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## Implication of vitamin A in neuroprotection of dopaminergic neurons in a rat model of Parkinson's disease

Anaïs Marie, Julien Leroy, Véronique Pallet, Sylvie Vancassel, Clémentine Bosch-Bouju

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## Scientific Programme

### Wednesday, 22. May 2019

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OPENING CEREMONY / SÉANCE INAUGURALE  
08:30 - 09:00

Auditorium

#### Opening Ceremony/Séance inaugurale

PAUL BROCA CONFERENCE / CONFÉRENCE PAUL BROCA  
09:00 - 10:00

Auditorium

#### PL01, Robert Malenka

**Chairs:**

J. Caboche

**Neural mechanisms of social reward / Mécanismes neuraux de la récompense sociale**

R.C. Malenka (Stanford)

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
10:00 - 11:00

Foyer

#### P1, Poster session 1

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

#### **Development, synaptic plasticity**

##### **Lis1 progenitor mechanisms contribute to cortical malformations**

R. Belvindrah (Paris)

##### **Local control of protein synthesis for cortical inhibitory wiring**

C. Bernard (London)

##### **Organization and role of actin at the presynapse**

D. Bingham (Marseille)

##### **Unique properties of early-born GABAergic cells in the developing and adult hippocampus**

M. Bocchio (Marseille)

##### **Time course of $\alpha$ -actinin-2 expression within the dentate gyrus during epileptogenesis in the rat pilocarpine model of mesial temporal lobe epilepsy suggests its role in dendritic spines plasticity of hippocampal granule cells**

A. Bole (Marseille)

## Scientific Programme

**Heavytail stories: GABAergic topologies during development**

Y. Bollmann (Marseille)

**Selective axonal distribution of the Kv1 channel complex in pre-myelinated GABAergic neurons**

G. Bonetto (Marseille)

**Regulation of AMPAR intracellular transport through its interaction with 4.1N**

C. Bonnet (Bordeaux Cedex)

**Transient receptor potential cation channel subfamily M member 5 (TRPM5) activation is required for thermosensitive plateau potentials in lumbar motoneurons contributing to postural control**

R. Bos (Marseille)

**Elucidating the function of Huntingtin in the postnatal maturation of brain activity**

B. Braz (La Tronche)

**Proteomic study of Huntington's disease growth cone: identification of new players in axonal growth**

M. Capizzi (La Tronche)

**Role of Huntingtin in axonal growth of cortical neurons**

R. Carpentier (La Tronche)

**The source of enkephalin release in the hippocampal area CA2**

S. Cassim (Paris)

**Linking embryonic origin and pyramidal cell diversity in hippocampal CA1**

D. Cavalieri (Marseille)

**Identification of new protein partners of the serotonin 5-HT<sub>6</sub> receptor involved in its neurodevelopmental functions**

S. Chaumont Dubel (Montpellier Cedex)

**Control of neural stem cell specification in the postnatal forebrain by antagonist function of Vax1 and Pax6**

N. Coré (Marseille)

**Role of synaptic plasticity in AMPA receptor intracellular trafficking**

F. Coussen-Choquet (Bordeaux)

**Emergence of cell assemblies in the developing hippocampus**

R.F. Dard (Marseille)

**Role of omega-3 derivatives in synaptic plasticity**

M. Di Miceli (Bordeaux)

**Development of nanoscopic correlative imaging (X-ray/photonic) to study the role of metals in the neuronal cytoskeleton**

F. Domart (Bordeaux)

**3D analysis of neural network remodeling in pancreatic cancer**

C. Dominici (Marseille)

**Roles of Nav1.6 channels into the operation of the spinal locomotor network**

B. Drouillas (Marseille)

## Scientific Programme

**Complement C4 overexpression in the mouse prefrontal Cortex recapitulates schizophrenia-associated endophenotypes**

M. Druart (Paris)

**Beyond the looking glass in the Congenital Mirror Movement paradigm: a single pathway for RAD51, NTN1 and DCC in the development of the nervous system?**

C. Dubacq (Paris)

**Neuroprotective effect of maternal polyphenol supplementation during hypoxia-ischemia of the newborn**

U. Dumont (Bordeaux)

**Spatio-temporal pattern of serotonin 5-HT6 receptors expression during neurodevelopment: potential role in wiring neuronal networks**

V. Dupuy (Montpellier)

**Early pathological signs of hypoexcitability are specific to delayed-onset firing motoneurons in superoxide dismutase 1 (SOD1) postnatal mice**

J. Durand (Marseille)

**Signalisation, cellular communications**

**Functional impact of TCF12 mutation in oligodendrogliomas**

S. Achonditi (Paris)

**Chronic stress suppresses hippocampal neurogenesis via the CDK5-Huntingtin pathway**

F. Agasse (La Tronche)

**Fast 3D acquisition of neuronal activity in visual cortex across multiple layers in awake mice**

W. Akemann (Paris)

**Dopamine and glutamate receptor heteromers: modulation and roles in cocaine-evoked adaptations**

A. Andrianarivelo (Paris)

**A possible link between KCNQ2- and STXBP1-related encephalopathies: STXBP1 reduces the inhibitory impact of syntaxin-1A on M current**

L. Aniksztejn (Marseille)

**Oxidative stress-induced disulfide dimerization of neuronal calcium sensor proteins**

V. Baksheeva (Moscow)

**Influence of the fungal anorexigenic toxin DON on the ER stress status in hypothalamus and liver**

R. Barbouche (Marseille)

**Role of GABAergic synapses of oligodendrocyte progenitors in regulating axonal myelination and function of cortical parvalbumin interneurons**

N. Benamer (Paris)

**Molecular and functional characterization of LIMK2-1, a hominidae-specific isoform of LIMK2 associated with intellectual disability**

H. Bénédicti (Orléans Cedex)

**Neurobeachin and the kinesin KIF21B are critical for endocytic recycling of NMDA receptors and regulate social behavior**

K. Brune (Hamburg)

## Scientific Programme

**The dendritic Ca<sup>2+</sup> and K<sup>+</sup> currents associated with the climbing fibre synaptic potential in the cerebellar Purkinje neuron**

M. Canepari (Saint Martin d'Herès)

**Vesicular treadmilling in axons defines how synapses adapt to high neuronal demand**

M. Cazorla (Grenoble)

**Role of the WNK-SPAK-OSR1 signaling pathway in neuronal chloride homeostasis and in epilepsy**

E. Côme (Paris)

**Gene expression profiling and pathway analysis in brain-derived microvascular endothelial cells treated with TWEAK and TNF cytokines**

J.-P. Dales (Marseille)

**Role of Pyk2 in the nucleus accumbens D1 neurons in acute locomotor effects of cocaine**

B. De Pins (Paris)

**Impact of membrane composition in polyunsaturated fatty acids on dopamine D2 receptor affinity and signaling**

V. De Smedt-Peyrusse (Bordeaux)

**KCC2 enhancers: targeting neuronal chloride transport in temporal lobe epilepsy**

F. Donneger (Paris)

**Effect chitinase 3-like protein 1 on oligodendrocyte precursor cells proliferation and differentiation in vitro**

L. du Trieu de Terdonck (Montpellier)

**Direct and non-invasive probing of the polarity of perisomatic GABAergic transmission in the adult mouse hippocampus in vivo**

O. Dubanet (Bordeaux)

**Helping analgesia by targeting the serotonin 5-HT<sub>7</sub> receptor**

C. El Khamlichi (Orleans)

**Identification of the underlying pathogenic pathways in a mouse model in Hereditary Spastic Paraplegia SPG11 through transcriptional study**

T. Esteves (Paris)

**The role of monocarboxylate transporter-1 on cognitive deficits development during non-alcoholic fatty liver disease**

A. Hadjichambi (Lausanne)

**Neurological and psychiatric diseases, experimental therapeutics**

**Pre-clinical evaluation of checkpoint inhibitor immunotherapy in GBM implementing ultrasound Mediated blood-brain barrier opening (UMBO)**

M. Ahmed (Paris)

**Preliminary study of the prevalence of the G2019S mutation in the Leucine-Rich Repeat Kinase-2 gene in patients with parkinson's disease in the South-West of Morocco**

S. Ait Wahmane (Agadir)

**Epigenetic control of brain wiring: role of axonal miRNAs in fetal alcohol spectrum disorders**

M. Altounian (Marseille)

## Scientific Programme

**Role of Tshz3 in the development and function of corticostriatal connections and its involvement in ADS-like behavior**

E. Arbeille (Marseille)

**Human induced pluripotent stem cell-based Alzheimer's disease modeling reveals APOE4 as a modulator of inflammation**

L. Arnaud (Marseille)

**Sucrose bingeing alters reward processing: role of mu opioid receptors**

G. Awad (Strasbourg)

**Molecular mechanisms underlying altered epigenetic regulation in Huntington's disease: role of SRF**

A. Awada (Strasbourg)

**Gene therapy for spinocerebellar ataxia 7: restoring cholesterol metabolism**

E.-G. Banchi (Paris)

**The pro-amyloidogenic effects of membrane-type-matrix metalloproteinase involve MMP-2 and BACE-1 activities, and the modulation of APP trafficking**

K. Baranger (Marseille)

**Conditional inactivation of the translation initiation factor eif2b5 gene in oligodendrocytes induced a delayed acute neurological distress**

A. Bark (Paris)

**Early events in cytomegalovirus infection of the developing rat brain: a pathophysiological role for viral chemokine r129?**

S. Bauer (Marseille Cedex 09)

**Role of the BLA-ACC pathway in major depressive disorder**

L.J. Becker (Strasbourg)

**Facilitating glutamate mGlu4 receptor activity relieves autistic-like deficits in Fmr1 knockout mice**

J.A. Becker (Nouzilly)

**Major depression: metabolomic signature of treatment response and of remission**

C. Belzung (Tours)

**Repeated inhalation of aerosols containing titanium dioxide nanoparticles reveals potential neurotoxicity in mouse**

A. Bencsik (Lyon)

**Short-term memory deficits and CA3 hippocampal damage in a murine model of lupus**

M. Bendorius (Illkirch)

**Links between Parkinson's disease, dopaminergic agonist treatment and cognitive flexibility**

M. Benoitmarand (Poitiers)

**Characterization of glioblastoma stem cells: identification of factors involved in their transcriptome regulation**

N. Berabez (Lyon)

**The mGlu7 receptor provides protective effects against epileptogenesis and epileptic seizures**

F. Bertaso (Montpellier)

## Scientific Programme

**Variable selection using machine-learning to identify new signatures of patient-derived aggregated  $\alpha$ -synuclein-induced neurodegeneration in non-human primates**

E. Bezard (Bordeaux)

**Ex-vivo electrophysiological analysis of a mouse model carrying a KCNQ2 variant associated with early epileptic encephalopathy**

N. Biba (Marseille)

**Deciphering preventive action of vitamin A on Alzheimer's disease pathology**

E. Biyong (Bordeaux)

**Neuro-microglial communication contributes to the detrimental role of adenosine A2A receptors in Alzheimer's disease**

D. Blum (Lille)

**Mimicking schizophrenia symptoms in mice by combining factors: genetic, early environmental stress and late pharmacological conditioning**

V. Bouet (Caen)

**Regulation of dopamine and endocannabinoid transcripts in reward and homeostatic brain regions following diet-induced obesity in rats: a cluster analysis approach**

R. Bourdy (Strasbourg)

**Complement-C3-dependent alterations of the dentate gyrus are involved in memory deficit at the early stage of experimental multiple sclerosis**

J. Bourel (Bordeaux)

**Ganglioside accumulation in a model of slowly progressive Amyotrophic Lateral Sclerosis**

J. Branchu (Paris)

**Stable analogue of diadenosine-polyphosphates, AppCH2ppA, suppresses epilepsy by enhancing adenosine signaling in neocortex**

N. Burnashev (Marseille)

**Hippocampal rhythmic activity modifications associated to epileptogenesis and ictogenesis in a mouse model (Scn1aR1648/+) of genetic epilepsy**

F. Capitano (Sophia Antipolis - Valbonne)

**Effect of anti-VEGF treatment on the innate immune response in a mouse model of multiple sclerosis**

C. Caravagna (Marseille)

**Brain insulin sensitivity and peripheral metabolic changes in Tau transgenic mice**

K. Carvalho (Lille)

**A new conditional mouse model allowing the adult truncation of FUS-PY NLS domain to study ALS-FTD**

R. Cassel (Strasbourg)

**Re-expression of the neurodevelopmental protein filamin A in glioblastoma: major impact on tumor proliferation and invasiveness**

H. Castel (Mont Saint Aignan)

**Pathogenicity of TDP-43 fragments in Amyotrophic Lateral Sclerosis**

A. Chami (Tours)

**The role of dopamine in nociceptive transmission in a rat model of Parkinson's disease**

K.-A. Charles (Bordeaux)

## Scientific Programme

**Therapeutic potential of the Bornavirus X protein and X-derived peptide in amyotrophic lateral sclerosis**

S. Chevallier (Bordeaux)

**Novel high throughput tools for detecting age associated epigenetic changes in liquid biopsies**

S. Chlamydas (La Hulpe)

**Pyramidal neuron growth and increased hippocampal volume during labor and birth in autism**

R. Cloarec (Marseille)

**Ethosuximide modulation of GIRK channels ameliorates the aberrant neuronal activity underlying GNB1 syndrome: a precision medicine approach**

S. Colombo (New York)

**Effect of NFκB inhibitors on reconsolidation of memories associated with cocaine self-administration**

C. Correia (Strasbourg)

**Glypican4 as a target for innovative cell based replacement therapy in Parkinson's disease**

S. Corti (Marseille Cedex 09)

**Recovery of BDNF/TrkB signaling by P42 peptide in Huntington's disease: from BDNF transport to TrkB reception**

S. Couly (Montpellier)

**Genetic architecture of bipolar disorder in multiplex families**

E. Courtois (Créteil)

**Effects of deep brain stimulation on speech clinical assessment and acoustic features in Isolated Generalized Dystonia**

M.-C. Cuartero (Aix En Provence)

**Dissecting the dynamics of DNA damage repair as a vital component to neuronal development and maintenance in Huntington's disease**

J. Dancourt (Paris)

**Inhibition of Tau aggregation by targeting its nucleation core with a camelid heavy-chain-only antibody**

C. Danis (Lille)

**Development of a Tau seeding mice model in the P301S-PS19 transgenic mouse**

G. Das Dores (Croissy sur Seine)

**Cocaine-induced epigenetic modifications of the endocannabinoid system in brain reward regions**

D. De Sa Nogueira (Strasbourg)

**Integrative neurosciences, sensory physiology**

**The role of external tufted cells in olfactory processing**

A. Angelova (Marseille)

**Specific reorganization of striatal network dynamics during habit formation**

N. Badreddine (Grenoble)



## Scientific Programme

**Cholinergic-dependent slow-wave activity in the claustrum in vitro**

T. Bal (Gif-sur-Yvette)

**Cortical recruitment determines learning dynamics and strategy**

B. Bathellier (Gif sur Yvette)

**Implication of the cortico-spinal pathway in sensory-motor control**

C. Bichara (Strasbourg)

**Dynamics of privileged processing of straight-ahead visual stimuli in human cortex**

V. Bogdanov (Toulouse)

**Complex selectivity to sounds in inferior colliculus and in primary auditory cortex p {margin-bottom: 0.1in; line-height: 120%}**

J. Bourg (Gif-sur-Yvette)

**The associative parietal cortex in rats: a multimodal motion hub?**

J. Caron-Guyon (Marseille)

**Frequency-dependent short-term synaptic plasticity of GABAergic connections onto lamina II neurons**

L. Catheraut (Strasbourg)

**Targeted cortical manipulation of auditory perception**

S. Ceballo (Gif-sur-Yvette)

**Fear memory engram and its plasticity in the hypothalamic oxytocin system**

A. Charlet (Strasbourg)

**Atypical cortico-subcortical functional connectivity in developmental dyslexia and developmental coordination disorder**

F. Cignetti (La Tronche)

**Prenatal chronic exposure to titanium dioxide nanoparticles alters breathing in neonates**

E. Colnot (Bordeaux)

**Modulatory effects of hand position relative to visual stimulus position on neuronal activity in multiple cortical sensorimotor systems**

M.J. De Haan (Marseille)

**Neural activity in the barrel cortex of freely behaving mice during cortical remapping**

A. De Miranda (Bordeaux)

**Delayed syngeneic transplantation of nasal olfactory stem cells improves locomotion and axogenesis after peroneal nerve injury**

P. Decherchi (Marseille)

**Theta-gamma coupling dynamics in the dentate gyrus across learning of goal-directed spatial navigation**

V. Douchamps (Strasbourg)

**Neural circuit dynamics underlying first-order motion energy perception in the zebrafish larva**

A. Duchemin (Paris)

**Large sway enables cortical sensory facilitation during natural standing: combined behavioral, EEG and microneurographic approaches**

M. Fabre (Marseille)

## Scientific Programme

**Interplay between intact and injured hemispheres in cortical map remodeling and functional recovery after focal ischemic stroke to the primary somatosensory cortex**

J. Facchini (Marseille)

**Spatiotemporal properties of whisker-evoked tactile responses in the mouse secondary somatosensory cortex**

I. Ferezou (Gif sur Yvette)

**Cholecalciferol (vitamin D3) reduces rat neuropathic pain by modulating opioid signaling**

F. Feron (Marseille)

**Combined two-photon imaging and modeling of endogenous and evoked dynamics in the auditory cortex of awake mouse**

A. Filipchuk (Gif sur Yvette Cedex)

**Beta oscillations in a large network during an olfactory discrimination task: what do they signal?**

N. Fourcaud-Trocmé (Bron CEDEX)

**Neuroendocrinology, neuroimmunology**

**In vitro expansion of neural stem cells from adult mouse area postrema is stimulated by the orexigenic ghrelin agonist JMV-2894 and blocked by the anorexigenic hormone leptin**

S. Benharrat-Chaibi (Nouzilly)

**Immunomodulatory functions of endogenous neural stem cells for myelin repair**

B. Brousse (Marseille)

**Role of thyroid hormone in the control of neural stem cell fate throughout life**

L. Butruille (Paris)

**Metabolic dysfunctions and neuro-inflammation responses induced by hypothyroidism**

L. Chamas (Paris)

**Prenatal exposure to testosterone increases anxiety-like behaviour and cortisol levels in Ile-de-France ewe lambs**

M. Chasles (Lille)

**Ablation of microglia exacerbates anorexia induced by the mycotoxin Deoxynivalenol**

M. Dallaporta (Marseille)

**A NALCN-like conductance is critical for the excitability of mouse adrenal chromaffin cells**

N.C. Guérineau (Montpellier)

**Role of the POMC-ventral striatal neurocircuit in the development of diet-induced obesity**

Z. Husson (Bordeaux)

**Tanycyte-AMPK $\alpha$ 1/ $\alpha$ 2 ablation modulates hypothalamic hormone sensitivity**

M. Imbernon (Lille)

**Behaviour, emotions, cognition, neuroethology**

**Brain network dynamics during spontaneous strategy shifts and incremental task optimization**

M. Allegra (Marseille)

**Hippocampal CB1 receptors control obesogenic diet-induced memory impairment**

J. Artinian (Bordeaux)

## Scientific Programme

**Proprioception changes after tool use**

S. Bahmad (Bron)

**Are obesogenic diet-induced memory alterations during adolescence related to changes in amygdalo-hippocampal pathway?**

I. Bakoyiannis (Bordeaux)

**Examining the effects of corticotropin-releasing factor in locus coeruleus (LC) on cortical network activity**

S. Bates (Philadelphia)

**The Broca neurocorrelates of gestural communication in Baboon**

Y. Becker (Marseille)

**Local hippocampal fast gamma rhythms precede brain-wide hyperemic patterns during spontaneous rodent REM sleep**

A. Bergel (Paris)

**Specificity of different chronic stress paradigms on prefrontal cortex-dependent behavior**

S. Bhattacharya (Paris)

**The sense of proximity enhances emotional perception**

O. Bogdanova (Bron)

**Phenotyping of a new mouse model of Alzheimer's disease**

C. Borcuk (Strasbourg)

**Cognitive rehabilitation improves balance in the elderly**

L. Borel (Marseille Cedex 03)

**Dynamic adaptation of hippocampal spatial coding resolution to local 3D objects during virtual navigation**

R. Bourboulou (Marseille)

**Inhibition of B-Glucocerebrosidase activity preserves motor unit integrity in a mouse model of amyotrophic lateral sclerosis**

A. Bouscary (Strasbourg)

**The laterodorsal tegmental nucleus: a new actor in freezing**

L. Broussot (Valbonne)

**Modeling decision-making under uncertainty: a direct comparison study between human and mice gambling data**

L. Cabeza Alvarez (Besançon)

**Ventral midline thalamus lesions prevent persistence of new (learning-triggered) hippocampal spines, delayed neocortical spinogenesis, and spatial memory durability**

J.-C. Cassel (Strasbourg)

**Role of dopamine signalling in the central extended amygdala in the control of fear processing**

L. Castell (Montpellier)

**Noradrenergic modulation of the orbitofrontal cortex mediates behavioral flexibility**

J.-C. Cerpa (Bordeaux)

**Left inferior parietal cortex plays a key role in temporal order processing**

M. Chassignolle (Marseille)

## Scientific Programme

**Involvement of dopaminergic neurons of the prefrontal cortex transmission in goal-directed actions**

A. Contini (Bordeaux)

**Looking for cortical correlates of motor imagery-based brain-computer interface learning**

M.-C. Corsi (Paris)

**EEG profile might be a new objective physiological marker of horses' welfare**

H. Cousillas (Rennes)

**Impaired hippocampal-dependent fear memories despite potentiated fear memory extinction in VGLUT3 knock out mice**

S. Daumas (Paris)

**Very slow (minutes) attentional rhythms in the prefrontal cortex**

C. De Sousa Ferreira (Bron)

**Impact of dietary habits on stress-induced cognitive alterations in healthy adults**

I. Delgado (Bordeaux)

**Different cognitive functioning between high and low creative people underlying by a different attentional network connectivity at rest**

C. Deshayes (Marseille)

**Social dimension of peripersonal space**

A. Dureux (Bron Cedex)

**Lateral habenular dysfunction induces emotional memory deficits**

L. Durieux (Strasbourg)

**Ambiguous learning in drosophila: from behavior to neural networks**

M. Durrieu (Toulouse)

**Glial lipoprotein receptor LSR as potential molecular link between olfactory and memory deficits, and brain cholesterol homeostasis**

A. El Hajj (Vandoeuvre-les-Nancy Cedex)

**The activation of sensory-motor and emotional experience during speech production**

R. Fargier (Aix-en-Provence)

**Altered gene expression in medial prefrontal cortex correlates with social cognition deficits derived from perinatal malnutrition in a mouse model**

E.A. Fesser (Ciudad Autónoma de Buenos Aires)

**Influence of cell types and local circuitry on intrinsic timescales in the midcingulate and lateral prefrontal cortex**

V. Fontanier (Bron)

**Control of conditioned fear memories by the cerebellum**

J.L. Frontera (Paris)

**Pet dogs present social preference for people who synchronize their walk with theirs. Evolutionary perspectives for behavioral synchronization**

F. Gaunet (Marseille Cedex)

**Effect of Panax quinquefolius and/or vitamin C on behavioural and neurobiological impairments induced by the 5-Fluorouracil chemotherapy in mice**

R. Parment (Mont-Saint-Aignan)

## Scientific Programme

### Theoretical and computational neurosciences

#### Parameter analysis in a computational model of the hippocampus

A. Aussen (Vandœuvre-lès-Nancy)

#### Bursting activity in STN-GPe circuit determine the presence of pathological beta oscillations

J. Bahuguna (Marseille)

#### Neural mechanisms underlying economic decisions under sequential offers

S. Ballesta (Strasbourg)

#### A spiking neural-network model of goal-directed behaviour

R. Basanisi (Marseille)

#### The canonic cortical circuit connectome flexibly shapes layer-dependent multi-frequency oscillations

D. Battaglia (Marseille)

#### A non-negative measure of feature-specific information transfer

A. Brovelli (Marseille)

SYMPOSIUM  
11:00 - 13:00

Auditorium

### **S01, Recent insights into neuroepigenetics : epigenetic regulations and brain diseases. / Régulations épigénétiques et maladies du cerveau.**

#### Chairs:

A.-L. Boutillier (Strasbourg)  
K. Merienne (Strasbourg)

#### **Epigenetic etiology of intellectual disability. / Etiologie épigénétique des déficiences intellectuelles.**

A. Barco (San Juan de Alicante)

#### **Altered neuronal identity in Huntington's disease: role of epigenetic mechanisms. / Rôle des mécanismes épigénétiques dans la maladie de Huntington.**

K. Merienne (Strasbourg)

#### **PM20D1 - A disease-relevant chromatin loop in Alzheimer's disease. / PM20D1 - Une conformation de la chromatine associée à la maladie d'Alzheimer.**

J. Sanchez Mut

#### **Epigenetic regulations of allelic gene dosage, implications in neurological disorders. / Régulations épigénétiques du dosage allélique, implications dans les désordres neurologiques.**

L. Marion-Poll (Heidelberg)

#### **Age-dependent decline of TET1-mediated DNA hydroxymethylation impairs myelin regeneration after injury**

S. Moyon (New York City)

## Scientific Programme

SYMPOSIUM  
11:00 - 13:00

Callelongue

### **S02, Autism spectrum disorder and brain dysfunctions. / Troubles du spectre autistique et dysfonctionnements cérébraux.**

**Chairs:**

L. Fasano (Marseille)  
P. Gubellini (Marseille)

**The genetic architecture of autism spectrum disorder. / L'architecture génétique de l'autisme.**

C. Betancur (Paris)

**Tackling the genetic and synaptic heterogeneity in autism from risk to resilience. / Etudier l'hétérogénéité génétique et synaptique dans l'autisme: du risque à la résilience.**

T. Bourgeron (Paris)

**EEG signature of the beneficial effects of slowness in autism. / Une signature EEG des effets bénéfiques de la lenteur dans l'autisme.**

B. Gepner (Marseille)

**Cortical shape analysis for better understanding autism spectrum disorder. / Analyse de forme corticale pour mieux comprendre les troubles du spectre autistique.**

G. Auzias (Marseille)

**Gut microbial metabolite induces autistic-like phenotypes in mouse**

P. Bermudez Martin (Valbonne Sophia Antipolis)

SYMPOSIUM  
11:00 - 13:00

Endoume 1+2

### **S03, Theoretical Neuroscience I - Dynamics, learning and computation. / Neurosciences Théoriques I - Dynamique, apprentissage et computation.**

**Chairs:**

A. Torcini (Cergy-Pontoise)  
S. Ostojic (Paris)

**How to understand neural network dynamics via intracellular dynamics / Comprendre la dynamique des réseaux de neurones via la dynamique intracellulaire**

N. Kraynyukova (Frankfurt am Main)

**Different sites for synaptic storage and their impact on network's memory capacity. / Impact des différents sites synaptiques sur la capacité de mémorisation de réseaux.**

G. Mongillo (Paris)

**Learning in the cerebellum. / Apprentissage dans le cervelet.**

V. Hakim (Paris)

## Scientific Programme

**Linking connectivity, dynamics and computations in networks of neurons.  
/ Connectivité, dynamique et computations dans les réseaux neuronaux.**

S. Ostojic (Paris)

**Synaptic scaling to maintain neuronal dynamics and propagate information**

J. Barral (Paris)

SYMPOSIUM  
11:00 - 13:00

Endoume 3

**S04, New insights in the hypothalamic regulation of energy metabolism by neuropeptides. / Nouveaux concepts dans la régulation hypothalamique du métabolisme énergétique par les neuropeptides. Supported by Bio-Techne**

**Chairs:**

C. Rovère (Valbonne)

N. Chartrel (Mont-St-Aignan)

**Central control of feeding and systemic insulin sensitivity**

S. Steculorum (Köln)

**Regulation of feeding behaviour by a neuropeptide-like protein produced by gut bacteria. / Les bactéries intestinales régulent le comportement alimentaire par une protéine mimétique d'un neuropeptide.**

S. Fetissov (Mont-St-Aignan)

**Impact of nutritional lipids on glial remodeling and neurons activity in the hypothalamus / Impact des lipides nutritionnels sur le remodelage glial et l'activité des neurones dans l'hypothalamus**

C. Cansell (Valbonne)

**Galanin neurons in the lateral hypothalamus - Modulator of food reward and non compulsive locomotion. / Les neurones à galanine de l'hypothalamus latéral, nouveaux modulateurs du circuit de la récompense alimentaire.**

H. Münzberg (Baton Rouge)

**The chemokine ccl5, a key regulator of neuroinflammation and type 2 diabetes associated with diet-induced obesity**

K. Stobbe (Valbonne)

SYMPOSIUM  
11:00 - 13:00

Riou

**S05, From neurogenesis to neural circuits: novel insights from the visual system. / De la neurogenèse aux circuits neuronaux : nouvelles perspectives du système visuel.**

**Chairs:**

K.T. Nguyen-Ba-Charvet (Paris)

A. Rebsam (Paris)

## Scientific Programme

**Müller glial cell reactivation in the retina. / Réactivation des cellules gliales de Müller dans la rétine.**

M. Perron (Orsay)

**Dissecting neural circuits development in the zebrafish visual system. / Dissection du développement des circuits neuronaux du système visuel de Zebrafish.**

F. Del Bene (Paris)

**Molecular Mechanisms controlling axon guidance at the optic chiasm. / Mécanismes moléculaires contrôlant le guidage axonal au chiasma optique.**

E. Herrera (Alicante)

**A mechanism of visual map alignment: principle and model. / Un mécanisme d'alignement des cartes visuelles : principe et modélisation**

M. Reber (Toronto)

**Revisiting the role Of DCC in the visual system**

R. Vigouroux (Paris)

SYMPOSIUM  
11:00 - 13:00

Sormiou

**S06, Closed-loop neuroscience: a new paradigm for the embodied brain. / Neuroscience à boucle fermée : un nouveau paradigme pour le cerveau incarné.**

**Chairs:**

L. Bourdieu (Paris)  
C. Léna (Paris)

**Closed-loop perception. / Perception en boucle fermée.**

E. Ahissar (Rehovot)

**Closed-Loop Estimation of Retinal Network Sensitivity by Local Empirical Linearization. / Estimation en boucle fermée de la sensibilité du réseau rétinien par linéarisation empirique locale.**

U. Ferrari (Paris)

**A closed-loop brain machine interface: Integrating sensory feedback in a motor neuroprosthesis. / Une interface cerveau-machine à boucle fermée: intégration d'un retour sensoriel dans une neuroprothèse motrice.**

V. Ego-Stengel (Gif sur Yvette)

**From bodily self-consciousness to cognitive neuroprosthetics. / De la conscience incarnée à la neuroprothétique cognitive.**

O. Blanke (Genève)

**Non-invasive real-time access to spatial attention information from 3T fMRI BOLD signals: proof of concept and what does it tell us about attentional mechanisms?**

C. Lorient (Bron)



## Scientific Programme

SYMPOSIUM  
11:00 - 13:00

Morgiou

### **S07, Shaping and Imaging CNS myelin. / Les nouvelles techniques d'imagerie de la Myéline. Supported by NeurATRIS and Fondation ARSEP**

**Chairs:**

P. Durbec (Marseille)  
B. Stankoff (Paris)

**Ca<sup>2+</sup> activity signatures of myelin sheath formation and growth in vivo. / Rôle de l'activité calcique dans la formation de la Myéline in vivo.**

M. Baraban (Edinburgh)

**Dynamic intravital imaging of myelin and neurodegeneration in the mouse spinal cord. / Imagerie intravitale de la Myéline et de la neurodégénérescence dans la moelle épinière chez la souris.**

F. Debarbieux (Marseille)

**In vivo Myelin MRI using inhomogeneous Magnetization Transfer. / Le transfert d'aimantation inhomogène: nouvelle technique IRM d'imagerie de la Myéline.**

G. Duhamel (Marseille)

**Measuring myelin loss and repair in patients: limits and perspectives of magnetic resonance and molecular imaging. / Perte et réparation de la myéline chez les patients: limites et perspectives de l'IRM et de l'imagerie moléculaire.**

B. Bodini (Paris)

**Dynamic events in early node-like clustering and myelination in vitro**

A. Desmazieres (Paris)

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
13:00 - 17:30

Foyer

### **P1, Poster session 1**

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

**Development, synaptic plasticity**

**Lis1 progenitor mechanisms contribute to cortical malformations**

R. Belvindrah (Paris)

**Local control of protein synthesis for cortical inhibitory wiring**

C. Bernard (London)

**Organization and role of actin at the presynapse**

D. Bingham (Marseille)

## Scientific Programme

**Unique properties of early-born GABAergic cells in the developing and adult hippocampus**

M. Bocchio (Marseille)

**Time course of  $\alpha$ -actinin-2 expression within the dentate gyrus during epileptogenesis in the rat pilocarpine model of mesial temporal lobe epilepsy suggests its role in dendritic spines plasticity of hippocampal granule cells**

A. Bole (Marseille)

**Heavytail stories: GABAergic topologies during development**

Y. Bollmann (Marseille)

**Selective axonal distribution of the Kv1 channel complex in pre-myelinated GABAergic neurons**

G. Bonetto (Marseille)

**Regulation of AMPAR intracellular transport through its interaction with 4.1N**

C. Bonnet (Bordeaux Cedex)

**Transient receptor potential cation channel subfamily M member 5 (TRPM5) activation is required for thermosensitive plateau potentials in lumbar motoneurons contributing to postural control**

R. Bos (Marseille)

**Elucidating the function of Huntingtin in the postnatal maturation of brain activity**

B. Braz (La Tronche)

**Proteomic study of Huntington's disease growth cone: identification of new players in axonal growth**

M. Capizzi (La tronche)

**Role of Huntingtin in axonal growth of cortical neurons**

R. Carpentier (La Tronche)

**The source of enkephalin release in the hippocampal area CA2**

S. Cassim (Paris)

**Linking embryonic origin and pyramidal cell diversity in hippocampal CA1**

D. Cavalieri (Marseille)

**Identification of new protein partners of the serotonin 5-HT<sub>6</sub> receptor involved in its neurodevelopmental functions**

S. Chaumont Dubel (Montpellier Cedex)

**Control of neural stem cell specification in the postnatal forebrain by antagonist function of Vax1 and Pax6**

N. Coré (Marseille)

**Role of synaptic plasticity in AMPA receptor intracellular trafficking**

F. Coussen-Choquet (Bordeaux)

**Emergence of cell assemblies in the developing hippocampus**

R.F. Dard (Marseille)

**Role of omega-3 derivatives in synaptic plasticity**

M. Di Miceli (Bordeaux)

## Scientific Programme

**Development of nanoscopic correlative imaging (X-ray/photonic) to study the role of metals in the neuronal cytoskeleton**

F. Domart (Bordeaux)

**3D analysis of neural network remodeling in pancreatic cancer**

C. Dominici (Marseille)

**Roles of Nav1.6 channels into the operation of the spinal locomotor network**

B. Drouillas (Marseille)

**Complement C4 overexpression in the mouse prefrontal Cortex recapitulates schizophrenia-associated endophenotypes**

M. Druart (Paris)

**Beyond the looking glass in the Congenital Mirror Movement paradigm: a single pathway for RAD51, NTN1 and DCC in the development of the nervous system?**

C. Dubacq (Paris)

**Neuroprotective effect of maternal polyphenol supplementation during hypoxia-ischemia of the newborn**

U. Dumont (Bordeaux)

**Spatio-temporal pattern of serotonin 5-HT<sub>6</sub> receptors expression during neurodevelopment: potential role in wiring neuronal networks**

V. Dupuy (Montpellier)

**Early pathological signs of hypoexcitability are specific to delayed-onset firing motoneurons in superoxide dismutase 1 (SOD1) postnatal mice**

J. Durand (Marseille)

**Signalisation, cellular communications**

**Functional impact of TCF12 mutation in oligodendrogliomas**

S. Achonditi (Paris)

**Chronic stress suppresses hippocampal neurogenesis via the CDK5-Huntingtin pathway**

F. Agasse (La Tronche)

**Fast 3D acquisition of neuronal activity in visual cortex across multiple layers in awake mice**

W. Akemann (Paris)

**Dopamine and glutamate receptor heteromers: modulation and roles in cocaine-evoked adaptations**

A. Andrianarivelo (Paris)

**A possible link between KCNQ2- and STXBP1-related encephalopathies: STXBP1 reduces the inhibitory impact of syntaxin-1A on M current**

L. Aniksztejn (Marseille)

**Oxidative stress-induced disulfide dimerization of neuronal calcium sensor proteins**

V. Baksheeva (Moscow)

**Influence of the fungal anorexigenic toxin DON on the ER stress status in hypothalamus and liver**

R. Barbouche (Marseille)

## Scientific Programme

**Role of GABAergic synapses of oligodendrocyte progenitors in regulating axonal myelination and function of cortical parvalbumin interneurons**

N. Benamer (Paris)

**Molecular and functional characterization of LIMK2-1, a hominidae-specific isoform of LIMK2 associated with intellectual disability**

H. Bénédetti (Orléans Cedex)

**Neurobeachin and the kinesin KIF21B are critical for endocytic recycling of NMDA receptors and regulate social behavior**

K. Brune (Hamburg)

**The dendritic Ca<sup>2+</sup> and K<sup>+</sup> currents associated with the climbing fibre synaptic potential in the cerebellar Purkinje neuron**

M. Canepari (Saint Martin d'Herès)

**Vesicular treadmilling in axons defines how synapses adapt to high neuronal demand**

M. Cazorla (Grenoble)

**Role of the WNK-SPAK-OSR1 signaling pathway in neuronal chloride homeostasis and in epilepsy**

E. Côme (Paris)

**Gene expression profiling and pathway analysis in brain-derived microvascular endothelial cells treated with TWEAK and TNF cytokines**

J.-P. Dales (Marseille)

**Role of Pyk2 in the nucleus accumbens D1 neurons in acute locomotor effects of cocaine**

B. De Pins (Paris)

**Impact of membrane composition in polyunsaturated fatty acids on dopamine D2 receptor affinity and signaling**

V. De Smedt-Peyrusse (Bordeaux)

**KCC2 enhancers: targeting neuronal chloride transport in temporal lobe epilepsy**

F. Donneger (Paris)

**Effect chitinase 3-like protein 1 on oligodendrocyte precursor cells proliferation and differentiation in vitro**

L. du Trieu de Terdonck (Montpellier)

**Direct and non-invasive probing of the polarity of perisomatic GABAergic transmission in the adult mouse hippocampus in vivo**

O. Dubanet (Bordeaux)

**Helping analgesia by targeting the serotonin 5-HT<sub>7</sub> receptor**

C. El Khamlichi (Orléans)

**Identification of the underlying pathogenic pathways in a mouse model in Hereditary Spastic Paraplegia SPG11 through transcriptional study**

T. Esteves (Paris)

**The role of monocarboxylate transporter-1 on cognitive deficits development during non-alcoholic fatty liver disease**

A. Hadjichambi (Lausanne)

**Neurological and psychiatric diseases, experimental therapeutics**

## Scientific Programme

**Pre-clinical evaluation of checkpoint inhibitor immunotherapy in GBM implementing ultrasound Mediated blood-brain barrier opening (UMBO)**

M. Ahmed (Paris)

**Preliminary study of the prevalence of the G2019S mutation in the Leucine-Rich Repeat Kinase-2 gene in patients with parkinson's disease in the South-West of Morocco**

S. Ait Wahmane (Agadir)

**Epigenetic control of brain wiring: role of axonal miRNAs in fetal alcohol spectrum disorders**

M. Altounian (Marseille)

**Role of Tshz3 in the development and function of corticostriatal connections and its involvement in ADS-like behavior**

E. Arbeille (Marseille)

**Human induced pluripotent stem cell-based Alzheimer's disease modeling reveals APOE4 as a modulator of inflammation**

L. Arnaud (Marseille)

**Sucrose bingeing alters reward processing: role of mu opioid receptors**

G. Awad (Strasbourg)

**Molecular mechanisms underlying altered epigenetic regulation in Huntington's disease: role of SRF**

A. Awada (Strasbourg)

**Gene therapy for spinocerebellar ataxia 7: restauring cholesterol metabolism**

E.-G. Banchi (Paris)

**The pro-amyloidogenic effects of membrane-type-matrix metalloproteinase involve MMP-2 and BACE-1 activities, and the modulation of APP trafficking**

K. Baranger (Marseille)

**Conditional inactivation of the translation initiation factor eif2b5 gene in oligodendrocytes induced a delayed acute neurological distress**

A. Bark (Paris)

**Early events in cytomegalovirus infection of the developing rat brain: a pathophysiological role for viral chemokine r129?**

S. Bauer (Marseille Cedex 09)

**Role of the BLA-ACC pathway in major depressive disorder**

L.J. Becker (Strasbourg)

**Facilitating glutamate mGlu4 receptor activity relieves autistic-like deficits in Fmr1 knockout mice**

J.A. Becker (Nouzilly)

**Major depression: metabolomic signature of treatment response and of remission**

C. Belzung (Tours)

**Repeated inhalation of aerosols containing titanium dioxide nanoparticles reveals potential neurotoxicity in mouse**

A. Bencsik (Lyon)

**Short-term memory deficits and CA3 hippocampal damage in a murine model of lupus**

M. Bendorius (Illkirch)

## Scientific Programme

**Links between Parkinson's disease, dopaminergic agonist treatment and cognitive flexibility**

M. Benoitmarand (Poitiers)

**Characterization of glioblastoma stem cells: identification of factors involved in their transcriptome regulation**

N. Berabez (Lyon)

**The mGlu7 receptor provides protective effects against epileptogenesis and epileptic seizures**

F. Bertaso (Montpellier)

**Variable selection using machine-learning to identify new signatures of patient-derived aggregated  $\alpha$ -synuclein-induced neurodegeneration in non-human primates**

E. Bezard (Bordeaux)

**Ex-vivo electrophysiological analysis of a mouse model carrying a KCNQ2 variant associated with early epileptic encephalopathy**

N. Biba (Marseille)

**Deciphering preventive action of vitamin A on Alzheimer's disease pathology**

E. Biyong (Bordeaux)

**Neuro-microglial communication contributes to the detrimental role of adenosine A2A receptors in Alzheimer's disease**

D. Blum (Lille)

**Mimicking schizophrenia symptoms in mice by combining factors: genetic, early environmental stress and late pharmacological conditioning**

V. Bouet (Caen)

**Regulation of dopamine and endocannabinoid transcripts in reward and homeostatic brain regions following diet-induced obesity in rats: a cluster analysis approach**

R. Bourdy (Strasbourg)

**Complement-C3-dependent alterations of the dentate gyrus are involved in memory deficit at the early stage of experimental multiple sclerosis**

J. Bourel (Bordeaux)

**Ganglioside accumulation in a model of slowly progressive Amyotrophic Lateral Sclerosis**

J. Branchu (Paris)

**Stable analogue of diadenosine-polyphosphates, AppCH2ppA, suppresses epilepsy by enhancing adenosine signaling in neocortex**

N. Burnashev (Marseille)

**Hippocampal rhythmic activity modifications associated to epileptogenesis and ictogenesis in a mouse model (Scn1aR1648/+) of genetic epilepsy**

F. Capitano (Sophia Antipolis - Valbonne)

**Effect of anti-VEGF treatment on the innate immune response in a mouse model of multiple sclerosis**

C. Caravagna (Marseille)

**Brain insulin sensitivity and peripheral metabolic changes in Tau transgenic mice**

K. Carvalho (Lille)

## Scientific Programme

**A new conditional mouse model allowing the adult truncation of FUS-PY NLS domain to study ALS-FTD**

R. Cassel (Strasbourg)

**Re-expression of the neurodevelopmental protein filamin A in glioblastoma: major impact on tumor proliferation and invasiveness**

H. Castel (Mont Saint Aignan)

**Pathogenicity of TDP-43 fragments in Amyotrophic Lateral Sclerosis**

A. Chami (Tours)

**The role of dopamine in nociceptive transmission in a rat model of Parkinson's disease**

K.-A. Charles (Bordeaux)

**Therapeutic potential of the Bornavirus X protein and X-derived peptide in amyotrophic lateral sclerosis**

S. Chevallier (Bordeaux)

**Novel high throughput tools for detecting age associated epigenetic changes in liquid biopsies**

S. Chlamydas (La Hulpe)

**Pyramidal neuron growth and increased hippocampal volume during labor and birth in autism**

R. Cloarec (Marseille)

**Ethosuximide modulation of GIRK channels ameliorates the aberrant neuronal activity underlying GNB1 syndrome: a precision medicine approach**

S. Colombo (New York)

**Effect of NFκB inhibitors on reconsolidation of memories associated with cocaine self-administration**

C. Correia (Strasbourg)

**Glypican4 as a target for innovative cell based replacement therapy in Parkinson's disease**

S. Corti (Marseille Cedex 09)

**Recovery of BDNF/TrkB signaling by P42 peptide in Huntington's disease: from BDNF transport to TrkB reception**

S. Couly (Montpellier)

**Genetic architecture of bipolar disorder in multiplex families**

E. Courtois (Créteil)

**Effects of deep brain stimulation on speech clinical assessment and acoustic features in Isolated Generalized Dystonia**

M.-C. Cuartero (Aix En Provence)

**Dissecting the dynamics of DNA damage repair as a vital component to neuronal development and maintenance in Huntington's disease**

J. Dancourt (Paris)

**Inhibition of Tau aggregation by targeting its nucleation core with a camelid heavy-chain-only antibody**

C. Danis (Lille)

**Development of a Tau seeding mice model in the P301S-PS19 transgenic mouse**

G. Das Dores (Croissy sur Seine)

## Scientific Programme

**Cocaine-induced epigenetic modifications of the endocannabinoid system in brain reward regions**

D. De Sa Nogueira (Strasbourg)

**Integrative neurosciences, sensory physiology**

**The role of external tufted cells in olfactory processing**

A. Angelova (Marseille)

**Specific reorganization of striatal network dynamics during habit formation**

N. Badreddine (Grenoble)

**Cholinergic-dependent slow-wave activity in the claustrum in vitro**

T. Bal (Gif-sur-Yvette)

**Cortical recruitment determines learning dynamics and strategy**

B. Bathellier (Gif sur Yvette)

**Implication of the cortico-spinal pathway in sensory-motor control**

C. Bichara (Strasbourg)

**Dynamics of privileged processing of straight-ahead visual stimuli in human cortex**

V. Bogdanov (Toulouse)

**Complex selectivity to sounds in inferior colliculus and in primary auditory cortex p {margin-bottom: 0.1in; line-height: 120%}**

J. Bourg (Gif-sur-Yvette)

**The associative parietal cortex in rats: a multimodal motion hub?**

J. Caron-Guyon (Marseille)

**Frequency-dependent short-term synaptic plasticity of GABAergic connections onto lamina II neurons**

L. Cathenaut (Strasbourg)

**Targeted cortical manipulation of auditory perception**

S. Ceballo (Gif-sur-Yvette)

**Fear memory engram and its plasticity in the hypothalamic oxytocin system**

A. Charlet (Strasbourg)

**Atypical cortico-subcortical functional connectivity in developmental dyslexia and developmental coordination disorder**

F. Cignetti (La Tronche)

**Prenatal chronic exposure to titanium dioxide nanoparticles alters breathing in neonates**

E. Colnot (Bordeaux)

**Modulatory effects of hand position relative to visual stimulus position on neuronal activity in multiple cortical sensorimotor systems**

M.J. De Haan (Marseille)

**Neural activity in the barrel cortex of freely behaving mice during cortical remapping**

A. De Miranda (Bordeaux)

**Delayed syngeneic transplantation of nasal olfactory stem cells improves locomotion and axogenesis after peroneal nerve injury**

P. Decherchi (Marseille)



## Scientific Programme

**Theta-gamma coupling dynamics in the dentate gyrus across learning of goal-directed spatial navigation**

V. Douchamps (Strasbourg)

**Neural circuit dynamics underlying first-order motion energy perception in the zebrafish larva**

A. Duchemin (Paris)

**Large sway enables cortical sensory facilitation during natural standing: combined behavioral, EEG and microneurographic approaches**

M. Fabre (Marseille)

**Interplay between intact and injured hemispheres in cortical map remodeling and functional recovery after focal ischemic stroke to the primary somatosensory cortex**

J. Facchini (Marseille)

**Spatiotemporal properties of whisker-evoked tactile responses in the mouse secondary somatosensory cortex**

I. Ferezou (Gif sur Yvette)

**Cholecalciferol (vitamin D3) reduces rat neuropathic pain by modulating opioid signaling**

F. Feron (Marseille)

**Combined two-photon imaging and modeling of endogenous and evoked dynamics in the auditory cortex of awake mouse**

A. Filipchuk (Gif sur Yvette Cedex)

**Beta oscillations in a large network during an olfactory discrimination task: what do they signal?**

N. Fourcaud-Trocmé (Bron CEDEX)

**Neuroendocrinology, neuroimmunology**

**In vitro expansion of neural stem cells from adult mouse area postrema is stimulated by the orexigenic ghrelin agonist JMV-2894 and blocked by the anorexigenic hormone leptin**

S. Benharrat-Chaibi (Nouzilly)

**Immunomodulatory functions of endogenous neural stem cells for myelin repair**

B. Brousse (Marseille)

**Role of thyroid hormone in the control of neural stem cell fate throughout life**

L. Butruille (Paris)

**Metabolic dysfunctions and neuro-inflammation responses induced by hypothyroidism**

L. Chamas (Paris)

**Prenatal exposure to testosterone increases anxiety-like behaviour and cortisol levels in Ile-de-France ewe lambs**

M. Chasles (Lille)

**Ablation of microglia exacerbates anorexia induced by the mycotoxin Deoxynivalenol**

M. Dallaporta (Marseille)

**A NALCN-like conductance is critical for the excitability of mouse adrenal chromaffin cells**

N.C. Guérineau (Montpellier)

**Role of the POMC-ventral striatal neurocircuit in the development of diet-induced obesity**

Z. Husson (Bordeaux)

## Scientific Programme

**Tanycyte-AMPK $\alpha$ 1/ $\alpha$ 2 ablation modulates hypothalamic hormone sensitivity**

M. Imbernon (Lille)

**Behaviour, emotions, cognition, neuroethology**

**Brain network dynamics during spontaneous strategy shifts and incremental task optimization**

M. Allegra (Marseille)

**Hippocampal CB1 receptors control obesogenic diet-induced memory impairment**

J. Artinian (Bordeaux)

**Proprioception changes after tool use**

S. Bahmad (Bron)

**Are obesogenic diet-induced memory alterations during adolescence related to changes in amygdalo-hippocampal pathway?**

I. Bakoyiannis (Bordeaux)

**Examining the effects of corticotropin-releasing factor in locus coeruleus (LC) on cortical network activity**

S. Bates (Philadelphia)

**The Broca neurocorrelates of gestural communication in Baboon**

Y. Becker (Marseille)

**Local hippocampal fast gamma rhythms precede brain-wide hyperemic patterns during spontaneous rodent REM sleep**

A. Bergel (Paris)

**Specificity of different chronic stress paradigms on prefrontal cortex-dependent behavior**

S. Bhattacharya (Paris)

**The sense of proximity enhances emotional perception**

O. Bogdanova (Bron)

**Phenotyping of a new mouse model of Alzheimer's disease**

C. Borcuk (Strasbourg)

**Cognitive rehabilitation improves balance in the elderly**

L. Borel (Marseille Cedex 03)

**Dynamic adaptation of hippocampal spatial coding resolution to local 3D objects during virtual navigation**

R. Bourboulou (Marseille)

**Inhibition of B-Glucocerebrosidase activity preserves motor unit integrity in a mouse model of amyotrophic lateral sclerosis**

A. Bouscary (Strasbourg)

**The laterodorsal tegmental nucleus: a new actor in freezing**

L. Broussot (Valbonne)

**Modeling decision-making under uncertainty: a direct comparison study between human and mice gambling data**

L. Cabeza Alvarez (Besançon)

## Scientific Programme

**Ventral midline thalamus lesions prevent persistence of new (learning-triggered) hippocampal spines, delayed neocortical spinogenesis, and spatial memory durability**

J.-C. Cassel (Strasbourg)

**Role of dopamine signalling in the central extended amygdala in the control of fear processing**

L. Castell (Montpellier)

**Noradrenergic modulation of the orbitofrontal cortex mediates behavioral flexibility**

J.-C. Cerpa (Bordeaux)

**Left inferior parietal cortex plays a key role in temporal order processing**

M. Chassignolle (Marseille)

**Involvement of dopaminergic neurons of the prefrontal cortex transmission in goal-directed actions**

A. Contini (Bordeaux)

**Looking for cortical correlates of motor imagery-based brain-computer interface learning**

M.-C. Corsi (Paris)

**EEG profile might be a new objective physiological marker of horses' welfare**

H. Cousillas (Rennes)

**Impaired hippocampal-dependent fear memories despite potentiated fear memory extinction in VGLUT3 knock out mice**

S. Daumas (Paris)

**Very slow (minutes) attentional rhythms in the prefrontal cortex**

C. De Sousa Ferreira (Bron)

**Impact of dietary habits on stress-induced cognitive alterations in healthy adults**

I. Delgado (Bordeaux)

**Different cognitive functioning between high and low creative people underlying by a different attentional network connectivity at rest**

C. Deshayes (Marseille)

**Social dimension of peripersonal space**

A. Dureux (Bron Cedex)

**Lateral habenular dysfunction induces emotional memory deficits**

L. Durieux (Strasbourg)

**Ambiguous learning in drosophila: from behavior to neural networks**

M. Durrieu (Toulouse)

**Glial lipoprotein receptor LSR as potential molecular link between olfactory and memory deficits, and brain cholesterol homeostasis**

A. El Hajj (Vandoeuvre-les-Nancy Cedex)

**The activation of sensory-motor and emotional experience during speech production**

R. Fargier (Aix-en-Provence)

**Altered gene expression in medial prefrontal cortex correlates with social cognition deficits derived from perinatal malnutrition in a mouse model**

E.A. Fesser (Ciudad Autónoma de Buenos Aires)

## Scientific Programme

**Influence of cell types and local circuitry on intrinsic timescales in the midcingulate and lateral prefrontal cortex**

V. Fontanier (Bron)

**Control of conditioned fear memories by the cerebellum**

J.L. Frontera (Paris)

**Pet dogs present social preference for people who synchronize their walk with theirs. Evolutionary perspectives for behavioral synchronization**

F. Gaunet (Marseille Cedex)

**Effect of Panax quinquefolius and/or vitamin C on behavioural and neurobiological impairments induced by the 5-Fluorouracil chemotherapy in mice**

R. Parment (Mont-Saint-Aignan)

**Theoretical and computational neurosciences**

**Parameter analysis in a computational model of the hippocampus**

A. Aussenel (Vandœuvre-lès-Nancy)

**Bursting activity in STN-GPe circuit determine the presence of pathological beta oscillations**

J. Bahuguna (Marseille)

**Neural mechanisms underlying economic decisions under sequential offers**

S. Ballesta (Strasbourg)

**A spiking neural-network model of goal-directed behaviour**

R. Basanisi (Marseille)

**The canonic cortical circuit connectome flexibly shapes layer-dependent multi-frequency oscillations**

D. Battaglia (Marseille)

**A non-negative measure of feature-specific information transfer**

A. Brovelli (Marseille)

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Callelongue

**SP01, Big data strategies applied to neuroscience: for better or for worse? / Les stratégies big data appliquées aux neurosciences : pour le meilleur ou pour le pire ?**

**Chairs:**

G. Masson (Marseille)

J. Epsztein (Marseille)

**Industrialisation of neuroscience and artificial intelligence: from brain simulation to transhumanism. / Industrialisation des neurosciences et intelligence artificielle : de la simulation du cerveau au transhumanisme.**

Y. Frégnac (Gif-sur-Yvette)

**A road ahead: Big Data meets mechanistic modeling and emergent behavior / Une voie de l'avenir: quand Big Data, modélisation et propriétés émergentes se rencontrent**

V. Jirsa (Marseille)

NeuroFrance 2019,  
22 - 24 May 2019,  
Marseille, France

## Scientific Programme

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Endoume 1+2

### **SP02, How to succeed outside academia? / Faire carrière en dehors de la recherche académique**

Five speakers will present their career paths and participate in a roundtable around the following questions:

- How did you experience the transition to the non-academic world?
- Did you need to take further training?
- What skills should one emphasize to get hired in your field?
- What makes a good professional network?

The five invited professionals are:

- Joachim Confais, Chief Scientific Officer at Cynbiose
- Sébastien Jeanjean, Export Manager at Agilent Technologies
- Karine Langou, Business Manager at Institut NeuroMyoGène
- Raphaël Hitier, author and journalist, film director for Arte, animator at the French Biodiversity Agency
- Claire Lecroisey, Training and applications scientist at Promega

An HR expert from Adoc Talent Management will conclude briefly on how to succeed outside academia.

This session will be chaired by Julie Peyronnet-Roux, Aix-Marseille University lecturer in charge of professionalization at NeuroSchool.

#### **Chairs:**

J. Peyronnet-Roux

SYMPOSIUM  
15:30 - 17:30

Auditorium

### **S08, Essential role of glial cells for neuronal activity: from image to function. / Rôle essentiel des cellules gliales pour l'activité neuronale: de l'image à la fonction.**

#### **Chairs:**

A.-K. Bouzier-Sore (Bordeaux)  
A. Panatier (Bordeaux)

**Astrocytic glutamate uptake drives brain glucose utilization. / La recapture du glutamate par l'astrocyte module l'utilisation cérébrale du glucose.**

L. Pellerin (Lausanne)

**Importance of neuron-astrocyte metabolic coupling: from functional brain imaging to neuroprotection. / Importance du couplage métabolique neurone-astrocyte: de l'imagerie fonctionnelle à la neuroprotection.**

A.-K. Bouzier-Sore (Bordeaux)

**L-serine, at the interface in between metabolism and synaptic activity. / La L-sérine, à l'interface entre le métabolisme et l'activité synaptique.**

A. Panatier (Bordeaux)

## Scientific Programme

**Tanycyte shuttles and networks are involved in the control of energy homeostasis / Les transports et les réseaux tanycytaires sont impliqués dans le contrôle de l'homéostasie énergétique**

V. Prévot (Lille)

**Two-Photon and Functional Ultrasound Transfer Functions: from neuronal calcium to local capillary and regional vascular responses**

D. Boido (Paris)

SYMPOSIUM  
15:30 - 17:30

Callelongue

### **S09, The integrative functions of the prefrontal cortex: an update. / Les fonctions intégratives du cortex préfrontal: une mise à jour.**

**Chairs:**

E. Coutureau (Bordeaux)

**Rostro-caudal anatomo-functional organization of the human frontal cortex: an update. / Organization anatomo-fonctionnelle rostro-caudale du cortex frontal chez l'homme.**

C. Amiez (Bron)

**Interdependence of the function, sulcal morphology and connectivity of the orbital and ventro-medial prefrontal cortices / Interdépendance des fonctions, morphologies sulcales et profils de connectivité du cortex préfrontal orbital et ventro-médian**

A. Lopez-Persem (Oxford)

**Cortical determinants of goal-directed behaviour in rodents. / Contrôle cortical des réponses dirigées vers un but chez le rongeur.**

S.L. Parkes (Bordeaux)

**Encoding of value based decision-making across medial prefrontal regions in monkeys. / Rôle du Cortex Préfrontal médian dans l'encodage de la valeur lors de la prise de décision chez le primate non-humain.**

E. Levy (Paris)

**Distinct prefrontal neural ensembles contribute differentially to the inference of hidden states**

F. Cazes (Lisbon)

SYMPOSIUM  
15:30 - 17:30

Endoume 1+2

### **S10, Critical periods for postnatal cortical development: Current transversal views. / Périodes critiques pour le développement postnatal du cortex: avancées actuelles.**

**Chairs:**

A. Teissier (Paris)

P. Gaspar (Paris)

## Scientific Programme

**Sonic Hedgehog signaling regulates the developmental shift of GABA polarity in rat somatosensory cortex**

Q. Delmotte (Marseille)

**Embryonic oligodendrocyte progenitors form postnatal functional clusters with their lineage-related interneurons. / Les progéniteurs embryonnaires d'oligodendrocytes se regroupent avec les interneurons du même lignage.**

M.-C. Angulo (Paris)

**The visual cortex as window onto typical and atypical neuronal development. / Le cortex visuel: une fenêtre sur le développement neuronal normal et pathologique.**

T. Pizzorusso (Firenze)

**Genetic and pharmacological perturbation of serotonin signaling and postnatal cortical development: similarities and dissimilarities. / Perturbations génétiques et pharmacologiques de la signalisation sérotoninergique et du développement cortical: points communs et divergences.**

J. Homberg (Nijmegen)

**Cognitive ontogeny in health and mental illness: a story of right communication. / Ontogénèse de la cognition normale et pathologique: une histoire de communication.**

I. Hanganu-Opatz (Hamburg)

SYMPOSIUM  
15:30 - 17:30

Endoume 3

### **S11, From microtubule dynamics to neuronal functions. / Dynamique des microtubules et fonctions neuronales.**

**Chairs:**

A. Andrieux (Grenoble)

**Imbalance of tubulin posttranslational modifications causes neurodegeneration. / Des défauts des modifications posttraductionnelles de la tubuline à la base de processus de neurodégénérescence.**

M. Magiera (Orsay)

**Tubulin detyrosination by vasohibins-SVBP is crucial to neuron and brain / La détyrosination de la tubuline par les vasohibines-SVBP est cruciale pour les neurones et le cerveau**

M.J. Moutin (Grenoble)

**Fidgetin-like 1, a versatile regulator of MT dynamics required for motor circuit wiring. / Fidgetin-like 1, un régulateur de la dynamique des microtubules crucial pour le guidage axonal.**

C. Fassier (Paris)

**Acentrosomal microtubule organizing centers in mouse and human neural stem cells**

A. Baffet (Paris)

## Scientific Programme

**The axonal cytoskeleton: a nanoscale view / Le cytosquelette axonal à l'échelle nanoscopique.**

C. Leterrier (Marseille)

SYMPOSIUM  
15:30 - 17:30

Riou

**S12, The cerebellum in neurological and psychiatric disorders. / Le cervelet et les troubles psychiatriques et neurologiques**

**Chairs:**

M. Jaber (Poitiers)

**Motor impairments correlate with social deficits and cerebellar neuronal loss in animal models of autism spectrum disorder. / Les troubles moteurs corrélatent avec le déficit social et la perte neuronale cérébelleuse dans des modèles animaux de troubles du spectre autistique.**

M. Jaber (Poitiers)

**Implicit timing and the cerebellum : implications for the understanding of schizophrenia. / Temps implicite et cervelet: implications pour la compréhension de la schizophrénie.**

P. Isope (Strasbourg)

**Bidirectional control of fear memories by the cerebellum / Contrôle bidirectionnel de la mémoire de peur par le cervelet**

D. Popa (Paris)

**Brain repair following cerebellar LI-rTMS treatment. / Réparation du cerveau après traitement cérébelleux au LI-rTMS.**

R. Sherrard (Paris)

**Cerebellar dopamine D2 receptor regulates social behavior and anxiety**

L. Cutando Ruiz (Montpellier)

SYMPOSIUM  
15:30 - 17:30

Sormiou

**S13, Circadian clocks: role in brain function. / Horloges circadiennes: rôle dans le fonctionnement cérébral.**

**Chairs:**

E. Challet (Strasbourg)

**Molecular bases of circadian clocks. / Bases moléculaires des horloges circadiennes.**

A.-M. François-Bellan (Marseille)

**Neuronal basis of sleep-wake rhythms in Drosophila / Bases neuronales des rythmes veille-sommeil chez la Drosophile**

F. Rouyer (Gif-sur-Yvette)



## Scientific Programme

**A network of circadian clocks underlying retinal health and visual function. / Un réseau d'horloges circadiennes sous-tend le fonctionnement rétinien et la vision.**

M.-P. Felder-Schmittbuhl (Strasbourg)

**Role of the suprachiasmatic clock in physiology and behavior. / Rôle de l'horloge suprachiasmatic dans les fonctions physiologiques et comportementales.**

U. Albrecht (Fribourg)

**Sensory circuits of internal clock**

J. Carcaud (Gif sur Yvette Cedex)

SYMPOSIUM  
15:30 - 17:30

Morgiou

### **S14, The revival of neuropsychiatry: a neuroscientific evidence - Symposium proposed by the French Brain Council / Le retour de la neuropsychiatrie : une évidence neuroscientifique - Symposium proposé par le Conseil Français du Cerveau**

**Chairs:**

F. Mauguière (Bron)

**Mechanisms of autoimmune encephalitis with psychiatric presentation / Mécanismes des encéphalites autoimmunes avec troubles psychiatriques**

J. Honnorat (Bron)

**Auto-Immune psychosis / Psychoses auto-immunes**

M. Leboyer (Créteil)

**Behavioral disorders induced by antiparkinsonian treatment: a window onto the human dopamine system / Troubles comportementaux provoqués par le traitement antiparkinsonien : une fenêtre sur le système dopaminergique humain**

P. Damier (Nantes)

**The scientific challenges of fronto-temporal lobar degeneration / Les défis scientifiques des dégénérescences lobaires fronto-temporales**

R. Levy (Paris)

**Neuropsychology and neuroimaging of social cognition in neurological diseases / La cognition sociale dans les maladies neurologiques : neuropsychologie et imagerie cérébrale**

M. Laisney (Caen)

PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
17:30 - 18:00

Auditorium

### **PL02, Sonja Hofer**

**Chairs:**

B. Bathellier (Gif sur Yvette)

NeuroFrance 2019,  
22 - 24 May 2019,  
Marseille, France

## Scientific Programme

**Making sense of what you see: cortical and thalamic circuits for vision /  
Donner un sens à ce que vous voyez: circuits corticaux et thalamiques  
pour la vision**

S. Hofer (London)

SPECIAL SESSION / SESSION SPÉCIALE  
18:00 - 18:05

Auditorium

### NeurATRIS presentation

PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
18:05 - 18:35

Auditorium

### PL03, Claire Rampon

**Chairs:**

S. Daumas (Paris)

**Adult neurogenesis and Alzheimer's disease: at the crossroads /  
Neurogenèse adulte et maladie d'Alzheimer : à la croisée des chemins**

C. Rampon (Toulouse)

## Scientific Programme

### Thursday, 23. May 2019

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PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
09:00 - 09:30

Auditorium

#### **PL04, Catherine Barthélémy**

**Chairs:**  
L. Buée

**Neurodevelopmental approach of autism: from physiopathology to therapeutics / Approche neuro-développementale de l'autisme, de la physiopathologie à la thérapeutique.**

C. Barthélémy (Tours)

PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
09:30 - 10:00

Auditorium

#### **PL05, Alain Chédotal**

**Chairs:**  
S. Garel

**Development and evolution of axon guidance mechanisms / Développement et évolution des mécanismes de guidage axonal**

A. Chédotal (Paris)

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
10:00 - 11:00

Foyer

#### **P2, Poster session 2**

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

##### **Development, synaptic plasticity**

**Modulation of acute inflammation in a rodent model of vestibular pathology: cellular and functional approaches.**

N. El Mahmoudi (Marseille)

**AMPA receptor mobility is important for spatial memory consolidation through ripples modulation**

H. El Oussini (Bordeaux)

## Scientific Programme

**Boc acts as a Shh-dependent endocytic platform for Ptch1 internalization and Shh-mediated axon guidance**

J. Ferent (Montréal)

**Physiology of hippocampal Sharp Waves Ripples in vitro: importance of AMPA receptor mobility and related synaptic plasticity.**

U. François (Bordeaux)

**Formins modulate Axon Initial Segment cytoskeleton and plasticity**

J.J. Garrido (Madrid)

**Activity of Cajal-Retzius cells regulates their distribution and survival: impact on cortical wiring**

I. Genescu (Paris)

**KIF2A conditional mutant knock-in mouse: a flexible model to study cortical malformations**

J. Gilet (Illkirch)

**Optogenetic manipulation of the dendritic spine cytoskeleton**

Y. Goldberg (La Tronche)

**Role of sympathetic nervous system in pancreatic cancer development**

J. Guillot (Marseille)

**Transmembrane protein 240 (TMEM240), mutated in spinocerebellar SCA21, is involved in cerebellar afferent connections to Purkinje cells**

M. Homa (Lille)

**Spike timing dependent plasticity rules in physiological calcium**

Y. Inglebert (Marseille)

**A new population of PKD2L1 positive neurons in the ventromedial medullospinal region in link with the ependymal stem cell niche**

A. Kastner (Marseille Cedex 05)

**Effects of SCI on the synaptic transmission onto Axon Initial Segment of lumbar spinal motoneurons**

M. Kerzouf (Marseille)

**Early origins of adult disorders after postnatal sensorimotor restriction**

M. Kochmann (Marseille)

**A novel vector system for direct readout of neural stem cell transgenesis**

T. Kumamoto (Paris)

**Muscarinic control of motoneuronal activity : differential response of F and S motoneurons and presynaptic control of synaptic transmission to Renshaw cells**

B. Lamotte D'incamps (Paris Cedex 06)

**Locus coeruleus reduces inhibition in the cerebellar input layer through noradrenergic modulation of Golgi cells**

F. Lanore (Bordeaux)

**The role of microglia in the development of forebrain axonal tracts**

A. Lawrence (Paris)

**How direct thalamic inputs modulate hippocampal dynamics during development**

E. Leprince (Marseille)

## Scientific Programme

**Brain activity during transitive and social action observation in adults and adolescents**

M. Lesourd (Marseille)

**Plasticity of thalamic axons and cortical areas is regulated by embryonic and birth-sensitive checkpoints**

L. Lokmane (Paris)

**The Microtubule-severing enzyme katanin is required for embryonic survival and regulates adult dentate gyrus neurogenesis**

F.L. Lombino (Hamburg)

**Cooperative interactions between retinal ganglion cells from the same eye shapes the connectivity of the visual system**

A. Louail (Paris)

**Synaptic function of 3S-HS and HS3ST2 in physiologic conditions and during Alzheimer's disease-related tauopathy**

A. Maïza (Créteil)

**Role of dietary n-3 polyunsaturated fatty acid in memory and hippocampal synaptic plasticity in male and female mice**

M. Martinat (Bordeaux)

**Signalisation, cellular communications**

**Neuroprotective effects of PACAP against paraquat-induced oxidative stress in the Drosophila central nervous system**

K. Hajji (Paris)

**Impact of Cx30 overexpression on astroglial and neuronal networks**

E. Hardy (Paris)

**A new mouse model to explore the role of glycine and D-serine as NMDAR co-agonists in neuronal and brain function**

R. Helleringer (Paris)

**Alteration of neuron morphology and type I mGlu signaling by a missense mutation of the GluD1 glutamate receptor causing intellectual disability**

R. Hepp (Paris)

**Molecular analysis of distinct populations of central synapses in physiology and pathology in mice**

E. Herzog (Bordeaux)

**Microglial motility during sleep and wakefulness**

I. Hristovska (Lyon)

**Measurement of ATP release from single dorsal horn spinal cord glial cells and its modulation by noradrenaline**

S. Hugel (Strasbourg)

**Specific downregulation of MCT2 in neurons and MCT4 in astrocytes using the AAV2/DJ in the rat barrel field of the somatosensory cortex to investigate their role in synaptic plasticity**

C. Jollé (Lausanne)

**Spinal CSF-contacting neurons: properties of their protrusion in contact with the CSF**

N. Jurcic (Marseille)

## Scientific Programme

**Boc is implicated in myelin repair in the brain**

A. Kassoussi (Le Kremlin-Bicêtre)

**A new role of astrocytes in the central amygdala neuronal network modulation by oxytocin**

D. Kerspern (Strasbourg Cedex)

**Identifying the MVP/vault neuronal function at the autism-associated 16p11.2 locus**

P. Kretz (Illkirch)

**Extracellular vesicles from human tauopathies CSF contains pathological competent tau species**

E. Leroux \* (Lille)

**Modulation of POMC neuronal activity by lactate in the hypothalamus**

T. Lhomme (Lille)

**Deciphering the molecular mechanisms of LRRTM2 trafficking and stabilisation at synapses**

K. Liouta (Bordeaux)

**Use of Zif::CreERT2 transgenic mice for long-lasting tagging of neurons activated by epileptic seizures or cocaine injection**

S. Longueville (Paris)

**Impact of neuronal activity on calcium signals of oligodendroglia during remyelination**

B. Manot-Saillet (Paris)

**Deciphering functional networks of ion channels in substantia nigra pars compacta dopaminergic neurons**

B. Marquèze-Pouey (Marseille)

**LINGO-1, a major player of myelination and neuronal survival forms heteromeric complexes: a new signaling platform**

S. Morisset-Lopez (Orléans)

**Robustness to axon initial segment variation in rat and mouse substantia nigra dopaminergic neurons**

E. Moubarak (Marseille)

**Identification of an axon-resident pool of vesicles regulated by neuronal activity**

E. Moutaux (La Tronche)

**The Microtubule-associated protein Tau as a new putative therapeutic target in brain cancer**

A. Pagano (Marseille)

**Identification of somatosensory mechanotransducer(s) by functional genomics approach**

T. Parpaite (.)

**Neurological and psychiatric diseases, experimental therapeutics**

**Development of neurotensin analogues conjugated to a brain penetrant peptide that induce hypothermia and promote efficient neuroprotection in vivo and in vitro**

M. Khrestchatisky (Marseille)

**Expression and distribution of Neurotensin receptors in wild-type and epileptic conditions in relation to the neuroprotective effects of vectorized Neurotensin (VH-NT)**

G. Kyriatzis (Marseille)

## Scientific Programme

**Pathological low frequency oscillations of the subthalamic nucleus predict compulsive-like cocaine seeking in rats**

M. Degoulet (Marseille)

**Primary cilium: a new target for remyelination ?**

G. Delfino (Strasbourg)

**Chronic administration of sodium bromide relieves behavioral deficits in three different mouse models of autism**

C. Derieux (Nouzilly)

**Detecting brain diseases via plasma profiling**

F. Devred (Marseille)

**Concomitant modification of synaptic activity by IL-1 $\beta$  and metalloprotease MT5-MMP in primary cortical cultures**

E. Di Pasquale (Marseille)

**TP53INP1 deficiency exacerbates age-related and alpha-synuclein-induced degeneration of nigral dopaminergic neurons in mice**

E. Dinh (Marseille)

**Influence of Quercetin-loaded magnetic nanoparticles on kainate-induced epileptiform activity in the CA1 field of the rat hippocampus**

N. Doreulee (Tbilisi)

**Assessment of neurodegeneration and  $\alpha$ -synuclein pathology in clarified brain slices in animal models of Parkinson disease**

E. Doudnikoff (Bordeaux)

**Rare PAK3 mutations responsible for severe intellectual disability and callosal dysgenesis inhibit cell migration**

K. Duarte (Orsay)

**Impact of hormone-therapy used in CRPC patients: evaluation of abiraterone acetate/prednisone or enzalutamide on activity and cognitive functions in aged castrated mice**

M. Dubois (Mont-Saint-Aignan)

**A new procedure to quantify cortical vascular autoregulation in mouse models of epilepsy**

F. Duprat (Valbonne)

**The potential of motor cortical neurons derived hiPSC transplantation for brain repair following traumatic brain injury**

H. El Hajj (Poitiers)

**Effect of myelin remodeling on axons and oligodendrocytes in pathological conditions**

B. El Waly (Marseille)

**Contribution of reactive astrocytes to myelin repair**

C. Escartin (Fontenay-aux-Roses)

**Rescue of intrinsic excitability in CA3 neurons from LGI1-deficient mice**

J. Extrémet (Marseille)

**Adenosine A2A receptor dysregulation in Alzheimer's disease impact of astrocytic A2AR upsurge in a mouse mode of Tauopathy**

E. Faivre (Lille)

## Scientific Programme

**Retinal alterations and visual dys-sensibility in the Fragile X syndrome**

C. Felgerolle (Orléans)

**Network effects of cerebellar non-invasive stimulation: an MEG study on dystonic patients and healthy controls**

S.C. Ficarella (Paris)

**LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons**

J. Fuchs Sèbe (Paris)

**MT5-MMP affects the stability of  $\beta$ -CTF of amyloid precursor protein, which may constitute a new potential pathophysiological mechanism in Alzheimer's disease**

L. García González (Marseille)

**Repair strategy for traumatic spinal cord injury; an advance in bioengineering-based preclinical approaches**

C. Giraudon (Paris)

**Delayed brain development in a mouse model of intellectual disability in Coffin-Lowry syndrome**

L. Gonzalez (Orsay)

**PM20D1 quantitative trait locus association with Alzheimer's disease: chromatin-mediated genetic-epigenetic interaction and disease progression**

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**Teashirt 3 haploinsufficiency impacts the functioning of the fear/defense circuitry in mice**

L. Had (Marseille Cedex)

**Robustness of behavioral and electrophysiological phenotypes of SK3KO mice in Parkinsonian conditions**

A. Haddjeri (Marseille)

**Sex-dependent behavioral deficits and neuropathology in different ASD mouse models**

O. Haïda (Poitiers)

**Microglial diversity in Alzheimer's disease early stages: a key to understand the disease initiation**

A.-L. Hemonnot (Montpellier)

**Translocation of TDP-43 and FUS in SOD1 Tg and WT spinal cord motor neurons injured with glutamate or A $\beta$ 1-42 peptide: an in vitro model of ALS**

A. Henriques (Gardanne)

**Respective contribution of parenchymal and plaques associated microglia during Alzheimer's Disease progression**

H. Hirbec (Montpellier)

**Cingulate overexpression of MKP-1 as a key factor for depression**

M. Humo (Strasbourg)

**Effects of 6-hydroxydopamine lesions of the substantia nigra, the dorsal striatum, the medial accumbens and the lateral accumbens on food choice (regular chow, fat, sucrose)**

A. Joshi (Strasbourg)



## Scientific Programme

**Investigating the physiological function of the amyloid precursor protein and its relevance to Alzheimer's disease**

E. Kesisoglou (Paris)

**Microfluidic primary neuron co-culture to expose fluidically-isolated synapses to CHO cell-secreted oligomeric A $\beta$ 42 to decipher the role of Pyk2 in Alzheimer's disease**

D. Kilinc (Lille)

**Unravelling alpha-synuclein aggregates nature to model and understand the diversity and variability among synucleinopathies**

F. Laferriere (Bordeaux)

**Validation of a cerebral chemoattractant local trap based on a "smart" hydrogel in a mouse model of glioblastoma resection**

E. Laillet De Montullé (Mont-Saint-Aignan)

**Absence of interleukin 33 impaired axonal outgrowth of grafted cortical neurons**

A. Lainé (Poitiers)

**Chronic oxytocin administration relieves social deficits in the mouse model of Fragile X syndrome**

J. Le Merrer (Nouzilly)

**Therapeutic effects of ADAMTS-4 and exercise in a mouse model of traumatic brain injury**

S. Lemarchant (Bordeaux)

**NaV1.2 haploinsufficiency in Scn2a knock-out mice results in self-limited autistic-like phenotype, with dysfunctions that are attenuated in adult compared to young mice**

I. Léna (Valbonne)

**Uranium, an environmental factor that accelerates and/or worsens the Alzheimer's disease?**

P. Lestaevel (Fontenay aux Roses)

**PET imaging of functional 5-HT1A receptors in hemiparkinsonian rats**

E. Levigoureux (Lyon)

**Does cooperative parent mediated therapy modify parentese prosody and improve the interaction between parent and child with autism? An Italian pilot study**

M.G.M. Logrieco (Chieti)

**Distorted own-body and self representations in patients with vestibular disorders and in healthy participants during caloric vestibular stimulation**

C. Lopez (Marseille)

**Ketamine-induced behavioural and dopaminergic responses in the core part of the nucleus accumbens in adult rats are increased following postnatal ventral subiculum functional inactivation**

A. Louilot (Strasbourg)

**GABAergic inhibition in dual-transmission cholinergic and GABAergic striatal interneurons is abolished in Parkinson disease**

N. Lozovaya (Marseille)

**Repurposing of FDA-approved pro-myelinating drugs for the treatment of glioblastomas**

N. Magne (Paris)

**Metabolic characterization of different phases of Parkinson's disease**

D. Mallet (Grenoble)

## Scientific Programme

### **Integrative neurosciences, sensory physiology**

#### **A spatial code in the dorsal lateral geniculate nucleus**

V. Hok (Marseille)

#### **Medial entorhinal cortex neurons signal relevant positions in a distance estimation task**

P.-Y. Jacob (Marseille)

#### **Diversity of spatially tuned neurons in dorsal lateral geniculate nucleus**

J.-Y. Montenay (Marseille)

#### **Spatial goals locally modify the grid-like firing pattern of the grid cells**

F. Sargolini (Marseille)

#### **Processing of allothetic and idiothetic cues by the medial and lateral entorhinal cortex**

E. Save (Marseille)

#### **Hippocampal LTP modulation and glutamatergic receptors following vestibular loss**

B. Truchet (Marseille)

#### **Deciphering the neural code of the motor cortex with a multidirectional reaching task in mice**

G. Galiñanes (Genève)

#### **Respiration-based synchronization in the brain: bottom-up and top-down influences**

B. Girin (Lyon)

#### **Role of somatosensory cortical feedback in a sensorimotor brain-machine interface**

D. Goueytes (Gif-sur-Yvette)

#### **Does midcingulate cortex encode choice difficulty?**

C. Goussi (Bron)

#### **Integrating information from both nostrils - random or not?**

J. Grimaud (Cambridge)

#### **Glial endozepines reverse high fat diet-induced obesity by increasing hypothalamic sensitivity to peripheral leptin**

F. Guillebaud (Marseille)

#### **The brain smells and tastes the self - lessons from the Allen Brain Atlas**

G. Guiraudie-Capraz (Marseille)

#### **Distinct neuronal drives from locomotor circuits modulate breathing during exercise**

C. Herent (Gif-sur-Yvette)

#### **Short-term impact of a western diet on the physiology of the peripheral olfactory system**

D. Jarriault (Dijon)

#### **The breath whispers in the membrane potential**

M. Juventin (Lyon)

#### **“Hearing the touch”: impact of sonification in the haptic perception of artificial textures and its modulation with aging**

A. Kavounoudias (Marseille)

## Scientific Programme

**Intracellular dynamics of CA3 pyramidal cells in awake head-fixed mice during the theta rhythm favor sparse coding**

A.L. Kees (Bordeaux)

**Alteration of S1Bf cortical network during epileptogenesis in GAERS, a genetic model of absence epilepsy**

E. Laghouati (Grenoble)

**Modulation of corticostriatal transmission by striatal cholinergic interneurons in normal and parkinsonian conditions: electrophysiology and optogenetics ex vivo**

G. Laverne (Marseille)

**Role of NMDA receptors in the inhibitory synaptic transmission plasticity in the dorsal horn of the spinal cord**

B. Leonardon (Strasbourg)

**High resolution large volume multicolor imaging of brain tissue with chromatic multiphoton serial microscopy**

J. Livet (Paris)

**Astrocytes contribute to the trigeminal central sensitization and cephalic cutaneous hypersensitivity in rat model of chronic migraine**

P. Luccarini (Clermont-Ferrand)

**Neuroendocrinology, neuroimmunology**

**3D imaging of vertebral column lymphatic network in mouse**

L. Jacob (Paris)

**Effect of the long non-coding RNA Neat1 knock-down on the circadian transcriptome in a rat pituitary cell line**

A. Jacq (Marseille)

**Effect of an intranasal administration of ODN on mouse body weight**

J. Leprince (Mont-Saint-Aignan)

**The importance of infantile neuronal NOS-derived NO signaling for fertility, olfaction and cognition**

V. Leysen (Lille)

**Pregnancy is associated with the production of new glial cells in the rat hypothalamus**

M. Martin (Lille)

**Development of metabolic disturbances in a mouse model of polycystic ovary syndrome**

N.E.H. Mimouni (Lille)

**Dietary PUFAs immunomodulatory properties shape the neuronal network during development**

L. Morel (Bordeaux)

**The role and molecular mechanisms of the anti-FGFR3 antibody, a biomarker of sensory neuropathies inducing neuronal death**

Y. Nasser (Saint-Etienne)

**Implication of the plasticity of the blood/arcuate nucleus interface during the establishment of obesity**

M. Piet (Lille)

**Behaviour, emotions, cognition, neuroethology**

## Scientific Programme

**Lack of word: a systematic review**

S. Gjerci (Tirana)

**SHANK3 downregulation in the BNST drives anxiety**

C. Glangetas (Bordeaux)

**Lithium reverses mechanical allodynia through a mu opioid receptor-dependent mechanism**

Y. Goumon (Strasbourg)

**What do we know about interference control in children with ADHD?**

A. Grandjean (Marseille cedex 3)

**The role of new N-terminally truncated Tau species in Alzheimer's disease**

S. Guedjald (Lille)

**A neuronal population code for resemblance between drug and nondrug reward outcomes in the orbitofrontal cortex**

K. Guillem (Bordeaux Cedex)

**Type 2 diabetes alters emotional behavior, HPA axis and expression of stress and immune-related genes in the medial prefrontal cortex**

M. Henry (Bordeaux)

**A novel environment-evoked transcriptional signature predicts reactivity in single dentate granule neurons**

B.N. Jaeger (Zurich)

**Neural signature of musical preference during spontaneous auditory imagery**

C. Joucla (Besançon)

**Mapping neurons and brain regions underlying sensorimotor decisions and sequences in Drosophila**

T. Jovanic (Gif-sur-Yvette)

**Role of neural circuitry of the insular cortex in anxiety-related behaviors**

A. Ju (Bordeaux Cedex)

**A neuro-computational model showing the effects of ventral striatum lesion on the computation of reward prediction error in VTA**

P. Kaushik (Talence)

**Decoding the activity of amygdala-to-frontal cortex axons during decision making**

V. Kouskoff (Bordeaux)

**Time-based expectancy in school-aged children with dyslexia**

M. Kunchulia (Tbilisi)

**Cognitive ability characterization of rat model with mutated alpha-synuclein overexpression**

C. Laloux (Lille)

**Peripersonal space perception in the eye of the hurricane**

N. Leclere (Marseille)

**Anatomical and functional characterization of the neural circuits controlling ejaculation**

C. Lenschow (Lisbon)

## Scientific Programme

**A large scale brain network involved in fear conditioned response: a functional imaging study in rat using microPET**

P. Litaudon (Bron)

**Circuits for opposite valences learning in auditory cortex studied by inference of plastic connectivity**

X. Liu (Paris)

**Brain functional connectivity dynamic is modified by sleep deprivation and correlated with cognitive performance**

D. Lombardo (Marseille)

**Absolute bottlenecks and incompatible dynamics during a dual-task paradigm**

D. Mac-Auliffe (Lyon)

**Activity of fast-spiking interneurons in the primate striatum during reaching movements performed under different degrees of reward uncertainty**

K. Marche (Marseille)

**Dorsal periaqueductal gray and medial hypothalamus involvement in the panic-modulating effects caused by serotonergic activation of dorsal raphe lateral wings**

M. Matthiesen (Araraquara)

**Freezing and shaking as distinct behavioural readouts of fear and anxiety**

M.-C. Medrano (Bordeaux Cedex)

**Orexin in the posterior paraventricular thalamus mediates hunger-related signals in the nucleus accumbens core**

J. Meffre (Marseille)

**Connections of the laterodorsal tegmental nucleus with the prefrontal cortex and habenular-interpeduncular-raphé system**

M. Metzger (São Paulo)

**Impact of a working memory task in sustained attention on resting networks in healthy and traumatic brain injury subjects: an EEG study**

A. Minet (Marseille)

**Motion tracking and reward-based decision-making in healthy and Parkinson's disease participants**

A. Montagnini (Marseille)

**Perception of cardiac interoceptive signals in bilateral vestibular failure**

E. Nakul (Marseille)

**Behavioural and metabolic consequences of Dlx5 and Dlx6 inactivation in GABAergic neurons**

N. Narboux-Nême (Paris)

**Contribution of grid cells inputs to distance/position coding in CA1 place cells**

M. Nordlund (Marseille)

**New translational procedure to study retroactive interference and memory updating mechanisms in mice**

A.-M. Ouagazzal (Marseille)

## Scientific Programme

**Development of the handwriting network: a coupled fMRI and kinematics study in middle-age children**

S. Palmis (Marseille)

**Learning-related plasticity of top-down information in auditory cortex layer 1**

M.B. Pardi (Frankfurt am Main)

**Dyslexia and motion discrimination**

K. Parkosadze (Tbilisi)

**EEG Multivariate Pattern Analysis reveals higher-order linguistic extraction of phonetic features at 3 months of age**

G. Gennari (Paris)

**Theoretical and computational neurosciences**

**Computing hubs in the hippocampus and cortex**

W. Clawson (Marseille)

**A Bayesian inference framework for visuomotor decisions: eye movements modeling and analysis**

F. Conti (Marseille)

**Development of binocular vision through experience dependent plasticity**

B.R. Cottreau (Toulouse Cedex)

**A deep-learning-based toolbox for inferring in vivo large scale neuronal activity in the region CA1 of the developing hippocampus**

J. Denis (Marseille)

**A stochastic model of postsynaptic plasticity based on dendritic spine calcium downstream proteins**

Y. Elias Rodrigues (Valbonne)

**A hierarchical, multi-layer convolutional sparse coding algorithm based on predictive coding**

A. Franciosi (Marseille)

SYMPOSIUM  
11:00 - 13:00

Auditorium

**S15, Synaptic transmission, dynamics and plasticity - In partnership with the British Neuroscience Association / Transmission synaptique, dynamique et plasticité - En partenariat avec la British Neuroscience Association**

**Chairs:**

P.C. Salinas (London)

**Nanoscale organisation of glutamatergic synapses and their plasticity / Organisation à l'échelle nanométrique des synapses glutamatergiques et leur plasticité**

D. Choquet (Bordeaux)

**Regulation of RISC activity in dendritic spine structural plasticity / Régulation de l'activité RISC sur la plasticité morphologique de l'épine dendritique**

J. Hanley (Bristol)

## Scientific Programme

**Deficient Wnt signalling triggers synapse vulnerability: implications in Alzheimer's disease / L'altération de la voie Wnt conduit à une vulnérabilité synaptique : implications dans la maladie d'Alzheimer**

P.C. Salinas (London)

**The dynamic synapse at mesoscale: reconciling stability and plasticity / La synapse dynamique à l'échelle mésoscopique : un moyen de réconcilier stabilité et plasticité**

A. Triller (Paris)

**Amyloid-eta-alpha: impact on hippocampal synaptic function**

M. Mensch (Valbonne)

SYMPOSIUM  
11:00 - 13:00

Callelongue

### **S16, Neuroglial interactions in psychiatric and neurological disorders. / Les interactions neurogliales dans les maladies psychiatriques et neurologiques.**

**Chairs:**

M. Charvériat (Orsay)  
B.P. Guiard (Toulouse)

**Which role for connexins and pannexins in epileptiform activity and seizures? / Quel rôle pour les connexines et les pannexines dans l'activité épileptiforme et les crises d'épilepsie?**

N. Rouach (Paris)

**Prion-like dissemination of synuclein pathology using brain-derived alpha-syn: role of glial cells. / Dissémination Prion-like de l'alpha-synucléine dérivée du cerveau : rôle des cellules gliales.**

E. Bezard (Bordeaux)

**Identification of an astrocytic metabolic pathway that contributes to Alzheimer's Disease. / Identification d'une voie métabolique astrocytaire contribuant à la maladie d'Alzheimer.**

G. Bonvento (Fontenay-aux-Roses)

**Astroglial contribution to NMDA receptor-dependent activity. / Contribution astrocytaire à l'activité des récepteurs NMDA.**

S. Oliet (Bordeaux)

**Mouse Nr2f1 haploinsufficiency unveils new pathological mechanisms of a human optic atrophy syndrome**

M. Bertacchi (Nice)

SYMPOSIUM  
11:00 - 13:00

Endoume 1+2

### **S17, Active Inference: Bridging theoretical and experimental neurosciences. / Inference Active: Un pont entre neurosciences théoriques et expérimentales.**

**Chairs:**

L. Perrinet (Marseille)

## Scientific Programme

**Active inference and Brain-Computer Interfaces / Inférence active et interfaces cerveau-machine**

J. Mattout (Lyon)

**Comparing active inference and reinforcement learning models of a Go NoGo task and their relationships to striatal dopamine 2 receptors assessed using PET / Comparaison des modèles d'inférence active et d'apprentissage par renforcement dans une tâche Go / NoGo : relation avec les récepteurs dopaminergiques D2 striataux évalués par TEP**

R. Adams (London)

**Principles and psychophysics of active inference in anticipating a dynamic, switching probabilistic bias / Principes et psychophysique de l'inférence active dans l'estimation d'un biais dynamique et volatile de probabilité**

L. Perrinet (Marseille)

**Is laziness contagious? A computational approach to attitude alignment / La fainéantise est-elle contagieuse? Une approche computationnelle de l'alignement des attitudes**

J. Daunizeau (Paris)

**Generative Bayesian modeling for causal inference between neural activity and behavior in Drosophila larva**

C. Barre (Paris)

SYMPOSIUM  
11:00 - 13:00

Endoume 3

**S18, Exocytosis and extracellular-vesicle signalling in brain development, maintenance and diseases. / Rôle de l'exocytose et des vésicules extracellulaires dans le cerveau normal et pathologique.**

**Chairs:**

C. Neri (Paris)

**Exosomes in neuron-glia communication and neuronal maintenance / Exosomes et communication entre cellules neurales: vecteurs de l'homéostasie neuronale?**

E.-M. Krämer-Albers (Mainz)

**Live tracking of endogenous exosomes in vivo. / Dynamique des exosomes in vivo.**

G. Van Niel (Paris)

**The place of EV in tauopathies or how it might support tau pathology propagation in the brain? / Vésicules extracellulaires et Tauopathies: modalités de propagation de Tau.**

M. Colin (Lille)

**Amyloid precursor protein products concentrate in a subset of exosomes specifically endocytosed by neurons. / Dynamique de la protéine APP dans les exosomes.**

R. Sadoul (La Tronche)



## Scientific Programme

**Autophagy is required for hormonal regulation of memory and reverses age-related memory decline**

M. Rivagorda (Paris)

SYMPOSIUM  
11:00 - 13:00

Riou

**S19, Exploring the role of mechanical cues in neural development, maintenance and regeneration. / Rôle des facteurs mécaniques dans le développement, la maintenance et la régénération du système nerveux. Supported by the International Society for Developmental Neuroscience (ISDN)**

**Chairs:**

A. Trembleau (Paris)  
M.A. Breau (Paris)

**The mechanical control of neuronal development and regeneration. / Le contrôle mécanique du développement et de la régénération du système nerveux.**

K. Franze (Cambridge)

**Extrinsic forces trigger axon elongation in the zebrafish olfactory circuit. / Forces mécaniques et croissance axonale dans le circuit olfactif du poisson-zèbre.**

M.A. Breau (Paris)

**Axon tension regulates fasciculation/defasciculation through the control of axon shaft zippering. / La tension mécanique des axones régule leur fasciculation/défasciculation.**

A. Trembleau (Paris)

**How neurons bend without breaking. / Comment les neurones se plient sans se casser.**

M.B. Goodman (Stanford)

**Electric fields: a potential novel axon guidance system to code positional information**

S. Dinvaut (Lyon)

SYMPOSIUM  
11:00 - 13:00

Sormiou

**S20, Sensory modulation and descending control of spinal motor circuits. / Circuits moteurs de la moelle épinière: contrôle supraspinal et modulation sensorielle.**

**Chairs:**

C. Wyart (Paris)  
K. Fidelin (New York)

**Exploring the sensory interface linking cerebrospinal fluid to motor circuits in vertebrates. / Interactions sensorielles entre liquide céphalo-rachidien et circuits moteurs de la moelle épinière.**

H. Wyart (Paris)

## Scientific Programme

**Anatomical and functional deciphering of brainstem reticulospinal neurons controlling locomotion / Dissection anatomique et fonctionnelle des neurones réticulospinaux du tronc cérébral dans le contrôle locomoteur**

J. Bouvier (Gif sur Yvette)

**Descending dopaminergic control of brainstem locomotor circuits. / Contrôle des circuits locomoteurs du tronc cérébral par les voies dopaminergiques descendantes.**

D. Ryczko (Sherbrooke)

**Spatial and temporal locomotor learning in mouse cerebellum / Apprentissage spatial et temporel de la locomotion dans le cervelet**

M. Carey (Lisbon)

**Motor cortex mediates forelimb antagonist muscle cocontraction using a unique control strategy**

C. Warriner (New York)

SYMPOSIUM  
11:00 - 13:00

Morgiou

### **S21, Traumatic spinal cord injury and repair. / Les lésions traumatiques de la moelle épinière et réparation.**

#### **Chairs:**

F. Nothias (Paris)

**Multiparametric Magnetic Resonance Imaging biomarkers of the spinal cord impairment and regeneration / Biomarqueurs de la détérioration et de la régénération de la moelle épinière en Imagerie par Résonance Magnétique multi-paramétrique**

V. Callot (Marseille)

**Modulating neural activity to repair the corticospinal system after spinal cord injury. / Modulation de l'activité neurale pour la réparation du système corticospinal après une lésion de la moelle épinière.**

J.H. Martin (New York)

**Calpain upstreams the excitatory-inhibitory imbalance of motoneurons and leads to spasticity after spinal cord injury / Une nouvelle cible thérapeutique dans le traitement de la spasticité après une lésion de la moelle épinière: la calpaïne**

F. Brocard (Marseille)

**Combined strategy with regenerative biomaterial matrices for traumatic spinal cord repair. / Stratégie combinée avec des matrices régénératives à base de biomatériaux pour la réparation de la moelle épinière traumatique.**

S. Soares (Paris)

**Functional recoveries after a cervical spinal cord injury and implantation of a thermosensitive hydrogel in rat**

M. Bonnet (Marseille)

## Scientific Programme

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
13:00 - 17:30

Foyer

### P2, Poster session 2

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

#### **Development, synaptic plasticity**

##### **Modulation of acute inflammation in a rodent model of vestibular pathology: cellular and functional approaches.**

N. El Mahmoudi (Marseille)

##### **AMPA receptor mobility is important for spatial memory consolidation through ripples modulation**

H. El Oussini (Bordeaux)

##### **Boc acts as a Shh-dependent endocytic platform for Ptch1 internalization and Shh-mediated axon guidance**

J. Ferent (Montréal)

##### **Physiology of hippocampal Sharp Waves Ripples in vitro: importance of AMPA receptor mobility and related synaptic plasticity.**

U. François (Bordeaux)

##### **Formins modulate Axon Initial Segment cytoskeleton and plasticity**

J.J. Garrido (Madrid)

##### **Activity of Cajal-Retzius cells regulates their distribution and survival: impact on cortical wiring**

I. Genescu (Paris)

##### **KIF2A conditional mutant knock-in mouse: a flexible model to study cortical malformations**

J. Gilet (Illkirch)

##### **Optogenetic manipulation of the dendritic spine cytoskeleton**

Y. Goldberg (La Tronche)

##### **Role of sympathetic nervous system in pancreatic cancer development**

J. Guillot (Marseille)

##### **Transmembrane protein 240 (TMEM240), mutated in spinocerebellar SCA21, is involved in cerebellar afferent connections to Purkinje cells**

M. Homa (Lille)

##### **Spike timing dependent plasticity rules in physiological calcium**

Y. Inglebert (Marseille)

##### **A new population of PKD2L1 positive neurons in the ventromedial medullospinal region in link with the ependymal stem cell niche**

A. Kastner (Marseille Cedex 05)

## Scientific Programme

**Effects of SCI on the synaptic transmission onto Axon Initial Segment of lumbar spinal motoneurons**

M. Kerzouf (Marseille)

**Early origins of adult disorders after postnatal sensorimotor restriction**

M. Kochmann (Marseille)

**A novel vector system for direct readout of neural stem cell transgenesis**

T. Kumamoto (Paris)

**Muscarinic control of motoneuronal activity : differential response of F and S motoneurons and presynaptic control of synaptic transmission to Renshaw cells**

B. Lamotte D'incamps (Paris Cedex 06)

**Locus coeruleus reduces inhibition in the cerebellar input layer through noradrenergic modulation of Golgi cells**

F. Lanore (Bordeaux)

**The role of microglia in the development of forebrain axonal tracts**

A. Lawrence (Paris)

**How direct thalamic inputs modulate hippocampal dynamics during development**

E. Leprince (Marseille)

**Brain activity during transitive and social action observation in adults and adolescents**

M. Lesourd (Marseille)

**Plasticity of thalamic axons and cortical areas is regulated by embryonic and birth-sensitive checkpoints**

L. Lokmane (Paris)

**The Microtubule-severing enzyme katanin is required for embryonic survival and regulates adult dentate gyrus neurogenesis**

F.L. Lombino (Hamburg)

**Cooperative interactions between retinal ganglion cells from the same eye shapes the connectivity of the visual system**

A. Louail (Paris)

**Synaptic function of 3S-HS and HS3ST2 in physiologic conditions and during Alzheimer's disease-related tauopathy**

A. Maïza (Créteil)

**Role of dietary n-3 polyunsaturated fatty acid in memory and hippocampal synaptic plasticity in male and female mice**

M. Martinat (Bordeaux)

**Signalisation, cellular communications**

**Neuroprotective effects of PACAP against paraquat-induced oxidative stress in the Drosophila central nervous system**

K. Hajji (Paris)

**Impact of Cx30 overexpression on astroglial and neuronal networks**

E. Hardy (Paris)

## Scientific Programme

**A new mouse model to explore the role of glycine and D-serine as NMDAR co-agonists in neuronal and brain function**

R. Helleringer (Paris)

**Alteration of neuron morphology and type I mGlu signaling by a missense mutation of the GluD1 glutamate receptor causing intellectual disability**

R. Hepp (Paris)

**Molecular analysis of distinct populations of central synapses in physiology and pathology in mice**

E. Herzog (Bordeaux)

**Microglial motility during sleep and wakefulness**

I. Hristovska (Lyon)

**Measurement of ATP release from single dorsal horn spinal cord glial cells and its modulation by noradrenaline**

S. Hugel (Strasbourg)

**Specific downregulation of MCT2 in neurons and MCT4 in astrocytes using the AAV2/DJ in the rat barrel field of the somatosensory cortex to investigate their role in synaptic plasticity**

C. Jollé (Lausanne)

**Spinal CSF-contacting neurons: properties of their protrusion in contact with the CSF**

N. Jurcic (Marseille)

**Boc is implicated in myelin repair in the brain**

A. Kassoussi (Le Kremlin-Bicêtre)

**A new role of astrocytes in the central amygdala neuronal network modulation by oxytocin**

D. Kerspern (Strasbourg Cedex)

**Identifying the MVP/vault neuronal function at the autism-associated 16p11.2 locus**

P. Kretz (Illkirch)

**Extracellular vesicles from human tauopathies CSF contains pathological competent tau species**

E. Leroux \* (Lille)

**Modulation of POMC neuronal activity by lactate in the hypothalamus**

T. Lhomme (Lille)

**Deciphering the molecular mechanisms of LRRTM2 trafficking and stabilisation at synapses**

K. Liouta (Bordeaux)

**Use of Zif::CreERT2 transgenic mice for long-lasting tagging of neurons activated by epileptic seizures or cocaine injection**

S. Longueville (Paris)

**Impact of neuronal activity on calcium signals of oligodendroglia during remyelination**

B. Manot-Saillet (Paris)

**Deciphering functional networks of ion channels in substantia nigra pars compacta dopaminergic neurons**

B. Marquèze-Pouey (Marseille)

## Scientific Programme

**LINGO-1, a major player of myelination and neuronal survival forms heteromeric complexes: a new signaling platform**

S. Morisset-Lopez (Orléans)

**Robustness to axon initial segment variation in rat and mouse substantia nigra dopaminergic neurons**

E. Moubarak (Marseille)

**Identification of an axon-resident pool of vesicles regulated by neuronal activity**

E. Moutaux (La Tronche)

**The Microtubule-associated protein Tau as a new putative therapeutic target in brain cancer**

A. Pagano (Marseille)

**Identification of somatosensory mechanotransducer(s) by functional genomics approach**

T. Parpaite (.)

**Neurological and psychiatric diseases, experimental therapeutics**

**Development of neurotensin analogues conjugated to a brain penetrant peptide that induce hypothermia and promote efficient neuroprotection in vivo and in vitro**

M. Khrestchatisky (Marseille)

**Expression and distribution of Neurotensin receptors in wild-type and epileptic conditions in relation to the neuroprotective effects of vectorized Neurotensin (VH-NT)**

G. Kyriatzis (Marseille)

**Pathological low frequency oscillations of the subthalamic nucleus predict compulsive-like cocaine seeking in rats**

M. Degoulet (Marseille)

**Primary cilium: a new target for remyelination ?**

G. Delfino (Strasbourg)

**Chronic administration of sodium bromide relieves behavioral deficits in three different mouse models of autism**

C. Derieux (Nouzilly)

**Detecting brain diseases via plasma profiling**

F. Devred (Marseille)

**Concomitant modification of synaptic activity by IL-1 $\beta$  and metalloprotease MT5-MMP in primary cortical cultures**

E. Di Pasquale (Marseille)

**TP53INP1 deficiency exacerbates age-related and alpha-synuclein-induced degeneration of nigral dopaminergic neurons in mice**

E. Dinh (Marseille)

**Influence of Quercetin-loaded magnetic nanoparticles on kainate-induced epileptiform activity in the CA1 field of the rat hippocampus**

N. Doreulee (Tbilisi)

**Assessment of neurodegeneration and  $\alpha$ -synuclein pathology in clarified brain slices in animal models of Parkinson disease**

E. Doudnikoff (Bordeaux)

## Scientific Programme

**Rare PAK3 mutations responsible for severe intellectual disability and callosal dysgenesis inhibit cell migration**

K. Duarte (Orsay)

**Impact of hormone-therapy used in CRPC patients: evaluation of abiraterone acetate/prednisone or enzalutamide on activity and cognitive functions in aged castrated mice**

M. Dubois (Mont-Saint-Aignan)

**A new procedure to quantify cortical vascular autoregulation in mouse models of epilepsy**

F. Duprat (Valbonne)

**The potential of motor cortical neurons derived hiPSC transplantation for brain repair following traumatic brain injury**

H. El Hajj (Poitiers)

**Effect of myelin remodeling on axons and oligodendrocytes in pathological conditions**

B. El Waly (Marseille)

**Contribution of reactive astrocytes to myelin repair**

C. Escartin (Fontenay-aux-Roses)

**Rescue of intrinsic excitability in CA3 neurons from LGI1-deficient mice**

J. Extrémet (Marseille)

**Adenosine A2A receptor dysregulation in Alzheimer's disease impact of astrocytic A2AR upsurge in a mouse mode of Tauopathy**

E. Faivre (Lille)

**Retinal alterations and visual dys-sensibility in the Fragile X syndrome**

C. Felgerolle (Orléans)

**Network effects of cerebellar non-invasive stimulation: an MEG study on dystonic patients and healthy controls**

S.C. Ficarella (Paris)

**LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons**

J. Fuchs Sèbe (Paris)

**MT5-MMP affects the stability of  $\beta$ -CTF of amyloid precursor protein, which may constitute a new potential pathophysiological mechanism in Alzheimer's disease**

L. García González (Marseille)

**Repair strategy for traumatic spinal cord injury; an advance in bioengineering-based preclinical approaches**

C. Giraudon (Paris)

**Delayed brain development in a mouse model of intellectual disability in Coffin-Lowry syndrome**

L. Gonzalez (Orsay)

**PM20D1 quantitative trait locus association with Alzheimer's disease: chromatin-mediated genetic-epigenetic interaction and disease progression**

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**Teashirt 3 haploinsufficiency impacts the functioning of the fear/defense circuitry in mice**

L. Had (Marseille Cedex)

## Scientific Programme

**Robustness of behavioral and electrophysiological phenotypes of SK3KO mice in Parkinsonian conditions**

A. Haddjeri (Marseille)

**Sex-dependent behavioral deficits and neuropathology in different ASD mouse models**

O. Haïda (Poitiers)

**Microglial diversity in Alzheimer's disease early stages: a key to understand the disease initiation**

A.-L. Hemonnot (Montpellier)

**Translocation of TDP-43 and FUS in SOD1 Tg and WT spinal cord motor neurons injured with glutamate or A $\beta$ 1-42 peptide: an in vitro model of ALS**

A. Henriques (Gardanne)

**Respective contribution of parenchymal and plaques associated microglia during Alzheimer's Disease progression**

H. Hirbec (Montpellier)

**Cingulate overexpression of MKP-1 as a key factor for depression**

M. Humo (Strasbourg)

**Effects of 6-hydroxydopamine lesions of the substantia nigra, the dorsal striatum, the medial accumbens and the lateral accumbens on food choice (regular chow, fat, sucrose)**

A. Joshi (Strasbourg)

**Investigating the physiological function of the amyloid precursor protein and its relevance to Alzheimer's disease**

E. Kesisoglou (Paris)

**Microfluidic primary neuron co-culture to expose fluidically-isolated synapses to CHO cell-secreted oligomeric A $\beta$ 42 to decipher the role of Pyk2 in Alzheimer's disease**

D. Kilinc (Lille)

**Unravelling alpha-synuclein aggregates nature to model and understand the diversity and variability among synucleinopathies**

F. Laferriere (Bordeaux)

**Validation of a cerebral chemoattractant local trap based on a "smart" hydrogel in a mouse model of glioblastoma resection**

E. Laillet De Montullé (Mont-Saint-Aignan)

**Absence of interleukin 33 impaired axonal outgrowth of grafted cortical neurons**

A. Lainé (Poitiers)

**Chronic oxytocin administration relieves social deficits in the mouse model of Fragile X syndrome**

J. Le Merrer (Nouzilly)

**Therapeutic effects of ADAMTS-4 and exercise in a mouse model of traumatic brain injury**

S. Lemarchant (Bordeaux)

**NaV1.2 haploinsufficiency in Scn2a knock-out mice results in self-limited autistic-like phenotype, with dysfunctions that are attenuated in adult compared to young mice**

I. Léna (Valbonne)

**Uranium, an environmental factor that accelerates and/or worsens the Alzheimer's disease?**

P. Lestaevel (Fontenay aux Roses)



## Scientific Programme

**PET imaging of functional 5-HT<sub>1A</sub> receptors in hemiparkinsonian rats**

E. Levigoureux (Lyon)

**Does cooperative parent mediated therapy modify parentese prosody and improve the interaction between parent and child with autism? An Italian pilot study**

M.G.M. Logrieco (Chieti)

**Distorted own-body and self representations in patients with vestibular disorders and in healthy participants during caloric vestibular stimulation**

C. Lopez (Marseille)

**Ketamine-induced behavioural and dopaminergic responses in the core part of the nucleus accumbens in adult rats are increased following postnatal ventral subiculum functional inactivation**

A. Louilot (Strasbourg)

**GABAergic inhibition in dual-transmission cholinergic and GABAergic striatal interneurons is abolished in Parkinson disease**

N. Lozovaya (Marseille)

**Repurposing of FDA-approved pro-myelinating drugs for the treatment of glioblastomas**

N. Magne (Paris)

**Metabolic characterization of different phases of Parkinson's disease**

D. Mallet (Grenoble)

**Integrative neurosciences, sensory physiology**

**A spatial code in the dorsal lateral geniculate nucleus**

V. Hok (Marseille)

**Medial entorhinal cortex neurons signal relevant positions in a distance estimation task**

P.-Y. Jacob (Marseille)

**Diversity of spatially tuned neurons in dorsal lateral geniculate nucleus**

J.-Y. Montenay (Marseille)

**Spatial goals locally modify the grid-like firing pattern of the grid cells**

F. Sargolini (Marseille)

**Processing of allothetic and idiothetic cues by the medial and lateral entorhinal cortex**

E. Save (Marseille)

**Hippocampal LTP modulation and glutamatergic receptors following vestibular loss**

B. Truchet (Marseille)

**Deciphering the neural code of the motor cortex with a multidirectional reaching task in mice**

G. Galiñanes (Genève)

**Respiration-based synchronization in the brain: bottom-up and top-down influences**

B. Girin (Lyon)

**Role of somatosensory cortical feedback in a sensorimotor brain-machine interface**

D. Goueytes (Gif-sur-Yvette)

**Does midcingulate cortex encode choice difficulty?**

C. Goussi (Bron)

## Scientific Programme

**Integrating information from both nostrils - random or not?**

J. Grimaud (Cambridge)

**Glial endopeptides reverse high fat diet-induced obesity by increasing hypothalamic sensitivity to peripheral leptin**

F. Guillebaud (Marseille)

**The brain smells and tastes the self - lessons from the Allen Brain Atlas**

G. Guiraudie-Capraz (Marseille)

**Distinct neuronal drives from locomotor circuits modulate breathing during exercise**

C. Herent (Gif-sur-Yvette)

**Short-term impact of a western diet on the physiology of the peripheral olfactory system**

D. Jarriault (Dijon)

**The breath whispers in the membrane potential**

M. Juventin (Lyon)

**“Hearing the touch”: impact of sonification in the haptic perception of artificial textures and its modulation with aging**

A. Kavounoudias (Marseille)

**Intracellular dynamics of CA3 pyramidal cells in awake head-fixed mice during the theta rhythm favor sparse coding**

A.L. Kees (Bordeaux)

**Alteration of S1Bf cortical network during epileptogenesis in GAERS, a genetic model of absence epilepsy**

E. Laghouati (Grenoble)

**Modulation of corticostriatal transmission by striatal cholinergic interneurons in normal and parkinsonian conditions: electrophysiology and optogenetics ex vivo**

G. Laverne (Marseille)

**Role of NMDA receptors in the inhibitory synaptic transmission plasticity in the dorsal horn of the spinal cord**

B. Leonardon (Strasbourg)

**High resolution large volume multicolor imaging of brain tissue with chromatic multiphoton serial microscopy**

J. Livet (Paris)

**Astrocytes contribute to the trigeminal central sensitization and cephalic cutaneous hypersensitivity in rat model of chronic migraine**

P. Luccarini (Clermont-Ferrand)

**Neuroendocrinology, neuroimmunology**

**3D imaging of vertebral column lymphatic network in mouse**

L. Jacob (Paris)

**Effect of the long non-coding RNA Neat1 knock-down on the circadian transcriptome in a rat pituitary cell line**

A. Jacq (Marseille)

**Effect of an intranasal administration of ODN on mouse body weight**

J. Leprince (Mont-Saint-Aignan)

## Scientific Programme

**The importance of infantile neuronal NOS-derived NO signaling for fertility, olfaction and cognition**

V. Leysen (Lille)

**Pregnancy is associated with the production of new glial cells in the rat hypothalamus**

M. Martin (Lille)

**Development of metabolic disturbances in a mouse model of polycystic ovary syndrome**

N.E.H. Mimouni (Lille)

**Dietary PUFAs immunomodulatory properties shape the neuronal network during development**

L. Morel (Bordeaux)

**The role and molecular mechanisms of the anti-FGFR3 antibody, a biomarker of sensory neuropathies inducing neuronal death**

Y. Nasser (Saint-Etienne)

**Implication of the plasticity of the blood/arcuate nucleus interface during the establishment of obesity**

M. Piet (Lille)

**Behaviour, emotions, cognition, neuroethology**

**Lack of word: a systematic review**

S. Gjerci (Tirana)

**SHANK3 downregulation in the BNST drives anxiety**

C. Glangetas (Bordeaux)

**Lithium reverses mechanical allodynia through a mu opioid receptor-dependent mechanism**

Y. Goumon (Strasbourg)

**What do we know about interference control in children with ADHD?**

A. Grandjean (Marseille cedex 3)

**The role of new N-terminally truncated Tau species in Alzheimer's disease**

S. Guedjald (Lille)

**A neuronal population code for resemblance between drug and nondrug reward outcomes in the orbitofrontal cortex**

K. Guillem (Bordeaux Cedex)

**Type 2 diabetes alters emotional behavior, HPA axis and expression of stress and immune-related genes in the medial prefrontal cortex**

M. Henry (Bordeaux)

**A novel environment-evoked transcriptional signature predicts reactivity in single dentate granule neurons**

B.N. Jaeger (Zurich)

**Neural signature of musical preference during spontaneous auditory imagery**

C. Joucla (Besançon)

**Mapping neurons and brain regions underlying sensorimotor decisions and sequences in *Drosophila***

T. Jovanic (Gif-sur-Yvette)

## Scientific Programme

**Role of neural circuitry of the insular cortex in anxiety-related behaviors**

A. Ju (Bordeaux Cedex)

**A neuro-computational model showing the effects of ventral striatum lesion on the computation of reward prediction error in VTA**

P. Kaushik (Talence)

**Decoding the activity of amygdala-to-frontal cortex axons during decision making**

V. Kouskoff (Bordeaux)

**Time-based expectancy in school-aged children with dyslexia**

M. Kunchulia (Tbilisi)

**Cognitive ability characterization of rat model with mutated alpha-synuclein overexpression**

C. Laloux (Lille)

**Peripersonal space perception in the eye of the hurricane**

N. Leclere (Marseille)

**Anatomical and functional characterization of the neural circuits controlling ejaculation**

C. Lenschow (Lisbon)

**A large scale brain network involved in fear conditioned response: a functional imaging study in rat using microPET**

P. Litaudon (Bron)

**Circuits for opposite valences learning in auditory cortex studied by inference of plastic connectivity**

X. Liu (Paris)

**Brain functional connectivity dynamic is modified by sleep deprivation and correlated with cognitive performance**

D. Lombardo (Marseille)

**Absolute bottlenecks and incompatible dynamics during a dual-task paradigm**

D. Mac-Auliffe (Lyon)

**Activity of fast-spiking interneurons in the primate striatum during reaching movements performed under different degrees of reward uncertainty**

K. Marche (Marseille)

**Dorsal periaqueductal gray and medial hypothalamus involvement in the panic-modulating effects caused by serotonergic activation of dorsal raphe lateral wings**

M. Matthiesen (Araraquara)

**Freezing and shaking as distinct behavioural readouts of fear and anxiety**

M.-C. Medrano (Bordeaux Cedex)

**Orexin in the posterior paraventricular thalamus mediates hunger-related signals in the nucleus accumbens core**

J. Meffre (Marseille)

**Connections of the laterodorsal tegmental nucleus with the prefrontal cortex and habenular-interpeduncular-raphé system**

M. Metzger (São Paulo)

## Scientific Programme

**Impact of a working memory task in sustained attention on resting networks in healthy and traumatic brain injury subjects: an EEG study**

A. Minet (Marseille)

**Motion tracking and reward-based decision-making in healthy and Parkinson's disease participants**

A. Montagnini (Marseille)

**Perception of cardiac interoceptive signals in bilateral vestibular failure**

E. Nakul (Marseille)

**Behavioural and metabolic consequences of Dlx5 and Dlx6 inactivation in GABAergic neurons**

N. Narboux-Nême (Paris)

**Contribution of grid cells inputs to distance/position coding in CA1 place cells**

M. Nordlund (Marseille)

**New translational procedure to study retroactive interference and memory updating mechanisms in mice**

A.-M. Ouagazzal (Marseille)

**Development of the handwriting network: a coupled fMRI and kinematics study in middle-age children**

S. Palmis (Marseille)

**Learning-related plasticity of top-down information in auditory cortex layer 1**

M.B. Pardi (Frankfurt am Main)

**Dyslexia and motion discrimination**

K. Parkosadze (Tbilisi)

**EEG Multivariate Pattern Analysis reveals higher-order linguistic extraction of phonetic features at 3 months of age**

G. Gennari (Paris)

**Theoretical and computational neurosciences**

**Computing hubs in the hippocampus and cortex**

W. Clawson (Marseille)

**A Bayesian inference framework for visuomotor decisions: eye movements modeling and analysis**

F. Conti (Marseille)

**Development of binocular vision through experience dependent plasticity**

B.R. Cottreau (Toulouse Cedex)

**A deep-learning-based toolbox for inferring in vivo large scale neuronal activity in the region CA1 of the developing hippocampus**

J. Denis (Marseille)

**A stochastic model of postsynaptic plasticity based on dendritic spine calcium downstream proteins**

Y. Elias Rodrigues (Valbonne)

**A hierarchical, multi-layer convolutional sparse coding algorithm based on predictive coding**

A. Franciosini (Marseille)

## Scientific Programme

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Callelongue

### **SP04, Training the next generation of neuroscientists. Session 1: scientific misconduct and publication ethics / Former la prochaine génération de neuroscientifiques - Session 1 : fraude scientifique et éthique dans les publications scientifiques**

**Post-publication peer review in a rapidly evolving publication landscape / Evaluation post-publication dans un paysage d'édition scientifique mouvant**

B. Barbour (Paris)

**New initiatives for rigor and reproducibility / Nouvelles initiatives pour la rigueur et la reproductibilité**

C. Bernard (Marseille)

**Ethical issues around scientific publishing / Problèmes éthiques liés à l'édition scientifique**

P. Bolam (Oxford)

**Rebalancing the roles of authors, reviewers, and editors / Rééquilibrer les rôles des auteurs, des réviseurs et des éditeurs**

E. Marder (Waltham)

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Endoume 1+2

### **SP05, Animal research in French neurosciences / Expérimentation animale dans la recherche en neurosciences en France**

#### **Chairs:**

S. Ben Hamed (Bron)

**Animal research in neurosciences, an institutional perspective. / Etat des lieux de l'expérimentation animale en recherche en neurosciences, point de vue institutionnel.**

I. Balansard (Marseille)

**Structuring research around the CELPHEDIA infrastructure: principles, actions and perspectives / Structuration de recherche autour de l'infrastructure CELPHEDIA: principes, actions et perspectives**

Y. Hérault (Illkirch)

**Structuring labs around the non human primate model: principles, actions and perspectives / Structuration des équipes autour du modèle primate non humain : principes, actions et perspectives**

E. Procyk (Bron)

## Scientific Programme

SYMPOSIUM  
15:30 - 17:30

Auditorium

### **S22, Axon function and plasticity. / Fonction axonale et sa plasticité.**

**Chairs:**

D. Debanne (Marseille)  
V. Nägerl (Bordeaux)

**Calcium-activated potassium channels at nodes of Ranvier secure axonal spike propagation. / Les canaux potassium activés par le calcium aux nœuds de Ranvier sécurisent la propagation axonale du potentiel d'action.**

B. Clark (London)

**Activity-dependent rapid remodeling of the axon initial segment. / Remodelage rapide du segment initial de l'axone par l'activité.**

M. Engelhardt (Mannheim)

**Super-resolution imaging reveals activity-dependent structural plasticity of hippocampal axons / La plasticité axonale révélée par l'imagerie super-résolution STED**

U.V. Nägerl (Bordeaux)

**Axonal sodium channels read and transmit input synchrony in local brain circuits / Les canaux sodium axonaux lisent et transmettent la synchronisation des entrées dans les circuits locaux du cerveau**

D. Debanne (Marseille)

**The electrical impact of axon initial segment plasticity**

S. Goethals (Paris)

SYMPOSIUM  
15:30 - 17:30

Callelongue

### **S23, Theoretical Neuroscience II - Coding and information processing. / Neurosciences Théoriques II - Codage et traitement de l'information.**

**Chairs:**

D. Battaglia (Marseille)  
L. Pezard (Marseille)

**Dynamic Computation. / Computations dynamiques.**

V. Priesemann (Goettingen)

**Data-driven modeling of population coding in sensory areas. / Modélisation du codage par les populations neuronales dans les aires sensorielles.**

T. Mora (Paris)

**Population Neural Coding and correlations. / Codage par les populations neuronales et corrélations.**

R. Azeredo Da Silveira (Paris)

**Aging in the spatial coding network - neurocomputational hypotheses**

D. Sheynikhovich (Paris)

## Scientific Programme

**A novel reverse correlation method reveals a sensory specialization in the secondary somatosensory cortex using rich spatio-temporal stimulation**

M.A. Goldin (Gif-sur-Yvette)

SYMPOSIUM  
15:30 - 17:30

Endoume 1+2

**S24, Regulation of social behavior: from genes to circuits. / Régulation du comportement social : gènes et circuits.**

**Chairs:**

E. Gascon Gonzalo (Marseille)

**The link between oxytocin and autism: an interesting path to follow? / Lien entre oxytocine et autisme: une direction à suivre?**

A. Lefevre (Heidelberg)

**Role of hippocampal area CA2 in social memory formation. / Rôle de la région CA2 de l'hippocampe dans la formation de la mémoire sociale.**

V. Chevalayre (Paris)

**Investigating epigenetic control of mice social behaviours. / Contrôle épigénétique du comportement social chez la souris.**

E. Gascon Gonzalo (Marseille)

**Interneuronal dysfunction and social memory impairment in a mouse model of Alzheimer's disease. / Perturbations interneuronales et déficits de mémoire sociale dans un modèle murin de la maladie d'Alzheimer**

L. Verret (Toulouse)

**Dopaminergic activity and behavioral traits diverge with social rank**

D. Battivelli (Paris)

SYMPOSIUM  
15:30 - 17:30

Endoume 3

**S25, The Janus faces of microbiota-gut-brain axis: from brain shaping to neuropsychiatric disorders. / Les faces de Janus de l'axe microbiote-cerveau. De la formation du cerveau aux troubles cérébraux.**

**Chairs:**

P. Marin (Montpellier)

**Social Microbes: Gut Microbiota Regulation of the Social Brain and Behavior / Les microbes sociaux: régulation du cerveau et du comportement social par le microbiote intestinal**

E. Sherwin

**Vagus nerve in brain-gut interactions: a biopsychosocial view of health and disease / Rôle du nerf vague dans les interactions cerveau-intestin: une approche biopsychosociale de la santé et de la maladie**

S. Pellissier (Grenoble)



## Scientific Programme

**Gut Microbiota and Alzheimer's Disease: an Unexpected Therapeutic Target. / Microbiote intestinal et maladie d'Alzheimer : une cible thérapeutique inattendue.**

S. Claeysen (Montpellier)

**Effects of fecal supernatant from Autism Spectrum Disorder patients on intestinal epithelial barrier permeability and enteric nervous system phenotype**

J. Gonzales (Nantes)

SYMPOSIUM  
15:30 - 17:30

Riou

**S26, When reward meets time: the neural basis of delay discounting. / Quand la récompense rencontre le temps: bases neuronales de la perte de valeur liée à l'attente.**

**Chairs:**

P. Apicella (Marseille)

**The neurochemical basis of individual differences in outcome-based decision-making under uncertainty. / Bases neurochimiques des différences interindividuelles dans la prise de décision sous incertitude.**

S. Granon (Orsay)

**Wait and you shall see: sexual delay discounting in impulse control disorders in Parkinson's disease. / Attendez et vous verrez: décompte temporel et stimuli érotiques dans l'impulsivité des patients parkinsoniens.**

I. Obeso (Mostoles (Madrid))

**Neuronal activity representing temporal prediction of reward in the monkey basal ganglia. / Activité neuronale et prédiction temporelle de la récompense dans les ganglions de la base du singe.**

P. Apicella (Marseille)

**Discounting of rewards and efforts across time in the human brain. / Décompte temporel des récompenses et des efforts chez l'homme.**

R. Le Bouc (Paris)

**Optogenetic photoinhibition of striatal cholinergic interneurons drives response perseveration and impulsive actions in mice**

J. Lhost (Marseille)

SYMPOSIUM  
15:30 - 17:30

Sormiou

**S27, Photopharmacology: manipulating endogenous neuroregulatory mechanisms by light. / Photopharmacologie : manipulation de mécanismes de neurorégulation par la lumière.**

**Chairs:**

C. Goudet (Montpellier)

## Scientific Programme

**Allosteric ligands to control metabotropic glutamate receptors with light. / Ligands allostériques pour contrôler les récepteurs métabotropiques du glutamate par la lumière.**

A. Llebaria (Barcelona)

**Strategies to improve photopharmacological research. / Stratégie d'amélioration pour la recherche photopharmacologique.**

J. Broichhagen (Heidelberg)

**Metabotropic glutamate receptor mGlu4 in the amygdala differentially inhibits sensory and affective component of chronic pain / Le récepteur mGlu4 dans l'amygdale contrôle les composantes sensori-discriminatives et affectives de la douleur**

V. Pereira (Montpellier)

**Optical tools for understanding ion channel and GPCR function in stimulus-secretion coupling. / Outils optiques pour comprendre la fonction des canaux ioniques et des RCPG dans le couplage stimulation-sécrétion.**

D.J. Hodson (Birmingham)

SYMPOSIUM  
15:30 - 17:30

Morgiou

**S28, New perspectives for the neurobiology of nicotine dependence: from nicotinic receptors to behavior. / Nouvelles perspectives pour la neurobiologie de la dépendance à la nicotine.**

### Chairs:

V. Deroche-Gamonet (Bordeaux)

**Preclinical evidence of individual variations in the psychobiological mechanisms of nicotine seeking. / Variations individuelles dans les mécanismes de dépendance à la nicotine : données précliniques.**

V. Deroche-Gamonet (Bordeaux)

**Looking beyond primary reinforcement models in order to capture vulnerability to nicotine dependence within neuropsychiatric disorders. / Voir au-delà des modèles de renforcement primaire pour étudier la vulnérabilité à la dépendance à la nicotine dans les troubles neuropsychiatriques.**

M. Shoaib (Newcastle)

**Attentional capacities can predict the motivational properties of nicotine in rodents. / Les capacités attentionnelles peuvent prédire la motivation pour la nicotine chez le rongeur.**

S. Caille (Bordeaux)

**Modulation of nicotine response by social factors / Modulation de la réponse à la nicotine par des facteurs sociaux**

P. Faure (Paris)

**Implication of GABAergic interneurons in nicotinic mediated striatal circuits**

M. Assous (Newark)

NeuroFrance 2019,  
22 - 24 May 2019,  
Marseille, France

## **Scientific Programme**

GENERAL ASSEMBLY / ASSEMBLÉE GÉNÉRALE  
17:30 - 18:30

Auditorium

### **General Assembly and awards ceremony/Assemblée Générale et remise des prix**

ALFRED FESSARD LECTURE / LECTURE ALFRED FESSARD  
18:30 - 19:30

Auditorium

### **PL06, Christophe Mulle**

#### **Chairs:**

L. Kerkerian-Le Goff

**Presynaptic plasticity in hippocampal circuits / Plasticité présynaptique  
dans les circuits de l'hippocampe**

C. Mulle (Bordeaux)

## Scientific Programme

### Friday, 24. May 2019

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PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
09:00 - 09:30

Auditorium

#### **PL07, Frédéric Saudou**

**Chairs:**

D. Blum (Lille)

**Huntingtin: Linking fast axonal transport, energy supply and neurotrophin signaling to neurodegeneration / Huntingtine : transport axonal, métabolisme énergétique, signalisation neurotrophique et neurodégénérescence.**

F. Saudou (Grenoble)

SPECIAL SESSION / SESSION SPÉCIALE  
09:30 - 09:35

Auditorium

#### **Presentation of Cité de l'Innovation et des Savoirs Aix-Marseille by Aix-Marseille Université**

PLENARY LECTURE / CONFÉRENCE PLÉNIÈRE  
09:35 - 10:05

Auditorium

#### **PL08, Eve Marder**

**Chairs:**

F. Chavane

**Robustness to perturbation and degeneracy in neurons and circuits / Robustesse des neurones et des circuits aux perturbations et à la dégénérescence.**

E. Marder (Waltham)

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
10:00 - 11:00

Foyer

#### **P3, Poster session 3**

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

**Development, synaptic plasticity**

## Scientific Programme

**Role of Netrin-1 in the guidance of the corticospinal tract and the lateralization of motor control**

M.-P. Morel (Paris)

**Theta-burst firing induces a homeostatic depression of intrinsic excitability involving Kv1.1 channels in CA1 pyramidal neurons in vivo**

P. Morgan (Marseille)

**Functional dynamics of the infant brain**

S. Naik (Paris)

**Beyond the receptor: new strategies to study the dynamic interactions between the AMPAR and their auxiliary subunits**

D. Neto (Bordeaux Cedex)

**Deletion of CB1 receptors in D1-positive cells impairs object recognition memory and synaptic plasticity**

J.F. Oliveira da Cruz (Bordeaux)

**Exploring the role of FLNA in cortical development and function**

G. Panti (Marseille)

**Consuming a balanced diet from weaning reverses the inappropriate food preferences in offspring of low protein-diet fed rat dams but modifies the glutamatergic and dopaminergic circuits in hypothalamus and reward pathway**

J. Paradis (Nantes)

**Neuronal integration in the adult olfactory bulb is a non-selective addition process**

J.-C. Platel (Marseille)

**The Punctin-Neuroigin partnership regulates the C. elegans inhibitory synapse; investigating the synaptic interactions of Punctin**

S. Platsaki (Marseille)

**Impact of a Fragile X syndrome missense mutation on the neuronal function**

M. Prieto (Valbonne)

**Glutamate imaging reveals co-operative release sites in the CA3 giant mossy fiber boutons**

S. Rama (London)

**Death of Cajal-Retzius cells is required for developmental pruning of synapses and for the maturation of cortical circuits**

M. Riva (Paris)

**Studying neuronal network genesis to understand neurodegenerative diseases: role of VPS35, a sub-unity of the retromer**

M. Roque (Marseille)

**Disruption of the transcription factor NEUROD2 causes a spectrum of neurobehavioral phenotypes in mice and humans**

K. Runge (Marseille)

**Long-term plasticity of intrinsic excitability in dorsal lateral geniculate nucleus**

M. Russier (Marseille)

**Dopamine triggers Long Term Potentiation**

F. Sayegh (Toulouse)

## Scientific Programme

**Study of the etiology of a rare form of mental retardation linked to autism, associated with mutations in the TRIO gene**

S. Schmidt (Montpellier)

**Fast unsupervised generation of oriented vascular graphs**

S. Skriabine (Paris)

**A primary cilium-dependent cAMP-rich zone at the centrosome is necessary for proper saltatory neuronal migration in the postnatal mouse brain**

J. Stoufflet (Paris)

**Morphological and electrophysiological characterization of CSPNs in a mouse model of fine motor skill impairments**

C. Tocco (Nice)

**The lack of spatacsin (SPG11) disrupts postnatal synaptogenesis in mouse**

L. Toupenet (Paris)

**Genetic and environmental factors shape the brain development**

R. Verhaeghe (Villeneuve d'Ascq)

**The Kv7.2 (KCNQ2)-mediated M-current tunes the locomotor rhythm**

J. Verneuil (Marseille)

**Musical sonification for the rehabilitation of Parkinsonian dysgraphia**

L. Véron-Delor (Marseille)

**Reorganization of brain networks following long-term sensory loss**

A. Vieites Prado (Paris)

**Role of Huntingtin in the maturation of cortical neurons**

D. Wennagel (La Tronche)

**Signalisation, cellular communications**

**Serotonin Receptors-Associated Networks: role in non-amyloidogenic processing of APP**

H. Payan (Montpellier)

**Live super-resolution studying of AMPARs intracellular transport in brain slices**

V. Pecoraro (Bordeaux Cedex)

**Study of the pathogenic mechanisms of Lesch-Nyhan disease in relation to the dopaminergic system in the Drosophila model**

C. Petitgas (Paris)

**Mature dentate granule cells show different properties depending on the behavioural context of their activation**

C. Pléau (Marseille)

**Differential modulation of excitatory synaptic inputs on dopamine neurons by group I metabotropic glutamate receptors**

P. Poirier (Paris)

**Astrocytes modulate synaptic efficacy as a function of incoming activity**

D. Pommier (Bordeaux)

**Regulation of the SUMOylation balance at the mammalian synapse**

M. Pronot (Valbonne)

## Scientific Programme

**Novel role of type III sodium-phosphate co-transporters in regulating hippocampal-dependent cognitive functions**

M. Ramos Brossier (Paris)

**Neuropeptide S inhibits sleep-promoting neurons into the VLPO to favor wakefulness**

A. Rancillac (Paris)

**Characterization of CRMP4 as a partner of the MAP6 protein in the semaphorin-3E signaling pathway during brain wiring**

C. Ravello (Grenoble)

**In situ validation and spatial mapping of diverse striatal cells identified by scRNA-seq in the mouse brain at single-cell resolution**

M. Rouault (Abingdon, Oxfordshire)

**Evaluating the quinolinone GSA-10 during CNS demyelination**

M. Russo (Gif sur Yvette)

**Implication of nuclear calcium signaling in cocaine-evoked adaptations**

E. Saint-Jour (Paris)

**Spatial Ca<sup>2+</sup>-sensing of vesicles determine their directionality along microtubules**

C. Scaramuzzino (Grenoble)

**Inhibitor of apoptosis proteins determine glioblastoma stem-like cells fate in an oxygen-dependent manner**

A. Soubéran (Marseille)

**Role of mGlu3 / PICK1 interaction in hippocampal theta rhythm and implications for neuropsychiatric disorders**

J. Ster (Montpellier Cedex 5)

**Linking robustness of neuronal activity and topology of ion channel expression in midbrain dopaminergic neurons**

M. Tapia Pacheco (Marseille)

**Analysis of Glast expressing cells by 3D imaging of transparent adult mouse hypothalamus**

L. Tirou (Gif sur Yvette)

**The AlphaLISA technique: an innovative approach for studying CB1-intracellular signaling pathway in brain tissue lysates**

G. Tomaselli (Bordeaux)

**Huntingtin phosphorylation at serine 421 regulates axonal transport of synaptic vesicle precursors and mouse behavior**

H. Vitet (La Tronche)

**Boc, a new regulator of developmental myelination in the brain**

A. Zahaf (Le Kremlin-Bicêtre)

**Is Ih responsible for mitral cells respiratory-driven slow oscillations?**

M. Zbili (Bron)

**Neurological and psychiatric diseases, experimental therapeutics**

**Implication of vitamin A in neuroprotection of dopaminergic neurons in a rat model of Parkinson's disease**

A. Marie (Bordeaux)

## Scientific Programme

**Identification of new biomarkers of posturo-locomotor instability in a rodent model of vestibular pathology**

E. Marouane (Marseille)

**Oxytocin rescues atypical thermosensory reactivity during the neonatal period in a mouse model of ASD**

V. Matarazzo (Marseille)

**Interaction of ApoE- $\epsilon$ 4 and acquired risk factors on the development of synaptic impairments in a mice model of Alzheimer's disease**

M. Matos (Bordeaux)

**The pathophysiology of Fragile X Syndrome: molecular deregulations in interneurons**

T. Maurin (Valbonne)

**Stimulating vesicular glycolysis to restore fast axonal transport of BDNF in Huntington's disease**

M. Mc Cluskey (La Tronche)

**K-means clustering in the identification of autistic-like trait subgroups with differing cortical features**

A. Mihailov (Gif-sur-Yvette)

**The mitochondrial system of hippocampal adult-born neurons is altered in the Tg2576 mouse model of Alzheimer's disease**

M.-C. Miquel (Toulouse)

**Depression and therapeutic resistance: complementary models to study inflammatory versus non-inflammatory depression in mice**

C. Monchaux De Oliveira (Bordeaux)

**Development of a new nanobody-based MRI contrast agent of pTau for early diagnosis of AD**

N. Nakamura (Paris)

**Chronic stress in middle-age mice has consequences on behavioral emotionality and cognitive aging: relationships with changes in brain methylated H3K27**

K. Nicolay-Kritter (PESSAC)

**Engineering pharmacology active nanobodies to target mGlu2 receptor in the brain**

M. Oosterlaken (Montpellier)

**The epigenetic landscape of Alzheimer's disease: chromatin acetylation changes in the ThyTau22 mouse model**

I. Paiva De Castro (Strasbourg)

**Importin alpha-5 regulates anxiety through MeCP2 and sphingosine kinase 1**

N. Panayotis (Rehovot)

**Acupuncture effect on chronic stress-induced depression and its central neural mechanism**

J.-Y. Park (Daejeon)

**Physiological role of APP during aging: behavioral and molecular study in a new model of knock-out rat**

M. Pellen (Strasbourg)

**Metabotropic glutamate receptor mGlu4 in the amygdala differentially inhibits sensory and affective component of chronic pain**

V. Pereira (Montpellier)



## Scientific Programme

**Sleep/wake activity in the Lewy bodies mouse model of Parkinson's disease**

M. Persillet (Bordeaux)

**Impaired lysosome recycling and lipid clearance contribute to neurodegeneration**

A. Pierga (Paris)

**D-serine is involved in the  $\beta$ -amyloid-related pathophysiology in Alzheimer's disease**

E. Ploux (Caen)

**Intracranial Zika virus injection for the treatment of recurrent high-grade glioma: preliminary case report**

G. Podolsky-Gondim (Ribeirao Preto)

**Neuron-glia interaction in stress-related behaviors: role of hippocampal glutamatergic tone**

B. Portal (Toulouse)

**Hippocampal subfields alterations in terrorist attacks survivors with post-traumatic stress disorder**

C. Postel (Caen)

**Glutamate dysfunction at extrasynaptic site in hippocampus of a mouse model of myotonic dystrophy type 1 (DM1)**

B. Potier (Orsay)

**The Amyloid Precursor Protein C-terminal domain alters CA1 neuron firing impairing spatial memory encoding**

P. Pousinha (Valbonne)

**Significant low DNA methylation of BDNF gene in anorexia nervosa**

N. Ramoz (Paris)

**Role of BIN1 in a development of late-onset Alzheimer's disease**

M. Rataj Baniowska (Illkirch)

**High frequency but not low frequency deep brain stimulation of the subthalamic nucleus reduces motivation for cocaine while increasing that for apple sauce in the monkey**

S. Ravel (Marseille)

**Symptomatic and biochemical assessment of an antidyskinetic compound in a L-DOPA induced dyskinesias rat model**

D. Revy (Marseille)

**Mitofusin alleles causing Charcot-Marie-Tooth neuropathy have opposite effects on mitochondrial fusion**

T. Rival (Marseille)

**Early blockade of serotonin 5-HT<sub>6</sub> receptor-dependent mTOR activation prevents onset of cognitive deficits in a developmental model of schizophrenia**

A. Rogliardo (Montpellier)

**Therapeutic potential of autologous transplants of ecto-mesenchymal olfactory stem cells (EMs-OSCs) to repair hippocampal damage**

K. Sadelli (Marseille)

**Neuronal activity-dependent changes in KRAS Rasopathy Model**

S. Salar (Erlangen)

## Scientific Programme

**Persistent loss of depotentiation of the amygdala-insular pathway after withdrawal from chronic cocaine: involvement of muscarinic receptors**

A. Salin (Poitiers)

**Impaired vocal communication, sleep-related discharges and transient alterations of slow-wave sleep and of brain microstructure in developing mice lacking the epilepsy and language related GluN2A subunit of NMDA receptors**

M. Salmi (Marseille)

**Single-cell RNA-seq analysis of glioblastoma cell tumorigenic potential**

M.S. Saurty (Paris)

**Role of synaptic zinc in motor and non-motor deficits associated to Parkinson's disease: pharmacological & genetic studies in mice**

J. Sikora (Marseille)

**Syngeneic grafts of Olfactory Ecto-Mesenchymal Stem Cells restore breathing and locomotor functions in an acute rat model of high cervical contusion**

J.C. Stamegna (Marseille)

**The microbiome gut-brain axis: are gut-microbiome the key to treating by probiotic of autism spectrum disorders?**

L. Tabouy (Gif/Yvette)

**Selective DBS of the subthalamic nucleus improved motor and non-motor deficits without affecting weight gain in a rat model of Parkinson's disease**

H. Tibar (Bordeaux)

**Impact of moderate chronic alcohol consumption and withdrawal on hippocampus and striatum-dependent learning and related synaptic plasticity**

L. Tochon (Bordeaux)

**Loss-of-function mutations in RAD51 and NTN1 cause congenital mirror movements**

O. Trouillard (Paris)

**Memory dysfunctions in FUSANLS mice and associated epigenetic changes**

L. Tzeplaëff (Strasbourg)

**The extent of dopamine cell loss induced in mice by stereotaxic injection of the glutamate transporter inhibitor L-trans-2,4-PDC is dependent on the type of anesthetic used for surgery**

M. Vallucci (Paris)

**Is cataplexy a dissociated state of paradoxical (REM) sleep? Role of the GABA/Glycinergic neurons of the ventromedial medulla in brainstem in a mouse model of narcolepsy type 1**

M. Villalba (Bron)

**Neurometabolic sequelae following Plasmodium Berghei ANKA-induced cerebral malaria**

A. Viola (Marseille Cedex 05)

**Agregation de la protéine TDP-43 dans la sclérose latérale amyotrophique (SLA) et voie de la sumoylation**

P. Vourc'h (Tours)

**Analysis of neuronal dysfunctions in a murine model of hereditary spastic paraplegia**

B. Wilmet (Paris)

**Integrative neurosciences, sensory physiology**

## Scientific Programme

**Different dentate granule cells are activated across time during paradoxical (REM) sleep and waking: a study using TRAP mice method**

P.-H. Luppi (Bron)

**Intracellular dynamics of CA3 pyramidal cells in awake head-fixed mice during large irregular activity**

M. Malezieux (Bordeaux)

**Effects of temporal features of a task and reward outcomes on the activity of the cholinergic TAN system in the monkey striatum**

A.-C. Martel (Marseille)

**Dual control of sympathetic and parasympathetic regulation of cardiovascular activity by the respiratory oscillator**

C. Menuet (Marseille)

**Impact of a maternal high fat high sugar diet on progeny's olfactory system in mice**

L. Merle (Dijon)

**Cav3.2 T-type calcium channels shape electrical firing in mouse Lamina II neurons**

P.-F. Méry (Montpellier)

**Origin and diversification of vertebrate cerebral circadian clocks: insights from the lamprey *L. fluviatilis* and the catshark *S. canicula***

L.F. Michel (Banyuls-sur-Mer)

**Mechanotransduction of neurons contacting the cerebrospinal fluid: role of the kinocilium and interaction with the Reissner fiber**

A. Orts-Del'Immagine (Paris)

**Membrane cholesterol depletion as a trigger of Nav1.9 channel-mediated inflammatory pain**

F. Padilla (Marseille)

**Predictive coding in the primary visual cortex? Synaptic contribution of the horizontal intrinsic connectivity to "filling-in"**

M. Pananceau (Gif-sur-Yvette)

**Impact of cholinergic interneurons on corticostriatal transmission: an in vivo approach combining intracellular recordings and optogenetics in anesthetized mice**

J. Pesce (Marseille)

**Complete and irreversible unilateral vestibular loss induces reactive neurogenesis in the vestibular nuclei in adult rat**

G. Rastoldo (Marseille)

**Olfacto-tactile interactions in mouse primary sensory areas**

A. Renard (Gif-sur-Yvette)

**Two-photon imaging dramatically affects brain temperature, blood flow and oxygenation**

M. Roche (Paris)

**Daily torpor and sleep in the non-human primate, the grey mouse lemur (*Microcebus murinus*)**

J. Royo (Brunoy)

**Cortex-wide fast activation of VIP-expressing inhibitory neurons by reward and punishment**

B. Rózsa (Budapest)

## Scientific Programme

**Sound-driven response in primary visual cortex of Shank3 $\Delta$ C mice model of autism spectrum disorder**

S. Sakkaki (Montpellier)

**Vasoactive intestinal peptide deficiency elicits reversible cold and mechanical nociception in mice**

M. Salgado Ferrer (Strasbourg)

**Investigating new effects of anteroposterior GVS: EEG, eye motion and perception**

A. Severac Cauquil (Toulouse)

**A somatotopic organization of the secondary somatosensory cortex of the rat**

D.E. Shulz (Gif Sur Yvette)

**Role of spinal dopamine D2 receptors**

P. Tarot (Montpellier)

**Radial glia synchronized activity events associated with motor behavior in the zebrafish larva**

A. Uribe Arias (Paris)

**Characterizing patterns of dendritic activity in awake behaving mice with 3D arboreal scanning and real time movement correction**

A.M. Valera (London)

**A link between dynamics and function in the anterior thalamus**

G. Viejo (Montreal)

**Neuroendocrinology, neuroimmunology**

**Anti-CASPR2 autoantibodies from patients with autoimmune encephalitis alter CASPR2 membrane distribution and Kv1.2 expression**

A. Pieters (Lyon)

**MT5-MMP may influence early stages of Alzheimer's disease through the control of neuroinflammation and amyloidogenesis**

D. Pilat (Marseille)

**Neonatal maternal separation induces long-term alteration of pain responses and oxytocin analgesia**

P. Poisbeau (Strasbourg)

**Brain mapping and functional characterization of the human MCHR2 in a "humanized" mouse model**

F. Presse (Valbonne)

**Disclosing neuroendocrine mechanisms of seasonality, a step towards genetically modified models**

V. Simonneaux (Strasbourg)

**TDP-43, the main constituent of FTLN/ALS neuronal protein aggregates, is a modulator of innate immune activation**

J. Smeyers (Paris)

**See-through the brain: 3Dimensional imaging of the neuroendocrine circuits controlling reproduction in mice**

G. Ternier (Lille)

**Behaviour, emotions, cognition, neuroethology**

## Scientific Programme

**Vasoactive peptide urotensin II in plasma is associated with cerebral vasospasm after aneurysmal subarachnoid hemorrhage and constitutes a potential therapeutic target**

M. Pedard (Mont Saint Aignan)

**Effect of radiofrequency electromagnetic fields exposure (4G, LTE, 900 MHz) on spatial memory persistence and transcriptome profile in the hippocampus and medial prefrontal cortex**

A. Pereira de Vasconcelos (Strasbourg)

**Learning relative value in Drosophila**

E. Perisse (Montpellier)

**Involvement of glial connexin 43 in energy homeostasis**

K. Poirot (Marseille)

**A new behavioural paradigm in the study of action control in rats**

J. Poitreau (Marseille)

**Automatic temporal order processing for subliminal asynchronies?**

P. Polgári (Strasbourg)

**Sensorimotor transformation in the zebrafish auditory system**

M. Privat (Paris)

**Somatostatin released by CSF-contacting neurons shapes exploration of zebrafish larva**

F.B. Quan (Paris)

**Mitochondria & Mood: can mitochondrial dysfunction and oxidative stress bridge emotional and metabolic disturbances?**

V. Rappeneau (Osnabrück)

**Brain activity during reciprocal social interaction investigated using conversational robots**

B. Rauchbauer (Marseille)

**Sensory and control limitations shape mouse behavioral strategies during sensory discrimination**

D. Reato (Lisbon)

**Cannabinoid type-1 receptors on GABAergic neurons are necessary and sufficient for running motivation**

B. Redon (Bordeaux)

**Phenotyping of tanycytes-like cells located in the brainstem, possible involvement in energy homeostasis**

G. Roussel (Marseille)

**Investigating the role of the striatum in motor learning and execution**

M. Safaie (Marseille)

**Executive functions and emotions in Alzheimer patients**

E. Salebert (Marseille)

**A two-hit story: seizures and genetic mutation interaction sets phenotype severity in SCN1A epilepsies**

A.R. Salgueiro-Pereira (Valbonne)

**Emotions can alter kinesthetic acuity**

L. Samain-Aupic (Marseille)

## Scientific Programme

**Effects of ionizing radiation on learning and spatial memory after postnatal mouse brain exposure at low to moderate doses**

C. Serrano (Fontenay-aux-Roses)

**Comparing human and monkey neural circuits for processing social scenes**

J. Sliwa (Paris)

**Development of inhibitory control: an electromyographic study**

K. Smigasiewicz (Marseille)

**A mouse model for exploring the neurobiology of confirmation bias-like behaviour**

C. Stevens (Bordeaux)

**Crocus sativus améliore la déficience de l'activité locomotrice et du système dopaminergique induite par le plomb contre la neurotoxicité du plomb chez la Meriones Shawi**

L. Tamegart (Marrakech)

**Role of sensory stimuli and palatability in oral-nicotine consumption in mice**

S. Tannous (Bordeaux)

**Interlimb transfer of sensorimotor adaptation may not reflect interhemispheric transfer: New insights from patients with corpus callosum abnormalities**

P. Tilsley (Marseille)

**Direct- and indirect-pathway striatal projection neurons and the control of locomotion**

A. Tinakoua (Marseille)

**Neuronal control of parental nest building**

T. Topilko (Paris)

**Peer presence facilitates numerosity and phonological comparisons in 10-year-old children**

L. Tricoche (Lyon)

**Contextual fear conditioning differentially activates extended amygdala circuits in male and female**

L. Urien (New York)

**Can transcranial direct current stimulation over the frontal-midline areas modulate conflict-related ERPs?**

T. Vekony (Szeged)

**Memory formation in the absence of experience**

G. Vetere (Paris)

**Superior parietal lobule: a role in visual perception of multiple elements**

A. Vialatte (Bron)

**Impact of cerebral radiofrequency exposures on oxidative stress and corticosterone in a rat model of Alzheimer's disease**

A.-S. Villegier (Verneuil-en-Halatte)

**Neural dynamics in human frontal cortex during performance monitoring and decisions to check**

L. Viñales (Bron)

## Scientific Programme

**Respective roles of the distinct populations of Medium Spiny Neurons of the nucleus accumbens in reward processing**

R. Walle (Bordeaux)

**Assessing model-based inferences in decision making with single-trial response time decomposition**

G. Weindel (Marseille)

**Effects of a counter measure to prevent the deconditioning induced by 5 days of simulated microgravity (dry immersion): impact on the processes involved in facial expression recognition and on cerebral activity**

S. Wittmann (Toulouse)

**Theoretical and computational neurosciences**

**Model of the 'place' cell in the retrosplenial cortex and the path integration based on head direction cells**

M. Ju (Pontoise)

**MiRAMINT: modelling RNA-seq time-series data through variable selection and shape analysis narrows miRNA regulation in Huntington's disease mice**

L. Mégret (Paris)

**Virtual experimentation as a testbed to study the relational and informational organization in orbital and medial prefrontal cortex**

B.T. Nallapu (Talence)

**Extracellular action potentials simulation of neuronal populations**

H. Tran (Vandoeuvre Les Nancy)

**On a toy network of neurons interacting through nonlinear dendritic compartment**

R. Veltz (Sophia Antipolis)

**Model-based analysis of neural recordings of auditory and prefrontal cortex of mice and hindbrain of zebrafish**

S. Wolf (Paris)

SYMPOSIUM  
11:00 - 13:00

Auditorium

**S29, Organization and function of neuronal activity in the developing hippocampus.  
/ Fonction et organisation de l'activité neuronale dans l'hippocampe immature.**

**Chairs:**

P.-P. Lenck-Santini (Marseille)

**The development of neural mechanisms for memory consolidation /  
Développement des mécanismes neuronaux de la consolidation mnésique**

T.J. Wills (London)

**Calcium imaging investigation of neuronal activity in the neonatal hippocampus. /  
Étude en imagerie calcique de l'activité neuronale dans l'hippocampe néonatal.**

M. Picardo (Marseille)

## Scientific Programme

**Physiological and pathological hippocampal network patterns in the postnatal period of mice. / Patrons physiologiques et pathologiques des réseaux hippocampiques lors de la période néonatale chez la souris.**

D. Isbrandt (Köln)

**Electrophysiological properties of the early network activity in neonatal rat hippocampus. / Propriétés électrophysiologiques de l'activité précoce des réseaux de l'hippocampe néonatal du rat.**

G. Valeeva (Kazan)

**How does an oxytocin treatment in early life impact social behavior and hippocampal alterations in Magel2-deficient mice?**

A. Bertoni (Marseille)

SYMPOSIUM  
11:00 - 13:00

Callelongue

**S30, Learning and cognitive abilities during development: an integrative approach. / Apprentissage et efficacité cognitive durant le développement : une approche intégrative.**

**Chairs:**

A. Cachia (Paris)

**How does the early brain structural organization relate to functional development in infants? / Comment l'organisation anatomique précoce du cerveau est-elle liée au développement fonctionnel du bébé?**

J. Dubois (Gif-sur-Yvette)

**A brain-behavioral study of motor learning in typically-developing children and children with learning disorders. / Etude en imagerie comportementale de l'apprentissage moteur chez des enfants au développement typique ou souffrant de troubles des apprentissages.**

C. Assaiante (Marseille)

**Cognitive abilities and training efficiency, between early brain development and late neuroplasticity. / Capacités cognitives et efficacité de l'entraînement, entre développement cérébral précoce et neuroplasticité tardive.**

A. Cachia (Paris)

**Computational modeling of functional impairments observed in neurodevelopmental psychiatric disorders / Modélisation d'anomalies fonctionnelles observables lors de troubles psychiatriques neurodéveloppementaux**

R. Jardri (Paris)

**Inhibition of a response to a social stimulus: a developmental fMRI study**

A. Afyouni (Marseille)



## Scientific Programme

SYMPOSIUM  
11:00 - 13:00

Endoume 1+2

### **S31, Lipids and brain function: from the synaptic membrane to psychiatric symptoms. / Lipides et fonction cérébrale : de la membrane synaptique aux symptômes psychiatriques.**

**Chairs:**

C. Bosch-Bouju (Bordeaux)

**Role of dietary omega 3 in mood and cognitive disorders in preclinical models. / Rôle des omega-3 nutritionnels dans les troubles cognitifs et de l'humeur chez la souris.**

S. Laye (Bordeaux)

**Positron emission tomography imaging of dopamine-lipid interactions in the human brain. / Tomographie par émission de positron des interactions cérébrales dopamine-lipides chez l'homme.**

M. Willeit (Vienna)

**Vulnerability of the nucleus accumbens neuronal network to developmental n-3 PUFA deficiency: consequences on the reward and motivation system**

F. Ducrocq (Bordeaux)

**Impact of lipid polyunsaturation on dopamine D2 receptor activation and signaling / Impact de l'insaturation lipidique sur l'activation et la signalisation du récepteur dopaminergique D2**

I. Alves (Pessac)

**Balancing membrane impermeability and flexibility by combining different acyl chains in phospholipids. / Equilibre entre imperméabilité et flexibilité de la membrane par la combinaison de différentes chaînes acyles dans les phospholipides.**

B. Antonny (Valbonne)

SYMPOSIUM  
11:00 - 13:00

Endoume 3

### **S32, Multiple signaling pathways linking chronic stress and glucocorticoids to neuropsychiatric disorders. / De multiples voies de signalisation relient stress chronique, glucocorticoïdes et désordres neuropsychiatriques. Supported by Enzo Life Sciences**

**Chairs:**

M.-P. Moisan (Bordeaux)

F. Jeanneteau (Montpellier)

**Brain corticosteroid receptor transcriptional activity regulation: mechanisms and targeting. / Régulation de l'activité transcriptionnelle des récepteurs centraux aux corticostéroïdes : mécanismes et cibles.**

O.C. Meijer (Leiden)

**Stress, brain mitochondria and psychiatric disorders / Stress, mitochondries neuronales et maladies psychiatriques**

M. Arango-Lievano (Montpellier)

## Scientific Programme

**Mice selected for extremes in glucocorticoid stress reactivity: modelling clinically relevant endophenotypes of major depression. / Sélection génétique de souris avec une réactivité au stress extrême: modélisation d'endophénotypes de la dépression majeure pertinents cliniquement.**

C. Touma (Osnabrueck)

**Interplay of immune and glucocorticoid signaling pathways in the depressive symptoms of obese patients. / Interaction des voies de signalisation immune et glucocorticoïde dans les symptômes dépressifs de patients obèses.**

M.-P. Moisan (Bordeaux)

**Switching from PTSD-like to normal memory: the key role of hippocampal-amygdalar dendritic changes**

E.-G. Ducourneau (Bordeaux)

SYMPOSIUM  
11:00 - 13:00

Riou

### **S33, Theoretical Neuroscience III - Bridging scales toward clinical applications. / Neurosciences théoriques III - Théorie multi-échelle vers les applications cliniques. Supported by Aix-Marseille Université, Institut Carnot STAR and SATT Sud-Est**

#### **Chairs:**

B. Gutkin (Paris)

S. Olmi (Sophia Antipolis)

**Modelling ultra-slow oscillations in cortical circuits: role of interneuronal diversity and cholinergic pathology in schizophrenia and Alzheimers. / Modélisation des oscillations ultra-lentes corticales: la diversité interneuronale et la pathologie cholinergique dans la schizophrénie et l'Alzheimer.**

B. Gutkin (Paris)

**Mental illness as impairment of Bayesian inference. / La maladie mentale comme altération de l'inférence bayésienne.**

P. Series (Edinburgh)

**Large-scale network models and connectomics in clinical applications. / Modèles de réseaux à grande échelle et connectomics en applications cliniques.**

V. Jirsa (Marseille)

**A general mean-field approach to derive realistic population models from spiking neuron models / Une approche générale en champ moyen pour dériver des modèles réalistes de populations neuronales à partir de modèles de neurones à impulsions**

A. Destexhe (Gif-sur-Yvette)

**Modeling human surface potentials evoked by electrical stimulation: from microscopic to macroscopic scales**

M. Dali (Gif-sur-Yvette)

## Scientific Programme

SYMPOSIUM  
11:00 - 13:00

Sormiou

### **S34, Oscillations in vision: from neuronal signals to behavior. / Rôle des oscillations en vision : des neurones au comportement.**

**Chairs:**

S. Ben Hamed (Bron)

**Visual cortex mechanisms subserving rhythmic neuronal activation and attentional sampling. / Mécanismes du cortex visuel sous-tendant l'activation neuronale rythmique et l'échantillonnage attentionnel.**

M. Schmid (Newcastle upon Tyne)

**Two modes of feedback in monkey visual cortex**

T. van Kerkoerle (Paris)

**The rhythms of attention and perception. / Les rythmes de l'attention et de la perception.**

L. Dugué (Paris)

**Prefrontal cortex attentional spotlight explores space rhythmically. / Le spotlight attentionnel préfrontal explore l'espace rythmiquement.**

C. Gaillard (Bron)

SYMPOSIUM  
11:00 - 13:00

Morgiou

### **S35, The emerging synaptic and metabolic roles of glial cells: sleep versus wakefulness, a SFRMS symposium. / Rôles synaptique et métabolique des cellules gliales: sommeil versus éveil, un symposium de la SFRMS.**

**Chairs:**

L. Seugnet (Lyon)

**Polyunsaturated fatty acids tune microglial shaping of neuronal circuits in the developing brain. Consequences for sleep/wake activity. / Les acides gras polyinsaturés contrôlent le développement des réseaux neuronaux microglie-dépendant. Conséquences pour l'éveil/sommeil.**

A. Nadjjar (Bordeaux)

**How does neuroglial Notch signaling impacts the vulnerability to sleep deprivation? / Comment la signalisation neurogliale Notch module-t-elle la vulnérabilité à la privation de sommeil?**

L. Seugnet (Lyon)

**Role of astroglial metabolic networks in the maintenance of wakefulness. / Rôle des réseaux astrocytaires métaboliques dans le maintien de l'éveil.**

J. Clasadonte (Lille)

**Sleep and wake at cortical synapses: a glial perspective. / Eveil/sommeil et synapses corticales: une perspective gliale.**

M. Bellesi (Ancona)

**Microglial motility during sleep and wakefulness. / Motilité gliale durant l'éveil et le sommeil.**

I. Hristovska (Lyon)

## Scientific Programme

POSTER SESSION / COMMUNICATIONS AFFICHÉES  
13:00 - 17:30

Foyer

### P3, Poster Session 3

Poster sessions run from 10:00 to 11:00 and from 13:00 to 17:30 every day. However, a one hour time block is dedicated to discussion with the authors:

- from 10:00 to 11:00 for even-numbered posters
- from 14:30 to 15:30 for odd-numbered poster

The following posters can be viewed today:

#### **Development, synaptic plasticity**

##### **Role of Netrin-1 in the guidance of the corticospinal tract and the lateralization of motor control**

M.-P. Morel (Paris)

##### **Theta-burst firing induces a homeostatic depression of intrinsic excitability involving Kv1.1 channels in CA1 pyramidal neurons in vivo**

P. Morgan (Marseille)

##### **Functional dynamics of the infant brain**

S. Naik (Paris)

##### **Beyond the receptor: new strategies to study the dynamic interactions between the AMPAR and their auxiliary subunits**

D. Neto (Bordeaux Cedex)

##### **Deletion of CB1 receptors in D1-positive cells impairs object recognition memory and synaptic plasticity**

J.F. Oliveira da Cruz (Bordeaux)

##### **Exploring the role of FLNA in cortical development and function**

G. Panti (Marseille)

##### **Consuming a balanced diet from weaning reverses the inappropriate food preferences in offspring of low protein-diet fed rat dams but modifies the glutamatergic and dopaminergic circuits in hypothalamus and reward pathway**

J. Paradis (Nantes)

##### **Neuronal integration in the adult olfactory bulb is a non-selective addition process**

J.-C. Platel (Marseille)

##### **The Punctin-Neuroigin partnership regulates the C. elegans inhibitory synapse; investigating the synaptic interactions of Punctin**

S. Platsaki (Marseille)

##### **Impact of a Fragile X syndrome missense mutation on the neuronal function**

M. Prieto (Valbonne)

##### **Glutamate imaging reveals co-operative release sites in the CA3 giant mossy fiber boutons**

S. Rama (London)

##### **Death of Cajal-Retzius cells is required for developmental pruning of synapses and for the maturation of cortical circuits**

M. Riva (Paris)

## Scientific Programme

**Studying neuronal network genesis to understand neurodegenerative diseases: role of VPS35, a sub-unity of the retromer**

M. Roque (Marseille)

**Disruption of the transcription factor NEUROD2 causes a spectrum of neurobehavioral phenotypes in mice and humans**

K. Runge (Marseille)

**Long-term plasticity of intrinsic excitability in dorsal lateral geniculate nucleus**

M. Russier (Marseille)

**Dopamine triggers Long Term Potentiation**

F. Sayegh (Toulouse)

**Study of the etiology of a rare form of mental retardation linked to autism, associated with mutations in the TRIO gene**

S. Schmidt (Montpellier)

**Fast unsupervised generation of oriented vascular graphs**

S. Skriabine (Paris)

**A primary cilium-dependent cAMP-rich zone at the centrosome is necessary for proper saltatory neuronal migration in the postnatal mouse brain**

J. Stoufflet (Paris)

**Morphological and electrophysiological characterization of CSPNs in a mouse model of fine motor skill impairments**

C. Tocco (Nice)

**The lack of spatacsin (SPG11) disrupts postnatal synaptogenesis in mouse**

L. Toupenet (Paris)

**Genetic and environmental factors shape the brain development**

R. Verhaeghe (Villeneuve d'Ascq)

**The Kv7.2 (KCNQ2)-mediated M-current tunes the locomotor rhythm**

J. Verneuil (Marseille)

**Musical sonification for the rehabilitation of Parkinsonian dysgraphia**

L. Véron-Delor (Marseille)

**Reorganization of brain networks following long-term sensory loss**

A. Vieites Prado (Paris)

**Role of Huntingtin in the maturation of cortical neurons**

D. Wennagel (La Tronche)

**Signalisation, cellular communications**

**Serotonin Receptors-Associated Networks: role in non-amyloidogenic processing of APP**

H. Payan (Montpellier)

**Live super-resolution studying of AMPARs intracellular transport in brain slices**

V. Pecoraro (Bordeaux Cedex)

**Study of the pathogenic mechanisms of Lesch-Nyhan disease in relation to the dopaminergic system in the Drosophila model**

C. Petitgas (Paris)

## Scientific Programme

**Mature dentate granule cells show different properties depending on the behavioural context of their activation**

C. Pléau (Marseille)

**Differential modulation of excitatory synaptic inputs on dopamine neurons by group I metabotropic glutamate receptors**

P. Poirier (Paris)

**Astrocytes modulate synaptic efficacy as a function of incoming activity**

D. Pommier (Bordeaux)

**Regulation of the SUMOylation balance at the mammalian synapse**

M. Pronot (Valbonne)

**Novel role of type III sodium-phosphate co-transporters in regulating hippocampal-dependent cognitive functions**

M. Ramos Brossier (Paris)

**Neuropeptide S inhibits sleep-promoting neurons into the VLPO to favor wakefulness**

A. Rancillac (Paris)

**Characterization of CRMP4 as a partner of the MAP6 protein in the semaphorin-3E signaling pathway during brain wiring**

C. Ravello (Grenoble)

**In situ validation and spatial mapping of diverse striatal cells identified by scRNA-seq in the mouse brain at single-cell resolution**

M. Rouault (Abingdon, Oxfordshire)

**Evaluating the quinolinone GSA-10 during CNS demyelination**

M. Russo (Gif sur Yvette)

**Implication of nuclear calcium signaling in cocaine-evoked adaptations**

E. Saint-Jour (Paris)

**Spatial Ca<sup>2+</sup> sensing of vesicles determine their directionality along microtubules**

C. Scaramuzzino (Grenoble)

**Inhibitor of apoptosis proteins determine glioblastoma stem-like cells fate in an oxygen-dependent manner**

A. Soubéran (Marseille)

**Role of mGlu3 / PICK1 interaction in hippocampal theta rhythm and implications for neuropsychiatric disorders**

J. Ster (Montpellier Cedex 5)

**Linking robustness of neuronal activity and topology of ion channel expression in midbrain dopaminergic neurons**

M. Tapia Pacheco (Marseille)

**Analysis of Glaxt expressing cells by 3D imaging of transparent adult mouse hypothalamus**

L. Tirou (Gif sur Yvette)

**The AlphaLISA technique: an innovative approach for studying CB1-intracellular signaling pathway in brain tissue lysates**

G. Tomaselli (Bordeaux)

## Scientific Programme

**Huntingtin phosphorylation at serine 421 regulates axonal transport of synaptic vesicle precursors and mouse behavior**

H. Vitet (La Tronche)

**Boc, a new regulator of developmental myelination in the brain**

A. Zahaf (Le Kremlin-Bicêtre)

**Is Ih responsible for mitral cells respiratory-driven slow oscillations?**

M. Zbili (Bron)

**Neurological and psychiatric diseases, experimental therapeutics**

**Implication of vitamin A in neuroprotection of dopaminergic neurons in a rat model of Parkinson's disease**

A. Marie (Bordeaux)

**Identification of new biomarkers of posturo-locomotor instability in a rodent model of vestibular pathology**

E. Marouane (Marseille)

**Oxytocin rescues atypical thermosensory reactivity during the neonatal period in a mouse model of ASD**

V. Matarazzo (Marseille)

**Interaction of ApoE-ε4 and acquired risk factors on the development of synaptic impairments in a mice model of Alzheimer's disease**

M. Matos (Bordeaux)

**The pathophysiology of Fragile X Syndrome: molecular deregulations in interneurons**

T. Maurin (Valbonne)

**Stimulating vesicular glycolysis to restore fast axonal transport of BDNF in Huntington's disease**

M. Mc Cluskey (La Tronche)

**K-means clustering in the identification of autistic-like trait subgroups with differing cortical features**

A. Mihailov (Gif-sur-Yvette)

**The mitochondrial system of hippocampal adult-born neurons is altered in the Tg2576 mouse model of Alzheimer's disease**

M.-C. Miquel (Toulouse)

**Depression and therapeutic resistance: complementary models to study inflammatory versus non-inflammatory depression in mice**

C. Monchaux De Oliveira (Bordeaux)

**Development of a new nanobody-based MRI contrast agent of pTau for early diagnosis of AD**

N. Nakamura (Paris)

**Chronic stress in middle-age mice has consequences on behavioral emotionality and cognitive aging: relationships with changes in brain methylated H3K27**

K. Nicolay-Kritter (PESSAC)

**Engineering pharmacology active nanobodies to target mGlu2 receptor in the brain**

M. Oosterlaken (Montpellier)

## Scientific Programme

**The epigenetic landscape of Alzheimer's disease: chromatin acetylation changes in the ThyTau22 mouse model**

I. Paiva De Castro (Strasbourg)

**Importin alpha-5 regulates anxiety through MeCP2 and sphingosine kinase 1**

N. Panayotis (Rehovot)

**Acupuncture effect on chronic stress-induced depression and its central neural mechanism**

J.-Y. Park (Daejeon)

**Physiological role of APP during aging: behavioral and molecular study in a new model of knock-out rat**

M. Pellen (Strasbourg)

**Metabotropic glutamate receptor mGlu4 in the amygdala differentially inhibits sensory and affective component of chronic pain**

V. Pereira (Montpellier)

**Sleep/wake activity in the Lewy bodies mouse model of Parkinson's disease**

M. Persillet (Bordeaux)

**Impaired lysosome recycling and lipid clearance contribute to neurodegeneration**

A. Pierga (Paris)

**D-serine is involved in the  $\beta$ -amyloid-related pathophysiology in Alzheimer's disease**

E. Ploux (Caen)

**Intracranial Zika virus injection for the treatment of recurrent high-grade glioma: preliminary case report**

G. Podolsky-Gondim (Ribeirao Preto)

**Neuron-glia interaction in stress-related behaviors: role of hippocampal glutamatergic tone**

B. Portal (Toulouse)

**Hippocampal subfields alterations in terrorist attacks survivors with post-traumatic stress disorder**

C. Postel (Caen)

**Glutamate dysfunction at extrasynaptic site in hippocampus of a mouse model of myotonic dystrophy type 1 (DM1)**

B. Potier (Orsay)

**The Amyloid Precursor Protein C-terminal domain alters CA1 neuron firing impairing spatial memory encoding**

P. Pousinha (Valbonne)

**Significant low DNA methylation of BDNF gene in anorexia nervosa**

N. Ramoz (Paris)

**Role of BIN1 in a development of late-onset Alzheimer's disease**

M. Rataj Baniowska (Illkirch)

**High frequency but not low frequency deep brain stimulation of the subthalamic nucleus reduces motivation for cocaine while increasing that for apple sauce in the monkey**

S. Ravel (Marseille)



## Scientific Programme

**Symptomatic and biochemical assessment of an antidyskinetic compound in a L-DOPA induced dyskinesias rat model**

D. Revy (Marseille)

**Mitofusin alleles causing Charcot-Marie-Tooth neuropathy have opposite effects on mitochondrial fusion**

T. Rival (Marseille)

**Early blockade of serotonin 5-HT<sub>6</sub> receptor-dependent mTOR activation prevents onset of cognitive deficits in a developmental model of schizophrenia**

A. Rogliardo (Montpellier)

**Therapeutic potential of autologous transplants of ecto-mesenchymal olfactory stem cells (EMs-OSCs) to repair hippocampal damage**

K. Sadelli (Marseille)

**Neuronal activity-dependent changes in KRAS Rasopathy Model**

S. Salar (Erlangen)

**Persistent loss of depotentiation of the amygdala-insular pathway after withdrawal from chronic cocaine: involvement of muscarinic receptors**

A. Salin (Poitiers)

**Impaired vocal communication, sleep-related discharges and transient alterations of slow-wave sleep and of brain microstructure in developing mice lacking the epilepsy and language related GluN2A subunit of NMDA receptors**

M. Salmi (Marseille)

**Single-cell RNA-seq analysis of glioblastoma cell tumorigenic potential**

M.S. Saurty (Paris)

**Role of synaptic zinc in motor and non-motor deficits associated to Parkinson's disease: pharmacological & genetic studies in mice**

J. Sikora (Marseille)

**Syngeneic grafts of Olfactory Ecto-Mesenchymal Stem Cells restore breathing and locomotor functions in an acute rat model of high cervical contusion**

J.C. Stamegna (Marseille)

**The microbiome gut-brain axis: are gut-microbiome the key to treating by probiotic of autism spectrum disorders?**

L. Tabouy (Gif/Yvette)

**Selective DBS of the subthalamic nucleus improved motor and non-motor deficits without affecting weight gain in a rat model of Parkinson's disease**

H. Tibar (Bordeaux)

**Impact of moderate chronic alcohol consumption and withdrawal on hippocampus and striatum-dependent learning and related synaptic plasticity**

L. Tochon (Bordeaux)

**Loss-of-function mutations in RAD51 and NTN1 cause congenital mirror movements**

O. Trouillard (Paris)

**Memory dysfunctions in FUSANLS mice and associated epigenetic changes**

L. Tzeplaeff (Strasbourg)

## Scientific Programme

**The extent of dopamine cell loss induced in mice by stereotaxic injection of the glutamate transporter inhibitor L-trans-2,4-PDC is dependent on the type of anesthetic used for surgery**

M. Vallucci (Paris)

**Is cataplexy a dissociated state of paradoxical (REM) sleep? Role of the GABA/Glycinergic neurons of the ventromedial medulla in brainstem in a mouse model of narcolepsy type 1**

M. Villalba (Bron)

**Neurometabolic sequelae following Plasmodium Berghei ANKA-induced cerebral malaria**

A. Viola (Marseille Cedex 05)

**Agregation de la proteine TDP-43 dans la sclerose laterale amyotrophique (SLA) et voie de la sumoylation**

P. Vourc'h (Tours)

**Analysis of neuronal dysfunctions in a murine model of hereditary spastic paraplegia**

B. Wilmet (Paris)

**Integrative neurosciences, sensory physiology**

**Different dentate granule cells are activated across time during paradoxical (REM) sleep and waking: a study using TRAP mice method**

P.-H. Luppi (Bron)

**Intracellular dynamics of CA3 pyramidal cells in awake head-fixed mice during large irregular activity**

M. Malezieux (Bordeaux)

**Effects of temporal features of a task and reward outcomes on the activity of the cholinergic TAN system in the monkey striatum**

A.-C. Martel (Marseille)

**Dual control of sympathetic and parasympathetic regulation of cardiovascular activity by the respiratory oscillator**

C. Menuet (Marseille)

**Impact of a maternal high fat high sugar diet on progeny's olfactory system in mice**

L. Merle (Dijon)

**Cav3.2 T-type calcium channels shape electrical firing in mouse Lamina II neurons**

P.-F. Méry (Montpellier)

**Origin and diversification of vertebrate cerebral circadian clocks: insights from the lamprey *L. fluviatilis* and the catshark *S. canicula***

L.F. Michel (Banyuls-sur-Mer)

**Mechanotransduction of neurons contacting the cerebrospinal fluid: role of the kinocilium and interaction with the Reissner fiber**

A. Orts-Del'Immagine (Paris)

**Membrane cholesterol depletion as a trigger of Nav1.9 channel-mediated inflammatory pain**

F. Padilla (Marseille)

**Predictive coding in the primary visual cortex? Synaptic contribution of the horizontal intrinsic connectivity to "filling-in"**

M. Pananceau (Gif-sur-Yvette)

## Scientific Programme

**Impact of cholinergic interneurons on corticostriatal transmission: an in vivo approach combining intracellular recordings and optogenetics in anesthetized mice**

J. Pesce (Marseille)

**Complete and irreversible unilateral vestibular loss induces reactive neurogenesis in the vestibular nuclei in adult rat**

G. Rastoldo (Marseille)

**Olfacto-tactile interactions in mouse primary sensory areas**

A. Renard (Gif-sur-Yvette)

**Two-photon imaging dramatically affects brain temperature, blood flow and oxygenation**

M. Roche (Paris)

**Daily torpor and sleep in the non-human primate, the grey mouse lemur (*Microcebus murinus*)**

J. Royo (Brunoy)

**Cortex-wide fast activation of VIP-expressing inhibitory neurons by reward and punishment**

B. Rózsa (Budapest)

**Sound-driven response in primary visual cortex of Shank3 $\Delta$ C mice model of autism spectrum disorder**

S. Sakkaki (Montpellier)

**Vasoactive intestinal peptide deficiency elicits reversible cold and mechanical nociception in mice**

M. Salgado Ferrer (Strasbourg)

**Investigating new effects of anteroposterior GVS: EEG, eye motion and perception**

A. Severac Cauquil (Toulouse)

**A somatotopic organization of the secondary somatosensory cortex of the rat**

D.E. Shulz (Gif Sur Yvette)

**Role of spinal dopamine D2 receptors**

P. Tarot (Montpellier)

**Radial glia synchronized activity events associated with motor behavior in the zebrafish larva**

A. Uribe Arias (Paris)

**Characterizing patterns of dendritic activity in awake behaving mice with 3D arboreal scanning and real time movement correction**

A.M. Valera (London)

**A link between dynamics and function in the anterior thalamus**

G. Viejo (Montreal)

**Neuroendocrinology, neuroimmunology**

**Anti-CASPR2 autoantibodies from patients with autoimmune encephalitis alter CASPR2 membrane distribution and Kv1.2 expression**

A. Pieters (Lyon)

**MT5-MMP may influence early stages of Alzheimer's disease through the control of neuroinflammation and amyloidogenesis**

D. Pilat (Marseille)

## Scientific Programme

**Neonatal maternal separation induces long-term alteration of pain responses and oxytocin analgesia**

P. Poisbeau (Strasbourg)

**Brain mapping and functional characterization of the human MCHR2 in a “humanized” mouse model**

F. Presse (Valbonne)

**Disclosing neuroendocrine mechanisms of seasonality, a step towards genetically modified models**

V. Simonneaux (Strasbourg)

**TDP-43, the main constituent of FTLD/ALS neuronal protein aggregates, is a modulator of innate immune activation**

J. Smeyers (Paris)

**See-through the brain: 3D dimensional imaging of the neuroendocrine circuits controlling reproduction in mice**

G. Ternier (Lille)

**Behaviour, emotions, cognition, neuroethology**

**Vasoactive peptide urotensin II in plasma is associated with cerebral vasospasm after aneurysmal subarachnoid hemorrhage and constitutes a potential therapeutic target**

M. Pedard (Mont Saint Aignan)

**Effect of radiofrequency electromagnetic fields exposure (4G, LTE, 900 MHz) on spatial memory persistence and transcriptome profile in the hippocampus and medial prefrontal cortex**

A. Pereira de Vasconcelos (Strasbourg)

**Learning relative value in Drosophila**

E. Perisse (Montpellier)

**Involvement of glial connexin 43 in energy homeostasis**

K. Poirot (Marseille)

**A new behavioural paradigm in the study of action control in rats**

J. Poitreau (Marseille)

**Automatic temporal order processing for subliminal asynchronies?**

P. Polgári (Strasbourg)

**Sensorimotor transformation in the zebrafish auditory system**

M. Privat (Paris)

**Somatostatin released by CSF-contacting neurons shapes exploration of zebrafish larva**

F.B. Quan (Paris)

**Mitochondria & Mood: can mitochondrial dysfunction and oxidative stress bridge emotional and metabolic disturbances?**

V. Rappeneau (Osnabrück)

**Brain activity during reciprocal social interaction investigated using conversational robots**

B. Rauchbauer (Marseille)

## Scientific Programme

**Sensory and control limitations shape mouse behavioral strategies during sensory discrimination**

D. Reato (Lisbon)

**Cannabinoid type-1 receptors on GABAergic neurons are necessary and sufficient for running motivation**

B. Redon (Bordeaux)

**Phenotyping of tanycytes-like cells located in the brainstem, possible involvement in energy homeostasis**

G. Roussel (Marseille)

**Investigating the role of the striatum in motor learning and execution**

M. Safaie (Marseille)

**Executive functions and emotions in Alzheimer patients**

E. Salebert (Marseille)

**A two-hit story: seizures and genetic mutation interaction sets phenotype severity in SCN1A epilepsies**

A.R. Salgueiro-Pereira (Valbonne)

**Emotions can alter kinesthetic acuity**

L. Samain-Aupic (Marseille)

**Effects of ionizing radiation on learning and spatial memory after postnatal mouse brain exposure at low to moderate doses**

C. Serrano (Fontenay-aux-Roses)

**Comparing human and monkey neural circuits for processing social scenes**

J. Sliwa (Paris)

**Development of inhibitory control: an electromyographic study**

K. Smigasiewicz (Marseille)

**A mouse model for exploring the neurobiology of confirmation bias-like behaviour**

C. Stevens (Bordeaux)

**Crocus sativus améliore la déficience de l'activité locomotrice et du système dopaminergique induite par le plomb contre la neurotoxicité du plomb chez la Meriones Shawi**

L. Tamegart (Marrakech)

**Role of sensory stimuli and palatability in oral-nicotine consumption in mice**

S. Tannous (Bordeaux)

**Interlimb transfer of sensorimotor adaptation may not reflect interhemispheric transfer: New insights from patients with corpus callosum abnormalities**

P. Tilsley (Marseille)

**Direct- and indirect-pathway striatal projection neurons and the control of locomotion**

A. Tinakoua (Marseille)

**Neuronal control of parental nest building**

T. Topilko (Paris)

**Peer presence facilitates numerosity and phonological comparisons in 10-year-old children**

L. Tricoche (Lyon)

## Scientific Programme

**Contextual fear conditioning differentially activates extended amygdala circuits in male and female**

L. Urien (New York)

**Can transcranial direct current stimulation over the frontal-midline areas modulate conflict-related ERPs?**

T. Vekony (Szeged)

**Memory formation in the absence of experience**

G. Vetere (Paris)

**Superior parietal lobule: a role in visual perception of multiple elements**

A. Vialatte (Bron)

**Impact of cerebral radiofrequency exposures on oxidative stress and corticosterone in a rat model of Alzheimer's disease**

A.-S. Villegier (Verneuil-en-Halatte)

**Neural dynamics in human frontal cortex during performance monitoring and decisions to check**

L. Viñales (Bron)

**Respective roles of the distinct populations of Medium Spiny Neurons of the nucleus accumbens in reward processing**

R. Walle (Bordeaux)

**Assessing model-based inferences in decision making with single-trial response time decomposition**

G. Weindel (Marseille)

**Effects of a counter measure to prevent the deconditioning induced by 5 days of simulated microgravity (dry immersion): impact on the processes involved in facial expression recognition and on cerebral activity**

S. Wittmann (Toulouse)

**Theoretical and computational neurosciences**

**Model of the 'place' cell in the retrosplenial cortex and the path integration based on head direction cells**

M. Ju (Pontoise)

**MiRAMINT: modelling RNA-seq time-series data through variable selection and shape analysis narrows miRNA regulation in Huntington's disease mice**

L. Mégret (Paris)

**Virtual experimentation as a testbed to study the relational and informational organization in orbital and medial prefrontal cortex**

B.T. Nallapu (Talence)

**Extracellular action potentials simulation of neuronal populations**

H. Tran (Vandoeuvre Les Nancy)

**On a toy network of neurons interacting through nonlinear dendritic compartment**

R. Veltz (Sophia Antipolis)

**Model-based analysis of neural recordings of auditory and prefrontal cortex of mice and hindbrain of zebrafish**

S. Wolf (Paris)

## Scientific Programme

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Callelongue

### **SP06, How to succeed in academic research / Faire carrière dans un organisme public de recherche**

The presentations will be given by the Presidents of Neuroscience CNRS committee (Section 25 and Section 26), INSERM committee (section EE9), CNU 69 in a roundtable format, around the following questions:

- The role of the French Research (CNRS/INSERM) and University Institutes.
- What are the criteria to get an academic position in these Institutes?
- What is the typical profile of training?
- How to get promoted when you have an academic position?

The four invited Presidents are:

- Valérie Crépel (Marseille)- President of INSERM CsS "Neuroscience"
- Pascal Barone (Toulouse)- President of CoNRS section 26 "Cerveau, cognition, comportement"
- Philippe Faure (Paris)- President of CoNRS commission 25 " Neurobiologie moléculaire et cellulaire, neurophysiologie" du CoNRS
- Alain Trembleau (Paris)- President of section 69 Neurosciences du Conseil National des Universités (CNU)

#### **Chairs:**

V. Crepel (Marseille)  
P. Barone (Toulouse)

SPECIAL SYMPOSIUM / SYMPOSIUM SPÉCIALISÉ  
13:15 - 14:45

Endoume 1+2

### **SP07, Neurosciences in the Mediterranean basin in Antiquity and the Middle Ages. / Les neurosciences dans le bassin méditerranéen dans l'Antiquité et le Moyen-âge.**

#### **Chairs:**

F. Clarac (Marseille)

**On the discovery of the brain in Greco-roman Antiquity. / La découverte du cerveau dans l'antiquité gréco-romaine.**

A. Debru (Paris)

**Memory and Imagination in Arabic and Latin Medieval Tradition. / Mémoire et imagination au Moyen-âge dans la tradition arabe et latine.**

J. Chandelier (Paris)

**Head and brain diseases': the point of view of some medieval physicians. / La tête et les maladies du cerveau : le point de vue de quelques médecins médiévaux.**

M. Katouzian-Safadi (Paris)

**From texts to bones: theories and practices of cranial surgery in the Middle Ages. / Des textes aux ossements : théories et pratiques de la chirurgie crânienne au Moyen-Âge.**

S. Bédécarrats (Tours)

## Scientific Programme

SYMPOSIUM  
15:30 - 17:30

Auditorium

### **S36, Neuronal networks linking emotions and sensory integration. / Réseaux neuronaux liant émotions et intégration sensorielle.**

**Chairs:**

F. Gambino (Bordeaux)  
P. Fossat (Bordeaux)

**Organization of valence coding in neural populations of the amygdala and insular cortex / Organisation de la valence dans les populations neuronales de l'amygdale et du cortex insulaire**

A. Beyeler (Bordeaux)

**Contribution of low voltage activated calcium channel and insular cortex to tactile experience integration / Contribution des canaux calciques à bas seuil et du cortex insulaire dans l'intégration de l'expérience sensorielle tactile**

A. François (Montpellier)

**Central networks involving 5HT neurons of the raphe nucleus in the control of spinal nociceptive transmission / Réseaux nerveux centraux impliquant les neurones à sérotonine du raphe magnus dans le contrôle de la transmission nociceptive spinale**

P. Fossat (Bordeaux)

**Neural integration of threat and territoriality in the hypothalamus / Intégration neuronale de la menace et de la territorialité dans l'hypothalamus**

C. Gross (Monterotondo)

**A hippocampus-accumbens tripartite neuronal motif guides appetitive memory in space**

S. Trouche (Oxford)

SYMPOSIUM  
15:30 - 17:30

Callelongue

### **S37, Neuroinflammation in Alzheimer's disease: emerging aspects and clinical implications, a NeuroImmunology Club symposium. / La neuroinflammation dans la maladie d'Alzheimer : aspects émergents et implications cliniques, un symposium du Club Français de Neuro-Immunologie.**

**Chairs:**

G. Dorothee (Paris)  
M. Sarazin (Paris)

**Innate immune activation in Alzheimer's disease / Activation immunitaire innée dans la maladie d'Alzheimer**

M.T. Heneka (Bonn)

**Complex roles of reactive astrocytes in Alzheimer's disease. / Rôles complexes des astrocytes réactifs dans la maladie d'Alzheimer.**

C. Escartin (Fontenay-aux-Roses)



## Scientific Programme

**Interplay of cellular adaptive immunity and innate neuroinflammation in Alzheimer's disease. / Interrelation entre immunité cellulaire adaptative et neuroinflammation innée dans la maladie d'Alzheimer.**

G. Dorothee (Paris)

**Microglia in dementia: complex phenotypic alterations / La microglie dans la démence: des alterations phénotypiques complexes**

D. Boche (Southampton)

**TEP imaging of microglial activation in Alzheimer's disease and impact on disease progression. / Imagerie TEP de l'activation microgliale dans la maladie d'Alzheimer et impact sur la progression de la maladie.**

J. Lagarde (Paris)

SYMPOSIUM  
15:30 - 17:30

Endoume 1+2

**S38, NeuroSchool PhD Program symposium - Right to the goal: the influence of physical activity on the brain. / Symposium du NeuroSchool PhD Program: Droit au but : l'influence de l'activité physique sur le cerveau.**

**Chairs:**

J. Caron-Guyon (Marseille)

E. Leprince (Marseille)

**Running-induced changes in networks of new hippocampal neurons / Modification des réseaux de nouveaux neurones de l'hippocampe induit par la course**

H. van Praag

**Endocannabinoids gate running motivation / Les endocannabinoïdes contrôlent la motivation pour courir**

F. Chaouloff (Bordeaux)

**Alteration in the sensorimotor network and impairment in hand movement perception due to age**

C. Landelle (Marseille)

**Targeted neurotechnologies to restore walking after paralysis / Neurotechnologies pour restaurer la marche après une paralysie**

G. Courtine (Genève)

**Debate with speakers / Débat avec les speakers**

SYMPOSIUM  
15:30 - 17:30

Endoume 3

**S39, Molecular determinants of depression. / Déterminants moléculaires de la dépression.**

**Chairs:**

I. Yalcin (Strasbourg)

R. Belzeaux (Marseille)

## Scientific Programme

**Molecular biology of Major Depression: from pathophysiology to biomarkers development. / Les anomalies moléculaires au cours de la dépression: de la physiopathologie au développement de biomarqueurs.**

R. Belzeaux (Marseille)

**Major depression: Metabolomic signature of treatment response and of remission. / Dépression majeure: Signature métabolomique de la réponse au traitement et de la rémission.**

C. Belzung (Tours)

**Brain inhibitory GABAergic function and cognitive deficits: Mechanisms and therapeutic targeting**

E. Sibille (Toronto)

**Molecular bases of the comorbidity of chronic pain and mood disorders. / Les bases moléculaires de la comorbidité de la douleur et des troubles de l'humeur.**

I. Yalcin (Strasbourg)

**Stress-induced changes in gut microbiota reduce fluoxetine efficacy**

E. Siopi (Paris)

SYMPOSIUM  
15:30 - 17:30

Riou

**S40, Novel tools to study the live primate brain at different temporal and anatomical scales. / De nouveaux outils pour étudier le cerveau des primates à travers les échelles spatiales et temporelles.**

### Chairs:

S. Bouret (Paris)

**Using optical imaging and computational modeling to study dynamics of cortical activity at mesoscopic scale. / Utilisation de l'imagerie optique et de la modélisation computationnelle pour étudier la dynamique de l'activité corticale à l'échelle mésoscopique.**

S. Chemla (Marseille)

**Instantaneous Monitoring of Brain Activity with Ultrafast Neuro-functional Ultrasound Imaging in Awake Behaving Non-Human Primates. / Quantification de l'activité cérébrale par imagerie ultrasonore fonctionnelle ultrarapide chez le primate non-humain éveillé.**

P. Pouget (Paris)

**Exploring neuromodulation of attentional networks using fMRI and pharmacology in monkeys. / Exploration de la neuromodulation des réseaux attentionnels en utilisant l'IRMf et la pharmacologie chez le singe.**

F. Hadj-Bouziane (Bron)

**Investigation of the social brain networks in primates using magnetic resonance imaging and focused ultrasound neurostimulation. / Étude des circuits du cerveau social chez le primate par imagerie par résonance magnétique et neurostimulation par ultrason.**

J. Sallet (Oxford)

## Scientific Programme

**Functional ultrasound imaging in awake non-human primates: retinotopic maps and ocular dominance columns**

K. Blaize (Paris)

SYMPOSIUM  
15:30 - 17:30

Sormiou

**S41, Language in the brain: a multicomponent and network view. / Langage et cerveau : multi-composantes et réseaux.**

**Chairs:**

E. Runnqvist (Aix-en-Provence)

**The role of subcortico-cortical networks for typical and atypical speech processing. / Le rôle des réseaux sous-cortico-corticaux pour le traitement de la parole typique et atypique.**

S. Kotz (Maastricht)

**Precursors of language in non-human primates. / Précurseurs du langage chez les primates non humains.**

J. Fagot (Marseille)

**Orthographic and motor processes in writing / Processus orthographiques et moteurs dans l'écriture**

M. Longcamp (Marseille)

**The role of neuronal assemblies in the production of speech / Le rôle des assemblées neuronales dans la production de la parole**

K. Strijkers (Aix-en-Provence)

**fMRI investigation of voice-selective areas in macaques and humans**

C. Bodin (Marseille)

SYMPOSIUM  
15:30 - 17:30

Morgiou

**S42, Development and heterogeneity of primary brain tumors. / Développement et hétérogénéité des tumeurs cérébrales primitives. Supported by NeurATRIS Supported by Club des Cellules Gliales and Fondation ARC**

**Chairs:**

E. Huillard (Paris)

**Developmentally regulated pathways in glioma growth and therapy-resistance / Voies régulées par le développement dans la croissance des gliomes et la résistance au traitement**

S. Mehta (Phoenix)

**Regulation of glioblastoma stem cell plasticity: involvement in functional heterogeneity of tumor micro-territories / Régulation de la plasticité des cellules souches cancéreuses de glioblastome: implication dans l'hétérogénéité fonctionnelle des micro-territoires tumoraux**

T. Virolle (Nice)

## **Scientific Programme**

**Meningiomas: a window on meninges development / Les méningiomes: une fenêtre sur le développement des méninges**

M. Peyre (Paris)

**Aberrant identity in medulloblastoma: role of NRL, a master regulator of the retina specific photoreceptor program / Identité anormale dans le médulloblastome: implication de NRL, un facteur de transcription contrôlant le programme photorécepteur de la rétine**

C. Pouponnot (Orsay)

**Characterization of PRKCAD463H mutation, a hallmark of chordoid gliomas**

B. Bance (Paris)