Instructors

Cláudia Guimas ALMEIDA, PhD | Nova University Lisbon (Lisbon, Portugal)

Graduated with two Masters, one in Biochemistry and one in Neurosciences, Claudia obtained her Ph.D. in Neurosciences at the Faculty of Medicine of the University of Lisbon. C Almeida Ph.D. thesis focused on beta-amyloid dependent synaptic and endosomal dysfunction in Alzheimer's disease was developed in Dr. Gunnar Gouras's laboratory (New York). C Almeida got trained in cell biology as an EMBO and Marie Curie fellow in Dr. Daniel Louvard's laboratory (Paris). She became independent supported by the Portuguese Science Foundation (FCT) at CEDOC – NOVA Medical school and to a Marie Curie Reintegration grant in 2013. She has more than 20 publications on intracellular trafficking mechanisms in healthy and Alzheimer's disease cells with more than 3500 citations. Her main interest is to understand how endolysosomal trafficking is essential for synapse (dys)function. Right now, her team is focused on two main projects; one is on the synaptic mechanisms of late-onset Alzheimer's disease genetic risk factors linked to endosomal trafficking. Another is on the mechanisms of neuronal aging that may potentiate Alzheimer's disease. We use advanced cellular systems based on primary mouse neurons and human-induced neurons and Crispr-Cas9 to introduce disease mutations to analyze endolysosomal, and synapse dysfunction with comprehensive, advanced quantitative single-cell imaging, biochemical, and neurosciences assays as PI received three awards (NOVA/Santander, Maratona da Saude, honorable mention Crioestaminal award). She collaborates in two consortiums: European project (H2020/JPND) to the development of a better model for AD BBB (2016-2020); European Twinning project to develop research capacity in lysosomal storage disorders (LYSOCIL, H2020). Recently, the group was funded by an Alzheimer's Association grant (AARG) to lead a research project on "Understanding the impact of a late-onset AD mutation in CD2AP on synapses" (2019-2021).

Selected publications:

- *Ubelmann F, Burrinha T, Salavessa L, Gomes R, Ferreira C, Moreno N, Guimas Almeida C. Bin1 and CD2AP polarise the endocytic generation of beta-amyloid. EMBO Rep. 2017 Jan;18(1): 102-122. doi: 10.15252/embr.201642738. Epub 2016 Nov 28. PubMed PMID: 27895104; PubMed Central PMCID: PMC5210085.*
- *Ubelmann F, Burrinha T, Guimas Almeida C. Measuring the Endocytic Recycling of Amyloid Precursor Protein (APP) in Neuro2a Cells. bio-protocol.org/e2635. 2017 December.*
- *Ubelmann F, Burrinha T, Guimas Almeida C. A Novel Protocol to Quantitatively Measure the Endocytic Trafficking of Amyloid Precursor Protein (APP) in Polarized Primary Neurons with Sub-cellular Resolution. bio-protocol.org/e2629. 2017 December.*
- *Guimas Almeida C, Sadat Mirfakhar F, Perdigão C, Burrinha T. Impact of late-onset Alzheimer's genetic risk factors on beta-amyloid endocytic production. Cell Mol Life Sci. 2018 Jul;75(14):2577-2589. doi: 10.1007/s00018-018-2825-9. Epub 2018 Apr 27. Review. PubMed PMID: 29704008.*
- *Winckler B, Faundez V, Maday S, Cai Q, Guimas Almeida C, Zhang H. The Endolysosomal System and Proteostasis: From Development to Degeneration. J Neurosci. 2018 Oct 31;38(44):9364-*

9374. doi: 10.1523/JNEUROSCI.1665-18.2018. Review. PubMed PMID: 30381428; PubMed Central PMCID: PMC6209849.

Nicolas BLIN, PhD student| Bordeaux Neurocampus (Bordeaux, France)

Nicolas Blin is a PhD student in the Neurogenesis and Pathophysiology team led by Dr. Nora ABROUS in Bordeaux. His doctoral project focuses on the impact of ageing on memory abilities and more particularly learning. In the laboratory they use several approaches to address this subject, such as viral stereotaxic injections linked to optogenetic on rats to determine the role of adult-born hippocampal neurons in the resilience to memory deficits linked to old age.

Joana COELHO, PhD | University of Lisbon (Lisbon, Portugal)

Joana Coelho is neuroscientist and a Post-Doctoral Research Fellow at IMM - João Lobo Antunes University of Lisbon. She has been interested in neurodegenerative disease mechanisms since her PhD and has a broad range of experience in CNS disease models, using both behavioral and electrophysiological methods to assess functional outcomes. More recently she has been interested in neuro-glial crosstalk in the context of aging and disease, and has dedicated her efforts to establishing techniques that can provide functional readouts of microglia function in this context.

Miguel De La Flor Garcia, PhD | Universidad Autònoma de Madrid (Madrid, Spain)

Miguel de la Flor García was graduated in Veterinary Sciences at the Complutense University of Madrid. During his degree, he collaborated with the Departments of Genetics and Physiology and did internships at the "National Institute for Agricultural and Food Research" (INIA) and the "Margarita Salas Center for Biological Research" (CIBMS). Moreover, he delved into the developmental neurobiology field during his final degree project. He continued his academic career by obtaining a master's degree in "Biomolecules and Molecular Biology" at the Autonomous University of Madrid, acquiring deeper knowledge about molecular biology and neurosciences. During this period, he developed his master's thesis focused on the role of GSK3β in adult hippocampal neurogenesis in mice. After finishing his master's degree, he started his PhD project under the supervision of Dr. María Llorens Martín at the "Center of Molecular Biology Severo Ochoa". During this time his research was mainly focused on adult hippocampal neurogenesis in humans. He has developed a great expertise on histology, behavioral tests, and stereotaxic injections in rodents.

Selected publications:

- *Flor-García, M.*, Terreros-Roncal, J.*, Moreno-Jiménez, EP.*, Ávila, J., Rábano, Llorens-Martín, M. "Unraveling human adult hippocampal neurogenesis ". Nat Protoc. 2020 Feb;15(2):668-693. doi: 10.1038/s41596-019-0267-y. Epub 2020 Jan 8.*
- *Terreros-Roncal, J., Flor-García, M.*, Moreno-Jiménez, E.*, Pallas-Bazarra, N., Rabano, A., Sah, N., van Praag, H., Giacomini, D., Schinder, A., Ávila, J., Llorens-Martín, M. "Activity-dependent reconnection of adult-born granule cells in frontotemporal dementia". J Neurosci. 2019 May 27. pii: 2724-18. doi: 10.1523/JNEUROSCI.2724-18.2019.*
- *Flor-García, M.*, Terreros-Roncal, J.*, Moreno-Jiménez, EP.*, Rábano, A., Cafini, F., Pallas-Bazarra, N., Ávila, J., Llorens-Martín, M. "Adult hippocampal neurogenesis is abundant in neurologically healthy subjects and drops sharply in patients with Alzheimer's disease". Nat Med. 2019 Mar 25. doi: 10.1038/s41591-019-0375-9.*

Nicole ETCHAMENDY, PhD | Bordeaux Neurocampus (Bordeaux, France)

Graduated with a Masters in Cognitive Sciences, Nicole obtained in 2002 her PhD in Neurobiology/Nutrition at the University of Bordeaux, France under the supervision of the Professor Robert Jaffard. She carried out her postdoctoral research in the laboratory of Veronique Bohbot (Douglas Hospital, Mc Gill University, Montreal). Subsequently, she obtained her assistant professor position in 2008 at the University of Bordeaux. She joined the team of Aline Marighetto, research director at CNRS, leading the "Physiopathology of Declarative Memory" team at the Neurocentre Magendie in Bordeaux. Her main research interests focus on the neurobiology of cognitive aging mostly memory function. She has worked to develop specific behavioral tasks in the radial maze to study the preferential degradation of declarative memory occurring during aging in mice. The tasks are conceptually based on the relational theory, and they have been successfully translated to humans using a virtual equivalent of the radial-maze.

Selected publications:

- *Sellami A.*, Al Abed A.S.*, Brayda-Bruno L.*, Etchamendy N.*, Valerio S., Al Abed A.S., Oulé, M., Pantaleon L., Lamothe V., Potier M., Bernard K., Jabourian M., Herry C., Mons N., Piazza PV., Eichenbaum H., Marighetto A. Temporal binding function of CA1 is critical for declarative memory formation. PNAS, 2017, 114(38):10262-10267.*
- *Etchamendy N., Konishi K., Pike G.B., Marighetto A. & Bohbot VD. Evidence for a virtual human analog of a rodent relational memory task: a study of aging and fMRI in young adults. Hippocampus, 2012, 22(4):869-880.*
- *Etchamendy N & Bohbot VD. Spontaneous navigational strategies and performance in the virtual town. Hippocampus. 2007, 17:595-9.*
- *Etchamendy N., Desmedt A., Cortes-Torrea C., Marighetto A. & Jaffard R. Hippocampal lesions and discrimination performance of mice in the radial maze: sparing or impairment depending on the representational demands of the task. Hippocampus, 2003, 13(2):197-211.*
- *Etchamendy N., Enderlin V., Marighetto A., Vouimba R.M., Pallet V., Jaffard R. & Higueret P. Alleviation of a selective age-related relational memory deficit in mice by pharmacologically induced normalization of brain retinoid signaling. J Neurosci., 2001, 21(16):6423-9.*

Nuno MORAIS, PhD | University of Lisbon (Lisbon, Portugal)

Nuno graduated in Engineering Physics from Instituto Superior Técnico (Lisbon, Portugal) in 2000. He got his PhD in Biomedical Sciences at University of Lisbon Medical School (2007), with Maria Carmo-Fonseca, but most of the PhD research actually took place at the University of Cambridge with Samuel Aparicio. He also visited the lab of Juan Valcárcel at EMBL Heidelberg for a few months in 2002. His PhD work involved bioinformatics studies on the complexity of splicing and gene expression and his efforts include studies on the evolution of splicing factors and the RNA binding of splicing factors. Nuno was a postdoctoral member of the Computational Biology Group of Simon Tavaré, based at the Cancer Research UK Cambridge Research Institute, from 2006 to 2010. His main research there was focused on understanding the complexity of gene expression regulation and its impact on disease mechanisms, namely oncogenesis. He collaborated with the lab of Duncan Odom in determining the molecular mechanisms responsible for the stability of transcriptional programs by decoupling the relative contributions of cis and trans effects on histone mark patterning, transcription factor binding, and gene expression, as well as studying the regulation of lineage-specific retrotransposons and repeat elements. Such work involved the analysis, annotation and integration of different sorts of array and sequence information. Nuno was also involved in the identification of important issues in the analysis of gene expression microarray information, showing that manufacturers' probe annotation can introduce bias in the interpretation of cancer data and developing a general pipeline for complete transcriptomic and genomic probe reannotation. Nuno's efforts also contributed to the development of other microarray-related methodologies. Nuno joined the lab of Ben Blencowe at the University of Toronto, Canada, in 2010. He was involved in the analysis of mRNA-seq data for the inference of tissue and species specific alternative splicing patterns. He was then awarded a Postdoctoral Fellowship from the Canadian Institutes of Health Research and a Marie Curie International Outgoing Fellowship. Nuno was, from October 2013 to April 2015, an Honorary Senior Research Fellow at the Nuffield Department of Obstetrics and Gynaecology of the University of Oxford. He was awarded an EMBO Installation Grant and an FCT Investigator Starting Grant and established his own research group at the iMM Lisboa in the beginning of 2015. His so-called Disease Transcriptomics Lab is a team of junior scientists applying mostly computational approaches to the analysis of high-throughput genomic and transcriptomic data, aiming to understand how ageing-associated molecular changes in human tissues, particularly at the transcriptional level, increase proneness to disease.

Selected publications:

- *Saraiva-Agostinho N, Barbosa-Morais NL (2020). Interactive Alternative Splicing Analysis of Human Stem Cells Using psichomics. Methods in Molecular Biology, 2117:179-205. doi: 10.1007/978-1-0716-0301-7_10.*
- *de Almeida BP, Vieira AF, Paredes J, Bettencourt-Dias M, Barbosa-Morais NL (2019). Pan-cancer association of a centrosome amplification gene expression signa*
- *ture with genomic alterations and clinical outcome. PLoS Computational Biology, 15(3):e1006832. doi: 10.1371/journal.pcbi.1006832.*

- *Saraiva-Agostinho N, Barbosa-Morais NL (2019). psichomics: graphical application for alternative splicing quantification and analysis. Nucleic Acids Research, 47(2):e7. doi: 10.1093/nar/gky888.*
- *Gallego-Paez LM, Bordone MC, Leote AC, Saraiva-Agostinho N, Ascensão-Ferreira M, Barbosa-Morais NL (2017). Alternative splicing: the pledge, the turn, and the prestige – The key role of alternative splicing in human biological systems. Human Genetics, 136(9):1015-1042. doi: 10.1007/s00439-017-1790-y.*
- *Barbosa-Morais NL, Irimia M, Pan Q, Xiong HY, Gueroussov S, Lee LJ, Slobodeniuc V, Kutter C, Watt S, Colak R, Kim T, Misquitta-Ali CM, Wilson MD, Kim PM, Odom DT, Frey BJ, Blencowe BJ (2012). The evolutionary landscape of alternative splicing in vertebrate species. Science, 338(6114):1587-93. doi: 10.1126/science.1230612.*

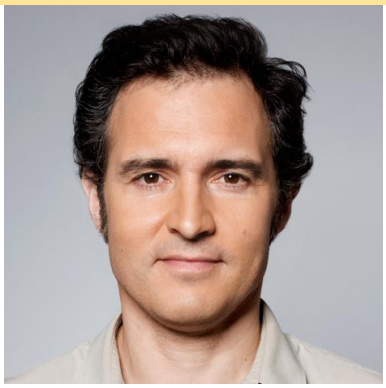
Paula POUSINHA, PhD | Institut de Pharmacologie Moléculaire et Cellulaire (Nice, France)

Graduated with a Masters in Neuroscience, Paula obtained her PhD in Biomedical Sciences – speciality in Neurosciences at Institute of Molecular Medicine and Faculty of Medicine, University of Lisbon, Portugal. She carried out her postdoctoral research in the laboratory of Hélène Marie at Institut Pharmacologie Moleculaire et Celulaire, Valbonne – France. In 2017, she got a permanent position as Assistant Professor of Physiology at the University of Côte d´Azur. Over the past ten years she has acquired a strong knowledge on neuron activity by studying neuronal mechanisms at different synapses (neuromuscular junction and central nervous system), in various contexts of pathophysiology (ageing, amyotrophic lateral sclerosis, Alzheimer's disease), by using a transversal experimental approach from molecular assays to patch-clamp electrophysiology and behaviour. Her main research interests focus on understanding synaptic mechanisms associated to ageing and Alzheimer´s disease, in particular the physiological and pathological roles of the amyloid precursor protein and its catabolic intracellular fragments on neuron activity.

Selected publications:

- *Pousinha PA, Mouska X, Bianchi D, Temido-Ferreira M, Rajão-Saraiva J, Gomes R, Fernandez SP, Salgueiro-Pereira AR, Gandin C, Raymond EF, Barik J, Goutagny R, Bethus I, Lopes LV, Migliore M, Marie H. (2019) The Amyloid Precursor Protein C-Terminal Domain Alters CA1 Neuron Firing, Modifying Hippocampus Oscillations and Impairing Spatial Memory Encoding. Cell Rep. 9:317-331.*
- *Temido-Ferreira M, Coelho JE, Pousinha PA, Lopes LV. (2019) Novel Players in the Aging Synapse: Impact on Cognition. J Caffeine Adenosine Res. 9:104-127.*
- *Temido-Ferreira M, Ferreira DG, Batalha VL, Marques-Morgado I, Coelho JE, Pereira P, Gomes R, Pinto A, Carvalho S, Canas PM, Cuvelier L, Buée-Scherrer V, Faivre E, Baqi Y, Müller CE, Pimentel J, Schiffmann SN, Buée L, Bader M, Outeiro TF, Blum D, Cunha RA, Marie H, Pousinha PA, Lopes LV. (2018) Age-related shift in LTD is dependent on neuronal adenosine A2A receptors interplay with mGluR5 and NMDA receptors. Mol Psychiatry.*
- *Pousinha PA, Mouska X, Raymond EF, Gwizdek C, Dhib G, Poupon G, Zaragosi LE, Giudici C, Bethus I, Pacary E, Willem M, Marie H. (2017) Physiological and pathophysiological control of synaptic GluN2B-NMDA receptors by the C-terminal domain of amyloid precursor protein. Elife. e25659.*

Miguel Remondes, PhD | University of Lisbon (Lisbon, Portugal)



Miguel Remondes records neural activity in behaving rodents, changing contextual stimuli and manipulating neural activity, to ask how memories inform our behavior, while expecting the knowledge thus obtained can help clarify cognitive dysfunction. Miguel Remondes received his DVM from the Technical University of Lisbon in 1993, worked as a Veterinarian for 5 years, and then was selected (16/~200 applicants), for the VI Gulbenkian PhD Program in Biology and Medicine. He was awarded a Ph.D. grant from FCT to work with Dr. Erin Schuman at Caltech. Here he investigated the synapses directly connecting the central memory brain structure - hippocampus - with the neocortex, and found that this pathway undergoes activity-dependent plasticity, attesting to its relevance in memory formation (Learning and Memory, 2003), exerts a strong modulatory influence over neural activity and plasticity in the hippocampal network (Nature, 2002), and is necessary for the consolidation of behavioral, long-term spatial memory (Nature, 2004). He received his PhD in 2004 and joined the lab of Dr. Matthew Wilson at MIT. To investigate how memories condition behavioral decisions, he recorded neural activity in the cingulate cortex (CG), a cortical structure involved in controlling behavior, and hippocampus. He found that cingulate and hippocampal populations oscillate at the same rhythm, while increasing choice-coding accuracy (Neuron, 2013). In 2015 he formed his own lab at iMM-JLA. He discovered a population of CG neurons that exhibit notable responses to hippocampal memory replay (Cell Reports, 2015), developed a novel implant to perform neural recordings in rodents (Frontiers in Neural Circuits, 2017) and used state-of-the-art anatomical and functional connectivity techniques in vivo, to provide the first functional characterization of the circuitry connecting the hippocampus with the medial mesocortex (Cell Reports, 2019).

Selected publications:

- *Ferreira-Fernandes E, Pinto-Correia B, Quintino C and Remondes, M * (2019). A Gradient of Hippocampal Inputs to the Medial Mesocortex. Cell Reports 29 (2019) pp. 3266-3279*
- *Liang L, Kirk JC, Schmitt LI, Komorowski RW, Remondes M, Halassa MM and Oline SN (2017). Scalable, Lightweight, Integrated and Quick-to-assemble (SLIQ) hyperdrives for functional circuit dissection. Front. Neural Circuits 11:8. doi: 10.3389/fncir.2017.00008*
- *Remondes M * and Wilson M (2015) Slow-gamma rhythms coordinate cingulate cortical responses to hippocampal sharp-wave ripples during choice behavior. Cell Reports 13 (2015) pp. 1327-1335*
- *Remondes M * and Wilson M (2013) Cingulate-hippocampus Coherence and Trajectory Coding in a Sequential Choice Task, Neuron 80(5), 1277-89.*
- *Wilson M*, Varela C and Remondes M * (2015) Phase organization of network computations Curr Opin Neurobiol, 2015 Feb 10, 31C:250-253 doi: 10.1016/j.conb.2014.12.011*

Jenny RIECK, PhD | University of Toronto (Toronto, Canada)

Jenny Rieck's research revolves around integrating measures of brain structure and function (using MRI) to better characterize normal brain aging across the adult lifespan. In 2015, she completed her PhD in Cognition and Neuroscience at the University of Texas at Dallas where her graduate research focused on the cognitive and structural correlates of age-related dedifferentiation of neural activity in ventral visual cortex. She utilized multivariate statistical techniques to examine how neural patterns associated with visual processing differed as a function of Alzheimer's pathology and white matter integrity. After completion of her PhD, she completed a short postdoctoral fellowship at the Center for Vital Longevity in which she examined how the aging brain responds to increased task demands during a visuo-spatial executive function task. She is currently a postdoctoral fellow at the Rotman Research Institute with Dr. Cheryl Grady where she is involved in a large multimodal neuroimaging study examining the neural correlates of different aspects of cognitive control (i.e., inhibition, working memory, and task-switching) across the adult lifespan. She is also currently developing multivariate statistical methods for multi-table analyses of functional connectivity data in order to better understand large-scale brain network reorganization in healthy aging.

Selected publications:

- *Rieck JR, Rodrigue KM, Kennedy KM, Devous MD, Park DC (2015). The effect of beta-amyloid on face processing in young and old adults: A multivariate analysis of the BOLD signal. Human Brain Mapping 36(7): 2514-2526. doi:10.1002/hbm.22788*
- *Rieck JR, Rodrigue KM, Boylan MA, Kennedy KR (2017). Age-related Reduction of BOLD Modulation to Cognitive Difficulty Predicts Poorer Task Accuracy and Poorer Fluid Reasoning Ability. NeuroImage 147(11) 54-60. doi:10.1016/j.neuroimage.2016.12.022*
- *Beaton DF, Rieck JR, Alhazmi F, Abdi H, & Alzheimer's Disease Neuroimaging Initiative. (2018). Multivariate genotypic analyses that identify specific genotypes to characterize disease and control groups in ADNI. bioRxiv, doi:10.1101/235945*
- *Hoagey DA, Rieck JR, Rodrigue KM, Kennedy KM (2019). Multivariate examination of cortical morphometry and white matter microstructure in healthy aging. Human Brain Mapping. doi:10.1002/hbm.24774*
- *Rieck JR, Rodrigue KM, Park DC, & Kennedy KM (2019). White matter microsctructure predicts focal and broad functional dedifferentiation of visual processing in normal aging. bioRxiv, doi:10.1101/779264v1*

Azza SELLAMI, PhD | Bordeaux Neurocampus (Bordeaux, France)

Azza Sellami studied biology with a focus on human and animal physiology in Bordeaux University, France. During her Ph.D. in neuroscience, under the supervision of Pr. J.A. Veenstra, she investigated functional role of various neuropeptides on behavior using drosophila as an animal model. As a postdoctoral fellow in the Aline Marighetto's team (Neurocentre Magendie U1215, Bordeaux, France), she is currently investigate psycho-neurobiological base of age related cognitive deficits using mice. Within the laboratory, she uses different type of behavioural tests. Specifically she trains mice on different behavioral tests, including fear conditioning and radial maze tasks to assess declarative and working memory. Using optogenetics, she and her collaborators found that the dorsal CA1 of the hippocampus is both necessary and sufficient to sustain temporal binding, a psychological process critical to declarative memory. This process is degraded in aged mice.

Selected publications:

- *A. Sellami, A.S. Al Abed, L. Brayda-Bruno, N. Etchamendy, S. Valerio, M. Oulé, L. Pantaleon, V. Lamothe, M. Potier, K. Bernard, M. Jabourian, C. Herry, N. Mons, A. Marighetto. A Novel Protocol to Study Temporal Binding in Mice. BioProtocol.(2018) June 20, Vol 8, Iss 12.*
- *A. Sellami, A.S. Al Abed, L. Brayda-Bruno, N. Etchamendy, S. Valerio, M. Oulé, L. Pantaleon, V. Lamothe, M. Potier, K. Bernard, M. Jabourian, C. Herry, N. Mons, P.V. Piazza, H. Eichenbaum, A. Marighetto. Temporal binding in dCA1 for declarative memory. Proc Natl Acad Sci U S A. (2017), Sep 5. pii: 201619657.*
- *Al Abed AS, Sellami A, Brayda-Bruno L, Lamothe V, Noguès X, Potier M, Bennetau-Pelissero C, Marighetto A. Estradiol enhances retention but not organization of hippocampus-dependent memory in intact male mice. Psychoneuroendocrinology (2016) Mar 21, 69:77-89.*

Jean Vincent | Institut Biologie Paris Seine (France)

J. Vincent graduated with a Master in Neurobiology and Neurosciences from the University Joseph Fourier in Grenoble. During his work as an engineer in Dr Daniel Choquet's group (2013-2016) (Interdisciplinary Institut of Neurosciences, Bordeaux), he worked in collaboration with Dr Yoon Cho (Institut de Neurosciences Cognitives et Intégratives d'Aquitaine, Bordeaux) to study the role of AMPA receptor surface diffusion in synaptic plasticity via the BDNF signalling pathway. He used biochemistry and behavioural approaches to study the molecular mechanisms underlying hippocampal plasticity and memory dysfunction in Huntington disease. In 2016, he joined Dr L. RONDI-REIG's group (Institut Biologie Paris Seine (IBPS), Paris), who has created and developed the Starmaze behavioural paradigm to identify and analyse navigation strategies in transgenic mice models for neurological or psychiatric pathologies. He specialized in behavioural testing and his main research interest focused on charactering the role of the cerebellum in spatial memory and navigation. Since September 2019, he is the operational manager of the IBPS

rodent's facility. He oversees the organization of the platform and manages a research team of 7 persons in order to ensure the maintenance of the different transgenic mice lines (N lines).

Selected publications:

- *Lefort JM, Vincent J, Tallot L, Jarlier F, De Zeeuw CI, Rondi-Reig L* and Rochefort C* Impaired cerebellar Purkinje cell potentiation generates unstable spatial map orientation and inaccurate navigation, Nature Communications, 10, 2251, 2019*
- *Hongyu Zhang, Chunlei Zhang, Jean Vincent, Diana Zala, Caroline Benstaali, Matthieu Sainlos, Dolors Grillo-Bosch, Sophie Daburon, Françoise Coussen, Yoon Cho, Denis J. David, Frederic Saudou, Yann Humeau & Daniel Choquet Modulation of AMPA receptor surface diffusion restores hippocampal plasticity and memory in Huntington's disease models. NATURE COMMUNICATIONS | (2018) 9:4272 | DOI: 10.1038/s41467-018-06675-3*
- *Ragot A, Pietropaolo S, Vincent J, Delage P, Zhang H, Allinquant B, Leinekugel X, Fischer A, Cho YH. Genetic deletion of the Histone Deacetylase 6 exacerbates selected behavioral deficits in the R6/1 mouse model for Huntington's disease. Brain Behav. 2015 Sep;5(9):e00361*