Brain & BrainPET 2017 will feature a state-of-the-art scientific program. The German capital combines a rich history with an exciting contemporary lifestyle.

PROGRAM BOOK
Dear Colleagues,

We are delighted to welcome you to Berlin BRAIN & BRAIN PET 2017, the 28th International Symposium on Cerebral Blood Flow, Metabolism and Function and the 13th International Conference on Quantification of Brain Function with PET. Following the tradition of previous meetings, BRAIN & BRAIN PET 2017 will cover numerous aspects within the area of neuroscience research, particularly those related to brain function and metabolism, cerebral blood flow, the function of the neurovascular unit and the blood-brain barrier, brain imaging, brain repair and cerebrovascular pathology.

Our goal is to present state-of-the-art discoveries that will increase our understanding of brain function under physiological and pathological conditions through basic, translational and clinical investigation. Leading scientists in these fields, including members of the International Society for Cerebral Blood Flow and Metabolism, will participate as in our previous biennial meetings. The program committee has worked hard to create an engaging scientific program and series of symposia.

Berlin, the German capital, is shaped by history. Separated by a wall for decades and reunified in 1989, it today has a multicultural and international atmosphere. But not only world history has shaped Berlin, it was and still is a hotspot of medical history. In 2010, the Charité, Berlin’s university hospital and medical school, celebrated its 300th birthday. Names like Hermann von Helmholtz, Rudolf Virchow and Cécile and Oscar Vogt have been pioneers of modern neuroscience. Berlin with its museums, sights, clubs and universities, today is a modern city which attracts artists of all sorts, students, scientists, and tourists alike. Surrounded by lakes and waterways, Berlin will provide delegates and their families with a wealth of opportunities for discoveries and enjoyment, at the conference and beyond.

We welcome you to Berlin for BRAIN & BRAIN PET 2017 and wish you a wonderful stay.

Yours sincerely,
COMMITTEES & CONTACTS

Committees

Congress president
Peter Herscovitch, MD
National Institutes of Health (NIH), Bethesda, United States

Local organizing committee

Local chairs
Prof. Dr. med. Ulrich Dirnagl
Charité – Universitätsmedizin Berlin
Center for Stroke Research
Departments of Neurology and Experimental Neurology
Berlin, Germany

Prof. Dr. med. Matthias Endres
Charité – Universitätsmedizin Berlin
Director Department of Neurology and Experimental Neurology
Berlin, Germany

Scientific program committee chair
D. S. Fahmeed Hyder, Ph.D.
Professor, Biomedical Engineering
Professor, Radiology & Biomedical Imaging
Yale University
United States

Scientific program committee
Nicolas Blondeau, France
David Boas, USA (Past scientific chair)
Ulrich Dirnagl, Germany (Local chair)
Simon Cervenka, Sweden
Matthias Endres, Germany (Local chair)
Veronica Galvan, USA
Albert Gjedde, Denmark
Asta K. Haberg, Norway
Peter Herscovitch, USA (President ISCBFM)
D. S. Fahmeed Hyder, USA (Scientific chair)
Hiroyuki Kinouchi, Japan
Ai-Ling Lin, USA
Martha E. O’Donnell, USA
Anant B. Patel, India
Mark Silfstein, United States
Bojana Stefanovic, Canada
Raymond A. Swanson, USA
Guohua Wang, China

ISCBFM Officers
Peter Herscovitch, USA (President)
Edith Hamel, Canada (Past President)
Eng H. Lo, USA (President Elect)
Joseph C. LaManna, USA (Secretary)
Jun Chen, USA (Treasurer)
I. Mhairi Macrae, United Kingdom (Editor)
Martin Lauritzen, Denmark (Editor)

Contacts

Congress president
Peter Herscovitch, MD
PET Department, Clinical Center
National Institutes of Health
United States
pherscovitch@hotmail.com

Scientific program committee chair
D. S. Fahmeed Hyder, Ph.D.
Professor, Biomedical Engineering
Professor, Radiology & Biomedical Imaging
Yale University
United States
fahmeed.hyder@yale.edu

Society
ISCBFM Administrative Office
International Society for Cerebral Blood Flow and Metabolism (ISCBFM)
9650 Rockville Pike
Bethesda, MD 20814, USA
T: +1 301 6347001
F: +1 301 6347099
iscbfm@faseb.org

Legal organizer (PCO)
MCI Deutschland GmbH
MCI | Germany – Berlin
Markgrafenstr. 56
10117 Berlin
T: +49 30 20459383
F: +49 30 2045950

Project management
Meike Mieke
brain2017@mci-group.com

Scientific secretariat
Sarah Ecker
brain2017@mci-group.com

Registration and accommodation
Claudia Borawski
registration.berlin@mci-group.com

Industrial exhibition and sponsoring
Matthias Wiehlpütz
brain2017-sponsoring@mci-group.com
ABOUT ISCBFM

The International Society for Cerebral Blood Flow and Metabolism (ISCBFM) is organized and operated exclusively for the purpose of promoting the advancement of education in the science of cerebral blood flow and metabolism and related topics throughout the world.

The Society promotes research in cerebral blood flow, cerebral metabolism and cerebral function in physiological and pathophysiological states. Interests of members of the Society range from the molecular and genomic mechanism of ischemia through to the clinical investigations of cerebral blood flow and metabolism.

The Society hosts biennial meetings in various locations throughout Asia, Europe and North America. The International Symposium on Cerebral Blood Flow, Metabolism and Function (Brain) and the International Conference on Quantification of Brain Function with PET (BrainPET) are held jointly and bring together a diverse group of investigators for the exchange of scientific information on regulation of cerebral blood flow and metabolism. The International Symposium of Cerebral Blood Flow and Metabolism was first held in 1964, with subsequent meetings held approximately every two years. It wasn’t until 1981, however, that the Society was formally established. At the time of the establishment of the Society, the Journal of Cerebral Blood Flow and Metabolism started publication and continues to be a highly respected and cited monthly publication. It is relevant to neurologists, neurochemists, psychologists, pharmacologists, physiologists, biochemists, anesthesiologists, neuroradiologists, neuropathologists and neuroscientists in general.

A flagship commitment of the ISCBFM is to support young and early career neuroscientists (Early Career Investigators – ECIs). At each BRAIN & BRAIN PET meeting, ISCBFM has consistently supported ECI neuroscientists by bursaries to attend the meeting. Moreover, various events targeting ECI neuroscientists have been organized to enhance networking and provide mentorship. At the BRAIN & BRAIN PET 2017 meeting, ISCBFM is supporting 125 ECI neuroscientists from all corners of the globe with bursaries. It is also sponsoring an Early Career Networking Evening, and rolling out a mentorship plan for ECI neuroscientists.

ABOUT BERLIN

The German capital offers the best national and international travel connections, numerous modern hotels and some truly special venues. In addition, the city offers great value for money. In fact, the city is Germany’s biggest and most popular meeting destination. Berlin’s mayor calls the city “poor but sexy”. This description is reflected in every way by low hotel prices which are contrasted by an enormously rich cultural program. Berlin is far more than just a meeting place for leading people from science, business and politics. The German capital ranks as one of the most visited metropolises in Europe. Located at the heart of Europe it represents a connection between East and West.

Berlin offers its visitors a uniquely varied cultural program, one-of-a-kind historical landmarks and all sorts of entertainment. The city has a long tradition as a theatre metropolis and is justly proud that it can present such a diverse range of productions today. It is as well a city of museums. Germany’s largest cultural investment project, the Berlin Museum Island, was completed in 2010. The five museums on Museum Island were added to the World Cultural Heritage List. From a quick snack to dinner at a gourmet restaurant, international cuisine, theme restaurants, beer gardens and regional cooking – Berlin’s 7,000 restaurants and eateries cater to every taste, any occasion, any time of the day or night. Berlin’s nightlife is fast-paced and has something for everyone.
The Lifetime Achievement Award
Richard J. Traystman, PhD
Distinguished University Professor
Vice Chancellor for Research
University of Colorado, Denver, United States

The Niels Lassen Award
The Niels Lassen Award is presented by the International Society for Cerebral Blood Flow and Metabolism to recognize an outstanding scientific contribution made by a young scientist. The recipient is selected by the program committee based on an abstract submitted for presentation at the biennial meeting of the society.

Niels Lassen Award Finalists 2017
Wei Cai, United States
Ravi L. Rungta, France
Beatriz Rodriguez-Grande, France
Uma Maheswari Selvaraj, United States

Young Investigator Travel Bursary Recipients
Albert Venencia, India
Aparicio-Blanco Juan, Spain
Asare Yaw, Germany
Azhermacheva Mariia, Russian Federation
Balbi Matilde, Canada
Bale Gemma, United Kingdom
Biose Ifechukwude Joachim, United Kingdom
Chen Yan, China
Christensen Simon Topp, Denmark
Cremer Anna Lena, Germany
Deen Marie, Denmark
Edwards Adam, Australia
Evans Megan, Australia
Fan Audrey P., United States
Fang Xiaotian Tsong, Sweden
Fekete Rebeka, Hungary
Foster Catherine, United Kingdom
Fotiadias Panagiotis, United States
Frönczek Judith, Germany
Fumagalli Stefano, Italy
Fukushima Yuta, Japan
Gabriel-Salazar Marina, Spain
Gallizioli Mattia, Spain
Gao Xiaotian Tsong, Sweden
Gao Xihui, China
Giese Anne-Katrin, United States
Giovannella Martina, Spain
Gittens Rolando, Panama
Gómez-Lado Noemi, Spain
Gregori-Pla Clara, Spain
Gutierrez Jimenez Eugenio, Denmark
Hahn Andreas, Austria
Hanaloglu Sahin, Turkey
Hatakeyama Nao, Japan
Hermanto Yulius, Japan
Hidayatov Tural, Turkey
Hoffman Jared, United States
Ibrahim Osama, United Kingdom
Ichikova Aleksandra, France
Iulita M. Florencia, Canada
Jiang Xiaoyan, China
Jiang Lu, China
Kang Min Su, Canada
Kapoor Suhela, India
Khelfi Yacine, France
Khouri Nathalie, United States
Kim TaeHee, United States
Kim Jae-Myoung, Republic of Korea
Ko Tiffany, United States
Koronowski Kevin, United States
Krishnan Siddharth, United Kingdom
Kumar Pardeep, India
Kumar Nitin, India
Lao Patrick, United States
Lauer Arne, United States

Lénárt Nikolett, Hungary
Li Lin, Canada
Li Lingjie, United States
Lubart Alisa, Israel
MacDougall Gabriella, Australia
Majchrzak Malgorzata, Poland
Mehna Esiam M., Canada
Mehler David, United Kingdom
Mendoza Kimberly, United States
Meng Hailan, China
Merkle Conrad, United States
Moeini Mohammad, Canada
Napieczynska Hanna, Germany
Ng Kok Pin, Canada
Ottoo-de-Amegaza Amaia, Spain
Parikh Ishita, United States
Pascoal Tharick Ali, Canada
Pedragosa Jordi, Spain
Plummer Stephanie Lauren, Australia
Pomilio Carlos, Argentina
Pu Hongjian, United States
Puig Oriol, Denmark
Qu Meijie, China
Rakers Cordula, Germany
Reeson Patrick, Canada
Reisman Matthew, United States
Rischka Lucas, Austria
Rizzo Gaia, Italy
Roth Stefan, Germany
Roy-O’Reilly Meaghan, United States
Ruesch Alexander, United States
Sadler Rebecca, Germany
Santos Edgar, Germany
Scharmer Markus D., United States
Schmid Franca, Switzerland
Schoknecht Karl, Germany
Seiger Rene, Austria
Selvaraj Uma Maheswari, United States
Sharma Puneet, United Kingdom
Shi Yejie, United States
Simats Alba, Spain
Song Yaying, China
Sonnen Sarah, Switzerland
Stanaszek Luiza, Poland
Steventon Jessica, United Kingdom
Stradecki-Cohan Holly, United States
Takeda Hiroshi, Japan
Tan Kah Ni, Australia
Tarantini Stefano, United States
Thompson Garth J., United States
Tsao Chih-Chieh, Switzerland
Tsukamoto Hayato, Japan
Turton Samuel, United Kingdom
Uçal Muammer, Austria
Vaas Markus, Switzerland
Varga Dániel Péter, Hungary
Veronese Mattia, United Kingdom
Wahbi K. El-Bouri, United Kingdom
Wang Guohua, China
Warren Kirby Elizabeth, Australia
Westmayer irina, Germany
Whittington Alex, United Kingdom
Wilson Heathier, United Kingdom
Wu Kuan Cheng, United States
Xia Yugu, United States
Yanev Pavel, United States
Yu Linjie, China
Zhang Shenpeng R., Australia
Zhang Zhongxing, Switzerland
Zhou Xiaoyun, Netherlands
Zhou Yuxi, China
Abstracts
Approved abstracts will be published as an online supplement to the Journal of Cerebral Blood Flow & Metabolism on April 1st 2017 and remain permanently accessible as citable source at:

http://journals.sagepub.com/home/jcb

Act of God
It is mutually agreed that in the event of total or partial cancellation of the congress due to fire, strike, natural disaster (either threatened or actual), government regulations or incidents not caused by the organizer, which should prevent its scheduled opening or continuance, the congress may be partially postponed or terminated as a whole. In this case, participants are not entitled to reclaim refunds on no account. Participants are obliged to have civil liability insurance.

Badges
All delegates and guests will receive a name badge at the registration desk. The badge will be the official meeting document and should be worn at all times in order to gain entry into the meeting rooms and exhibition halls. With a delegate’s badge, participation will be granted into the scientific program. Admission to the congress will not be allowed without badge identification. Vouchers for social events that have been booked will be handed out with the registration material.

Catering
Lunch and refreshments are included in the registration fee. The catering stations are located in the entrance hall (ground floor), in the mezzanine and on the first floor.

Certificate of attendance
All registered attendees, whether they register in advance or on site, will receive a certificate of attendance on-site.

Climate
Berlin belongs to the moderate climatic zone with significant influences of continental climate. April is characterized by sudden changes of weather: both cold and rainy days or warm spring weather may prevail. The mean temperature in Berlin in April is around 13.2 degrees Celsius.

Cloakroom and storage
A cloakroom and luggage deposit located at the registration will be available during the official congress time schedule. The congress center and the organizers are not responsible for any items lost or left behind.

Clothing
Clothing is informal for all occasions.

Congress language
The official language of the congress will be English. Simultaneous translation will not be provided.

Congress venue
Henry Ford Building
Freie Universität Berlin
Garystr. 35
14195 Berlin, Germany
P: +49 30 8381

Getting to the congress venue
Berlin has an excellent public transport system which is very effective and inexpensive. Tickets are available from machines at underground stations (Maestro debit cards accepted), at news agents, or at Berlin Transport Authority’s ticket offices.

Tickets must be punched in a yellow ticket canceling machine on the tram or bus, or at the ticket machine before boarding the train.

Public transport
You can reach Henry Ford Building using either:
- metro line U3, exit at metro station “Oskar-Helene-Heim”.
  Walking distance: 750 m, 9 min or;
- metro line U3, exit at metro station “Freie Universität (Thielplatz)”.
  Walking distance 400 m, 5 min or;
- bus line 110, exit at bus station “Bitscher Straße”.
  Walking distance 350 m, 4 min or;
- bus line 623, 115, 285, X10, exit at bus station “U Oskar-Helene-Heim”.
  Walking distance: 750 m, 9 min

For more information, fare overview and journey planner please visit:
www.bvg.de (D)
www.bvg.de/en/ (E)

Currency
The official currency in Germany is Euro (€).

Electricity
In Germany electricity is supplied at 220V, 50Hz. For some devices from abroad converters will be needed.

First aid
In case of emergency the European emergency telephone number 112 is available.

Helpful telephone numbers
Police: 110
Fire: 112
Ambulance: 112
Taxi Berlin: +49 30 202020

Industry exhibition
The industry exhibition is represented by manufacturers of medical and surgical equipment, instrumental analytics as well as scientific publishers. The presentation stands of the Journal of Cerebral Blood Flow & Metabolism and of the ISCBFM are integrated in the exhibition.

The industry exhibition is located on the ground floor and will be open from April 2nd to April 4th 2017 according to the session timetable.

Industry exhibition opening hours
Sunday, April 2nd 09:30–18:00
Monday, April 3rd 09:00–16:30
Tuesday, April 4th 09:30–16:30
scientific program

poster sessions

Industrial exhibition

poster as pdf file at www.brain2017.net/

You have the opportunity to upload your

QR code for posters

You have the opportunity to upload your

poster board. Poster viewers can then

scan the QR code and download your

poster.

Photography, audio, video and mobile phone policy
Audio, photo and video recording by any
device (e.g. cameras, laptops, PDAs,
mobile phones, watches) is strictly
prohibited during all oral and poster
sessions, unless prior permission is
obtained from the congress organizer.

Use of mobile phones is strictly prohibited
during scientific sessions. Mobile phones
must be switched off while attending
sessions.

Program changes
The organizer reserves the right to make
changes if necessary. No full or partial
refunds are made to the attendees in the
event of cancellations or other changes
in the program. Please note that changes
will be posted on screens at the entrance
of the session halls. Participants will be
informed about changes.

Registration
Registration is valid only if the complete
fee and charges for other services have
been paid in full. Registration on-site is
possible during the entire congress within
registration desk opening hours. Only
credit cards and cash payment will be
accepted for on-site registration. Valid
proof of status must be presented on-site
when registering at lower rates.

Registration fees
Late/on-site fees
ISCBFM Members country list A € 730
ISCBFM Members country list B € 580
Non-Members country list A € 830
Non-Members country list B € 680
ISCBFM Student Members* € 390
Students Non-Members € 450
BRAIN PET Sessions only** € 530
CARNet Meeting and
Conference attendee € 830
CARNet Meeting and
Conference student* € 550
CARNet Day ticket regular*** € 200
CARNet Day ticket student*** € 100
Educational courses Brain/
BrainPET**** € 100
* Proof of current status needs to be provided along
with the registration.
** Participation in BrainPET sessions ONLY (on Sunday,
April 2nd & Monday, April 3rd 2017).
*** Day tickets gives only access to the CARNet meeting on
April 1st 2017.
**** Educational courses take place only on Saturday,
April 1st 2017. Registration for the courses is only
available to participants of the conference. Payment
should be made in addition to the registration fees.

Registration desk
The registration desk is situated in the
foyer on the ground floor.

Opening hours
Saturday, April 1st 08:00–18:30
Sunday, April 2nd 07:30–18:00
Monday, April 3rd 07:30–18:00
Tuesday, April 4th 07:30–16:00

Speaker’s preview room
The speaker’s preview room is located in
the “Konferenzraum 1” on the first floor.
Speakers are requested to hand in their
presentations at least 3 hours before
their talk. Speakers having a presentation
during the first time slot in the morning
are asked to hand in their slides the day
before. Please do not bring a laptop or
other media devices to the session room.

Opining hours
Saturday, April 1st 08:00–16:30
Sunday, April 2nd 07:30–17:30
Monday, April 3rd 07:30–17:30
Tuesday, April 4th 07:30–16:00

Time zone
Berlin belongs to the Central European
Time Zone (GMT+1).

Tipping
In many areas such as gastronomy,
in taxis, at hairdressers, at service
stations, tipping is traditionally expected.
Usually, the tip amounts to about
5–10%, according to the degree of your
satisfaction with the service rendered.

Spotlight:
Neuroscience History in Berlin

Berlin, the German capital, is shaped by history. Separated by a wall for decades and reunified
in 1989, it today has a multicultural and
international atmosphere. But not only world
history has shaped Berlin, the city itself today
was and still is a hotspot of medical history. Our
series Neuroscience in Focus will present
pioneers of modern neuroscience like Hermann
von Helmholtz, Rudolf Virchow, or Cécile and
Oscar Vogt in short documentary videos.
ISCBFM MEETINGS

The following ISCBFM meetings will be held:

**Saturday, April 1st**  12:30–16:00
ISCBFM Board meeting
Senatssaal
By invitation only

**Saturday, April 1st**  19:30–22:00
JCBFM Editorial board dinner
Châlet Suisse, Clayallee 99, 14195 Berlin
By invitation only

**Sunday, April 2nd**  12:30–13:30
ISCBFM General assembly
Max Kade Auditorium
For ISCBFM members

**Monday, April 3rd**  12:30–13:30
JCBFM Editorial board meeting
Senatssaal
By invitation only

**Tuesday, April 4th**  17:30–19:00
ISCBFM Board meeting
Senatssaal
By invitation only

SOCIAL EVENTS

**Welcome reception**
The Welcome reception will take place on Saturday, April 1st at 17:30 at the conference venue.

**Early Career Networking Evening**
Sunday, April 2nd at 20:30 at Ballhaus Berlin, Chausseestr. 102, 10115 Berlin (metro line U6, exit metro station “Naturkundemuseum”).
Built in 1905, this Berlin dance club has a long tradition and will deliver a unique style and atmosphere for the evening.

One of the Society’s goals is to enhance collaboration among its members. The Early Career Networking Evening will therefore feature a scientific speed dating competition. The most successful scientific networker will be awarded with the Early Career “Best Networking Prize”, kindly provided by Nikon.

**ISCBFM Banquet**
Monday, April 3rd at 20:00 at Wasserwerk Berlin, Hohenzollerndamm 208, 10713 Berlin (metro line U1 or U2, exit metro station “Hohenzollernplatz”; metro line U1, U2, U3, U9, exit metro station “Spichernstrasse”).
Enjoy the evening in the historic industrial architecture of the 100 year old pumping station with its extraordinary ambience created by a combination of tradition and modernity.
OFFICIAL BRAIN & BRAIN PET 2017 SATELLITES

We are pleased to announce that in addition to BRAIN & BRAIN PET 2017 there will be held several high quality satellite meetings:

7th International meeting on Cerebral Haemodynamic Regulation (CARNet meeting)
Organizer: Cerebral Autoregulation Research Network
Date: April 1st 2017
Location: Henry Ford Building
Freie Universität Berlin
Hörsaal A
Garystr. 35, 14195 Berlin

iCSD 2017 – International Conference on Spreading Depolarization
Organizer: Co-Operative Studies on Brain Injury Depolarization (COSBID)
Date: March 29th–31st 2017
Location: Berliner Medizinhistorisches Museum “Hörsaalruine”
Campus Charité Mitte
Charitéplatz 1, 10117 Berlin

Fortbildungsakademie Schlaganfall
7th Clinical Stroke Academy/ German Competence Network Stroke
Organizer: Kompetenznetz Schlaganfall & Centrum für Schlaganfallforschung Berlin
Date: April 1st 2017
Location: Kaiserin Friedrich-Haus
Robert-Koch-Platz 7, 10115 Berlin
### Scientific Program | Saturday, April 1st 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session Title</th>
<th>Chair(s)</th>
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</thead>
<tbody>
<tr>
<td>09:00</td>
<td>BC01</td>
<td>Stroke pre-clinical models: where are we? (Part 1)</td>
<td>M.J. Cipolla (United States) S. Cho (United States)</td>
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<td></td>
<td></td>
<td>“Grantcraft”: the art of writing a successful grant proposal? (Part 1)</td>
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<tr>
<td></td>
<td></td>
<td>BrainPET: Fundamental principles (Part 1)</td>
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<tr>
<td>10:00</td>
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<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>BC01</td>
<td>Stroke pre-clinical models: where are we? (Part 2)</td>
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<td>“Grantcraft”: the art of writing a successful grant proposal? (Part 2)</td>
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<tr>
<td></td>
<td></td>
<td>BrainPET: Fundamental principles (Part 2)</td>
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<tr>
<td>12:00</td>
<td></td>
<td>Lunch break</td>
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<tr>
<td>13:00</td>
<td></td>
<td>Understanding immune responses in cerebrovascular disease (Part 1)</td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>BC03</td>
<td>Cutting-edge technologies for multi-scale and multi-modal neuroimaging (Part 1)</td>
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<tr>
<td></td>
<td>BC04</td>
<td>BrainPET: Clinical applications (Part 1)</td>
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<tr>
<td>15:00</td>
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<td>Coffee break</td>
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<tr>
<td>16:00</td>
<td>BC03</td>
<td>Understanding immune responses in cerebrovascular disease (Part 2)</td>
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<tr>
<td></td>
<td>BC04</td>
<td>Cutting-edge technologies for multi-scale and multi-modal neuroimaging (Part 2)</td>
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<tr>
<td></td>
<td>BP02</td>
<td>BrainPET: Clinical applications (Part 2)</td>
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<tr>
<td>17:00</td>
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<td>Welcome reception</td>
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<td>(Exhibition &amp; Poster Area)</td>
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### SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017

#### BRAINPET: FUNDAMENTAL PRINCIPLES

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-09:10</td>
<td>BP01-1</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>09:10-09:50</td>
<td>BP01-2</td>
<td>PET physics: essentials of scanners, signal generation and image reconstruction</td>
<td>P. Vaska (United States)</td>
</tr>
<tr>
<td>09:50-10:30</td>
<td>BP01-3</td>
<td>Radioligand development: radiolabeling, tracer synthesis and tracer evaluation</td>
<td>J. Passchier (United Kingdom)</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td></td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:00-11:40</td>
<td>BP01-4</td>
<td>Quantification: theory and application of pharmacokinetics</td>
<td>R. Gunn (United Kingdom)</td>
</tr>
<tr>
<td>11:40-12:20</td>
<td>BP01-5</td>
<td>Multimodal techniques: hybrid PET-MR update</td>
<td>J. Price (United States)</td>
</tr>
<tr>
<td>12:20-12:30</td>
<td>BP01-6</td>
<td>Discussion</td>
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#### Understanding Immune Responses in Cerebrovascular Disease

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00-14:10</td>
<td>BC03-1</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>14:10-14:50</td>
<td>BC03-2</td>
<td>General overview and Inflammation as a therapeutic target and/or biological marker in stroke</td>
<td>S. Allan (United Kingdom)</td>
</tr>
<tr>
<td>14:50-15:30</td>
<td>BC03-3</td>
<td>Peripheral versus central inflammatory responses after stroke</td>
<td>A. Liesz (Germany)</td>
</tr>
<tr>
<td>15:30-16:00</td>
<td></td>
<td>Coffee break</td>
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</tbody>
</table>

#### Cutting-Edge Technologies for Multi-Scale and Multi-Modal Neuroimaging

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00-16:40</td>
<td>BC04-4</td>
<td>Multi-photon microscopy to study neuronal activity and vascular dynamics in awake animals</td>
<td>B. Stefanovic (Canada)</td>
</tr>
<tr>
<td>16:40-17:20</td>
<td>BC04-5</td>
<td>Quantitative neuroimaging with calibrated fMRI</td>
<td>F. Hyder (United States)</td>
</tr>
<tr>
<td>17:20-17:30</td>
<td>BC04-6</td>
<td>Discussion</td>
<td></td>
</tr>
</tbody>
</table>
SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017

14:00–17:30 BP02 HÖRSAAL D

BRAINPET: CLINICAL APPLICATIONS

Chair(s)  M. Slifstein (United States)
         S. Cervenka (Sweden)

14:00–14:10 BP02-1 Introduction
14:10–14:50 BP02-2 Neuroreceptor imaging: neurotransmission
              and receptor availability
              J. Hirvonen (Finland)
14:50–15:30 BP02-3 Neuroinflammation: targets, models and methods
              A. Lammertsma (Netherlands)
15:30–16:00 Coffee break
16:00–16:40 BP02-4 Neurodegeneration: targets, models and methods
              W. Kreisl (United States)
16:40–17:20 BP02-5 Drug development: microdosing, occupancy and treatment
              monitoring
              L. Farde (Sweden)
17:20–17:30 BP02-6 Discussion

17:30–19:00 EXHIBITION & POSTER AREA

WELCOME RECEPTION

Program for the 7th International Meeting on Cerebral Haemodynamic Regulation
(CARNet meeting) in association with BRAIN & BRAIN PET 2017

09:00–10:30 CA01 HÖRSAAL A

SESSION 1 – BASIC SCIENCE AND MODELING

09:00–09:10 CA01-1 Introduction to the 7th CARNet symposium
              J.A.H.R. Claassen (Netherlands)
09:10–09:40 CA01-2 Key lecture: The capillary bed offers the largest
              hemodynamic resistance to the cortical blood supply
              A. Linninger (United States)
09:40–09:52 CA01-3 Phase shift between oxygenated and deoxygenated
              brain blood hemoglobin is reduced after 8% CO2 inhalation:
              a pilot study in healthy volunteers
              M. Aries (Netherlands)
09:52–10:04 CA01-4 Cerebral blood flow and oxygen delivery changes in
              response to oxygen inhalation: Impact from the genetic
              adaptation at high altitude
              J. Liu (China)
09:52–10:04 CA01-4 Cerebral blood flow and oxygen delivery changes in
              response to oxygen inhalation: Impact from the genetic
              adaptation at high altitude
              J. Liu (China)
10:04–10:16 CA01-5 Transcranial doppler ultrasonography in the assessment
              of neurovascular coupling response to cognitive
              examination in healthy controls: a subcomponent analysis
              L. Beishon (United Kingdom)
10:16–10:28 CA01-6 Wavelet based pressure reactivity index, a validation study
              X.M. Liu (United Kingdom)
### SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017

<table>
<thead>
<tr>
<th>Time</th>
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<th>Session Title</th>
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</thead>
<tbody>
<tr>
<td>11:00–12:10</td>
<td>CA02</td>
<td>SESSION 2 – CLINICAL APPLICATION PART 1: CEREBRAL AUTOREGULATION IN CLINICAL CONDITIONS</td>
</tr>
<tr>
<td>11:00–11:20</td>
<td>CA02-1</td>
<td>Key lecture: Cerebral hemodynamics in relationship with cerebral amyloid load R. Zhang (United States)</td>
</tr>
<tr>
<td>11:20–11:30</td>
<td>CA02-2</td>
<td>Key lecture: Dynamic cerebral autoregulation in Alzheimer, MCI and controls J.A.H.R. Claassen (Netherlands)</td>
</tr>
<tr>
<td>11:30–11:43</td>
<td>CA02-3</td>
<td>Is cerebral autoregulation really independent of age? M. Czosnyka (United Kingdom)</td>
</tr>
<tr>
<td>11:43–11:56</td>
<td>CA02-4</td>
<td>Dynamic cerebral autoregulation: a marker of post-operative delirium? J. Caldas (Brazil)</td>
</tr>
<tr>
<td>11:56–12:09</td>
<td>CA02-5</td>
<td>Cholinergic enhancement with physostigmine does not affect cerebral autoregulation J. Serrador (United States)</td>
</tr>
<tr>
<td>12:10–12:30</td>
<td>CA03</td>
<td>SESSION 3 – PLENIARY E-POSTERS: 1 MINUTE-1 SLIDE-POSTER PITCHES</td>
</tr>
<tr>
<td>12:30–14:00</td>
<td>CA04</td>
<td>EXHIBITION &amp; POSTER AREA LUNCH AND POSTER-BOARD SESSION</td>
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</table>

<table>
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<th>Time</th>
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</thead>
<tbody>
<tr>
<td>14:00–14:30</td>
<td>CA05-1</td>
<td>Key lecture: Novel approaches to causes and consequences of cerebral small vessel disease G.J. Biessels (Netherlands)</td>
</tr>
<tr>
<td>14:30–14:42</td>
<td>CA05-2</td>
<td>The temporal profile of cerebral blood flow control in thrombolysis-eligible acute ischemic stroke patients: a prospective study R. Nogueira (Brazil)</td>
</tr>
<tr>
<td>14:42–14:54</td>
<td>CA05-3</td>
<td>Dynamic cerebral autoregulation in sepsis assessed by transcranial doppler: acute dysregulation influence in severity (MARCUS pilot study) D. De Azevedo (Brazil)</td>
</tr>
<tr>
<td>14:54–15:06</td>
<td>CA05-4</td>
<td>Early transient hyperemic response test to predict outcome after aneurysmal subarachnoid hemorrhage C. di Leoni (Brazil)</td>
</tr>
<tr>
<td>15:06–15:18</td>
<td>CA05-5</td>
<td>Determining cerebral hemisphere dominance following dominant and non-dominant passive arm manoeuvres O. Llwyd (United Kingdom)</td>
</tr>
<tr>
<td>15:18–15:30</td>
<td>CA05-6</td>
<td>Are we all the same? A comparison of cerebral autoregulation parameters between Brazilian and British individuals A. Salinet (Brazil)</td>
</tr>
</tbody>
</table>
SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017

16:00–17:30 CA06-HÖRSAAL A

SESSION 5 – BASIC SCIENCE 2: CEREBRAL BLOOD FLOW REGULATION – NEUROVASCULAR COUPLING

16:00–16:30 CA06-1 Key lecture: Conceptual shifts in cerebral blood flow regulation
M. Lauritzen (Denmark)

16:30–16:45 CA06-2 Fixed frequency and random frequency squat-stand manoeuvres as a method of assessing dynamic cerebral autoregulation
S. Barnes (United Kingdom)

16:45–17:00 CA06-3 Within and between subject differences in autoregulation at rest
D. Simpson (United Kingdom)

17:00–17:15 CA06-4 At what data length do cerebral autoregulation measures stabilize?
A. Mahdi (United Kingdom)

17:15–17:30 CA06-5 CARNet’s Bootstrap#3 project: what are the options?
R. Panerai (United Kingdom)

17:30–17:45 UPDATE AND BUSINESS MEETING – Q&A

17:45–19:00 EXHIBITION & POSTER AREA

WELCOME RECEPTION

Sunday, April 2nd
### SCIENTIFIC PROGRAM | SUNDAY, APRIL 2ND 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Max Kade Auditorium</th>
<th>Hörsaal A</th>
<th>Hörsaal B</th>
<th>Hörsaal C</th>
<th>Hörsaal D</th>
<th>Exhibition &amp; Poster Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Opening and Introduction and Lifetime Achievement Award</td>
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<tr>
<td>09:00</td>
<td>Tracking the molecular pathology of Alzheimer’s Disease with PET</td>
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<tr>
<td>10:00</td>
<td>Poster viewing session, coffee break &amp; exhibition</td>
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<tr>
<td>11:00</td>
<td>Poster viewing session I</td>
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<tr>
<td>12:00</td>
<td>Lunch break, exhibition &amp; poster viewing</td>
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<tr>
<td>13:00</td>
<td>Lunch break, exhibition &amp; poster viewing</td>
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<tr>
<td>14:00</td>
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<tr>
<td>15:00</td>
<td>Poster viewing session II</td>
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<td>16:00</td>
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<tr>
<td>18:00</td>
<td>Poster viewing session, coffee break &amp; exhibition</td>
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#### Max Kade Auditorium
- **08:00**: Opening and Introduction and Lifetime Achievement Award
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
- **13:00**: Lunch break, exhibition & poster viewing
- **14:00**: Poster viewing session, coffee break & exhibition
- **15:00**: Poster viewing session II
- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition

#### Hörsaal A
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
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- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition

#### Hörsaal B
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
- **13:00**: Lunch break, exhibition & poster viewing
- **14:00**: Poster viewing session, coffee break & exhibition
- **15:00**: Poster viewing session II
- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition

#### Hörsaal C
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
- **13:00**: Lunch break, exhibition & poster viewing
- **14:00**: Poster viewing session, coffee break & exhibition
- **15:00**: Poster viewing session II
- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition

#### Hörsaal D
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
- **13:00**: Lunch break, exhibition & poster viewing
- **14:00**: Poster viewing session, coffee break & exhibition
- **15:00**: Poster viewing session II
- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition

#### Exhibition & Poster Area
- **08:00**: Opening and Introduction and Lifetime Achievement Award
- **09:00**: Tracking the molecular pathology of Alzheimer’s Disease with PET
- **10:00**: Poster viewing session, coffee break & exhibition
- **11:00**: Poster viewing session I
- **12:00**: Lunch break, exhibition & poster viewing
- **13:00**: Lunch break, exhibition & poster viewing
- **14:00**: Poster viewing session, coffee break & exhibition
- **15:00**: Poster viewing session II
- **16:00**: Poster viewing session, coffee break & exhibition
- **17:00**: Poster viewing session, coffee break & exhibition
- **18:00**: Poster viewing session, coffee break & exhibition
BRAIN & BRAIN PET 2019
Yokohama Japan

Dates: July 4 – 7, 2019  Venue: PACIFICO YOKOHAMA

Easy Access to Yokohama from World Heritage and Metropolis

29th International Symposium on
Cerebral Blood Flow, Metabolism and Function
14th International Conference on
Quantification of Brain Function with PET

Conference Chairs
Hiroyuki Kinouchi and Hidehiko Okazawa

http://brain2019.jp
SCIENTIFIC PROGRAM | SUNDAY, APRIL 2ND 2017

11:00–12:30  SY01  HÖRSAAL A
FRONTIERS IN CNS DRUG DELIVERY

Chair(s)  C. Harms (Germany)
X. Hu (United States)

11:00–11:05  SY01-1  Introduction
11:05–11:25  SY01-2  Molecular Trojan horse technologies for CNS drugs
R. Boado (United States)
11:25–11:45  SY01-3  ICAM-1-mediated transport into and across endothelial barriers
S. Muro (United States)
11:45–12:05  SY01-4  Conquering the barriers – development of bi-specific antibodies to treat CNS diseases
D. Stanimirovic (Canada)
12:05–12:25  SY01-5  Neurovascular transporter mechanisms targeted for drug delivery
T. Davis (United States)
12:25–12:30  SY01-6  Discussion

SCIENTIFIC PROGRAM | SUNDAY, APRIL 2ND 2017

11:00–12:30  BS01  HÖRSAAL C
NEUROINFLAMMATION IN CEREBRAL ISCHEMIA 1

Chair(s)  A. Denes (Hungary)
N. Blondeau (France)

11:00–11:15  BS01-1  Triggering receptor expressed on myeloid cells 2 (TREM2) controls subacute injury resolution and myeloid cell reactivity after experimental stroke
A. Aliferi, B. McColl (United Kingdom)
11:15–11:30  BS01-2  Microglial control of post-ischemic neurogenesis
R. Wakasaki, I.P. Koerner (United States)
11:30–11:45  BS01-3  Double negative T lymphocytes from gld mice drive an M2-microglial polarization through FasL/TIAL1/IL-4 pathway in experimental stroke
H. Meng, L. Weng, D. He, Y. Chen, L. Han, Y. Xu (China)
11:45–12:00  BS01-4  Interleukin-1 contributes to neuronal injury via cell-specific IL-1 type 1 receptor-mediated actions after cerebral ischemia
N. Lénárt, R. Wong, B. Martinez, G. Coutts, A. Waisman, W. Muller, S. Allen, E. Pinteaux, A. Denes (Hungary)
12:00–12:15  BS01-5  CCL23: a new chemokine present in brain after cerebral ischemia might play a role as a blood biomarker for brain damage and stroke outcome
A. Simats, T. García-Berrocoso, G. Llovera, A. Penalba, D. Giralt, A. Bustamante, E. Martinez-Saez, A. Rosell, A. Liesz, J. Montaner (Spain)
12:15–12:30  BS01-6  Perivascular macrophages attract neutrophils to the brain after ischemia
J. Pedragosa, A. Salas-Pérdomo, M. Gallizioli, R. Cugota, F. Briansó, F. Pérez-Asensio, A. Gieryng, B. Kaminska, F. Miró-Mur, A.M. Planas (Spain)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Title</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00–11:15</td>
<td>BPS01-1</td>
<td>HÖRSAAL D</td>
<td>BRAINPET: NOVEL RADIOTRACERS</td>
<td>H. Tsukada (Japan), T.A. Pascoal (Canada)</td>
</tr>
<tr>
<td>11:15–11:30</td>
<td>BPS01-2</td>
<td>HÖRSAAL D</td>
<td>Novel PET radioligands show that COX-1 is constitutively expressed and that COX-2 is induced by inflammation in rhesus macaque</td>
<td>S. Shrestha (United States)</td>
</tr>
<tr>
<td>11:45–12:00</td>
<td>BPS01-4</td>
<td>HÖRSAAL D</td>
<td>First-in-human evaluation of a novel agonist radiotracer for PET imaging of the kappa opioid receptor</td>
<td>Y. Huang, M. Naganawa, N. Nabulsli, S. Li, S.-F. Lin, D. Labaree, J. Ropchan, H. Gao, A. Shirali, R. Carson, D. Matuskey (United States)</td>
</tr>
<tr>
<td>12:30–13:30</td>
<td></td>
<td>MAX KADE</td>
<td>ISCBFM GENERAL ASSEMBLY</td>
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<tr>
<td>13:00–13:15</td>
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<td>MAX KADE POSTER SESSION</td>
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<td>13:30–13:45</td>
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<td>MAX KADE</td>
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<td>14:45–15:00</td>
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<td>MAX KADE</td>
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SCIENTIFIC PROGRAM | SUNDAY, APRIL 2ND 2017

**13:30–15:00** BS02 HÖRSAAL C

**IMAGING METHODS**

**Chair(s)** M.-A. Franceschini (United States)
X. Golay (United Kingdom)

**13:30–13:45** BS02-1 Generalized vessel filter for detecting vessels in medical images
C.-Y. Hsu, B. Schneller, N. Narasimhan Sriram, A. Linninger (United States)

**13:45–14:00** BS02-2 Influence of relative cerebral blood volume on oxygenation-sensitive T2’ and R2’ mapping in acute ischemic stroke
A. Seiler, R. Deichmann, U. Nöth, W. Pfeilschifter, J. Berkefeld, O.C. Singer, M. Wagner (Germany)

**14:00–14:15** BS02-3 Near-infrared spectroscopy measured vascular reactivity and blood flow autoregulation during intracranial pressure changes
A. Ruesch, M.A. Smith, G. Wollstein, I.A. Sigal, S. Nelson, J.M. Kainerstorfer (United States)

**14:15–14:30** BS02-4 Non-invasive functional neuroimaging in mice using structured illumination diffuse optical tomography
M. Reisman, Z. Markow, A. Bauer, J. Culver (United States)

**14:30–14:45** BS02-5 Stimulus-evoked activations are a subset of resting-state networks: Comparison between fMRI and optical imaging in the rat olfactory bulb
G.J. Thompson, K. Baker, J.V. Verhagen, B.G. Sanganahalli, G.M. Shepherd, F. Hyder (United States)

**14:45–15:00** BS02-6 Repeated longitudinal in vivo imaging of cortical microglia under chronic hypoxia in the mice using two-photon microscopy with a closed cranial window technique

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**13:30–15:00** SY03 HÖRSAAL D

**PET IMAGING IN ADDICTIVE DISORDERS: IS THERE LIFE BEYOND DOPAMINE?**

**Chair(s)** D. Martinez (United States)

**13:30–13:35** SY03-1 Introduction

**13:35–13:55** SY03-2 PET imaging of the kappa opioid receptor/dynorphin system in cocaine abuse
D. Martinez (United States)

**13:55–14:15** SY03-3 Imaging endocannabinoid metabolism in alcohol, alcohol-risk and cannabis use disorders
I. Boileau (Canada)

**14:15–14:35** SY03-4 Imaging inflammation in addictive disorders
K. Cosgrove (United States)

**14:35–14:55** SY03-5 Imaging nociceptive opioid peptide receptors in addictive disorders
R. Narendran (United States)

**14:55–15:00** SY03-6 Discussion

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**15:00–16:00** PS02 EXHIBITION & POSTER AREA

**POSTER VIEWING SESSION II, COFFEE BREAK & EXHIBITION**
### SCIENTIFIC PROGRAM | SUNDAY, APRIL 2ND 2017

#### NEUROVASCULAR COUPLING

**16:00–17:30 BS03 HÖRSAAL A**

**NEUROVASCULAR COUPLING**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00–16:15 BS03-1</td>
<td>Extensive 3D vascular mapping points to a lack of spatial compartmentalization around neuronal units of the lemniscal pathway</td>
<td>J. Mitiagin, D. Kain, H. Jang, P. Blinder (Israel)</td>
<td></td>
</tr>
<tr>
<td>16:15–16:30 BS03-2</td>
<td>Depths-dependent flow and pressure characteristics in cortical microvascular networks</td>
<td>F. Schmid, P. Jenny, B. Weber (Switzerland)</td>
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</tr>
<tr>
<td>16:30–16:45 BS03-3</td>
<td>Two-photon microscopy measurement of cortical functional activation in awake mice</td>
<td>I. Sencan, T. Esipova, K. Kilic, B. Li, M. Desjardins, M.A. Yaseen, H. Wang, R. Jaswal, S. Kura, B. Fu, D.A. Boas, A. Devor, S.A. Vinogradov, S. Sakadzic (United States)</td>
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</tr>
<tr>
<td>16:45–17:00 BS03-4</td>
<td>Assessing the neural and the hemodynamic resting-state functional connectivity in case of neurovascular uncoupling</td>
<td>B. Li, Q. Huang, J. Lu, P. Li (China)</td>
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</tr>
<tr>
<td>17:00–17:15 BS03-5</td>
<td>Optogenetic activation of noradrenergic neurons in the locus coeruleus modulates cortical neurovascular coupling responses</td>
<td>C. Lecrux, Z. Yao, E. Mitchell, A.R. Lim, A. Adamantidis, A. Shmuel, E. Hamel (Canada)</td>
<td></td>
</tr>
<tr>
<td>17:15–17:30 BS03-6</td>
<td>Optogenetic dissection of inhibitory neuron activity contributions to vascular regulation</td>
<td>A.L. Vazquez, M. Fukuda, S.-G. Kim (United States)</td>
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#### THERAPY & NEUROPROTECTION

**16:00–17:30 BS04 HÖRSAAL C**

**THERAPY & NEUROPROTECTION**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</tr>
</thead>
<tbody>
<tr>
<td>16:00–16:15 BS04-1</td>
<td>A novel preventive therapy for paclitaxel-induced cognitive deficits – preclinical evidence</td>
<td>W. Boehmerle, P. Huehnchen, A. Springer, D. Freyer, M. Endres (Germany)</td>
<td></td>
</tr>
<tr>
<td>16:15–16:30 BS04-2</td>
<td>Neuroprotective efficacy of poly-arginine-18 (R18) peptides using an in vivo model of perinatal hypoxic ischaemic encephalopathy (HIE)</td>
<td>A. Edwards, K. Feindel, J. Cross, R. Anderton, V. Clark, N. Knuckey, B. Meloni (Australia)</td>
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<tr>
<td>16:30–16:45 BS04-3</td>
<td>Co-administration of nanowired mesenchymal stem cells and cerebrolysin potentiates neuroprotection in Parkinson’s disease following mild traumatic brain injury</td>
<td>A. Sharma, D.F. Muresanu, H.S. Sharma (Sweden)</td>
<td></td>
</tr>
<tr>
<td>16:45–17:00 BS04-4</td>
<td>ACE2 activity is required to sustain serotonin levels and mediates exercise-induced adult neurogenesis</td>
<td>F. Klempin, M. Bader, R. Santos, N. Alenina (Germany)</td>
<td></td>
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<tr>
<td>17:00–17:15 BS04-5</td>
<td>A novel strategy of neuroprotection tailored to improve ischemic stroke outcome in aged brains</td>
<td>W. Paschen, W. Yang (United States)</td>
<td></td>
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<tr>
<td>17:15–17:30 BS04-6</td>
<td>Soluble epoxide hydrolase inhibition decreases reperfusion injury after focal cerebral ischemia in rat</td>
<td>R. Tu, J. Armstrong, K.S.S. Lee, B. Hammock, R. Koehler (United States)</td>
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<td>SY04</td>
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<td></td>
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<td>INTEGRATED PET/MRI – NEW GENERATION</td>
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<td>TRANSLATIONAL BRAIN IMAGING</td>
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<td>16:00–16:05</td>
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<td>Introduction</td>
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<td>16:05–16:25</td>
<td>SY04-2</td>
<td>Basics and essential needs in integrated</td>
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<td>brain PET/MRI H. Iida (Japan)</td>
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<td>16:25–16:45</td>
<td>SY04-3</td>
<td>Preclinical applications of brain PET/MRI</td>
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<td>W. Deuther-Conrad (Germany)</td>
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<td>16:45–17:05</td>
<td>SY04-4</td>
<td>Clinical routine applications of integrated</td>
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<td>brain PET/MRI H. Barthel (Germany)</td>
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<td>17:05–17:25</td>
<td>SY04-5</td>
<td>Functional brain mapping of neuroreceptors</td>
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<td>using PET and fMRI C.Y. Sander (United States)</td>
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<td>17:25–17:30</td>
<td>SY04-6</td>
<td>Discussion</td>
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<td>17:30–19:00</td>
<td>SY05</td>
<td>HÖRSAAL A</td>
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<td>NEURONAL MODULATION AND IN VIVO IMAGING –</td>
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<td>TOOLS TO DISSECT THE LIVING BRAIN</td>
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<td>17:30–17:35</td>
<td>SY05-1</td>
<td>Introduction</td>
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<td>17:35–17:55</td>
<td>SY05-2</td>
<td>Tools to dissect the living brain</td>
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<td>M. Palner (Denmark)</td>
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<td>17:55–18:15</td>
<td>SY05-3</td>
<td>Development of transgenic marmosets</td>
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<td>expressing genetically encoded calcium</td>
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<td>indicators A.C. Silva (United States)</td>
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<td>18:15–18:35</td>
<td>SY05-4</td>
<td>PET imaging-guided chemogenetic modification</td>
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<td>of reward-related circuits in monkeys</td>
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<td>T. Minamimoto (Japan)</td>
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<td>18:35–18:55</td>
<td>SY05-5</td>
<td>DREAMM: Biobehavioral imaging for dynamic</td>
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<td>in vivo whole-brain mapping of cell type-</td>
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<td>specific functional networks</td>
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<td>M. Michaelides (United States)</td>
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<td>18:55–19:00</td>
<td>SY05-6</td>
<td>Discussion</td>
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<td>17:30–19:00</td>
<td>BS05</td>
<td>HÖRSAAL C</td>
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<td></td>
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<td>BLOOD BRAIN BARRIER</td>
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<td>17:30–17:45</td>
<td>BS05-1</td>
<td>Chair(s) A.-L. Lin (United States)</td>
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<td>L. Belayev (United States)</td>
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<td>17:45–18:00</td>
<td>BS05-2</td>
<td>GLP-1 analog raises glucose transport capacity</td>
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<td>of blood-brain barrier in Alzheimer’s disease</td>
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<td>M. Gejl, B. Brock, L. Egefjord, J. Rungby,</td>
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<td>A. Gjedde (Denmark)</td>
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<td>18:00–18:15</td>
<td>BS05-3</td>
<td>Paracellular mechanisms may contribute to</td>
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<td>early blood-brain barrier leakage after</td>
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<td>cerebral ischemia and reperfusion</td>
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<td>X. Jiang, L. Zhang, Y. Shi, L. Zhu, R. Leak,</td>
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<td>R. Keep, M. Bennett, J. Chen (China, United States)</td>
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<td>18:15–18:30</td>
<td>BS05-4</td>
<td>Zinc contributes to acute cerebral ischemia-</td>
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<td>induced blood-brain barrier disruption</td>
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<td>Z. Qi, K.J. Liu (China, United States)</td>
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<td>18:30–18:45</td>
<td>BS05-5</td>
<td>Identification of two phosphorylation sites</td>
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<td>essential for Annexin A1 in blood-brain</td>
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<td>barrier protection after experimental</td>
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<td>intracerebral hemorrhage in rats</td>
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<td>Z. Chen, Z. Wang, G. Chen (China)</td>
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<td>18:45–19:00</td>
<td>BS05-6</td>
<td>New non-invasive and reproducible method of</td>
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<td>reversible opening of blood brain barrier</td>
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<td>for novel pharmacological strategy of</td>
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<td>treatment of central nervous system diseases</td>
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<td>O. Semyachkina-Glushkovskaya, A. Salmina,</td>
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<td>E. Vodovozova, A. Shirakov, D. Bragin, A.</td>
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<td>Gekalyuk, M. Ulanova, V. Fedorova, E.</td>
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<td>Saranceva, D. Zhu, C. Zhang, R. Shi, V.</td>
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<td>Tuchin, A. Morgun, A. Alexeeva, J. Kurths</td>
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<td>(Russian Federation)</td>
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17:30–19:00  BPS02  HÖRSAAL D

**BRAINPET: NEUROTRANSMITTER SYSTEMS**

Chair(s) D. Doudet (Canada)  
G. Rizzo (Italy)

17:30–17:45  BPS02-1  In vivo dopamine imaging using [11C]raclopride positron emission tomography in a chemogenetic mouse model  
A.L. Cremer, R. Lippert, H. Backes (Germany)

17:45–18:00  BPS02-2  Open-Field-PET: Reproducibility of detecting transient changes in D2/D3 receptor occupancy during drug competition studies on freely moving animals  

18:00–18:15  BPS02-3  Simultaneous PET/MRI depicts changes in serotonin transporters, glucose metabolism and multimodal brain connectivity patterns after pharmacological stimulation  
M. Amend, T. Watabe, A. Thielcke, R. Stumm, J. Hatazawa, B. Pichler, H. Wehrf (Germany)

18:15–18:30  BPS02-4  Low 5-HT1B receptor binding in the migraine brain: A PET study  

18:30–18:45  BPS02-5  Individual waking EEG power is negatively related to adenosine receptor density measured with PET  
D. Elmenhorst, E. Hennecke, E.-M. Elmenhorst, T. Kroll, D. Aeschbach, A. Bauer (Germany)

18:45–19:00  BPS02-6  Endogenous mu-opioid receptor system mediates anticipatory reward processing in humans: A combined PET-fMRI study  
L. Nummenmaa, T. Saanijoki, J. Tuulari, L. Tuominen, J. Hirvonen, P. Nuutila, K. Kalliokoski (Finland)

20:30  BALLHAUS BERLIN

**EARLY CAREER NETWORKING EVENING**
### Scientific Program | Monday, April 3rd 2017

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| 08:00 | **Hörsaal A** | Plasticity & recovery
| 08:00 | **Hörsaal C** | Neurological diseases
| 08:00 | **Hörsaal D** | BrainPET: Quantification
| 09:00 | **PS03** | Poster viewing session III
| 10:00 | **SP01** | Whole brain mapping of neuronal circuits by optogenetic fMRI
| 12:00 | **SP04** | Mechanisms of cerebral ischemia
| 12:00 | **SP05** | BrainPET: Dementia
| 13:00 | Lunch break, exhibition & poster viewing |
| 14:00 | **SP06** | New horizons in neurovascular dysfunction in aging
| 14:00 | **SP07** | Hemorrhage
| 14:00 | **SP08** | BrainPET: Neurology
| 15:00 | **SP09** | Poster viewing session, coffee break & exhibition
| 16:00 | **SP10** | In vivo Veritas: a tribute to Louis Sokoloff. Use of quantitative biochemical techniques to explore roles of lactate in vivo
| 16:00 | **SP10** | Cerebral ischemia: clinical
| 17:00 | **SP11** | BrainPET: Psychiatry
| 18:00 | **JCBFM Symposium** | highlights from the Journal of Cerebral Blood Flow and Metabolism
<p>| 20:00 | ISCBFM Banquet (Wasserwerk Berlin) |</p>
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<tr>
<td>08:00-09:30</td>
<td>BS07</td>
<td>HÖRSAAL C</td>
<td><strong>NEUROLOGICAL DISEASES</strong>&lt;br&gt;Chair(s): V. Galvan (United States), G.A.F. van Tilborg (Netherlands)</td>
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<td>08:00-08:15</td>
<td>BS07-1</td>
<td></td>
<td>Cerebrovascular consequences of raised intracranial pressure&lt;br&gt;M. Czosnyka, J. Donnelly, P. Smielewski, A. Lavinio, P.J. Hutchinson (United Kingdom)</td>
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<td>08:15-08:30</td>
<td>BS07-2</td>
<td></td>
<td>A novel mouse surgical model for moyamoya&lt;br&gt;J. Roberts, M. Maniskas, G. Bix, J. Fraser (United States)</td>
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<td>08:30-08:45</td>
<td>BS07-3</td>
<td></td>
<td>The effect of diet-induced vitamin D deficiency on acute post-stroke outcome&lt;br&gt;M. Evans, H.A. Kim, T.M. De Silva, G.R. Drummond, G.R. Zosky, B.R.S. Broughton, C.G. Sobey (Australia)</td>
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<td>08:45-09:00</td>
<td>BS07-4</td>
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<td>Global changes in white matter structure following focal photothrombotic stroke to the sensorimotor cortex&lt;br&gt;A.E. Meerwaldt, G.A.F. van Tilborg, C. van Heijningen, A. van der Toorn, R.M. Dijkhuizen (Netherlands)</td>
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<td>09:00-09:15</td>
<td>BS07-5</td>
<td></td>
<td>Detection of radiologic and laboratory features of cerebral amyloid angiopathy in patients with Alzheimer’s disease&lt;br&gt;P. Fotiadis, J. Becker, K. Schwab, J. Rosand, A. Viswanathan, R. Sperling, K. Johnson, S. Greenberg, E. Gurol (United States)</td>
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<td>09:15-09:30</td>
<td>BS07-6</td>
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<td>Graph theoretical heat kernel signatures of structural connectivity are altered in comatose cardiac arrest patients&lt;br&gt;M.D. Schirmer, E.S. Rosenthal, A.W. Chung, G. Cudemus-Deseda, B.M. Mills, M. Villien, B.L. Edlow, J.T. Giacino, J.L. Januzzi, M.M. Ning, W.T. Kimberly, W.A. Copen, P.W. Schaefer, N.S. Rost, D.M. Greer, O. Wu (United States)</td>
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<td>08:00-09:30</td>
<td>BPS03</td>
<td>HÖRSAAL D</td>
<td><strong>BRAINPET: QUANTIFICATION</strong>&lt;br&gt;Chair(s): Q. Guo (United States), J. Price (United States)</td>
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<td>08:00-08:15</td>
<td>BPS03-1</td>
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<td>[18F] ASEM PET imaging of the alpha 7 nicotinic cholinergic receptor: test retest and sex differences&lt;br&gt;D.F. Wong, H. Kuwabara, J. Roberts, J. Brasic, C. Mishra, K. Kitzmiller, M. McDonald, L. Gaspin, A. Nandi, G. Wand, A. Gjedde, A. Horti (Denmark)</td>
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<td>08:15-08:30</td>
<td>BPS03-2</td>
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<td>An automated algorithm to quantify amyloid load&lt;br&gt;A. Whittington, D.J. Sharp, R.N. Gunn (United Kingdom)</td>
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<td>08:30-08:45</td>
<td>BPS03-3</td>
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<td>Validation of an image-derived input function method for 15O-water PET/MR brain scans&lt;br&gt;M. Lubberink, M.M. Khalighi, L. Appel, M. Engström, G. Antoni, G. Zaharchuk (Sweden)</td>
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<td>08:45-09:00</td>
<td>BPS03-4</td>
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<td>Comparison of oxygen-15-water and arterial spin labeling measures of cerebral blood flow in healthy subjects and patients with cerebrovascular disease using TOF-enabled simultaneous PET/MRI&lt;br&gt;A.P. Fan, P. Gulaka, M.M. Khalighi, J. Guo, D. Holley, H. Gandhi, B. Shen, P. Singh, J. Park, F.T. Chen, G. Zaharchuk (United States)</td>
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<td>09:00-09:15</td>
<td>BPS03-5</td>
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<td>Modelling TSPO brain PET data including endothelial binding: considerations on tracer affinities&lt;br&gt;G. Rizzo, M. Veronese, C. Wimberley, S. Lavissee, M. Bottlaender, P. Bloomfield, O. Howes, F.E. Turkheimer, A. Bertoldo (Italy)</td>
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<td>09:30-11:00</td>
<td>PS03</td>
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<td><strong>EXHIBITION &amp; POSTER AREA</strong>&lt;br&gt;<strong>POSTER VIEWING SESSION III, COFFEE BREAK &amp; EXHIBITION</strong></td>
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<td>11:00–12:30</td>
<td>HÖRSAAL A</td>
<td>SY06</td>
<td>WHOLE BRAIN MAPPING OF NEURAL CIRCUITS BY OPTOGENETIC FMRI</td>
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<td>Chair(s)</td>
<td>Y.-Y.I. Shih (United States)</td>
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<tr>
<td>11:00–11:05</td>
<td>SY06-1</td>
<td>Introduction</td>
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<td>11:05–11:25</td>
<td>SY06-2</td>
<td>Optogenetic dissection of fMRI signals Y.-Y.I. Shih (United States)</td>
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<td>11:25–11:45</td>
<td>SY06-3</td>
<td>Optogenetic fMRI and the investigation of global brain circuit mechanisms J.H. Lee (United States)</td>
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<td>11:45–12:05</td>
<td>SY06-4</td>
<td>MRI-guided robotic-driven optogenetic fMRI and simultaneous calcium recordings X. Yu (Germany)</td>
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<td>12:05–12:25</td>
<td>SY06-5</td>
<td>Considerations for opto-fMRI studies: cortical processing and selectivity A.L. Vazquez (United States)</td>
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<td>12:25–12:30</td>
<td>SY06-6</td>
<td>Discussion</td>
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### BS08 HÖRSAAL C

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<td>11:00–12:30</td>
<td>BS08</td>
<td>HÖRSAAL C</td>
<td>MECHANISMS OF CEREBRAL ISCHEMIA</td>
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<td>Chair(s)</td>
<td>S. Cho (United States)</td>
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<td>B. Rodriguez-Grande (France)</td>
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<tr>
<td>11:00–11:15</td>
<td>BS08-1</td>
<td>Contralesional cortical atrophy and molecular cortical circuit reorganization after cerebral ischemia F. Hellal, B. Groschup, S. Valero-Freitag, A. Lourbopoulos, U. Mamrak, M. Dichtgans, N. Plesnila (Germany)</td>
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<td>11:15–11:30</td>
<td>BS08-2</td>
<td>Delayed treatment with omega-3 polyunsaturated fatty acids can still promote long-term neurovascular restoration, white matter integrity, and behavioral recovery after ischemic stroke H. Pu, X. Jiang, Y. Shi, Z. Wei, Y. Gao, R.K. Leak, X. Hu, J. Chen (United States)</td>
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<td>11:30–11:45</td>
<td>BS08-3</td>
<td>DNA hydroxymethylation following focal ischemia K. Morris-Blanco, R. Vemuganti (United States)</td>
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<tr>
<td>11:45–12:00</td>
<td>BS08-4</td>
<td>The hypoxosome in neuronal resilience and cell death in stroke T. Arumugam, D.-G. Jo (Singapore)</td>
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<td>12:00–12:15</td>
<td>BS08-5</td>
<td>Inhibition of Mas receptor worsens stroke outcome in a comorbid rat model E. Reid, M. Arroja, W. Holmes, L. Work, S. Nicklin, C. McCabe (United Kingdom)</td>
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<tr>
<td>12:15–12:30</td>
<td>BS08-6</td>
<td>Neuronal Sirt1 mediates resveratrol preconditioning-induced ischemic tolerance by regulating glycolytic function K. Koronowski, I. Saul, N. El Khoury, Z. Balmuth-Loris, M. Perez-Pinzon (United States)</td>
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BRAINPET: DEMENTIA

Chair(s) A. Hahn (Austria)
G. Moos Knudsen (Denmark)

Antibody-based PET radioligands for imaging of amyloid-beta protofibrils

Investigation of the selectivity of tau PET radioligand THK5351 in vitro and in vivo

Optimization of specific binding quantification using dynamic and static PET acquisition and comparison of 18F-THK-5317 and 18F-THK-5351
T. Betthauser, P. Lao, D. Murati, T. Barnhart, S. Furumoto, N. Okamura, C. Stone, S. Johnson, B. Christian (United States)

Selegiline reduces brain [18F]THK5351 uptake

PET tau and amyloid levels in default mode network synergistically determine clinical status in preclinical stages of Alzheimer’s disease
T.A. Pascoal, S. Mathotaarachchi, M. Shin, M.S. Kang, K.P. Ng, J.-P. Soucy, S. Gauthier, P. Rosa-Neto (Canada)

Amyloid-β plaque accumulation and glucose hypometabolism in non-demented adults with Down syndrome demonstrate pattern of association observed in Alzheimer’s disease
SCIENTIFIC PROGRAM | MONDAY, APRIL 3RD 2017

13:30–15:00 BS09 HÖRSAAL C

HEMORRAGE

Chair(s) H. Kinouchi (Japan)
J. Zhang (United States)

13:30–13:45 BS09-1 Hemispheric and regional asymmetries of early cortical blood flow changes following subarachnoid haemorrhage in mice: Further support for acute vasoconstriction?
T. Hidayatov, S. Hanaloglu, A.I. Isikay, M. Mut Askun (Turkey, Azerbaijan)

13:45–14:00 BS09-2 Subarachnoid blood acutely induces spreading depolarizations and early cortical infarction in the human and swine brain
J. Hartings, J. York, J. Hinzman, B. Krueger, M. Winkler, S. Major, V. Horst, P. Jahnke, J. Woitzik, E. Mahoney, Y. Du, M. Hagen, J. Dreier (Germany)

14:00–14:15 BS09-3 Astrocyte associated tissue factor (coagulation factor III) limits subarachnoid hemorrhage and regulates cerebrospinal fluid flow
E. Golanov, E. Bovshik, G. Britz (United States)

14:15–14:30 BS09-4 Osteopontin attenuates changes in cerebrovascular structure-function relations induced by subarachnoid hemorrhage in rat brain
W. Pearce, K. Dahlim, C. Doan, D. Carreon, E. Budbazar, J. Tang, A. Obenaus, J. Zhang (United States)

14:30–14:45 BS09-5 Sanguinate™ (PEGylated-carboxyhemoglobin-bovine) improves cerebral blood flow and oxygen extraction to vulnerable brain regions in patients at risk for delayed cerebral ischemia after subarachnoid hemorrhage
R. Dhar, H. Misra, M. Diringer (United States)

14:45–15:00 BS09-6 S-ketamine reduces the incidence and modifies the characteristics of spreading depolarization in patients with aneurysmal subarachnoid hemorrhage and in gyrencephalic swine models
E. Santos, A. Olivares Rivera, S. Major, R. Sánchez-Porras, M. Kentar, A.W. Unterberg, O.W. Sakowitz, J.P. Dreier (Germany)
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<th>15:00–16:00</th>
<th>PS04</th>
<th>EXHIBITION &amp; POSTER AREA</th>
<th>POSTER VIEWING SESSION IV, COFFEE BREAK &amp; EXHIBITION</th>
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<tr>
<td>16:00–17:30</td>
<td>SY08</td>
<td>HÖRSAAL A</td>
<td>IN VIVO VERITAS: A TRIBUTE TO LOUIS SOKOLOFF. USE OF QUANTITATIVE BIOCHEMICAL TECHNIQUES TO EXPLORE ROLES OF LACTATE IN VIVO</td>
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<tr>
<td>Chair(s)</td>
<td>F. Hyder (United States)</td>
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<tr>
<td>16:00–16:05</td>
<td>SY08-1</td>
<td>Introduction</td>
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<td>16:05–16:25</td>
<td>SY08-2</td>
<td>Aerobic glycolysis in resting brain: Quantitative analysis of oxygen-glucose indices as functions of age in humans A. Gjedde (Denmark)</td>
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<tr>
<td>16:25–16:45</td>
<td>SY08-3</td>
<td>Aerobic glycolysis in activated brain: Catecholamines, astrocytes, and lactate efflux G. Dienel (United States)</td>
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<td>16:45–17:05</td>
<td>SY08-4</td>
<td>Lactate shuttling: Modeling and measuring astrocyte neuron interactions D. Rothman (United States)</td>
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<td>17:05–17:25</td>
<td>SY08-5</td>
<td>Bedside evaluation of cerebral energy status and lactate supplementation after brain injury C.-H. Nordström (Denmark)</td>
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<td>17:25–17:30</td>
<td>SY08-6</td>
<td>Discussion</td>
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### SCIENTIFIC PROGRAM | MONDAY, APRIL 3RD 2017

| 16:00–17:30 | BS10 | HÖRSAAL C | CEREBRAL ISCHEMIA: CLINICAL |
| Chair(s) | J. Roberts (United States) | K. Abe (Japan) |
| 16:30–16:45 | BS10-3 | Biological age is a better predictor of 3-months outcome than chronological age in ischemic stroke patients C. Soriano-Tarraga, E. Giralt-Steinhauer, M. Mola-Caminal, A. Rodriguez-Campello, R.M. Vivanco-Hidalgo, E. Cuadrado-Godia, A. Ois, I. Fernandez-Cadenas, J. Jimenez-Conde, J. Roquer (Spain) |
| 17:00–17:15 | BS10-5 | Baseline haemodynamic and optical properties of the newborn brain and the reproducibility of the measurements: a preliminary report from the BabyLux project M. Giovannella, B. Andresen, A. de Carli, V. Chamizo, M. Pagliazzi, M. Rehberger, D. Contini, A. Pifferi, L. Spinelli, R. Donat, R. Erdmann, M. Fumagalli, G. Greisen, U.M. Weigel, T. Durduran, A. Torricelli (Spain) |
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17:15–17:30  BS10-6  Continuous monitoring of cerebral hemodynamics during disrupted cerebral auto-regulation in extracorporeal membrane oxygenation therapy

16:00–17:30  BPS06  HÖRSAAL D  BRAINPET: PSYCHIATRY
Chair(s) S. Golla (Netherlands)
D. Martinez (United States)

16:00–16:15  BPS06-1  Evaluation of the effect of glucocorticoids on TSPO expression in nonhuman primate brain using positron emission tomography

16:15–16:30  BPS06-2  Spatially coupled abnormalities in striatal dopamine density and functional connectivity in depression using simultaneous PET/MRI
T. Hjørnevik, J.P. Hamilton, M.D. Sacchet, B. Knutson, D. Holley, B. Shen, M. Khalighi, F.T. Chin, G.H. Glover, G. Zaharchuk, I.H. Gottlieb (Norway, United States)

16:30–16:45  BPS06-3  Association between cortical thickness and MAO-A binding in subjects suffering from seasonal affective disorder

16:45–17:00  BPS06-4  Inverse relationship between central serotonin and noradrenaline transporter availability in humans with high BMI range – a potential biological mechanism in obesity
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17:00-17:15  BPS06-5  Prenatal stressors alter neuroadaptation of the 5-HT1A serotonergic system following fixed-dose ethanol exposure in non-human primates
P. Lao, T. Betthauser, D. Tudorascu, A. Hillmer, T. Barnhart, J. Larson, C. Moore, M. Schneider, B. Christian (United States)

17:15-17:30  BPS06-6  Comparing m-opioid receptor availability and opioid/β-endorphin release between individuals with gambling disorder, alcohol dependence and healthy volunteers using [11C]carfentanil PET and dexamphetamine challenge
S. Turton, I. Mick, J. Myers, A. Colasanti, H. Bowden-Jones, L. Clark, E.A. Rabiner, R.N. Gunn, D.J. Nutt, A. Lingford-Hughes (United Kingdom)

17:40-18:40  JSY  HÖRSAAL A
JCBFM SYMPOSIUM: HIGHLIGHTS FROM THE JOURNAL OF CEREBRAL BLOOD FLOW AND METABOLISM
Chair(s) M. Macrae (United Kingdom)
M. Lauritzen (Denmark)

17:40-17:55  JH-1  Diet-induced metabolic syndrome influences brain functions: A molecular and genomic insight
R. Agrawal (United States)

17:55-18:10  JH-2  Aging alters the dampening of pulsatile blood flow in cerebral arteries
L. Zarrinkoob (Sweden)

18:10-18:25  JH-3  Accelerated pericyte degeneration and blood-brain barrier breakdown in apolipoprotein E4 carriers with Alzheimer’s disease
M. Halliday (United States)

18:25-18:40  JH-4  T cell-driven “thrombo-inflammation” in experimental stroke
M.K. Schuhmann (Germany)

20:00  WASSERWERK BERLIN
ISCBFM BANQUET
SCIENTIFIC PROGRAM | TUESDAY, APRIL 4TH 2017

Max Kade Auditorium  | Hörsaal A  | Hörsaal C  | Hörsaal D  | Exhibition 
& Poster Area

08:00  | NLA  | The Niels Lassen Award session

09:00  | PL  | Improving research quality: how stroke has led the world (and what we need to do to stay ahead)

10:00  | PS05  | Poster viewing session, coffee break & exhibition

11:00  | SY09  | Emerging methods for quantitative imaging of brain physiopathology
       | BS11  | Brain immune interaction
       | BS12  | Trauma

12:00  | Lunch break, exhibition & poster viewing

13:00  | SY10  | Microglia and brain ischemia
       | BS13  | Degeneration and aging
       | BS14  | Brain energy metabolism

15:00  | Poster viewing session, coffee break & exhibition

16:00  | SY11  | Intra-arterial route of stem cell delivery to the brain proclinical and clinical data
       | BS15  | Neuroinflammation in cerebral ischemia 2
       | BS16  | Imaging applications

17:00  | 

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08:00–09:00  | NLA  | MAX KADE AUDITORIUM

THE NIELS LASSEN AWARD SESSION

Chair(s)  | E. Hamel (Canada)
          | E. Lo (United States)

08:00–08:15  | NLA-1  | STAT6-Arg1 signaling is essential for M2 microglia/macrophage polarization and neurological recovery after ischemic stroke

W. Cai, Q. Ye, S. Hassan, J. Xu, J. Zhao, Y. Shi, J. Chen, X. Hu (United States, China)

08:15–08:30  | NLA-2  | Optical control of blood flow in naive animals

R.L. Rungta, B. Omsanski, D. Boido, M. Tanter, S. Charpak (France)

08:30–08:45  | NLA-3  | Acute gliovascular phenotype depends on primary injury severity in a new juvenile Closed Head Injury with Long-term Disorders (CHILD) model


08:45–09:00  | NLA-4  | Selective non-nuclear estrogen receptor activation decreases stroke severity and promotes functional recovery after stroke in mice


09:00–10:00  | PL  | MAX KADE AUDITORIUM

PLENARY LECTURE

Chair(s)  | U. Dirnagl (Germany)
          | M. Endres (Germany)

09:00–10:00  |  | Improving research quality: how stroke has led the world (and what we need to do to stay ahead)

M. Macleod (United Kingdom)

10:00–11:00  | PS05  | EXHIBITION & POSTER AREA

POSTER VIEWING SESSION V, COFFEE BREAK & EXHIBITION
SCIENTIFIC PROGRAM | TUESDAY, APRIL 4TH 2017

11:00–12:30 SY09 HÖRSAAL A
EMERGING METHODS FOR QUANTITATIVE IMAGING OF BRAIN PHYSIOPATHOLOGY

Chair(s) W. Chen (United States)

11:00–11:05 SY09-1 Introduction

11:05–11:25 SY09-2 Novel in vivo MRS imaging approaches for studying neuroenergetics under normal and diseased state
W. Chen (United States)

11:25–11:45 SY09-3 Extracellular pH gradients between normal and diseased tissues measured with BIRDS
H. Truebel (Germany)

11:45–12:05 SY09-4 Quantitative measures of cerebral oxygen metabolism using MRI: methods, validations and clinical applications
W. Lin (United States)

12:05–12:25 SY09-5 Imaging of graded ischemic tissue injury with pH and diffusion kurtosis MRI
P. Zhe Sun (United States)

12:25–12:30 SY09-6 Discussion

11:00–12:30 BS11 HÖRSAAL C
BRAIN IMMUNE INTERACTION

Chair(s) S. Knauss (Germany)
U. Dirnagl (Germany)

11:00–11:15 BS11-1 Stroke induces exacerbated atheroprogession via alarmin-signaling
S. Roth, K. Thuß-Silczak, A. Geerlof, D. Vivien, A. Liesz (Germany)

11:15–11:30 BS11-2 DSC MR Perfusion detects white matter microvascular perfusion abnormalities in X-linked adrenoleukodystrophy
A. Lauer, X. Da, M. Bo Hansen, G. Boulouis, A. Liberato Celso Pedrotti, J. Kalpathy-Cramer, P. Caruso, E. Grabowski, N. Rost, K. Mouridsen, F.S. Eichler, B. Rosen, P.L. Musolino (United States, Germany)

11:30–11:45 BS11-3 Adrenergic-mediated loss of splenic innate-like B cells contributes to infection susceptibility after stroke
L. McCulloch, C.J. Smith, B.W. McColl (United Kingdom)

11:45–12:00 BS11-4 Pre-existing cancer exacerbates cerebral ischemic stroke via Neurophilin-1 mediated recruitment of regulatory T cells into cancer tissue
L. Wang, Y. Zhou, W. Yu, P. Li (China)

12:00–12:15 BS11-5 Recombinant Interleukin-33 blocks brain infiltration of pro-inflammatory immune cells and limits ischemic injury

12:15–12:30 BS11-6 Immune response in ischemic stroke regulated by let7i microRNA
G. Jickling, B. Ander, N. Schroff, B. Starnova, C. Dykstra-Aiello, D. Liu, F. Sharp (United States)
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<td>Nitric oxide (NO) and mitochondria in injured brain:</td>
<td>M. O’Donnell (United States), E. Nemoto (United States)</td>
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<td>Glutamate node as a possible target in NO-mediated</td>
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<td>mitochondrial dysfunction after traumatic brain injury (TBI)</td>
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<td>M. Üçal, K. Kraitsy, A. Weidinger, J. Paier-Pourani, S. Patz, B. Fink, A. Kozlov, U. Schäfer (Austria)</td>
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<td>Early changes in cerebral blood flow and cerebrovascular</td>
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<td>reactivity in mild traumatic brain injury</td>
<td>S. Hanalioglu, T. Hidayetov, A.I. Isikay, M. Mut Asikun (Turkey)</td>
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<td>The lectin complement pathway in human contusions</td>
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<tr>
<td>11:00–12:30</td>
<td>BS12</td>
<td>HÖRSAAL D</td>
<td>Evaluating the amyloid precursor protein derivative, APP96-110, as a novel therapeutic agent following traumatic brain injury</td>
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<td>11:00–12:30</td>
<td>BS12</td>
<td>HÖRSAAL D</td>
<td>A new class of non-metal catalytic carbon antioxidants</td>
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<td>11:00–12:30</td>
<td>BS12</td>
<td>HÖRSAAL D</td>
<td>Transplantation of RADA16-BDNF peptide scaffold with humoral umbilical cord mesenchymal stem cells for repair of traumatic brain injury</td>
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<td>12:30–13:30</td>
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<td><strong>LUNCH BREAK, EXHIBITION &amp; POSTER VIEWING</strong></td>
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<td>HÖRSAAL A</td>
<td><strong>MICROGlia AND BRAIN IScHEMIA</strong></td>
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<td>13:30–13:35</td>
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<td>SY10-1</td>
<td>Introduction</td>
<td>K. Gertz (Germany)</td>
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<td>13:35–13:55</td>
<td>SY10</td>
<td>SY10-2</td>
<td>Microglia: A grumpy maid in the brain</td>
<td>A. Denes (Hungary)</td>
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<td>13:55–14:15</td>
<td>SY10</td>
<td>SY10-3</td>
<td>Diversity of monocytic cells in the ischemic brain</td>
<td>K. Gertz (Germany)</td>
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<td>14:15–14:35</td>
<td>SY10</td>
<td>SY10-4</td>
<td>Age and gender as important modifiers of microglia</td>
<td>J. Kriz (Canada)</td>
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<td>14:35–14:55</td>
<td>SY10</td>
<td>SY10-5</td>
<td>Microglial TGFβ1 as neurovascular protectant after neonatal stroke</td>
<td>Z. Vexler (United States)</td>
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<td>14:55–15:00</td>
<td>SY10</td>
<td>SY10-6</td>
<td>Discussion</td>
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<td>13:30–15:00</td>
<td>BS13</td>
<td>HÖRSAAL C</td>
<td><strong>DEGENERATION AND AGING</strong></td>
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<td>13:30–13:45</td>
<td>BS13</td>
<td>BS13-1</td>
<td>Postsynaptic density 93 alleviates memory deficits in Alzheimer’s disease mouse model by modulation of somatostatin receptor</td>
<td>X. Hu (United States), C. Lecrux (Canada)</td>
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<td>13:45–14:00</td>
<td>BS13</td>
<td>BS13-2</td>
<td>Stalled blood flow in brain capillaries is responsible for reduced cortical perfusion and impacts cognitive function in mouse models of Alzheimer’s disease</td>
<td>L. Yu, Y. Liu, H. Yang, X. Zhu, H. Zhao, L. Han, Y. Xu (China)</td>
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<td>14:00–14:15</td>
<td>BS13</td>
<td>BS13-3</td>
<td>Sex difference in the neuroprotective effect of microRNA mir363-3p on ischemic stroke</td>
<td>Selvamani A., Sohrabi F. (United States)</td>
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14:15–14:30  BS13-4  Impact of ROCK2 in the cerebral circulation: Implications for large and small vessel disease  
M. De Silva, F. Faraci (Australia, United States)

14:30–14:45  BS13-5  Using microcoils to mimic cerebrovascular disease leads to early changes in the extracellular matrix and blood-brain barrier  
J. Roberts, M. Maniskas, G. Bix (United States)

14:45–15:00  BS13-6  Brain tissue oxygenation changes with age in awake mice  
M. Moeini, X. Lu, T. Lam, S. Bélanger, A. Kakkar, F. Lesage (Canada)

13:30–15:00  BS14  HÖRSAAL D

13:30–13:40  BS14-1  Non-invasive, multi-modal monitoring of bispectral index, cerebral oxygen metabolism and cerebral blood flow under general anesthesia  

13:40–13:55  BS14-2  Neurometabolic changes during cortical spreading depolarization: high-resolution measurements with a lactate-glucose dual microbiosensor array  
C.F. Lourenço, A. Ledo, G. Gerhardt, J. Laranjinha, R.M. Barbosa (Portugal)

13:55–14:10  BS14-3  Glial-neuronal interactions following Tiagabin administration in wild type and GAD65 knockout mice  

14:10–14:25  BS14-4  Coupling of the glutamate-glutamine cycle rate with both glial and neuronal oxidative metabolism in the visual cortex of the Tupaia belangeri  
S. Sonnay, J. Poirot, N. Just, A.-C. Clerc, R. Gruetter, G. Rainer, J.M.N. Duarte (Switzerland)

14:25–14:40  BS14-5  Exposure to recurrent hypoglycemia alters brain metabolism in diabetic rats  
V. Shukla, N. Dewan, A.K. Rehni, K.B. Koronowski, H. Stradecki, T.J. Garrett, M.A. Perez-Pinzon, K.R. Dave (United States)

14:40–14:55  BS14-6  The brain tumor microenvironment: a little sweet, but a little cool  
D. Coman, Y. Huang, P. Herman, G. Kaneko, J.U. Rao, M. Parent, S. Maritim, J.J. Walsh, F. Hyder (United States)

15:00–16:00  PS06  EXHIBITION & POSTER AREA

15:00–16:00  PS06  POSTER VIEWING SESSION VI, COFFEE BREAK & EXHIBITION

16:00–17:05  SY11  HÖRSAAL A

16:00–16:05  SY11-1 Introduction  
M. Janowski (United States)

16:05–16:25  SY11-2 Real-time MRI of intra-arterially delivered stem cells  
M. Janowski (United States, Poland)

16:25–16:45  SY11-3 Transendothelial migration of stem cells after intraarterial injection: molecular mechanism and timing after stroke  
R. Guzman (Switzerland)

16:45–17:05  SY11-4 Experimental intra-arterial stem cell stroke therapy in large animal models  
D. Yavagal (United States)

17:05–17:25  SY11-5 Intra-arterial delivery of stem cells in patients with stroke: Results of clinical trials  
S. Savitz (United States)

17:25–17:30  SY11-6 Discussion
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16:00–17:30 BS15 HÖRSAAL C

NEUROINFLAMMATION IN CEREBRAL ISCHEMIA 2

**Chair(s)**
J. Kriz (Canada)
A. Liesz (Germany)

16:00–16:15 BS15-1 M1 microglia aggravate white matter injury in a rat model of chronic cerebral ischemia

16:15–17:30 BS15-2 Astrocyte-specific gene transfer of insulin-like Growth Factor (IGF)-1 in middle aged female rats improves stroke outcomes
F. Sohrabji, A. Okoreeh (United States)

16:00–17:30 BS16 HÖRSAAL D

IMAGING APPLICATIONS

**Chair(s)**
B. Stefanovic (Canada)
K. Masamoto (Japan)

16:00–16:15 BS16-1 Quantitative measurement of blood velocity changes in single brain cortical microvessels during sensory stimulation using functional ultrasound imaging
C. Brunner, G. Montaldo, E. Mace, A. Urban (Belgium)

16:15–17:30 BS16-2 Quantitative measurements of spinal cord blood flow of an animal model of relapsing-remitting MS
M. Tachrount, A. Davies, F. Rosianu, R. Desai, D. Thomas, K. Smith, X. Golay (United Kingdom)

16:00–17:30 BS15-3 Single penetrating artery occlusion leads to widespread white matter reorganization across the entire brain in a CX3 chemokine receptor 1 dependent manner
A. Lubart, A. Benbenishty, P. Blinder (Israel)

16:45–17:00 BS16-4 Identifying sources of initial deficit and post-stroke recovery in mice using early MR-Imaging and correlation analysis

16:15–17:30 BS15-4 Progression of inflammation and brain metabolism after cerebral ischemia – inflammatory cells consume glucose with a leaky capillary network
H. Backes, M. Walberer, M. Schroeter, R. Graf (Germany)

16:45–17:00 BS16-5 Dual-calibrated fMRI measurement of resting capillary and venous blood volumes
M. Germuska, A. Merola, R. Wise (United Kingdom)

17:00–17:15 BS16-6 MRI detection of iron oxide-labeled B cells in perilesional tissue after stroke in mice
A. van der Toorn, P. Yanev, S.-B. Ortega, G.A.F. van Tilborg, R.M. Dijkstra, A.M. Stowe (Netherlands)

17:15–17:30 BS15-5 Transgenic expression of human Interleukin-37 reduces post-stroke functional deficit and lung infection in mice

17:15–17:30 BS16-6 MRI detection of iron oxide-labeled B cells in perilesional tissue after stroke in mice
A. van der Toorn, P. Yanev, S.-B. Ortega, G.A.F. van Tilborg, R.M. Dijkstra, A.M. Stowe (Netherlands)

17:15–17:30 BS15-6 Beta4 integrin plays a vasculo-protective role during neuroinflammation
J. Welser, R. Kant, R. Milner (United States)
There will be 6 poster sessions with posters on display only on the day of their presentation. Poster authors are kindly asked to be present at their poster boards in time to moderate their posters and for discussion with meeting attendees. Please note that posters not taken down cannot be stored and will be disposed of.

**Sunday, April 2nd 2017**

Put up your poster on Sunday, April 2nd 2017 from 07:30–09:30. Take it down on Sunday, April 2nd from 16:00–19:00.

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## POSTER SESSIONS | OVERVIEW

### Monday, April 3rd 2017
Put up your poster on Monday, April 3rd 2017 from 07:00–09:00. Take it down on Monday, April 3rd from 16:00–19:00.

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### Tuesday, April 4th 2017
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<td>085–102</td>
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POSTER SESSIONS | SUNDAY, APRIL 2ND 2017

10:00–11:00 | PS01 | POSTER SESSION I

**STROKE**

**PS01-001** In vivo expansion of regulatory T cells with IL-2/IL-2-antibody complex protects against transient ischemic stroke
Y. Xia, H. Zhang, Q. Ye, K. Zhang, X. Hu (United States, China)

**PS01-003** Acid esters improve blood-brain barrier integrity and neuronal survival during cerebral ischemia-reperfusion injury
R. Kunze, J. Lin-Holderer, H.H. Marti (Germany)

**PS01-004** Genetic variant in VCAM1 mediates acute infarct size in ischemic stroke patients

**PS01-005** FOXF2, a novel risk locus for small vessel stroke with functional evidence for developmental effects

**PS01-006** The stroke relevant gene HDAC9 has pro-inflammatory roles in multiple cell types
Y. Asare, Y. Bokov, L.L. Yu, M. Prestel, S. Azghandi, C. Haffner, J. Bernhagen, M. Dichgans (Germany)

**PS01-007** VEGF signaling contributes to stroke-induced edema formation in diabetic mice
E. Kim, S. Cho (United States)

**PS01-008** Specific commensal bacterial signature is associated with long-term protection from ischemic stroke brain injury
C. Benakis, C. Poon, G. Sita, D. Lane, M. Murphy, D. Brea, J. Moore, G. Racchumi, L. Ling, E. Pamer, C. Iadecola, J. Anrather (United States, Germany)

**PS01-009** Inhibition of integrin α5β1 with ATN-161 is profoundly neuroprotective following both transient and permanent middle cerebral artery occlusion in experimental ischemic stroke
B.R. Kittani, D. Edwards, E. Reid, M.I. Macrae, W.M. Holmes, G. Bix, C. McCabe (United Kingdom)

**PS01-010** Endothelial NOX4 oxidase exacerbates motor dysfunction after ischemic stroke
M. De Silva, G. Drummond, C. Sobey (Australia)

**NEUROPROTECTION**

**PS01-011** Edaravone encapsulated agonistic micelles salvaging brain ischemic tissue by actively tuning blood brain barrier permeability
X. Gao, C. Li (China)

**PS01-012** Aerobic fitness is associated with lower cerebral blood flow (CBF) but greater cerebrovascular reactivity (CVR) in young adults: a perfusion fMRI study
C. Foster, J. Steventon, D. Helme, M. Busse, V. Tomassini, R.G. Wise (United Kingdom)

**PS01-013** Optogenetic inhibition of striatal GABAergic neurons in the subacute period of ischemia improves neurobehavioral recovery in mice
L. Jiang, W. Li, Y. Ma, M. Mamtlahun, Y. Lu, M. Qu, Y. Song, Z. Li, Z. Zhang, G.-Y. Yang, Y. Wang (China)

**PS01-014** An analogue of heparan sulfate as a novel neuroprotective and neuroregenerative agent for ischemic stroke
Y. Khelif, M.-S. Quittet, J. Toutain, D. Divoux, F. Sineriz, D. Barrilault, O. Touzani, M. Bernaudin (France)

**PS01-015** Upregulation of mesencephalic astrocyte-derived neurotrophic factor by cerebral ischemia promotes tissue repair after experimental stroke
N.G. Bazan, S.-H. Hong, H. Menghani, S. Marcell, P.K. Mukherjee, L. Khoury, L. Belaye (United States)

**PS01-016** Hypothermia inhibits astrocyte-mediated neuronal protection
P. Rajput, S. Kothari, P. Lyden (United States)
POSTER SESSIONS | SUNDAY, APRIL 2ND 2017

**PS01-017** The effects of FABP7 on functional recovery after spinal cord injury in adult mice
N. Senbokuya, H. Yoshioka, T. Yagi, K. Kanemaru, Y. Owada, H. Kinouchi (Japan)

**PS01-018** Hypothermia-like neuroprotection and brain metabolic alteration induced by phenothiazine in severe transient and permanent ischemic stroke
X. Geng, F. Li, J. Yip, X. Ji, Y. Ding (United States)

**PS01-019** Neuroprotective effect of lilaglutide in transient focal brain ischemia in rats with type 2 diabetes mellitus
I. Filchenko, A. Simonenko, T. Vlasov (Russian Federation)

**PS01-020** Boosting O-GlcNAcylation, a pro-survival pathway downstream of the unfolded protein response, improves ischemic stroke outcome in mice
M. Jiang, S. Yu, H. Sheng, Z. Yu, D. Warner, W. Paschen, W. Yang (United States)

**PS01-021** Hippocampal neuroprotection mediated by tyrosine kinase B receptor (TrkB) phosphorylation is estrogen receptor alpha (ERα) dependent only in female neurons after in-vitro ischemia
D. Zafer, V. Chanana, D. Hanalioglu, A. Canturk, D. Kintner, J. Chandrareshkhar, K. Freeman, J. Sanchez, P. Ferrazzano, J. Levine, P. Cengiz (United States)

**PS01-022** MLC901 issued from traditional Chinese medicine favors angiogenesis and associated recovery after ischemic stroke
C. Gandin, C. Widmann, M. Lazdunski, C. Heurteaux (France)

**PS01-023** Neuroprotective effects of intranasal Guanosine: wide therapeuric window and a possible mechanism
G.C. Müller, S.O. Loureiro, R.F. Almeida, L.F. Pettenuzzo, M. Ganzella, D.O. Souza (Brazil)

**CEREBRAL/SUBARACHNOID HEMORRHAGE**

**PS01-026** CETP genetic variants that increase HDL raise Intracerebral hemorrhage risk
C. Anderson, G. Falcone, G. Peloso, C. Langefeld, G. Abecasis, S. Kathiresan, D. Woo, J. Rosand (United States)

**POSTER SESSIONS | SUNDAY, APRIL 2ND 2017**

**PS01-027** Role of the endothelium NO-Synthase in early brain injury after experimental subarachnoid hemorrhage
I. Westermayer, N. Terpolilli, S. Katzdobler, N. Plesnila (Germany)

**PS01-028** Inhibitory effects of Omega-3 on early brain injury after subarachnoid hemorrhage in rats: possible involvement of GPR120-arrestin2/TGF-β activated kinase-1 binding protein-1 signaling pathway
J. Yin, Z. Wang, G. Chen (China)

**PS01-029** Cyclophilin A/CD147 interactions participate in early brain injury after subarachnoid hemorrhage in rats
B. Dang, Z. Wang, G. Chen (China)

**PS01-030** Pramipexole-induced hypothermia reduces early brain injury via PI3K/AKT/GSK3β pathway in subarachnoid hemorrhage rats
J. Ma, Z. Wang, G. Chen (China)

**PS01-031** Role of neurexin-1β and neuroligin-1 in cognitive dysfunction after subarachnoid hemorrhage in rats
H. Shen, Z. Wang, G. Chen (China)

**PS01-032** Race/ethnic variation of Apolipoprotein E alleles for lobar intracerebral hemorrhage
D. Woo, P. Sekar, J. Rosand, J. Osborne, S. Kittner, C. Langefeld, M. Flaherty, C. Anderson (United States)

**PS01-033** Inhibition of mammalian target of rapamycin attenuates early brain injury through modulating microglial polarization after experimental subarachnoid hemorrhage in rats
W. You, Z. Wang, G. Chen (China)

**PS01-034** Transient receptor potential channel 1/4 reduces subarachnoid hemorrhage-induced early brain injury in rats via calcineurin-mediated NMDAR and NFAT dephosphorylation
Y. Wang, Z. Wang, G. Chen (China)

**PS01-035** The sGC-activator Bay 60-2770 has no influence on microvasospasms after experimental subarachnoid hemorrhage
S. Katzdobler, B. Seker, N.A. Terpolilli, I. Westermayer, N. Plesnila (Germany)
**POSTER SESSIONS | SUNDAY, APRIL 2ND 2017**

**PS01-036**  
Correlation of glymphatic function to cerebral blood flow following subarachnoid hemorrhage  
T. Stani, J. Cetas, J. Illif (United States)

**DEMENTIA**

**PS01-037**  
Is perlecan domain V a potential therapeutic in preclinical vascular dementia?  
A. Trout, Z. Zhang, J. Roberts, A. Hartz, G. Bix (United States)

**PS01-038**  
Endothelial-immune interaction in vascular cognitive impairment  
C. Davis, G. Benedek, S. Weber, N. Roehe, W. Zhang, J. Raber, H. Offner, N. Alkayed (United States)

**PS01-039**  
Lacunar infarction and microbleeds in a mouse model of vascular cognitive impairment produced by hypoperfusion  

**PS01-040**  
Metabolic regional and network changes in Alzheimer’s disease subtypes  
K. Herholz, C. Hense, A. Gerhard, M. Jones, J. Snowden, J. Thompson, C. Kobylecki (United Kingdom)

**PS01-041**  
The importance of cerebral metabolic rate of lactate  
G. Krüger (Germany)

**PS01-042**  
Transport of solutes along paravascular channels is facilitated by arterial pulsations: a modeling study  
D. Österle, P. Buijsman, B. Bedussi, E.N.T.P. Bakker, E. van Bavel (Netherlands)

**PS01-044**  
Effects of omega-3 fatty acids on resting cerebral perfusion in patients with mild cognitive impairment  
C. Schwarz, M. Wirth, L. Gerischer, T. Köbe, A. Flöel (Germany)

**PS01-045**  
Preserved cerebral autoregulation in clinical Alzheimer’s disease during large changes in blood pressure induced by repeated orthostatic maneuvers  

**WHITE MATTER INJURIES**

**PS01-046**  
Evaluation of cognitive impairment in senile dementia of the Alzheimer type  
M. Salohiddinov (Uzbekistan)

**PS01-047**  
Histone deacetylase inhibition promotes remyelination by the epigenetic control of M2 microglia polarization after a focal demyelinating lesion  
G. Wang, L. Ding, Z. Jiang, X. Hu, Y. Gao, J. Chen (China, United States)

**PS01-048**  
Therapy with endothelial progenitor cells secretome induces white matter repair in a mouse model of prolonged cerebral hypoperfusion  

**PS01-049**  
Cerebral blood flow in patients with white matter hyperintensities and effect of co-variates  

**BLOOD BRAIN BARRIER**

**PS01-050**  
Does location of lesion of White Matter? Effects on cognition and functional connectivity in mild cognitive impairment (MCI)  
G. Benson, M. Wirth, C. Lange, K. Prenth, T. Köbe, A. Flöel (Germany)

**PS01-051**  
Computational modeling of intrathecal magnetic drug targeting for treatment of central nervous system diseases  
K. Tangen, I. Venugopal, A. Linninger (United States)

**PS01-052**  
Blood-brain barrier permeability in Parkinson’s disease with or without levodopa-induced dyskinesia: A rubidium-82 PET study during saline or levodopa infusion  
K. Fujita, V. Dhawan, S. Peng, Y. Ma, D. Eidelberg (United States)

**PS01-053**  
Neurovascular protection by Adropin in experimental ischemic stroke  
C. Yang, K. Demars, E. Candelario-Jalil (United States)
POSTER SESSIONS | SUNDAY, APRIL 2ND 2017

PS01-054  Neuroprotective effects of nanowired cerebrolysin in regional cerebral blood flow disturbances, blood-brain barrier breakdown, edema formation and brain pathology following a focal blast brain injury
H.S. Sharma, A. Sharma, D.F. Muresanu (Sweden)

PS01-055  DCE-MRI blood-brain barrier assessment in acute ischemic stroke

PS01-056  Impact of head-down suspension on prefrontal cortex neurons and blood-brain barrier
J. Ashaolu (Nigeria)

PS01-057  Perivascular HIF-1α deletion at the BBB improves hypoxic vascular stability in vivo
S. Patkar, S.-F. Huang, C.-C. Tsao, S. Francia, J. Baumann, N. Kachappilly, O.O. Ogunshola (Switzerland)

ANGIOGENESIS

PS01-058  Ultra high-field (11.7T) cryocoil non-contrast-enhanced brain angiography MRI of APPPS1 and C57BL/6J mice, and a novel method for mapping arterial diameter, signal intensity and distribution
R. Saggu, G. Petzold (Germany)

PS01-059  Injectable hydrogel for promoting angiogenesis, tissue repair and functional recovery in an animal stroke model
P. Yanev, G.A.F. van Tilborg, A. van der Toorn, X. Kong, A.M. Stowe, R.M. Dijkhuizen (United States, Netherlands)

PS01-060  Genome-wide sequencing reveals microRNAs differentially expressed in cerebral cavernous malformations
S. Kar (Germany)

PS01-061  Proangiogenic functions of osteopontin icosamer peptide via involving with αvβ3 integrin

PS01-062  MiR-126 regulates the angiogenic function of endothelial cells after hypoxia via Hif-1a
M. Qu, F. Yuan, M. Mamtilahun, S. Wang, Y. Wang, Z. Zhang, G. Yang (China)

POSTER SESSIONS | SUNDAY, APRIL 2ND 2017

PS01-063  Subnormal neurogenesis and cortical growth in a piglet model of congenital heart disease

PS01-064  MiR-451 accelerates neuronal differentiation in vitro and in vivo

PS01-065  Juvenile neurogenesis: a new target for endogenous regeneration, repair, and improved functional outcome following ischemic stroke
K. Rodgers, O. Patsos, J. Ahrends, F. Strnad, J. Yonchek, R. Traystman, W. Macklin, P. Herson (United States)

PS01-066  Astrogenesis contributes to new astrocyte-blood vessel contacts in the barrel cortex of neonate and juvenile mice
A. Rodríguez-Contreras, L. Shi (United States)

PS01-067  Manipulating serotonin signaling in depression – The key to happiness?
M. Petermann, G. Kronenberg, N. Alenina, F. Klemmpin (Germany)

GLIAL MECHANISMS

PS01-068  Neural activity and behavioural experience adjust steady-state intracellular astrocyte Ca2+ which affects arteriole tone
E.M. Mehina, G.R. Gordon (Canada)

PS01-069  Astrocyte calcium mediates peri-infarct depolarizations in a rodent stroke model
C. Rakers, G.C. Petzold (Germany)

PS01-070  Microglia are key contributors to induction and propagation of spreading depolarization in the intact mouse brain
D.P. Varga, Ā. Menyhárt, E. Császár, B. Martinecz, N. Lénárt, E. Farkas, Ā. Dēnes (Hungary)
BRAINPET: DATA ACQUISITION AND ANALYSIS

PS01-071 Relationship between efficient brain networks and glucose consumption in simultaneously recorded resting state fMRI – FDG PET

PS01-072 Monte-Carlo PET simulation with high-resolution anatomic template from BigBrain
T. Funck, A.C. Evans, A. Thiel (Canada)

PS01-073 [11C]DASB plus constant infusion to rapidly quantify serotonin transporter binding

I. Mérida, A. Hammers, J. Redouté, C. McGinnity, C. Fonteneau, M.-F. Suaud-Chagny, A. Reilhac, N. Costes (France)

PS01-075 Improved Major Depressive Disorder (MDD) biomarker performance with a novel image reconstruction approach
N. Joshi, A. Mikhno, C. DeLorenzo, R.V. Parsey (United States)

PS01-076 Planckian information calculated from fMRI signals indicates that psilocybin increases neurodynamic organizations in human brains
S. Ji (United States)

BRAINPET: NOVEL MODELING AND METHODS

PS01-077 Quantification of [18F]FET tracer kinetics in glioblastoma

PS01-078 Statistical analysis of single subject PET neurotransmitter activation studies using approximate bayesian computation

PS01-079 Method for automatic delineation of brain regions on pig PET images

PS01-080 Case study: Multimodal 18F-fluciclovine PET/MRI and ultrasound-guided neurosurgery of anaplastic oligodendroglioma

PS01-081 Global vs. regional differences in resting glucose metabolism across brain states

PS01-082 The use of a new diagnostic method in patients for differential diagnosis of Alzheimer’s disease
M. Salohiddinov (Uzbekistan)

BRAINPET: PRECLINICAL IMAGING

PS01-083 Imaging neuronal pathways with 52Mn PET in rats
H. Napieczynska, G.W. Severin, J. Fonslet, A. Menegakis, S. Wiehr, B.J. Pichler, C. Calaminus (Germany)

PS01-084 [18F]-Fluoromisonidazole PET/MRI imaging exhibits hypoxic-ischemic tissue around the hematoma in experimental intracerebral hemorrhage

PS01-085 Identifying biomarkers of α-synuclein pathology using multiparametric imaging
K. Herfert, N. Landeck, F. Motte, A. Maurer, D. Kirik, B.J. Pichler (Germany)
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<td>Multi-modal imaging reveals a specific multi-nutrient diet as modulator of microglial activation in stroke</td>
<td>B. Zinnhardt, M. Wiesmann, S. Eliegehausen, L. Broersen, L. Wächschnoth, S. Hermann, A.J. Kiliaan, A.H. Jacobs (Germany)</td>
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<td>PS01-087</td>
<td>Multi-tracer characterization of an animal model of epileptogenesis by serial molecular in vivo imaging</td>
<td>J.P. Bankstahl, P. Bascurana, M. Brackhan, H. Breuer, I. Leiter, X.-Q. Ding, O. Langer, W. Löscher, W. Härtig, F.M. Bengel, M. Meier, M. Bankstahl (Germany)</td>
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<td>PS01-089</td>
<td>Interindividual and regional variations in coupling of cerebral blood flow and metabolism measured by PET and MRI</td>
<td>O. Henriksen, M. Vestergaard, U. Lindberg, N.J. Aachmann-Andersen, K. Lisbjerg, S. Christensen, N. Olsen, P. Rasmussen, H. Larsson, I. Law (Denmark)</td>
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<td>PS01-090</td>
<td>The spatial distribution of signaling input to systems level networks in the human brain</td>
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<td>PS01-092</td>
<td>To deconvolve or not to deconvolve? Perfusion MRI in acute stroke: validation of mismatch with 15O-water PET</td>
<td>O. Zaro Weber, W. Moeller-Hartmann, A. Schuster, W.-D. Heiss, J. Sobesky (Germany)</td>
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<td>PS01-095</td>
<td>Arterial spin labeling in the hybrid PET/MRI workup of dementia patients</td>
<td>H. Barthel, P. Werner, M. Rullmann, T. Mildner, T. Jochimsen, S. Tiepolt, H.-J. Gertz, M.L. Schroeter, D. Saur, H. Möller, O. Sabri (Germany)</td>
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<td>PS01-097</td>
<td>Test-retest variability of the α4β2 nicotinic acetylcholine receptor agonist radiotracer, [18F]nifene, in humans</td>
<td>P. Lao, T. Betthauser, D. Tudorascu, T. Barnhart, J. Mukherjee, B. Christian (United States)</td>
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<td>PS01-099</td>
<td>Characterization of a novel mGluR2/3 PET tracer [18F] ER-000604699 in marmoset S. Krause, Z. Li, T. Teceno, H. Hagiwara, M. Takaishi, P. McCracken (United States)</td>
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<td>PS01-100</td>
<td>Cerebral μ-opioid and type-2 dopamine receptors involved in emotional processing in the human brain: a combined fMRI and PET study T. Karjalainen, H. Karlsson, J. Lahnakoski, E. Glerean, P. Nuutila, I. Jääskeläinen, R. Hari, M. Sams, L. Nummenmaa (Finland)</td>
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<td>PS01-102</td>
<td>Preoperative μ-opioid receptor availability predicts weight development following bariatric surgery H.K. Karlsson, L. Tuominen, P. Salminen, P. Nuutila, L. Nummenmaa (Finland)</td>
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<td>PS01-104</td>
<td>Quantitative analysis of decomposed EEG represented as a new contour mathematical model V. Sevastyanov, Y. Furman, K. Ivanov (Russian Federation)</td>
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<td>PS01-108</td>
<td>Blood flow velocities changes to follow patients with acute non traumatic brain injury in the ICU of the National Institute of Neurological Sciences in Lima-Peru M.M. Chumbe Mendoza, R. Izquierdo-Lara (Peru)</td>
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15:00–16:00 PS02 POSTER SESSION II

STROKE

PS02-001 Perfusion maps based on temporal blood-oxygen-level-dependent signal delays are driven by alterations in low frequency oscillations between 0.01 and 0.1 Hz
A. Khalil, E. Kirilina, K. Villringer, J. Fiebach, A. Villringer (Germany)

PS02-002 A multidisciplinary systems biology approach to neuronal remodelling post Ischemic Stroke injury using endogenous adult neural stem cells
S. Kapoor (India)

PS02-003 Ischemic preconditioning renders long-term protection against stroke: roles of GSK3β inhibition and anti-oxidative enzyme upregulation
Y. Sun, T. Yang, M. Zhang, J. Chen, F. Zhang (United States)

PS02-004 Superselective Administration of VERapamil during recanalization in acute ischemic stroke (SAVER-I): study results
J. Fraser, D. Lukins, L. Parker, W.L. Stafford, A. Alhajeri, G. Bix (United States)

PS02-005 Association of depression polygenic risk and ischemic stroke in the stroke genetics network (SIGN)
S. Wassertheil-Smoller, Q. Qi, T. Dave, B.D. Mitchell, J.W. Smoller, D. Woo (United States)

PS02-006 Genome-wide association studies from the Vitamin Intervention for Stroke Prevention (VISP) trial detect novel loci for recurrent stroke
K. Keene, W.-M. Chen, F.-C. Hsu, S. Williams, M. Sale, B. Worrall (United States)

PS02-007 Differential DNA methylation loci implicated in measures of homocysteine from the Vitamin Intervention for Stroke Prevention (VISP) trial
N. Davis, W.-M. Chen, M. Brewer, S. Williams, M. Sale, B. Worrall, K. Keene (United States)

PS02-008 GISCOME – genetic influences on ischaemic stroke functional outcome: a genome wide association study

PS02-009 A network approach to identifying new candidates for stroke and stroke subtypes
S. Williams, K. Keene, R. Malik, Q. Yang, T. Dave, B.D. Mitchell, S. Seshadri, M. Sale, B. Worrall (United States)

PS02-010 Manipulation of cerebral blood flow through postural changes in pediatric stroke

NEUROPROTECTION

PS02-011 Oxytocin is neuroprotective against physiological and behavioral consequences of social stress
O.L. Lopatina, A.A. Shabalova, Y.V. Gorina, Yu.K. Komleva, Y.A. Panina, A.B. Salmina (Russian Federation)

PS02-012 Oxidative stress-Responsive Apoptosis-Inducing Protein (ORAIP) plays a critical role in cerebral ischemia/reperfusion injury
M. Kishimoto, J. Suenaga, H. Takase, K. Araki, T. Yao, Y. Seko (Japan)

PS02-013 Anti-neuroinflammatory activity of 17β estradiol against amyloid beta neurotoxicity in aging rat brain synaptosomes
P. Kumar, N. Baquer (India)

PS02-014 Enhanced neuroprotective effects against ischemic brain injury by intranasal delivery of granulocyte colony-stimulating factor in rats
B. Sun (China)

PS02-015 DSePA antagonizes high glucose-induced neurotoxicity: evidences for ROS-mediated oxidative damage and MAPKs and AKT pathways
C. Fan (China)

PS02-016 Pharmacological inhibition of monoacylglycerol lipase reduces ischemic brain injury
S.-H. Choi, Y. Mou, J. Hallenbeck, A.C. Silva (United States)

PS02-017 Cyanidin attenuates tumor chemotherapy-induced neurotoxicity via inhibition of ROS-mediated DNA damage and apoptosis in PC12 cells
X. Fu (China)
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**PS02-018** Molecular H2 alleviates perinatal asphyxia-induced elevations in neuronal COX-2 expression  
V. Varga, O. Oláh, J. Németh, V. Tóth-Szüki, A. Lehóczki, G. Remész, V. Kovács, F. Domoki (Hungary)

**PS02-019** The effects of preconditioning on the long-term cognitive dysfunction after sevoflurane exposure in neonatal rats  
T. Goyagi (Japan)

**PS02-020** Minimally invasive surgery joint local cooling lavage protects rats brain from ICH-induced inflammation injury and apoptosis  
X. Fu (China)

**PS02-021** ONO-5046 attenuation of delayed motor neuron death and effect on the induction of 78 kDa glucose-regulated protein after spinal cord ischemia in rabbits  
T. Suzuki, M. Sakurai, H. Suzuki, T. Kawamura (Japan)

**PS02-022** Effects of NMDA receptor antagonist memantine on NO production, hydroxyl radical metabolism and ischemic change of hippocampal CA1 during cerebral ischemia and reperfusion in mice  

**PS02-023** Exercise intensity affects peripheral immunity in the absence of IL-10  

**PS02-024** New generation progestins are neuroprotective in experimental stroke  

**PS02-025** Impaired hypoxic tolerance in APP23 mice: a dysregulation in neuroprotective globin levels  
Z.P. Van Acker, E. Luyckx, W. Van Leuven, E. Geuens, P.P. De Deyn, D. Van Dam, S. Dewilde (Belgium)

**CEREBRAL/SUBARACHNOID HEMORRHAGE**

**PS02-026** Variation of blood injection velocity in a new experimental model of non-aneurysmal SAH: any influence on intracranial pressure and cerebral perfusion in the acute phase?  

**PS02-027** Differential expression of microRNA in of rat cerebral arteries during organ culture and after experimental subarachnoid hemorrhage  
S.T. Christensen, S.E. Johansson, L. Edvinsson (Denmark)

**PS02-028** Anti-vasospastic effects of epidermal growth factor receptor inhibitor in experimental subarachnoid hemorrhage model  

**PS02-029** Intracranial pressure elevation is delayed following intracerebral hemorrhage in rats  
K.E. Warren, D.J. Beard, R.J. Hood, N.J. Spratt (Australia)

**PS02-030** Reduced cerebral microperfusion early after experimental subarachnoid hemorrhage  
K. Nehrkorn, N. Plesnila (Germany)

**PS02-031** Are there factors within cerebrospinal fluid that cause intracranial pressure to rise after subarachnoid hemorrhage?  

**PS02-032** An MRI study on the neuroprotection of human albumin in subarachnoid hemorrhage  
Y. Sun, L. Watts, G.-Y. Yang, J. Suarez, T. Duong (China)

**PS02-033** Stent salvage for coil protrusion of ruptured intracranial aneurysm  

**PS02-034** Cytochrome P450 1B1 is a potential vital molecule inducing vascular smooth muscle cells of human brain arteriovenous malformation towards pathological phenotype  
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PS02-035  A systemic drive of IL-1β after intracerebral haemorrhage
J. Barrington, A. Parry-Jones, S.M. Allan,
D. Brough (United Kingdom)

PS02-036  Evaluating cerebral blood flow and metabolism
in subarachnoid hemorrhage patients in the neurointensive care unit using MR-based imaging
H.S. Mangat, J. Cho, P.E. Stieg, Y. Wang (United States)

PS02-037  Relationship between gyrus rectus resection and cognitive impairment after surgery for ruptured anterior communicating artery aneurysms
C.T. Moon (Korea, Republic of)

DEMENTIA

PS02-038  Assessment of risk factors for the development of dementia of Alzheimer type
M. Salohiddinov (Uzbekistan)

PS02-039  Low self-awareness of cognitive deficits is associated with regional hypometabolism in the default mode network
J. Therriault, T. Pascoal, K. Ng, S. Mathotaarachchi,
P. Kang, M. Shin, N.P.V. Nair, P. Rosa-Neto (Canada)

PS02-040  In vivo brain imaging for studying possible linkage between pathological hallmark of tauopathy and neuronal loss
H. Takuwa, A. Ishikawa, T. Urushihata,
T. Minamihisamatsu, M. Tokunaga, M. Shimojo, S. Uchida,
I. Matsumoto, M.-R. Zhang, T. Suhara, M. Higuchi,
N. Sahara (Japan)

PS02-041  In vivo tau distribution in progressive nonfluent aphasia
K.-M. Lee, Y. Noh, C.W. Yoon, S.-Y. Lee, N. Okamura,
T. Ido (Korea, Republic of)

PS02-042  Diabetes-related increase of reactive α-dicarbonyls in the development of vascular dementia
S. Schultz, A. Othman, M. Schwaninger (Germany)

PS02-043  Investigating genetic factors contributing to vascular cognitive impairment in a mouse model recapitulating acute and chronic cerebral hypoperfusion
C. Sassli, K. Bentele, P. Böhm-Sturm, F. Yildirim,
S. Mueller, T. Farr, M. Foddiss, C. Harms,
U. Dirmagl (Germany)

PS02-044  Protective role of brain endothelial Nemo in microvascular pathologies and vascular dementia
Y. Jiang, J. Wenzel, D.A. Ridder, J. Ohnmacht,
M. Schwaninger (Germany)

PS02-045  Vascular risk factors in manifestation of Alzheimer’s disease related neuropathological changes: First autopsy and genetic evidence from a South Asian ageing population
P. Wijesinghe, S.K. Shankar, T.C. Yasha, Y.H. Suh,
H.W.M. Steinbusch, K.R. De Silva (Sri Lanka)

PS02-046  Sesamol reverse memory deficit and restore phosphoGSK3β decreased in hippocampus in intracerebroventricular streptozotocin (ICV-STZ) induced Alzheimer’s disease model
M. Golechha, J. Bhatia, V. Parihar, D.S. Arya (India)

PS02-047  Rapamycin as a novel therapeutic for Alzheimer’s disease: prevention assessed through neuroimaging
D. Ma (United States)

PS02-048  Insulin resistance in the development of social and cognitive disorders in Alzheimer’s disease
Y. Komleva, Y. Gorina, O. Lopatina, A. Chernykh,
A. Salmina (Russian Federation)

WHITE MATTER INJURIES

PS02-049  Oligodendrocyte response to focal white matter ischemic injury is different in juvenile and adult mice
A. Dingman, S. Hickey, E. Gould, R.J. Traystman,
W.B. Macklin, P.S. Herson (United States)

PS02-050  Cortical spreading depression-induced prolonged oligemia can cause ischemic lesions at hemodynamically vulnerable border zones
B. Dönmez-Demir, M. Yemişçi, G. Uruk, S. Kazmi,
T. Dalkara (Turkey)

PS02-051  Hereditary versus sporadic cerebral small vessel disease: what makes the differences?
M.-F. Ritz, N. Peters, P. Lyrer (Switzerland)
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CELL DEATH/SURVIVAL

PS02-052 Transient BDNF introduction therapy against delayed neuronal death in hippocampal CA1 neurons using biocompatible nanomicellar mRNA carrier
Y. Fukushima, H. Imai, S. Uchida, K. Itaka, H. Nakatomi, K. Kataoka, N. Saito (Japan)

PS02-053 Reversal of beta-amyloid-induced neurotoxicity in PC12 cells by curcumin, the important role of ROS-mediated signaling and ERK pathway
M. Yang (China)

BLOOD BRAIN BARRIER

PS02-054 The role of pericyte-mediated HIF-1 in blood-brain barrier modulation and stroke outcome following transient cerebral ischemia
C.-C. Tsao, N. Kachappilly, O. Ogunshola (Switzerland)

PS02-055 Central nervous system (CNS) pharmacokinetic study (PK) of cefotaxime in healthy rats: comparison of cerebral spinal fluid (CSF) and extracellular fluid (ECF) concentrations
C. Dahyot-Fizelier, B. Bourdois, B. Giraud, W. Couet, S. Marchand (France)

PS02-056 M1 and M3 muscarinic receptors interplay mediates murine brain microvascular endothelium response to acetylcholine

PS02-057 Cannabidiol-loaded lipid nanocapsules for glioma therapy across the blood-brain barrier: in vitro assays on human brain endothelial and gloma cell lines
J. Aparicio-Blanco, D.K. Male, I.A. Romero, A.J. Torres-Suarez (Spain, United Kingdom)

PS02-058 Dynamic regulation of the blood-brain barrier by neural activity
R. Pulido, R. Munji, C. Quirk, S. Leutgeb, R. Daneman (United States)

PS02-059 Interaction of thrombin and sphingosine-1-phosphate on blood-brain barrier function
L. Stolz, R. Brunkhorst, K. Devraj (Germany)

GLIAL MECHANISMS

PS02-061 Elucidation of the roles of oligodendrocyte precursor cells after stroke
N. Kishida, T. Maki, H. Kinoshita, Y. Takagi, R. Takahashi (Japan)

PS02-062 Effect of the inhibition of microglial activation on hypothalamic-pituitary-adrenal (HPA) axis during sepsis
L.H. Costa, N. Santos-Junior, M.J. Rocha (Brazil)

PS02-063 Hemoglobin induces phenotype switching and resistance to hemin toxicity through Connexin 43 mediated regulation of YAP nuclear translocation in rat cortical astrocytes
Y. Yang, Y. Sun, J. Ren, B. Wang, Z. Zhong, Z. Xie, Q. Sun, L. Bia (China)

BRAIN EDEMA

PS02-064 Lithium at low therapeutic concentrations decreases myosin light chain phosphorylation and thereby stabilizes human endothelial barrier

PS02-065 Pathophysiology of high altitude traumatic brain edema. New roles of cerебrolysin and nanomedicine
D.F. Muresanu, A. Sharma, H.S. Sharma (Romania)

PS02-066 Enhanced interstitial fluid drainage in the hippocampus of spontaneously hypertensive rats

PS02-067 Delayed NK1 tachykinin receptor antagonist treatment reduces ICP following stroke in an Ovine model
A. Sorby-Adams, A. Leonard, E. Thornton, D. Hunter, R. Turner (Australia)

PS02-060 Hyperglycemia increases resting intracellular calcium and ischemic factor-stimulated calcium responses in blood-brain barrier endothelial cells
N. Klug, M.E. O’Donnell (United States)
BRAINPET: DATA ACQUISITION AND ANALYSIS

PS02-068 Quantification of mu-opioid receptor binding with 11C-Carfentanil PET: a comparison of ROI-methods using test-retest analysis
J. Johansson, R. Ajaín, J. Tuisku, T. Karjalainen, J. Joutsa, H. Scheinin (Finland)

PS02-069 Measurement of cerebral blood flow with H215O PET/MRI
H. Okazawa, T. Tsujikawa, Y. Higashino, H. Arishima, T. Mori, K.-I. Kikuta, Y. Kiyono (Japan)

PS02-070 Kinetic modelling of 18F-Fluoroethyl-tyrosine PET using an image derived arterial input function from the heart in small children
L. Marner, M. Lundemann, O.M. Henriksen, C. Ladefoged, C. Svarer, A. Sehested, I. Law (Denmark)

PS02-072 Simultaneous resting state fMRI – FDG PET measurement in humans: Does the FDG-PET framing matter?

PS02-073 Semiquantification of [11C]-[R]-PK11195 PET imaging in juxtaglomerular and periventricular regions in multiple sclerosis

PS02-074 Experience and evaluation of Dual-Table Autoradiography (DTARG)123I-IMP SPECT: safe, time shortening, and effective modality to predict cerebral infarction in chronic ischemic patients

BRAINPET: NOVEL MODELING AND METHODS

PS02-075 Interrogating the GABAergic system with simultaneous [18F]Flumazenil-positron emission tomography and GABA-magnetic resonance spectroscopy in healthy volunteers
L. Fung, R. Flores, C. Leuze, T. Hjoernevik, T. Hayashi, J. McNab, S. Srinivas, D. Spielman, F. Chin (United States)

PS02-076 Clustering serotonergic key players of the human cortex using positron emission tomography and FreeSurfer

PS02-077 Evaluation of methods for a simultaneous, dual-radiotracer acquisition in translational SPECT neuroimaging

PS02-078 Human brain energy map computed on the basis of cellular staining from BigBrain
Y. Yu, F. Hyder (China)

PS02-079 PET quantification of binding of a novel tau radioligand, 18F-AM-PBB3, in consideration of time-dependent changes in its plasma free fraction

PS02-080 Inferring DVR values from short dynamic PET scans of 11C-DTBZ in rat, mouse and human striatum
A. Avendaño-Estrada, M.A. Ávila-Rodríguez (Mexico)

PS02-081 Evaluating the gray and white matter energy budgets of human brain function
Y. Yu, F. Hyder (China)

BRAINPET: PRECLINICAL IMAGING

PS02-082 ST2-MRI sensitively images the ischemic brain: a comparison to MRI perfusion/diffusion mismatch and [18F]-FMISO-PET

PS02-083 Effects of long-term caffeine consumption on the adenosine A1 receptor in the rat brain: An in vivo PET study with [18F]CPFPX
D. Nabbi-Schroeter, D. Elmenhorst, A. Oskamp, S. Laskowsk, A. Bauer, T. Kroll (Germany)
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PS02-084 Differences in TSPO and cannabinoid receptor CB2 binding at an early stage in poststroke neuroinflammation in living rats  
Y. Ouchi, D. Fukumoto, T. Kakiuchi, S. Nishiyama, S. Yamamoto, T. Hosoya, H. Tsukada (Japan)

PS02-085 In vivo changes in neurotransmitter and metabolite levels following selective activation of the nigrostriatal dopaminergic pathway  
S. Baarentzen, A. Casado-Sainz, E.N. L'Estrada, F.G. Edgar, C. Kjaerby, H. Lee, H. Benveniste, M. Herth, M. Palner (Denmark)

PS02-086 The effect of hypothyroidism on the serotonin 1A receptor binding in the rat brain  

PS02-087 In vitro and in vivo evaluations of an inhibitory effect of dopamine on [18F]FE-PE2I binding to dopamine transporters in rat brains  

PS02-088 [18F]FDG PET imaging reveals that metyrapone attenuates hypermetabolism and brain damage induced by seizures triggered by intrahippocampal 4-aminopyridine in rats  
L. García-García, R. Fernández de la Rosa, M. Delgado, F. Gomez, M.A. Pozo (Spain)

**BRAINPET: METABOLISM AND BLOOD FLOW**

PS02-089 Hybrid PET/MRI imaging in healthy unsedated newborn infants with quantitative rCBF measurements using 15O-water PET  

PS02-090 Early uptake Amyloid PET imaging correlates strongly with cerebral blood flow based on arterial spin labeling MRI: a simultaneous PET/MRI study  
G. Zaharchuk, A. Fan, P. Gulaka, J. Guo, K. Poston, M. Greicius, S. Sha, M. Vasanawala, M. Zeineh (United States)

PS02-091 INDOPET Project: Impact of Indomethacin on cerebral metabolism and blood flow in patients with severe traumatic brain injury and refractory intracranial hypertension (PET 15O study)  
C. Puppo, L. Moraes, J. De Los Santos, M. Garaza, G. Huelmo, A. Biestro (Uruguay)

PS02-092 Simultaneous measurement of cerebral blood flow with pseudo continuous arterial spin labeling, phase contrast mapping and 15O-H2O PET in a hybrid PET/MR system. Preliminary results  

PS02-093 Assessment of inter-individual and regional variability of the coupling of cerebral blood flow and oxygen metabolism  
O. Henriksen, E. Rostrup, K. Vang, A. Gjedde, I. Law, J. Aanerud (Denmark)

**BRAINPET: DEMENTIA AND NEUROLOGICAL DISORDERS**

PS02-095 Imaging neuroinflammation in patients with multiple sclerosis using [18F]FEMPA-PET: A pilot study  
L. Vivash, R.J. Hicks, D. Krenus, T.J. Kilpatrick, T.J. O’Brien (Australia)

PS02-096 Effective connectivity in the default mode network is distinctly disrupted in Alzheimer’s disease  
M. Scherr, L. Utz, T. Grimmer, A. Drzezga, C. Sorg, V. Riedl (Germany)

PS02-097 Dopaminergic neuronal oxidative stress is increased with disease severity in patients with Parkinson’s disease: A study with PET and SPECT  
M. Ikawa, H. Okazawa, H. Neishi, T. Tsujikawa, K. Kikuta, Y. Nakamoto, M. Yoneda (Japan)

**BRAINPET: NEUROTRANSMITTER SYSTEM EVALUATION**

PS02-098 Sigma-1 receptor (S1R) radioligand uptake in chronic pain  
PS02-099 Pharmacological PET/MRI evidences of agonist-induced μ-Opioid receptor desensitization
H.-Y. Wey, M. Placzek, J. Hooker, B. Rosen, J. Mandeville (United States)

PS02-100 Binding of a metabotropic glutamate receptor subtype 5 radioligand, (E)-[11C]ABP688, in human brains assessed by test-retest PET scans

**BRAINPET: PSYCHIATRIC DISORDERS**

PS02-101 The neurobiology of treatment resistant and responsive schizophrenia: an [18F]DOPA PET study
E. Kim, O. Howes, J.S. Kwon (Korea, Republic of)

PS02-102 Reduced TSPO levels in drug-naïve first episode psychosis patients as measured using PET and [11C]PBR28

**BRAINPET: LATE-BREAKING ABSTRACTS**

PS02-103 Preclinical PET studies on muscarinic acetylcholine receptor occupancy by a antimuscarinic agent, solifenacin using 11C-(+3)N-methyl-3-piperidyl benzilate
Y.M. Shin, H.S. Park, Y.N. Kim, G.S. Park, B.S. Moon, M.J. Lee, B.C. Lee, S.E. Kim (Korea, Republic of)

PS02-104 Quantitative PET analysis of subregional striatal dopaminergic neurodegeneration in the MPTP primate model of Parkinson’s disease

PS02-105 Simultaneous PET/fMRI imaging of the serotonin receptor system: the 5-HT4 receptor subtype

PS02-106 Serotonin 5HT1A receptor binding and self-transcendence in healthy control subjects – a replication study using Bayesian inference
G. Griffioen, J. Borg, G.J. Matheson, S. Cervenka, L. Farde (Sweden)

PS02-107 Divergent levodopa mediated modulation of motor- and cognitive-related network activity in Parkinson’s disease: a FDG PET, ASL MRI and fMRI study at resting state
Y. Ma, S. Peng, A. Vo, P. Spetsieris, V. Dhawan, D. Eidelberg (United States)

PS02-108 Brain networks of cerebral metabolism and perfusion associated with cerebellar variant of multiple system atrophy: a FDG PET and ASL MRI study
S. Peng, J. Ge, P. Wu, J. Wang, V. Dhawan, D. Eidelberg, C. Zuo, Y. Ma (United States)
PS03-001 The relationship between cerebral vascular and mitochondria oxygenation during arterial desaturations is predictive of injury severity in neonates with hypoxic-ischaemic encephalopathy
G. Bale, S. Mitra, I. De Roever, J. Meek, N. Robertson, I. Tachtsidis (United Kingdom)

PS03-002 Cerebral hemodynamic response to change of body position in patients with obstructive sleep apnea by diffuse correlation spectroscopy
C. Gregori-Pla, G. Cotta, I. Blanco, P. Zirak, A. Fortuna, M. Mayos, T. Durduran (Spain)

PS03-003 Acute high-intensity interval training, but not moderate-intensity aerobic exercise, decreases mu-opioid receptor availability in humans
T. Saanijoki, L. Tuominen, J.J. Tuulari, L. Nummenmaa, E. Arponen, K. Kalliokoski, J. Hirvonen (Finland)

PS03-004 Noninvasive optical method can predict hydrocephalus treatment and brain outcomes-initial experiences with post-infectious hydrocephalus infants in Uganda

PS03-005 Pediatric sleep apnea suppresses cerebral blood flow reactivity to hypercapnia

PS03-006 Magnesium and verapamil after recanalization in ischemia of the cerebrum (MAVARIC) in the Kentucky regional population: a clinical and translational study.
Study Design
J. Fraser, M. Dobbs, P. Kitzman, A. Cook, L. Parker, D. Lukins, B. Gregory (United States)

PS03-007 Non-invasive cerebral autoregulation monitoring during cardiac surgery with cardiopulmonary bypass
V. Petkus, B. Kumpatiene, R. Zakelis, S. Krakauskaite, R. Chomskis, M. Svagzdienė, E. Sirvinskas, R. Benetis, A. Raguaskas (Lithuania)

PS03-008 Evaluation of MRI tumor characteristics and quantitative FDG-PET assessments of cerebro-cerebellar diaschisis: Pathophysiologic implications for gliomas
E.A. Segtnan, J. Holm, J.H. Decker, C. Constantinescu, A. Gjedde, P.F. Hollund-Carlsten, J. Ivanidze (Denmark)

PS03-009 Using near-infrared spectroscopy to measure cerebral blood flow in neonatal brain injury
S. Mitra, G. Bale, A. Sudakou, J. Meek, N. Robertson, I. Tachtsidis (United Kingdom)

PS03-010 Interrogating changes in cerebral glucose availability, delivery, uptake and phosphorylation after traumatic brain injury: an 15Oxygen and 18F-fluorodeoxyglucose positron emission tomography study
J. Hermanides, Y. Hong, M. Trivedi, J. Outtrim, F. Algibirho, P. Nestor, T. Fryer, D. Menon, J. Coles (United Kingdom)

PS03-011 Cerebral hemodynamic response to head-of-bed manipulation can differentiate between brain hemispheres with and without severe internal carotid artery steno-occlusive lesions
C. Gregori-Pla, G. Cotta, P. Camps-Renom, J. Marti-Fabregas, R. Delgado-Mederos, T. Durduran (Spain)
PS03-014 Using multi-TI ASL to explore gray matter (GM) perfusion in multiple sclerosis (MS) patients
I. Lipp, C. Foster, R. Stickland, A. Davidson, R.G. Wise, V. Tomassini (United Kingdom)

PS03-015 New insights into neuro-imaging changes in idiopathic intracranial hypertension
S. Lublinisky, A. Kesler, A. Friedman, I. Shelef (Israel)

PS03-016 Functional connectivity assessment in a mouse model of glioma growth
I. Orukari, A. Bauer, G. Baxter, J. Rubin, J. Culver (United States)

PS03-017 Anatomical and functional characterization of schizophrenia-linked genes
G.J. Thompson, K. Perez De Arce, E.T.C. Lippard, B.G. Sanganahalli, S.M. Strittmatter, F. Hyder, T. Biederer (United States)

PS03-018 Cerebral venous sinuses thrombosis in Kyrgyzstan: a review of a series of clinical cases, clinical and imaging correlation
A. Shapovalova, I. Lutsenko, S. Jumakeeva (Kyrgyzstan)

PS03-019 Charcot-Marie-Tooth 2b associated Rab7 mutations dysregulate intra-axonal protein synthesis and mitochondrial function
A.V. Holtermann, J.-M. Cioni, J.Q. Lin, B. Turner-Bridger, M.A. Jakobs, A. Dwivedy, C.E. Holt (Germany, United Kingdom)

PS03-020 Histomorphological spectrum of lesions of the central nervous system including the brain, spinal cord and vertebrae
P. Bista Roka (Nepal)

BRAIN PLASTICITY
PS03-021 Mapping and manipulating the fate of obstructed microvessels
P. Reeson, C.E. Brown (Canada)

PS03-022 Effects of acute and chronic sleep deprivation on the resting-state activity of the human brain
J. Fronczek, D. Lange, E. Hennecke, D. Aeschbach, A. Bauer, E.-M. Elmenhorst, D. Elmenhorst (Germany)

PS03-023 Endogenous recovery of impaired synaptic plasticity after juvenile global and focal ischemia
R. Dietz, J. Orfia, G. Deng, N. Chambers, H. Grewal, C. Schroeder, R. Traystman, P. Herson (United States)

PS03-024 Using functional MRI to track neuroplasticity after cognitive rehabilitation post traumatic brain injury
S. Chopra, S. Kumar, S. Sinha, H. Kaur, A. Nehra (India)

PS03-025 Measuring cerebrovascular mechanisms of neuroplasticity using Arterial Spin Labelling (ASL) fMRI
C. Foster, J. Steventon, D. Helme, I. Driver, V. Tomassini, R.G. Wise (United Kingdom)

STEM CELLS AND CELL THERAPY
PS03-026 Murine microvascular pericytes promote recovery from an inflammatory mediated model of multiple sclerosis
P. Dore-Duffy, N. Esen, V. Katsychev, S. Katsycheva (United States)

PS03-027 Hypoxic preconditioning enhances neural stem cell transplantation therapy after intracerebral hemorrhage in mice
N. Fukuda, T. Wakai, H. Yoshioka, H.C. Pak, H. Kinouchi (Japan)

PS03-028 Human amnion stem cell-derived exosomes improve stroke outcome
B. Broughton, A. Ghaly, M. Evans, R. Lim, G. Drummond, E. Wallace, C. Sobey (Australia)

PS03-029 Global glia replacement as a strategy for treatment of amyotrophic lateral sclerosis – a basic study on experimental mice model
L. Stanaszek, M. Majchrzak, J. Sanford, P. Walczak, B. Lukomska, M. Janowski (Poland)

PS03-030 Cerebral decellularized extracellular matrix as in vitro model for neural development
D. Reginensi, S. Valerio, D. Ortiz, A. Pravia, C. Morgan, R. Gittens (Panama)

PS03-031 Resting-state fMRI and behavioural indices of a human neural stem cell therapy for ischaemic stroke in rats
T. Hollyer, L. Gallagher, C. Hicks, R.P. Stroemer, K.W. Muir, J. Goense, I.M. Macrae (United Kingdom)
PS03-032  Microglia preconditioned by oxygen-glucose deprivation promote functional recovery in ischemic rats

PS03-033  Distribution of bone marrow stromal cells after intravenous or intraventricular transplantation in experimental stroke
A. Lourbopoulos, U. Mamrak, C. Pan, R. Cai, A. Ghasemigharagoz, F.P. Quacquarelli, F. Hellal, A. Ertuerk, N. Plesnila (Germany)

STROKE

PS03-035  Intra-arterial IL-1α is well tolerated and neuroprotective after experimental ischemic stroke
K. Salmeron, M. Maniskas, A. Trout, E. Pinteaux, J. Fraser, G. Bix (United States)

PS03-036  A1 adenosine receptor attenuates intracerebral hemorrhage-induced secondary brain injury in rats by activating the P38-MAPKAP2-Hsp27 pathway
W. Zhai, Z. Yu, G. Chen (China)

PS03-037  Differing image patterns in perfusion maps of Arterial Spin Labeling (ASL) perfusion in cerebral arterial stenosis: awareness of pitfalls is a must
S. Jaiswal, S. Parida (India)

PS03-038  Dynamic changes in cortical cerebral blood flow following permanent MCAO: Influence of inhaled nitric oxide
I.J. Biose, I.M. Macrae, C. McCabe (United Kingdom, Nigeria)

PS03-039  Evaluation of mechanical thrombectomy trends at University of Kentucky
S. Trott, J. Fraser (United States)

PS03-040  White matter hyperintensity segmentation in large scale clinical acute ischemic stroke cohort using a fully automated pipeline

PS03-041  Time-Domain NIRS oxygenation parameters in healthy volunteers compared to ischemic stroke patients
G. Giacalone, M. Zanoletti, D. Contini, R. Re, L. Spinelli, B. Germinario, A. Torricelli, L. Roveri (Italy)

PS03-042  Inhibition of α5β1 integrin with ATN-161 is neuroprotective and stabilizes the blood-brain barrier after experimental ischemic stroke
D. Edwards, K. Salmeron, J. Fraser, G.J. Bix (United States)

PS03-043  Investigation of effective reserve as a protective mechanism for stroke outcome
M.D. Schirmer, M.R. Etherton, A.V. Dalca, A.K. Giese, L. Cloonan, O. Wu, P. Golland, N.S. Rost (United States)

CEREBRAL ISCHEMIA: CELLULAR AND MOLECULAR

PS03-044  Peroxisomal turnover in ischemic brain
W. Zhu, W. Zhang, J. Young, A. Barnes, N. Alkayed (United States)

PS03-045  Expression of leukemia inhibitory factor receptor in the brain and immune system after permanent stroke
S. Davis, L. Collier, J. Fazal, C. Leonardo, C. Ajmo, K. Pennypacker (United States)

PS03-046  Membrane trafficking dysfunction leads to Cathepsin B release and ischemia-reperfusion brain injury
D. Yuan, C. Liu, B. Hu (United States)

PS03-047  Post-stroke induction of alpha-synuclein mediates ischemic brain damage
T. Kim, S. Mehta, B. Kaimal, K. Lyons, R. Vemuganti (United States)

PS03-048  Impaired assembly of HTRA1 oligomers as a pathogenic mechanism in cerebral small vessel disease

PS03-049  Growth differentiation factor-11 causes neurotoxicity during oxygen and glucose deprivation in vitro
B.A. Sutherland, G. Hadley, Z. Alexopoulou, T. Lodge, A.A. Neuhaus, Y. Couch, N. Kalajian, K.J. Morten, A.M. Buchan (Australia, United Kingdom)
PS03-050  Exosomes shed from M2 microglia protect neuron from hypoxia
Y. Song, Y. Feng, M. Qu, T. He, F. Yuan, W. Li, Z. Li, L. Jiang, Y. Wang, Z. Zhang, G. Yang (China)

PS03-051  Blockade of acid sensitive ion channels attenuate recurrent hypoglycemia-induced potentiation of post-ischemic hypoperfusion and ischemic brain damage in treated diabetic rats
A.K. Rehni, V. Shukla, K.R. Dave (United States)

PS03-052  Nur77 ameliorate brain ischemic injury through polarize microglia from M1 to M2 phenotype
Y. Chen, H. Zhan, Y. Jin, L. Han, Y. Xu (China)

PS03-053  Proteomic analysis of HDAC3 selective inhibitor in the regulation of inflammatory response of primary microglia
M. Zhang, M. Xia, Q. Zhao, Y. Xu (China)

PS03-054  The neuroprotective compound P7C3-A20 improves behavioral and histopathological outcomes after transient focal cerebral ischemia in rats
Z.B. Loris, A.A. Pieper, W.D. Dietrich (United States)

PS03-055  Endothelial TRPV1 channels modulate cerebral blood flow during reperfusion phase following ischemic stroke
S.-H. Hong, S. Marrelli (United States)

PS03-057  Simulating arteriolar smooth muscle mediated cerebral blood flow regulation and oxygenation in response to optogenetic activation and ischaemia
P. Sweeney, R. Hill, J. Grutzendler, S. Walker-Samuel, R. Shipley (United Kingdom)

PS03-058  Omega-3 fatty acid supplement prevents progression of Intracranial Atherosclerosis (ICAS)
X. Geng, J. Shen, J. Stevenson, Y. Ding (China)

PS03-059  A novel mouse model of cerebellar stroke with motor and non-motor deficit
M. Moreno-Garcia, C. Mehos, M. Kubesh, R. Schmidt, N. Quillinan (United States)

PS03-060  A “Crowdsourced” method to incorporate variability in experimental stroke to better mimic the biology and diversity of human stroke
T.A. Kent, H.C. Rea, W. Dalmeida, R.H. Fabian, C. Ayata, P. Mandava (United States)

PS03-061  Aged and sex influence the neutrophil response after ischemic stroke in mice and humans
M. Roy-O’Reilly, J. Bravo Alegria, H. Ahnstedt, M. Spychala, L. McCullough (United States)

PS03-062  Increased infarction and hemorrhagic transformation in aged spontaneous hypertensive rats: role of collateral CBF
S.L. Zhao, M.K. Mulligan, T.S. Nowak (United States)

PS03-063  Inadequate food and water intake determine mortality following severe stroke in mice
A. Lourbopoulos, U. Mamrak, J. Shrouder, S. Roth, M. Balbi, A. Liesz, F. Hellal, N. Plesnila (Germany)
PS03-068  The effect of 20-HETE inhibition by HET0016 on the cerebral microvascular circulation after asphyxial cardiac arrest in pediatric rats
L. Li, S. Poloyac, S. Waltkins, C. St Croix, H. Alexander, G. Gibson, P. Loughran, R. Clark, P. Kochanek, L. Kirisci, A. Vazquez, M. Manole (United States)

PS03-069  Validation of noninvasive measurements of cerebral blood flow and oxygenation in a pediatric swine model of cardiac arrest and cardiopulmonary resuscitation

PS03-070  Physical exercise promotes cognitive recovery after cardiac arrest in Sprague-Dawley rats
H. Stradecki-Cohan, C. Cohan, M. Youbi, E. Perez, M. Perez-Pinzon (United States)

PS03-071  Perfusion-related changes in the temporal dynamics of the blood-oxygen-level-dependent signal in a mouse model of focal cerebral ischemia
A. Khalil, S. Mueller, M. Foddis, U. Dimagl, J. Fiebach, A. Villringer, P. Boehm-Sturm (Germany)

PS03-072  Connection between paravascular spaces and the cerebrospinal fluid compartment in the rat brain
B. Bedussi, N.N. van der Wel, J. de Vos, H. van Veen, M. Siebes, E. VanBavel, E.N.T.P. Bakker (Netherlands)

PS03-073  Clinical mapping of cerebrovascular reactivity using MRI: a framework for reaching consensus

PS03-074  Novel non-invasive method for monitoring intracranial pressure with diffusion correlation spectroscopy
K.C. Wu, J. Sutin, B. Zimmerman, P. Farzam, B. Fu, D. Boas, M.A. Franceschini (United States, Taiwan, Republic of China)
### POSTER SESSIONS | MONDAY, APRIL 3RD 2017

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<td>PS03-086</td>
<td>G-protein coupled receptor 39 expression and function in the microcirculation</td>
<td>N. Alkayed, Z. Cao, C. Davis, Z.Y. Qian, F. Xie, X. Liu, B. Li, D. Zeppenfeld, M. Grafe, J. Iliff, X. Xiao, A. Barnes, S. Kaul (United States)</td>
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<td>PS03-087</td>
<td>PGE2 EP-1 receptors play an obligatory role in the increase of cerebral blood flow produced by hypercapnia in the mouse brain microcirculation</td>
<td>K. Uekawa, K. Koizumi, J. Hwang, N. Brunier, Y. Hattori, P. Zhou, C. Iadecola, L. Park (United States)</td>
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<td>PS03-088</td>
<td>Hemodynamic mapping of cell-specific and resting-state functional connectivity in the awake mouse brain</td>
<td>A. Bauer, A. Kraft, G. Baxter, P. Wright, M. Reisman, A. Bice, A. Snyder, M. Bruchas, J.-M. Lee, J. Culver (United States)</td>
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<tr>
<td>PS03-089</td>
<td>Impaired hippocampal neurovascular coupling in a mouse model of Alzheimer’s disease</td>
<td>L. Li, X.-K. Tong, E. Hamel, H. Girouard (Canada)</td>
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<td>PS03-090</td>
<td>Cerebral blood flow and oxygen delivery changes in response to oxygen inhalation: Impact from the genetic adaptation at high altitude</td>
<td>J. Liu, H. Wang, L.H. Ren, P. Zhao, J.M. Serrador (China, United States)</td>
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<td>PS03-091</td>
<td>Perivascular macrophages mediate vascular oxidative stress and neurovascular dysfunction induced by amyloid-β through CD36 and Nox2</td>
<td>L. Park, L. Garcia-Bonilla, K. Uekawa, P. Zhou, R. Pitstick, L. Younkin, S. Younkin, G. Carlson, C. Iadecola (United States)</td>
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### NEUROVASCULAR COUPLING

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<tr>
<td>PS03-092</td>
<td>High-resolution functional parcellation of the rat thalamus</td>
<td>B.G. Sangnahall, P. Herman, G.J. Thompson, F. Hyder (United States)</td>
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<td>PS03-093</td>
<td>Interferometric near-infrared spectroscopy (iNIRS) quantifies brain absorption, scattering, and blood flow index in vivo</td>
<td>D. Borycki, O. Khokhlov, V. Srinivasan (United States)</td>
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<td>PS03-094</td>
<td>ASL combined with EEG for neurovascular coupling assessment in a clinical model of vascular dementia</td>
<td>C. Huneau, H. Benali, H. Chabriat (France)</td>
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<td>PS03-095</td>
<td>Metabolic demand of neural-hemodynamic associated and disassociated areas with calibrated fMRI</td>
<td>P. Herman, B.G. Sangannahall, D.L. Rothman, H. Blumenfeld, F. Hyder (United States)</td>
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<td>PS03-096</td>
<td>Vascular tPA influences neurovascular coupling through an NMDA-receptor dependent mechanism</td>
<td>A. Anfray, D. Vivien, C. Orset (France)</td>
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<td>PS03-097</td>
<td>Brain endothelial Gαq/11 signaling is involved in cerebral blood flow regulation</td>
<td>J. Wenzel, J.C. Assmann, S. Offermanns, M. Schwaninger (Germany)</td>
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<td>PS03-099</td>
<td>Montreal scale of cognitive functions in early diagnosis of constrictive cerebral arteries</td>
<td>M. Salohiddinov (Uzbekistan)</td>
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### NEUROTRANSMISSION

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<tr>
<td>PS03-100</td>
<td>Noradrenergic deficits in Parkinson’s disease: Relations to cognitive and cortical oscillatory activity declines</td>
<td>A. Nahimi, M. Sommerauer, K. Östergaard, M.B. Kinnerup, M. Winterdahl, R. Krogbæk, J. Jacobsen, A. Schacht, P. Borghammer, M.F. Damholt, B. Johnsen, A. Gjedde (Denmark)</td>
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<td>PS03-101</td>
<td>Elicitation of cortical spreading depolarization (CSD) in adult rats by substance P – a mechanism to aggravate secondary cortical damage after brain injury or infection?</td>
<td>F. Richter, J. Leuchtweis, A. Eitner, A. Lehmenkühler, H.-G. Schaible (Germany)</td>
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**15:00–16:00  PS04 POSTER SESSION IV**

**Clinical Studies**

**PS04-001** Brain temperature depends on degree of cerebral white matter damage in patients with subacute carbon monoxide poisoning
S. Fujiwara, Y. Yoshioka, T. Matsuda, H. Nishimoto, A. Ogawa, K. Ogasawara, T. Beppu (Japan)

**PS04-002** Immersive Medical Media – a platform for dynamic exploration of automatic, subject-specific atlases from standard medical images
G. Hartung, G. Xu, A. Linninger (United States)

**PS04-003** Nonspreading depression followed by spreading depolarization in patients with cardiac arrest and analysis of platinum-iridium electrode interferences with oxygen and pH
J. Dreier, S. Major, J. Hartings (Germany)

**PS04-004** Pharmacological and behavioral interventions for focus: The comparison of reversal learning under the influence of Lysergic Acid Diethylmide (LSD), Methylphenidate (MPH) and Mindfulness
A. Zhuparris (Netherlands)

**PS04-005** Prediction of new cerebral ischemic events after endarterectomy for symptomatic unilateral internal carotid artery stenosis using crossed cerebellar hyperperfusion on preoperative brain perfusion

**PS04-006** Systemic inflammation impacts on central inflammatory changes and outcome after cerebral ischemia in stroke patients and experimental animals: a bench to bedside study
F.M. Vásárhelyi-Nagy, N. Lénárt, L. Csiba, T. Hortobágyi, A. Denes (Hungary)

**Neurological Diseases**

**PS04-007** Detection of misery perfusion in patients with chronic unilateral major cerebral artery steno-occlusive disease using crossed cerebellar hyperperfusion on 123I-IMP single-photon emission computed tomography imaging

**PS04-008** Prediction of hyperperfusion after carotid artery stenting and carotid angioplasty using cerebral circulation time using syngo iFlow
K. Yamauuchi, Y. Enomoto, Y. Egashira, N. Nakayama, S. Yoshimura, T. Iwama (Japan)

**PS04-009** Increase of rCBF in low-perfusion area (L-pa) after extracranial-intracranial bypass is achieved regardless of targeting recipient artery (Ra) in non-moyamoya diseases (NMMD)
H. Katano, M. Mase (Japan)

**PS04-010** Intracranial venous pulsatility is reduced after transverse sinus stenosis
A. Guenego, A.C. Januel, P. Tall, N. Fabre, Z. Czosnyka, C. Cognard, E. Schmidt (France)

**PS04-011** Diagnosis of ventriculostomy-related infection: is cerebrospinal fluid lactate measurement a useful tool?
P. Grille, F. Verga, A. Biestro (Uruguay)

**PS04-012** Incidence and types of arrhythmia in adult patients with uncorrected atrial septal defect
M. Primasari (Indonesia)

**PS04-013** The low hSOD1 transgene copy number mice as an animal model dedicated to cell replacement strategies
M. Majchrzak, L. Stanaszek, P. Walczak, M. Janowski, B. Łukomska (Poland)

**PS04-014** Effects of Na,K-ATPase alpha isoform deficiency on spreading depolarization studied in mice
C. Reiffurth, M. Alam, M. Zahedi-Khorasani, J.P. Dreier (Germany)
POSTER SESSIONS | MONDAY, APRIL 3RD 2017

PS04-015 Anaplerotic triheptanoin preserves mitochondrial function and reduces oxidative stress in pilocarpine-induced status epilepticus
K.N. Tan, C. Carrasco-Pozo, K. Borges (Australia)

PS04-016 Amyloid-β- and tau-driven neurovascular dysfunction in a transgenic rat model of Alzheimer’s disease

PS04-017 Effects of arginine vasopressin on hippocampal network activity in a rat model of birth asphyxia
E. Prokic, M. Summanen, H. Hartung, A. Alafuzoff, J. Voipio, K. Kaila (Finland)

PS04-018 Kinsbourne syndrome – opsoclonus myoclonus ataxia (clinical case report)
M. Azhermacheva, V. Alfirova (Russian Federation)

PS04-019 MRI imaging for sensitive tumour cell-tracking during development of early brain metastasis in a preclinical model
A. Corroyer-Dulmont, S. Valable, N. Falzone, N.R. Sibson, M. Bernaudin, K.A. Valls (France, United Kingdom)

PS04-020 A case of complicated migraine auras in temporal association with electrocorticographically recorded spreading depolarizations
S. Major, D. Milakara, J.P. Dreier (Germany)

BRAIN PLASTICITY

PS04-023 A web based meta-analysis of microdosing of psychedelic drugs as a form of nootropics
A. ZhuParris (Netherlands)

PS04-024 Reorganization patterns of cortical arm muscle representations: post-stroke longitudinal TMS study
L. Lazzouni, A. Zumbansen, H. Vogt, P. Kramer, A. Thiel (Canada)

PS04-025 Longitudinal mapping of visual cortical network following partial optic nerve injury
M. Groleau, M. Nazariahangarkolaee, M.P. Vanni, B.A. Sabel, M.H. Mohajerani, E. Vaucher (Canada)

PS04-026 Brain mechanisms of gait steering in young, normal subjects: a PET 18F-FDG PET study
J.-P. Soucy, F. Starr, C. Paquette (Canada)

STEM CELLS AND CELL THERAPY

PS04-027 Wharton’s Jelly-derived mesenchymal stem cells modulate autonomic activity and systemic inflammation in rats with sepsis
J. Cóndor, C. Rodrigues, R. Moreira, I. Noronha, F. Dos Santos, C. Irigoyen, S. Gomes, L. Andreade (Brazil)

PS04-028 An innovative regenerative medicine protocol to treat neurologic pathologies with examples of some clinical cases in non-provoked pathologies in dogs and horses
M. Polettini, G. Zohar, C. Gabbiani (Italy)

PS04-029 MRI-navigated intra-arterial delivery of VLA-4 overexpressing mesenchymal stem cells in rat model of deep-brain lacunar infarct
A. Andrzejewska, A. Nowakowski, S. Koniusz, M. Janowski, B. Lukomska (Poland)

PS04-030 Induction of early gliogenesis in transplantation of hiPSCs-derived telencephalon progenitors in rat focal brain ischemia
Y. Hermanto, Y. Takagi, J. Takahashi, S. Miyamoto (Japan)

PS04-031 Difference in sensitivity of immature and mature hESC derived neurons to OGD injury
Y. Liu, A. Antonic, D. Howells (Australia)

PS04-032 Enhancing the anti-inflammatory properties of mesenchymal stem cells
E. Redondo-Castro, C. Cunningham, J. Miller, L. Martuscelli, K. Kostarelos, E. Pinteaux, S.M. Allan (United Kingdom)

PS04-033 Novel methods for intra-arterial injection of stem cells to the ischemic brain: A neurosurgical approach
F. Azeditehrani, M.T. Joghataei, K. Mousavizadeh, M. Mehrpur (Iran, Islamic Republic of)
PS04-034 Evaluating the neuroprotective effect of human dental pulp stem cells using a stroke-related neuronal survival assay
Y. Dillen, P. Gervois, J. Ratajczak, P. Hilkens, T. Vangansewinkel, R. Driesen, I. Lambrichts, U. Himmelreich, A. Bronckaers, E. Wolfs (Belgium)

STROKE

PS04-035 Cerebral hemodynamic changes after angioplasty of intracranial stenosis
M. Ghaffari, C.-Y. Hsu, A. Alaraj, A. Linnninger (United States)

PS04-036 Blood rheology in acute ischemic stroke and chronic microvascular ischemic disease
M. Azhermacheva, E. Stegmeier (Russian Federation)

PS04-037 Scanning electron microscopy identifies both active and mechanical interaction between stent retrievers and thrombus, which depends on surface characteristics
A.C.G.M. van Es, A. Autar, S. Ramlal, B.J. Emmer, B.W.F. der Kallen, A. van der Lugt, G. Lycklama à Nijeholt, D. Dippel, H.M.M. van Beusekom (Netherlands)

PS04-038 Relationships between coding variants in genes involved in vitamin B12 absorption, transport, and metabolism, response to supplemental B vitamins, and recurrent stroke
M.M. Sale, F.-C. Hsu, W.-M. Chen, K.L. Keene, A.M. Southerland, S.S. Rich, B.B. Worrall (United States)

PS04-039 Association of mitral annular calcification and/or aortic valve calcification and complex aortic atheroma in stroke patients

PS04-040 Characterization of risk factors for stroke in a Honduran population of African descent aged between 35–85 years in the community of Ciriboya, Colon
F.E. Lobo Cerna, L.J. Pinto, J. Andrade, E. Soriano (Honduras)

PS04-041 Observation of microvascular cerebral blood flow fluctuations due to undiagnosed breathing disorders in acute ischemic stroke
C. Gregori-Pia, G. Cotta, R. Delgado-Mederos, M. Mayos, A. Fortuna, P. Camps-Renom, J. Martí-Fàbregas, T. Durduranz (Spain)

PS04-042 miR-145 and proatherogenic low-density lipoprotein are associated with the pathogenesis of acute ischemic stroke
M.-Y. Shen, F.-Y. Chen, C.-Y. Hsu, C.-H. Chen (Taiwan, Republic of China)

PS04-043 The histone deacetylase inhibitor, sodium butyrate, exhibits neuroprotective effects for ischemic stroke in middle-aged female rats
M.J. Park, F. Sohrabji (United States)

PS04-044 High intracranial pressure triggers peri-infarct depolarizations and worsens outcome after focal cerebral ischemia
F. Oka, H. Sadeghian, A. Yaseen, B. Fu, S. Kura, S. Sakadzic, T. Qin, M. Suzuki, C. Ayata (Japan)

CEREBRAL ISCHEMIA: CELLULAR AND MOLECULAR

PS04-045 Dynamic changes of phosphatidylcholine in rat hippocampal CA1 after transient global ischemia detected by imaging mass spectrometry

PS04-046 Verapamil improves survival and dendritic branching in primary cortical neurons exposed to oxygen-glucose deprivation
A. Trout, M. Maniakas, J. Fraser, G. Bix (United States)

PS04-047 The roles of Hax-1 in ischemic neuronal injury
X. Sui, H. Yoshioka, T. Yagi, K. Kanemaru, H. Kinouchi (Japan)

PS04-048 Splenectomy failed to provide long-term protection to the ischemic brain
Y. Ran, S. Huang, W. Zhang, J. Shen, F. Li, Z. Liu, X. Hu (China)
PS04-049 Modeling the ischemic neuromuscular unit in a dish using a stem-cell based model
S. Page, M. Cucciarre-Stuligross, S. Faress, A. Al-Ahmad (United States)

PS04-050 The influences of PAR 1-agonists on brain cells of rat at ischemia in vitro and in vivo
E. Abramov, T. Molchanova, M. Sidorova, L. Gorbacheva (Russian Federation)

PS04-051 Proteinases of hemostasis are regulators of neurodegeneration
L. Gorbacheva, E. Abramov, S. Strukova (Russian Federation)

PS04-052 Transthyretin provides trophic support via megalin by promoting neurite outgrowth and neuroprotection in cerebral ischemia

PS04-053 Novel functional variant of nNOS in brain microvascular endothelial cells contributes to superoxide generation and affords protection against anoxic injury
V. Sure, A. Chen, N. Peterson, N. Jain, I. Merdzo, G. Unis, A. Gordon, T. Baker, I. Rutkai, D. Busija, P. Katakam (United States)

PS04-054 Using unbiased large scale 3d microscopy deep phenotyping to investigate neuroprotective small molecule inhibitors of pro-apoptotic Bax and Bak
P. Mergenthaler, S. Hariharan, D.W. Andrews (Germany, Canada)

PS04-055 Association between acute post traumatic epilepsy and type of cerebral ischaemia in neuroimaging
D.P.C.K.A. Lal (Sri Lanka)

CEREBRAL ISCHEMIA: REPERFUSION

PS04-056 HQ22 treatment promote the neurogenesis and function recovery post stroke
C. Xi (China)

PS04-057 Chronic photoperiod disruption does not increase sensitivity to transient focal cerebral ischaemia in spontaneously hypertensive rats
K.M. Ku Mohd Noor, C. Wyse, L. Roy, S. Biello, D. Dewar, C. McCabe (United Kingdom)

PS04-058 Effects of yokukansan on NO, OH- metabolism during cerebral ischemia and reperfusion in mice

CEREBRAL ISCHEMIA: ANIMAL MODELS

PS04-059 A model of ischemic white matter injury in young and aged Fischer 344 rats
C. Cohan, M. Youbi, H. Stradecki-Cohan, M. Perez-Pinzon (United States)

PS04-060 Effect of spreading depolarization on cerebral blood flow and development of infarction under experimental ischemia in anesthetized mice
M. Unekawa, Y. Tornita, H. Toriumi, T. Osada, K. Masamoto, I. Kanno, N. Suzuki (Japan)

PS04-061 Improved outcome utilizing a novel catalytic antioxidant carbon nanoparticle in hyperglycemic stroke in rats at clinically relevant recanalization times

PS04-062 Chronic cerebral hypoperfusion accelerates Alzheimer’s disease pathology with cerebrovascular remodeling in a novel mouse model
T. Yamashita, Y. Zhai, Y. Nakano, R. Morihara, J. Shang, K. Ahe (Japan)

PS04-063 Long-term retinal vascular effects of TrkB agonist (7,8-dihydroxyflavone) therapy after neonatal hypoxic ischemic encephalopathy
O. Mezu-Ndubuisi, D. Zafer, T. Adams, V. Chanana, D. Hanaligol, A. Canturk, P. Cengiz (United States)
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PS04-065  Remote limb ischemic conditioning in murine focal cerebral ischemia
K. Kitagawa, M. Saitoh, K. Ishizuka (Japan)

CARDIAC ARREST

PS04-066  Severity of brain injury after global ischemia: Prognostic parameters of cardiac arrest survivors evaluated by brain autopsies
C. Endisch, C. Leithner, C. Storm, C.J. Ploner, K.J. Streitberger (Germany)

PS04-067  Characterization of cerebral hemodynamics following return of spontaneous circulation (ROSC) in a porcine model of pediatric asphyxial cardiac arrest and resuscitation

PS04-068  Spatial and temporal heterogeneity of diffusion-weighted imaging findings in comatose cardiac arrest patients
O. Wu, S. Winzeck, W.A. Copen, P. Schaefer, D.M. Greer (United States)

PS04-069  In vivo assessment of neural and metabolic activity in cortex after pediatric cardiac arrest
M.D. Manole, R.S.B. Clark, P.M. Kochanek, H. Alexander, M. Fukuda, L. Li, A.L. Vazquez (United States)

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PS04-070  The resting-state sensorimotor network is affected by stereotaxic injection
T. Hollyer, L. Gallagher, R.P. Stroemer, K.W. Muir, I.M. Macrae, J. Goense (United Kingdom)

PS04-071  Dynamical changes of cerebral vasculature in spontaneous hypertensive rats using synchrotron radiation angiography
L. Wang, Z. Mu, X. Lin, J. Geng, T. Xiao, Z. Zhang, Y. Wang, Y. Guan, G.-Y. Yang (China)

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PS04-072  Near-infrared, time-resolved optical tomography with a novel compact system

PS04-073  Development of new pulsatile diffuse correlation spectroscopy (DCS) indices for evaluating infant hydrocephalus
J. Sutin, B. Warf, P.E. Grant, P.-Y. Lin (United States)

PS04-074  An improved pipeline for a computer-based stereological method of counting immuno-labelled cells in the rat brain tissue
C. Simmons, A. Pellizzon, M. Veronese, S. Yildizoglu, I. Rosenzweig, C. Wild, F. Turkheimer, D. Cash (United Kingdom)

PS04-075  Bridging the gap between cellular and BOLD fMRI imaging
D. Boido, R.L. Rungta, B. Osmanski, T. Tsurugizawa, D. Le Bihan, L. Ciobanu, S. Charpak (France)

PS04-076  Effect of background suppression and motion correction on pseudo-continuous arterial spin labeling CBF measurement

PS04-077  Correction for non-rigid movement artefacts in calcium imaging using local-global optical flow and PCA-based templates
A. Brazhe, J. Fordsmann, M. Lauritzen (Russian Federation, Denmark)

PS04-078  Localised structural brain differences between the BALB/cJ and BALB/cByJ mouse sub-strains and the relationship to aggression
T. Wood, D. Cash, C. Simmons, A. Jager, F. Mogavero, M. Bernanos Mesquita, S. Williams, J. Glennon (United Kingdom)

PS04-079  Multimodal preclinical imaging concept with contrast agent MRI, diffusion-weighted MRI, fluorescence imaging and histology in a glioblastoma multiforme mouse model
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<td>M.F. Iulita, G. Muhire, D. Vallerand, J. Youwakim, F.R. Petry, M. Gratuze, G. Ferland, E. Planel, H. Girouard</td>
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PS04-095 Alterations in neurovascular coupling in the diabetic brain: A pilot study

PS04-096 The effects of capillary transit time heterogeneity (CTH) on the BOLD signal
H. Angleys, L. Østergaard, S. Jespersen (Denmark)

PS04-097 RCBF – rCMRO2 interrelation of neonatal premature brain
M. Nourhashemi, G. Kongolo, M. Mahmoudzadeh, S. Godjil, F. Wallois (France)

NEUROMETABOLIC COUPLING

PS04-098 Could ATP produced in neurotransmitter glutamate metabolism meet the energy demands of glutamatergic neurotransmission?
P.K. Maciejewski (United States)

PS04-099 The role of lactate shuttle for synaptic transmission and seizure propagation in neocortical slices from patients with temporal lobe epilepsy
E.A. Angamo, U. Heinemann, R. Kovács (Germany)

PS04-100 The price of auditory sharpness: model-based estimate of metabolic demands of the octopus-cells
O. Zhukov, A. Brazhe (Russian Federation)

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10:00–11:00 PS05 POSTER SESSION V

STROKE

PS05-001 B lymphocytes infiltrate ischemic brain forming follicle-like structures and contributing to autoreactive responses after experimental stroke
K. Winek, T. Zhang, C. Dames, E. Andrzejak, C. Meisel, A. Meisel (Germany)

PS05-002 Supplementary motor area, but not primary motor cortex – graded real-time fMRI neurofeedback training and its translation to stroke patients
D. Mehler, A. Williams, F. Krause, M. Luehrs, H. Shetty, D. Turner, D. Linden, J. Whittaker (United Kingdom)

PS05-003 Rivaroxaban limits early hematoma expansion after experimental intracerebral hemorrhage compared with warfarin
S. Sawada, Y. Egashira, Y. Ono, M. Shimazawa, T. Iwama, H. Hara (Japan)

PS05-004 Longitudinal monitoring of mesoscopic cortical activity using a fluorescent bead mouse model of small vessel disease and GCaMP6 imaging
M. Balbi, G. Silasi, M.P. Vanni, Y. Sekino, J. LeDue, T.H. Murphy (Canada)

PS05-005 Usefulness of bright arterial appearance in ASL MR perfusion image
Y. Kanazawa, S. Arakawa, T. Morioka, T. Ago, T. Kitazono, H. Ooboshi (Japan)

PS05-006 Improving stem cell delivery to the stroke brain using self-assembling silk hydrogels
O. Ibrahim, C. McKirrtick, J. Totten, N. Gorenkova, T. Wongpinyochit, P. Seib, H. Carswell (United Kingdom)

PS05-007 Identifying targets of neuronal auto-reactive responses to improve stroke recovery

PS05-008 A role for brain pericytes in revascularization after stroke revealed by a novel reporter mouse
L.-P. Bernier, J. Hefendehl, C.-A. Lewis, W. Scott, L. Dissig-Olesen, F. Rossi, M. Underhill, B. Macvicar (Canada)
Circulating miR-126-3p and miR-126-5p are increased after acute ischemic stroke and expressed in platelets and T cells
N. Schieferdecker, S. Tiedt, V. Kautzky, M. Prestel, M. Duering, M. Klein, M. Dichgans (Germany)

The role of transforming growth factor-β in post-stroke glycemic impairment
M. Howe, L. McCullough, A. Urayama (United States)

In vivo silk hydrogel distribution, biocompatibility and biodegradation in the brain after experimental stroke
N. Gorenkova, C. McKittrick, S. White, O. Ibrahim, F.P. Seib, H. Carswell (United Kingdom)

Predictors of ischemic stroke on 18F-FDG PET-CT in patients with cancer
K. Choi, J. Kim (Korea, Republic of)

Perineuronal nets structures and modulators in the rat somatosensory cortex are molecular substrates for experience-dependent plasticity during stroke recovery

Alarmin HMGB1 induces systemic and brain inflammatory exacerbation in post-stroke infection rat model

Integrative analysis of transcriptomics and proteomics data for the molecular characterization of human brain after ischemic stroke
T. García-Berrocoso, F. Briñós, A. Simats, V. Liombart, A. Hainard, J.-C. Sanchez, A. Sánchez-Pla, J. Montaner (Spain)

LncRNA FosDT mediates ischemic brain damage in both sexes
S. Mehta, T. Kim, R. Vemuganti (United States)

PS05-017 The neuroprotective peptide poly-arginine-12 (R12) reduces cell surface levels of NMDA NR2B receptor subunit in cortical neurons
G. MacDougall, R.S. Anderton, A.B. Edwards, N.W. Knuckey, B.P. Meloni (Australia)

Hypoxic preconditioning augments the therapeutic efficacy of bone marrow stromal cells in a rat ischemic stroke model
L. Shen, J. Chen, W. Ding, X. Chen, L. Ding, G. Wang (China, United States)

Sesn3 and post-ischemia seizures in diabetes
Z. Shi, Z. Lei, F. Wu, Z. Xu (United States)

Danegaptide enhances astrocyte gap junctional coupling and reduces ischemic reperfusion brain injury in mice

Loss of EphB2 decreases edema and infarct size during ischemic stroke
A.-S. Ernst, L.-I. Böhler, R. Kunze, H.H. Marti, T. Korff (Germany)

Recovery of grey and white matter requires the DNA base excision repair enzyme APE1 following transient cerebral ischemia

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CEREBRAL ISCHEMIA: ANIMAL MODELS

In vivo cerebral blood flow imaging in small animals with three-dimensional, high-density speckle contrast optical tomography
T. Dragojević, J.L. Hollmann, H.M. Varma, C.P. Valdes, J.P. Culver, C. Justicia, T. Durduran (Spain)

Restitution of hippocampal long-term potentiation following global cerebral ischemia: ghrelin function as a mitochondrial anti-apoptotic
B. Sadeghi (Iran, Islamic Republic of)
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PS05-027  Prolyl-4-hydroxylase 2 activity is crucial for cognitive function and stroke outcome
H.H. Marti, L. Li, D. Gruneberg, P. Barteczek, S. Reischl, R. Kunze (Germany)

PS05-028  Effects of Exendin-4 on nitric oxide production, hydroxyl radical metabolism and ischemic change of hippocampal CA1 neuron during cerebral ischemia and reperfusion in mice

PS05-029  Combining robotic training and inactivation of the healthy hemisphere restores pre-stroke motor patterns in mice
C. Spalletti, C. Alia, S. Lai, A. Panarese, S. Micera, M. Caleo (Italy)

PS05-030  Manganese-enhanced MRI for the study of post-stroke cognitive impairment in a rodent stroke model
M. El Amki, P. Baumgartner, O. Bracco, A. Luft, S. Wegener (Switzerland)

PS05-031  Electrophysiological evidence of a peri-ischemic transition zone in the rat photothrombosis model
K. Schoknecht, A. Friedman, J.P. Dreier (Germany)

PS05-032  Ovarian inflammasome activation: Possible cause of exacerbated ischemic brain damage in reproductive senescence female rats
A. Raval, J.P. de Rivera Vaccari (United States)

PS05-033  Reduction in microglial activation, selective neuronal loss and sensorimotor deficits by the KCa3.1-blocker TRAM-34 following temporary middle-cerebral artery occlusion (MCAo) in the spontaneously hypertensive rat
J.-C. Baron (France)

PS05-034  Stroke syndromics: Multivariate analyses for outcome measures after middle cerebral artery occlusion in mice
R. Bernard, N. Wenger, A. Rex, L. Mosch, M. Dopotka, C. Harms, M. Endres, U. Dirmagl (Germany)

PS05-025  Mass cytometry profiling of inflammatory cells in ischemic stroke mice
Y. Li, T. Tao, B. Xu, H. Zhao (United States)

PS05-026  Maternal obesity exacerbates brain injury responses following neonatal hypoxia-ischaemia in rat offspring
N.M. Jones, J.D. Teo, M.J. Morris (Australia)

PS05-027  Microglia control central neurotrophic virus infection via P2Y12-mediated signaling
R. Fekete, B. Orsolits, B. Sperlágh, M. Baranyi, Z. Boldogkői, Á. Kittel, S. Ferenczi, K. Kovács, E. Méhes, Z. Környei, Á. Dénes (Hungary)

PS05-028  Mafb prevents excess inflammation after ischemic stroke by accelerating clearance of danger signals through MSR1
T. Shichita, H. Ooboshi, S. Takahashi, T. Kodama, A. Yoshimura (Japan)

PS05-029  Cytoprotective role of microglia-derived nitric oxide induced by TLR4 stimulation in concert with astroglial pentose-phosphate pathway activation through the Keap1/Nrf2 system

PS05-030  Playing with omega-3 Alpha-linolenic acid in the diet to prevent the toxic CCL2 post-stroke inflammatory response

PS05-031  Vitamin D supplementation reduces brain injury and inflammation following ischemic stroke

PS05-032  HDAC3 selective inhibitor regulates inflammatory response in lipopolysaccharide (LPS) – stimulated microglia
M. Zhang, M. Xia, Q. Zhao, Y. Xu (China)
PS05-043 White matter inflammation as a biomarker of cognitive impairment induced by mild diabetes in a mouse model of cerebrovascular disease

PS05-044 Neuronal interleukin-4 promotes M2-like microglia activation and neuroprotection following focal cerebral ischemia
S.-H. Choi, A.C. Silva (United States)

PS05-045 Time-course analysis of infiltrating dendritic cell subpopulations in a murine model of ischemic stroke
M. Gallizioli, M. Gelderblom, E. Orthey, A.M. Planas, T. Magnus (Spain)

PS05-046 Microglial cells phagocyte neutrophils after brain ischemia
A. Otxoa-de-Amezaga, F. Miró-Mur, N. Gaja-Capdevila, J. Pedragosa, M. Calvo, A.M. Planas (Spain)

PS05-047 Angiotensin receptor type 1 (ATR1) deficiency or inhibition by candesartan improves outcome after experimental traumatic brain injury and inhibits inflammation
J.Y. Kim, N. Kim, Z. Zheng, M. Johnson, M. Yenari (United States)

PS05-048 An in vitro microfluidic model of microglia migration after stroke
S. White, R. Plevin, M. Zagnoni, H. Carswell (United Kingdom)

CNS TRAUMA

PS05-049 Stroke and traumatic acute brain injury line indicator system for emergent recognition (STABILISER-I) phase i feasibility study; preliminary results of the tbi cohort
J. Fraser, M. Bradley-Whitman, A. Bernard, N. Timoney, B. Eckerle, J. Lee, R. Humphries, G. Bix, M. Lovell (United States)

PS05-050 Repetitive anodal transcranial direct current stimulation (tDCS) improves neurologic outcome in mice after traumatic brain injury (TBI) by increasing cerebral blood flow and tissue oxygenation
O.A. Bragina, Y. Yang, C.W. Shuttleworth, E.M. Nemoto, O.V. Semyachkina-Glushkovskaya, D.E. Bragin (United States)

PS05-051 Induced intracranial pressure (iPRx) and cerebrovascular reactivity (iCVRx) in the assessment of cerebral autoregulation after traumatic brain injury (TBI) with intracranial hypertension
D. Bragin, G. Statom, E. Nemoto (United States)

PS05-052 Interleukin 4 promotes white matter integrity and functional recovery after traumatic brain injury via enhanced microglia/macrophage M2 polarization
M. Bennett, H. Pu, Y. Shi, Y. Xia, X. Jiang, Y. Gao, X. Hu, J. Chen (United States)

PS05-053 A rapid blood test for the early detection of mild traumatic brain injury
M.A. Bradley-Whitman, K.N. Roberts, S.W. Scheff, J.F. Fraser, B.C. Lynn, M.A. Lovell (United States)

PS05-054 Extended therapeutic window of a novel peptide inhibitor ofTRPM2 channels on memory following traumatic brain injury
J. Orfila, R. Dietz, O. Patsos, R. Schmidt, R. Traystman, P. Herson (United States)

PS05-055 The salutary effects of omega-3 fatty acids on cognition and tissue repair after traumatic brain injury in rats
L. Belayev, L. Khoutorova, L.M. Pizarro Cabral, S. Marcell, L. Cong, R. Semikov, A. Obenaus, N.G. Bazan (United States)

PS05-056 Sex impacts outcome after traumatic brain injury in mice
A. Clevenger, H. Kim, E. Salcedo, K. Rodgers, J. Yonchek, J. Orfila, P. Herson, R. Traystman (United States)

PS05-057 Resuscitation fluid with drag reducing polymer enhances cerebral microcirculation after traumatic brain injury complicated by hemorrhagic shock
D. Bragin, D. Lara, O. Bragina, Y. Yang, M. Kameneva, E. Nemoto (United States)

PS05-058 Glutamate and D-serine dynamics during trauma-induced cortical spreading depolarizations
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| PS05-061 | Efficient clearance of Amyloid-β protofibrils in APP-transgenic mice treated with a brain penetrating bifunctional antibody |
| PS05-062 | Gut microbiome associated with cognitive and brain structural outcomes in apolipoprotein E4 variant |
| PS05-063 | Glucose and glycogen metabolism in the brain of insulin resistant Goto-Kakizaki rats |
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| PS05-065 | PET CT applications in Parkinson and radiotracers |
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| PS05-070 | Heart-brain coupling: Resting heart rate variability is associated with network architecture in the resting brain |
| PS05-071 | IGF-1 deficiency exacerbates hypertension-induced cerebral microhemorrhages in mice, mimicking the aging phenotype |

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PS05-077 Relationship of brain lactate uptake, cerebral hemodynamics, and executive function after high intensity interval exercise in humans
H. Tsukamoto, N. Olesen, L. Petersen, H. Sørensen, H. Nielsen, N. Secher, S. Ogoh, T. Hashimoto (Japan)

PS05-078 Lactate does not fully substitute glucose in powering gamma oscillations
J.-O. Hollnagel, T. Cesetti, J. Schneider, A. Lewen, O. Kann (Germany)

PS05-079 Characterizing the impacts of early interventional ketogenic diet on brain vasculature, energy metabolism, and cognition

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PS05-080 Circulating microRNAs as biomarkers of delayed cerebral infarction after aneurysmal subarachnoid hemorrhage
G. Wong (Hong Kong)

PS05-081 Study of early coagulation activation, inhibition, thrombin generation and fibrinolysis in isolated severe traumatic brain injury (iSTBI) induced coagulopathy and its influence on immediate outcome
V. Albert, A. Subramanian, D. Agrawal, P. Hara Prasad, A. Mukhopadhayay, S.D. Gupta (India)

PS05-082 Assessment of cerebral autoregulation using near infrared spectroscopy during squat-stand maneuvers in healthy subjects with experiencing frequent symptoms of orthostatic hypotension

PS05-083 Activation of the lectin complement pathway is associated with vulnerability of atherosclerotic plaques
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Society
ISCBFM Administrative Office
International Society for Cerebral Blood Flow and Metabolism (ISCBFM)
9650 Rockville Pike
Bethesda, MD 20814, USA
T: +1 301 6347001
F: +1 301 6347099
iscbfm@faseb.org

Congress chair 2017
Peter Herscovitch, MD
PET Department, Clinical Center
National Institutes of Health
8816 Montgomery Avenue
Chevy Chase, MD 20815, USA
T: +1 301 6567308
pherscovitch@hotmail.com

Legal organizer (PCO)
MCI Deutschland GmbH
MCI | Germany – Berlin
Markgrafenstr. 56
10117 Berlin
T: +49 30 204590
F: +49 30 2045950
brain2017@mci-group.com

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