

fUSbrain2026

CARGESE - CORSICA

FULL PROGRAM

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PRACTICAL INFORMATION

Program overview

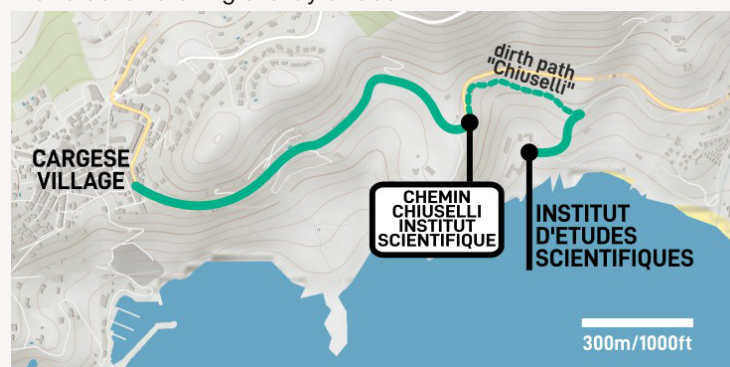
MONDAY 31/08	TUESDAY 01/09	WEDNESDAY 02/09	THURSDAY 03/09	FRIDAY 04/09
09:00-09:30 Check-in	09:00-10:00 Lecture <i>A. Landemard</i>	09:00-10:00 Lecture <i>Y. Boubenec</i>	09:00-10:00 Lecture <i>M. Tanter</i>	09:00-10:00 Lecture <i>D. Maresca</i>
09:30-09:45 Welcome	10:00-11:00 Lecture <i>T. Austin</i>	10:00-11:00 Lecture <i>P. Pouget</i>	10:00-11:00 Lecture <i>P. Song</i>	10:00-11:00 Lecture <i>S. Picaud</i>
09:45-10:15 Intro <i>T. Defieux</i>	11:00-11:15 Coffee/tea	11:00-11:15 Coffee/tea	11:00-11:15 Coffee/tea	11:00-11:15 Coffee/tea
10:15-11:15 Lecture <i>C. Demené</i>	11:15-12:15 Posters <i>Function</i>	11:15-12:15 Posters <i>Vasculature/Connectivity</i>	11:15-12:15 Mini-course <i>Measuring brain activity across scales</i>	11:15-12:15 Round table <i>Preclinical fUS imaging in practice</i>
11:15-11:30 Coffee/tea	12:15-13:45 Lunch	12:15-13:45 Lunch	12:15-13:45 Lunch	12:15-13:45 Lunch
11:30-12:30 Posters <i>Methods</i>	13:45-15:45 Free time for discussions	13:45-18:00 Social activity	13:45-15:45 Free time for discussions	13:45-15:45 Free time for discussions
12:30-14:00 Lunch	15:45-16:00 Coffee/tea		15:45-16:00 Coffee/tea	15:45-16:00 Coffee/tea
14:00-15:45 Free time for discussions	16:00-17:00 Lecture <i>M. El Amki</i>		16:00-17:00 Lecture <i>S. Soloukey</i>	16:00-17:00 Round table <i>Clinical challenges of fUS imaging</i>
15:45-16:00 Coffee/tea	17:00-18:00 Lecture <i>J. Ferrier</i>		17:00-18:00 Lecture <i>B. Bontempi</i>	17:00-17:15 Wrap up
16:00-17:00 Lecture <i>V. Christopoulos</i>			19:00-21:00 Barbecue	
17:00-18:00 Lecture <i>Z. Lenkei</i>				
18:00-19:00 Welcome drink				

Access to the venue

fUSbrain2026 is held at the Institut d'Etudes Scientifiques de Cargèse in Corsica.

Transfer to/from Ajaccio: a bus shuttle (free of charge) is scheduled for an arrival on Sunday 30/08 afternoon (departure from Ajaccio airport ~15:30) and a departure on Saturday 05/09 morning (departure from Cargèse ~8:00). If you have different travel timings, we will book a taxi for you (cost at your charge).

While in Cargèse: the venue is located at a 20-min walking distance from Cargèse village, through a steep dirt path. Make sure to bring sturdy shoes!



Check-in

Meet us on Monday at 9:00 at the Institut d'Etudes Scientifiques for check-in.

Poster presentations

The details of each poster session are on pages 4-7. Please set up your poster in the morning of your poster presentation (before 9:00) and remove it at the end of the day.

Social activities

Monday evening: a welcome drink at the Institut d'Etudes Scientifiques will complete our first weekday.

Wednesday afternoon: if the weather conditions allow it, a boat or bus trip to the Calanche di Piana will be organized. You will be asked to sign up on-site on Monday.

Thursday evening: enjoy the traditional barbecue outdoor buffet, held at the Institut d'Etudes Scientifiques.

LIST OF LECTURES

Tue 01/09 10:15-11:15	Topun AUSTIN <i>Cambridge University Hospitals NHS Foundation Trust, Rosie Hospital/NeoLAB, UK</i> Light and sound to image the newborn brain
Thu 03/09 17:00-18:00	Bruno BONTEMPI <i>INCLIA, Université de Bordeaux, CNRS, France</i> Neuronal and non-neuronal mechanisms of memory formation during systems consolidation
Wed 02/09 09:15-10:15	Yves BOUBENEC <i>Laboratoire des Systèmes Perceptifs, Ecole Normale Supérieure, France</i> Hemodynamics and arousal states in the ferret brain
Mon 31/08 16:00-17:00	Vasileios CHRISTOPOULOS <i>University of Southern California, USA</i> Title to be determined
Mon 31/08 09:45-10:45	Thomas DEFFIEUX <i>Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, France</i> Introduction to fUSbrain2026
Mon 01/09 10:15-11:15	Charlie DEMENE <i>Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, France</i> Basic principles of fUS imaging
Tue 01/09 16:00-17:00	Mohamad EL AMKI <i>University Hospital of Zurich, Switzerland</i> Title to be determined
Tue 01/09 17:00-18:00	Jeremy FERRIER <i>Icôneus, Paris, France</i> Latest innovations and future directions for the Icôneus One platform
Tue 01/09 09:15-10:15	Agnès LANDEMARD <i>UCL Institute of Ophthalmology, University College London, UK</i> The neural populations behind brainwide blood volume
Mon 31/08 17:00-18:00	Zsolt LENKEI <i>Institut de Psychiatrie et Neurosciences de Paris, Inserm, France</i> Title to be determined
Fri 04/09 09:15-10:15	David MARESCA <i>TU Delft, Imaging Physics Department, The Netherlands</i> Molecular ultrasound imaging
Fri 04/09 10:15-11:15	Serge PICAUD <i>Institut de la Vision, Sorbonne Université, Inserm, Paris, France</i> The fUS multimodal solution to measure and stimulate brain activity in the vascular reference
Wed 02/09 10:15-11:15	Pierre POUGET <i>Paris Brain Institute, Sorbonne Université, Inserm, CNRS, France</i> Title to be determined
Thu 03/09 16:00-17:00	Sadaf SOLOUKEY <i>Erasmus MC, Rotterdam, The Netherlands</i> Why Human Brain Hemodynamics Matters to a Neurosurgeon
Thu 03/09 10:15-11:15	Pengfei SONG <i>Department of Biomedical Engineering, Duke University, Durham, NC, USA</i> Toward functional Ultrasound Localization Microscopy in the awake, freely-moving rodent brain
Thu 03/09 09:15-10:15	Mickael TANTER <i>Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, France</i> Multiparametric fUS reveals a fundamental role of REM sleep in brain clearance

POSTER SESSION

MONDAY 31/08: METHODS

MON-ME-01

High Resolution 3D Photoacoustic Imaging Using Lateral Shift Invariance Inverse Reconstruction

L. Bigot(1,2)*, C. Constans(2), B. Arnal(1)

(1) Laboratoire Interdisciplinaire De Physique, Université Grenoble Alpes, CNRS UMR 5588, France; (2) ID4US, St Martin D'Hères, France

MON-ME-02

A realistic simulation framework for brain ultrafast doppler imaging based on ultrasound localization data

J. Barolin(1), G. Garay(1), U. Ramilo(1), V. Sorriba(2), M. Bubé(3), J.P. Damian(4), A. Kun(3,5), C. Negreira(1), J. Brum(1)

(1) Unidad de Imagenología por Ultrasonido aplicada a Medicina y Biología, Instituto de Física, Facultad de Ciencias, Universidad de la República, Uruguay; (2) Departamento de Hospital y Clínicas Veterinarias and Unidad de Imagenología, Laboratorios de Análisis Clínicos y Metabolismo y Endocrinología Animal, Facultad de Veterinaria, Universidad de la República, Uruguay; (3) Laboratorio Biología Celular-SNP-IIBCE, Uruguay; (4) Núcleo de Bienestar Animal and Departamento de Biociencias Veterinarias, Facultad de Veterinaria, Universidad de la República, Uruguay; (5) Sección Bioquímica, Facultad de Ciencias, Universidad de la República, Uruguay

MON-ME-03

Visual perception by sonogenetic stimulation of the primate visual cortex

A. Cadoux, F. Arcizet, E. Dessailly, I. Alcalá, R. Arab, E. Adam, S. Picaud

Institut de la Vision, Paris, France

MON-ME-04

Ultrasound-Driven Microswimmers Based on Buckling Phospholipidic Microbubbles

J. Dib(1), T. Segers(2), M. Vreman(2), C. Quilliet(1), E. Bossy(1), G. Coupier(1)

(1) Université Grenoble Alpes, CNRS, Laboratoire Interdisciplinaire de Physique, Grenoble, France; (2) Max Planck Center for Complex Fluid Dynamics, University of Twente, Enschede, The Netherlands

MON-ME-05

Combined 3D Functional Ultrasound and 3D Ultrasound Localization Microscopy in the Mouse Brain Using RowColumn Array Imaging

A. Bertolo(1), J. Ferrier(1), A. Jimenez(1), B. Osmanski(1), T. Deffieux(2)

(1) Iconeus, Paris, France; (2) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

MON-ME-06

Null Subtraction Imaging for Functional Ultrasound Brain Activation Mapping

G. Garay(1), J. Barolin(1), V. Sorriba(2), J.P. Damián(3), Z. Kou(4), M. Oelze(4), C. Negreira(1,5), A. Kun(6,7), J. Brum(1)

(1) Unidad de Imagenología por Ultrasonido aplicada a Medicina y Biología, Instituto de Física, Facultad de Ciencias, Universidad de la República, Uruguay; (2) Unidad de Imagenología y Laboratorios de Análisis Clínicos y Endocrinología y Metabolismo Animal, Facultad de Veterinaria, Universidad de la República, Uruguay; (3) Unidad de Bioquímica, Departamento de Biociencias Veterinarias, Núcleo de Bienestar Animal, Facultad de Veterinaria, Universidad de la República, Uruguay; (4) Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, USA; (5) Laboratorio de Acústica Ultrasonora, Instituto de Física, Facultad de Ciencias, Universidad de la República, Uruguay; (6) Laboratorio de Biología Celular del Sistema Nervioso Periférico, Instituto de Investigaciones Biológicas Clemente Estable, Ministerio de Educación y Cultura, Uruguay; (7) Sección Bioquímica, Facultad de Ciencias, Universidad de la República, Uruguay

MON-ME-07

Microbubble Track-Based 3D Functional Ultrasound Localization Microscopy in Awake Mice

Y. He, Y. Wang, M. Lowerison, P. Song

Department of Biomedical Engineering, Duke University, Durham, NC, USA

MON-ME-08

ConfUSlus: an accessible and scalable toolkit for functional ultrasound imaging analysis

Samuel Le Meur-Diebolt(1), Felipe Cybis Pereira(2)

(1) Institute of Ophthalmology, University College London, London, UK; (2) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

MON-ME-09

Revealing propagative patterns in the ferret brain across sleep states using functional ultrasound imaging

Z. Liu(1), L. Moreau(1), C. Haro(2), A. Goriachenkov(2), Y. Boubenec(2), C. Demené(1)

(1) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (2) Audition Team, Laboratoire des Systèmes Perceptifs CNRS UMR 8248, École Normale Supérieure, PSL University, Paris, France

MON-ME-10

Detection and classification of Cerebral Blood Volume (CBV) propagative pattern in non-anesthetized rats imaged with functional Ultrasound (fUS)

L. Moreau, Z. Liu, M. Matei, N. Ialy-Radio, S. Pezet, C. Demené

Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

MON-ME-11

The theoretical link between the functional ultrasound (fUS) signal and Ultrasound Localization Microscopy (ULM) parameters in neuroimaging

A. Reygrobelle, N. Zucker, N. Renaudin, V. Blanvillain, D. Perdios, C. Demené, T. Deffieux, M. Tanter

Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

MON-ME-12

Point-cloud Processing Pipeline for 3D Functional Ultrasound Localization Microscopy

V. Skultéty(1), D. Perdios(2), N. Zucker(2), T. Deffieux(2), D. Van De Ville(1,3), M. Tanter(2)

(1) Neuro-X Institute, École Polytechnique Fédérale de Lausanne, Switzerland; (2) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (3) Department of Radiology and Medical Informatics, University of Geneva, Switzerland

MON-ME-13

An Open Benchmarking Framework for Standardized Functional Ultrasound Localization Microscopy (fULM) Evaluation

Y. Wang, A. Yakey, M.R. Lowerison, Y. He, Y. Shin, B.Z. Lin, P. Song

Department of Biomedical Engineering, Duke University, Durham, NC, USA

MON-ME-14

Sparse Deconvolution for Contrast-Free Microvascular Imaging in Ultrafast Power Doppler Ultrasound

G. Zhang, N. Zucker, S. Pezet, M. Tanter

Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

MON-ME-15

Four-dimensional functional ultrasound imaging of the human brain

L. Verhoef(1), S. Soloukey(1,2), G. Springeling(3), A.J. Flikweert(4), B. Lippe(4), A.J. de Jong(4), N. Radeljic-Jakic(4,5), M. Baas(4), J. Voorneveld(1), A.J.P.E. Vincent(2), P. Kruijsing(1,2,6)

(1) Brain Echo Lab, Department of Neuroscience, Erasmus MC, 3015 GD, Rotterdam, Netherlands; (2) Department of Neurosurgery, Erasmus MC, 3015 GD, Rotterdam, Netherlands; (3) Department of Experimental Medical Instrumentation, Erasmus MC, 3015 GD, Rotterdam, Netherlands; (4) Oldelft Ultrasound, 2629 JG, Delft, Netherlands; (5) Electronic Instrumentation Laboratory, Delft University of Technology, 2628 CD Delft, Netherlands; (6) Department of Microelectronics, Delft University of Technology, 2628 CD, Delft, Netherlands

POSTER SESSION

TUESDAY 01/09: FUNCTION

TUE-FU-01

Intraoperative functional Ultrasound Imaging for Sensorimotor Mapping and Central Sulcus Localization in human neurosurgery
A. Bertolo(1), J.Y.T. Lo(5,6), K.A. Agyeman(3,5), V. Christopoulos(3,5), T. Deffieux(1,2), M. Tanter(1,2), B. Osmanski(1), C. Liu(3,4,5)
(1) Iconeus, Paris, France; (2) Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (3) Department of Biomedical Engineering, Viterbi School of Engineering, University of Southern California, Los Angeles, CA, USA; (4) Rancho Los Amigos National Rehabilitation Center, Downey, CA, USA; (5) USC Neurorestoration Center, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA; (6) National Neuroscience Institute, Singapore 308433

TUE-FU-02

Chronic multimodal recordings of the mouse brain with fUSI and Neuropixels probes
A. Landemard, S. Le Meur-Diebolt, C.B. Reddy, M. Krumin, C. Bimard
Institute of Ophthalmology, University College London

TUE-FU-03

Functional ultrasound imaging of the Primate Visual Cortex: Toward a Model for Visual Restoration
E. Dessailly(1), I. Alcalá(1), N. Zucker(2), R. Arab(1), F. Arcizet(1), S. Picaud(1)
(1) Institut de la Vision, Sorbonne Université, Inserm, CNRS, Paris, France; (2) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

TUE-FU-04

Neuroimaging combining high-density diffuse optical tomography and functional ultrasound for whole brain connectivity imaging in the neonate
F. Faure(1,2), S. De Crescenzo(2,3), N. Sobierajska(1,2), A. Edwards(2), K. Pammenter(2), R. Cooper(4), C. Demené(5), T. Austin(2)
(1) University of Cambridge, Department of Clinical Neurosciences, Cambridge, United Kingdom; (2) Cambridge University Hospitals NHS Foundation Trust, Rosie Hospital / NeoLAB, Cambridge, United Kingdom; (3) Scuola di Specializzazione in Pediatria, Alma Mater Studiorum, Università di Bologna, Italia; (4) University College of London, Department of Medical Physics and Biomedical Engineering/ DOT-HUB lab, London, United Kingdom; (5) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France

TUE-FU-05

Characterizing brain functional connectivity using functional ultrasound in neonates from 24 to 42 weeks of gestation: a feasibility study
I. Housni(1), A. Frérot(2), A. Viennet(2), A. Houdouin(1), M. Gesnik(3), G. Badin(3), V. Biran(2,4)*, C. Demené(1)*
(1) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (2) Assistance Publique-Hôpitaux de Paris, Neonatal intensive care unit, Robert Debré children's hospital, Paris, France; (3) Iconeus, Paris, France; (4) I2D2, Inserm U1141, University Paris Cite Paris, France; *Contributed equally

TUE-FU-06

Cholinergic modulation of brainwide activity
A. Landemard, M. Krumin, C. Reddy, M. Carandini
Institute of Ophthalmology, University College London, United Kingdom

TUE-FU-07

Functional Ultrasound Imaging of Nigrostriatal Circuit Responses Towards Monitoring Transplanted Dopaminergic Graft Integration in Parkinson's Disease Cell Replacement Therapy
M.H.R. Law(1,2), B. Vidal(1,2), N. Molochidis(1,2,3), S. Peressotti(1,2), V. Zerbi(1,2)
(1) Department of Psychiatry, Faculty of Medicine, University of Geneva, Geneva, Switzerland; (2) Department of Basic Neurosciences, Faculty of Medicine, University of Geneva, Geneva, Switzerland; (3) School of Engineering, Ecole Polytechnique Fédérale Lausanne (EPFL), Lausanne, Switzerland

TUE-FU-08

Statistical Learning of Speech During Development: Neural Representations in the Auditory Cortex
E. Lebeurier(1), S. Norman-Haignere(2), Y. Boubenec(1)
(1) Laboratoire des Systèmes Perceptifs, CNRS UMR 8248, Paris, France; (2) Computational Neuroscience of Audition Laboratory, University of Rochester, Rochester, USA

TUE-FU-09

Spontaneous fluctuations in arousal states in ferrets using fUSI
M. Martin(1), A. Goriachenkov(1,2), Y. Boubenec(1)
(1) Laboratoire des systèmes perceptifs, Département d'études cognitives, École normale supérieure, Université PSL, CNRS, Paris, France; (2) Laboratoire Plasticité du Cerveau, École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris, Université PSL, CNRS, Paris, France

TUE-FU-10

A Novel Minimally Invasive 3D-Printed Restraint Setup for Awake Rat Imaging
N. Molochidis(1,2,3)*, F. Barcellini(1,2,4)*, B. Vidal(1,2), V. Zerbi(1,2)
(1) Department of Psychiatry, Faculty of Medicine, University of Geneva, Geneva, Switzerland; (2) Department of Basic Neurosciences, Faculty of Medicine, University of Geneva, Geneva, Switzerland; (3) School of Engineering, Ecole Polytechnique Fédérale Lausanne (EPFL), Lausanne, Switzerland; (4) School of Life Sciences, Ecole Polytechnique Fédérale Lausanne (EPFL), Lausanne, Switzerland; *Contributed equally

TUE-FU-11

Wildfire exposures modify neurovascular coupling and blood-based biomarkers in young adult mice in a sex dependent manner
A. Obenaus(1), T. Garcia(1), V. Penueles(1), H. Dingilian(2), T. Simon(1), D. Cocker(2), D. Agoston(3), D. Lo(1)
(1) Division of Biomedical Sciences, School of Medicine, University of California Riverside; (2) Department of Chemical and Environmental Engineering, University of California, Riverside, CA, USA; (3) Department of Anatomy, Physiology and Genetics, School of Medicine, Uniformed Services University, Bethesda, MD, USA

TUE-FU-12

Unexpected Auditory Stimulus Evokes Region-Specific CBV Responses and Alters Whole-Brain Connectivity
M. Park*, S. Park*, E. Yeo*, H. Kim*, H. Park*, A.J. Park
Department of Physiology, Seoul National University College of Medicine, Seoul, Republic of Korea; *Contributed equally

TUE-FU-13

Next-Generation Sonogenetic Read/Write Ultrasound Platforms for Neuroscience
D.E. Rivera(1), C. Demené(1), N. Laly-Radio(1), S. Pezet(1), S. Picaud(2), M. Tanter(1)
(1) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (2) Sorbonne Université, CNRS, INSERM, Institut de la Vision, Paris, France

TUE-FU-14

Functional Imaging of Developing Brain in Mice and Non-Human Primates
J. Zhu(1), D. He(1), M. Sun(1,2), H. Zheng(1), X. Lin(1), W. He(1), L. Zhang(1,3), Z. Chen(1,2), J. Yang(1), C. Lin(4), Q. Yuan(5), Y.S. Shi(1), L. Sun(2)*, Z. Qiu(1)*
(1) Guangdong Institute of Intelligence Science and Technology, Hengqin, Zhuhai, Guangdong 519031, China; (2) Department of Biomedical Engineering, The Hong Kong Polytechnic University, Hung Hom, Hong Kong SAR, China, 999077; (3) Department of Rehabilitation Medicine, The Fifth Affiliated Hospital of Sun Yat-sen University, Zhuhai 519000, China; (4) School of Life Science and Technology, Key Laboratory of Developmental Genes and Human Disease, Southeast University, Nanjing 210096, China; (5) Obstetrics Department, The Fifth Affiliated Hospital of Sun Yat-sen University, Zhuhai 519000, China

POSTER SESSION

WEDNESDAY 02/09: VASCULATURE

WED-VA-01

Acute Microvascular Effects of Cilostazol and Isosorbide Mononitrate Reveal Redistribution of Cerebral Blood Supply in Wild-Type Mice

A. Almasri(1)*, H. Trewitt(1), L. McMullan(1), C. Hall(1,2)
(1) School of Psychology and Sussex Neuroscience, University of Sussex, UK;
(2) BHF-UK DRI Centre for Vascular Dementia Research, UK Dementia Research Institute at University College London, London, UK

WED-VA-02

Ultrafast Doppler Ultrasound as a Noninvasive Proxy for Renal Vascular Function in a Mouse Model of Hypertension

B.T. Wall(1), F. Liu(1), I. MG. Menik(1), M.A. Shivers(1), S. Tarantini(2), D. J.R. Fulton(1), E.J. Belin de Chantemèle(1)
(1) Augusta University, Augusta, GA, USA; (2) OUHSC, Oklahoma City, USA

WED-VA-03

Human Brain Ultrasensitive Doppler using a Minimally Invasive Ultrasound Device for Continuous Perfusion Monitoring

A. Jimenez(1), B. Osmani(1), D. Vivien(2), M. Tanter(3), T. Gaberel(2,4), T. Deffieux(3)
(1) Iconeus, Paris, France; (2) Physiopathology and Imaging of Neurological Disorders, GIP Cyceron, Caen, France; (3) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (4) Department of Neurosurgery, CHU de Caen, Caen, France

WED-VA-04

From the periphery to the centre: shedding light on the haemodynamic perspective of the CMT1E phenotype in the Trembler-J mouse model

M. Anzibar (10)*, L. Vázquez(2)*, M. Martínez M(2)*, G. Garay(1), V. Sorribá(3), J. Barolín(1), P. Damián(3,4), M. Bubé(2), M. Calero(5), M.V. Di Tomaso(6), M. Tanter(7), J. Baranger(7), N. Rubido(8), C. Negreira(1), J. Brum(1), A. Kun(2,9)
(1) Unidad de Imagenología por Ultrasonido aplicada a Medicina y Biología, Instituto de Física, Facultad de Ciencias, Universidad de la República, Uruguay; (2) Laboratorio Biología Celular-SNP-IIBCE, Uruguay; (3) Departamento de Biociencias Veterinarias, Facultad de Veterinaria, Universidad de la República, Uruguay; (4) Núcleo de Bienestar Animal, Facultad de Veterinaria, Universidad de la República, Uruguay; (5) Chronic Disease Programme (UFIEC), and CIBERNED, Instituto de Salud Carlos III, Madrid, Spain; (6) Departamento de Genética, Instituto de Investigaciones Biológicas Clemente Establ, Uruguay; (7) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (8) Institute for Complex Systems and Mathematical Biology, University of Aberdeen, King's College, Aberdeen, UK; (9) Sección Bioquímica, Facultad de Ciencias, Universidad de la República, Uruguay; (10) Laboratorio de Acústica Ultrasonora, Facultad de Ciencias, Universidad de la República, Uruguay;
*Contributed equally

WED-VA-05

Collaterality is brain: characterization of leptomeningeal collaterality impact on neurovascular phenomena in an awake mice ischemic stroke model using awake functional ultrasound imaging

C. Lepillier(1), M. Abioui-Mourgues(1), C. Orset(1), D. Vivien(1,2)
(1) Normandie University, UNICAEN, INSERM UMR-S U1237, Physiopathology and Imaging of Neurological Disorders (PhIND), Institut Brain, Blood and Memory @ Caen-Normandie (BBM@C), France; (2) Department of Clinical Research, Caen-Normandie University Hospital, CHU, Caen, France

WED-VA-06

Comparison of cortical small artery imaging using in vivo ULM and ex vivo clearing in a pathological context

A. Leroy(1), N. Zucker(2), A. Leong(1), M. Cornebois(1), J. Dégardin(1), P. Abgrall(1), M. Simonutti(1), B. Gonzalez(3), C. Brasse-Lagnel(3), M. Tanter(2), S. Picaud(1)
(1) Institut de la Vision, Sorbonne Université, Inserm, CNRS, Paris, France; (2) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France; (3) Université Rouen Normandie, Inserm U1245, Team Epigenetics and Pathophysiology of 15 Neurodevelopmental Disorders, Rouen, France

WED-VA-07

Functional Ultrasound-derived Hemodynamic Responses as potential biomarker of Disease Progression in Aged Retinal Vasculopathy with Cerebral Leukoencephalopathy mice

C. Linnenbank(1), J. Thalgott(2), A. Skoyhet(2), E. Boulebnane(4), T. Deffieux(4), E.A. Tolner(1,3), A.M.J.M. van den Maagdenberg(1,3)*, F. Lebrin(2,4)*
(1) Department of Human Genetics, Leiden University Medical Center, Leiden, The Netherlands; (2) Department of Internal Medicine (Nephrology), Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center, Leiden, The Netherlands; (3) Department of Neurology, Leiden University Medical Center, Leiden, The Netherlands; (4) Institute Physics for Medicine Paris, Inserm, ESPCI Paris-PSL, CNRS, Paris, France;
*Equal position

WED-VA-08

Non-invasive Functional Ultrasound Imaging Identifies Vascular Alterations Following Endothelial Smad4 Depletion

A. Shoykhet(1,2), F. Timmermans(1,2), J.H. Thalgott(1,2), E. Boulebnane(3), T. Deffieux(3), M. Tanter(3), S.M. Meadows(4,5), F. Lebrin(1,2)
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WED-VA-09

Metabolic Control of Cerebrovascular Aging via Mitochondrial Remodeling

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POSTER SESSION

WEDNESDAY 02/09: CONNECTIVITY

WED-CO-10

Study of functional connectivity alterations in Parkinsonian mice throughout chronic L- DOPA treatment using awake fUSI

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WED-CO-11

Short-term Beta-lactam antibiotic exposure promotes peptidoglycan translocation to the brain and impairs functional connectivity and social recognition in mice

I. Martínez Sanchez(1), W.S. Kim(2,3,4), C. Heather(1), S. Nylen(5), M.G. Shapiro(4), R. Diaz Heijtz(1)*
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WED-CO-12

Capturing propagating patterns in ferret cortex: toward a functional ultrasound biomarker of cortical state

C. Haro(1), A. Goriachenkov(1), Z. Liu(2), L. Moreau(2), C. Demene(2), Y. Boubenec(1)
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WED-CO-13

Exploring Network-Level Effects of Antiseizure Medications on Cognitive Circuits Using Functional Ultrasound

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WED-CO-14

Restrain stress enhances LC-PVH functional connectivity

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WED-CO-15

Divergent fUSI and fMRI resting-state connectivity in awake mice

J.C. Mariani*(1), M. Urosevic*(1,2), C. Pepe(1), G. Desrosiers-Gregoire(1), S. Gini(1,2), F. Ricci(1), A. Gozzi(1)
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WED-CO-16

Peripheral autonomic stimulation modulates resting-state co-activation dynamics in functional ultrasound imaging

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WED-CO-17

Ketone bodies induce hippocampal hyperperfusion and reorganize the cortico-hippocampo-thalamic functional network in the mouse brain

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