

## Scientific Programme

Wednesday, 20 May 2015

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

Auditorium Berlioz

### SEANCE INAUGURALE / OPENING CEREMONY

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

Auditorium Berlioz

### PL01, Conférence Paul Broca / Paul Broca Conference Schinder A. (Buenos Aires)

**Chaired by:**  
C. Rampon (Toulouse)

**Le rôle de la neurogenèse adulte dans le traitement de l'information dans l'hippocampe / The role of adult neurogenesis in information processing in the hippocampus**

A. Schinder (Buenos Aires)

SYMPOSIUM  
10:30 - 12:30

Auditorium Berlioz

### S01, Dynamique de la communication neuronale : des événements moléculaires à l'intégration des signaux synaptiques. / Dynamics of synaptic signaling: from molecular to integrated levels.

**Chaired by:**  
J. Perroy (Montpellier)

**Modulation analogue de l'efficacité synaptique des circuits corticaux. / Analogue modulation of synaptic strength in cortical circuits.**

D. Debanne (Marseille)

**La diversité synaptique contribue à l'intégration multi-modale au niveau de la cellule granulaire de cervelet / Synaptic diversity contributes to multi-modal integration in single cerebellar granule cells**

D. Digregorio (Paris)

**Mécanismes structuraux de la plasticité neuronale - imagerie nanoscopique STED. / Structural mechanisms of neural plasticity revealed by nanoscale STED imaging.**

U.V. Nägerl (Bordeaux)

**Syndrome de l'X Fragile : bases moléculaires et cellulaires d'une synaptopathie / Fragile X syndrome: molecular and cellular bases of a synaptopathy**

B. Bardoni (Valbonne)

**Plasticité à court terme du circuit thalamo-cortical / Short-term plasticity in the thalamocortical circuit**

F. Bertaso (Montpellier)

## Scientific Programme

SYMPOSIUM  
10:30 - 12:30

Auditorium Pasteur

### **S02, Les cellules-souches neurales et leurs mécanismes régulateurs. / Neural stem cells and their regulatory mechanisms.**

**Chaired by:**  
E. Moyse (Nouzilly)

**Régulation de l'activité des cellules souches neurales par le microenvironnement dans la zone sous-ventriculaire du cerveau adulte / Regulation of neural stem cell activity by microenvironment in adult brain subventricular zone**

V. Coronas (Poitiers)

**Contrôle transcriptionnel de l'activité des cellules-souches neurales par le microenvironnement dans l'hippocampe / Factors and signals controlling stem cell activity in the adult hippocampus**

C. Ottone (London)

**Réponse des cellules souches neurales aux dommages à l'ADN / Neural stem cell response to DNA damage**

F. Boussin (Fontenay-aux-Roses)

**Les interactions entre apoptose et neurogenèse dans différentes niches neurogéniques de mammifère adulte / Apoptosis-neurogenesis interactions in various neurogenic niches of adult mammals**

E. Moyse (Nouzilly)

**Les cellules-souches de gliomes, origine et rôles dans la tumorigenèse eu égard au microenvironnement / Glioma stem cells origin and their properties with regard to their microenvironment**

H. Chneiweiss (Paris)

SYMPOSIUM  
10:30 - 12:30

Auditorium Einstein

### **S03, Interfaces cerveau-machines cognitives : des neurosciences fondamentales aux applications cliniques. / Cognitive brain-machine interfaces: from basic neuroscience to clinical applications.**

**Chaired by:**  
S. Ben Hamed (Bron)

**Application interface cerveau-machine en boucle fermée pour l'amélioration des fonctions attentionnelles du primate non-humain / A closed-loop Brain-Machine Interface (BMI) for enhancing visuospatial attention in the non-human primate**

E. Astrand (Bron)

**Interfaces cerveau-machines invasives utilisant l'attention visuelle sélective / Invasive brain computer interfaces using selective visual attention**

K.R. Pawelzik (Bremen)

## Scientific Programme

**Interfaces cerveau-machines cognitives: l'utilisation des représentations corticales d'attention visuelle pour le contrôle cognitif / Cognitive brain machine interfaces: utilizing visual attention cortical representations for cognitive control**

N.F. Ramsey (Utrecht)

**Combiner la neuroimagerie à haute résolution temporelle aux techniques MVPA pour explorer les opérations sérielles et parallèles du cerveau humain / Combining time-resolved neuroimaging and MVPA to explore serial and parallel processing in the human brain**

S. Marti (Gif sur Yvette)

**Interface cerveau-machine adaptative pour la communication et l'évaluation cognitive / Non-invasive BCI for communication and cognitive evaluation**

J. Mattout (Lyon)

SYMPOSIUM  
10:30 - 12:30

Salle Antigone 1

### **S04, Dysfonctions synaptiques et cellulaires dans le circuit des ganglions de la base. / Synaptic and cellular dysfunctions in Basal Ganglia circuits.**

**Chaired by:**

J.M. Baufreton (Bordeaux)

M.G. Murer (Buenos Aires)

**Physiologie in vivo de la voie GO: du parkinsonisme précoce aux dyskésies / In vivo physiology of the GO pathway: from early parkinsonism to dyskinesia**

M.G. Murer (Buenos Aires)

**Défaillance de la plasticité striatale dépendante des endocannabinoides dans la maladie de Parkinson / Endocannabinoid-dopamine interactions mediate striatal tLTP that is impaired in Parkinson's disease rodent model**

L. Venance (Paris)

**Altération de la transmission GABAergique synaptique et extrasynaptique au niveau du globus pallidus dans la maladie de Parkinson / Altered synaptic and extrasynaptic GABAergic transmission in globus pallidus in Parkinson's disease**

J.M. Baufreton (Bordeaux)

**Augmentation des potentiels d'action NMDA dans la maladie de Huntington / Enhanced NMDA Spiking in Huntington's Disease.**

J. Wesseling (Pamplona)

**Dichotomie fonctionnelle du globus pallidus externe: fonction et dysfonctionnement dans la maladie de Parkinson / The external globus pallidus dichotomous organization: function and dysfunction in Parkinson's disease**

N. Mallet (Bordeaux)

## Scientific Programme

SYMPOSIUM  
10:30 - 12:30

Salle Rondelet

### **S05, L'ocytocine donne le tempo du comportement social. / Oxytocin gives the tempo for social behavior.**

**Chaired by:**  
F. Muscatelli (Marseille)

**Les voies de l'ocytocine centrale orchestrent la sociabilité / Central oxytocin pathways orchestrating in sociality**

V. Grinevich (Heidelberg)

**Déficit d'expression du gène de l'ocytocine chez les souris knockout pour le récepteur mu : effets d'une thérapie comportementale / Deficient expression of the oxytocin gene in mu opioid receptor null mice: effects of a behavioral therapy**

J. Le Merrer (Nouzilly)

**L'ocytocine : un allegro développemental pour le comportement social dès la naissance. / Oxytocin: a developmental allegro for social behavior from birth.**

F. Muscatelli (Marseille)

**L'ocytocine chez les enfants Prader-Willi. / Oxytocin in infants with Prader-Willi syndrome.**

M. Tauber (Toulouse)

**Ocytocine et douleurs, de la modulation des systèmes inhibiteurs à la production d'anxiolytiques endogènes**

P. Poisbeau (Strasbourg)

SYMPOSIUM  
10:30 - 12:30

Salle Barthez

### **S06, Homéostasie du chlore dans les affections neurologiques et psychiatriques. / Chloride homeostasis in neurological and psychiatric disorders.**

**Chaired by:**  
J.C. Poncer (Paris)  
C. Rivera (Marseille)

**Contrôle et dissection optique de la dynamique du chlore intracellulaire / Spatiotemporal features of chloride dynamics during a seizure**

C. Akerman (Oxford)

**Influence des effets de Donnan dans la distribution neuronale des ions chlorure / Influence of Donnan effects on neuronal chloride distribution**

K. Staley (Boston)

**Fonctions inattendues du transporteur KCC2 aux synapses glutamatergiques. / Transport-independent functions of KCC2 at glutamatergic synapses.**

J.C. Poncer (Paris)

## Scientific Programme

### **Flux de chlore dans l'épilepsie et les lésions cérébrales / Chloride fluxes in epilepsy and brain lesions**

G. Huberfeld (Paris)

### **Altération de signaux GABA et homéostasie du chlore dans l'autisme / Alteration of GABA signals and chloride homeostasis in autism**

Y. Ben-Ari (Marseille)

SYMPOSIUM SPÉCIALISÉ / SPECIAL SYMPOSIUM  
13:30 - 15:15

Auditorium Berlioz

## **SP01, Sclérose en plaques : neuroimmunologie et biomarqueurs / Multiple sclerosis : neuroimmunology and biomarkers sponsorisé par / sponsored by TEVA Santé**

### **Chaired by:**

E. Thouvenot (Montpellier)

**La SEP en 2015 : un modèle de corrélation immunologie/phénotype et perspectives d'avenir/Multiple sclerosis in 2015: a model of immunology/phenotype correlation and future perspectives** **13:30**

P. Labauge (Montpellier)

**Analyse du répertoire des lymphocytes T/T-cell repertoire analysis** **13:50**

D. Laplaud (Nantes)

**Remyélinisation dans la SEP/Remyelination in MS** **14:10**

C. Lubetzki (Paris)

**Approches protéomiques pour la recherche de biomarqueurs de SEP/Proteomic approaches for identification of MS biomarkers** **14:30**

E. Thouvenot (Montpellier)

**Marqueurs de réponse thérapeutique dans la SEP/Markers of therapeutic response in MS** **14:50**

M. Comabella (Barcelona)

COMMUNICATIONS AFFICHÉES / POSTER SESSION  
13:30 - 16:30

Poster Exhibition

## **P1, COMMUNICATIONS AFFICHÉES / POSTER SESSION**

Poster sessions run from 13:30 to 16:30.

However, a one hour time block is dedicated to discussion with the authors:

- from 14:30 to 15:30 for even-numbered posters

- from 15:30 to 16:30 for odd-numbered posters

### **Serotonergic modulation of PKC $\gamma$ interneurons in the medullary dorsal horn**

C. Alba-Delgado (Clermont-Ferrand)

### **Assessment of the utility of a taste identification test to discriminate between depression and Alzheimer's disease in the elderly: a pilot study**

B. Atanasova (Tours)

## Scientific Programme

**Fast 3D imaging of sensory-evoked dendritic activity in visual cortex**

C. Baragli (London)

**Deciphering the mechanisms of central pain sensitization in vivo using an innovative heat-shock local deletion of the L-type calcium channel Cav1.2 gene in the mouse lumbar bulge**

C. Baudet (Bordeaux)

**Prefrontal inter- and intra-hemispheric neuronal noise correlations depend on the ongoing behavior**

S. Ben Hadj Hassen (Bron)

**Real-time tagging of visual, saccadic, spatial memory and attention prefrontal representations**

S. Ben Hamed (Bron)

**Oxidative stress: key mechanism of age-related cochlear sensory hair cell loss**

N. Benkafadar (Montpellier)

**Sensory stimulus evoked responses in layer 2/3 pyramidal neurons of the hindpaw-related primary somatosensory cortex**

G. Bony (Bordeaux)

**Task-dependent memory trace in ferret primary auditory cortex**

Y. Boubenec (Paris)

**The low threshold calcium channel Cav3.2 determines low threshold mechanoreceptor function**

E. Bourinet (Montpellier)

**Rodent olfactory discrimination: fact or artifact? Relying on others cues to increase discrimination scores**

V. Canova (Lyon)

**Reshaping sensory reliance when sensory systems decline: effect of aging**

M. Chancel (Marseille)

**Oxytocin neuron cross-talk attenuates nociception**

A. Charlet (Strasbourg)

**Profound changes in olfactory coding in leptin deficient ob/ob mice**

Y. Chelminski (Orsay)

**Near and far visual space representations: a non-human primate fMRI study**

J. Clery (Bron)

**Time-dependent population responses underlying spatial representation in the primary somatosensory cortex: the cortical body map revisited**

J. Corbo (Marseille)

**Spinal endogenous cholinergic modulation of nociception in neuropathic mice**

M. Cordero-Erausquin (Strasbourg)

**Interaction between olfaction and food intake: first evidence for a role of astroglial plasticity in the olfactory bulb**

V. Dumas-Meyer (Jouy-en-Josas)

## Scientific Programme

**Persistent increase-decrease balance of activity in basal ganglia**

M. Deffains (Jerusalem)

**Perspective taking: the role of vestibular signals**

D. Deroualle (Marseille)

**Functional characterization of calretinin-expressing periglomerular cells in the olfactory bulb**

D. Desaintjan (Strasbourg)

**Acute copper exposure alters the dopaminergic system and locomotor performance in rat: an immunohistochemical and behavioral studies**

A. Abbaoui (Marrakech)

**Enriched environment restores systems-level consolidation of spatial memory after ventral midline thalamic lesions**

M. Ali (Strasbourg)

**Feedback processing in the mid-cingulate cortex is embodied in human**

C. Amiez (Bron)

**Duration estimation in an oddball task: an electrophysiological and behavioral study**

D. Bannier (Mont Saint Aignan)

**Distinct contributions of acoustic parameters in the recognition of emotional prosody**

D. Benis (Geneva)

**Differential involvement of lateral entorhinal cortex and dorsal hippocampus in the memory processes underlying acquisition and flexibility of cross-modal learning task**

L. Boisselier (Lyon)

**Identifying the neuronal bases of complex learning in an insect, the honeybee *Apis mellifera***

C. Boitard (Toulouse)

**Does empathy is the only framework to explain the corticospinal modulation during pain observation?**

G. Bucchioni (Amiens)

**Peripheral and central endocannabinoid system control stress-induced amnesia**

A. Busquets Garcia (Bordeaux)

**Dopamine signaling in the circadian modulation of interval timing and motivation**

I. Bussi (Buenos Aires)

**Neddylation, a new molecular process involved in olfactory long-term memory in the honeybee *Apis mellifera***

A. Cabirol (Toulouse)

**Overconsumption of sweet rewards at adolescence induced protracted deficit in reward processing and down regulation of dopaminergic and opioidergic receptors at adulthood in rats**

M. Cador (Bordeaux)

**Working memory activation of neural networks in the elderly as a function of information processing phase and task complexity**

C. Charroud (Montpellier Cedex)

## Scientific Programme

**Does the brain have a gender? An fMRI study of autobiographical memory**

L. Compère (Paris)

**Origin of memory impairment in thalamic stroke**

L. Danet (Toulouse)

**Effect of high fat diet on motivation and dopamine biodisponibility in the ventral striatum of mice**

F. Ducrocq (Bordeaux)

**Rats can acquire conditional fear to light leaking from acrylic-mounted fiber optic cannulae**

A. Eckmier (Paris)

**Adaptive mechanisms and structural plasticity accompany persistent anorexia through the serotonin 4 receptors**

M. El Ouahli (Béni Mellal)

**The impact of glucocorticoid hyporesponse to stress on memory function**

G. Ferreira de Medeiros (Bordeaux)

**Extensive and rigorous training in canine leads to high standard of accuracy in forensic human scent identification performances**

B. Ferry (Lyon)

**Neural substrates of conditioned suppression of food seeking by opiate withdrawal memory: context versus CS differentiation using catFISH**

M.-L. Fournier (Bordeaux)

**Melanocortin 4 receptor (MC4R) constitutive activity impairs L-type voltage-gated calcium channels**

F. Agosti (La Plata)

**Neuronal activity mediated regulation of glutamate transporter GLT1 surface diffusion in astrocytes**

S. Al Awabdh (London)

**Characterization of a novel neurotrophic-sensing mechanism of glucocorticoid actions**

M. Arango-Lievano (Montpellier)

**Diffuse low grade gliomas: characterization and development of in vitro model for designing innovative therapeutic approaches**

S. Azar (Montpellier)

**Nitrgic neural communication for the synchronization of the mammalian circadian clock: a putative redox-regulation of messengers**

F.M. Baidanoff (Bernal)

**Monitoring basal calcium levels in neurons and astrocytes using fluorescence lifetime imaging microscopy**

L. Bard (London)

**Regulation of translational initiation factors by d-amphetamine in the striatum**

A. Bieber (Montpellier)

**Conformational nanobodies reveal the activity of metabotropic glutamate receptors**

E. Blanc (Montpellier)



## Scientific Programme

**The gating of the T-type calcium channel Cav3.2 is dynamically regulated by phosphorylation**

I. Blesneac (Montpellier)

**Activity-dependent regulation of GABA supply at central synapses**

L. Bonet (Paris)

**Characterization of a new positive allosteric modulator specific for subtype-2 metabotropic glutamate receptors (mGluR2) in the rat hippocampus**

S. Bossi (Orsay)

**Setting-up a functional assay to study the properties of NALCN channel**

M. Bouasse (Montpellier)

**Design of Matrix Metalloproteinase-9 activity reporters in living cells**

N. Bouquier (Montpellier)

**Huntingtin regulates APP trafficking and A $\beta$  release at synapses**

J. Bruyère (Grenoble)

**Effect of dopaminergic D1 receptors on plasticity is dependent of serotonergic 5-HT1A receptors in L5-pyramidal neurons of the prefrontal cortex**

J.-M. Cancela (Orsay)

**Sodium channels are critical for axon initial segment establishment and maintenance**

F. Castets (Marseille)

**GPCR-induced chemotactic migration requires mitigation of autophagy: Involvement in glioma cell invasion**

P.-M. Coly (Mont Saint Aignan)

**Receptors mutagenesis shows that V1B and CRF1 associate at the TM4-5 interface in molecular assemblies which can be detected in the living pituitary**

M. Corbani (Montpellier)

**Shh signaling regulates the cell cycle of neural stem cells and not their progeny in the adult subventricular zone**

M. Daynac (Gif-sur-Yvette)

**Trophic relationship between Schwann cells and axons**

M. Deck (Montpellier)

**Specific exosomal targeting of multispan membrane proteins: targets for diagnostic or pharmacological interest**

R. Desplantes (Marseille)

**Neuropeptide FF receptors and the mechanisms of their anti-opioid effect**

Z. Ding (Toulouse)

**Pharmacodynamics of cocaine induced formation of cortico-striatal synapses**

M. Dos Santos (Paris)

**5-HT6R/Cdk5, a novel signaling pathway promoting neurite extension**

F. Duhr (Montpellier)

**Chromophore assisted laser inactivation (CALI) of ATP6V0c corroborate its implication in late steps of neurotransmitter release**

O. El Far (Marseille)

## Scientific Programme

**Long-term activation of Sonic Hedgehog signaling pathway leads to an accumulation of quiescent neural stem cells in the adult subventricular zone**

H. Faure (Gif-Sur-Yvette)

**APPL1 regulates PI3K-dependent synaptic plasticity in the hippocampus**

M. Fernández-Monreal (Majadahonda)

**Urotensin II drives acquisition of angiogenic and necrotic features in glioblastomas. Therapeutic potential of UT receptor specific ligands**

P. Gandolfo (Mont-Saint-Aignan)

**Investigation of electroencephalographic functional connectivity in term and preterm neonates**

A.A. Adebimpe (Amiens)

**Co-expression of Ctip2 and Satb2 delineates distinct subtypes of callosal and subcerebral projection neurons in the postnatal mouse neocortex**

C. Alfano (Nice)

**Activity-dependent maturation of adult-born dentate granule cells**

D.D. Alvarez (Buenos Aires)

**PGE2-EP3 signaling pathway impairs synaptic plasticity at hippocampal mossy fiber synapses in a mouse model of Alzheimer's disease**

T. Amédée (Bordeaux)

**Mitochondrial system of hippocampal adult-born neurons from Tg2576 mouse model of Alzheimer's disease**

T. Andraini (Toulouse)

**Huntingtin participates in interkinetic nuclear migration**

E. Aparicio (La Tronche)

**Fidgetin-like 1 and its folks in zebrafish spinal motor axon targeting and growth cone microtubule dynamics**

M. Atkins (Paris)

**Study of neuroinflammation after cortical lesion and transplantation with or without delay**

N. Ballout (Poitiers)

**Nutritional omega-3 deficiency in adulthood impairs accumbens synaptic plasticity and anxiety-related behavior in mice**

A. Bara (Marseille)

**How does neuronal activity regulate the formation and function of myelinated axons in vivo?**

M. Baraban (Edinburgh)

**The role of presenilin in the presynaptic mechanisms at hippocampal mossy fibers revealed by a granule cell-targeted optogenetic approach**

G. Barthet (Bordeaux)

**The role of Tuba1a during neuronal migration**

R. Belvindrah (Paris)

**Is delivery a critical period in the pathogenesis of autism?**

Y. Ben-Ari (Marseille)

## Scientific Programme

**Single neural cell phenotyping and receptors characterization by flow cytometry in rodent**

A. Benoit (Caen)

**Presynaptic serotonin 2A receptors modulate thalamocortical glutamatergic transmission and associative learning**

C. Berthoux (Montpellier)

**Dissecting the neurodevelopmental role of the microtubule-associated protein EML1, mutated in subcortical heterotopia**

S. Bizzotto (Paris)

**TRIO-GEF is a decisive cue for telencephalic shaping**

E. Bloch-Gallego (Paris)

**Endocannabinoid-dependent plasticity is a synaptic signature for resilience to chronic stress-induced anxiety**

C. BoschBouju (Bordeaux)

**Characterization of a novel gene involved in Drosophila mushroom body  $\gamma$  neuron remodeling**

A. Boulanger (Montpellier)

**Functional dynamics of developing newborn neurons**

J. Boulanger-Weill (Paris)

**Corticogenesis from embryonic stem cells largely reproduces the epigenetic signatures of the in vivo mouse cerebral cortex**

T. Bouschet (Montpellier)

**Regulation of synaptic integration in the olfactory bulb: role of the transcription factor NeuroD2**

S. Bugeon (Marseille)

**Shifts in migration route: insights into GABAergic interneurons diversity**

C. Cadilhac (Montpellier)

**Microglia tune inhibitory neurotransmission by controlling receptors lateral diffusion**

Y. Cantaut Belarif (Paris)

**Different modulations of synaptic strength across sleep/wake cycle in the limbic system of freely-moving rats**

J. Carponcy (Lyon)

**Zeb1/2-dependent somatosensory precursors and boundary cap cells underlie the developmental plasticity of nociceptive neurons**

P. Carroll (Montpellier)

**Microfluidics on microelectrode arrays for the local manipulation of synaptic transmission within complex neuronal networks**

M. Cazorla (Grenoble)

**Conditional Tshz3 gene deletion in cortical projection neurons: consequences on corticostriatal circuitry and implication in neurodevelopmental disorders**

D. Chabbert (Marseille)

**A non-canonical nuclear role for microRNA-9 and Argonaute proteins in balancing the quiescent and activated adult neural stem cell state**

M. Coolen (Gif-sur-Yvette)

## Scientific Programme

**A proteomic approach to characterize neuropeptides involved in cerebellar cortex development**

A. Corbière (Rouen)

**Molecular control of neural stem cell specification in the postnatal forebrain**

N. Coré (Marseille)

**Temporal specification of neuronal subtypes production from post-natal neural stem cells in the dorso-medial zebrafish pallium**

V. Cuccioli (Gif-sur-Yvette)

**Effects of MgSO<sub>4</sub> pretreatment on histological, behavioural and neurochemical responses to neonatal excitotoxic or hypoxic-ischemic lesions in male and female mice**

I. Daher (Rouen)

**Role of the vesicular SNARE TI-VAMP/VAMP7 in post-synaptic routing to hippocampal synapses**

L. Danglot (Paris)

**FMRP and dendritic local translation of  $\alpha$ CaMKII mRNA are required for the structural plasticity underlying olfactory learning**

L. Daroles (Paris)

**Neuron-like cells from *Microcebus murinus*, a new natural cellular models for Alzheimer disease studies**

I. Acquatella-Tran Van Ba (Montpellier)

**Role of striatal projection neurons in the generation of L-DOPA-induced dyskinesia**

C. Alcacer (Lund)

**Involvement of selective muscarinic cholinergic receptors in the striatum to regulate motor symptoms of Parkinson's disease**

M. Amalric (Marseille)

**Functional effects of the modulation of 5-HT<sub>6</sub> receptors: a pharmacological MRI study**

R. Asselot (Caen)

**Subthalamic stimulation fails to restore additive function capacity in patients with Parkinson's disease: a combined hand and speech task PET study**

C. Atkinson-Clement (Aix-en-Provence)

**Génération de cellules souches reprogrammées (iPS) de patients comme outils pour les recherches diagnostiques et thérapeutiques de la maladie d'Alzheimer (MA)**

L. Auboyer (Montpellier)

**The development of nanoparticles for in vivo diagnosis in Alzheimer's disease**

D. Azria (Montpellier)

**Restoring GABA tone rescues hippocampal long-term depression impaired after maternal immune stress**

G. Barbanel (Montpellier)

**Nicotinic regulation of the dopamine reward system: impact on depression**

J. Barik (Valbonne)

**Activation of the cannabinoid CB<sub>2</sub> receptor induces epigenetic factors expression in the rat striatum**

K. Befort (Strasbourg)

## Scientific Programme

**Depressive-like behaviors and prefrontal misfunctions induced by inflammation are prevented by iridoids native from southern Brazil flora**

M. Benoist (Marseille)

**Translational approach to study flexibility as an endophenotype of obsessive compulsive disorders**

N. Benzina (Paris)

**Binding site and inhibitory mechanism of the mambalgin-2 pain-relieving peptide on acid-sensing ion channel 1a**

T. Besson (Valbonne)

**Cell-specific protective effects of increased mitochondrial uncoupling against locomotor senescence and oxidative stress in the Drosophila brain**

S. Birman (Paris)

**Mutant huntingtin alters Tau phosphorylation and subcellular distribution**

D. Blum (Lille)

**Study of the role of the gigaxonin-E3 ligase in neurofilament homeostasis**

P. Bomont (Montpellier)

**Mitochondrial dysfunction in fibroblasts from patients with PARK2- and PARK8-linked forms of Parkinson's disease**

F. Bonello (Paris)

**Involvement of the extracellular MMP-12 proteinase in neurovascular damages, inflammation and amyloid metabolism in Alzheimer's disease**

A. Bonnet (Marseille)

**Monkeys doubt and check**

M. Bosc (Bordeaux)

**Endo-lysosomal dysfunctions in cholinergic neurons of mice modeling down syndrome**

A. Botte (Paris)

**Grey matter density evolution following symptoms' decrease in post-traumatic stress disorder**

S. Boukezzi (Marseille)

**Diet enriched in alpha-linolenic acid to improve post-stroke functional recovery**

M. Bourourou (Valbonne)

**Toward bioactive brain interface with functionalized graphene nano-electronics**

A. Bourrier (Grenoble)

**Lack of brain PXR and CAR change P450 expression, cerebrovascular structure and seizure susceptibility**

B. Boussadia (Montpellier)

**Role of CYP46A1 in cholesterol metabolism and neuroprotection in Huntington's disease**

L. Boussicault (Paris)

**Is calcium homeostasis impaired in spastic paraplegia with thin corpus callosum (SPG11)?**

M. Boutry (Paris)

**Neonatal hypoxic ischemic brain damages: early neuroprotective effect of lactate**

A.-K. Bouzier-Sore (Bordeaux)

## Scientific Programme

**Spg11 knockout in mouse mimics the pathology observed in patients**

J. Branchu (Paris)

**Plasticity of spinal premotor networks associated with recovery of quadrupedal locomotion in adult rats with complete spinal cord transection**

H. Bras (Marseille)

**First quantification of human CSF tau protein without immunocapture using triple quadrupole mass spectrometer**

P. Bros (Montpellier)

**Cell type-specific profiling of mRNAs translated in hippocampal CA1 pyramidal neurons in a mouse model of fragile X syndrome**

L. Ceolin (Montpellier)

**A deleterious role for reactive astrocytes in Alzheimer's disease?**

K. Ceyzériat (Fontenay-Aux-Roses)

**Thyroid hormone administration in adult hypothyroid rats reverses several early neuropathological hallmarks of Alzheimer's disease and spatial memory impairments**

A. Chaalal (Orsay)

**GAT-3 downexpression is responsible for tonic GABAergic inhibition in the external globus pallidus in experimental parkinsonism**

M. Chazalon (Bordeaux)

**Cellular alterations in area CA2 of the hippocampus and social memory deficit in the 22q11.2 mouse model of schizophrenia**

V. Chevalyre (Paris)

**In vitro dynamisms of cortical spreading depression**

O. Chever (Valbonne)

**L'hypertension artérielle accélère la progression de la maladie d'Alzheimer dans le modèle murin APP/PS1**

D. Cifuentes (Paris)

**Role of microglia/macrophages in cytomegalovirus infection of the rat fetal brain**

R. Cloarec (Marseille)

**Implication of CD8+ T cells in the pathophysiology of amyotrophic lateral sclerosis**

E. Coque (Montpellier)

**A missense mutation in CACNA1G alters Cav3.1 channel activity in autosomal dominant cerebellar ataxia**

M. Coutelier (Paris)

**Understanding neuronal dysfunction in MPS VII using human iPSC-derived cells**

S. Creyssels (Montpellier)

**Adult neurogenesis in prion disorders: a neuroregenerative / neurodegenerative paradox**

C. Crozet (Montpellier)

**Nutritional strategies with a lower fat content than ketogenic diet display antiepileptic properties**

G. Dallerac (Paris)

12<sup>e</sup> Colloque SN 2015  
19 - 22 May 2015,  
Montpellier, France

## Scientific Programme

CONFÉRENCE PLÉNIÈRE / PLENARY LECTURE  
16:30 - 17:00

Auditorium Berlioz

### **PL02, Hikosaka O. (Bethesda)**

**Chaired by:**

P. Apicella (Marseille)

**Mécanismes des comportements guidés par la valeur impliquant les ganglions de la base / Basal ganglia mechanisms for value-guided behavior**

O. Hikosaka (Bethesda)

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

Auditorium Berlioz

### **PL03, Cossart R. (Marseille)**

**Chaired by:**

M.G. Desarménien (Montpellier)

**Empreinte développementale sur l'organisation fonctionnelle de l'hippocampe / How developmental origin determines microcircuit function in the hippocampus**

R. Cossart (Marseille)

## Scientific Programme

**Thursday, 21 May 2015**

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

Auditorium Berlioz

### **PL04, Preat T. (Paris)**

**Chaired by:**

S. Laroche (Orsay)

**La signalisation dopaminergique du niveau énergétique contrôle la formation de la mémoire à long terme chez la drosophile / Dopamine signaling of energy level controls long-term memory formation in drosophila**

T. Preat (Paris)

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

Auditorium Berlioz

### **PL05, Elgoyhen B. (Buenos Aires)**

**Chaired by:**

J.-A. Girault (Paris)

**Évolution moléculaire des récepteurs de l'acétylcholine de l'oreille interne / Molecular evolution of hair cell acetylcholine receptors**

A.B. Elgoyhen (Buenos Aires)

SYMPOSIUM  
10:30 - 12:30

Auditorium Berlioz

### **S07, Fonctions exécutives et évaluation de l'action : du réseau aux pathologies. / Executive functions and action monitoring: from network to pathologies.**

**Chaired by:**

B. Burle (Marseille)

L. Casini (Marseille)

**Cortex médio-frontal et évaluation des résultats de l'action : études sEEG et MEG / Medio-frontal cortex and monitoring of actions outcome: SEEG and MEG studies**

F. Bonini (Marseille)

**Le traitement du feedback dans le cortex cingulaire est incarné chez l'Homme. / Feedback processing in the mid-cingulate cortex is embodied in human.**

C. Amiez (Bron)

**Evaluation de la Performance, saillance motivationnelle et contrôle cognitif : une perspective de réseau / From motivational salience and performance monitoring to cognitive control: a network perspective**

K.R. Ridderinkhof (Amsterdam)



## Scientific Programme

**Corrélats électrophysiologiques de l'évaluation automatique de l'action et son influence par l'affect négatif / Electrophysiological correlates of the automatic evaluation of action and its influence by negative affect**

G. Pourtois (Gent)

**Une nouvelle approche pour mieux comprendre les déficits du contrôle de l'action dans le TDAH et la maladie de Parkinson. / New approaches for deciphering action monitoring deficits in ADHD and Parkinson disease.**

I. Suarez (Medellin)

SYMPOSIUM  
10:30 - 12:30

Auditorium Pasteur

### **S08, Neurosciences Structurales : de la compréhension du mode d'action des médicaments au développement de nouveaux agents thérapeutiques. / Structural Neurosciences: from the understanding of drug action to innovative therapeutics.**

**Chaired by:**

P. Paoletti (Paris)

**Mécanismes moléculaires à l'origine de l'implication des récepteurs-canaux pentamériques dans les hyperekplexies et les myasthenies congénitales. / Molecular mechanisms of pentameric channel-receptor function and dysfunction in hyperekplexic and myasthenic congenital pathologies.**

P.-J. Corringer (Paris)

**Récepteurs ionotropiques du glutamate : des machines moléculaires allostériques / NMDA receptors as dynamic allosteric machines**

P. Paoletti (Paris)

**Structure et contrôle de l'ouverture du pore des récepteurs P2X de l'ATP / Structure and gating mechanisms of trimeric ATP-activated P2X receptors**

T. Grutter (Ilkirch)

**Dynamique structurale des récepteurs mGlu comme cible de nouveaux agents thérapeutiques. / Structural dynamics of mGlu receptors for the development of novel therapeutic biologics.**

P. Rondard (Montpellier)

**Exploration au niveau canal unique des bases moléculaires et structurales de l'activation et de la pharmacologie des récepteurs pentamériques Cys-loop / Exploring the structural and mechanistic basis of activation and drug modulation of Cys-loop receptors at the single-channel level**

C. Bouzat (Bahia Blanca)

## Scientific Programme

SYMPOSIUM  
10:30 - 12:30

Auditorium Einstein

### **S09, Nouvelles réflexions sur la diversité et le comportement de progéniteurs pendant le neurodéveloppement. / New reflections on progenitor diversity and behavior during neurodevelopment.**

**Chaired by:**  
F. Francis (Paris)

**Interaction entre la migration nucléaire et le cycle cellulaire des cellules de la glie radiaire / Interplay between nuclear migration and cell cycle progression in radial glial progenitors**

A. Baffet (New York)

**Mécanismes cellulaires mis en jeu dans la régulation de la différenciation neuronale / Cell biological mechanisms regulating neuronal differentiation**

K. Storey (Dundee)

**Les progéniteurs ectopiques au cours de la corticogénèse conduisent à des malformations corticales / Abnormally distributed progenitors in the mouse cortex contribute to malformations**

F. Francis (Paris)

**Caractérisation des zones germinales présomptives des sillons et des gyri chez le furet / Distinguishing between progenitor regions of gyri and sulci in the ferret cortex**

V. Borrell (Alicante)

**Rôle de l'asymétrie du fuseau mitotique dans le mode de division des précurseurs du cortex de souris et de primate / Spindle cell asymmetry: a conserved mechanism regulating asymmetric division in mouse and primate cortical precursors**

D. Delaunay (Lyon)

SYMPOSIUM  
10:30 - 12:30

Salle Antigone 1

### **S10, Le cervelet modulaire : une clé pour la compréhension des troubles moteurs et cognitifs. / The modular cerebellum: a gateway for the understanding of motor disorders and beyond.**

**Chaired by:**  
P. Isope (Strasbourg)  
L. Rondi-Reig (Paris)

**Bases moléculaires de la formation des circuits cérébelleux: du développement au troubles psychiatriques / Molecular basis of circuit formation in the cerebellum: from development to psychiatric disorders**

F. Selimi (Paris)

**Organisation fonctionnelle synaptique des modules du cortex cérébelleux de souris / Spatial organisation of cerebellar granule cell inputs on Purkinje cells, Golgi cells and molecular layer interneurons, in relation to Zebrin pattern**

P. Isope (Strasbourg)

## Scientific Programme

**Circuit hippocampo-cérébelleux et navigation / Hippocampo-cerebellar circuit and navigation**

L. Rondi-Reig (Paris )

**Les fondements anatomiques et physiologiques de la contribution du cervelet au comportement / Anatomical and physiological foundations of cerebellar contributions to behaviour**

R. Apps (Bristol)

**Le cervelet - un joueur de l'ombre dans la plasticité corticale / Cerebellum - the shadow player in abnormal cortical plasticity**

T. Popa (Bethesda)

SYMPOSIUM  
10:30 - 12:30

Salle Rondelet

**S11, Rythmes et réseaux neuronaux impliqués dans la croissance et la reproduction. / Rhythms and neuronal networks involved in body growth and reproduction.**

**Chaired by:**

V. Tolle (Paris)

X. Bonnefont (Montpellier)

**La voie de signalisation du monoxyde d'azote fait le lien entre les circuits neuronaux hypothalamiques contrôlant le métabolisme et la reproduction / Nitric oxide signaling linking hypothalamic metabolic circuits to reproduction**

N. Bellefontaine (Ann Arbor)

**Régulation des cycles oestriens par une KissClock hypothalamique / A central KissClock times estrous cycles**

V. Simonneaux (Strasbourg)

**Plasticité moléculaire et cellulaire des noyaux suprachiasmatiques au cours de la lactation / Molecular and cellular plasticity in the suprachiasmatic nuclei during lactation**

X. Bonnefont (Montpellier)

**Réseaux neuronaux régulant la sécrétion d'hormone de croissance et la prise alimentaire / Defining central networks that align growth hormone secretion with food intake**

F.J. Steyn (St Lucia, Brisbane)

**Contrôle neuroendocrine de la croissance et de l'appétit par les peptides dérivés de la ghréline / Neuroendocrine control of growth and appetite by ghrelin-derived peptides**

V. Tolle (Paris)

## Scientific Programme

SYMPOSIUM  
10:30 - 12:30

Salle Barthez

### **S12, Traitement des informations olfactives et gustatives et cognition dans le contexte de la prise alimentaire et de l'obésité. / Perceptual and cognitive processing of chemosensory cues in the context of food intake and obesity.**

**Chaired by:**

H. Gurden (Orsay)  
A. Julliard (Lyon)

**L'obésité juvénile affecte la mémoire émotionnelle olfactive: implication des glucocorticoïdes au niveau de l'amygdale / Juvenile obesity modulates odor emotional memory through glucocorticoids action in amygdala**

G. Ferreira (Bordeaux)

**Rôle du cortex insulaire dans le traitement de l'information gustative et la réticence à la nouveauté / The role of the Insula in the processing of taste and in the reluctance to novelty**

J. Stehberg (Santiago)

**Altérations anatomiques et fonctionnelles du système olfactif induites par un régime hyperlipidique chez la souris / Hyperlipidemic diet induces loss of olfactory sensory neurons and alters olfactory acuity in mice**

N. Thiebaud (Tallahassee)

**Modulation de la perception olfactive et de la gluco-sensibilité par le statut alimentaire chez des rats normopondérés et obèses / Modulation of olfactory sensitivity and glucose-sensing by the feeding state in normal-weighted and obese Zucker rats**

B. Palouzier-Paulignan (Lyon)

**Représentation spatio-temporelle des odeurs dans le bulbe olfactif des souris déficientes en leptine et rendues obèses par régime hypercalorique / Spatiotemporal representation of odors in the main olfactory bulb of leptin-deficient and diet-induced obese mice**

H. Gurden (Orsay)

SYMPOSIUM SPÉCIALISÉ / SPECIAL SYMPOSIUM  
13:30 - 15:00

Auditorium Berlioz

### **SP02, Symposium Fédération pour la Recherche sur le Cerveau - Société des Neurosciences / Fédération pour la Recherche sur le Cerveau - Société des Neurosciences Symposium**

**Chaired by:**

P. Kahane (Grenoble)  
C. Mulle (Bordeaux)

**DEPDC5, une protéine de la voie mTOR impliquée dans l'épilepsie / DEPDC5, an mTOR-related protein involved in epilepsy**

S. Baulac (Paris)

## Scientific Programme

**TSHZ3, un nouveau gène candidat pour des troubles neurodevelopmentaux impliqué dans le développement et la fonction du néocortex / TSHZ3, a new candidate gene for neurodevelopmental disorders involved in neocortical development and function**

L. Fasano (Marseille)

**Restauration des voies corticales lésées par greffe de neurones corticaux dérivés de cellules souches embryonnaires / Reestablishment of damaged cortical pathways by grafts of cortical neurons derived from embryonic stem cells**

A. Gaillard (Poitiers)

**Cycle cellulaire et contrôle du destin cellulaire au cours du développement de la moelle épinière / Role of the cell cycle in cell fate decision during spinal neurogenesis**

F. Pituello (Toulouse)

SYMPOSIUM SPÉCIALISÉ / SPECIAL SYMPOSIUM  
13:30 - 15:15

Salle Rondelet

### **SP03, Traitement des synaptopathies dans la trisomie 21 / Correction of synaptopathies in Down syndrome soutenu par / supported by ROCHE**

**Chaired by:**

X. Liogier (Basel)  
M.-C. Potier

**Modèles cellulaires pour étudier la régulation des réseaux génétiques dans la trisomie 21 pour la recherche de cibles thérapeutiques / In vitro models to study dysregulation of genetic regulatory circuits in Down syndrome. A quest for therapeutic targets**

P.A. Caviedes (Santiago)

**La trisomie 21 et les interactions génétiques complexes : les voies alternatives pour améliorer les déficits cognitifs / Tackling the complexity of candidate gene interactions in DS mouse models, insights for new therapeutic intervention**

Y. Herault (Illkirch)

**Synaptopathies préfrontales liées à la surexpression du gène DYRK1A / Prefrontal synaptopathies linked to the Down syndrome candidate gene DYRK1A overexpression**

A. Thomazeau (Cambridge)

**Les traitements de la trisomie 21 ciblant DYRK1A / Corrective strategies targeting DYRK1A**

J.-M. Delabar (Paris)

**Développement clinique du RG1662 pour le traitement des déficits intellectuels dans la trisomie 21 / Development of RG1662 for the treatment of intellectual disability associated with Down syndrome**

X. Liogier (Basel)

## Scientific Programme

COMMUNICATIONS AFFICHÉES / POSTER SESSION  
13:30 - 16:30

Poster Exhibition

### P2, COMMUNICATIONS AFFICHÉES / POSTER SESSION

Poster sessions run from 13:30 to 16:30.

However, a one hour time block is dedicated to discussion with the authors:

- from 14:30 to 15:30 for even-numbered posters

- from 15:30 to 16:30 for odd-numbered posters

**Evidence for an internal model-based representation of self-motion in the vestibulo-cerebellum**

G.P. Dugué (Paris)

**Spatiotemporal structure of neuronal activity in the transition zone between dorsal premotor and primary motor cortex**

M. Duret (Marseille)

**Electrophysiological and behavioral assessment of amplitude modulation depth detection in rats exposed to non-traumatic environmental noise**

J.-M. Edeline (Orsay)

**Mapping of stimulus high-order statistics in a primary sensory cortex**

L. Estebanez (Gif sur Yvette)

**Role of GABAergic circuits in corticostriatal information processing**

E. Fino (Grenoble)

**Projection-specific characteristics of retinal input to the brain**

G. Gauvain (Paris)

**Smell's melody brain processing of odor and sound interactions**

A. Gnaedinger (Orsay)

**Early impact of a diabetes inducing high-fructose diet on olfaction in mice**

X. Grosmaître (Dijon)

**CA3 place cells show electrophysiological "habituation" following multiple exposures to distinct environments**

V. Hok (Marseille)

**Cochlear sound encoding in background noise**

A. Huet (Montpellier)

**Oligophrenin 1 deletion in the medial prefrontal cortex leads to perseveration behaviors by dysregulating PKA pathway**

Y. Humeau (Bordeaux)

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

D. Jarriault (Dijon)

**Shift in the excitatory/inhibitory synaptic balance induced by the C low-threshold Mechano Receptor derived chemokine TFA4 in dorsal spinal cord in nociceptive spinal networks**

C. Kambrun (Bordeaux)

**A miniature wireless inertial-sensing device for measuring head movements in rats**

C. Lena (Paris)

## Scientific Programme

**Contributions of the striatum to value-based choice behavior in an uncertain reward environment: an electrophysiological study in monkeys performing a probabilistic choice task**

K. Marche (Marseille)

**Excitatory and inhibitory inputs on spinal motoneurons of adult SOD1 mice, a model of Amyotrophic Lateral Sclerosis**

C. Martinot (Paris)

**Adaptive changes in the somatosensory cortex after a sensorimotor restriction in adult rats. IGF-1, a key regulator of cortical plasticity?**

J. Mysoet (Vileneuve d'Ascq)

**Role of the background potassium channel TREK2 in pain and thermosensation**

J. Noël (Valbonne)

**Actin filaments regulate exocytosis at the hair cell ribbon synapse**

R. Nouvian (Montpellier)

**The temporal characteristics of Purkinje cell to cerebellar nuclear cell connections**

O.O. Ozcan (Strasbourg)

**Role of the subthalamic nucleus on the influence of proximal social factors on cocaine consumption**

E. Giorla (Marseille)

**Impact of SSRI in models of depression: comparative behavioral study of the C57BL6/J and BALB/c strains with fluoxetine using the UCMS protocol**

T. Gosselin (Tours)

**$\beta$ -CTF induced early behavioral and electrophysiological alterations in transgenic TgCRND8 mouse model of Alzheimer's disease**

V. Hamm (Strasbourg)

**Juvenile high-fat diet consumption impairs memory consolidation depending on emotional levels during training**

Y. Jantkakhin (Bordeaux)

**Prolactin regulates social and emotional behaviors through STAT5 in male mice**

S. Karaki (Paris)

**Time course of the sociocultural cues processing during speaker's ironic intent understanding**

M. Klein (Aix-en-Provence)

**Control of place fields by different streams of information in CA1 and CA3-dentate networks**

J. Koenig (Marseille Cedex)

**Influence of parental investment and individual factors on prosociality in Guinea pigs and domestic canaries**

M. Lalot (Nanterre)

**Early exposure to low dose glufosinate ammonium results in alterations reminiscent of autism-like defects in mice**

A. Laugeray (Orléans)

## Scientific Programme

**A possible link between behavior impairment and neurogenesis disturbances in adult rats exposed to uranium during development**

M. Legrand (Fontenay-aux-Roses)

**Long-term behavioural effects in adult offspring of a mouse model of congenital toxoplasmosis**

S. Leman (Tours)

**Recruitment of newborn adult neurons in the olfactory bulb in relation to maternal care and recognition of the young in sheep mothers**

F. Lévy (Nouzilly)

**I know it's not real... what does it change? Implicit emotion regulation by fiction gives new insights on the role of cognitive control**

D. Makowski (Paris)

**Attentional and emotional interaction processes: a rTMS/fMRI study**

J. Malsert (Genève)

**Social deficits in Scrib1 mutants are rescued by an ERK inhibitor**

M. Moreau (Bordeaux)

**Study of the dynamics of social interaction: kinematic analysis of a joint action**

Q. Moreau (Bron)

**Optogenetic dissection of CA2 pyramidal neuron hippocampal targets**

K. Nasrallah (Paris)

**Emergence of money with virtual agents, humans and macaques**

A. Nioche (Bordeaux)

**Impact of perinatal over-nutrition on the developing sweet/fatty taste and the ontogeny of brain reward pathway, from birth to sexual maturity in rat**

V. Paillé (Nantes)

**Reciprocal thalamo-prefrontal and prefronto-thalamic projections support spatial working memory**

S. Parnaudeau (Paris)

**The non-specific thalamus and spatial memory persistence**

A. Pereira de Vasconcelos (Strasbourg)

**Coping with stress: neural activity of the NCM and the brain's social behavior network in the evaluation of the salience of acoustic stimuli in different social contexts**

E.C. Perez (Sydney)

**Imaging and modeling signaling pathways integration in medium-sized spiny neurons**

N. Gervasi (Paris)

**Pyk2 is necessary for astrocytes mobility following brain lesion**

A. Giralt (Paris)

**In vivo time-lapse imaging of mitochondria in the myelin sheath**

S. Gonzalez (Montpellier)

**Optopharmacological control of endogenous G protein-coupled receptors**

C. Goudet (Montpellier)



## Scientific Programme

**Heterodimerization of dopamine D1 receptor and metabotropic glutamate receptor type 5 controls cellular signaling**

E. Goyet (Montpellier)

**Subthreshold information decoding at the cerebellar granule cell to Purkinje cell synapse**

A. Grangeray Vilmint (Strasbourg)

**Molecular mechanisms of Notch1-induced pericyte-like transdifferentiation of glioblastoma stem cells**

S. Guelfi (Montpellier)

**Characterization of the urotensinergic chemokine system in glioblastomas. Invasiveness and mesenchymal properties?**

P.-O. Guichet (Mont-Saint-Aignan)

**Nicotinic transmission onto layer 6 cortical neurons relies on synaptic activation of non- $\alpha 7$  receptors**

Y.A. Hay (Cambridge)

**Impact of an ischemic episode on the physiology of Bergmann glial cells**

R. Helleringer (Orsay)

**Optogenetic study of neocortical noradrenergic transmission**

R. Hepp (Paris)

**Delineating a novel antagonist binding site in the transmembrane domain of Smoothed with MRT-92**

L. Hoch (Gif sur Yvette)

**Three-dimensional structural and functional neural networks for connectome on a chip**

T. Honegger (Grenoble)

**Impact of a key ancestral deletion in chemokine and vasoactive peptide receptors on chemotaxis**

J.-E. Joubert (Mont-Saint-Aignan)

**Monosynaptic excitatory transmission between layer 2/3 pyramidal neurons in mouse barrel cortex in vivo**

J.-S. Jouhanneau (Berlin)

**L-Lactate as a neuroprotective agent against excitotoxicity: implication of an energy-dependent process**

P. Jourdain (Lausanne)

**Hemichannel-mediated release of lactate**

A. Karagiannis (London)

**Potential role of P2X4R expressed by sensory neurons in BDNF-evoked inflammatory pain**

S. Lalisce (Montpellier)

**Segregation of glutamatergic and cholinergic functional domains at the motoneuron-Renshaw cell synapse**

B. Lamotte D'incamps (Paris)

**GABAB receptor dysfunction in the spinal cord of neuropathic rats**

M. Landry (Bordeaux)

## Scientific Programme

**Developmental myelination of the brain: roles of hedgehog and androgen signaling pathways**

Y. Laouarem (Le Kremlin-Bicêtre)

**Characterization of a novel pathway regulating a-synuclein expression. Implication in Parkinson's disease**

I. Lassot (Montpellier)

**Identity of the NMDA receptor co-agonist is synapse specific and developmentally regulated in the hippocampus**

M. Le Bail (Marseille)

**Refinement of the action mechanism of the anxiolytic compound etifoxine on GABAA receptors: contribution of the alpha subunits**

C. Legros (Angers)

**Chip based biosensor detection of botulinum neurotoxin activity in patient sera and pharmaceutical preparations**

C. Lévêque (Marseille)

**PKA, AMPK and NRF-1 couple cAMP-dependent antioxidant response and mitochondriogenesis during neural cell differentiation**

I. Lihrmann-Bisson (Mont-Saint-Aignan)

**The coxsackievirus and adenovirus receptor (CAR) in the central nervous system: more than a simple cell adhesion molecule**

F. Loustalot (Montpellier)

**Botulinum Neurotoxin types A and B affect neurogenic activation of smooth and striated muscle with different potencies in mouse ex vivo organ bath preparations**

J. Maignel-Ludop (Les Ulis)

**Ion channel interactions and co-regulations in substantia nigra pars compacta dopaminergic neurons**

B. Marquèze-Pouey (Marseille)

**Alterations of NG2 cell synaptic connectivity following demyelination of corpus callosum**

F.A. OrtizCisternas (Paris)

**Co-occurrence of a multi-neurotransmitter phenotype with proliferation capabilities in neural cells: the example of the paraventricular organ in the zebrafish brain**

M. Demarque (Gif-sur-Yvette)

**In vitro exposure to 17alpha-ethinylestradiol alters mouse embryonic neural stem cells development**

L. Derouiche (Nouzilly)

**Heterogeneous functioning of neurotransmitter release machinery at cerebellar granule cells terminals during high frequency stimulations**

K. Dorgans (Strasbourg)

**Synapsins are involved in several forms of presynaptic plasticity at cerebellar granule cell synapses**

F. Doussau (Strasbourg)

**Intranigral vs. intrastriatal transplantation of embryonic ventral mesencephalic cells in an animal model of Parkinson's disease**

M. Droguerre (Poitiers)

## Scientific Programme

**Low-intensity rTMS alters Purkinje cell morphology and cerebellar-related behaviour**

T. Dufor (Paris)

**Leptin guides chloride homeostasis in the developing rodent hippocampus**

C. Dumon (Marseille)

**Carbocyanine DiD labelling of neural stem cells in vitro and in vivo when injected in the rat brain lateral ventricle**

J. Eyer (Angers)

**Genetic dissection of Scrib1 functions during forebrain development**

J. Ezan (Bordeaux)

**TBC1D24 regulates neuronal migration and maturation through modulation of the ARF6-dependent pathway**

C. Cardoso (Marseille)

**Molecular determinants for targeting of kainate receptors at hippocampal mossy fiber synapses**

S. Fièvre (Bordeaux)

**Temporal construction of the pallium in zebrafish: combination of lineage analysis and a new birthdating strategy using the tet-ON system to drive a fluorescent histone tracer**

G. Furlan (Gif-Sur-Yvette)

**A dual role for the transcription factor Sp8 in postnatal olfactory bulb neurogenesis**

E. Gaborieau (Bron)

**Tonic and phasic GABAergic signaling differently control corticostriatal spike-timing-dependent plasticity along development**

G. Gangarossa (Paris)

**Late maternal folate supplementation rescues from methyl donor deficiency-associated brain defects by restoring microRNA pathways**

A. Geoffroy (Vandoeuvre-lès-Nancy)

**Ventral subiculum-induced plasticity in midbrain dopamine neuron facilitates behavioral effects of cocaine**

F. Georges (Bordeaux)

**Cerebrospinal fluid-derived semaphorins influence proliferation and cell cycle kinetics of neuronal progenitor cells in the developing cortex**

K. Gerstmann (Villeurbanne)

**Metabotropic glutamate receptor type 7 (mGlu7) modulation of thalamocortical activity**

B. Girard (Paris)

**Characterization of the functional role of alkaline phosphatase in the control of synaptic transmission through adenosine synthesis**

M. Gleizes (Toulouse)

**The basolateral amygdala regulates synaptic plasticity evoked in the hippocampus-to-prefrontal cortex pathway**

B. Godsil (Paris)

**Regulation of postsynaptic function by the dementia-related ESCRT-III subunit CHMP2B**

Y. Goldberg (La Tronche)

## Scientific Programme

**The adenosine signaling as a detector and stabilizer of newly formed GABA synapses**

F. Gomez Castro (Paris)

**Boundary caps give rise to neurogenic stem cells and terminal glia in the skin**

A. Gresset (Paris)

**Early exposure to pesticide disturb adult neurogenesis during neurodevelopmental period**

A. Herzine (Orléans)

**Proteomic screening of glutamatergic mouse brain synaptosomes isolated by fluorescence activated sorting**

E. Herzog (Bordeaux)

**Chloride-sensitive control of KCC2 membrane dynamics and therefore function**

M. Heubl (Paris)

**Anatomo-functional characterization of hippocampal GABAergic neurons expressing dopamine D2 receptor**

E. Honoré (Montpellier)

**CPEB3-controlled translation in neuronal plasticity, memory and nociception**

Y.-S. Huang (Taipei)

**Spike-timing dependent plasticity (STDP) rules in physiological extracellular calcium**

Y. Inglebert (Marseille)

**Spastin short isoform acts as a downstream target of the Neuropilin 1 receptor during zebrafish spinal motor neuron development**

N. Jardin (Paris)

**Spike amplification by the AHP; a possible mechanism of short term synaptic plasticity**

N. Kuczewski (Lyon)

**Astroglial CB1 receptors control long-term memory and synaptic plasticity**

V.C. Langlais (Bordeaux)

**Functional characterization of identified mossy fiber synaptic inputs in the input layer of cerebellar cortex**

F. Lanore (London)

**Effect of antenatal administration of magnesium sulfate on cerebral vascular network: a pre-clinical and clinical study**

M. Lecuyer (Rouen)

**Subtype specific persistence of Cajal-Retzius cells in the postnatal mouse brain**

F. Ledonne (Paris)

**Resistance of subventricular neural stem cells to chronic hypoxemia despite structural disorganization of the germinal center and impairment of neuronal and oligodendrocyte survival**

X. d'Anglemont de Tassigny (Sevilla)

**Attenuation of gut leakiness in stressed neonates prevents HPA axis dysfunction and behavioral impairments produced by maternal separation**

M. Darnaudery (Bordeaux)

## Scientific Programme

**Differential modulation of synaptic plasticity within the amygdalo-hippocampal pathway by drug vs food rewards during cued and spatial learning tasks**

V. David (Bordeaux)

**PDGFR $\beta$ + cells in human and experimental neuro-vascular ectopia or damage**

F. de Bock (Montpellier)

**L-dopa alters dopamine and serotonin release independently from electrophysiological changes in the dorsal raphe nucleus in vivo: relevance to dyskinesia**

P. De Deurwaerdere (Bordeaux)

**Optogenetics mapping of the dynamic properties of the hyperdirect and indirect pathways**

B. de la Crompe (Bordeaux)

**Deregulation of protein synthesis in Alzheimer's disease**

C. Desnos (Paris)

**The role of the subcellular localization of CB1 receptors on motor control**

T. Desprez (Bordeaux)

**Transcriptome changes in the brain of the primate *Microcebus murinus* mimic those of human in aging and in Alzheimer's disease**

G. Devau (Montpellier)

**First "chemofog" symptoms reported for anti-angiogenic cancer therapy in a preclinical murine model**

M. Dubois (Mont-Saint-Aignan)

**Cross-talk between the PINK1/Parkin pathway and the ER-mitochondria interface**

Z. Erpapazoglou (Paris)

**Loss of corticostriatal and thalamostriatal homeostasis in the direct and indirect pathways in mouse Parkinsonism**

M. Escande (Buenos Aires)

**Loss of association of REEP2 with membranes leads to hereditary spastic paraplegia**

T. Esteves (Paris)

**Lesioning serotonin cells interferes with Levodopa-induced improvement of anxiety and alters the neuronal activity of basolateral amygdala**

E. Faggiani (Bordeaux)

**Chronic Abeta (1-42) injections into the hippocampus induce long-lasting working memory impairments**

P. Faucher (Bordeaux)

**Olfactory stem cells reveal MOCOS as a new player in autism spectrum disorders**

F. Feron (Marseille)

**Longitudinal vascular-pericyte changes in a genetic model of Alzheimer's disease**

P. Giannoni (Montpellier)

**Therapeutic potential of a selective glucocorticoid receptor antagonist in Alzheimer's disease**

L. Givalois (Montpellier)

**Huntington's disease: a tauopathie?**

M. Gratuze (Québec)

## Scientific Programme

**Donecopride, a pleiotropic compound targeting acetylcholinesterase and serotonergic 4 receptors for Alzheimer's disease treatment**

K. Hamidouche (Caen)

**Site directed mutagenesis of the binding site for cholesterol on amyloid precursor protein modifies the secretion of A $\beta$ 40 and A $\beta$ 42 in HEK293T cells**

L. Hanbouch (Paris)

**Role of striatal cholinergic interneurons in cortical and thalamic information processing through the basal ganglia**

M. Hanini-Daoud (Marseille)

**MicroRNAs profiling in familial dysautonomia**

M. Hervé (Marseille)

**Effects of peripheral blood mononuclear cells stimulated by ephrinb2/fc in a murine stroke model**

R. Hilal (Paris)

**PINK1/Parkin-dependent mitochondrial degradation is coupled with mitochondrial biogenesis and mt-UPR in neurons**

M. Jacoupy (Paris)

**Wfs1<sup>-/-</sup> mice: phenotyping and gene therapy against the Wolfram syndrome disease**

J. Jagodzinska (Montpellier)

**Innate immune response in EAE progression: chronic in vivo two-photon imaging of fluorescent transgenic mice combined to multiparametric cytometry**

A. Jaouën (Marseille)

**Neuronal network dysfunctions at the early stage of epileptogenesis in a genetic model of absence epilepsy**

G. Jarre (Grenoble)

**Hippocampus-prefrontal cortical dysfunction in a mouse model of schizophrenia**

T.M. Jay (Paris)

**Modulation of electroencephalographic responses to a motor inhibition task by subthalamic nucleus deep brain stimulation in patients suffering from obsessive-compulsive disorders**

A. Kibleur (La Tronche)

**The protective effect of curcumin on tyrosine hydroxylase immunoreactivity in the substantia nigra after acute aluminum intoxication in rat brain**

W. Laabbar (Marrakech)

**Early hallmarks neurofibrillary degeneration and cognitive impairments in a double human Tau x DM1 mouse model**

C. Laurent (Lille)

**Feeling unreal in sleeping beauty syndrome (Kleine-Levin syndrome): a real neuropsychiatric disease supported by functional imaging study**

S. Lavault (Paris)

**Neuronal network hyperexcitability induced by hypoexcitability of GABAergic neurons in Genetic Epilepsy mouse models**

J. Lavigne (Valbonne)

## Scientific Programme

**New therapeutic approaches for post-traumatic stress disorder based on high reactivity to trauma related cues**

C. Le Dorze (Orsay)

**Aversive events attenuate the GABAB signal in the lateral habenula**

S. Lecca (Paris)

**The intracerebroventricular administration of serotonin and fluoxetine prolonged the QT interval of the electrocardiogram in trout**

J.-C. LeMével (Brest)

**Influence of uranium on murine model of Alzheimer disease**

P. Lestaevél (Fontenay aux Roses)

**Levodopa chronic treatment promotes reinforcing properties of pramipexole in alpha-synuclein rat model of Parkinson disease**

S. Liodice (Clermont-Ferrand)

**Modelling c9orf72 loss of function: a knock-down mouse model**

M.B. Lopez (Paris)

**Role of microRNAs in oxaliplatin-induced neuropathy**

M.-J. López González (Bordeaux)

**Neonatal prefrontal cortex TTX inactivation induced a disruption in dopaminergic responses in dorsomedian shell part of the nucleus accumbens to MK801 treatment at adulthood**

A. Louilot (Strasbourg)

**Serotonin modulates the inflammation state of microglia: involvement in sickness behavior**

C. Béchade (Paris)

**Acetylcholine controls the GH/IGF-1 axis during mouse development**

S. Berrard (Paris)

**The social hormone oxytocin: could it be a marker of welfare in mammals?**

C. Bienboire-Frosini (Apt)

**Modulation of lateral septal neurons by oxytocin and vasopressin, neuropeptides involved in the regulation of social behavior**

A.M. Borie (Montpellier)

**Involvement of endogenous brain-derived neurotrophic factor in the hypothalamic-pituitary-adrenal axis activity**

N. Chevallier (Montpellier)

**Effect of an omega-3/antioxidants supplemented diet on emotional and cognitive alterations associated with obesity**

C. Fourrier (Bordeaux)

**Adaptive functional remodeling of stimulus-secretion coupling in the adrenal medulla of spontaneously hypertensive rats**

N. Guérineau (Montpellier)

**Definition of the microglial activome from individual mice revealed by RNAseq**

H. Hirbec (Montpellier)

**Ocular pain induces neuro-inflammatory process in the trigeminal pathway**

P.-S. Launay (Paris)

## Scientific Programme

**Temporal coding and spatial information processing in a biologically accurate computational model of the hippocampal formation: a tool to investigate pathology**

S. Barriere (Burlington)

**Modelling rat learning behavior under uncertainty in a non-stationary multi-armed bandit task**

B. Girard (Paris)

**Potential of dynamic models to investigate neurovascular coupling using ASL fMRI**

C. Huneau (Paris)

**A user-friendly software tool to organize and structure experimental data and metadata: bringing neuroinformatics at your desk**

Y. Le Franc (Wilrijk)

**A millisecond short-latency reprogrammable silicon chip solution for the pre-processing of electrophysiological data: towards a real-time closed-loop approach**

S.L. Mondragon (Paris)

**Spectral dimension reduction in parametric models for spike train statistics**

C. Ravello (Valparaiso)

**Using covert response activation to test latent assumptions of formal decision-making models in humans**

M. Servant (Marseille)

**Coordination of adaptive working memory and reinforcement learning systems explaining choice and reaction time in a human experiment**

G. Viejo (Paris)

ASSEMBLÉE GÉNÉRALE / GENERAL ASSEMBLY

16:30 - 17:30

Auditorium Berlioz

### **Assemblée générale / General assembly**

17:30 - 18:00

Auditorium Berlioz

### **Remise de prix / Awards ceremony**

CONFÉRENCE PLÉNIÈRE / PLENARY LECTURE

18:00 - 19:00

Auditorium Berlioz

### **PL06, Lecture Alfred Fessard / Alfred Fessard Lecture Triller A. (Paris)**

**Chaired by:**

C. Mulle (Bordeaux)

**La synapse dynamique: 1980-2015 / The dynamic synapse: 1980-2015**

A. Triller (Paris)



## Scientific Programme

### Friday, 22 May 2015

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

Auditorium Berlioz

#### **PL07, Prévot V. (Lille)**

**Chaired by:**  
M.-P. Moisan (Bordeaux)

**Les tanocytes: un pont entre le sang et le cerveau pour les signaux métaboliques / Tanocytes: a blood-brain bridge for metabolic signals**  
V. Prévot (Lille)

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

Auditorium Berlioz

#### **PL08, Herculano-Houzel S. (Rio de Janeiro)**

**Chaired by:**  
G. Masson (Marseille)

**Remarquable, mais pas extraordinaire : comment le cerveau humain se différencie des autres ? / Remarkable, though not extraordinary: How the human brain compares to others, and how it got to be this way**  
S. Herculano-Houzel (Rio de Janeiro)

SYMPOSIUM  
10:30 - 12:30

Auditorium Berlioz

#### **S13, Interactions neurones-astrocytes : des outils cellulaires à l'analyse fonctionnelle. / Neuron-astrocyte interactions: from cellular tools to functional analysis.**

**Chaired by:**  
C. Escartin (Fontenay-aux-Roses)  
L.F. Barros (Valdivia)

**Nouveaux outils d'imagerie pour l'étude du métabolisme énergétique cérébral / Novel imaging tools for brain energy metabolism**  
L.F. Barros (Valdivia)

**Sources et cibles des prostanoïdes vasodilatateurs dans le néocortex de rongeurs / Sources and targets of vasodilatory prostanoids in the rodent neocortex**  
B. Cauli (Paris)

**The recording of astrocytic fields to better understand the role of astrocytic IP<sub>3</sub> receptors during long-term synaptic plasticity**  
M.W. Sherwood (Bordeaux)

**10:30**

## Scientific Programme

**Rôle des connexines astrogliales dans la régulation de l'efficacité synaptique / Unraveling the role of astroglial connexins in synaptic strength**

N. Rouach (Paris)

**Manipulation des astrocytes réactifs par transfert de gène viral / What do reactive astrocytes do? Insights from viral vector-mediated manipulation in vivo**

C. Escartin (Fontenay-aux-Roses)

SYMPOSIUM  
10:30 - 12:30

Auditorium Pasteur

### **S14, Rôle de l'habenula dans la motivation. / Dissecting habenula functions in motivated states.**

**Chaired by:**

J. Piriz (Buenos Aires)

**Habenula latérale et mémoire aversives / Lateral Habenula determines long-term storage of aversive memories**

J. Piriz (Buenos Aires)

**Plasticité synaptique dans l'habenula latérale induite par la cocaïne / Projection specific synaptic plasticity in lateral habenula: encoding rewarding or aversive states?**

M. Mameli (Paris)

**Physiologie des entrées excitatrices de l'habenula médiale / Physiology of excitatory inputs of medial habenular neurons**

M.A. Diana (Paris)

**Caractérisation fonctionnelle des récepteurs CB1 dans l'habenula médiale / Functional characterization of CB1 receptors in the medial habenula**

E. Soria-Gomez (Bordeaux)

**Rôle de l'axe habenula-interpeduncular dans la dépendance à la nicotine. / The habenula-interpeduncular (Hb-IPN) circuitry underlying nicotine dependence.**

I. Ibanez-Tallon (New York)

SYMPOSIUM  
10:30 - 12:30

Auditorium Einstein

### **S15, mTOR : un nouvel acteur clé dans les maladies psychiatriques et le vieillissement. / mTOR: a novel culprit for neuropsychiatric disorders and aging.**

**Chaired by:**

P. Marin (Montpellier)

M.J. Millan (Croissy sur Seine)

**Longévité, vieillissement et rapamycin / Longevity, aging and rapamycin**

D. Ehninger (Bonn)

## Scientific Programme

**Rôle de la voie mTOR dans les déficits cognitifs induits par les cannabinoïdes. / Role of the mTOR pathway in cognitive impairment induced by cannabinoids.**

R. Maldonado (Barcelona)

**Voie mTOR et développement du cortex préfrontal sous le contrôle de la reelin: implication dans les maladies psychiatriques / Reelin, an extracellular matrix protein linked to early onset psychiatric diseases, drives prefrontal cortex development via the mTOR pathway**

P. Chavis (Marseille Cedex 09)

**Déficits cognitifs de la schizophrénie et leur contrôle par la voie mTOR / Cognitive deficits of schizophrenia and their control by the mTOR pathway**

P. Marin (Montpellier)

**Activation de la voie mTOR dans les neurones dopaminergiques : rôle dans l'addiction / mTOR activation in dopaminergic neurons: critical role in drug addiction**

G. Collo (Brescia)

SYMPOSIUM  
10:30 - 12:30

Salle Antigone 1

### **S16, Rôle des lipides dans le fonctionnement synaptique. / Lipids in synaptic function.**

**Chaired by:**

N. Vitale (Strasbourg)

**La synthèse d'acide phosphatidique est requise pour la croissance neuronale et la neurosécrétion / Phospholipase D1 generated phosphatidic acid and membrane fusion in neurosecreting cells**

N. Vitale (Strasbourg)

**Implication de la dynamine dans la fusion membranaire / Dynamin regulates exocytosis in neuroendocrine cells through a mechanism that involves actin dynamics**

A.M. Cardenas (Valparaíso)

**Les lipides membranaires facilitent la transmission synaptique en inhibant les canaux Kv présynaptique. / Membrane lipids can facilitate synaptic transmission by inhibition of presynaptic Kv channels.**

M. Carta (Bordeaux)

**Endocannabinoïdes et synaptopathies / Endocannabinoid synaptopathies**

O.J. Manzoni (Marseille)

**Une étude optogénique de la physiologie des canaux TREK / Optogenetic study of TREK channel physiology**

G. Sandoz (Nice)

## Scientific Programme

SYMPOSIUM  
10:30 - 12:30

Salle Rondelet

### **S17, Modélisation du système visuel primaire : de la vision naturelle aux applications numériques. / Modeling the early visual system: From natural vision to numerical applications.**

**Chaired by:**

B. Cessac (Nice)  
A.G. Palacios (Valparaíso)

**Réponse des cellules ganglionnaires rétiniennes en présence de stimulus naturelles / Response of retinal ganglion cells under natural stimulus**

A.G. Palacios (Valparaíso)

**Modélisation des chemins non-standards de la vision précoce : le rôle du thalamus / Modeling non-standard pathways in early vision : role of the thalamus**

F. Alexandre (Bordeaux)

**Modèles bio-physiques effectifs de cellules ganglionnaires standard et non standard / Effective bio-physical modeling of standard and non-standard retinal ganglion cells**

M.-J. Escobar (Valparaiso)

**Modèles statistiques pour l'analyse de trains de potentiels d'action dans la rétine / Statistical models for spike trains analysis in the retina**

B. Cessac (Nice)

**Lecture du code de population de la rétine. / Reading the population code of the retina.**

O. Marre (Paris)

SYMPOSIUM  
10:30 - 12:30

Salle Barthez

### **S18, Connexions intimes : sémaphorines, sexe et autres circuits cérébraux. / Intimate connections: semaphorins, sex and other brain circuits.**

**Chaired by:**

P. Giacobini (Lille)

**La génétique complexe de la syndrome de Kallmann: défauts de signalisation du FGF, prokineticin et semaphorin / The complex genetics of Kallmann syndrome: FGF, prokineticin, and semaphorin signalling defects**

J.-P. Hardelin (Paris)

**Rôle des sémaphorines dans le développement et la plasticité des neurones GnRH: câblage du système reproducteur / Semaphorins signaling in GnRH neuron development and plasticity: wiring the reproductive system**

P. Giacobini (Lille)

**Sémaphorines et organisation locale de circuit GABAergique cerebellaire / Semaphorins and local cerebellar GABAergic circuit organization**

F. Ango (Montpellier)

## Scientific Programme

**Semaphorin7A regulates stem cell proliferation and neuronal morphology of newly born neurons in the adult hippocampus via different receptors**

B. Jongbloets (Utrecht)

**Les nouveaux rôles de molécules de guidance dans la migration des cellules immunitaires: implication pour la thérapie du cancer / New roles of axon guidance molecules in immune cell pathfinding: implication for cancer therapy**

M. Mazzone (Leuven)

RÉUNION D'INFORMATION / INFORMATION SESSION  
13:30 - 14:30

Auditorium Berlioz

### RT02, Section 69 du CNU

La section Neurosciences du CNU (section 69) rassemble les enseignants-chercheurs travaillant dans tous les domaines des Neurosciences. Elle est représentée par une instance nationale composée de membres élus et nommés (enseignants-chercheurs ou chercheurs des EPST) qui a pour mission d'assurer les qualifications des futurs candidats à des postes de Maîtres de Conférences et Professeurs, ainsi que les promotions des enseignants-chercheurs et l'attribution des congés recherche. Très récemment, le CNU a été chargé d'assurer de nouvelles missions, comme l'évaluation des dossiers en vue de l'attribution de Primes (PEDR) ou encore le suivi régulier de l'ensemble des enseignant-chercheurs.

Le but de cette réunion informelle est de présenter, en particulier aux jeunes se destinant au métier d'enseignant-chercheur, ou aux collègues déjà en poste, le mode de fonctionnement du CNU ainsi que les évolutions récentes. Cette réunion d'information et d'échanges sera avant tout l'occasion de rencontrer et de poser toutes vos questions aux membres actuels du CNU.

<http://www.cpcnu.fr/web/section-69>

## Scientific Programme

RÉUNION D'INFORMATION / INFORMATION SESSION  
13:30 - 15:30

Salle Rondelet

### **RT01, Opportunités de coopération avec le Canada Session d'information organisée par ERA-Can+ / Opportunities for collaboration with Canada ERA-Can+ Information Session**

Cette session sera l'occasion pour la communauté scientifique présente au 12<sup>ème</sup> Colloque de la Société des Neurosciences de s'informer sur les principaux vecteurs de coopération avec leurs homologues canadiens. Lors de cette session, seront présentées les opportunités de coopération dans les programmes de financement canadiens et dans le programme de recherche et d'innovation de l'UE (H2020) ainsi que les services proposés par ERA-Can+. Cette session permettra également d'informer les participants sur les structures de coopération existantes entre chercheurs canadiens et européens dans le domaine des neurosciences.

Cette session est organisée par le CNRS dans le cadre de sa participation au projet ERA-Can+ financé sous le FP7, qui a pour but de promouvoir la coopération entre le Canada et l'UE dans les secteurs de la science, des technologies et de l'innovation.

Plus d'informations et inscriptions sur le site internet d'ERA-Can+ (<http://www.era-can.net/>).

<p><p>

This 2-hour Information Session will be a great opportunity for the scientific community present at the 12th meeting of the French Neuroscience Society to learn more about the main vectors for cooperation with their Canadian counterparts. The panelists will present the funding opportunities in Canadian funding Programmes and in H2020, the EU Research and Innovation Programme as well as the supporting services offered by the ERA-Can+ project. Participants will also have the occasion to get informed about current and developing collaborations between Canadian and European researchers in the field of neuroscience.

This session will be organized by CNRS on behalf of ERA-Can+, a project funded under the FP7, which promotes the cooperation between Canada and the EU in Science, Technology and Innovation.

For further information on the event and for registration, please visit ERA-Can+ website (<http://www.era-can.net/>).

COMMUNICATIONS AFFICHÉES / POSTER SESSION  
13:30 - 16:30

Poster Exhibition

### **P3, COMMUNICATIONS AFFICHÉES / POSTER SESSION**

Poster sessions run from 13:30 to 16:30.

However, a one hour time block is dedicated to discussion with the authors:

- from 14:30 to 15:30 for even-numbered posters

- from 15:30 to 16:30 for odd-numbered posters

#### **A cerebello-basal ganglia pathway involved in song learning**

L. Pidoux (Paris)

#### **Perceptual discrimination of artificial sounds elicited with patterned photostimulation of mouse auditory cortex**

Z. Piwkowska (Gif-sur-Yvette)

#### **Spinal inhibitory barrage delays the functional establishment of nociceptive C-type primary afferents of maternally-deprived rats**

P. Poisbeau (Strasbourg)

#### **Alteration of mGluR 1 and GABA b nociceptive neuromodulation in the CFA model of chronic inflammation**

H. Radwani (Bordeaux)

#### **Relating large-scale calcium imaging of hippocampal network activity with the electrophysiological signal in vivo**

S. Reichinnek (Marseille)

## Scientific Programme

**The new role of the hematopoietic factor Fl and its receptor Flt3 in the development of peripheral neuropathic pain**

C. Rivat (Montpellier)

**Intra-amygdala cholecystokinin modulates inflammatory pain**

O. RocaLapirot (Bordeaux)

**How vestibular input decreases visually-induced vection**

A. Severac Cauquil (Toulouse)

**Mechanism of the auditory neuropathy AUNA1**

C. Surel (Montpellier)

**A fiberscope for simultaneous patterned photoactivation and functional fluorescence imaging in freely behaving mice**

V. Szabo (Paris)

**Early life stress and lateral habenula function**

A. Tchenio (Paris)

**Optogenetic activation of pre-proglucagon neurons in the mouse olfactory bulb controls mitral cell activity**

N. Thiebaud (Tallahassee)

**Error-related modulation of the beta-rebound may reflect salience processing independent of sensorimotor adaptation**

F. Torrecillos (Marseille)

**Saccadic straight-ahead preference: sensory and oculomotor factors**

Y. Trotter (Toulouse)

**Vestibular loss induces upregulation of NMDA receptors and increases in vivo early LTP in rat hippocampus**

B. Truchet (Marseille)

**Golgi cell subtypes spatial distributions are correlated with aldolase C/zebrin II pattern**

A. Valera (Strasbourg)

**Representation of apparent motion in the mouse barrel cortex**

E. Vilarchao (Gif-sur-Yvette)

**Transient and sustained exocytosis involve different Cav1.3 channel isoforms in auditory hair cells**

P. Vincent (Bordeaux)

**Tactile representations in the non-human primate assessed by fMRI**

C. Wardak (Bron)

**Effects of acute sleep debt on risky decision-making in mice**

E. Pittaras (Brétigny sur Orge)

**Impacts of unpredictable chronic mild stress at different stages of adulthood in mice**

T.D. Prévot (Talence)

**Direct examination of how supramammillary activity alters neurotransmission in hippocampal area CA2/CA3a**

V. Robert (Paris)

## Scientific Programme

**Planar cell polarity signaling controls hippocampal-dependant cognitive processes**

B. Robert (Bordeaux)

**Effect of environmental complexity on the role of medial and lateral entorhinal cortex in spatial and non-spatial information processing in rats**

C. Rodo (Marseille)

**Maternal high fat diet and early life stress induce metabolic disturbances and enhance motivation for palatable food in offspring**

M. Romaniperez (Bordeaux)

**An operant conditioning method in a context of a naturalistic-like approach in the marmoset: strategies and difficulties**

A. Sadoun (Toulouse)

**Chronic contamination with natural uranium influences motor neurons integrity in rat spinal cord**

B. Saint-Marc (Fontenay-aux-Roses)

**CA1 Nav1.1 knockdown alters spatial information coding**

S. Sakkaki (Burlington, VT)

**Striatal mechanisms for running control in mice**

C. Sales Carbonell (Marseille)

**Cortico-spinal excitability modulation by the perception of angry actions changes during late adolescence**

E. Salvia (Marseille)

**Learning and memory of withdrawal in opiate dependent rats: activity of nucleus accumbens, prefrontal cortex and amygdala**

M. Sitko (Bordeaux)

**Prefrontal dynamics of decisions to check**

F. Stoll (Lyon)

**Effect of juvenile high-fat diet consumption on mesolimbic dopaminergic system**

F. Tantot (Bordeaux Cedex)

**Neural activity within 5-HT raphé nuclei controls different aspects of mood behaviors**

A. Teissier (Paris)

**Consequences of optogenetic stimulation in the subthalamic nucleus on the motivation for food**

A. Tiran Cappello (Marseille)

**SourisCity, a new approach to understand inter-individual variability within a group of mice**

N. Torquet (Paris)

**Controlling fear generalization through pharmacological and pharmacogenetic manipulation of extended amygdala circuits**

E. Valjent (Montpellier)

**A novel, self-adjusting delay discounting procedure for the study of choice impulsivity in rats**

M. Wahab (Poitiers)



## Scientific Programme

**Noise-induced cochlear neuropathy**

J. Wang (Montpellier)

**Neural markers of cognitive control, and their evolution during a slow, progressive MPTP-induced monkey model of the pre-symptomatic phase of Parkinson's disease**

C. Wilson (Bron)

**Impact of chronic maternal separation on metabolism, food motivation and brain gene expression profiles in C57BL6/J and C3H/He mice**

L. Xia (Bordeaux)

**Effect of lipids on acid sensing ion channel 3 and pain**

S. Marra (Valbonne)

**Rôle protecteur du gliopeptide ODN contre la toxicité induite par l'éthanol dans le cerveau de rat in vivo**

O. Masmoudi (Université Tunis El Manar. Tunis)

**The projection from the entopeduncular nucleus to the lateral habenula encodes aspects of cocaine withdrawal**

F. Meye (Paris)

**Novel microscopy techniques for studying GPCR oligomerization in primary neurons**

T.M. Moller (Montpellier)

**Towards functional and pharmacological characterization of mGlu heterodimers**

D. Moreno-Delgado (Montpellier)

**Study of Reg-1a functions and signaling pathways during the pathology processes involving Tau hyperphosphorylation in in vitro and in vivo models**

M. Moussaed (Montpellier)

**A presynaptic role of MAP1/Futsch in Drosophila: regulation of active zone number and neurotransmitter release**

M.-L. Parmentier (Montpellier)

**Fine tuning of sub-millisecond conformational dynamics controls metabotropic glutamate receptors agonist efficacy**

J.-P. Pin (Montpellier)

**Increase in extrasynaptic NMDA receptors activation in the rat hippocampus during aging**

B. Potier (Paris)

**Role of the ribosomal protein S6 phosphorylation in the mouse brain**

E. Puighermanal (Montpellier)

**Modulating glutamatergic synapse activity with nanobodies**

P. Rondard (Montpellier)

**Serotonin modulates microglia via 5-HT<sub>2B</sub> receptors: potential implication during developmental synaptic refinement of retinogeniculate projections**

A. Roumier (Paris)

**Overlapping binding sites drive allosteric agonism and positive cooperativity in type 4 metabotropic glutamate receptors**

X. Rovira (Montpellier)

## Scientific Programme

**Cocaine-induced Arc expression in striatal neurons: implications for molecular and behavioral adaptations**

M. Salery (Paris)

**Exogenous  $\alpha$ -synuclein impair  $\text{Na}^+$  gradient in neurons**

A.N. Shrivastava (Paris)

**Traitement anti-angiogénique par le bevacizumab des tumeurs gliales malignes: étude in vitro dans une matrice tridimensionnelle**

T. Simon (Rouen)

**Exosomal vesicles released by neurons contain microRNAs that could modulate gene expression of neighboring cells**

A. Soula (Bordeaux)

**The Nogo-A-/- mouse, an animal model for schizophrenia, exhibits disrupted hippocampal CA3 function through down-regulation of mGlu3 metabotropic glutamate receptors**

J. Ster (Montpellier)

**Variability of glutamatergic miniature currents in NTS suggest a co-regulation of AMPA and NMDA receptor expression**

C. Strube (Marseille)

**Allosteric modulation of metabotropic glutamate receptors by chloride ions**

A. Tora (Montpellier)

**Functional consequences of glutamine synthetase inhibition on glial glutamate transporters efficiency and NMDA-Rs mediated synaptic transmission in the rat neocortex**

Y. Trabelsi (Marseille)

**Huntington disease and palmitoylation**

A. Virlogeux (Grenoble)

**Impermeant anions, fixed charges, and the driving force of GABAAR-mediated  $\text{Cl}^-$  currents**

J. Voipio (Helsinki)

**A novel mouse model to study the zinc modulation of Cav3.2 t-type calcium channels in the pain pathway**

T. Voisin (Montpellier)

**Relevance of astrocyte-neuron interactions in modulatory action of oxytocin in the amygdala**

J. Wahis (Strasbourg)

**Characterization of the anatomical pathway between the cerebellum and the hippocampus**

A. Watilliaux (Paris)

**Boc and the developmental process of myelination in the brain**

M. Zakaria (Le Kremlin-Bicêtre)

**Impact of single autoreceptor-mediated GABAergic synaptic events on cerebellar interneuron activity**

J. Zorrilla de San Martín (Paris)

**A unique tyrosine residue in the intracellular domain of neuroligin-1 regulates excitatory versus inhibitory synapse differentiation**

M. Letellier (Bordeaux)

## Scientific Programme

**Nanoscale architecture of the axon initial segment reveals an organized and robust scaffold**

C. Leterrier (Marseille)

**Multicolor mouse lines for multiclonal analysis in the nervous system**

K. Loulier (Paris)

**In vivo analysis of spike transmission between the dentate gyrus and CA3 neurons using optogenetics**

M. Malezieux (Bordeaux)

**Physiological role of APPL in Drosophila mushroom bodies' development**

C. Marquilly (Montpellier)

**Altered synaptogenesis in a rat model of subcortical band heterotopia**

F. Martineau (Marseille)

**Long term consequences of neonatal maternal separation on the oxytocinergic control of pain**

M. Melchior (Strasbourg)

**Characterization of GABAergic hub neurons in the developing entorhinal cortex**

L. Modol (Marseille)

**RAD51 and DCC, two genes linked to congenital mirror movements, are involved in the development of mice corticospinal tract and corpus callosum respectively**

M.-P. Morel (Paris)

**Development of action potential in substantia nigra dopaminergic neurons: electrophysiological and morphological analysis**

E. Moubarak (Marseille)

**Phosphorylation of Schwannomin-interacting protein IQCJ-SCHIP-1 by the protein kinase CK2 regulates both its interaction with ankyrin G and its accumulation at the axon initial segment**

M.-J. Papandréou (Marseille)

**Frequency dependent activation of immature and mature granule cells in the adult hippocampus**

M.B. Pardi (Buenos Aires)

**Visualising the spatio-temporal dynamics of endocytosis in neuronal dendrites**

D. Perrais (Bordeaux)

**Two "binges" of ethanol are sufficient to disturb learning and memory in adolescent rats via selective abolition of LTD in the hippocampus**

O. Pierrefiche (Amiens)

**Regulation of tau exon 10 alternative splicing by temperature**

E. Planel (Québec)

**Transcriptional hallmarks of heterogeneous neural stem cell niches of the subventricular zone**

O. Raineteau (Bron)

**Cerebrospinal fluid-derived Semaphorin3B orients neuroepithelial cell divisions in the apicobasal axis**

F. Reynaud (Villeurbanne)

## Scientific Programme

**A thyroid hormone receptor  $\alpha 1$  mutation specifically expressed in GABAergic neurons induces a lethal phenotype in mice**

S. Richard (Lyon)

**Maternal high fat diet prevents the loss of spines in the prefrontal cortex and visceral hyperpermeability in pups exposed to maternal separation**

M. Rincel (Bordeaux)

**Molecular and cellular characterization of the dormant and injury-activated mouse and human spinal cord stem cell niches**

C. Ripoll (Montpellier Cedex)

**Dynamic regulation of BDNF axonal transport by neuronal activity**

J.-A. Rodier (Grenoble)

**Temporal embryonic origin and morpho-physiological properties of semilunar granule cells in the adult dentate gyrus**

L. Save (Marseille)

**Electrical activity,  $\text{Na}^+/\text{K}^+$  pump and neuromuscular junction defects in  $\text{KCC3}^{-/-}$  mice**

F. Scamps (Montpellier)

**The RhoGEF DOCK10 is essential for dendritic spine morphogenesis**

S. Schmidt (Montpellier)

**Astrocytic IP3 receptors regulate hippocampal LTP**

M.W. Sherwood (Bordeaux)

**Bumetanide corrects disturbance of synaptic plasticity in the hippocampus of young adult rats after perinatal ethanol exposure**

B. Silvestre de Ferron (Amiens)

**Characterization of heterotopic cells in the hippocampal CA3 region of doublecortin knockout mice**

M. Stouffer (Paris)

**Role of EphA5-ephrinA5 in the guidance of serotonin raphe neurons**

T. Teng (Paris)

**Microglia in the early development of inhibitory cortical circuits**

M. Thion (Paris)

**Spatial and dynamic transcriptomic analysis of the mouse olfactory bulb neurogenesis reveals a role for Zic1 in neuronal fate determination**

M.-C. Tiveron (Marseille)

**mGluR-dependent modulation of synaptic transmission in the lateral habenula**

K. Valentinova (Paris)

**Astrocytic glutamate uptake gates spike-timing-dependent plasticity and counteracts spurious plasticity**

S. Valtcheva (Paris)

**D-serine restores early LTP deficits in 3xTg mice**

J. Veran (Bordeaux)

**Hyperpolarization induced facilitation of synaptic transmission between pyramidal neurons**

M. Zbili (Marseille)

## Scientific Programme

**Using human induced pluripotent stem cells to model hereditary spastic paraplegia type 11**

C. Lustremant (Paris)

**Activation of presynaptic oxytocin receptors enhances glutamate release in the ventral hippocampus of prenatally restraint stressed rats**

J. Mairesse (Villeneuve d'Ascq)

**Functional study of two SCN1A mutations responsible for familial hemiplegic migraine (FHM) associated with elicited repetitive daily blindness (ERDB)**

M. Mantegazza (Valbonne)

**The chemokine CCL3 mediates hippocampal synaptic deficits: a potential role in Alzheimer's disease**

E. Marciniak (Lille)

**Increased in vivo APP intracellular domain (AICD) production in CA1 hippocampal neurons affects glutamatergic synaptic function**

H. Marie (Valbonne)

**DEPDC5: an mTORC1 inhibitor responsible for familial focal epilepsies with focal cortical dysplasias**

E. Marsan (Paris)

**The first-line treatment influences the second-line treatment efficacy in a mouse model of absence epilepsy**

B. Martin (Rennes)

**Impact of chronic morphine treatment on the distribution of delta opioid receptors in the mouse hippocampus**

D. Massotte (Strasbourg)

**Necdin is a pleiotropic actor of the serotonergic neurodevelopment involved in respiratory distress of Prader-Willi syndrome**

V. Matarazzo (Marseille)

**Investigating lysosome function in neurodegenerative models with high content analysis system**

R. Matusiak (Paris)

**Genetic invalidation or pharmacological activation of the sigma1 chaperone protein modulates toxicity in the transgenic APPSwe mouse line**

T. Maurice (Montpellier)

**Loss of OPA1 induces oxidative metabolism perturbation and antioxidant defenses activation: a central role in dominant optic atrophy**

M.-C. Miquel (Toulouse)

**Vitamin D improves neurogenesis and cognition, and reduces amyloid burden in a mouse model of Alzheimer's disease**

M. Morello (Marseille)

**Kv4 channel inhibition by AmmTX3 reduces parkinsonian symptoms in rats**

C. Mourre (Marseille)

**Mitochondrial quality control in microglial cells and astrocytes and their regulation by the Parkin-dependent pathway**

F. Mouton-Liger (Paris)

## Scientific Programme

**Phosphoproteomics of 5-HT<sub>2A</sub>/mGlu<sub>2</sub> heteromers: toward new insights into the mechanism of action of hallucinogens and antipsychotics**

S. Murat (Montpellier)

**In vivo validation of a new wireless portable stimulator for chronic deep brain stimulation in freely moving rats**

F. Naudet (Bordeaux)

**Neurodegenerative model in mice induced by chronic oral exposure to pesticide: comparative study between drinking water and intra-gastric administration**

A. Bencsik (Lyon)

**Neurogenesis-independent antidepressant-like effects of enriched environment is dependent on adiponectin**

S. Nicolas (Valbonne)

**Evidences for behavioral and morphological alterations in neonatal thalamic lesioned rats: relevance to schizophrenia**

Z. Ouhaz (Marrakech)

**Chronic L-DOPA treatment activates the BDNF/TrkB pathway in the striatum of hemiparkinsonian mice**

A. Pelosi (Paris)

**Diffusion tensor imaging identifies early dentate gyrus vulnerability in a memory-impaired mouse model of multiple sclerosis**

V. Planche (Bordeaux)

**Characterization of the links between mitochondria and endoplasmic reticulum based on the study of the degenerative process involved in hereditary spastic paraplegia due to CYP2U1 defects**

C. Pujol (Paris)

**Characterization of a new human mutant of VGLUT3: VGLUT3A211V**

L. Ramet (Paris)

**The cerebellum of valproate mice: a model for understanding autistic syndromes**

S. Roux (Strasbourg)

**Autologous graft of adult olfactory stem cells in a rat model of amnesia: first results**

K. Sadelli (Marseille)

**The LRRK2 G2019S mutation impacts on the evolution of Parkinson's disease among Algerian DBS-STN patients**

M. Sayad (Algiers)

**HTT phosphorylation and the neurotrophin retrograde axonal signaling**

C. Scaramuzzino (Grenoble)

**Development of a neuronal model for Giant Axonal Neuropathy: study the role of the gigaxonin in neuronal and cytoskeleton organization**

A. Scrivo (Montpellier)

**Involvement of the anterior nucleus in a non-human primate model of mesial temporal lobe epilepsy**

A. Sherdil (Grenoble)

## Scientific Programme

**Functional analysis of CADPS mutations identified in patients with early onset bipolar disorder**

J. Sitbon (Créteil)

**Syngenic transplants of adult nasal olfactory stem cells in an adult rat model of acute cervical spinal cord contusion**

J.-C. Stamegna (Marseille)

**Learning performances and vulnerability to amyloid toxicity in the butyrylcholinesterase knockout mouse**

M. Strehaiano (Montpellier)

**Effects of monoaminergic systems degeneration on the neuronal activity of suprachiasmatic nucleus**

A. Tinakoua (Rabat)

**Deciphering the role of microglia in Alzheimer disease using laser micro-dissection approach in APP/PS1 x CX3CR1eGFP/+ mice**

A. Valverde (Montpellier)

**RNA editing biomarkers for drug-induced neurotoxicity: applications in psychiatry**

S. Van Der Laan (Montpellier)

**Alzheimer's disease and cerebral hypoxia: towards a therapeutic approach**

M. Van Gijssel Bonnelo (Marseille)

**Etifoxine, a promising drug for treating Alzheimer disease: an experimental first approach using in vitro models?**

M. Verleye (Compiègne)

**Innovative approach in geriatric veterinary medicine: olfactory stem cells from aged dog show stemness features**

A.D. Veron (Apt)

**Restoring GABA tone rescues long-term depression in the CA1 hippocampal area impaired after maternal immune stress**

M. Vignes (Montpellier)

**Deregulation of brain-derived neurotrophic factor signaling pathways aggravates tauopathy**

A. Yahya (Montpellier)

**Adrenergic receptor gene variants are associated with late-onset generalized anxiety disorder**

X. Zhang (Montpellier)

**Monocyte chemoattractant protein 1 /CCL2 drives Lipopolysaccharide-induced weight loss through inhibition of melanin-concentrating hormone-expressing neurons**

O. Le Thuc (Valbonne)

**Variants of the human V1B vasopressin receptor associated with depression and suicide exhibit altered properties**

M.J. Manière (Montpellier)

**Laser capture microdissection of white matter astrocytes to assess their reactive profile during autoimmune neuroinflammation**

A.B. Nicot (Nantes)

## Scientific Programme

**Neuroendocrinological and genetic analyses in anorexia nervosa**

N. Ramoz (Paris)

**Gender impacts onset and severity of OPA1-related dominant optic atrophy**

E. Sarzi (Montpellier)

**mTORC1 modulates food intake by acting onto POMC neurons: evidence using DREADD technology**

N. Saucisse (Bordeaux)

**The timely onset of puberty in rodents requires postnatal astrogenesis in the environment of GnRH neurons**

A. Sharif (Lille)

**Neuropilin-1 expression in GnRH neurons is required for the normal onset of puberty and GnRH cell distribution**

C. Vanacker (Lille)

**Somatostatin-IRES-Cre mice: knock-in and knock-out ?**

C. Viollet (Paris)

**Role of CD4+ T cells in beneficial effects of enriched environment on hippocampal plasticity in mice**

H. Zarif (Sophia-Antipolis, Valbonne)

CONFÉRENCE PLÉNIÈRE / PLENARY LECTURE  
16:30 - 17:00

Auditorium Berlioz

**PL09, Dierssen M. (Barcelona)**

**Chaired by:**

M.-C. Potier

**Remodelage de la plasticité cérébrale et déficience intellectuelle /  
Remodelling brain plasticity in intellectual disability**

M. Dierssen (Barcelona)

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

Auditorium Berlioz

**PL10, Sirigu A. (Bron)**

**Chaired by:**

A. Benazzouz (Bordeaux)

**Mécanismes neuronaux du comportement social / Behavioural and  
neurotransmission mechanisms of socialization**

A. Sirigu (Bron)