglia – candidates for cell transplantation?
W. Tongtako, A. Lehmbecker, D. Eikelberg, C. Puff, W. Baumgärtner, I. Gerhauser

T02-020A
Tns3, a new marker of immature oligodendrocytes during (re)myelination, is absolutely required for oligodendrocyte differentiation
C. Parras, H. Hmidan

T02-021A
Role of microRNAs miR-124 and miR-125b in directing neuronal reprogramming of astrocytes in vitro
E. Papadimitriou, A. Lampron, A.-M. Driva, P.N. Koutsoudaki, D. Thomaidou

T02-022A
Endothelin-1 signaling in the postnatal subventricular zone regulates oligodendrocyte progenitor cell proliferation and maturation
K. Adams, V. Gallo

T02-023A
Differentiation of functional astrocytes from mouse embryonic stem cells (mESC)
D.S. Juneja, S.J. Nasuto, E. Delivopoulos

T02-024A
Oligodendrocyte precursor cells generated from induced pluripotent stem cells derived neural progenitors
N. Gunhanlar

T02-025A
Oxidative stress in differentiating oligodendroglia vulnerable to secondary degeneration following neurotrauma
M. Fitzgerald, C. Bartlett, M. Kilburn, M. Giacci
T02-026A
Multicolor clonal analysis to study astrocyte network development in the mouse cerebral cortex

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

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

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

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
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

T02-035A
Contorted radial glia in the telencephalon of fish
A. Mack, U. Mattheus, P. Neckel

T02-036A
Does modulation of SIRPa in macrophages affect survival, proliferation, migration, and differentiation of oligodendrocyte lineage cells?
C. Wang, Y.A. Syed, S. Rotshenker, M.R.N. Kotter

T02-037A
Clonal expansion of oligodendroglia from single progenitors

T02-038A
Deletion of the GFAP-cre derived TCTP leads to defects in astrogenesis and behavior in mice
S.-H. Chen
T03 CELL SIGNALLING

**T03-001B**
Functional interaction between RGS4 and mGluR5 in astrocytes: potential implication in neuropathic pain
P. Doyen, M. Vergouts, E. Hermans

**T03-002B**
Dysfunction in motility and apoptotic cell recognition leads to the impairment of microglial phagocytosis in epilepsy

**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

**T03-004B**
miRNA profiling of exosomes from trigeminal satellite glial cells
M. Duroux, H. Vinterhøj, P. Gazerani

**T03-005B**
The Wnt/β-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

**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

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

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

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

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

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 glio-transmitters
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

T03-015B
Role of serotonergic signaling in regulation of astrocytes morphology
F.E. Müller, V. Cherkas, E. Ponimaskin, A. Zeug
T03-016B  
Panglial gap-junctional coupling mediates calcium signaling between olfactory bulb astrocytes and olfactory ensheathing cells  
A. Beiersdorfer, C. Lohr

T03-017B  
Gap junctions are required for glia-glia communication, calcium signaling and survival in Drosophila peripheral nervous system (PNS)  
M. Das, V. Auld

T03-018B  This poster has been withdrawn.

T03-019B  
The impact of astrocytes morphology on Ca\(^{2+}\) dynamics  
A. Zeug, F.E. Müller, V. Cherkas, E. Ponimaskin

T03-020B  
The JAK2-STAT3 pathway is necessary and sufficient to induce reactivity in astrocytes  

T03-021B  
Characterization of calcium signals from intensity based fluorescence indicators  
V. Cherkas, F.E. Müller, E. Ponimaskin, A. Zeug

T03-022B  
Different intracellular signallings 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

T03-023B  
Distinct UPR profiles during maturation of glial and neuronal progenitors of the cerebellum  
M. Naughton, J. McMahon, U. FitzGerald

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
**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**

**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


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

**T05 DEGENERATIVE DISEASE, TOXICITY AND NEUROPROTECTION**

**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

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

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

**T05-004C**  
*Changes in phagocytosis and potassium channel activity in microglia of 5xFAD mice indicate alterations in purinergic signaling in Alzheimer’s disease*  

**T05-005C**  
*Chronic inhibition of P2Y1-receptor signalling reduces astrocytic hyperactivity in vivo and improves cognitive outcome in an Alzheimer’s disease mouse model*  

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

**T05-007C**  
*Effect of an α-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
T05-008C
Alzheimer amyloid-beta transcytosis by astrocytes
M. Domínguez-Prieto, A. Velasco, A. Tabernero, J.M. Medina

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

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

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

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

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

T05-014C
Impaired glial metabolism in R6/2 mouse model of Huntington's disease
J. Andersen, N. Skotte, A. Nørremølle, H.S. Waagepetersen

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

T05-017C
Glial HO-1: a driver of Parkinson-like neurodegeneration in aging mice
M. Cressatti, W. Song, A. Liberman, C. Galindez, H. Schipper

T05-018C
Breaking Bad: the role of microglia in retinal degeneration and neuroprotection
S. Roche, A. Wyse-Jackson, T. Cotter

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

T05-020C
The Aβ protofibril selective antibody mAb158 prevents accumulation of Aβ in astrocytes and rescues neurons from Aβ induced apoptosis

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

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

T05-023C
Pharmacological inhibition of PDGF-R and CSF-1R in Schwann cells and macrophages prevents muscle de- 
nervation and sciatic nerve pathology in an inherited model of ALS
E. Trias, S. Ibarburu, R. Barreto-Núñez, O. Hermine, J. Beckman, L. Barbeito
T05-024C
Exploring the role of astrocytic Ca2+ signaling in Alzheimer’s disease
A. Lia, G. Losi, M. Zonta, G. Carmignoto, C. Fasolato

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

T05-026C
Alterations in glutamate transporter GLT-1 homeostasis in Lafora disease
C. Muñoz-Ballester, E. Pérez-Jiménez, R. Viana, P. Sanz

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

T05-028C
NADPH-oxidase of mononuclear phagocytes mediates neurodegeneration after repeated systemic challenge with lipopolysaccharides
A. Shahraz, M. Mathews, P. Kruse, H. Neumann

T05-029C
Glial activation and its mechanisms of control in the MPTP mouse model of Parkinson’s disease

T05-030C
Reduced insulin signalling in Drosophila glia reduces ageing phenotypes and extends lifespan
N. Woodling, A. Rajasingam, A. Tillmann, L. Partridge

T05-031C
The antibacterial drug Rifampicin prevents α-Synuclein-mediated microglial cell activation

T05-032C
Low levels of sialic acids induce early neurodegeneration in aging mice
**T05-033C**
**Microglia exacerbates amyloid-induced synaptic dysfunction in Alzheimer’s disease**
E. Capetillo-Zarate, J. Zuazo, C. Ortiz-Sanz, E. Alberdi, C. Matute

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

**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

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

**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

**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

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

**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

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

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

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

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

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. Kerkering, V. Siffrin

T05-047C
The effects of S1P receptor modulation in an animal model of Krabbes disease

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

T05-049C This poster has been withdrawn.

T05-050C This poster has been withdrawn.

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Protecting the nervous system by protecting the vulnerable lysosomes: identification of a new glia-derived mechanism for preserving lysosomal functional integrity upon oxidative stress
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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

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

T05-054C  
NAC prevents both dopaminergic cells death and inflammation in old-parkinsonian mice  
L. Cuenca Bermejo, A.L. Gil Martinez, C. Estrada Esteban,  
E. Fernández Villalba, M.T. Herrero Ezquerro

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

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

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

T05-058C  
mRNA 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

T05-059C  
This poster has been withdrawn.
T05-060C
Promising role for Galectin 1 in Alzheimer’s disease: reduced microglial activation and lower amyloid deposition in the hippocampus together with cognitive improvement after treatment in a transgenic mouse model

T05-061C  This poster has been withdrawn.

T05-062C
Heparanase protects against axonal degeneration in the sciatic nerve and promotes neurite outgrowth in vitro

T05-063C
Involvement of the purinergic P2X4 receptor in Alzheimer’s disease
J. Hua, F. Rassendren, L. Ulmann

T05-064C
Peripheral administration of lactate produces antidepressant-like effects

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

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

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
T05-068C  
**Role of glial cells in an in vitro model of Alzheimer’s disease that combines βA and Tau pathology**  
E. Luengo, I. Buendia, C. Fernández-Mendívil, P. Michalska, J. Garrosa, R. León, M.G. López

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**APP<sub>swe</sub>/PS1A246E astroglioma cells show mitochondrial dysfunction, calcium dyshomeostasis and higher vulnerability to ischemia**  
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T05-070C  
**MMP3 as a critical early mediator of retinal inflammation following optic nerve injury**  

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. Alexović Matiašová, Z. Daxnerová, A. Gorio

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

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

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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This poster has been withdrawn.
T05-076C
Resolving white matter dysfunction in Alzheimer's disease

T05-077C
Healthy dopaminergic neurons display neurodegenerative signs and alpha-synuclein accumulation when co-cultured with Parkinson's disease astrocytes

T06 (ENERGY) METABOLISM

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

T06-002B
Direct modulation of the astrocytes in ventromedial hypothalamus regulate the bone metabolism

T06-003B
Metabolic heterogeneity of astrocytes
J. Hirrlinger, S. Köhler, U. Winkler

T06-004B
High fat diet induces mitochondria stress and impairs myelin structure in rat hypothalamus

T06-005B
Astrocytes as drivers of Lafora progressive myoclonus epilepsy
C. Rubio-Villena, M.A. Garcia-Gimeno, M. Heredia, J. Bonet, P. Sanz
| T06-007B | Real-time activity-dependent astrocyte-to-neuron lactate shuttling | F. Baeza-Lehnert, R. Gutierrez, L.F. Barros |
| 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 |
| T06-009B | Regulation of the Drosophila trehalose transporter Tret1-1 | H. Hertenstein, A. Volkenhoff, C. Klämbt, S. Schirmeier |
| T06-010B | Mitochondrial trafficking and function in cortical astrocytes | J.B. Kacerovsky, K.K. Murai |
| T06-011B | Regulation of metabolic pathways in astrocytes by mitochondrial ROS | C. Vicente-Gutiérrez, N. Bonora, J.P. Bolaños |
| T06-012B | Metabolic reprogramming in pro- and anti-inflammatory microglia | I. Geric, S. Schoors, P. Carmeliet, M. Baes |
| 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 |
T06-015B
Glutamate reduces the cell-to-cell variability in energy metabolism in astrocytes

T06-016B
Oligodendrocyte mitochondria are regulated by netrin-1
D. Nakamura, D. Khan, J. Antel, T. Kennedy

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

T06-018B
ROS signalling promotes the differentiation of oligodendrocyte precursors into mature oligodendrocytes
J. Tavares, A. Amaral, S. Abdulla, M. Kotter

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

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

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

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
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

T06-024B
Lipid storage and microglial inflammation
M. Churchward, K. Todd

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

T07  EXTRACELLULAR MATRIX AND CELL ADHESION MOLECULES

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

T07-002B
Age-specific regulation of α5β1 integrin function during microglial migration in the embryo

T07-003B
Perilesional PDGFRβ+ vascular cells express uPAR after traumatic brain injury
J. Kyyräinen, X.E. Ndode-Ekane, A. Pitkänen

T07-004B
2AG reduces the expression of CSPGs in astrocytes and promotes remyelination in a viral model of multiple sclerosis
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P. Wang, R.P. Gorter, J.C. de Jonge, N. Muhammad, D. Hoekstra, W. Baron

T07-006B
Understanding the inhibitory influence of chondroitin sulfate proteoglycans on oligodendrocyte morphology
S. Cummings, S. Kornfeld, R. Kothary

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

T07-008B
The pattern of distribution of extracellular matrix in ApoE ε2, ε3 and ε4 astrocytes: relevance for Alzheimer’s disease
A. Keable, D. Johnston, R. Weller, N. Smyth, R. Carare

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

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Mechanical properties of the injured CNS: implications for remyelination and repair
M. Urbanski, C. Melendez-Vasquez

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Chronic stress induced disturbances in Laminin: a significant contributor to modulating microglial pro-inflammatory tone?
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M. van der Poel, T. Ulas, S. Miedema, M.R. Mizee, J.L. Schultze, J. Hamann, I. Huitinga

T08-010A
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T08-015A
This poster has been withdrawn.

T08-016A
Definition of the microglial activome from individual mice by RNAseq

T08-017A
Nkx2.2 is a direct target gene of Sox10 in oligodendroglia
T08-018A
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T08-019A
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B. Eggen, T. Galatro, I. Holtman, A. Lerario, E. Boddeke, S. Marie

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Spinal cord injury induces astroglial conversion towards neural lineage
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T08-022A
Brca1 is expressed in human microglia and is dysregulated in human and animal model of ALS

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Alcohol induced changes in microglial activation
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T08-024A
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L. Bakhireva, R. Miranda

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<td>P. Comassio, S. Merlo, C. Fonseca, A.B. Nakayama, J.I. Lemos, J. Moreira</td>
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<td><strong>Involvement of glucocorticoid receptor-dependent alterations in astrocytes in morphine action</strong></td>
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T08-036A  
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T09 GLIAL-NEURONAL INTERACTIONS

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T09-002B  
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T09-017B
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T09-018B
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Characterization of neuroglial cells in the sea lamprey Petromyzon marinus

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

T09-022B
Astrocytic modulation of neuronal network oscillations
A. Bellot-Saez, G. Cohen, J.W. Morley, Y. Buskila

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

T09-025B  This poster has been withdrawn.

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

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

T09-028B
Glutamatergic presynaptic terminals are supported by astroglial connexin 43
G. Cheung, O. Chever, N. Quenech’du, N. Rouach

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

T09-030B
Astrocytes are a primary target for neuronal BDNF: implications for the regulation of astrocyte morphological complexity
L. Holt, M. Olsen

T09-031B
Kir4.1-dependent astrocyte-fast motor neuron interactions are required for peak strength
T09-032B
In vivo exploration of astrocytes contribution to motor learning
C. Delepine, J. Ip, K. Li, J. Petravicz, M. Sur

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

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

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

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

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

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

T09-039B  This poster has been withdrawn.

T09-040B
Altered secretion of astrocyte-derived extracellular vesicles contribute to the early metabolic failure in Huntington’s disease
T09-041B
Sex-dependent effect of thyroid hormone in glial-neuronal interaction and animal behavior
M. Noda, Y. Yoshioka, Y. Kitahara, A. Nishi

T09-042B
Aquaporin-4 surface dynamics regulate astrocytic process motility in an isoform-dependent manner

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

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

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

T09-046B
Neurons increase astrocytic glutamate transporter expression and uptake capacity via Notch signalling

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

T09-048B
Modeling the metabolic response of astrocytes to neuronal activity
T09-049B
The characterization of the neurodevelopmental milestones of the IP$_3$R2KO mouse model
S. Guerra-Gomes, V.M. Sardinha, E. Loureiro-Campos, G. Tavares, I. Caetano, N. Sousa, L. Pinto, J.F. Oliveira

T09-050B
Protein translation in astrocytic processes
A. Müller, P. Landgraf, A. Stellmacher, J.L. Vázquez López, D.C. Dieterich

T09-051B
Role of ATP and astrocytes in the lamprey respiratory network
L. Iovino, E. Cinelli, D. Mutolo, F. Bongianni

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

T09-053B
Glycine receptor in astrocytes – effect upon astrocytic communication
T. Morais, D. Coelho, S.H. Vaz, A.M. Sebastião, C.A. Valente

T09-054B
Fast 3D imaging reveals new features of astrocyte Ca$^{2+}$ dynamics and astrocyte-synapse interactions
I. Savtchouk, E. Bindocci, G. Carriero, D. Becker, N. Liaudet, A. Volterra

T09-055B
The importance of kynurenine 3-monooxygenase activated in spinal microglia for neuropathic pain
E. Rojewska, A. Piotrowska, J. Mika

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

T09-057B
pH$_i$ distribution and H$^+$ changes in cultured mouse hippocampal astrocytes: a compartmentalized analysis for excitatory stimuli
A. Weise, A. Seidinger
**T09-058B**  
Astrocytes protect cortical neurons via a GPR37L1-mediated mechanism  
B. Liu, A. Teschemacher, S. Kasparov

**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

**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

**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

**T09-062B**  
IL-1α 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

**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

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

**T09-065B**  
P2X7-mediated communication in cochlear glial cells  
S. Prades, G. Heard, L. Browne, J. Gale, K. Smith, D. Jagger
T09-066B
Spike-timing dependent plasticity in the hippocampus, affected by reactive gliosis in Alzheimer’s disease?
T. Smit, W. Wadman, E.M. Hol

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

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

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

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

T09-071B
Rab6A identifies a system of ubiquitous, abundant exocytotic cisterns and vesicles in astrocyte processes

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

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

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

T09-076B
Native A2A-D2 receptor-receptor interaction in striatal astrocyte processes: modulation of glutamate release

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

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

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

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

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

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

T09-083B
Role of neuron-microglia secretome and stress-related microRNAs in Alzheimer’s disease
T09-084B  This poster has been withdrawn.

T09-085B

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

T09-086B

**Microfabricated co-culture device for evaluating Schwann cell’s support of axonal conduction property**
K. Sakai, K. Shimba, K. Kotani, Y. Jimbo

T09-087B

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

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

T09-089B

**Metabolic adaptations of neurons to physiological oxygen levels in the presence of astrocytes**
M. Warde, E. Fernandez, J.P. Bolaños

T09-090B

**Differential glutamate buffering between cortical regions impacts synaptic functions**
J. Romanos, M. Santello

T09-091B

**Peri-neuronal satellite cells in the central nervous system: isolation and characterization**
H. Ghazale, P. Guigue, B. Rothhut, J.-P. Hugnot

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

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

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

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

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

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

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

T09-100B
A flexible surface microelectrode array to record electrical activity from neocortical neurons during two-photon imaging of astroglial Ca²⁺ signals in mice
M. Schweigmann, L. Schlosser, K.P. Koch, F. Kirchhoff

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

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

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

T09-105B
Synergistic interaction of L-Lactate and Glycine to potentiate NMDA receptor activity: a new form of meta-potentiation?
P. Jourdain, K. Rothenfusser, I. Allaman, P. Marquet, P.J. Magistretti

T09-106B
Rapid astrocyte morphology changes support epileptic activity

T09-107B
Bioengineering a novel neuronal device to study human myelination in-vitro

T09-108B
Evaluation of the receptor-mediated function of lactate in neuronal activity
H. de Castro Abrantes, M. Briquet, S. Offermans, J.-Y. Chatton

T09-109B
Alteration of axon initial segment stability and function in inflammatory in vivo and in vitro models
K. Clark, G. Devries, J. Dupree
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

T09-111B
Synaptic calcium signals in NG2 cells
D. Dietrich, W. Sun, E. Matthews, S. Schoch

T09-112B
Sortilin in microglia reactivity – investigating the mechanism underlying neuropathic pain

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

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

T09-115B
Computational modeling of glial-neuronal interactions
M.-L. Linne, R. Havela, T. Manninen

T09-116B
Changes in neuronal gene expression affected by Schwann cell-axon interactions
N. Sukhanov, Y. Eshed Eisenbach, E. Peles

T09-117B
The chemokine CXCL16 modulates neurotransmitter release in hippocampal CA1 area
M.A. di Castro, F. Trettel, G. Milior, L. Maggi, D. Ragazzino, C. Limatola

T09-118B
Newly identified Layer specific cortical astrocytes regulate synaptic and dendritic growth
S.J. Miller, J. Rothstein
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

T10 ISCHEMIA AND HYPOXIA

T10-001B
Overexpression of pro- and antiapoptotic proteins in penumbra after local photothrombotic infarct in the rat cerebral cortex
A. Uzdensky, S. Demyanenko

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

T10-003B
Expression of a novel TRP channel in astrocytes: implications for ischemic stroke
P. Liao

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. Woodroofe, M. Conner

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

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
**T10-007B**
Inhibition of miR-181a protects male and female astrocyte cultures from glucose deprivation by targeting estrogen receptor-α
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**
β2-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+/H+ exchanger isoform 1 reduces neurovascular damage and improves CBF after ischemic stroke

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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

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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. Szymbowiak
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

T10-016B
Oral corticosterone administration alone is sufficient to simulate the actions of chronic stress on glial cells but not on vasculature

T10-017B  This poster has been withdrawn.

T10-018B  This poster has been withdrawn.

T10-019B
Age-related changes in glial cells after focal cerebral ischemia
H. Matuskova, P. Honsa, D. Kirdajova, L. Valihrach, M. Kubista, M. Anderova

T10-020B
Cannabidiol administration prevents hypoxia-ischemia-induced hypomyelinization in newborn rats

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

T10-022B
Contribution of TRPV4 channels to astrocyte volume regulation and brain edema formation

T10-023B
Microglial phenotypes and behavioral disorders following neonatal ischemia: a role for Poly (ADP-ribose) Polymerase according to gender?
T10-024B
*Investigation the role of GDNF in neuron-glial networks functioning under conditions induced by substrate starvation*
T. Shishkina, T. Mishchenko, E. Mitroshina, M. Vedunova

T10-025B
*Apoptosis signal-regulating kinase 1 regulates the function of microglia and macrophage after ischemic/hypoxic insults*
S.Y. Cheon, B.-N. Koo

T10-026B
*Investigating the cross-talk between microglia and oligodendrocyte progenitors in brain ischemia*

T10-027B
*Mapping neuroinflammation in an experimental mouse model of stroke*
L. Buscemi, L. Hirt

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

T10-029B
*Effect of dehydroepiandrosterone and its sulphate ester on developing white matter injury in a combined oxygen-glucose deprivation/hypoxia model – preliminary data*

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
T10-031B
**PPARγ 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

T11  MEMORY AND LEARNING

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

T11-002A
**Brain region duality in the regulation of microglia morphology by adenosine A$_{2a}$ receptors: implications for anxiety and cognition**

T11-003A
**Are hippocampal sharp wave-ripples linked to astrocytic network activity?**
T. Hondrich, H. Jakobi, P. Geschwill, A. Draguhn, R. Sprengel

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

T12  MYELIN

T12-001C
**Novel gene crucial for myelin maintenance in zebrafish embryos**
L. Kegel, M. Rubio, A. Klingseisen, S. Benito, D. Lyons

T12-002C
**Mitochondrial DNA double-strand breaks induce oligodendrocyte death and an MS-like phenotype**
T12-003C
Can remyelination be enhanced by immunomodulatory therapeutic modality?
R. Aharoni, R. Eilam, M. Sela, R. Arnon

T12-004C
Distinct roles of mTORC1 in Schwann cells for regulation of PNS myelination
B. Beirowski, K. Men Wong, E. Babetto, J. Milbrandt

T12-005C
Activin receptors and their ligands are key drivers of remyelination
A. Dillenburg, C. Davies, D. Soong, A. Williams, V. Miron

T12-006C
Curcumin improves remyelination and decreases astrogliosis following gliotoxic injury in the rat brainstem
E. Bondan, C. Vieira Cardoso, M.F. Martins

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

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

T12-009C
Development and characterization of focal demyelination models for MS
M. Challagundla, P. Schleese, C. Klein

T12-010C
Myelin and microglia in the aging brain
S. Safaiyan, M. Simons

T12-011C
Endoplasmic-reticulum-associated degradation (ERAD) modulates disease severity in a Charcot-Marie-Tooth-1B mouse model
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

T12-013C  
**Quaking dependent splicing of Neurofascin 155 is required for axoglial junction formation and maintenance**  
L. Darbelli, G. Vogel, G. Almazan, S. Richard

T12-014C  
**Autophagolysosome-mediated SAD-MAD transition is the mechanism of segmental demyelination in inflammatory peripheral nerve demyelination**  

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

T12-016C  
**Expression of GPR17 receptor in a murine model of perinatal brain neuroinflammation and its possible interaction with Wnt pathway**  

T12-017C  
**The phosphodiesterase 4 (PDE4) inhibitor roflumilast improves remyelination in a mouse model for multiple sclerosis**  

T12-018C  
**The role of the nuclear lamina in myelin maintenance and pathology**  
J. Patzig, M. Hernandez, C.L. Stewart, L. Shopland, P. Casaccia

T12-019C  
**The role of central nervous system myelination in behaviour**  
M. Madden, S. Koudelka, J. Early, E. Mackay, I. Bianco, D. Lyons
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

T12-021C
Myelin remodelling in the zebrafish central nervous system
J. Williamson, D. Lyons

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

T12-023C
Rally for radial sorting: RalGTPases in peripheral nerve development

T12-024C
Promoting remyelination in the CNS using heparan sulfate mimetics

T12-025C
Functional differentiation of primed human iPS-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

T12-026C
Collagen IV activates the discoidin domain receptor 1 in human oligodendrocytes
E. Vilella, N. Abasolo, L. Martorell

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
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

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

T12-030C
In vivo imaging reveals distinct roles for local Ca²⁺ signalling in CNS myelin sheaths
M. Baraban, S. Koudelka, D.A. Lyons

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

T12-032C
Endothelin receptor B influences myelin sheath formation
M. Swire, D. Lyons, C. ffrench-Constant

T12-033C
Characterization of mitochondria in oligodendrocytes and their myelin sheaths

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
T12-035C
Neuroinflammation, white matter injury, cognitive and emotional deficits after traumatic brain injury in the adult mice

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

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

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

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

T12-040C
A “greedy” microglia is a “friendly” microglia

T12-041C
Structural and physiological adaptations for fast and reliable action potential conduction velocity and synaptic transmission in the auditory pathway

T12-042C
Internodal length variability and myelination patterns in the developing mouse somatosensory cortex
C. Pama, K.A. Evans, P. Humphreys, R.T. Karadottir
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

T12-044C
S100B-RAGE signalling affect de novo myelination and remyelination
G. Santos, A. Barateiro, D. Brites, A. Fernandes

T12-045C
The transcriptional activator Krüppel-like factor-6 is required for CNS myelination

T12-046C
GP130-STAT3 signaling promotes oligodendrocyte differentiation via transactivation of Ets Variant 6

T12-047C
p38MAPK γ inhibits OPC differentiation and myelination
L. Marziali, M. Palmisano, Y. Hwang, A. Cuenda, L. Wrabetz, M. L. Feltri

T12-048C
Role of Jun activating binding protein 1 (Jab1) in central nervous system (CNS) myelination

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. ffrench-Constant

T12-050C This poster has been withdrawn.
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

T12-052C  
A novel mutation in zebrafish resulting in myelination of neuronal cell bodies  
A. Klingseisen, D. Lyons

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. Laprévote, C. Marchand-Leroux, V. Besson

T12-054C  
BDNF mediates neuronal activity-regulated OPC proliferation  
A. Geraghty, M. Greenberg, M. Monje

T12-055C  
Environmental enrichment promotes generation of new oligodendrocytes and attenuates hypoxia-induced perinatal white matter injury  
T. Forbes, B. Jablonska, V. Gallo

T12-056C  
The role of Adgrg6/Gpr126 in sensory neurons  
C. Johnson, A. Mogha, K. Monk

T12-057C  
Selective estrogen receptor modulators significantly enhance remyelination in an estrogen receptor-independent manner  
K. Rankin

T12-058C  
Rapid and efficient generation of human oligodendrocytes from induced pluripotent stem cells for in vitro disease modelling and drug discovery  
T12-059C
Structure, function and pathology of the myelinic channel; the oligodendrocyte's highway to the axon

T12-060C
Oligodendrocyte-encoded potassium channel Kir4.1 regulates white matter function during aging and injury
L. Schirmer, L. Shiow, 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

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

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

T12-063C
Mir-125a-3p negatively regulates oligodendrocyte precursor cells maturation and is altered in human multiple sclerosis

T12-064C
Citullination modulates oligodendrocyte differentiation

T12-065C
Extracellular leaflet compaction require Apolipoprotein D myelin-membrane management by optimizing lysosomal-dependent recycling and glycocalix removal
T12-066C
Individual CNS myelin sheath sizes are independently regulated by physical cues
M. Bechler, L. Byrne, C. ffrench-Constant

T12-067C
This poster has been withdrawn.

T12-068C
Neuropathological evaluations of DRG cultures: testing different geometrical parameters in a dysmyelinating model
G. Capodiventto, D. Visigalli, A. Schenone, L. Nóbio

T12-069C
Differential myelin degeneration during aging and Alzheimer's disease: an ultrastructural analysis in a triple transgenic mouse model
T. Quintela-López, W. Möbian, T. Ruhwedel, K.-A. Nave, C. Matute, E. Alberdi

T12-070C
Neurofibromin expressed by oligodendrocytes regulates myelin structure and behavior through the control of notch signaling

T12-071C
Role of Necl4 (Cadm4/SynCAM4) in CNS myelination
N. Elazar, A. Vainshtein, Y. Eshed-Eisenback, E. Peles

T12-072C
Chimaerins: a missing link between myelination and ephrinB3-EphA4 signalling?
N. Martynyuk, P. Buttery, P. Rericha, Y. Syed, M. Kotter

T12-073C
New oligodendrocyte myelin does not contribute to functional recovery after moderate thoracic spinal contusion in mice

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
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

T12-076C  
**Identification of novel regulators of local MBP mRNA translation**  

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

T12-078C  
**High-sensitivity optical recording of Ca\(^{2+}\) dynamics in grey matter myelin**  
A. Battefeld, M. Popovic, M. Kole

T13 NEURAL STEM/PROGENITOR CELLS

T13-001C  
**Adipose-derived stem cells differentiate into a Schwann cell phenotype and promote in vivo peripheral nerve repair**  

T13-002C  
This poster has been withdrawn.

T13-003C  
**Transplantation of directly induced neural stem cell (iNSCs) promotes remyelination in a mouse model of experimental focal demyelination**  

T13-004C  
**Proliferation and neural stem cell potential of diencephalic astrocytes revealed by genome-wide expression analysis is Smad4-dependent**  
S. Ohlig, M. Irmler, L. Lange Canhos, J.T. Eugenin von Bernhardi, L. Dimou, S. Sirko, J. Beckers, M. Götz
T13-005C  
*Transplanted induced neural stem cells ameliorate experimental autoimmune encephalomyelitis by metabolic reprogramming of mononuclear phagocytes*  

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. Edenger, F. Pluchino

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. Giise, C. Danesin, C. Soula

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

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*  

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

T13-011C  
*Astrocyte-mediated fate specification of adult neural progenitor cells: a role for NF-κB p50*  
V. Bortolotto, S. Cvijetic, M. Marcello, E. Ranzato, E. Marengo, P.L. Canonico, M. Grilli
T13-012C
Post-transcriptional RNA regulation in adult neurogenesis and brain homeostasis

T13-013C
Postnatal astrogenesis is critical for sexual maturation
G. Pellegrino, V. Prevot, A. Sharif

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

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

T13-016C
Targeting NG2 progenitors and their adult progeny
R. Sanchez-Gonzalez, A. Bribian, M. Figueres-Oñate, L. López-Mascaraque

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. ffrench-Constant, A. Faissner, M. May
T14 NEUROIMMUNOLOGY AND NEURO-INFLAMMATION

T14-001A
Prenatal immune challenge dampens demyelination lesion during adulthood
A. Mouihate, H. Al-Hashash, S. Rakhshani-Moghadam, S. Kalakh

T14-002A
Galectin-3 modulates microglia morphology and phenotype after brain ischemia

T14-003A
Peripheral treatment with Infliximab prevents glial activation and neuroinflammation and restores cognitive and motor alterations in rats with chronic liver failure

T14-004A
The role of CD137 and CD137L in pathogenesis of multiple sclerosis
H.Y. Wong, H. Schwarz

T14-005A
IKK/NF-κB-dependent satellite glia activation induces spinal cord microglia activation and neuropathic pain after nerve injury
H. Lim, K. Noh, S. Lee, S.J. Lee

T14-006A
Role of microglia in a mouse model of retinal dystrophy
C. Yingdi, E. Sernagor, D. Steel

T14-007A
Probing microglia contributions to cuprizone-induced de- and remyelination
L. Levy, A. Shemer, Y. Wolf, S. Jung

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
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

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

T14-011A  
Astrocytic changes in kainate-induced epileptogenesis  
J. Müller, P. Bedner, C. Steinhäuser

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

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

T14-014A  
Microscopy-based siRNA screen of microglia to identify neuroprotective drug targets  
V. Neubrand, M. Delgado

T14-015A  
Neurosteroidogenesis is recovered by progesterone treatment of experimental autoimmune encephalomyelitis and during spontaneous remyelination in the cuprizone model of demyelination  

T14-016A  
Perivascular and meningeal macrophages proliferate at blood-brain barrier interfaces in response to transient cerebral ischemia in rats  
W.D. Rajan, B. Wojtaś, M. Zawadzka, A.M. Planas, B. Kaminska
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

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

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

T14-020A
The role of P2Y-like receptor GPR34 on microglial phagocytosis
V. Sánchez-Zafra, A. Schulz, A. Sierra

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

T14-022A
Microglia in post-mortem brain tissue of schizophrenia: normal at first, but different when taking a more closer look

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
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

T14-025A  
**Study of the role of cortistatin in retinal neurodegeneration: aging and inflammation**  
C.P. Falo, F. O’Valle, L. de Lecea, E. González-Rey

T14-026A  
**Oligodendroglial alpha-synuclein pathology is accompanied by a severe neuroinflammation in multiple system atrophy**  

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

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

T14-029A  
**NOTCH1 signaling in myeloid cells modulates the development of experimental autoimmune encephalomyelitis**  

T14-030A  
**Study of the immunoregulatory and neuroprotective effect of cortistatin on demyelination and repair processes 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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<td>Sex differences in the phagocytic and migratory capacity of rat microglia</td>
<td>N. Yanguas Casás, A. Crespo Castrillo, M.A. Arevalo, L.M. Garcia Segura</td>
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<td>Palmitic acid induces inflammation and cell death in cultured cortical astrocytes</td>
<td>A. Ortiz Rodríguez, E. Acaz-Fonseca, L.M. Garcia-Segura, M.A. Arevalo</td>
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<td>T14-036A</td>
<td>Insulin-like growth factor-1 and angiotensin II in neuro-inflammation and aging</td>
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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

T14-040A
Protective effect of the oxytocin receptor agonist carbetocine on brain damage induced by fetal growth restriction associated with postnatal inflammation in rat

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

T14-042A
Oncostatin M signaling is essential for robust remyelination
K. Janssens, A. Maheshwari, C. Vandenhaute, T. Struys, I. Lambrichts, V. Baekelandt, P. Stinissen, J. Hendriks, H. Slaets, N. Hellings

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

T14-044A
IFN-γ plays a key role in preventing disease progression in experimental autoimmune encephalomyelitis by modulating myeloid cell function in the CNS
T. Forsthuber, R. Robinson

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

T14-046A
Therapeutic value of naltrexone as a glial modulator
B. Vrooman, K. Toljan, D. Agarwal, H. Qureshi
T14-047A
The RNA binding protein HuR promotes the inflammatory phenotype of microglia and is upregulated in microglia of ALS spinal cords

T14-048A
Brain TGFb promotes resistance to hypertension via regulating microglial activation
X. Liu, Y. Li, X. Shen, P. Shi

T14-049A
The role of angiotensin AT2-receptor stimulation and IL-10 signaling in an animal model of neuromyelitis optica spectrum disorder

T14-050A
Pathophysiology and imaging of early memory impairment in multiple sclerosis

T14-051A
This poster has been withdrawn.

T14-052A
Next generation sequencing identifies miR147b as a novel key regulator of interleukin 1 beta-mediated inflammation in human astrocytes

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

T14-054A
Decreased S100A8/A9 in V30M related familial amyloid polyneuropathy: a possible pathway in misregulation of Schwann cell chemotaxis
T14-055A

**Novel myelinogenic phenotype of microglia**

T14-056A

**ATP-induced IL-1β secretion is selectively impaired in microglia as compared to hematopoietic macrophages**
S.M. Burm, E.A. Zuiderwijk-Sick, P.M. Weert, J.J. Bajramovic

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

T14-058A

**Dissecting the role of NEMO/NF-κB in astrocytes reacting to injury and inflammation**
E. Engelhardt, J. Göbel, H.M. Jahn, M. Bergami

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

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

T14-061A

**Retinal microglia contralateral to experimental glaucoma in mice exhibited early signs of activation: quantification of processes retraction and reorientation**

T14-062A

**Early microglial activation is detected in mice retina contralateral to experimental glaucoma**
T14-063A
Astrocytic tight junctions control inflammatory CNS lesion pathogenesis

T14-064A
Lysophosphatidic acid receptor 2 contributes to demyelination after spinal cord injury by inducing the release of purines in microglial cells

T14-065A
Astrocytic junctional adhesion molecule-A promotes CNS inflammatory lesion pathogenesis
C. Chapouly, A. Gordon, A. Therattil, G.R. John, S. Horng

T14-066A
TNF neutralization promotes OPC differentiation in a model of progressive EAE
A. Valentin-Torres, C. Savarin, S. Stohlman, C. Bergmann

T14-067A
Microglia cell type specific NF-κB networks and molecular signatures in the CD11brGFPxTDP43G348C transgenic mouse model for FTLD
S. S. Thammisetty, H. Boutej, J. Kriz

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

T14-069A
Role of HtrA1 in TGFβ signaling and microglia quiescence
I. Akhtar, T. Langmann

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
T14-071A  
Characterisation and modulation of TREM2 sheddase site in primary cultures of myeloid cells  

T14-072A  
Maresin 1 promotes inflammatory resolution, neuroprotection and functional neurological recovery after spinal cord injury  

T14-073A  
Repeated systemic TNFα 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

T14-074A  
Loss of the Wnt pathway in microglia drives proinflammatory activation leading to perinatal white matter injury  

T14-075A  
A novel model of mechanically induced inflammation in a primary culture using parallel flow shear stress  
A. Trotier, L. McNamara, M. Biggs

T14-076A  
Bacterial peptidoglycan in MS and EAE brain as a cofactor in demyelinating disease  
J. Laman, B.’t Hart, C. Power

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. Martinez de Pablos, J.L. Venero

T14-078A  
Gp130 signalling on astrocytes during cuprizone-induced demyelination  
S. Heckers, V. Gudi, T. Skripuletz, M. Stangel
T14-079A
Deficiency of TNFAIP3 (A20) in microglia leads to spontaneous neuroinflammation
A. Mohebiany, A. Moeckl, K. Karram, A. Waisman

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

T14-081A
Localization of antibody deposition by sterile injury in the brain
M. Thorsen Mørch, S. Forsberg Sørensen, R. Khoroooshi, N. Asgari, T. Owens

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

T14-083A
Pulse-modulated 1800 MHz electromagnetic fields affect microglial cell responses triggered by lipopolysaccharide

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

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

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
T14-087A  
**Type II monocytes exert regulatory functions in central nervous system during experimental autoimmune encephalomyelitis**  
D. Häusler, W. Brück, M. S. Weber

T14-088A  
**Investigation of the NLRP3 inflammasome in microglia and the implications for Alzheimer's disease**  
R. McManus, M. Heneka

T14-089A  
**Sulphatide-specific IgM induces a type I interferon-dependent anti-viral response in the CNS**  

T14-090A  
**Increased white matter inflammation in aging- and Alzheimer’s disease brain**  

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 Steenwinckel, P. Gressens

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

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. Kerkering, K. Rosiewicz, V. Siffrin

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
T14-095A
The role of CNS-endogenous TLR9 and NOD2 in neuro-inflammatory disease in mice
R. Storgaard Dieu, R. Khorooshi, V. Wais, G. Webster, T. Owens

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

T14-097A
Responses to LPS and α-Synuclein of primary cultures of microglia-like cells derived from adult human monocytes

T14-098A
Role of purinergic receptor P2X4 in experimental autoimmune encephalomyelitis

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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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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

T14-101A
IL-10-dependent Tr1 cells attenuate astrocyte activation and ameliorate chronic central nervous system inflammation

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
**T14-103A**

Ageing and progressive microgliosis imposes progressive vulnerability to acute cognitive dysfunction upon systemic inflammation.
D. Healy, C. Murray, C. Cunningham

**T14-104A**

Application of translational profiling method for the molecular characterization of the inflammatory response: divergence of mRNA and protein networks in microglia

**T14-105A**

Purinergic receptor P2Y12: 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

**T14-106A**

Lysophosphatidic acid (LPA) controls the migratory and inflammatory response of microglia via the LPAR5-PKD axis
J. Plastira, E. Bernhart, B. Zucol, W. Graier, W. Sattler

**T14-107A**

Interaction between microglia and T cells in a model of brain inflammation in zebrafish
G. Morisse, J. Mazzolini, D. Sieger, A. Astier

**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

**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

**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
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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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

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

T14-114A
A nutraceutical approach as adjuvant therapy for the prevention and treatment of trigeminal pain: role of microglia

T14-115A
The effect of TNF-blockade on T cell-enhanced microglial clearance of myelin debris

T14-116A
Exosomes derived from microglia exposed to elevated pressure elicit a pro-inflammatory response in naive cells

T14-117A
CXCL16 as mediator of microglia polarization
F. Lepore, C. Limatola, F. Trettel

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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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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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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T. Zöller, A. Schneider, C. Kleimeyer, P.S. Potru, M. Prinz, B. Spittau

T14-122A  
Affinity-dependent modulation of T cell responses by DHODH inhibition  

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T14-124A  
The role of P2Y6 receptor signalling in inflammatory neuron loss in models of Alzheimer’s and Parkinson’s disease  
S. Milde, A. Vilalta, G.C. Brown

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

T14-126A  
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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
T14-128A
CD300f immunoreceptor deficiency-induced depressive and obsessive compulsive behaviours and exacerbated microglial activation after diverse inflammatory stimuli

T14-129A
The immune-regulatory role of human primary repair and tumor-associated Schwann cells

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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Assessing toll-like receptor signalling in Multiple Sclerosis both centrally and peripherally

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The role of NG2-expressing cells during neuroinflammation
M. Katic, K. Karram, A. Waisman

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P. Sanchez-Molina, B. Almolda, B. González, B. Castellano

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J. Verheyen, J. Smith, A. Braga, L. Peruzzotti-Jametti, S. Rizzi, F. Edenhofer, S. Pluchino

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Repair mechanisms during demyelination
L. Taylor, K. Puranam, A. Patel, N. Muthusamy, G. Matsushima
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Influence of type I IFN signalling on anti-MOG-mediated demyelination
T. Owens, C. Berg, R. Khoroooshi, N. Asgari

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

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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Neuroinflammation activates an axonal degeneration program in mice carrying human PLP1 mutations
J. Groh, L. Papp, R. Martini

T14-140A
The role of the B cell in the pathogenesis of multiple sclerosis
J. Roodselaar, E. Urich, D.C. Anthony

T14-141A
The neurotransmitter dopamine inhibits glutamate release evoked by α-Synuclein aggregates in microglial cells

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. Mardiguian, E. Ladds, S. Campbell, D.C. Anthony

T14-143A
Inflammasome expression in CNS lesions and the effect of inflammasome-derived IL-1β 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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Galectin-3 acts as an early alarmin orchestrating brain immune response and promoting neurodegeneration after traumatic brain injury

T15  NEUROVASCULAR INTERACTIONS

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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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Unravelling the impact of methylphenidate on neuro-gliovascular 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

T15-003B
Endothelial dysfunction drives white matter vulnerability in small vessel disease

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

T15-005B
Microglia promote the functional maturation of blood-brain barrier by regulating cytokine/chemokine concentrations
Y. Shigemoto-Mogami, H. Kazue, K. Sato
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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*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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*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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*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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*Translation in astrocyte distal processes sets molecular heterogeneity at the gliovascular interface*  
A.-C. Boulay, B. Saubaméa, M. Cohen-Salmon

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*Cadmium cellular signaling in the impairment of the blood brain barrier: study in a rat brain endothelial cell line*  

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*Hypercaloric environment triggers chronic remodeling of the hypothalamic vasculature via astroglial HIF1α and VEGF signaling*  
T. Gruber, C. García-Cáceres, O. Lê Thuc, B. Legutko, T.L. Horvath, M.H. Tschöp

T15-013B  
*AAV-mediated gene delivery in dp71-null mouse model and blood brain barrier permeability assessment*  
O. Vacca, M. Belmaati-Cherkaoui, C. Sebrié, X. Guillonneau, D. Dalkara, C. Vaillend
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Aquaporin-4 channel distribution and brain water homeostasis in mice lacking dystrophin Dp71
M. Belmaati-Cherkaoui, O. Vacca, C. Sebré, R. Helleringer, M. Galante, C. Vaillend

T16  REGENERATION AND REPAIR

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Effect of hyaluronic acid hydrogel with lithium on sciatic nerve defects
I. Dag, E. Kocman, T. Sengel, E. Soztutar, M. Canbek

T16-002C
Parvalbumin-expressing ependymal cells in rostral lateral ventricle wall adhesions contribute to aging-related ventricle stenosis in mice
V. Szabolcs

T16-003C
The human repair Schwann cell phenotype – OMIC analyses identified novel proteins and functions involved in nerve regeneration

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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

T16-005C
Grey matter demyelination and synaptopathy in multiple sclerosis

T16-006C
Role of Wnt antagonist SFRP4 as a modulator of neuro-regenerative properties of olfactory ensheathing glia (OEG) immortalized cell lines
M. Portela, D. Simón, M. C. Turpin, J. Sierra, M. T. Moreno-Flores
T16-007C
The role of oligodendroglia in regeneration after spinal cord injury in zebrafish
M.M. Reimer

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Oligodendroglial regeneration and functional recovery upon spinal cord lesion in zebrafish
V. Tsata, M.M. Reimer

T16-009C
In vitro focal demyelination in the mouse central nervous system
S. Sekizar, L. Zoupi, B. Newland, A. Williams

T16-010C
Changes in microglia extracellular matrix contribute to age-associated decline in CNS remyelination
R. Baror, R.J.M. Franklin

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

T16-012C
Grb2-associated binder-1 and -2 are essential scaffolding proteins for peripheral nerve repair

T16-013C
Control of oligodendrocyte plasticity by histone demethylases after spinal cord injury
M. Duman, C. Jacob

T16-014C
A functional analysis of nanotopographically modified platinum Iridium microelectrodes
A. Kelly, G. O'Connor, M. Biggs

T16-015C
Identification of the pro-regenerative microglia and macrophage transcriptomes
C. Davies, V. Miron
T16-016C
Reprogramming adult SVZ-derived neuroblasts into oligodendrocytes enhances remyelination in the adult brain
B. El Waly, M. Cayre, P. Durbec

T16-017C
Do endogenous neural stem cells contribute to myelin repair through immunomodulation?
B. Brousse, P. Durbec, M. Cayre

T16-018C
Remyelination in germ-free mice
C. McMurrnan, O. Zidon, D.C. Fitzgerald, C.A. Jones, R.J.M. Franklin

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

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

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

T16-022C
Central nervous system remyelination is driven by microglia necroptosis and repopulation
A. Lloyd

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Mature oligodendrocytes bordering demyelinating lesions restrict demyelination and favor myelin repair via heparan sulphate production
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Single-cell and large-scale analysis of myelinating cell plasticity using in vitro models of PNS and CNS lesion

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. la Ferla, S. Franceschi, M. Menicagli, M. Pirazzini, C.M. Mazzanti, M. Rigoni, C. Montecucco

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Manipulating microglial functional phenotypes rescues white matter pathology following perinatal brain injury
G. Ireland, R. Holloway, V. Miron

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Oligodendrocytes and remyelination after injury of the adult zebrafish spinal cord
V. Kroehne, M.M. Reimer

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The regulation of oligodendrocyte precursor cells in development of the zebrafish spinal cord
C. Hoppe, V. Kroehne, V. Tsata, C. Froeb, M.M. Reimer

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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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

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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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
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

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

T16-035C
Fate mapping of PDGFRα-, Olig2-, P0-, and SMA-positive cells after contusion spinal cord injury in mice

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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. Frisén, C. Göritz

T16-037C
Lecithin therapy improves disease progression in a rat model of Charcot Marie Tooth disease 1A

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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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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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Scaffolding the spinal cord: a novel strategy towards CNS repair
T16-041C
Dysregulation of the GPR17 receptor in neuroinflammatory diseases: implications for remyelination in multiple sclerosis

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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

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. Koštúth, Z. Daxnerová

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

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

T16-046C
Pericytes promote the generation of oligodendrocytes during remyelination

T16-047C
Donor macrophages and remyelination in metachromatic leukodystrophy
N. Wolf, A. Westerveld, D. van Rappard, M. Breur, A. Vander, M.S. van der Knaap, J.J. Boelens, M. Bugiani
T16-048C
Extracellular vesicles released from microglia-conditioned with mesenchymal stem cells positively regulate oligodendroglial progenitors proliferation in response to focal myelin lesion

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

T16-050C
Modulating glutamate signalling to enhance myelin regeneration
K. Volbracht, M. Kovacs, A. Denizot, H. Gautier, R.T. Karadottir

T16-051C
Multiple cellular targets of the neuroprotectant BHDPC in autoimmune mediated CNS demyelination

T16-052C
An improved 3D hydrogel culture model for glial scarring
K. Koss, M. Churchward, A. Toossi, V. Mushawar, K. Todd

T17 TRANSMITTER RECEPTORS, ION CHANNELS AND GAP JUNCTIONS

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TRPA1 channels control oligodendrocyte internodal potassium conductance
N. Hamilton-Whitaker, K. Kolodziejczyk, E. Kougioumtzidou, D. Attwell

T17-002B
Connexins in neuromyelitis optica: a link between astrocytopathy and demyelination?
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

T17-004B
MLC1/GlialCAM indirect modulation of volume-regulated anion channels formed by LRRC8 heteromers

T17-005B
Deletion of Cav1.2 and Cav1.3 genes in NG2 glia induces NMDA-dependent LTD deficiency
N. Zhao, F. Kirchhoff

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

T17-007B
Glutamate receptors in NG2 glial cells: gene profiling and functional changes after ischemic brain injury
E. Waloschкова, M. Valny, L. Valihrach, M. Anderova

T17-008B
Quantal properties of glutamate release at axon – OPC synapses in the corpus callosum
B. Nagy, B. Kula, T.-J. Chen, M. Kukley

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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The double-edged role of Pannexin1 channels
E. Scemes, J. Veliskova

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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<th>Intrinsic mechanisms of nodes of Ranvier formation in the central nervous system</th>
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T18  TROPHIC FACTORS

T18-001A
S100B secretion is mediated by Ca$^{2+}$ from endoplasmic reticulum: a study using DMSO as a tool for intracellular Ca$^{2+}$ mobilization

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

T18-003A
Lesion development in a rat model of fibroblast growth factor 9 overexpression: implications for multiple sclerosis
D.F. Mcelroy, C. Wrsoz, C. Stadelmann, C. Linington

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

T19  TUMOURS

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Role of Emx2 in the treatment of glioblastoma multiforme
J. Zucco, C. Falcone, A. Daga, G. Leanza, A. Mallamaci

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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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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Investigation of in vitro and in vivo potential of Phoneutria nigriventer spider venom against human glioma  

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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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The role of STAT6 in mitochondrial homeostasis in glioma  
H. Kim, S.J. Park, I. Jou

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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

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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The role of microglia during early brain malignancies  
K. Chia, D. Sieger

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The RNA-binding protein HuR is a master regulator of malignant peripheral nerve sheath tumourigenesis  
M. Iruarrizaga-Lejarreta, E. Perez-Andres, M. Palomo Irigoyen, D. Medrano, M. Varela-Rey, A. Woodhoo

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The impact of the brain microenvironment on microglia polarization at early stages of glioblastoma formation  
J. Mazzolini, D. Sieger
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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

T19-013C
Slow proliferating glioblastoma stem cells depend on lipid metabolism and mitochondrial function

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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I. Moretti, T. Galatro, S. Oba-Shinjo, S. Marie

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N. Leventoux, S. Azar, M. Augustus, B. Rothhut, H. Duffau, J.-P. Hugnot

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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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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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Voltage gated potassium channels as therapeutic target for glioma
M. Catalano, A. Grimaldi, G. D'Alessandro, C. Limatola

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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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Live cell imaging of cell-cell interactions during early stages of reactive gliosis
B. Gupta, C. Hogan, F. Siebzehnrubl

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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

T19-023C
Aquaprotein1 mediated tumor associated microglia/macrophages polarization in gliomas
F. Hu, Y. Huang, H. Zhang, K. Shu, T. Lei

T19-024C
Loss of typical orthogonal arrays of particles in astrocytomas correlates with malignancy
U. Wenzel, S. Noell, R. Ritz, P. Fallier-Becker
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