

28th International Symposium on
Cerebral Blood Flow, Metabolism
and Function

13th International Conference on
Quantification of Brain
Function with PET



April 1st – 4th 2017, Berlin, Germany

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



brain2017.de



International Society for
Cerebral Blood Flow
and Metabolism

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ISCBFM WELCOME LETTER



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,



Peter Herscovitch
Peter Herscovitch
ISCBFM President



Ulrich Dirnagl
Ulrich Dirnagl
Local chair



Matthias Endres
Matthias Endres
Local chair



Fahmeed Hyder
Fahmeed Hyder
Scientific program committee chair

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 Slifstein, 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)

COMMITTEES & CONTACTS

Contacts**Congress president**

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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

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International Society for Cerebral Blood
Flow and Metabolism (ISCBFM)
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iscbfm@faseb.org

Legal organizer (PCO)

MCI Deutschland GmbH
MCI | Germany – Berlin
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F: +49 30 2045950

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Industrial exhibition and sponsoring

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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.



AWARDS

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 Ifechukwu 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
Fotiadis Panagiotis, United States
Fronczek Judith, Germany
Fumagalli Stefano, Italy
Fukushima Yuta, Japan
Gabriel-Salazar Marina, Spain
Gallizioli Mattia, Spain
Gao Xihui, China
Giese Anne-Katrin, United States
Giovannella Martina, Spain
Gittens Rolando, Panama
Gómez-Lado Noemí, Spain
Gregori-Pla Clara, Spain
Gutierrez Jimenez Eugenio, Denmark
Hahn Andreas, Austria
Hanalioglu Sahin, Turkey
Hatakeyama Nao, Japan
Hermanto Yulius, Japan
Hidayatov Tural, Turkey
Hoffman Jared, United States
Ibrahim Osama, United Kingdom
Ichkova Aleksandra, France
Iulita M. Florencia, Canada
Jiang Xiaoyan, China
Jiang Lu, China
Kang Min Su, Canada
Kapoor Suhela, India
Khelif Yacine, France
Khoury 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

AWARDS

Lénárt Nikolett, Hungary
Li Lin, Canada
Li Lingjue, United States
Lubart Alisa, Israel
MacDougall Gabriella, Australia
Majchrzak Malgorzata, Poland
Mehina Eslam 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
Otxoa-de-Amezaga 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
Schirmer 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
Sonny 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
Üçal 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
Westermayer Irina, Germany
Whittington Alex, United Kingdom
Wilson Heather, United Kingdom
Wu Kuan Cheng, United States
Xia Yuguo, United States
Yanev Pavel, United States
Yu Linjie, China
Zhang Shengpeng R., Australia
Zhang Zhongxing, Switzerland
Zhou Xiaoyun, Netherlands
Zhou Yuxi, China

INFORMATION FROM A TO Z

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.

INFORMATION FROM A TO Z

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

INFORMATION FROM A TO Z

Internet connections

Free wireless will be available in the whole conference area of the Henry Ford Bau. Login details are clearly indicated on-site.

Liability disclaimer

The organizers cannot be held liable for any hindrance or disruption of congress proceedings arising from political, social or economic events or any other unforeseen incidents beyond their control. The organizers will be accept no liability for any personal injuries sustained or for loss or damage to property belonging to congress participants, either during or as a result of the congress or during all tours or events. Registration of a participant entails acceptance of these conditions.

No-smoking policy

Smoking is strictly prohibited during all meetings and sessions and in exhibition halls at all times.

Posters

Scientific posters will be displayed as wall print posters in a dedicated space within in the exhibition and poster area. Every poster is mounted for only one day. Authors are requested to stay in front of their work during the poster session. For any questions please ask the poster help desk. For more information please see page 72.

QR code for posters

You have the opportunity to upload your poster as pdf file at www.brain2017.net/ posters. There you can obtain a QR code which you can print out and attach to 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.

INFORMATION FROM A TO Z

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.

Opening 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.

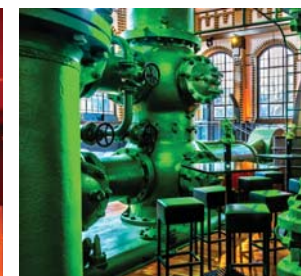
ISCBFM Banquet

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.



© Ballhaus Berlin



© Wasserwerk; photo by FOTO HOLLIN



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



SESSION TYPES

Highlight session	BrainPET courses	Internal meeting
Symposium session	Oral session	Social event
Brain courses	Poster viewing	Satellite



SCIENTIFIC PROGRAM

Saturday, April 1st 2017

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

SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017

	Hörsaal A	Hörsaal B	Hörsaal C	Hörsaal D
09:00	CA01 CARNet session 1 – Basic science and modeling (detailed program on page 23)	BC01 Stroke pre-clinical models: where are we? (Part 1)	BC02 “Grantcraft”: the art of writing a successful grant proposal? (Part 1)	BP01 BrainPET: Fundamental principles (Part 1)
10:00	Coffee break			
11:00	CA02 CARNet session 2 – Clinical application part 1: cerebral autoregulation in clinical conditions	BC01 Stroke pre-clinical models: where are we? (Part 2)	BC02 “Grantcraft”: the art of writing a successful grant proposal? (Part 2)	BP01 BrainPET: Fundamental principles (Part 2)
12:00	CA03 CARNet session 3 – Plenary e-posters: 1 minute-1 slide-poster pitches			
13:00	CA04 CARNet – Lunch and poster-board session	Lunch break		
14:00	CA05 CARNet session 4 – Clinical application part 2: clinical impact of cerebral autoregulation small vessel disease	BC03 Understanding immune responses in cerebrovascular disease (Part 1)	BC04 Cutting-edge technologies for multi- scale and multi-modal neuroimaging (Part 1)	BP02 BrainPET: Clinical applications (Part 1)
15:00	Coffee break			
16:00	CA06 CARNet session 5 – Basic science 2: cerebral blood flow regulation neurovascular coupling	BC03 Understanding immune responses in cerebrovascular disease (Part 2)	BC04 Cutting-edge technologies for multi- scale and multi-modal neuroimaging (Part 2)	BP02 BrainPET: Clinical applications (Part 2)
17:00	CA07 CARNet Update and business meeting – Q&A	Welcome reception (Exhibition & Poster Area)		

SCIENTIFIC PROGRAM | SATURDAY, APRIL 1ST 2017



09:00–12:30	BC01	HÖRSAAL B STROKE PRE-CLINICAL MODELS: WHERE ARE WE? Chair(s) M.J. Cipolla (United States) S. Cho (United States)
09:00–09:10	BC01-1	Introduction
09:10–09:50	BC01-2	Precision ischemic stroke animal models J. Zhang (United States)
09:50–10:30	BC01-3	Meta-analysis of preclinical stroke animal model studies D. Howells (Australia)
10:30–11:00		Coffee break
11:00–11:40	BC01-4	Hemorrhagic transformation model: rPA and NADPH oxidase M. Yenari (United States)
11:40–12:20	BC01-5	Large animal stroke models J. Boltze (Germany)
12:20–12:30	BC01-6	Discussion
09:00–12:30	BC02	HÖRSAAL C “GRANTCRAFT”: THE ART OF WRITING A SUCCESSFUL GRANT PROPOSAL? Chair(s) S. Knauss (Germany) V. Galvan (United States)
09:00–09:10	BC02-1	Introduction
09:10–09:50	BC02-2	Streamlining your idea & engage the reviewers A. Villringer (Germany)
09:50–10:30	BC02-3	Starting early: Funding your training and your science from the get-go G. Mason (United States)
10:30–11:00		Coffee break
11:00–11:40	BC02-4	The view of governmental funders J. Aronowski (United States)
11:40–12:20	BC02-5	The view of private funders O. Grewe (Germany)
12:20–12:30	BC02-6	Discussion

09:00–12:30	BP01	HÖRSAAL D
		BRAINPET: FUNDAMENTAL PRINCIPLES
	Chair(s)	M. Slifstein (United States) S. Cervenka (Sweden)
09:00–09:10	BP01-1	Introduction
09:10–09:50	BP01-2	PET physics: essentials of scanners, signal generation and image reconstruction P. Vaska (United States)
09:50–10:30	BP01-3	Radioligand development: radiolabeling, tracer synthesis and tracer evaluation J. Passchier (United Kingdom)
10:30–11:00		Coffee break
11:00–11:40	BP01-4	Quantification: theory and application of pharmacokinetics R. Gunn (United Kingdom)
11:40–12:20	BP01-5	Multimodal techniques: hybrid PET-MR update J. Price (United States)
12:20–12:30	BP01-6	Discussion
12:30–14:00		LUNCH BREAK
14:00–17:30	BC03	HÖRSAAL B
		UNDERSTANDING IMMUNE RESPONSES IN CEREBROVASCULAR DISEASE
	Chair(s)	M.-G. De Simoni (Italy) S. Allan (United Kingdom)
14:00–14:10	BC03-1	Introduction
14:10–14:50	BC03-2	General overview and Inflammation as a therapeutic target and/or biological marker in stroke S. Allan (United Kingdom)
14:50–15:30	BC03-3	Peripheral versus central inflammatory responses after stroke A. Liesz (Germany)
15:30–16:00		Coffee break

16:00–16:40	BC03-4	Immune cell type specificity – microglia and macrophages in the ischemic brain, are they different or the same? A. Planas (Spain)
16:40–17:20	BC03-5	Chronic inflammatory responses after stroke M. Buckwalter (United States)
17:20–17:30	BC03-6	Discussion
14:00–17:30	BC04	HÖRSAAL C
		CUTTING-EDGE TECHNOLOGIES FOR MULTI-SCALE AND MULTI-MODAL NEUROIMAGING
	Chair(s)	X.-H. Zhu (United States) E. D'Este (Germany)
14:00–14:10	BC04-1	Introduction
14:10–14:50	BC04-2	How to study molecular details of brain cells through super-resolution E. D'Este (Germany)
14:50–15:30	BC04-3	Emerging MR methods for metabolic imaging X.-H. Zhu (United States)
15:30–16:00		Coffee Break
16:00–16:40	BC04-4	Multi-photon microscopy to study neuronal activity and vascular dynamics in awake animals B. Stefanovic (Canada)
16:40–17:20	BC04-5	Quantitative neuroimaging with calibrated fMRI F. Hyder (United States)
17:20–17:30	BC04-6	Discussion

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% CO ₂ 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)
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)

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

14:00–15:30	CA05	HÖRSAAL A
SESSION 4 – CLINICAL APPLICATION PART 2: CLINICAL IMPACT OF CEREBRAL AUTOREGULATION – SMALL VESSEL DISEASE		
14:00–14:30	CA05-1	Key lecture: Novel approaches to causes and consequences of cerebral small vessel disease G.J. Biessels (Netherlands)
14:30–14:42	CA05-2	The temporal profile of cerebral blood flow control in thrombolysis-eligible acute ischemic stroke patients: a prospective study R. Nogueira (Brazil)
14:42–14:54	CA05-3	Dynamic cerebral autoregulation in sepsis assessed by transcranial doppler: acute dysregulation influence in severity (MARCUS pilot study) D. De Azevedo (Brazil)
14:54–15:06	CA05-4	Early transient hyperemic response test to predict outcome after aneurysmal subarachnoid hemorrhage C. di Leoni (Brazil)
15:06–15:18	CA05-5	Determining cerebral hemisphere dominance following dominant and non-dominant passive arm manoeuvres O. Llwyd (United Kingdom)
15:18–15:30	CA05-6	Are we all the same? A comparison of cerebral autoregulation parameters between Brazilian and British individuals A. Salinet (Brazil)

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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	CA07	HÖRSAAL A UPDATE AND BUSINESS MEETING – Q&A
17:45–19:00		EXHIBITION & POSTER AREA WELCOME RECEPTION

SESSION TYPES

Highlight session	BrainPET courses	Internal meeting
Symposium session	Oral session	Social event
Brain courses	Poster viewing	Satellite



SCIENTIFIC PROGRAM

Sunday, April 2nd

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	Max Kade Auditorium	Hörsaal A	Hörsaal B	Hörsaal C	Hörsaal D	Exhibition & Poster Area
08:00	LAA Opening and Introduction and Lifetime Achievement Award					
09:00	PRL Tracking the molecular pathology of Alzheimer's Disease with PET					
10:00	Poster viewing session, coffee break & exhibition			Poster viewing session, coffee break & exhibition		PS01 Poster viewing session I
11:00		SY01 Frontiers in CNS drug delivery		BS01 Neuroinflammation in cerebral ischemia 1	BPS01 BrainPET: Novel radiotracers	
12:00						
13:00	Lunch break, exhibition & poster viewing		ISCBFM GENERAL ASSEMBLY	Lunch break, exhibition & poster viewing		
14:00		SY02 Cerebral small vessel disease: current concepts and novel targets for interventions		BS02 Imaging methods	SY03 PET imaging in addictive disorders: is there life beyond dopamine?	
15:00	Poster viewing session, coffee break & exhibition			Poster viewing session, coffee break & exhibition		PS02 Poster viewing session II
16:00		BS03 Neurovascular coupling		BS04 Therapy & neuroprotection	SY04 Integrated PET/MRI: new generation translational brain imaging	
17:00						
18:00		SY05 Neuronal modulation and in vivo imaging tools to dissect the living brain		BS05 Blood brain barrier	BPS02 BrainPET: Neurotransmitter systems	
	Early Career Networking Evening (Ballhaus Berlin)			Early Career Networking Evening (Ballhaus Berlin)		

Congress information

SAT

SUN

MON

TUE

Poster sessions

Industrial exhibition

Congress information

SAT

SUN

MON

TUE

Poster sessions

Industrial 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>



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08:00–09:00	LAA	MAX KADE AUDITORIUM
		OPENING AND INTRODUCTION AND LIFETIME ACHIEVEMENT AWARD
	Chair(s)	P. Herscovitch (United States) F. Hyder (United States)
08:00–08:20	LAA-1	Welcome P. Herscovitch (United States)
08:20–08:40	LAA-2	Introduction to the Lifetime Achievement Award P. Herson (United States)
08:40–09:00	LAA-3	Recipient of the Lifetime Achievement Award R. Traystman (United States)
09:00–10:00	PRL	MAX KADE AUDITORIUM
		PRESIDENTIAL LECTURE
	Chair(s)	P. Herscovitch (United States)
09:00–10:00		Tracking the molecular pathology of Alzheimer's Disease with PET W.J. Jagust (United States)
10:00–11:00	PS01	EXHIBITION & POSTER AREA
		POSTER VIEWING SESSION I, COFFEE BREAK & EXHIBITION

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

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. Alfieri , 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. Martinecz, 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-Berrocso, G. Llovera, A. Penalba, D. Giralt, A. Bustamante, E. Martínez-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)

11:00–12:30	BPS01	HÖRSAAL D
		BRAINPET: NOVEL RADIOTRACERS
	Chair(s)	H. Tsukada (Japan) T.A. Pascoal (Canada)
11:00–11:15	BPS01-1	A small bispecific antibody-based construct based on bapineuzumab as a PET tracer for amyloid beta pathology in brain X.T. Fang , G. Hultqvist, S.R. Meier, D. Sehlin, S. Syvänen (Sweden)
11:15–11:30	BPS01-2	Novel PET radioligands show that COX-1 is constitutively expressed and that COX-2 is induced by inflammation in rhesus macaque S. Shrestha (United States)
11:30–11:45	BPS01-3	Tracer kinetic analysis of [11C]Cetozole as a PET tracer for aromatase in the human brain M. Jonasson , E. Comasco, P. Nordeman, H. Wilking, H. De Grauw, K. Takahashi, G. Antoni, I. Sundström Poromaa, M. Lubberink (Sweden)
11:45–12:00	BPS01-4	First-in-human evaluation of a novel agonist radiotracer for PET imaging of the kappa opioid receptor Y. Huang , M. Naganawa, N. Nabulsi, S. Li, S.-F. Lin, D. Labaree, J. Ropchan, H. Gao, A. Shirali, R. Carson, D. Matuskey (United States)
12:00–12:15	BPS01-5	Serotonin release measured in the human brain: A PET study with [11C]Cimbi-36 and d-amphetamine challenge D. Erritzoe , A. Colasanti, G. Searle, Y. Lewis, J. Passchier, S. Azeem, J. Beaver, D. Nutt, G. Knudsen, R. Gunn, E. Rabiner (United Kingdom)
12:15–12:30	BPS01-6	Quantitative assessment of synaptic density using the SV2A ligand 11C-UCBA in humans M. Lubberink , L. Appel, K. Lindskog, T. Danfors, M. Sprycha, J. Daging, J. Eriksson, E.-M. Larsson, E. Kumlien, G. Antoni (Sweden)

12:30–13:30 MAX KADE AUDITORIUM
ISCBFM GENERAL ASSEMBLY

12:30–13:30		EXHIBITION & POSTER AREA
		LUNCH BREAK, EXHIBITION & POSTER VIEWING
13:30–15:00	SY02	HÖRSAAL A
		CEREBRAL SMALL VESSEL DISEASE: CURRENT CONCEPTS AND NOVEL TARGETS FOR INTERVENTIONS
	Chair(s)	M. Dichgans (Germany)
13:30–13:35	SY02-1	Introduction
13:35–13:55	SY02-2	Potassium channelopathy-like defect underlies early-stage cerebrovascular dysfunction in small vessel disease M. Nelson (United States, United Kingdom)
13:55–14:15	SY02-3	Novel Targets of SVD identified by genetic and proteomic approaches M. Dichgans (Germany)
14:15–14:35	SY02-4	The glymphatic system M. Nedergaard (United States)
14:35–14:55	SY05-5	Imaging cerebral small vessel disease at ultrahigh resolution in humans using 7T MRI G.J. Biessels (Netherlands)
14:55–15:00	SY05-6	Discussion

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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 I. Kanno , K. Masamoto, H. Yuki, T. Sugashi, M. Unekawa, Y. Tomita, N. Suzuki (Japan)	

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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	
15:00–16:00		PS02	EXHIBITION & POSTER AREA
POSTER VIEWING SESSION II, COFFEE BREAK & EXHIBITION			

16:00–17:30	BS03	HÖRSAAL A
		NEUROVASCULAR COUPLING
	Chair(s)	A. Bauer (United States) D. Boas (United States)
16:00–16:15	BS03-1	Extensive 3D vascular mapping points to a lack of spatial compartmentalization around neuronal units of the lemniscal pathway J. Mitiagin, D. Kain, H. Jang, P. Blinder (Israel)
16:15–16:30	BS03-2	Depths-dependent flow and pressure characteristics in cortical microvascular networks F. Schmid , P. Jenny, B. Weber (Switzerland)
16:30–16:45	BS03-3	Two-photon microscopy measurement of cortical functional activation in awake mice 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)
16:45–17:00	BS03-4	Assessing the neural and the hemodynamic resting-state functional connectivity in case of neurovascular uncoupling B. Li , Q. Huang, J. Lu, P. Li (China)
17:00–17:15	BS03-5	Optogenetic activation of noradrenergic neurons in the locus coeruleus modulates cortical neurovascular coupling responses C. Lecrux , Z. Yao, E. Mitchell, A.R. Lim, A. Adamantidis, A. Shmuel, E. Hamel (Canada)
17:15–17:30	BS03-6	Optogenetic dissection of inhibitory neuron activity contributions to vascular regulation A.L. Vazquez , M. Fukuda, S.-G. Kim (United States)

16:00–17:30	BS04	HÖRSAAL C
		THERAPY & NEUROPROTECTION
	Chair(s)	T.D. Farr (United Kingdom) M. Endres (Germany)
16:00–16:15	BS04-1	A novel preventive therapy for paclitaxel-induced cognitive deficits – preclinical evidence W. Boehmerle , P. Huehnchen, A. Springer, D. Freyer, M. Endres (Germany)
16:15–16:30	BS04-2	Neuroprotective efficacy of poly-arginine-18 (R18) peptides using an in vivo model of perinatal hypoxic ischaemic encephalopathy (HIE) A. Edwards , K. Feindel, J. Cross, R. Anderton, V. Clark, N. Knuckey, B. Meloni (Australia)
16:30–16:45	BS04-3	Co-administration of nanowired mesenchymal stem cells and cerebrolysin potentiates neuroprotection in Parkinson's disease following mild traumatic brain injury A. Sharma , D.F. Muresanu, H.S. Sharma (Sweden)
16:45–17:00	BS04-4	ACE2 activity is required to sustain serotonin levels and mediates exercise-induced adult neurogenesis F. Klempin , M. Bader, R. Santos, N. Alenina (Germany)
17:00–17:15	BS04-5	A novel strategy of neuroprotection tailored to improve ischemic stroke outcome in aged brains W. Paschen , W. Yang (United States)
17:15–17:30	BS04-6	Soluble epoxide hydrolase inhibition decreases reperfusion injury after focal cerebral ischemia in rat R. Tu, J. Armstrong, K.S.S. Lee, B. Hammock, R. Koehler (United States)

16:00–17:30	SY04	HÖRSAAL D	
		INTEGRATED PET/MRI – NEW GENERATION TRANSLATIONAL BRAIN IMAGING	
	Chair(s)	H. Barthel (Germany)	
16:00–16:05	SY04-1	Introduction	
16:05–16:25	SY04-2	Basics and essential needs in integrated brain PET/MRI H. Iida (Japan)	
16:25–16:45	SY04-3	Preclinical applications of brain PET/MRI W. Deuther-Conrad (Germany)	
16:45–17:05	SY04-4	Clinical routine applications of integrated brain PET/MRI H. Barthel (Germany)	
17:05–17:25	SY04-5	Functional brain mapping of neuroreceptors using PET and fMRI C.Y. Sander (United States)	
17:25–17:30	SY04-6	Discussion	
17:30–19:00	SY05	HÖRSAAL A	
		NEURONAL MODULATION AND IN VIVO IMAGING – TOOLS TO DISSECT THE LIVING BRAIN	
	Chair(s)	M. Palner (Denmark)	
17:30–17:35	SY05-1	Introduction	
17:35–17:55	SY05-2	Tools to dissect the living brain M. Palner (Denmark)	
17:55–18:15	SY05-3	Development of transgenic marmosets expressing genetically encoded calcium indicators A.C. Silva (United States)	
18:15–18:35	SY05-4	PET imaging-guided chemogenetic modification of reward-related circuits in monkeys T. Minamimoto (Japan)	
18:35–18:55	SY05-5	DREAMM: Biobehavioral imaging for dynamic in vivo whole- brain mapping of cell type-specific functional networks M. Michaelides (United States)	
18:55–19:00	SY05-6	Discussion	

17:30–19:00	BS05	HÖRSAAL C	
		BLOOD BRAIN BARRIER	
	Chair(s)	A.-L. Lin (United States) L. Belayev (United States)	
17:30–17:45	BS05-1	GLP-1 analog raises glucose transport capacity of blood-brain barrier in Alzheimer's disease M. Gejl , B. Brock, L. Egefjord, J. Rungby, A. Gjedde (Denmark)	
17:45–18:00	BS05-2	Nanoagonist-mediated endothelial tight junction opening: a strategy increasing brain drug delivery efficiently and safely X. Gao , C. Li (China)	
18:00–18:15	BS05-3	Paracellular mechanisms may contribute to early blood- brain barrier leakage after cerebral ischemia and reperfusion X. Jiang , L. Zhang, Y. Shi, L. Zhu, R. Leak, R. Keep, M. Bennett, J. Chen (China, United States)	
18:15–18:30	BS05-4	Zinc contributes to acute cerebral ischemia-induced blood-brain barrier disruption Z. Qi , K.J. Liu (China, United States)	
18:30–18:45	BS05-5	Identification of two phosphorylation sites essential for Annexin A1 in blood-brain barrier protection after experimental intracerebral hemorrhage in rats Z. Chen, Z. Wang, G. Chen (China)	
18:45–19:00	BS05-6	New non-invasive and reproducible method of reversible opening of blood brain barrier for novel pharmacological strategy of treatment of central nervous system diseases O. Semyachkina-Glushkovskaya , A. Salmina, E. Vodovozova, A. Shirokov, D. Bragin, A. Gekaluyk, M. Ulanova, V. Fedorova, E. Saranceva, D. Zhu, C. Zhang, R. Shi, V. Tuchin, A. Morgun, A. Alexeeva, J. Kurths (Russian Federation)	

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17:30–19:00 BPS02 HÖRSAAL D

BRAINPET: NEUROTRANSMITTER SYSTEMSChair(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
G. Angelis, G. Hart, J. Eisenhuth, A. Parmar, K. Popovic, K. Clemens, G. Pascali, G. Perkins, A. Kyme, W. Ryder, R. Fulton, S. Meikle (Australia)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. Wehr (Germany)18:15–18:30 BPS02-4 Low 5-HT_{1B} receptor binding in the migraine brain: A PET study
M. Deen, H.D. Hansen, A. Hougaard, S. da Cunha-Bang, M. Noergaard, C. Svarer, S.H. Keller, C. Thomsen, M. Ashina, G.M. Knudsen (Denmark)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

SESSION TYPES

Highlight session	BrainPET courses	Internal meeting
Symposium session	Oral session	Social event
Brain courses	Poster viewing	Satellite

**SCIENTIFIC PROGRAM****Monday, April 3rd**

SCIENTIFIC PROGRAM | MONDAY, APRIL 3RD 2017

	Hörsaal A	Hörsaal C	Hörsaal D	Exhibition & Poster Area
08:00	BS06 Plasticity & recovery	BS07 Neurological diseases	BPS03 BrainPET: Quantification	
09:00				
10:00	Poster viewing session, coffee break & exhibition			PS03 Poster viewing session III
11:00	SY06 Whole brain mapping of neural circuits by optogenetic fMRI	BS08 Mechanisms of cerebral ischemia	BPS04 BrainPET: Dementia	
12:00				
13:00	Lunch break, exhibition & poster viewing			
14:00	SY07 New horizons in neurovascular dysfunction in aging	BS09 Hemorrhage	BPS05 BrainPET: Neurology	
15:00	Poster viewing session, coffee break & exhibition			PS04 Poster viewing session IV
16:00	SY08 In Vivo Veritas: a tribute to Louis Sokoloff. Use of quantitative biochemical techniques to explore roles of lactate in vivo	BS10 Cerebral ischemia: clinical	BPS06 BrainPET: Psychiatry	
17:00				
18:00	JSY JCBFM Symposium: highlights from the Journal of Cerebral Blood Flow and Metabolism			
20:00	ISCBFM Banquet (Wasserwerk Berlin)			

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08:00–09:30	BS06	HÖRSAAL A PLASTICITY & RECOVERY Chair(s) W. Cai (United States) A. Planas (Spain)
08:00–08:15	BS06-1	Tissue plasminogen activator promotes axonal sprouting and functional recovery after ischemic stroke Y. Shi , S. Ma, Z. Lu, H. Pu, X. Hu, R. Stetler, K. Hitchens, R. Leak, M. Bennett, J. Chen (United States)
08:15–08:30	BS06-2	Experimental neurorehabilitation to study neurovascular remodeling after cerebral ischemia M. Gabriel-Salazar , A. Fernández, A. Moranco, J. Montaner, A. Rosell (Spain)
08:30–08:45	BS06-3	Elucidating the molecular mechanism behind the long-term cerebral ischemic tolerance mediated by resveratrol preconditioning N. Khoury , K. Koronowski, I. Saul, K. Dave, J. Young, M. Perez-Pinzon (United States)
08:45–09:00	BS06-4	Delayed inhibition of TRPM2 channels reverses impaired synaptic function after global cerebral ischemia R. Dietz, J. Orfila, G. Deng, N. Chalmers, S. Tatum, R. Traystman, P. Herson (United States)
09:00–09:15	BS06-5	Contralesional homotopic activity negatively influences functional recovery after stroke A. Bauer , A. Kraft, G. Baxter, M. Bruchas, J.-M. Lee, J. Culver (United States)
09:15–09:30	BS06-6	Cofilin-actin rod formation in ischemic neurons and axons R. Swanson , A. Minnella, S.J. Won (United States)

08:00–09:30	BS07	HÖRSAAL C
		NEUROLOGICAL DISEASES
	Chair(s)	V. Galvan (United States) G.A.F. van Tilborg (Netherlands)
08:00–08:15	BS07-1	Cerebrovascular consequences of raised intracranial pressure M. Czosnyka , J. Donnelly, P. Smielewski, A. Lavinio, P.J. Hutchinson (United Kingdom)
08:15–08:30	BS07-2	A novel mouse surgical model for moyamoya J. Roberts , M. Maniskas, G. Bix, J. Fraser (United States)
08:30–08:45	BS07-3	The effect of diet-induced vitamin D deficiency on acute post-stroke outcome M. Evans , H.A. Kim, T.M. De Silva, G.R. Drummond, G.R. Zosky, B.R.S. Broughton, C.G. Sobey (Australia)
08:45–09:00	BS07-4	Global changes in white matter structure following focal photothrombotic stroke to the sensorimotor cortex A.E. Meerwaldt, G.A.F. van Tilborg , C. van Heijningen, A. van der Toorn, R.M. Dijkhuizen (Netherlands)
09:00–09:15	BS07-5	Detection of radiologic and laboratory features of cerebral amyloid angiopathy in patients with Alzheimer's disease P. Fotiadis , J. Becker, K. Schwab, J. Rosand, A. Viswanathan, R. Sperling, K. Johnson, S. Greenberg, E. Gurol (United States)
09:15–09:30	BS07-6	Graph theoretical heat kernel signatures of structural connectivity are altered in comatose cardiac arrest patients 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)

08:00–09:30	BPS03	HÖRSAAL D
		BRAINPET: QUANTIFICATION
	Chair(s)	Q. Guo (United States) J. Price (United States)
08:00–08:15	BPS03-1	[18F] ASEM PET imaging of the alpha 7 nicotinic cholinergic receptor: test retest and sex differences D.F. Wong, H. Kuwabara, J. Roberts, J. Brasic, C. Mishra, K. Kitzmiller, M. McDonald, L. Gapasin, A. Nandi, G. Wand, A. Gjedde , A. Horti (Denmark)
08:15–08:30	BPS03-2	An automated algorithm to quantify brain amyloid load A. Whittington , D.J. Sharp, R.N. Gunn (United Kingdom)
08:30–08:45	BPS03-3	Validation of an image-derived input function method for 15O-water PET/MR brain scans M. Lubberink , M.M. Khalighi, L. Appel, M. Engström, G. Antoni, G. Zaharchuk (Sweden)
08:45–09:00	BPS03-4	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 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)
09:00–09:15	BPS03-5	Modelling TSPO brain PET data including endothelial binding: considerations on tracer affinities G. Rizzo , M. Veronese, C. Wimberley, S. Lavisse, M. Bottlaender, P. Bloomfield, O. Howes, F.E. Turkheimer, A. Bertoldo (Italy)
09:15–09:30	BPS03-6	Endothelial modelling of [11C]PBR28 brain PET data: a validation using XBD173 blocking and tissue analysis M. Veronese , T. Reis Marques, P.S. Bloomfield, G. Rizzo, N. Singh, D. Jones, E. Agushi, D. Mosses, A. Bertoldo, O. Howes, F. Roncaroli, F. Turkheimer (United Kingdom)
09:30–11:00	PS03	EXHIBITION & POSTER AREA POSTER VIEWING SESSION III, COFFEE BREAK & EXHIBITION

11:00–12:30		SY06	HÖRSAAL A
WHOLE BRAIN MAPPING OF NEURAL CIRCUITS BY OPTOGENETIC FMRI			
		Chair(s)	Y.-Y.I. Shih (United States)
11:00–11:05	SY06-1	Introduction	
11:05–11:25	SY06-2	Optogenetic dissection of fMRI signals Y.-Y.I. Shih (United States)	
11:25–11:45	SY06-3	Optogenetic fMRI and the investigation of global brain circuit mechanisms J.H. Lee (United States)	
11:45–12:05	SY06-4	MRI-guided robotic-driven optogenetic fMRI and simultaneous calcium recordings X. Yu (Germany)	
12:05–12:25	SY06-5	Considerations for opto-fMRI studies: cortical processing and selectivity A.L. Vazquez (United States)	
12:25–12:30	SY06-6	Discussion	

11:00–12:30		BS08	HÖRSAAL C
MECHANISMS OF CEREBRAL ISCHEMIA			
		Chair(s)	S. Cho (United States) B. Rodriguez-Grande (France)
11:00–11:15	BS08-1	Contralesional cortical atrophy and molecular cortical circuit reorganization after cerebral ischemia F. Hellal , B. Groschup, S. Valero-Freitag, A. Lourbopoulos, U. Mamrak, M. Dichgans, N. Plesnila (Germany)	
11:15–11:30	BS08-2	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)	
11:30–11:45	BS08-3	DNA hydroxymethylation following focal ischemia K. Morris-Blanco, R. Vemuganti (United States)	
11:45–12:00	BS08-4	The hypoxisome in neuronal resilience and cell death in stroke T. Arumugam , D.-G. Jo (Singapore)	
12:00–12:15	BS08-5	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)	
12:15–12:30	BS08-6	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)	

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11:00–12:30	BPS04	HÖRSAAL D	
		BRAINPET: DEMENTIA	
	Chair(s)	A. Hahn (Austria) G. Moos Knudsen (Denmark)	
11:00–11:15	BPS04-1	Antibody-based PET radioligands for imaging of amyloid-beta protofibrils S. Syvänen , X.T. Fang, G. Hultqvist, J. Fälting, G. Antoni, L. Lannfelt, D. Sehlin (Sweden)	
11:15–11:30	BPS04-2	Investigation of the selectivity of tau PET radioligand THK5351 in vitro and in vivo Q. Guo , B. Otterstaetter, S. Benninghoff, D. Reuter, J. Wang, M. Skaddan, A. Tovcimak, C. Schroeder, G. Krishnan, K. Wilcox, R. Comley, P. Makidon, M. Voorbach, A. Haupt, M. Mugnaini, L. Martarello (United States)	
11:30–11:45	BPS04-3	Optimization of specific binding quantification using dynamic and static PET acquisition and comparison of 18F-THK-5317 and 18F-THK-5351 T. Betthausen , P. Lao, D. Murali, T. Barnhart, S. Furumoto, N. Okamura, C. Stone, S. Johnson, B. Christian (United States)	
11:45–12:00	BPS04-4	Selegiline reduces brain [18F]THK5351 uptake K.P. Ng , T.A. Pascoal, S. Mathotaarachchi, M.S. Kang, M. Shin, J. Therriault, S. Levasseur, K. Horowitz, P. Gravel, G. Massarweh, J.-P. Soucy, S. Gauthier, P. Rosa-Neto (Canada, Singapore)	
12:00–12:15	BPS04-5	PET tau and amyloid levels in default mode network synergistically determine clinical status in predementia 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)	
12:15–12:30	BPS04-6	Amyloid- β plaque accumulation and glucose hypometabolism in non-demented adults with Down syndrome demonstrate pattern of association observed in Alzheimer's disease P. Lao , T. Betthausen, J. Price, W. Klunk, P. Bulova, S. Hartley, R. Hardison, R. Tumuluru, D. Murali, C. Mathis, A. Cohen, T. Barnhart, D. Tudorascu, D. Devenny, S. Johnson, B. Handen, B. Christian (United States)	

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12:30–13:30		EXHIBITION & POSTER AREA	
		LUNCH BREAK, EXHIBITION & POSTER VIEWING	
13:30–15:00	SY07	HÖRSAAL A	
		NEW HORIZONS IN NEUROVASCULAR DYSFUNCTION IN AGING	
	Chair(s)	Z. Ungvari (United States)	
13:30–13:35	SY07-1	Introduction	
13:35–13:55	SY07-2	Neurovascular coupling and mismatch of energy supply and demand in the aged brain M. Lauritzen (Denmark)	
13:55–14:15	SY07-3	TOR-dependent neuronal and vascular aging as critical drivers of Alzheimer's disease V. Galvan (United States)	
14:15–14:35	SY07-4	Injury-related spreading depolarization in aging: mechanisms and consequences E. Farkas (Hungary)	
14:35–14:55	SY07-5	Neurovascular uncoupling and cognitive decline in aging: novel targets for prevention Z. Ungvari (United States)	
14:55–15:00	SY07-6	Discussion	



13:30–15:00		BS09	HÖRSAAL C
			HEMORRHAGE
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. Hanalioglu, 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)	

13:30–15:00		BPS05	HÖRSAAL D
			BRAINPET: NEUROLOGY
Chair(s)		S. Turton (United Kingdom) J. Hirvonen (Finland)	
13:30–13:45	BPS05-1	Chemogenetic modulation of the pedunclopontine nucleus coupled with 11C-PHNO uptake reveals striatal dopamine release accompanies profound motor recovery in a rodent model of Parkinson's disease P. Sharma , L. Wells, C. Coello, S. Lanzarone, S.-P. Tang, I. Rabiner, R. Gunn, G. Gillies, D. Dexter, I. Pienaar (United Kingdom)	
13:45–14:00	BPS05-2	Altered adenosine 2A and dopamine D2 receptor availability in the 6-hydroxydopamine-treated rats with and without levodopa-induced dyskinesia X. Zhou , J. Doorduyn, P. Elsinga, R. Dierckx, E. de Vries, C. Casteels (Netherlands)	
14:00–14:15	BPS05-3	Effects of MPTP on serotonergic neuronal systems and mitochondrial complex I activity in living brain: A PET study in conscious rhesus monkeys H. Tsukada (Japan)	
14:15–14:30	BPS05-4	PET imaging of [11C]PBR28 in patients with Parkinson's disease does not indicate increased binding to TSPO K. Varnäs , Z. Cselényi, A. Jucaite, C. Halldin, P. Svenningsson, L. Farde, A. Varrone (Sweden)	
14:30–14:45	BPS05-5	Inter-ictal [15O]H2O/PET differentiates between drug-resistant and seizure-free mesial temporal lobe epilepsy patients J. Ryan, M. Feldmann, M. Walker, V. Charalambous, J. Anton-Rodriguez, S. Wang, M. Bauer, R. Hinz, M. Koeppe, M.-C. Asselin (United Kingdom)	
14:45–15:00	BPS05-6	In vivo tau and amyloid pathology in Corticobasal Degeneration (CBD) H. Wilson , F. Niccolini, S. Hirschbichler, G. Pagano, R. Erro, T. Yousaf, A. Whittington, R. Gunn, E. Rabiner, K. Bhatia, M. Politis (United Kingdom)	

15:00–16:00	PS04	EXHIBITION & POSTER AREA POSTER VIEWING SESSION IV, COFFEE BREAK & EXHIBITION
16:00–17:30	SY08	HÖRSAAL A IN VIVO VERITAS: A TRIBUTE TO LOUIS SOKOLOFF. USE OF QUANTITATIVE BIOCHEMICAL TECHNIQUES TO EXPLORE ROLES OF LACTATE IN VIVO
	Chair(s)	F. Hyder (United States)
16:00–16:05	SY08-1	Introduction
16:05–16:25	SY08-2	Aerobic glycolysis in resting brain: Quantitative analysis of oxygen-glucose indices as functions of age in humans A. Gjedde (Denmark)
16:25–16:45	SY08-3	Aerobic glycolysis in activated brain: Catecholamines, astrocytes, and lactate efflux G. Dienel (United States)
16:45–17:05	SY08-4	Lactate shuttling: Modeling and measuring astrocyte neuron interactions D. Rothman (United States)
17:05–17:25	SY08-5	Bedside evaluation of cerebral energy status and lactate supplementation after brain injury C.-H. Nordström (Denmark)
17:25–17:30	SY08-6	Discussion

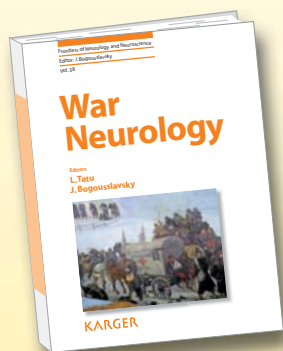
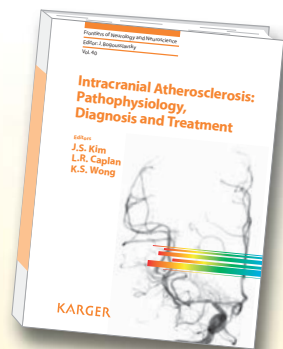
16:00–17:30	BS10	HÖRSAAL C CEREBRAL ISCHEMIA: CLINICAL
	Chair(s)	J. Roberts (United States) K. Abe (Japan)
16:00–16:15	BS10-1	Genetics of white matter hyperintensity burden in patients with ischemic stroke: the MRI-GENIE study A.-K. Giese , H. Xu, K. Ryan, M.D. Schirmer, A.V. Dalca, T. Dave, J.W. Cole, P.F. McArde, J.P. Broderick, J. Jimenez-Conde, C. Jern, B.M. Kissela, D.O. Kleindorfer, R. Lemmens, A. Lindgren, J.F. Meschia, T. Rundek, R.L. Sacco, R. Schmidt, P. Sharma, A. Slowik, V. Thijs, D. Woo, B.B. Worrall, O. Wu, S.J. Kittner, P. Golland, J. Rosand, B.D. Mitchell, N.S. Rost (United States)
16:15–16:30	BS10-2	Variable ischemic stress of white matter hyperintensities in stroke patients with large vessel occlusion E. Nemoto , S. Zaidi, K. Uchino, R. Lin, H. Kuwabara, N. Bircher, D. Sashin, Y.-F. Chang, M. Hammer, V. Reddy, T. Jovin, N. Vora, M. Jumaa, L. Massaro, J. Billigen, F. Borda, K. Matsubara, H. Yonas (United States)
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. Rodríguez-Campello, R.M. Vivanco-Hidalgo, E. Cuadrado-Godia, Á. Ois, I. Fernández-Cadenas, J. Jimenez-Conde, J. Roquer (Spain)
16:45–17:00	BS10-4	Loci associated with neurological instability after acute ischemic stroke: A multi-ethnic genome-wide association study L. Ibanez , L. Heitsch, C. Carrera, J. Pera, A. Slowik, D. Strbian, I. Fernandez-Cadenas, J. Montaner, C. Cruchaga, J.-M. Lee (United States)
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. Pagliuzzi, M. Rehberger, D. Contini, A. Pifferi, L. Spinelli, R. Donat, R. Erdmann, M. Fumagalli, G. Greisen, U.M. Weigel, T. Durduran, A. Torricelli (Spain)

Karger Publications in Neurology

Frontiers of Neurology and Neuroscience, Vol. 40

Intracranial Atherosclerosis: Pathophysiology, Diagnosis and Treatment

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Frontiers of Neurology and Neuroscience, Vol. 38

War Neurology

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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
D. Busch, C. Mavroudis, T. Ko, J. Lynch, K. Mensah-Brown, J. Newland, T. Boorady, A. McCarthy, G. Du Pont-Thibodeau, J. Connelly, E. Buckley, A. Yodh, T. Kilbaugh, D. Licht (United States)

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
A. Colasanti, Q. Guo, P.B. Jacobson, D. Reuter, A. Tovcimak, J.-Q. Wang, C. Schroeder, M. Voorbach, P. Makidon, J.D. Beaver, R.N. Gunn, E.A. Rabiner, R. Rajagovindan (United Kingdom)

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. Gotlib (Norway, United States)

16:30–16:45 BPS06-3 Association between cortical thickness and MAO-A binding in subjects suffering from seasonal affective disorder
R. Seiger, G.M. James, M. Spies, C. Vranka, L. Nics, M. Hienert, C. Philippe, P. Baldinger-Melich, W. Wadsak, M. Mitterhauser, S. Kasper, D. Winkler, R. Lanzenberger (Austria)

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
S. Hesse, M. Rullmann, A. Bresch, M. Heinicke, C. Schincke, F. Vettermann, M. Hankir, J. Luthardt, G.-A. Becker, M. Patt, P.M. Meyer, M. Fasshauer, M. Blueher, W. Fenske, F. Then Bergh, A. Hilbert, Y.-S. Ding, O. Sabri (Germany)

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- 17:00–17:15 BPS06-5 Prenatal stressors alter neuroadaptation of the 5-HT_{1A} serotonergic system following fixed-dose ethanol exposure in non-human primates
P. Lao, T. Betthausen, 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

SESSION TYPES

Highlight session	BrainPET courses	Internal meeting
Symposium session	Oral session	Social event
Brain courses	Poster viewing	Satellite



SCIENTIFIC PROGRAM

Tuesday, April 4th

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	Poster viewing session, coffee break & exhibition				PS05 Poster viewing session V
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	
14:00	Poster viewing session, coffee break & exhibition				PS06 Poster viewing session VI
15:00		SY11 Intra-arterial route of stem cell delivery to the brain preclinical and clinical data	BS15 Neuroinflammation in cerebral ischemia 2	BS16 Imaging applications	
16:00	Poster viewing session, coffee break & exhibition				
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. Osmanski, 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 B. Rodriguez-Grande , A. Obenaus, A. Ichkova, T. Bessy, J. Aussudre, E. Barse, B. Hibba, G. Catheline, G. Barriere, J. Badaut (France)
08:45–09:00	NLA-4	Selective non-nuclear estrogen receptor activation decreases stroke severity and promotes functional recovery after stroke in mice U.M. Selvaraj , E. Plautz, K. Chambliss, X. Kong, S. Rovinsky, S. Zhang, C. Mineo, B. Katzenellenbogen, J. Katzenellenbogen, S.H. Kim, P. Shaul, A. Stowe (United States)
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

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-Silzcak, 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 H.A. Kim , S.R. Zhang, B.R. Broughton, C.H. Wong, T. Magnus, T.V. Arumugam, M. Gelderblom, G.R. Drummond, C.G. Sobey (Australia)
12:15–12:30	BS11-6	Immune response in ischemic stroke regulated by let7i microRNA G. Jickling , B. Ander, N. Schroff, B. Stamova, C. Dykstra-Aiello, D. Liu, F. Sharp (United States)

11:00–12:30	BS12	HÖRSAAL D
		TRAUMA
	Chair(s)	M. O'Donnell (United States) E. Nemoto (United States)
11:00–11:15	BS12-1	Nitric oxide (NO) and mitochondria in injured brain: Glutamate node as a possible target in NO-mediated mitochondrial dysfunction after traumatic brain injury (TBI) M. Üçal , K. Kraitsy, A. Weidinger, J. Paier-Pourani, S. Patz, B. Fink, A. Kozlov, U. Schäfer (Austria)
11:15–11:30	BS12-2	Early changes in cerebral blood flow and cerebrovascular reactivity in mild traumatic brain injury S. Hanalioglu , T. Hidayetov, A.I. Isikay, M. Mut Askun (Turkey)
11:30–11:45	BS12-3	The lectin complement pathway in human contusions D. De Blasio, S. Fumagalli, L. Longhi, F. Orsini, F. Ortolano, E.R. Zanier, L. Neglia, G. Goti, P. Garred, E. Picetti, M. Locatelli, A. Bernardi, M. Gobbi, N. Stocchetti, M.-G. De Simoni (Italy)
11:45–12:00	BS12-4	Evaluating the amyloid precursor protein derivative, APP96-110, as a novel therapeutic agent following traumatic brain injury S.L. Plummer , E. Thornton, F. Corrigan, R. Vink, R. Cappai, C. Van Den Heuvel (Australia)
12:00–12:15	BS12-5	A new class of non-metal catalytic carbon antioxidants restored cerebral perfusion in traumatic brain injury complicated by systemic hypotension K. Mendoza , L. Cherian-Mathew, C. Robertson, L. Nilewski, W. Sikkema, J. Tour, T.A. Kent (United States)
12:15–12:30	BS12-6	Transplantation of RADA16-BDNF peptide scaffold with human umbilical cord mesenchymal stem cells forced with CXCR4 and activated astrocytes for repair of traumatic brain injury W. Shi (China)
12:30–13:30		EXHIBITION & POSTER AREA LUNCH BREAK, EXHIBITION & POSTER VIEWING

13:30–15:00	SY10	HÖRSAAL A
		MICROGLIA AND BRAIN ISCHEMIA
	Chair(s)	K. Gertz (Germany)
13:30–13:35	SY10-1	Introduction
13:35–13:55	SY10-2	Microglia: A grumpy maid in the brain A. Denes (Hungary)
13:55–14:15	SY10-3	Diversity of monocytic cells in the ischemic brain K. Gertz (Germany)
14:15–14:35	SY10-4	Age and gender as important modifiers of microglia activation profiles after stroke J. Kriz (Canada)
14:35–14:55	SY10-5	Microglial TGFβ1 as neurovascular protectant after neonatal stroke Z. Vexler (United States)
14:55–15:00	SY10-6	Discussion
13:30–15:00	BS13	HÖRSAAL C
		DEGENERATION AND AGING
	Chair(s)	X. Hu (United States) C. Lecrux (Canada)
13:30–13:45	BS13-1	Postsynaptic density 93 alleviates memory deficits in Alzheimer's disease mouse model by modulation of somatostatin receptor L. Yu , Y. Liu, H. Yang, X. Zhu, H. Zhao, L. Han, Y. Xu (China)
13:45–14:00	BS13-2	Stalled blood flow in brain capillaries is responsible for reduced cortical perfusion and impacts cognitive function in mouse models of Alzheimer's disease O. Bracko , J.C. Cruz Hernández, C. Kersbergen, L. Park, V. Muse, M. Haft-Javaherian, L. Vinarcsik, Y. Kang, J. Zhou, G. Otte, J.D. Beverly, E. Slack, T.P. Santisakultarm, C. Iadecola, N. Nishimura, C.B. Schaffer (United States)
14:00–14:15	BS13-3	Sex difference in the neuroprotective effect of microRNA mir363-3p on ischemic stroke Selvamani A. , Sohrabi F. (United States)

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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

BRAIN ENERGY METABOLISM

Chair(s) A. Haberg (Norway)
I. Kanno (Japan)

- 13:30–13:40 BS14-1 Non-invasive, multi-modal monitoring of bispectral index, cerebral oxygen metabolism and cerebral blood flow under general anesthesia
M. Kacprzak, S. Tagliabue, C. Lindner, I. Chochron da Prat, A. Sanchez-Guerrero, O. Martinez Silva, J.L. Hollmann, U.M. Weigel, M. de Nadal, J. Sahuquillo, T. Durduran (Spain)
- 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 Tiagabain administration in wild type and GAD65 knockout mice
A.B. Walls, L.H. Nilsen, E. Eyjolfsson, A. Schousboe, U. Sonnewald, H.S. Waagepetersen (Denmark)
- 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)

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- 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

POSTER VIEWING SESSION VI, COFFEE BREAK & EXHIBITION

16:00–17:30 SY11 HÖRSAAL A

INTRA-ARTERIAL ROUTE OF STEM CELL DELIVERY TO THE BRAIN – PRECLINICAL AND CLINICAL DATA

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



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 L.-Y. Zhang , Z.-Y. Wei, Y. Zhu, J.-J. Pan, L.-P. Wang, M. Mamtillahun, C. Qin, Y.-Y. Ma, L. Jiang, Y.-Y. Song, J.-Y. Liu, L.-L. Luo, Y.-T. Wang, Z.-J. Zhang, G.-Y. Yang (China)	
16:15–16:30	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)	
16:30–16:45	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	BS15-4	Progression of inflammation and brain metabolism after cerebral ischemia – inflammatory cells consume glucose H. Backes , M. Walberer, M. Schroeter, R. Graf (Germany)	
17:00–17:15	BS15-5	Transgenic expression of human Interleukin-37 reduces post-stroke functional deficit and lung infection in mice S.R. Zhang , C.G. Sobey, G.R. Drummond, C.A. Nold-Petry, M.F. Nold, H.A. Kim (Australia)	
17:15–17:30	BS15-6	Beta4 integrin plays a vasculo-protective role during neuroinflammation J. Welser, R. Kant, R. Milner (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)	
16:15–16:30	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)	
16:30–16:45	BS16-3	Laminar cortical blood flow in mice is quantified by dynamic contrast optical coherence tomography C. Merkle , V. Srinivasan (United States)	
16:45–17:00	BS16-4	Identifying sources of initial deficit and post-stroke recovery in mice using early MR-Imaging and correlation analysis F. Knab , S. Koch, U. Grittner, R. Bernard, A. Schneider, S. Mueller, T.D. Farr, P. Böhm-Sturm, U. Dirnagl, C. Harms (Germany)	
17:00–17:15	BS16-5	Dual-calibrated fMRI measurement of resting capillary and venous blood volumes M. Germuska , A. Merola, R. Wise (United Kingdom)	
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. Dijkhuizen, A.M. Stowe (Netherlands)	

POSTER SESSIONS | OVERVIEW

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.

10:00–11:00	PS01	TOPIC	PAGE
Ground floor	001–010	Stroke	74
	011–025	Neuroprotection	75
	026–036	Cerebral/subarachnoid hemorrhage	76
Intermediate, mezzanine floor	037–046	Dementia	78
	047–050	White matter injuries	79
	051–057	Blood brain barrier	79
	058–062	Angiogenesis	80
	063–067	Neurogenesis and gliogenesis	81
	068–070	Glial mechanisms	81
	071–076	BrainPET: Data acquisition and analysis	82
	077–082	BrainPET: Novel modeling and methods	82
First floor	083–088	BrainPET: Preclinical Imaging	83
	089–093	BrainPET: Metabolism and blood flow	84
	094–095	BrainPET: Dementia and neurological disorders	85
	096–099	BrainPET: Novel radiotracers	85
	100–101	BrainPET: Other	86
	102–102	BrainPET: Substance abuse and addictive disorder	86
	103–108	BrainPET: Late-breaking abstracts	86

POSTER SESSIONS | OVERVIEW



15:00–16:00	PS02	TOPIC	PAGE
Ground floor	001–010	Stroke	88
	011–025	Neuroprotection	89
	026–037	Cerebral/subarachnoid hemorrhage	91
Intermediate, mezzanine floor	038–048	Dementia	92
	049–051	White matter injuries	93
	052–053	Cell death/survival	94
	054–060	Blood brain barrier	94
	061–063	Glial mechanisms	95
First floor	064–067	Brain edema	95
	068–074	BrainPET: Data acquisition and analysis	96
	075–081	BrainPET: Novel modeling and methods	96
	082–088	BrainPET: Preclinical imaging	97
	089–094	BrainPET: Metabolism and blood flow	98
	095–097	BrainPET: Dementia and neurological disorders	99
	098–100	BrainPET: Neurotransmitter system evaluation	99
	101–102	BrainPET: Psychiatric disorders	100
	103–108	BrainPET: Late-breaking abstracts	100

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.

09:30–11:00	PS03	TOPIC	PAGE
Ground floor	001–011	Clinical studies	102
	012–020	Neurological diseases	103
	021–025	Brain plasticity	104
	026–033	Stem cells and cell therapy	105
Intermediate, mezzanine floor	034–043	Stroke	106
	044–054	Cerebral ischemia: cellular and molecular	107
	055–057	Cerebral ischemia: reperfusion	108
	058–067	Cerebral ischemia: animal models	108
First floor	068–070	Cardiac arrest	110
	071–085	Imaging: methodology non-PET	110
	086–099	Neurovascular coupling	112
	100–101	Neurotransmission	113

15:00–16:00	PS04	TOPIC	PAGE
Ground floor	001–012	Clinical studies	114
	013–022	Neurological diseases	115
	023–026	Brain plasticity	116
	027–034	Stem cells and cell therapy	117
Intermediate, mezzanine floor	035–044	Stroke	127
	045–055	Cerebral ischemia: cellular and molecular	119
	056–058	Cerebral ischemia: reperfusion	120
	059–065	Cerebral ischemia: animal models	108
First floor	066–069	Cardiac arrest	122
	070–084	Imaging: methodology non-PET	122
	085–097	Neurovascular coupling	124
	098–100	Neurometabolic coupling	126

POSTER SESSIONS | OVERVIEW

Tuesday, April 4th 2017

Put up your poster on Tuesday, April 4th 2017 from 07:30–09:30. Take it down on Tuesday, April 4th from 16:00–19:00.

10:00–11:00	PS05	TOPIC	PAGE
Ground floor	001–014	Stroke	127
	015–024	Cerebral ischemia: cellular and molecular	128
	025–034	Cerebral ischemia: animal models	129
	035–048	Neuroinflammation	131
Intermediate, mezzanine floor	049–058	CNS Trauma	132
	059–066	Neurodegeneration	134
First floor	067–071	Aging	134
	072–079	Metabolism	135
	080–084	Biomarkers	136
	085–088	Brain immune interaction	137
	089–106	Late-breaking abstracts	137

15:00–16:00	PS06	TOPIC	PAGE
Ground floor	001–014	Stroke	139
	015–024	Cerebral ischemia: cellular and molecular	141
	025–034	Cerebral ischemia: animal models	142
	035–048	Neuroinflammation	143
Intermediate, mezzanine floor	049–056	CNS Trauma	145
	057–064	Neurodegeneration	134
First floor	065–070	Aging	146
	071–077	Metabolism	147
	078–081	Biomarkers	148
	082–084	Brain immune interaction	148
	085–102	Late-breaking abstracts	149

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
A.-K. Giese, P. Musolino, H. Xu, K. Ryan, M.D. Schirmer, A.V. Dalca, J.W. Cole, P.F. McArdle, J.P. Broderick, J. Jimenez-Conde, C. Jern, B.M. Kissela, D.O. Kleindorfer, R. Lemmens, A. Lindgren, J.F. Meschia, T. Rundek, R.L. Sacco, R. Schmidt, P. Sharma, A. Slowik, V. Thijs, D. Woo, B.B. Worrall, P. Golland, S.J. Kittner, J. Rosand, B.D. Mitchell, O. Wu, N.S. Rost (United States)
- PS01-005 FOXF2, a novel risk locus for small vessel stroke with functional evidence for developmental effects
G. Chauhan, C. Arnold, M. Fornage, A. Reyahi, O.J. Lehmann, L. Launer, M.A. Ikram, P. Carlsson, D.I. Chasman, S. Childs, W.T. Longstreth, S. Seshadri, **S. Debette** (France)
- 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 $\alpha 5\beta 1$ with ATN-161 is profoundly neuroprotective following both transient and permanent middle cerebral artery occlusion in experimental ischaemic 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 Eदारavone 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. Mamtilahun, 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. Barritault, 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. Khoutorova, L. Belayev (United States)
- PS01-016 Hypothermia inhibits astrocyte-mediated neuronal protection
P. Rajput, S. Kothari, P. Lyden (United States)

- 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 liraglutide in transient focal brain ischemia in rats with type 2 diabetes mellitus
I. Filchenko, A. Simanenkova, 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 (ER α) dependent only in female neurons after in-vitro ischemia
D. Zafer, V. Chanana, D. Hanalioglu, A. Canturk, D. Kintner, J. Chandrashekhar, K. Freeman, J. Sanchez, P. Ferrazzano, J. Levine, **P. Cengiz** (United States)
- PS01-023 MLC901 issued from traditional Chinese medicine favors angiogenesis and associated recovery after ischemic stroke
C. Gandin, C. Widmann, M. Lazdunski, **C. Heurteaux** (France)
- PS01-024 Neuroprotective effects of intranasal Guanosine: wide therapeutic 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)

- 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/GSK3 β pathway in subarachnoid hemorrhage rats
J. Ma, Z. Wang, **G. Chen** (China)
- PS01-031 Role of neurexin-1 β 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, C. Moomaw, 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)

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. Roese, 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
 P. Boehm-Sturm, J. Kuchling, S. Mueller, M. Foddis, C. Finke, C. Sassi, S.P. Koch, C. Harms, U. Dirnagl, **T.D. Farr** (United Kingdom, Germany)

PS01-040 Metabolic regional and network changes in Alzheimer's disease subtypes
K. Herholz, C. Haense, 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
 B. Witjes, R. de Heus, M. Sanders, M. Oudegeest-Sander, D. de Jong, **J.A.H.R. Claassen** (Netherlands)

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

WHITE MATTER INJURIES

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
 T. Maki, A. Morancho, P. Martinez-San Segundo, K. Hayakawa, H. Takase, A.C. Liang, E. Medina, K. Washida, J. Montaner, E.H. Lo, K. Arai, **A. Rosell** (Spain)

PS01-049 Cerebral blood flow in patients with white matter hyperintensities and effect of co-variables
Y. Shi, M. Thrippleton, G. Blair, I. Marshall, I. Hamilton, D. Dickie, F. Doubal, J. Wardlaw (United Kingdom)

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. Prehn, 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)

- 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
K. Vilringer, B. Sanz Cuesta, A.-C. Ostwaldt, U. Grittner, P. Brunecker, A.A. Khalil, K. Schindler, O. Eisenblätter, H. Audebert, J.B. Fiebach (Germany)
- PS01-056 Impact of head-down suspension on prefrontal cortex neurons and blood-brain barrier
J. Ashaolu (Nigeria)
- PS01-057 Perivascular HIF-1 α 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. Saggiu, 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 $\alpha\beta 3$ integrin
H. Lee, S.-W. Kim, I.-D. Kim, H.-K. Lee, L. Luo, J.-K. Lee (Korea, Republic of)
- PS01-062 MiR-126 regulates the angiogenic function of endothelial cells after hypoxia via Hif-1 α
M. Qu, F. Yuan, M. Mamtilahun, S. Wang, Y. Wang, Z. Zhang, G. Yang (China)

NEUROGENESIS AND GLIOGENESIS

- PS01-063 Subnormal neurogenesis and cortical growth in a piglet model of congenital heart disease
P. Morton, L. Korotcova, B. Lewis, S. Bhuvanendran, S. Ramachandra, V. Kumar, F. Shaikh, E. Short, D. Zurakowski, J. Zhang, S. Mori, J. Frank, R. Jonas, V. Gallo, N. Ishibashi (United States)
- PS01-064 MiR-451 accelerates neuronal differentiation in vitro and in vivo
S. Patz, C. Trattng, M. Ücal, G. Grünbacher, U. Zefferer, M. Absenger-Novak, C. Tams-Amersdorfer, U. Schäfer (Austria)
- PS01-065 Juvenile neurogenesis: a new target for endogenous regeneration, repair, and improved functional outcome following ischemic stroke
K. Rodgers, O. Patsos, J. Ahrendsen, 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. Rodriguez-Contreras, L. Shi (United States)
- PS01-067 Manipulating serotonin signaling in depression – The key to happiness?
M. Petermann, G. Kronenberg, N. Alenina, F. Klempin (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, Á. Menyhárt, E. Császár, B. Martinecz, N. Lénárt, E. Farkas, Á. Dénes (Hungary)

BRAINPET: DATA ACQUISITION AND ANALYSIS

- PS01-071 Relationship between efficient brain networks and glucose consumption in simultaneously recorded resting state fMRI – FDG PET
I. Neuner, S. Ramkiran, R. Rajkumar, J. Mauler, E. Rota Kops, J. Arrubla, L. Tellmann, C. Lerche, K.J. Langen, H. Herzog (Germany)
- 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 bolus plus constant infusion to rapidly quantify serotonin transporter binding
G. Gryglewski, L. Rischka, C. Philippe, A. Hahn, G.M. James, E. Klebermass, M. Hienert, L. Silberbauer, T. Vanicek, A. Kautzky, N. Berroterán-Infante, L. Nics, T. Traub-Weidinger, M. Mitterhauser, W. Wadsak, M. Hacker, S. Kasper, R. Lanzenberger (Austria)
- PS01-074 Attenuation correction with a multi-atlas method for brain PET-MR imaging: assessment with realistic simulated [11C] raclopride bolus-infusion PET data
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
T. Koopman, N. Verburg, O.S. Hoekstra, P.C. Versélewel de Witt Hamer, A.A. Lammertsma, R. Boellaard, M.M. Yaqub (Netherlands)

- PS01-078 Statistical analysis of single subject PET neurotransmitter activation studies using approximate bayesian computation
S. Meikle, G. Angelis, Y. Fan, G. Hart, G. Perkins, R. Fulton, B. Balleine (Australia)
- PS01-079 Method for automatic delineation of brain regions on pig PET images
J. Villadsen, H.D. Hansen, L.M. Jørgensen, S.H. Keller, F.L. Andersen, I.N. Petersen, G.M. Knudsen,
C. Svarer (Denmark)
- PS01-080 Case study: Multimodal 18F-fluciclovine PET/MRI and ultrasound-guided neurosurgery of anaplastic oligodendroglioma
A.M. Karlberg, E.M. Berntsen, H. Johansen, M. Myrthue, O. Solheim, I. Reinertsen, H.Y. Dai, A. Skjulsvik Jarstein, Y. Xiao, H. Rivaz, L. Eikenes (Norway)
- PS01-081 Global vs. regional differences in resting glucose metabolism across brain states
G.J. Thompson, K.N. Mortensen, A. Gjedde, P. Herman, M.J. Parent, D.L. Rothman, R. Kupers, M. Ptito, J. Stender, S. Laureys, V. Riedl, M.T. Alkire, F. Hyder (United 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
N. Gómez-Lado, C. Correa-Paz, L. García-Varela, E. López-Arias, Á. Ruibal, J. Castillo, J. Pardo-Montero, F. Campos, P. Aguiar, T. Sobrino (Spain)
- PS01-085 Identifying biomarkers of α -synuclein pathology using multiparametric imaging
K. Herfert, N. Landeck, L. Kuebler, A. Maurer, D. Kirik, B.J. Pichler (Germany)

PS01-086 Multi-modal imaging reveals a specific multi-nutrient diet as modulator of microglial activation in stroke
B. Zinnhardt, M. Wiesmann, S. Eligehausen, L. Broersen, L. Wachsmuth, S. Hermann, A.J. Kiliaan, A.H. Jacobs (Germany)

PS01-087 Multi-tracer characterization of an animal model of epileptogenesis by serial molecular in vivo imaging
J.P. Bankstahl, P. Bascunana, M. Brackhan, H. Breuer, I. Leiter, X.-Q. Ding, O. Langer, W. Löscher, W. Härtig, F.M. Bengel, M. Meier, M. Bankstahl (Germany)

PS01-088 Parametric imaging of [11C]flumazenil binding in the rat brain
I. Lopes Alves, D. Vázquez García, A. Parente, J. Doorduyn, R. Dierckx, A.M. Marques da Silva, M. Koole, A.T.M. Willemsen, R. Boellaard (Netherlands)

BRAINPET: METABOLISM AND BLOOD FLOW

PS01-089 Interindividual and regional variations in coupling of cerebral blood flow and metabolism measured by PET and MRI
O. Henriksen, M. Vestergaard, U. Lindberg, N.J. Aachmann-Andersen, K. Lisbjerg, S. Christensen, N. Olsen, P. Rasmussen, H. Larsson, I. Law (Denmark)

PS01-090 The spatial distribution of signaling input to systems level networks in the human brain
 L. Utz, J.P. Rauschecker, **V. Riedl** (Germany)

PS01-091 Regional cerebral blood flow correlated with changes in blood pressure evoked by dynamic exercise: a study using oxygen-15-labeled water with PET
M. Hiura, M. Sakata, K. Ishii, K. Ishibashi, S. Wagatsuma, T. Tago, J. Toyohara, A. Muta, T. Nariai (Japan)

PS01-092 To deconvolve or not to deconvolve? Perfusion MRI in acute stroke: validation of mismatch with 15O-water PET
O. Zaro Weber, W. Moeller-Hartmann, A. Schuster, W.-D. Heiss, J. Sobesky (Germany)

PS01-093 Simultaneous PET/MR imaging of task-specific changes in glucose metabolism, functional connectivity and white matter microstructure
A. Hahn, G. Gryglewski, L. Nics, L. Rischka, S. Ganger, H. Sigurdardottir, L. Silberbauer, T. Vanicek, A. Kautzky, W. Wadsak, M. Mitterhauser, M. Hartenbach, M. Hacker, S. Kasper, R. Lanzenberger (Austria)

BRAINPET: DEMENTIA AND NEUROLOGICAL DISORDERS

PS01-094 Global and regional amyloid- β effects on default model network drive progression to AD dementia
T.A. Pascoal, S. Mathotaarachchi, M.S. Kang, M. Shin, A.Y. Park, M. Parent, K.P. Ng, J.-P. Soucy, J.A.D. Aston, C. Cuello, S. Gauthier, P. Rosa-Neto (Canada)

PS01-095 Arterial spin labeling in the hybrid PET/MRI workup of dementia patients
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)

BRAINPET: NOVEL RADIOTRACERS

PS01-096 Test-retest repeatability of quantitative [18F]florbetapir studies in humans
S. Golla, S. Verfaillie, R. Boellaard, S. Adriaanse, M. Zwan, R. Schuit, T. Timmers, C. Groot, P. Schober, P. Scheltens, W. van der Flier, A. Windhorst, B. van Berckel, A. Lammertsma (Netherlands)

PS01-097 Test-retest variability of the $\alpha 4\beta 2$ nicotinic acetylcholine receptor agonist radiotracer, [18F]nifene, in humans
P. Lao, T. Betthausen, D. Tudorascu, T. Barnhart, J. Mukherjee, B. Christian (United States)

PS01-098 Preclinical In vivo evaluation of [18F]FEPURO as a potential radioligand for imaging protein synthesis with PET
N.K. Ramakrishnan, H.M. Betts, S. Milicevic Sephton, D.J. Williamson, X. Zhou, S. Sawiak, A.C. Perkins, F.I. Aigbirhio (United Kingdom)

- PS01-099 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)

BRAINPET: OTHER

- PS01-100 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)
- PS01-101 An attenuation correction approach based on segmentation of structural images for hybrid PET/MRI systems
L. Rischka, A. Hahn, N. Berroteran-Infante, G. Gryglewski, C. Philippe, M. Klöbl, G.M. James, A. Kautzky, T. Vanicek, W. Wadsak, M. Mitterhauser, T. Traub-Weidinger, M. Hacker, S. Kasper, R. Lanzenberger (Austria)

BRAINPET: SUBSTANCE ABUSE AND ADDICTIVE DISORDER

- PS01-102 Preoperative μ -opioid receptor availability predicts weight development following bariatric surgery
H.K. Karlsson, L. Tuominen, P. Salminen, P. Nuutila, L. Nummenmaa (Finland)

BRAINPET: LATE-BREAKING ABSTRACTS

- PS01-103 A full pharmacokinetic head-to-head comparison of two tau PET radiotracers with arterial analysis: 18F-AV1451 and 18F-THK5351
D. Wooten, D. Yokell, R. Neelamegam, N. Guehl, K. Grogg, C. Gharagouzloo, M. Dhaynaut, M. Marquie-Sayagues, T. Gomez-Isla, K. Johnson, R. Zafonte, G. El Fakhri, M. Normandin (United States)
- PS01-104 Quantitative analysis of decomposed EEG represented as a new contour mathematical model
V. Sevastyanov, Y. Furman, **K. Ivanov** (Russian Federation)

- PS01-105 Assessment of the reliability and validity of simplified ratio-based quantification approaches for [11C]PBR28
G.J. Matheson, P. Plavén Sigray, A. Forsberg, K. Collste, A. Varrone, C. Halldin, L. Farde, S. Cervenka (Sweden)
- PS01-106 Inter-observer variability of image derived input functions for kinetic analysis of [15O]H₂O PET in the non-human primate
N.E. Makris, N. Costes, J. Debatisse, J.-B. Langlois, B. Caroline, V. Marjorie, D. Le Bars, O. Wateau, M. Verset, T.-H. Cho, E. Canet-Soulas (France)
- PS01-107 Network analysis of brain PET data: application to [11C] SB204571 studies targeting serotonergic receptor 5-HT₄ in healthy controls
M. Veronese, M. Arcolin, G. Rizzo, P. Jensen, P. Fisher, C. Svarer, G. Knudsen, A. Bertoldo, F. Turkheimer (United Kingdom)
- PS01-108 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)

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 GSK3 β 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
J. Maguire, C. Jern, A. Lindgren, B. Worrall, J.-M. Lee, S. Bevan, I. Fernandez-Cadenas, D. Woo, J. Jimenez-Conde, V. Thijs, N. Rost, J. Rosand, C. Levi, K. Rannikmae, K. Jood, J. Sturm, T. Tatlisumak, T. Wieloch, R. Lemmens, D. Strbian (Australia)

- 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
D.R. Busch, T. Ko, T. Boorady, J. Newland, K. Mensah-Brown, J. Lynch, M. Winters, A. McCarthy, L. Beslow, E. Buckley, T. Durduran, A. Yodh, D. Licht (United States)

NEUROPROTECTION

- PS02-011 Oxytocin is neuroprotective against physiological and behavioral consequences of social stress
O.L. Lopatina, A.A. Shabalova, Y.V. Gorina, Y.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 17 β 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)

- PS02-018 Molecular H2 alleviates perinatal asphyxia-induced elevations in neuronal COX-2 expression
V. Varga, O. Oláh, J. Németh, V. Tóth-Szűki, A. Lehóczki, G. Remzso, 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
Y. Ito, **A. Tanaka**, K. Kawasaki, C. Kitabayashi, M. Yamazato, R. Nishioka, M. Hirayama, K. Takahashi, N. Araki (Japan)
- PS02-023 Exercise intensity affects peripheral immunity in the absence of IL-10
K. Poinatte, U.M. Selvaraj, S.B. Ortega, X. Kong, A. McPartlin, E.J. Plautz, A.M. Stowe (United States)
- PS02-024 New generation progestins are neuroprotective in experimental stroke
M. El Amki, P. Baumgartner, R. Steffen, H. Schneider, A.R. Luft, M. Weller, B. Imthurn, G.S. Merki-Feld, S. Wegener (Switzerland)
- 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?
C. Conzen, K. Becker, W. Albanna, H. Clusmann, A. Höllig, U. Lindauer, G.A. Schubert (Germany)
- 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
F. Nakano, S. Pak, F. Kawakita, L. Liu, Y. Nakatsuka, H. Nishikawa, T. Okada, M. Terashima, M. Shiba, H. Suzuki (Japan)
- 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?
R.J. Hood, D.D. McLeod, K.E. Warren, D. Pepperall, N.J. Spratt (Australia)
- 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
D.-J. Lim, S.-K. Ha, S.-W. Jin, W.-H. Kim, S.-D. Kim, S.-H. Kim (Korea, Republic of)
- PS02-034 Cytochrome P450 1B1 is a potential vital molecule inducing vascular smooth muscle cells of human brain arteriovenous malformation towards pathological phenotype
M. Yuanyuan, S. Jianping, Q. Meijie, H. Jun, W. Zhenyu, S. Yaying, L. Peixi, W. Yongting, Z. Zhijun, Z. Wei, Y. Guo-Yuan (China)

- PS02-035 A systemic drive of IL-1 β 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. Sassi, K. Bentele, P. Böhm-Sturm, F. Yildirim,
S. Mueller, T. Farr, M. Foddis, C. Harms,
U. Dirnagl (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
phosphoGSK3 β 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)

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
B.M. Radu, M. Radu, A. Banciu, M. Di Chio, F. Merigo, G. Tsenov, D.D. Banciu, C. Tognoli, P. Kačer, G. Bertini, P.F. Fabene (Romania)

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

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)

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. Bian (China)

BRAIN EDEMA

PS02-064 Lithium at low therapeutic concentrations decreases myosin light chain phosphorylation and thereby stabilizes human endothelial barrier
 B. Bosche, R.L. Macdonald, M. Molcanyi, S. Rej, T.R. Doepfner, M. Obermann, D.J. Müller, A. Das, J. Hescheler, F.V. Härtel, **T. Noll** (Germany)

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

PS02-066 Enhanced interstitial fluid drainage in the hippocampus of spontaneously hypertensive rats
 B. Bedussi, D.M.P. Naessens, J. de Vos, R.H.G. Olde Engberink, J. Titze, M. Wilhelmus, E. Richard, M. ten Hove, E. VanBavel, **E.N.T.P. Bakker** (Netherlands)

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)

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. Ajalin, 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. Marnier, 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?
R. Rajkumar, J. Mauler, E. Rota Kops, J. Arrubla, L. Tellmann, C. Lerche, K.J. Langen, H. Herzog, I. Neuner (Germany)
- PS02-073 Semiquantification of [11C]-(R)-PK11195 PET imaging in juxtacortical and periventricular regions in multiple sclerosis
A.M. Marques da Silva, L.D.L. Narciso, P.N. Schuck, C.M. Dartora, I. Lopes Alves, C.S. Matushita, J. Costa da Costa, J. Becker (Brazil)
- 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
J. Suenaga, M. Kishimoto, R. Ueno, R. Matsuzawa, S. Seki, T. Hayashi, R. Miyazaki, T. Nakamura, M. Sato, H. Murata (Japan)

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, M. Gu, C. Leuze, T. Hjoernevik, B. Shen, J.-H. Park, J.H. Jung, B.C. Lee, S.E. Kim, 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
G.M. James, G. Gryglewski, C. Vraka, R. Seiger, V. Pichler, L. Silberbauer, L. Nics, B. Spurny, M. Spies, M. Mitterhauser, A. Hahn, W. Wadsak, M. Hacker, S. Kasper, R. Lanzenberger (Austria)
- PS02-077 Evaluation of methods for a simultaneous, dual-radiotracer acquisition in translational SPECT neuroimaging
S. Tsartsalis, B.B. Tournier, S. Habiby, C. Barca, A. Dimiziani, D. Pandolfo, N. Ginovart, P. Millet (Switzerland)
- 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
S. Kitamura, Y. Kimura, M. Ichise, C. Seki, H. Shimada, H. Shinotoh, M. Kubota, K. Takahata, Y. Takado, S. Moriguchi, T. Ishii, M.-R. Zhang, T. Suhara, M. Higuchi (Japan)
- PS02-080 Inferring DVR values from short dynamic PET scans of 11C-DTBZ in rat, mouse and human striatum
A. Avendaño-Estrada, M.Á. 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 StO2-MRI sensitively images the ischemic brain: a comparison to MRI perfusion/diffusion mismatch and [18F]-FMISO-PET
 S. Valable, J. Toutain, D. Divoux, L. Chazalviel, A. Corroyer-Dulmont, A. Chakhoyan, M. Ibazizene, L. Barré, E. Mackenzie, M. Bernaudin, E. Barbier, **O. Touzani** (France)
- 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. Laskowski, A. Bauer, **T. Kroll** (Germany)

- 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. Baerentzen, 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
J.Y. Choi, J.H. Lee, M. Lee, J.A. Park, K.C. Lee, J.H. Kang, Y.H. Ryu (Korea, Republic of)
- 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
C. Seki, M. Tokunaga, J. Maeda, F. Kodaka, Y. Kimura, H. Takuwa, Y. Ikoma, H. Ito, T. Suhara, M. Higuchi (Japan)
- 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
J.B. Andersen, U. Lindberg, O.V. Olesen, D. Benoit, C.N. Ladefoged, H.B.W. Larsson, L. Højgaard, G. Greisen, I. Law (Denmark)
- 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
O. Puig, O. Henriksen, U. Lindberg, E. Rostrup, A.E. Hansen, H. Larsson, I. Law (Denmark)
- 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 distinctively 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
T. Hjørnevik, P.W. Cipriano, B. Shen, J.H. Park, P.K. Gulaka, C.M. McCurdy, F.T. Chin, S. Biswal (United States, Norway)

- 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
M. Kubota, Y. Kimura, M. Ichise, C. Seki, K. Takahata,
 S. Kitamura, S. Moriguchi, T. Ishii, M.-R. Zhang, M. Higuchi,
 T. Suhara (Japan)

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
 K. Collste, P. Plavén-Sigray, H. Fatouros-Bergman,
 P. Victorsson, M. Schain, A. Forsberg, N. Amini,
 S. Aeinehband, S. Erhardt, C. Halldin, L. Flyckt, L. Farde,
S. Cervenka (Sweden)

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
S.H. Park, H.S. Park, B.S. Kim, S.M. Lim, S. Yang,
 K.-T. Chang, S.-R. Lee, Y. Lee, S.E. Kim (Korea, Republic of)
- PS02-105 Simultaneous PET/fMRI imaging of the serotonin receptor system: the 5-HT4 receptor subtype
E. Verwer, D.W. Wooten, J. Mandeville,
 R. Neelamegam, D.L. Yokell, G. El Fakhri, N.M. Alpert,
 M.D. Normandin (United States)

- 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)

09:30–11:00

PS03

POSTER SESSION III

CLINICAL STUDIES

- 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
P.-Y. Lin, J. Sutin, P. Farzam, J. Selb, F.-Y. Cheng, P. Ssenyonga, E. Mbabazi, J. Kimbugwe, J. Nalwoga, E. Nalule, B. Kaaya, K. Hagan, P.E. Grant, B. Warf, M.A. Franceschini (United States)
- PS03-005 Pediatric sleep apnea suppresses cerebral blood flow reactivity to hypercarbia
D.R. Busch, T. Ko, J. Lynch, M. Winters, J. Newland, K. Mensah-Brown, T. Boorady, M.A. Cornaglia, J. Radcliffe, J. McDonough, J. Samuel, E. Matthews, R. Xiao, A. Yodh, C. Marcus, D. Licht, I. Tapia (United States)
- 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. Kumpaitiene, R. Zakelis, S. Krakauskaite, R. Chomskis, M. Svagzdiene, E. Sirvinskas, R. Benetis, A. Ragauskas (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. Høiland-Carlsen, 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. Aigbirhio, 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 stenotic lesions
C. Gregori-Pla, G. Cotta, P. Camps-Renom, J. Martí-Fàbregas, R. Delgado-Mederos, T. Durduran (Spain)

NEUROLOGICAL DISEASES

- PS03-012 Metabolic variability in a short status epilepticus model
Y. Wu, P. Pearce, A. Rapuano, K. Kelly, N. de Lanerolle,
J. Pan (United States)
- PS03-013 Characterizing spontaneous cerebral vasculopathy in a murine model of sickle cell disease
H.I. Hyacinth, C.L. Sugihara, D.R. Archer, A.Y. Shih (United States)

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. Lublinsky, 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. Orfila, 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. Kumaran, 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. Katyshev, S. Katysheva (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. Łukomska, 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
M. Kanazawa, M. Miura, M. Toriyabe, M. Koyama, M. Hatakeyama, M. Ishikawa, T. Nakajima, O. Onodera, T. Takahashi, M. Nishizawa, T. Shimohata (Japan)
- PS03-033 Distribution of bone marrow stromal cells after intravenous or intraventricular transplantation in experimental stroke
A. Loubopoulos, U. Mamrak, C. Pan, R. Cai, A. Ghasemigharagoz, F.P. Quacquarelli, F. Hellal, A. Ertuerk, N. Plesnila (Germany)

STROKE

- PS03-035 Intra-arterial IL-1 α 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
M.D. Schirmer, A.V. Dalca, R. Sridharan, A.K. Giese, J. Broderick, J. Jimenez Conde, L. Holmegaard, B. Kissela, D. Kleindorfer, R. Lemmens, A. Lindgren, J. Meschia, T. Rundek, R. Sacco, R. Schmidt, P. Sharma, A. Slowik, V. Thijs, D. Woo, B. Worrall, S. Kittner, J. Rosand, O. Wu, P. Golland, N.S. Rost (United States)

- 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 $\alpha 5\beta 1$ 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
N. Beaufort, K. Bravo-Rodriguez, J. Nelles, E. Sanchez-Garcia, C. Haffner, E. Tournier-Lasserre, M. Ehrmann, M. Dichgans (Germany)
- 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)
- PS03-053a 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)
- PS03-054 Hemorrhagic transformation in rodents: different models, similar mechanism?
 Y. Zheng, Y. Liu, K. Yigitkanli, H. Karatas, J.E. Jung, J. Carr, O. Bruns, M. Bawendi, **K. van Leyen** (United States)

CEREBRAL ISCHEMIA: REPERFUSION

- 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)

CEREBRAL ISCHEMIA: ANIMAL MODELS

- 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. Spsychala, L. McCullough (United States)
- PS03-062 Increased infarction and hemorrhagic transformation in aged spontaneous hypertensive rats: role of collateral CBF
S.L. Chan, M.J. Cipolla (United States)
- PS03-063 Degeneration of muscles supplied by the external carotid artery in the intraluminal filament mouse model of middle cerebral artery occlusion
M. Vaas, R. Ni, M. Rudin, A. Kipar, J. Klohs (Switzerland)
- PS03-064 Substrain and sex differences in infarct size after permanent focal ischemia in C57BL/6 mice
 L. Zhao, M.K. Mulligan, **T.S. Nowak** (United States)
- PS03-066 cGMP-dependent protein kinase I in smooth muscle cells improves cerebral reperfusion and stroke outcome
D. Atochin, T. Suzuki, M. Litvak, E. Buys, S. Wong, N. Kurlyandchik, D. Fukumura, J. Roberts Jr., C. Ayata, R. Feil, P.L. Huang (United States)
- PS03-067 Inadequate food and water intake determine mortality following severe stroke in mice
A. Loubopoulos, U. Mamrak, J. Shrouder, S. Roth, M. Balbi, A. Liesz, F. Hellal, N. Plesnila (Germany)

CARDIAC ARREST

- 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. Walkins, 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
T. Ko, C. Mavroudis, T. Boorady, K. Mensah-Brown, R. Morgan, A. Lautz, M. Karlsson, G. Bratinov, R. Berg, A. Yodh, R. Sutton, D. Licht, T. Kilbaugh (United States)
- 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)

IMAGING: METHODOLOGY NON-PET

- 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. Dirnagl, 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
M.G. Bright, E.L. Mazerolle, O. Sobczyk, A.P. Fan, M.J.P. van Osch, C.I. Mark, L. Huber, A.J.L. Berman, D.P. Bulte, B.G. Pike, C.J. Gauthier, N.P. Blockley (United Kingdom)
- PS03-075 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)

- PS03-076 New pattern of cerebral autoregulation in response to intrathoracic pressure changes
Z. Zhang, N. Bolz, M. Laures, C. Schmidt, M. Oremek, M. Qi, R. Khatami (Switzerland)
- PS03-077 A diffuse optical method and a compact device for measuring cerebral blood flow in adult human brain
J. Hollmann, T. Dragojević, D. Tamborini, D. Portaluppi, M. Buttafava, F. Zappa, J. Culver, T. Durduran (Spain)
- PS03-078 Mapping extracellular pH of gliomas in presence of superparamagnetic nanoparticles
S. Maritim, **D. Coman**, Y. Huang, J. Rao, J. Walsh, F. Hyder (United States)
- PS03-079 Atlas registration to assess edema-corrected MRI lesion volume in experimental stroke
S. Koch, S. Mueller, M. Foddis, T. Bienert, D. von Elverfeldt, F. Knab, T.D. Farr, R. Bernard, U. Dirnagl, C. Harms, **P. Boehm-Sturm** (Germany)
- PS03-080 Cerebral assessment of pharmacological modulation of spinal GABAA receptor using Functional BOLD MRI in a rat model of postoperative pain
N. Just, D. Segelcke, C. Faber, E. Pogatzki-Zahn (Germany)
- PS03-081 Ultra high-field cryocoil non-contrast-enhanced mouse brain DTI MRI: a novel method of image analysis and fibre tractography, and the effect of ageing on structural connectivity
R. Saggu, G.C. Petzold (Germany)
- PS03-082 Jugular vein collapse in upright and its relation to intracranial pressure regulation
P. Holmlund, E. Johansson, S. Qvarlander, A. Wåhlin, K. Ambarki, L.-O.D. Koskinen, J. Malm, A. Eklund (Sweden)
- PS03-083 Noninvasive monitoring of critical closing pressure with near-infrared light
W.B. Baker, A.B. Parthasarathy, K.P. Gannon, V. Kavuri, D.R. Busch, M.T. Mullen, R. Balu, W.A. Kofke, A.G. Yodh (United States)
- PS03-084 Experimental cerebral malaria: Mapping of Gd-DOTA leakage kinetics by MRI
T.-A. Perles-Barbacaru, E. Pecchi, M. Bernard, P. Cozzone, A. Viola (France)

- PS03-085 Intraoperative assessment of cerebral blood flow changes in normal and pathological brain tissue, using an infrared camera
K. Kaczmarek, & Przykaza, M. Zębala, T. Piątkowski, H. Polakowski, M. Kastek, J. Bogucki, Z. Czernicki, W. Koszewski, **E. Koźniewska** (Poland)

NEUROVASCULAR COUPLING

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

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

NEUROTRANSMISSION

- PS03-100 Noradrenergic deficits in Parkinson's disease: Relations to cognitive and cortical oscillatory activity declines
A. Nahimi, M. Sommerauer, K. Østergaard, M.B. Kinnerup, M. Winterdahl, R. Krogbæk, J. Jacobsen, A. Schacht, P. Borghammer, M.F. Damholdt, B. Johnsen, A. Gjedde (Denmark)
- PS03-101 Elicitation of cortical spreading depolarization (CSD) in adult rats by substance P – a mechanism to aggravate secondary cortical damage after brain injury or infection?
F. Richter, J. Leuchtweis, A. Eitner, A. Lehmenkühler, H.-G. Schaible (Germany)

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 Diethylamide (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 hypoperfusion on preoperative brain perfusion
K. Oikawa, K. Ogasawara, H. Saito, K. Yoshida, H. Saura, Y. Sato, K. Terasaki, T. Wada, Y. Kubo (Japan)
- 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)

- PS04-007 Detection of misery perfusion in patients with chronic unilateral major cerebral artery steno-occlusive disease using crossed cerebellar hypoperfusion on 123I-IMP single-photon emission computed tomography imaging
Y. Matsumoto, K. Ogasawara, H. Saito, K. Terasaki, Y. Takahashi, Y. Ogasawara, M. Kobayashi, K. Yoshida, T. Beppu, Y. Kubo, S. Fujiwara, E. Tsushima, A. Ogawa (Japan)
- PS04-008 Prediction of hyperperfusion after carotid artery stenting and carotid angioplasty using cerebral circulation time using syngo iFlow
K. Yamauchi, 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)

NEUROLOGICAL DISEASES

- 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. Lukomska (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)

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
I. Joo, A. Lai, **M. Koletar**, A. Dorr, P. Bazzigaluppi, M. Brown, L. Thomason, J. Sled, J. McLaurin, B. Stefanovic (Canada)

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. Alifirova (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. Vallis (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. Córdor, C. Rodrigues, R. Moreira, I. Noronha, F. Dos Santos, C. Irigoyen, S. Gomes, L. Andrade (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. Poletini, 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 telenchepalon 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. Linninger (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
K. Ishizuka, T. Hoshino, K. Ashihara, Y. Shirai, S. Mizuno, S. Toi, K. Maruyama, N. Hagiwara, K. Kitagawa (Japan)

PS04-040 Characterization of risk factors for stroke in a Hondura 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-Pla, G. Cotta, R. Delgado-Mederos, M. Mayos, A. Fortuna, P. Camps-Renom, J. Martí-Fàbregas, T. Durduran (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, L.-Z. Chen, H.-L. Hung, 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
S. Miyawaki, H. Imai, T. Hayasaka, N. Masaki, H. Ono, T. Ochi, H. Nakatomi, M. Setou, N. Saito (Japan)

PS04-046 Verapamil improves survival and dendritic branching in primary cortical neurons exposed to oxygen-glucose deprivation
A. Trout, M. Maniskas, 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
J.R. Gomes, R. Nogueira, M. Vieira, S. Santos,
J. Ferraz-Nogueira, J.B. Relvas, M.J. Saraiva (Portugal)
- 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
C. Kitabayashi, I. Yasuo, M. Yamazato, N. Ryoji,
M. Hirayama, T. Yamamoto, K. Takahashi, N. Araki (Japan)

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. Tomita, 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
T.A. Kent, H.C. Rea, W. Dalmeida, R. Fabian, J.M. Tour,
L.G. Nilewski, W. Sikkema, P. Mandava (United States)
- 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. Abe (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. Hanalioglu, A. Canturk, P. Cengiz (United States)

PS04-065 Remote limb ischemic conditioning in murine focal cerebral ischemiaR
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
C. Mavroudis, T. Ko, T. Boorady, K. Mensah-Brown, R. Morgan, A. Lautz, M. Karlsson, G. Bratinov, R. Berg, A. Yodh, R. Sutton, D. Licht, T. Kilbaugh (United States)

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)

IMAGING: METHODOLOGY NON-PET

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)

PS04-072 Near-infrared, time-resolved optical tomography with a novel compact system
S. Tagliabue, L. Di Sieno, A. Farina, E. Martinenghi, S. Arridge, F. Martelli, T. Durduran, A. Pifferi, A. Torricelli, A. Dalla Mora (Spain)

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
M. Ibaraki, K. Nakamura, H. Toyoshima, K. Takahashi, K. Matsubara, J. Pfeuffer, H. Kuribayashi, T. Kinoshita (Japan)

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
H. Paland, M. Grube, S. Bien-Möller, S. Hadlich, S. Marx, S. Langner, J.-P. Kühn, B.H. Rauch, H.W.S. Schröder (Germany)

- PS04-080 Progress on time-domain diffuse correlation spectroscopy
D. Tamborini, B. Zimmerman, D. Tyulmankov, J. Sutin, K.-C. Wu, D. Boas, M.A. Franceschini (United States)
- PS04-081 The usefulness and problem of arterial spin labeling for moyamoya disease
Y. Takahashi, E. Kudo, S. Togashi, K. Kokubun, A. Okubo, Y. Suda, H. Shimizu (Japan)
- PS04-082 Quantitative T2*-mapping suggests increased oxygen extraction fraction in patients with unilateral high-grade ICA and MCA stenosis: What's behind?
A. Seiler, R. Deichmann, W. Pfeilschifter, E. Hattingen, O.C. Singer, M. Wagner (Germany)
- PS04-083 Correlation of early diffusion-weighted magnetic resonance imaging findings with clinical outcome in patients with ischemic stroke in Kyrgyzstan
I. Lutsenko, M. Ernisova, A. Shapovalova (Kyrgyzstan)
- PS04-084 Image-guided advances for radiologically silent transient ischaemic attacks: Ultra-sensitive molecular MRI discloses endothelial dysfunctions and improved MRI reveals perturbation of the glymphatic system
A. Quenault, S. Martinez de Lizarrondo, O. Etard, M. Gauberti, C. Orset, H. Segal, P. Rothwell, D. Vivien, E. Touzé, **C. Ali** (France)

NEUROVASCULAR COUPLING

- PS04-085 Functional diffuse correlation spectroscopy to investigate the perception of missing stimuli in a regular tactile sequence by preterm neonates
V. Dumont, D. Zuba, S. Lebargy, M. Giovannella, T. Durduran, U. Weigel, M. Zabalía, B. Guillois, N. Roche-Labarbe (France)
- PS04-086 Concurrent diffuse optical measurement of cerebral haemodynamics and EEG during transcranial direct current stimulation (tDCS) in humans
M. Giovannella, G. Mitjà, C. Gregori-Pla, M. Kacprzak, D. Ibañez, G. Ruffini, T. Durduran (Spain)

- PS04-087 Spatiotemporal changes in cerebral blood flow induced by transcranial photostimulation to cortical neurons or astrocytes in the transgenic mice expressing channelrhodopsin-2
N. Hatakeyama, K. Masamoto, M. Unekawa, H. Takuwa, I. Kanno, K. Matsui, K.F. Tanaka, Y. Tomita, N. Suzuki (Japan)
- PS04-088 Arterial stiffness due to carotid calcification disrupts cerebral blood flow regulation before cognitive deficits manifest
M.F. Iulita, G. Muhire, D. Vallerand, J. Youwakim, F.R. Petry, M. Gratuze, G. Ferland, E. Planel, H. Girouard (Canada)
- PS04-089 Neurovascular coupling independent of astrocyte Ca²⁺ transients
A. Institoris, D.R. Rosenegger, G.R. Gordon (Canada)
- PS04-090 Individual neural activity and capillary diameter responses measured in a three-dimensional spatial domain of awake mouse somatosensory cortex
H. Takeda, T. Sugashi, H. Takuwa, B. Ji, N. Sahara, T. Suhara, M. Higuchi, I. Kanno, K. Masamoto (Japan)
- PS04-091 Neurovascular uncoupling predicts cognitive decline and gait abnormalities in a clinically relevant mouse model of whole brain irradiation
A. Yabluchanskiy, S. Tarantini, P. Hertelendy, M.N. Valcarcel-Ares, T. Gautam, E. Farkas, W.E. Sonntag, A. Csiszar, Z. Ungvari (United States)
- PS04-092 Correspondence between fMRI and electrophysiology during visual motion processing in human MT+
A. Gaglianese, M.J. Vansteensel, B.M. Harvey, S.O. Dumoulin, N.F. Ramsey, N. Petridou (Netherlands)
- PS04-093 Impact of chronic cerebral hypoperfusion on neurovascular coupling and cognition: role of NADPH oxidase
M. Li, J. Duncombe, J. Beverley, K. Horsburgh (United Kingdom)
- PS04-094 Hypercapnia and NMDA elicit layer-specific local field potential changes in the cerebral cortex associated with increases in blood flow in newborn pigs
G. Remzsó, J. Németh, V. Tóth-Szűki, V. Varga, V. Kovács, F. Domoki (Hungary)

- PS04-095 Alterations in neurovascular coupling in the diabetic brain: A pilot study
A.R. Nippert, J. Kur, K.R. Biesecker, P.-P. Chiang, E.A. Newman (United States)
- 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)

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
U.M. Selvaraj, P. Pandiyan, X. Kong, F. Miró, X. Urra, S. Ortega, E. Plautz, A. Planas, A. Stowe (United States)
- 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. Dissing-Olesen, F. Rossi, M. Underhill, B. Macvicar (Canada)

- PS05-009 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)
- PS05-010 The role of transforming growth factor- β in post-stroke lymphatic impairment
M. Howe, L. McCullough, A. Urayama (United States)
- PS05-011 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)
- PS05-012 Predictors of ischemic stroke on 18F-FDG PET-CT in patients with cancer
K. Choi, J. Kim (Korea, Republic of)
- PS05-013 Perineuronal nets structures and modulators in the rat somatosensory cortex are molecular substrates for experience-dependent plasticity during stroke recovery
M.J. Quattromani, M. Pruvost, C. Guerreiro, F. Backlund, E. Englund, A. Aspberg, T. Jaworski, J. Hakon, K. Ruscher, L. Kaczmarek, D. Vivien, T. Wieloch (Sweden)
- PS05-014 Alarmin HMGB1 induces systemic and brain inflammatory exacerbation in post-stroke infection rat model
I.-D. Kim, S.-W. Kim, H.-K. Lee, H. Lee, L. Luo, P.-L. Han, J.-K. Lee (Korea, Republic of)

CEREBRAL ISCHEMIA: CELLULAR AND MOLECULAR

- PS05-015 Integrative analysis of transcriptomics and proteomics data for the molecular characterization of human brain after ischemic stroke
T. García-Berrocso, F. Briansó, A. Simats, V. Llombart, A. Hainard, J.-C. Sanchez, A. Sánchez-Pla, J. Montaner (Spain)
- PS05-016 LncRNA FosDT mediates ischemic brain damage in both sexes
S. Mehta, T. Kim, R. Vernuganti (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)
- PS05-018 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)
- PS05-020 Sesn3 and post-ischemia seizures in diabetes
Z. Shi, Z. Lei, F. Wu, **Z. Xu** (United States)
- PS05-021 Danegaptide enhances astrocyte gap junctional coupling and reduces ischemic reperfusion brain injury in mice
J. Bechberger, M. Freitas-Andrade, J. Wang, K. Yeung, S. Whitehead, R. Schultz Hansen, C. Naus (Canada)
- PS05-022 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)
- PS05-023 Recovery of grey and white matter requires the DNA base excision repair enzyme APE1 following transient cerebral ischemia
S. Hassan, Y. Gao, Z. Wang, L. Zhang, H. Pu, Y. Shi, G. Cao, M.V.L. Bennett, J. Chen, R.A. Stetler (United States)
- PS05-024 See PS03-053a

CEREBRAL ISCHEMIA: ANIMAL MODELS

- PS05-025 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)
- PS05-026 Restitution of hippocampal long-term potentiation following global cerebral ischemia: ghrelin function as a mitochondrial anti-apoptotic
B. Sadeghi (Iran, Islamic Republic of)

- 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
H. Kawasaki, C. Kitabayashi, Y. Ito, M. Yamazato, R. Nishioka, M. Hirayama, T. Yamamoto, K. Takahashi, N. Araki (Japan)
- 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. Bracko, 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 Rivero 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. Dopatka, C. Harms, M. Endres, U. Dirnagl (Germany)

NEUROINFLAMMATION

- PS05-035 Mass cytometry profiling of inflammatory cells in ischemic stroke mice
Y. Li, T. Tao, B. Xu, H. Zhao (United States)
- PS05-036 Maternal obesity exacerbates brain injury responses following neonatal hypoxia-ischaemia in rat offspring
N.M. Jones, J.D. Teo, M.J. Morris (Australia)
- PS05-037 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)
- PS05-038 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)
- PS05-039 Cytoprotective role of microglia-derived nitric oxide induced by TLR4 stimulation in concert with astroglial pentose-phosphate pathway activation through the Keap1/Nrf2 system
S. Takahashi, T. Iizumi, K. Mashima, K. Minami, Y. Izawa, T. Abe, T. Hishiki, M. Suematsu, M. Kajimura, N. Suzuki (Japan)
- PS05-040 Playing with omega-3 Alpha-linolenic acid in the diet to prevent the toxic CCL2 post-stroke inflammatory response
M. Bourourou, E. Gouix, C. Nguemeni, A. Petit-Paitel, J. Cazareth, J.-L. Nahon, C. Heurteaux, C. Rovère, **N. Blondeau** (France)
- PS05-041 Vitamin D supplementation reduces brain injury and inflammation following ischemic stroke
M.A. Evans, H.A. Kim, Y.H. Ling, S. Uong, G.R. Drummond, B.R.S. Broughton, C.G. Sobey (Australia)
- PS05-042 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
M. Lacalle-Aurioles, J. Royea, L.J. Trigiani, X.K. Tong, E. Hamel (Canada)
- 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 of TRPM2 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
 B. Balanca, T. Lieutaud, A. Meiller, **S. Marinisco** (France)

NEURODEGENERATION

- PS05-059 Measuring exercise-induced cerebrovascular changes in Huntington's disease using arterial spin labelling (ASL) fMRI
J. Steventon, H. Furby, J. Ralph, P. O'Callaghan, A. Rosser, M. Busse, K. Murphy (United Kingdom)
- PS05-060 Investigating temporal characteristics of atrophy, amyloid deposition and quantitative magnetization transfer parameters in mild cognitive impairment and Alzheimers disease
B.A. Thomas, M.C. Stephenson, C.K. Wong, T.Y. Wong, C. Cheung, N. Venketasubramanian, J.J. Totman, D.W. Townsend, C. Chen (Singapore)
- PS05-061 Efficient clearance of Amyloid- β protofibrils in APP-transgenic mice treated with a brain penetrating bifunctional antibody
D. Sehlin, G. Hultqvist, A. Gumucio, H. Laudon, L. Söderberg, L. Lannfelt, S. Syvänen (Sweden)
- PS05-062 Gut microbiome associated with cognitive and brain structural outcomes in apolipoprotein E4 variant
I. Parikh, V. Bakshi, J. Hoffman, S. Green, A. Hartz, A.-L. Lin (United States)
- PS05-063 Glucose and glycogen metabolism in the brain of insulin resistant Goto-Kakizaki rats
A.F. Soares, S.S. Nussbaum, R. Gruetter, **J.M.N. Duarte** (Switzerland)
- PS05-064 Evaluation of higher cortical functions of Alzheimer's disease
M. Salohiddinov (Uzbekistan)
- PS05-065 PET CT applications in Parkinson and radiotracers
J.M. Isusi (Mexico)
- PS05-066 See BS13-3 on page 65

AGING

- PS05-067 Influence of diabetes mellitus on CSF and brain characteristics
E. Schmidt, Z. Czosnyka, L. Balardy (France)

- PS05-068 Arterial pressure, heart rate, and cerebral hemodynamics across the adult life span
C. Xing, T. Tarumi, R. Meijers, L. Yuan, R. Zhang (United States, China)
- PS05-069 Rejuvenation of microglia in the aged central nervous system
E. Koellhoffer, J. d'Aigle, M. Howe, D. Morales-Scheihing, L. McCullough (United States)
- PS05-070 Heart-brain coupling: Resting heart rate variability is associated with network architecture in the resting brain
D. Kumral, F. Beyer, D. Husser, M.L. Schroeter, M. Loeffler, V. Witte, A. Villringer, M. Gaebler (Germany)
- PS05-071 IGF-1 deficiency exacerbates hypertension-induced cerebral microhemorrhages in mice, mimicking the aging phenotype
S. Tarantini, M.N. Valcarcel-Ares, A. Yabluchanskiy, Z. Springo, G.A. Fulop, N. Ashpole, T. Gautam, C. Giles, J.D. Wren, W.E. Sonntag, A. Csiszar, Z. Ungvari (United States)

METABOLISM

- PS05-072 Blood flow through the cerebral microcirculation exhibits wide variability of hemodynamic states
I. Gould, **A. Linninger** (United States)
- PS05-073 Linking macro-scale voxel behaviour to the microvasculature using a multi-scale model
W.K. El-Bouri, S.J. Payne (United Kingdom)
- PS05-074 Decreasing cerebral tissue oxygen saturation during deep hypothermic circulatory arrest
J.M. Lynch, C.D. Mavroudis, T. Ko, K. Mensah-Brown, D.R. Busch, S.C. Nicolson, L.M. Montenegro, S. Fuller, T.L. Spray, J.W. Gaynor, A.G. Yodh, D.J. Licht (United States)
- PS05-075 Protective effect of Rutin in experimental paradigms of STZ induced diabetic neuropathy
R. Mittal (India)

- PS05-076 The effect of changes in brain lactate uptake and BDNF production on executive function after high-intensity interval exercise in humans
S. Takenaka, H. Tsukamoto, N. Olesen, L. Petersen, H. Sørensen, H. Nielsen, N. Secher, S. Ogoh, T. Hashimoto (Japan)
- 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
D. Ma, A. Wang, J. Hoffman, V. Bakshi, I. Parikh, J. Guo, R. Armstrong, A. Hartz, B. Bauer, A.-L. Lin (United States)

BIOMARKERS

- 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. Mukhopadhyay, 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
J.-M. Kim, H.-W. Jung, S. Yu, M. Kim, J.-K. Choi, M.-G. Choi, G. Hwang, M. Ji, K.-S. Kim, S.-B. Ko, H.-M. Bae (Korea, Republic of)

- PS05-083 Activation of the lectin complement pathway is associated with vulnerability of atherosclerotic plaques
S. Fumagalli, C. Perego, R. Zangari, D. De Blasio, M. Oggioni, F. De Nigris, F. Snider, P. Garred, A. Ferrante, M.-G. De Simoni (Italy)
- PS05-084 Multi-modal MRI of vascularity, cellularity, and acidosis in brain tumors
M. Parent, **D. Coman**, Y. Huang, J.U. Rao, S. Maritim, J.J. Walsh, F. Hyder (United States)

BRAIN IMMUNE INTERACTION

- PS05-085 See BS11-2 on page 63
- PS05-086 Minimal microbiota differences between commercial breeders impacts post-stroke immunity
R. Sadler, V. Singh, C. Benakis, D. Brea-Lopez, T. Hünig, J. Anrather, B. Stecher, A. Liesz (Germany)
- PS05-087 Circulating CX3CR1^{low} classical monocytes are an immunologic feature of cerebral ischaemia
S. Krishnan, C. O'Boyle, M. Haley, J. Konkel, S. Allan, C. Smith, J. Grainger, C. Lawrence (United Kingdom)
- PS05-088 mTOR regulates brain vascular PICALM levels in a model of Alzheimer's disease
A. Olson, J. Jahrling, S. Hussong, V. Galvan (United States)

LATE-BREAKING ABSTRACTS

- PS05-089 Brain angiogenesis in chronic pain
V. Del Grosso, A.G. Zippo, A. Patera, A. Bravin, G.E.M. Biella (France, Italy)
- PS05-090 Baicalin reduces hemorrhagic transformation in ischemic stroke rats with delayed t-PA treatment: involvement of ONOO--MMP-9 pathway
H. Chen, J. Shen (China)
- PS05-091 Blood brain barrier (BBB) protection by let-7 microRNAs during cerebral stroke
V. Zuluaga-Ramirez, S. Gaghate, N. Reichenbach, Y. Persidsky, **S. Rom** (United States)

- PS05-092 Establishment of a human blood-brain barrier co-culture model based on human multipotent and pluripotent stem cells mimicking the neurovascular unit
A. Appelt-Menzel, A. Cubukova, W. Neuhaus, J. Piontek, H. Walles, M. Metzger (Germany)
- PS05-093 Evidence for a complex connectivity gradient in the prefrontal cortex
S. Bedwell, C. Tinsley (United Kingdom)
- PS05-094 Intracerebral hemorrhage and ischemic stroke have different transcriptome architecture in human blood
B. Stamova, G. Jickling, B. Ander, X. Zhan, D. Liu, H. Hull, C. Dykstra-Aiello, M. Durocher, N. Shroff, M. Orantia, F. Hamade, F. Sharp (United States)
- PS05-095 Subarachnoid hemorrhage severely impairs brain parenchymal cerebrospinal fluid circulation in the non-human primate
R. Goulay, J. Flament, M. Gauberti, M. Naveau, N. Pasquet, C. Gakuba, E. Emeri, P. Hantraye, R. Aron-Badin, D. Vivien, T. Gaberel (France)
- PS05-096 Magnesium pre-exposure induces mitoprotection in the immature brain
G. Koning, A.-L. Leverin, S. Nair, C. Mallard, X. Wang, C. Thornton, P. Gressens, H. Hagberg (Sweden)
- PS05-097 Neuronal prothrombin mediated astrocyte activation in ischemia
P.S. Rajput, J. Lamb, S. Kothari, P.D. Lyden (United States)
- PS05-098 The role of T-cells in endotoxin/hypoxic-ischemic neonatal brain injury
E. Rocha Ferreira, A. Nazmi, A. Zelco, P. Svedin, A.-L. Leverin, C. Mallard, X. Wang, H. Hagberg (Sweden)
- PS05-099 Optogenetic modulation of sleep slow wave after focal ischemic stroke
L. Facchin, C. Schöne, M. Bandarabadi, A. Mensen, K. Schindler, C. Bassetti, A. Adamantidis (Switzerland)
- PS05-101 Effect of mechanical reperfusion outcome on the expression of matrix metalloproteinase-9 (MMP-9) in rat brain following an acute occlusive stroke
J. Shearer, A. Douglas, A. Pandit, K. Doyle (Ireland)

- PS05-102 Protection of glyoxalase anti-glycation system in porcine brain post-cardiac arrest by pyruvate
G. Scott, R. Mallet (United States)
- PS05-102a Time-dependent targeting and accumulation of liposomes into the lesioned brain intravenously administered post ischemic stroke
Z. Al-Ahmady, D. Jasim, P. Bonijol, S. Ahmad, R. Wong, M. Haley, G. Coutts, S.M. Allan, K. Kostarelos (United Kingdom)
- PS05-103 Benefit of optimal cerebral perfusion pressure targeted treatment for traumatic brain injury patients
A. Preiksaitis, V. Petkus, E. Zubaviciute, S. Krakauskaite, S. Rocka, D. RastenYTE, S. Vosylius, A. Ragauskas (Lithuania)
- PS05-104 Transcriptomic profiling of long non-coding RNAs after traumatic brain injury
K. Morris-Blanco, V. Nakka, R. Chandran, G. Pandi, S. Mehta, R. Vemuganti (United States)
- PS05-105 Alterations of the hippocampal microvascular network in Alzheimer's Disease
M. Montero-Crespo, L. Blázquez-Llorca, J. De Felipe (Spain)
- PS05-106 In vivo detection of hypothalamic glucose metabolism in HFD and regular fed mice
B. Lizarbe, H. Lei, A. Cherix, R. Gruetter (Switzerland)

15:00–16:00

PS06

POSTER SESSION VI

STROKE

- PS06-001 Impairment of neurovascular coupling after subarachnoid hemorrhage in vivo
M. Balbi, M. Koide, G.C. Wellman, N. Plesnila (Germany)
- PS06-002 New insights into brain blood flow regulation during stroke: Role of electrical communication
A. Zechariah, C. Tran, B. Hald, U. Tuor, G. Gordon, D. Welsh (Canada)

- PS06-003 Disruption of cortical arterial network is associated with the severity of transient neurological events after direct bypass surgery in adult moyamoya disease
Y. Egashira, K. Yamauchi, Y. Enomoto, N. Nakayama, S. Yoshimura, T. Iwama (Japan)
- PS06-004 Investigating the impact of obesity on post-stroke complications
C. White, M. Haley, K. O'Toole, D. Roberts, D. Brough, S. Allan, C. Lawrence (United Kingdom)
- PS06-005 Novel substrates of the small vessel disease related HTRA1 protease identified by proteomics
E. Scharrer, **C. Haffner**, S.A. Müller, S.F. Lichtenthaler, M. Dichgans (Germany)
- PS06-006 MicroRNA-103-1 is involved in the pathogenesis of ischemic brain damage and may represent a stroke peripheral diagnostic marker
A. Vinciguerra, P. Cepparulo, O. Cuomo, G. Di Renzo, G. Pignataro, L. Annunziato (Italy)
- PS06-007 Does long-lasting high sodium intake predispose cerebral blood vessels to stroke? Comparison with sodium-dependent hypertension
A. Uszynska, K.H. Olszynski, E. Koźniewska (Poland)
- PS06-008 Structure of the brain bioelectric activity in the stroke patients with various types of polymorphism of the genes ACE, eNOS, MTHFR
S. Kuznetsova, L. Livshits, V. Kuznetsov, N. Larina (Ukraine)
- PS06-009 Enhanced therapeutic potential of nano-curcumin against subarachnoid hemorrhage-induced blood-brain barrier disruption through inhibition of inflammatory response and oxidative stress
Z. Zhang (China)
- PS06-010 Clinical and etiological profiles of adult patients with post stroke seizures in Bishkek
A. Jusupova (Kyrgyzstan)
- PS06-011 Direct carotid exposure for neuroendovascular approaches
B.-T. Kim (Korea, Republic of)
- PS06-012 Xenon as a therapy in experimental intracerebral hemorrhage
H. Sheng, L. Li, B. Yan, H. Sun, D.S. Warner (United States)

- PS06-013 Prevalence of ischemic stroke in relation to season and its gender features in the northern part of Fergana valley of Uzbekistan
S. Lukmonov (Uzbekistan)
- PS06-014 Stroke patterns in rural South India – five years experience in a rural stroke centre
S. Vanchilingam (India)

CEREBRAL ISCHEMIA: CELLULAR AND MOLECULAR

- PS06-015 MiR-210 boosts the protective effects of NPC-EXs on neurons and astrocytes against hypoxia/reoxygenation-induced injury
J. Wang, X. Ma, Y. Yang, Y. Zhao, H. Liu, B. Zhao, Y. Chen, J. Bihl (United States)
- PS06-016 MicroRNA miR-21 is neuroprotective against focal cerebral ischemia
M. Lopez, R. Vermuganti (United States)
- PS06-017 Silencing of deSUMOylating isopeptidase 2 increases neuronal vulnerability after ischemic-like stress
M. Cerdeira, G. Lättig-Tünnemann, C. Harms (Germany)
- PS06-018 Microglialconditioned media treated with geniposide and ginsenoside Rg1 on ischemic neurons
J. Wang, J. Hou, H. Lei, J. Liu (China)
- PS06-019 Investigating the effects of chronic stress on the neurovascular unit
S. Wegner, R. Uhlemann, M. Endres, G. Kronenberg, K. Gertz (Germany)
- PS06-020 Differential protein expression profiling of focal cerebral after human cerebral endothelial cell transplantation
E.H. Kim, M.S. Park, J.Y. Na, W.Y. Choi, J.T. Park, H.-S. Kim (Korea, Republic of)
- PS06-021 Elevating MicroRNA-122 in blood improves outcome via modulating Nos2 after middle cerebral artery occlusion in rats
D. Liu, G. Jickling, X. Cheng, H. Hull, X. Zhan, N. Shroff, C. Dykstra-Aiello, B. Stamova, B. Ander, F. Sharp (United States)

- PS06-022 The EphB/ephrinB receptor –ligand system promotes the inflammatory response upon ischaemia
L.-I. Böhrer, R. Kunze, H.H. Marti (Germany)
- PS06-023 Characterization of glial cells during the chronic stage of ischemic stroke in rats
I.-A. Choi, J.-H. Ahn, D.-H. Choi, J. Lee (Korea, Republic of)
- PS06-024 Effect of RGS5 on vasculature remodeling after experimental stroke
M. Roth, I. Özen, T. Padel, G. Paul (Sweden)

CEREBRAL ISCHEMIA: ANIMAL MODELS

- PS06-025 Longitudinal metabolic evolution of rat cortex
M. Lepore, **H. Lei** (Switzerland)
- PS06-026 B cell-mediated stroke recovery in female mice
V.O. Torres, S.B. Ortega, X. Kong, E.J. Plautz, N.L. Monson, A.M. Stowe (United States)
- PS06-027 The double edged sword of immunostimulation after stroke
C. Dames, K. Winek, A. Meisel, C. Meisel (Germany)
- PS06-028 Periodontitis modulates peripheral inflammatory cell function and contributes to worse outcome after ischaemic stroke
C. O'Boyle, M. Haley, C. Smith, J. Konkel, S. Allan, C. Lawrence (United Kingdom)
- PS06-029 The dynamics of energy metabolism in brain after ischemia/ reperfusion injury: an animal model study using high-Gz acceleration
O. Tokumaru, S. Abe, M. Goto, M. Tandai-Hiruma, T. Kemuriyama, S. Maruyama, Y. Kanamaru, K. Ogata, Y. Nishida (Japan)
- PS06-030 Efficacy of Alteplase® in a mouse model of acute ischemic stroke: a retrospective pooled analysis
C. Orset, B. Haelewyn, E. Touzé, D. Vivien (France)
- PS06-031 LabCIRS – a lightweight critical incident reporting system for academic research departments
I. Przesdzing, C. Kurreck, S. Major, U. Dirnagl (Germany)

- PS06-032 Modulation of the peri-infarct neurovascular function by β -Hydroxybutyrate
P. Bazzigaluppi, E. Lake, M. Koletar, R. Janik, J. Mester, C. Adams, P. Carlen, B. Stefanovic (Canada)
- PS06-033 Hematoxylin-eosin stained pathology of hyperacute focal cerebral ischemia at 1 hour after middle cerebral artery occlusion in rats: correlation with diffusion MRI
C.-H. Choi, K.S. Yi, J. Cho, C. Lee, Y. Lee, S.R. Le, S.S. Choi, H.J. Lee, J. Hwang, N. Choi, S.-H. Cha (Korea, Republic of)
- PS06-034 Role of NADPH oxidase in mitochondrial dysfunction following transient global cerebral ischemia in rats
M. Kapoor, R. Sandhir, B. Nehru (India)

NEUROINFLAMMATION

- PS06-035 Characterisation of Translocator Protein (TSPO) expression in the brain in rodent models of neuroinflammation
D. Cash, C. Simmons, K. Randall, N. Singh, C. Wild, I. Poparic, T. De Araujo Marques, C. Pariante, F. Turkheimer (United Kingdom)
- PS06-036 Microglial calcium release-activated calcium (CRAC) channel inhibition improves outcome from experimental traumatic brain injury and microglia-induced neuronal death
R. Kacimi, J.Y. Kim, K. Stauderman, M. Dunn, S. Hebbar, **M. Yenari** (United States)
- PS06-037 Triggering receptor expressed on myeloid cells-2 (TREM2) biases towards M2 microglial responses and its deficiency worsens outcome after experimental traumatic brain injury
M. Kawabori, J.Y. Kim, Z. Zheng, R. Kacimi, C. Hsieh, **M. Yenari** (United States)
- PS06-038 The potential neuroprotective role of a histone deacetylase inhibitor, sodium butyrate, after neonatal hypoxia-ischemia
M. Ziemka-Nalecz, J. Jaworska, J. Sypecka, T. Zalewska (Poland)
- PS06-039 Role of DAMPs-mediated NETosis during the acute inflammation in the postischemic brain
S.-W. Kim, I.-D. Kim, H.-K. Lee, L. Luo, H. Lee, J.-K. Lee (Korea, Republic of)

- PS06-040 Immunomodulatory properties of human bone marrow mesenchymal stem cells and extracellular vesicles derived from these cells after their transplantation into focal brain ischemic rats
S. Koniusz, A. Andrzejewska, A. Nowakowski, M. Janowski, B. Lukomska (Poland)
- PS06-041 Changes in local and global measures of resting state functional connectivity in the rat LPS model of neuroinflammation
R. Westphal, **D. Cash**, C. Simmons, T. Wood, M. Bernanos Mesquita, F. Turkheimer, C. Pariante (United Kingdom)
- PS06-042 The role of pentraxin 3 (PTX3) in inflammation and neuroprotection after ischaemic stroke
I. Rajkovic, E. Pinteaux, S. Allan (United Kingdom)
- PS06-043 A translational model of moderate perinatal asphyxia reveals lasting behavioral deficits in the absence of focal neuronal loss
E. Sipos, A. Kerenyi, **B. Orsolits**, K. Demeter, P. Bakos, P. Pottyondi, B. Paszthy-Szabo, M. Aliczki, Z. Balogh, R. Bhavesh, E. Yazdanparast, F. Herranz Rabanal, J. Ruiz-Capello, K. Szigeti, D. Mathe, M. Szabo, A. Fekete, K. Kaila, E. Mikics, A. Denes (Hungary)
- PS06-044 Phosphoinositide 3-kinase χ ties chemoattractant- and adrenergic control of microglial motility
N. Schneble, C. Schmidt, J.P. Müller, S. Monajembashi, R. Wetzker, **R. Bauer** (Germany)
- PS06-045 Characteristics of primary rat microglia isolated from mixed cultures using two different methods
L. Lin, R. Desai, E.H. Lo, **C. Xing** (United States)
- PS06-046 Contribution of inflammasomes to ischaemic stroke
E. Lemarchand, C. Hoyle, J. Barrington, G. Coutts, S.M. Allan, D. Brough (United Kingdom)
- PS06-047 Telomere maintenance, mitochondrial biogenesis and cell cycle control: an mRNA study of microglia activation states
G. Kronenberg, **R. Uhlemann**, J. Schöner, S. Wegner, V. Boujon, N. Deigendesch, M. Endres, K. Gertz (Germany)

- PS06-048 Reactive oxygen species (ROS)- responsive nanotechnology: Therapeutic action of nanoparticles in stroke
O. Rajkovic, E. Pinteaux, C. Gourmel, N. Tirelli (United Kingdom)

CNS TRAUMA

- PS06-049 Cerebral blood flow, optic nerve sheath diameter and neurological status evaluation in patients submitted to post-traumatic decompressive craniectomy and late cranioplasty
C. Bittencourt Rynkowski Di Leoni, P. Valdeci Worm, M. Martins dos Reis, L. Pelegrini de Almeida, G. Finger, G. Frizon Greggianin, M. Muxfeldt Bianchin, C. Puppo (Brazil)
- PS06-050 Sex differences in brain blood flow in rugby players with concussions
J. Serrador, M. Favre, J. Tosto, M. Falvo (United States)
- PS06-051 The expression of NP847 and Sox2 after TBI and its influence on NSCs
Q. Liu, W. Shi (China)
- PS06-052 Effects of pyrroloquinoline quinone on WISP1 in traumatic brain injury
M. Yan, Y. Ye, B. Yin (China)
- PS06-053 Vascular reactivity changes of the intracortical blood vessels after juvenile traumatic brain injury
A. Ichkova, B. Rodriguez-Grande, B. Jerome (France)
- PS06-054 D-dimer as a potential marker for structural damage to the brain parenchyma in traumatic brain injury
H. Yatsushige, T. Hayakawa, K. Sumiyoshi, K. Shigeta, T. Momose, M. Enomoto, S. Sato, J. Aoyama (Japan)
- PS06-055 Evaluation of regional white matter volume reduction after diffuse axonal injury using voxel-based morphometry
G. Uruma, K. Hashimoto, M. Abo (Japan)
- PS06-056 Evaluation of neutrophil elastase (NE) as an early prediction marker of trauma induced disseminated intra vascular coagulation (DIC)
A. Subramanian, V. Albert, S. Bhoi, M.C. Misra (India)

NEURODEGENERATION

- PS06-057 **Rolipram, a PDE-IV inhibitor protects against experimental Parkinsonism in mice**
N. Kumar, R. Khanna (India)
- PS06-058 **Galectin-1-induced cognitive improvement, lower vascular and parenchymal amyloid deposition and immunomodulation in an animal model of Alzheimer's disease**
C. Pomilio, J. Beauquis, M.Á. Vinuesa, M. Bentivegna, J. Presa, R. Morales, G. Rabinovich, F. Saravia (Argentina)
- PS06-061 **Brain pericyte response in a mouse model of Huntington's disease**
T. Padel, I. Özen, M. Roth, G. Paul (Sweden)
- PS06-062 **Evaluation of CRISPr/SaCas9 induced gene knockdown in primary neurons and N27 cells**
S. Marciano, L. Kuebler, A. Maurer, B.J. Pichler, K. Herfert (Germany)
- PS06-063 **Effects of L-DOPA and doxycycline administration on nociceptive responses in an animal model of Parkinson's disease**
G.C. Nascimento, M. Bortolanza, K. Bariotto, C. Leite-Panissi, E. Del Bel (Brazil)
- PS06-064 **Middle cerebral artery pulsatility index as predictor for cognitive impairment in hypertensive patients**
T.R. Gamal, Y. Ramli, M. Kurniawan, J. Prihartono (Indonesia)

AGING

- PS06-065 **Capillary flow control in an aged model of Alzheimer's disease**
E. Gutierrez Jimenez, H. Angleys, M.J. West, S. Frische, M.S. Jensen, L. Catalini, P.M. Rasmussen, K. Mouridsen, N.K. Iversen, L. Østergaard (Denmark)
- PS06-066 **Age drives the distortion of brain vascular, metabolic, and cognitive functions and the gut microbiome**
J. Hoffman, V. Bakshi, I. Parikh, J. Guo, R. Armstrong, A. Hartz, S. Green, A.-L. Lin (United States)

- PS06-067 **Effects of aging and 17β-estradiol on glucose transporter (GLUT3) and membrane functions in female rat brain: A therapeutic potential drug for Alzheimer's disease**
P. Kumar, N. Baquer (India)
- PS06-068 **Correlation of gait and balance disturbances with cognitive impairment in patients with stable and unstable angina in Kyrgyzstan**
I. Lutsenko, S. Jumakeeva, A. Shapovalova (Kyrgyzstan)
- PS06-069 **Effect of Syzygium cumini (jambolan) extract on spatial learning and memory of aging rats**
V. Kumar, P. Bhati (India)
- PS06-070 **Influence of sex on brain volume**
A. Bourisly (Kuwait)

METABOLISM

- PS06-071 **Does the metabolic response to stroke explain the 'obesity paradox'?**
M. Haley, P. Begley, G. Mullard, K. Hollywood, G. Cooper, W. Dunn, C. Lawrence (United Kingdom)
- PS06-072 **Hemisphere-dependent metabolic and hemodynamic reorganization of the brain in elderly patients with ischemic stroke**
V. Kuznetsov, S. Kuznetsova, D. Shulhzenko (Ukraine)
- PS06-073 **Alzheimer's-induced alterations in cerebral energy metabolism measured with 2-photon fluorescence lifetime microscopy of intrinsic NADH**
M.A. Yaseen, C.A. Gomez, S. Sakadžić, B. Fu, D.A. Boas (United States)
- PS06-074 **Feasibility of opto-magnetic resonance spectroscopy at 9.4T**
N. Just, L. Wachsmuth, C. Faber (Germany)
- PS06-075 **Improved cerebral energetics and ketone body metabolism in db/db mice**
J.V. Andersen, J. Nissen, S.K. Christensen, H. Waagepetersen (Denmark)
- PS06-076 **Activity-induced cellular lactate changes in the brain**
M. Wyss, P. Mächler, V. Kälin, F. Barros, B. Weber (Switzerland)

PS06-077 Masticatory muscle metabolic dysfunction and neuronal excitability induced by unpredictable chronic stress in rats
G.C. Nascimento, D. Iyomasa, Y. Pereira, M. Iyomasa, C. Leite-Panissi, E. Del Bel (Brazil)

BIOMARKERS

PS06-078 Signaling in brain via cAMP is decreased in unmedicated depressed patients and normalizes with drug treatment
 M. Fujita, E. Richards, V. Pike, C. Zarate,
R. Innis (United States)

PS06-079 The effects of progesterone administration in patients with diffuse axonal injury
Z. Soltni, N. Shahrokhi, M. Khaksari, S. Karamouzian, N. Nakhaee, B. Mofid (Iran, Islamic Republic of)

PS06-080 Temozolomide arrests glioma growth and normalizes intratumoral extracellular pH
 J. Upendra Rao, **D. Coman**, J. Walsh, M. Ali, Y. Huang, F. Hyder (United States)

PS06-081 The structural atrophy is associated with CSF neurofilament light chain in a transgenic rat model of Alzheimer's disease
M.S. Kang, E.R. Zimmer, M. Shin, S. Mathotaarachchi, T.A. Pascoal, K.P. Ng, J. Therriault, G.A. Devenyi, M. Chakraverty, K. Blennow, H. Zetterberg, J.-P. Soucy, J. Poirier, S. Gauthier, A.C. Cuello, P. Rosa-Neto (Canada)

BRAIN IMMUNE INTERACTION

PS06-082 T-cell stimulation in human stroke
F. Miro-Mur, X. Urrea, U.M. Selvaraj, A.M. Stowe, A.M. Planas, A. Chamorro (Spain)

PS06-083 Brain-targeting adaptive immune responses in extracorporeal membrane oxygenation-treated patients
S. Ortega, P. Pandiyan, X. Kong, L. Raman, A. Stowe (United States)

PS06-084 Impairment of vasopressin secretion in sepsis survivor rats
N.N. Santos-Junior, L.F. Tazinafo, L.H.A. Costa, C.H.R. Catalão, A. Kanashiro, R.C. Dos-Santos, D.C. Malvar, A.S. Mecawi, M.J.A. Rocha (Brazil)

LATE-BREAKING ABSTRACTS

PS06-085 Defining mitochondrial biomarkers and function using magnetic resonance spectroscopy at 14.1 Tesla in a mouse model of mood disorders
A. Cherix, G. Donati, B. Lizarbe, H. Lei, J.-R. Cardinaux, R. Gruetter (Switzerland)

PS06-086 Activation-induced lactate changes in the human brain by J-edited 1H-MRS
 Y. Koush, R.A. de Graaf, D.L. Rothman,
F. Hyder (United States)

PS06-087 Neurovascular niche: effects of Angiotensin II
T. Chabrashvili, B. Sawaya (United States)

PS06-089 Interleukin-6 levels in cerebrospinal fluid and plasma in patients with severe spontaneous subarachnoid hemorrhage
P. Vlachogiannis, L. Hillered, F. Khalil, P. Enblad, E. Ronne (Sweden)

PS06-090 Metabolic changes in developing brain due to chronic liver disease: an in vivo longitudinal and multiparametric study using 31P-MRS (magnetic resonance spectroscopy), 31P-Magnetization transfer and 1H-MRS
V. Rackayova, V. Mlynarik, C. Cudalbu (Switzerland)

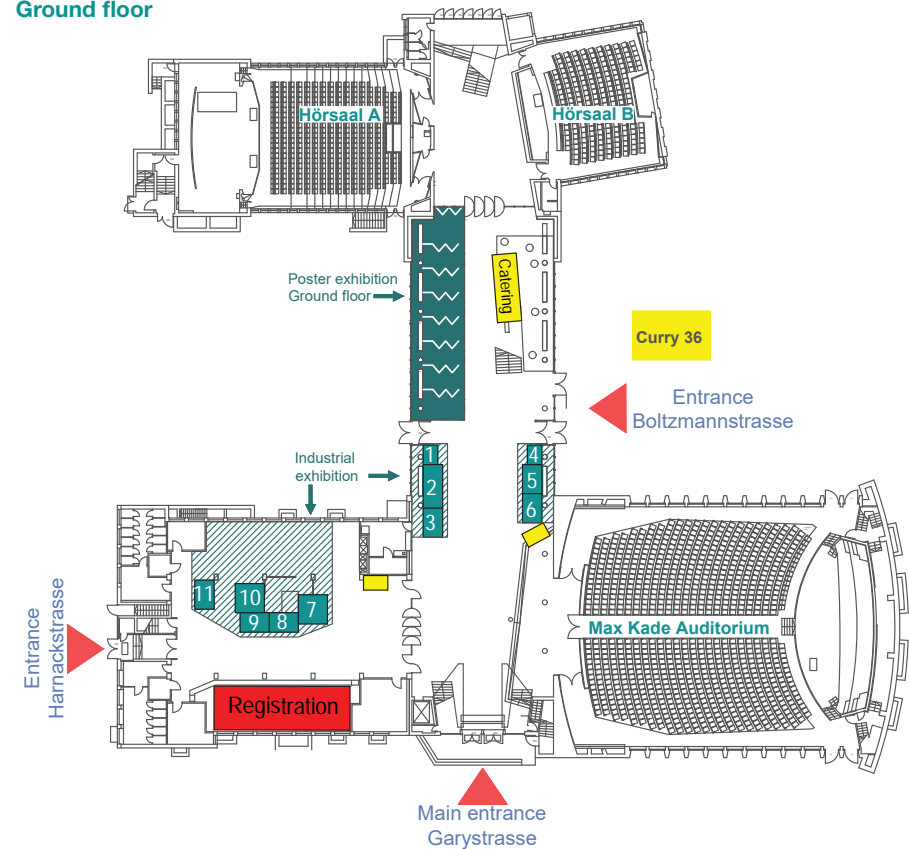
PS06-091 Evaluation of hemodynamic impairments in unilateral high-grade carotid artery stenosis patients and healthy age-matched participants
S. Kaczmarz, J. Göttler, V. Griese, J. Petr, C. Zimmer, C. Sorg, C. Preibisch (Germany)

PS06-092 TOR drives fibrillar amyloid- β accumulation and cerebrovascular dysfunction in the Tg2576 model of Alzheimer's disease
C. Van Skike, J. Jahrling, S. Hernandez, N. DeRosa, V. Galvan (United States)

PS06-093 One-sided hypoperfusion is associated with contralateral attention deficits in asymptomatic high-grade carotid-stenosis patients
J. Göttler, S. Kaczmarz, R. Nuttall, V. Griese, C. Zimmer, C. Sorg, C. Preibisch (Germany)

- PS06-095 Quantification of GABA, glutamate and glutamine in a single measurement at 3T using GABA-optimized MEGA-PRESS
F. Sanaei Nezhad, L. Parkes, S. Williams (United Kingdom)
- PS06-096 Estimating subject numbers for study designs using functional GABA spectroscopy in human brain
F. Sanaei Nezhad, L. Parkes, S. Williams (United Kingdom)
- PS06-097 Brain astroglial reaction in mild hepatic encephalopathy: experimental evidence in the cirrhotic rat
O. EL Hiba, H. Gamrani (Morocco)
- PS06-098 Metabolite concentration changes during increase of the BOLD signal in the human visual cortex: a functional magnetic resonance spectroscopy study at 7T
Y. Boillat, L. Xin, W. Van der Zwaag, R. Gruetter (Switzerland)
- PS06-099 Effect of body position on cerebrovascular reactivity in healthy men and women
M. Favre, D. Serrador, S. Nambiar, M. Falvo, J. Serrador (United States)
- PS06-100 Postnatal development of neurovascular coupling
M. Kozberg, Y. Ma, M. Shaik, S. Kim, E. Hillman (United States)
- PS06-101 Selective knockout of microglial Na⁺/H⁺ exchanger isoform 1 in mice does not reduce acute stroke brain injury but improves neuronal function recovery
S. Song, S. Wang, A. Mishra, R. Nayak, V. Pigott, Y. Shi, K. Carney, Y. Chen, W. Gan, G.E. Shull, D. Sun (United States)
- PS06-102 See PS05-102a on page 139

Ground floor

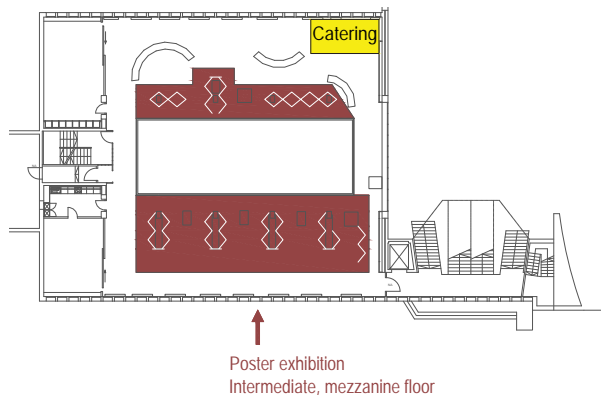


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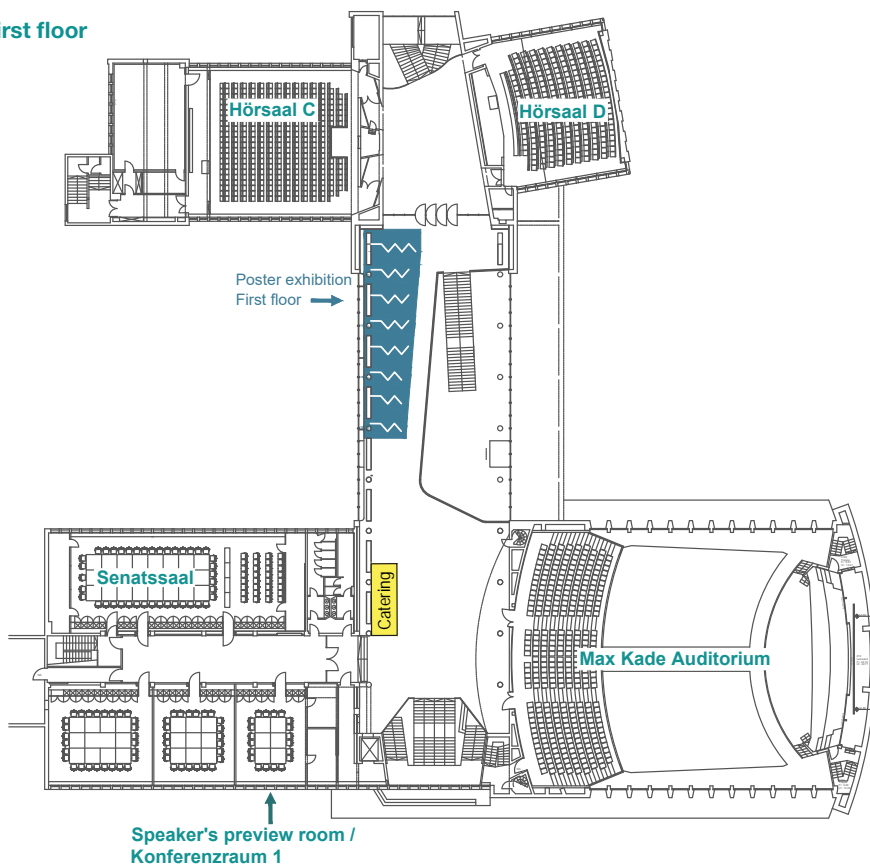
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EXHIBITION FLOOR PLAN

Intermediate story



First floor



ACKNOWLEDGMENTS



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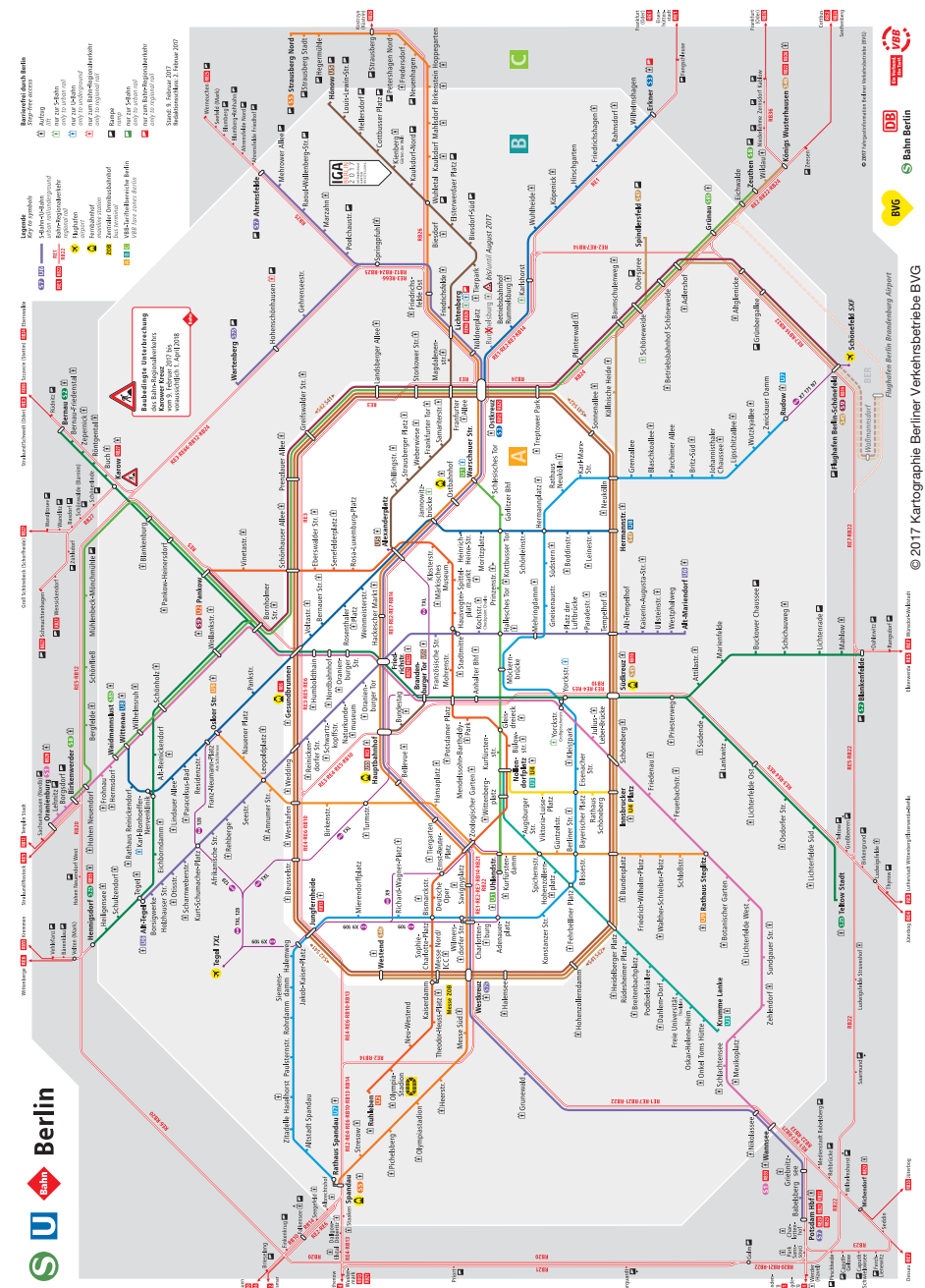


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