

NeuroBIM

Bordeaux International Master of Neuroscience

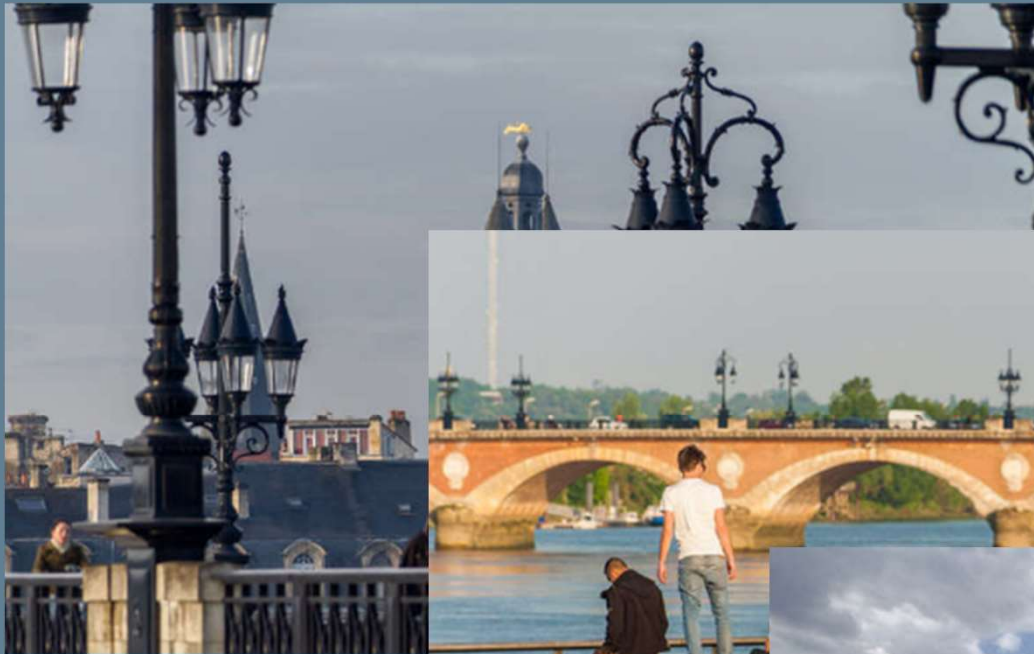
- ✓ **14:30: Administration and International Office**
- ✓ **15:30: Introduction to the program**
- ✓ **16:30: NBA**



Bordeaux, Port of the Moon, is on the UNESCO World Heritage List as "an outstanding urban and architectural ensemble" of the 18th century.



https://www.bordeaux-tourism.co.uk/?_ga=2.216793814.1309502722.1567197126-81520005.1567197126



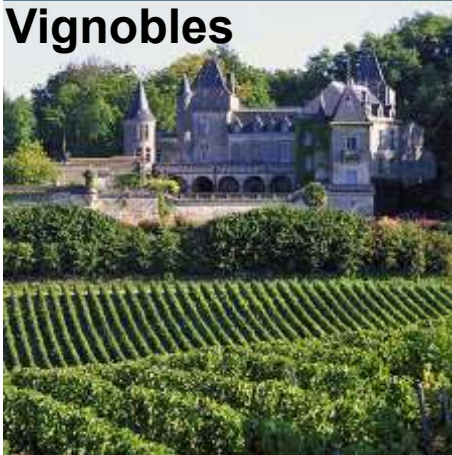




History and Beauty



Vignobles



Bassin d'Arcachon



Bordeaux



Dordogne



Biarritz



Bask Country



Time table

M1 NeuroBM/Neurasmus		Unless otherwise stated in the schedule, the courses will take place Room HERMES Building 3B ground floor; TP bacterio room is building 2B ground floor																	
		September				October				November				December					
		8:00-10:00	10:15-12:15	14:00-16:00	16:15-18:15	8:00-10:00	10:15-12:15	14:00-16:00	16:15-18:15	8:00-10:00	10:15-12:15	14:00-16:00	16:15-18:15	8:00-10:00	10:15-12:15	14:00-16:00	16:15-18:15		
Thu	1	Scientific communication 9:00-12:00 Campus Victoire Group A & B DV Room KC6	Meeting with Board and International Office, DVE 14:30-17:00 Campus Victoire Room KC6			Anat TD (DV) Tutorial 1+2 Room Hermes	Stat RN 3 room 55	TD Stat AL Room Hermes		Tue	1	Holidays				Neurophys CM7 AP Room Hermes	NeuroPharmacology Seminar for lecture Room Hermes		
Fri	2	Scientific communication 9:00-12:00 Campus Victoire Group A DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire AD Room KC6			MolecNeurobiol Room Hermes	NeuroPharmacology Lecture 4 + attribution of research topic Room Hermes	HBF CM (NE) Room Hermes		Wed	2						Proj Tut Exam EA-EH Room Hermes	Proj Tut Exam EA-EH Room Hermes	
Mon	5	Scientific communication 9:00-12:00 Campus Victoire Group B DV Room KC6	Neurophys CM1 14:00- 16:00 EA Victoire room KC6	TD0 15-17 EA (Softwares on PC) room KC6		MolecNeurobiol Room Hermes	Proj Tut EA-EH Room Hermes	Proj Tut EA-EH Room Hermes		Thu	3			Neurophys TD5 EA-LJ Room Hermes	Anat CMTD Rev 9-16 (DV) Room Hermes	Anat 14:00-17:00 (GC) Seminar Room Hermes			
Tue	6	Scientific communication 9:00-12:00 Campus Victoire Group A DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire FLE - IK Room KC6			MolecNeurobiol 9:00-10:00 Room Hermes	Neurophys CM3 LJ Room Hermes	MolecNeurobiol Room Hermes		Fri	4					NeuroPharmacology round table Room Hermes	NeuroPharmacology round table Room Hermes		
Wed	7	Scientific communication 9:00-12:00 Campus Victoire Group B DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire FLE - K Room KC6			Anat TD (DV) Tutorial 3+4 Room Hermes	HBF (AM) Room Hermes			Mon	7		Anat Exam 1 10:15-11:45 Room TP Bacterio	HBF (EC) Room TP Bacterio		TP1 PB Group 2 Room School of Neuroscience	Neurophys TP Labs	Neurophys TP Labs	
Thu	8	Scientific communication 9:00-12:00 Campus Victoire Group A DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire FLE - IK Room KC6			Anat TD (DV) Tutorial 5-6 Room KC6	Stat RN4 room 55	TD Stat AL Room Hermes		Tue	8		Gruppe 1. MolecNeurobiol TP 8:00-12:00 Room School of Neuroscience	Anat Acc 13:30-17:30 (DV) Room DV office		Neurophys TDex2 EA-LJ Labs	Neurophys TP Labs	Neurophys TP Labs	
Fri	9	Scientific communication 9:00-12:00 Campus Victoire Group B DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire AD Room KC6			Neurophys TD3 EA-LJ Room Hermes	NeuroPharmacology Lecture 5 Room Hermes	NeuroPharmacology TD for homework Room Hermes		Wed	9		Gruppe 1. MolecNeurobiol TP 8:00-12:00 room School of Neuroscience	Gruppe 1. MolecNeurobiol TP 13:00-17:00 Room School of Neuroscience		TP1 PB Group 2 ?? Room School of Neuroscience	Anat Exam 2 Room Hermes TP bacterio		
Mon	12	Scientific communication 9:00-12:00 Campus Victoire Group A DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire FLE - IK Room KC6			Anat (LB) Seminar Room Hermes	HBF TD/TP Gr 1 (NE) (Neurocentre Magendie)			Thu	10		Gruppe 1. MolecNeurobiol TP 8:00-12:00 Room School of Neuroscience	NeuroPharmacology Lecture 8 Room Hermes	Neurophys TD4 EA-LJ Room Hermes	Animal Experimentation	Animal Experimentation	Animal Experimentation	Animal Experimentation
Tue	13	Scientific communication 9:00-12:00 Campus Victoire Group B DV Room KC6	Scientific communication 14:00-16:00 Campus Victoire FLE - IK Room KC6			MolecNeurobiol 9:00-10:00 Room	Neurophys CM4 (MC) Room Hermes	HBF TD/TP Gr2 (NE) (Neurocentre Magendie)		Fri	11	Armistice 1918				Animal Experimentation	Animal Experimentation	Animal Experimentation	Animal Experimentation
Wed	14	Scientific communication 9:00-12:30 Campus Victoire Group A Exam Room KC6	Scientific communication 14:00-17:30 Campus Victoire Group B Exam Room KC6			Anat TD (DV) Tutorial 7-8 Room Hermes				Mon	14		Anat Acc 9-16 9:00-13:00 (DV) Room Hermes	HBF (SP) Room Hermes		Animal Experimentation	Animal Experimentation	Animal Experimentation	Animal Experimentation
Thu	15		Neurophys CM2 EA-LJ Room Hermes	MolecDev Room Hermes		Anat TD (DV) Methods 1+2 Room Hermes	HBF (EH) Room Hermes	TD Stat AL Room Hermes		Tue	15		Gruppe 2. MolecNeurobiol TP 8:00-12:00 Room School of Neuroscience	MolecNeurobiol Room Hermes	Proj Tut AN Room Hermes	Animal Experimentation	Animal Experimentation	Animal Experimentation	Animal Experimentation
Fri	16		Anat CM (DV) Room Hermes	Stat AG1 room 55 Build ED	Proj Tut EA-EH Room Hermes	NeuroPharmacology Lecture 6 Room Hermes	Neurophys TD ex1 EA-LJ Room Hermes			Wed	16		Gruppe 2. MolecNeurobiol TP 8:00-12:00 Room School of Neuroscience	Gruppe 2. MolecNeurobiol TP 13:00-17:00 Room School of Neuroscience		Animal Experimentation	Animal Experimentation	Animal Experimentation	Animal Experimentation
Mon	19		Anat Acc 1-8 9:00-13:00 (DV) Room Hermes	HBF CM1 (AD) Room Hermes		Stat RNS room 55 Build ED	Proj Tut Exam EA-EH Room Hermes	Proj Tut Exam EA-EH Room Hermes		Thu	17		Gruppe 2. MolecNeurobiol TP 8:00-12:00 room School of Neuroscience	Proj Tut EA-EH Room Hermes	Proj Tut EA-EH Room Hermes		Christmas holidays		
Tue	20	Stat RN1 room 55 Build ED	MolecNeurobiol Room Hermes	NeuroPharmacology Lecture 1 Room Hermes		Neurophys CM5 EA Room Hermes	MolecNeurobiol 14:00-17:00 (EH) Room Hermes			Fri	18		Neurophys TP Labs	Neurophys TP Labs	Anat TD 14:00-18:00 (DV) CM: presentations 9-16 Room Hermes				
Wed	21		Neurophys TD1 EA-LJ Room Hermes	Stat AG2 room 55 Build ED		Anat (AF) Seminar Room Hermes	HBF (EH) Room Hermes			Mon	21			Anat TD (DV) Tutorial 9-10 Room Hermes	HBF (FC) Room Hermes				
Thu	22		Proj Tut DV Room Hermes	MolecNeurobiol Room Hermes	Scientific communication AD Room Hermes ?	Stat RN6 room 55 Build ED	HBF (EH) Room Hermes			Tue	22			HBF CM (MM) Room Hermes	NeuroPharmacology Lectures by the students 1 Room Hermes	NeuroPharmacology Lectures by the students 2 Room Hermes			
Fri	23		NeuroPharmacology Lecture 2 Room Hermes	Stat RN2 room 55 Build ED	Scientific communication AD Room Hermes ?	MolecNeurobiol Room Hermes	NeuroPharmacology Room Hermes	NeuroPharmacology TD for homework Room Hermes		Wed	23		MolecDev 9:00-12:00 (EH) Room Hermes	HBF CM (TB) Room Hermes					
Mon	26		Anat Acc 1-8 9:00-13:00 (DV) Room Hermes	HBF (AD) Room Hermes	Proj Tut EA-EH-JP Room Hermes	MolecNeurobiol Room Hermes	NeuroPharmacology TD5 Room Hermes			Thu	24			Neurophys CM5 EA Room Hermes	MolecDev Room Hermes				
Tue	27		MolecNeurobiol Room Hermes	NeuroPharmacology Lecture 3 Room Hermes	NeuroPharmacology TD1 Room Hermes	Neurophys CC EA Room Hermes	MolecNeurobiol Lecture 7 Room Hermes	HBF (AZ) Room Hermes		Fri	25		Anat TD (DV) Tutorial 11-12 Room Hermes		HBF (OS) Room Hermes				
Wed	28		Neurophys TD2 EA-LJ Room Hermes	Stat AG3 room 55 Build ED		Stat RN7 room Hermes	Anat TD (DV) Rev 1-8 Room Hermes	Anat TD (DV) Rev 1-8 Room Hermes		Mon	28		Anat TD (DV) Tutorial 13-14 Room TP bacterio		HBF (SA) Room TP bacterio				
Thu	29		Proj Tut DV Room Hermes Hermes	MolecNeurobiol Room Hermes	HBF (AD) Room Hermes					Tue	29		Neurophys TP Labs	Neurophys TP Labs	NeuroPharmacology TD3 Room Hermes				
Fri	30		Stat AG4 room 55 Build ED	Anat 14:00-18:00 (DV) CM: presentations 1-8 Room Hermes						Wed	30		TP1 PB Group 1 Room School of Neuroscience	Anat TD (DV) Tutorial 15-16 Room Hermes					

Bordeaux, a University City

■ Bordeaux University

- a multidisciplinary educational offer according to four main colleges and three institutes
- various clusters of Excellence in Research, including Neuroscience
- 57,000 students, over 6,000 staff members
- campus of excellence selected by the Higher Education Office

■ A great place to study

- a wide range of services: libraries, university health services, sports facilities, cultural services, university restaurants, halls of residence, digital work space, Wifi...
- 30 student associations
- Bordeaux, a favorite town for studying in France and for extracurricular activities



Neuroscience in Bordeaux

- 700 people
- 250 scientists
- 200 technicians and engineers
- 130 PhD students, 90 postdoc
- 51 research teams
- 20 high-end facilities (including 2 national platforms)
- 10 start-ups
- <http://www.bordeaux-neurocampus.fr/fr/index.html/>



Bordeaux Neurocampus

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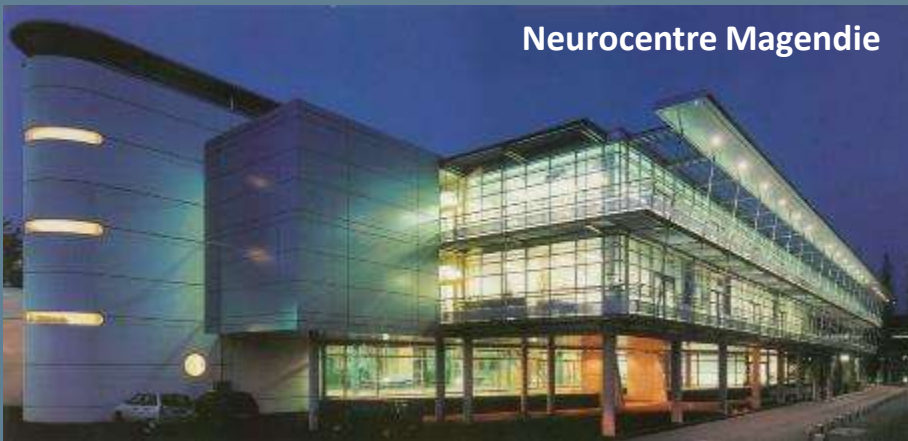
NutriNeuro

Sanpsy

IINS & IMN



Neurocentre Magendie



15,000 m² dedicated to Neuroscience
Research

65 millions Euros from Région
Aquitaine

Bordeaux Neurocampus

Neuroscience Graduate Program

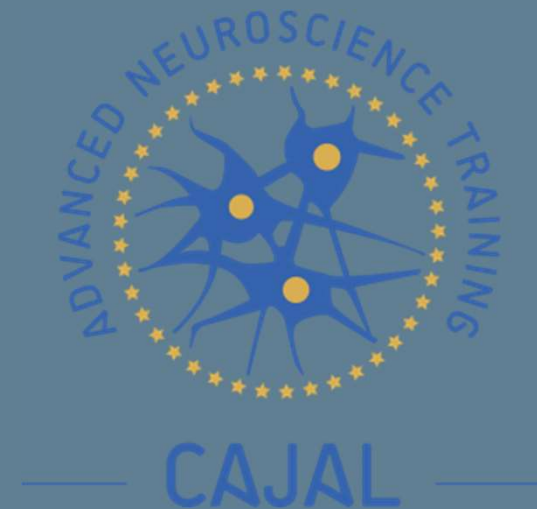
- Master of Neuroscience (MSc)
- International Doctoral Program (PhD)
- Training activities, including hands-on training workshops in cutting-edge facilities, international seminars, transverse training...



Bordeaux Neurocampus



- Advanced courses based on “hands-on” training
- Open to the international community



NeuroBIM

Bordeaux International Master of Neuroscience

Teaching and training

- ✓ **What NeuroBIM is**
- ✓ **Courses & Professors**
- ✓ **Moodle**
- ✓ **Time table**
- ✓ **Exams**
- ✓ **Grades**
- ✓ **Traineeships**
- ✓ **Help**
- ✓ **NBA**

What NeuroBIM is

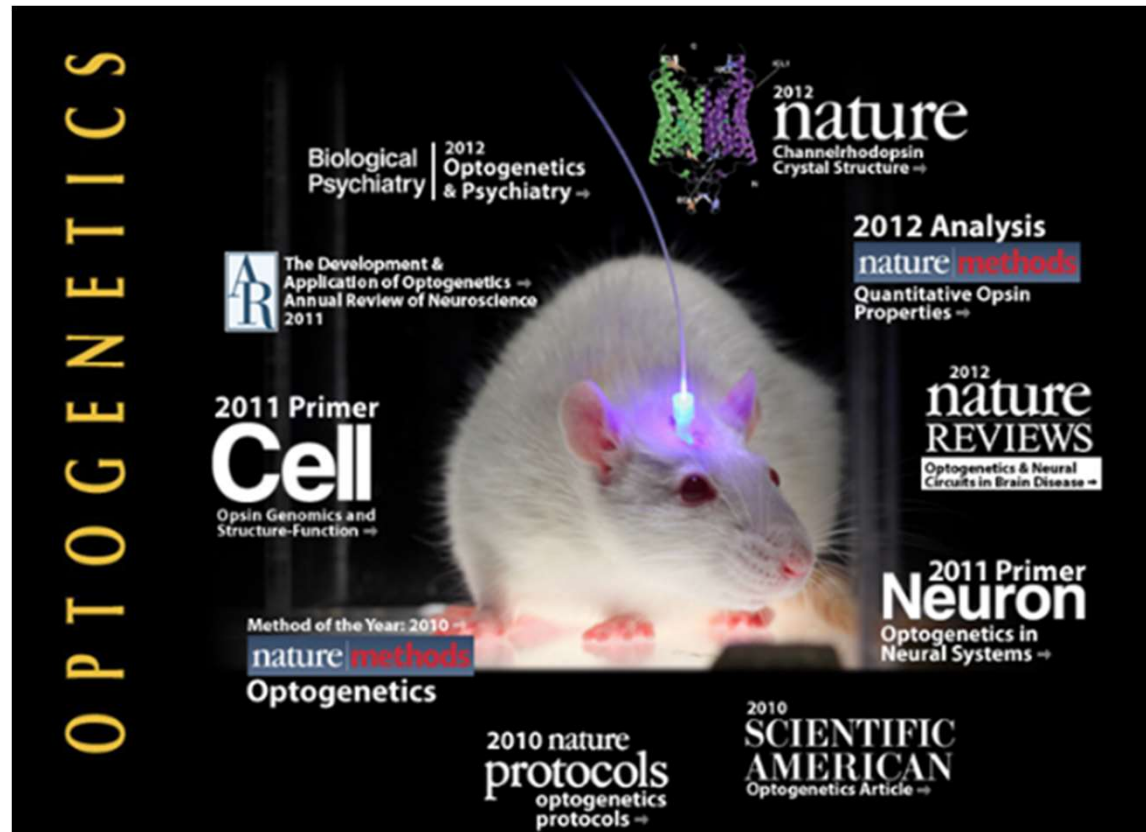


The 2015 NeuroBIM selfie

- **Neuroscience *core curriculum* in M1**
- **Advanced Neuroscience education in M2**

- ✓ **2 years, 120 ECTS**
- ✓ **Fully international, in English**
- ✓ **Friendly, intercultural**
- ✓ **Small classes, close faculty contact**

What NeuroBIM is



- ✓ Two 5-month internships
- ✓ Training through innovative, interdisciplinary and original brain research at Bordeaux Neurocampus
- ✓ Opportunities for international mobility

Courses & Professors

Coordinators: Prof Daniel L Voisin Prof Elena Avignone

Master 1 Program

SEMESTER 1: September – January (30 ECTS)

- Scientific Communication (3 ECTS)
- Statistics and Neural Modelling (3 ECTS)
- Tutored Project (3 ECTS)
- Functional Neuroanatomy (5 ECTS)
- Neurophysiology (4 ECTS)
- Molecular Neurobiology & Development (4 ECTS)
- Neuropharmacology (4 ECTS)
- Higher Brain Functions (4 ECTS)
- Animal experimentation

SEMESTER 2: end January – end June (30 ECTS)

- › Laboratory Internship

Courses & Professors

Master Neurosciences International 2nd year + Neurasmus
Persons in charge: Agnès Nadjar & Denis Combes

	Unit names	ECTS	Persons in charge	Statut	
Semester 1	Epistemology, development & communication of a research project	6	A. Desmedt	Mandatory	
	UB Create (Entrepreneurship)	6	A. Nadjar	Mandatory	
	Current research in neurosciences : from molecules to circuits	9	E. Avignone / A. Czarnecki	Elective	In parallel
	Cognitive and behavioural Neuroscience	9	A. Desmedt / JL Guillou	Elective	
	Addiction	6	M. Auriacombe	Elective	Free choice to reach the 30ECTS
	From Neuronal circuits to behaviour	6	D. Combes	Elective	
	Pathophysiology of Neurological & Psychiatric Diseases	6	T. Michelet	Elective	
	Developmental neuroscience	3	K. Massé	Elective	
	Psychoneuroimmunology - Mind-Body interactions	3	M. Darnaudery / A. Nadjar	Elective	
	Introduction to structural and functional neuroimaging in Human	3	E. Mellet	Elective	
	Programming for data analysis	3	A. Leblois	Elective	
	Advanced Topics in Cellular Bio-Imaging - EUR Light	3	V. Nagerl	Elective	
Semester 2	Research project (5 months internship)	30	A. Nadjar, D. Combes	Mandatory	

Courses & Moodle

<https://neurobim.u-bordeaux.fr/index.html>

<https://ent.u-bordeaux.fr/uPortal/f/formation-lo/p/Moodle.u35l1n601/max/render.uP?pCp>

Exams

- ✓ **variable according to teaching unit**
- ✓ **partly during the semester, partly as final exams**
- ✓ **all mandatory**
- ✓ **no cheating**
- ✓ **details must be provided by each professor when teaching starts**
- ✓ **feedback for oral presentations**
- ✓ **final exams: January 2-6, 2023**
- ✓ **one resit allowed**
- ✓ **complex rules for validation**
- ✓ **you need to work a lot and help each other.**

Grades

I would like to emphasize that marking at the Department of Biology in Bordeaux University, as often in most French Universities, is somehow **drastic** with the very best students obtaining around **14 to 17** according to years. Not the full range of grading is used by examiners.

Usually, grade equivalence between France and the U.S. Grading Scale is about this:

14-20 = A (3.5-4.0) ;

12-13.9 = B+ (3.0-3.49); 11-11.9 = B (2.5-2.99); 10.5-10.9 = B- (2.25-2.49);

10.1-10.4 = C+ (2.01-2.24); 10 = C (2.0); 9-9.9 = C- (1.5-1.99);

8-8.9 = D (1.0-1.49);

0-7.9 = F (0.0-0.99).

In the case of XXXX the **16.083/20** obtained for semester 3 in Bordeaux is clearly equivalent to a **4.0 on a 0-4.0 scale**. Actually, she obtained the **best average mark** for semester 3 among all the Bordeaux students (54).

NeuroBIM

Traineeships and Mobility

List of internships:

http://master.neurosciences.u-bordeaux.fr/etudiants/tableau_id_stages.php?sort=spec

To make a new proposal:

http://master.neurosciences.u-bordeaux.fr/stageM2/stage_auth.php

NeuroBIM

List of internships (34 still available)

Master 1 neuroBIM

ID	Titre
44	Alteration of cortico-striatal circuits in nicotine addiction
25	Apprentissage moteur par l'observation d'un sujet modèle
45	Arm-movement psychophysics in macaque monkeys
36	Beneficial effect of chrononutrition on obesogenic diet induced memory impairments
46	Changes in intrinsic excitability of prefrontal cortex underlie early cognitive impairment in Alzheimer's Disease
18	Characterize neuronal activity in birds song-related circuits
77	Circuit-level alterations underlying atypical sensory perception/attention in autism
6	Circulatory and respiratory regulations by the central nervous system
90	Comprehensive analysis of brain-wide network activity during memory consolidation
3	Contribution of genetically-identified reticulospinal pathways to locomotor recovery after spinal cord injury

NeuroBIM

Traineeship description

Internship proposal No 44

Title

Reciprocal interactions between drugs of abuse and exercise motivation in mice

Supervisor

- Name: FRANCIS CHAULOUFF
- Mail: francis.chaulouff@inserm.fr
- Tel.: 0557573755
- Address:
Endocannabinoides & NeuroAdaptation
INSERM U862
NeuroCentre Magendie, 146 rue Léo Saignat
33077 Bordeaux

Internship

Context

Using a unique conditioning model for the study of the motivation for wheel-running in mice, we have shown by means of pharmacological tools and mutants for the principal cannabinoid (CB) receptor in the brain, namely the CB1 receptor, that the appetitive ("wanting"), but not the consummatory ("liking"), motivation for exercise is tightly controlled by CB1 receptors located on ventral tegmental area (VTA) GABAergic terminals. Electrophysiological data suggest that running motivation finds its roots in a CB1 receptor-mediated disinhibition of VTA dopaminergic activity. Experiments involving extinction and cue-induced reinstatement of wheel-running seeking have brought additional evidence that wheel-running is a strong natural reward in mice, as it might be in certain humans, including in a pathologic manner (exercise addiction). Exercise is now proposed as an auxiliary therapy for the treatment of the relapse to drugs of abuse in humans. However, although animal data indicate that drugs of abuse and wheel-running might cross-sensitise, it is unknown whether such a cross-sensitisation is general or drug-specific due to their respective mechanisms of action.

Objectives

The main goal of the M2 project will be to measure, mainly through behavioural paradigms, including operant conditioning for running, the impacts of either cocaine (which acts directly on VTA dopaminergic systems), delta9-tetrahydrocannabinol (THC; which acts indirectly on VTA dopaminergic through a GABA-mediated disinhibition of these neurons) or morphine (which also stimulates VTA dopaminergic neurons through such a disinhibition) on the appetitive motivation for running. Reciprocally, the project will examine how chronic wheel-running affects the behavioural responses of mice to the withdrawal from cocaine, THC, or morphine treatments. If time permits, the project will also measure the respective role of CB1 receptors on GABA neurons in these specific interactions between each of these drugs and wheel-running.

Methods

This work will be achieved in mice, with operant conditioning procedures - aimed at measuring exercise motivation - and repeated systemic injections of drugs of abuse being at the centerpoint of this project. If time permits, conditional mutants for CB1 receptors, especially those lacking CB1 receptors in GABAergic neurons, will be included.

Prerequisites

An expertise in Neurosciences and a good knowledge of the Excel program are prerequisites. A past experience with operant conditioning protocols would be appreciated.

Keywords

- exercise
- motivation
- drugs of abuse
- addiction
- mesocorticolimbic Dopamine
- endocannabinoids

Internship proposal for

- Master 2nd year
- Master 1 neuroBIM

NeuroBIM

To make a new proposal

http://master.neurosciences.u-bordeaux.fr/stageM2/stage_auth.php

Internship proposal form

Identification

If you have no login, please, [create an account, here](#)

[Lost IDs?](#)

[Help?](#)

Login

Password



+ Rules

NeuroBIM

To make a new proposal

The applied rules for all supervisors (In Bordeaux, France or abroad) are as follows:

Examination takes place in Bordeaux and ECTS are provided by Bordeaux University.

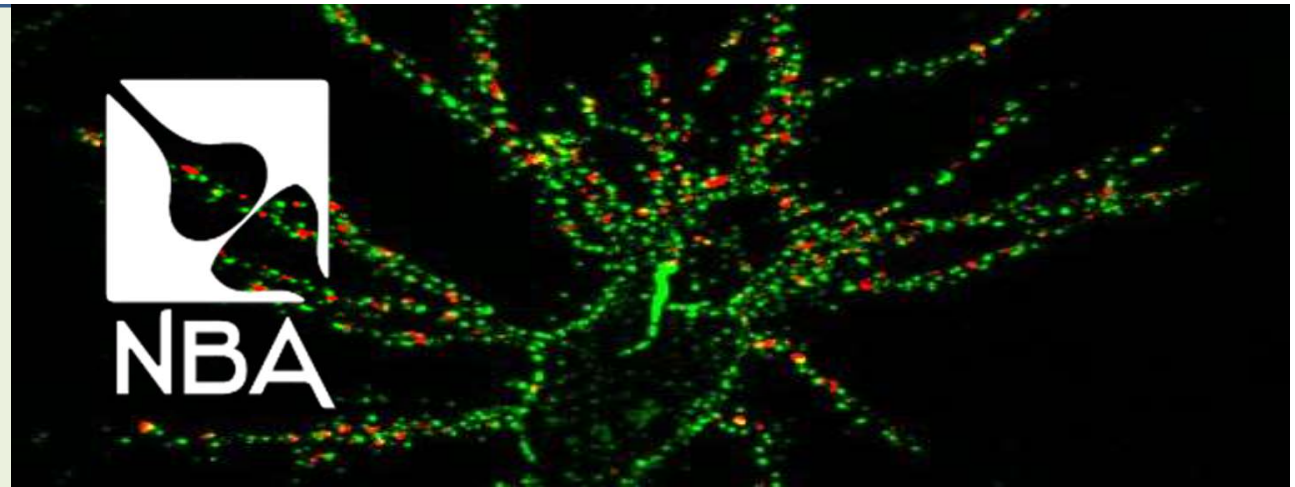
The topic must be related to Neuroscience. There is no absolute guarantee that the project proposal will be accepted by the Board of Education.

We expect supervisors to provide solid and sound scientific projects that can be achieved during the time of the 5-month traineeship in an adequate scientific environment, with the necessary means.

By submitting a Master project, supervisors agree to take care of the student in order to optimize the probability of success.

Help

- Christelle Grave: enrollment & official grades, certificates, diploma, at Talence Campus, building A22
- Cyril Lançon: time table, rooms...
- International Office
- Bureau Vie Etudiante
- Professors in charge of teaching units
- Elena Avignone, Daniel Voisin & Morgane Jégo



By the students, for the students...



The NBA

Neuroscience in Bordeaux Association

- created in 2012
- **by and for the students** in Neuroscience of Bordeaux.
- members: current or former students of Neuroscience (Master / PhD) in Bordeaux.

Objectives:

- ✓ welcome and support for new students in Neuroscience in Bordeaux
- ✓ intergenerational network favoring exchanges and cohesion
- ✓ talk to Heads of Master and PhD programs
- ✓ Public awareness: Neurodon, Brain Week, Pint of Science...

<http://www.assonba.com/>

