Université Claude Bernard Lyon 1
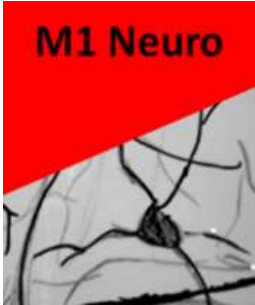
1) **General information about the Master's program**

2) **Master 1 Neurosciences : curriculum**

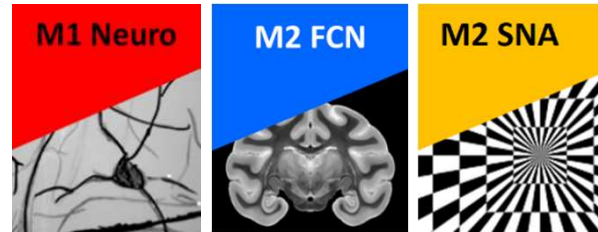3) **Master 2 paths : curriculum and job openings**

    3a) Master 2 Fundamental and Clinical Neurosciences (FCN)

    3b) Master 2 Sensory Neurosciences and Analysis (SNA)

4) **How to apply ?**

5) **Your questions**

Université Claude Bernard Lyon 1

A 2-year master program

**in English**

✓ This highly **interdisciplinary program in Neurosciences** covers topics ranging from basic research in human and animal models to applied and translational Neurosciences.

✓ The Master allows students to **specialize** in their field of interest thanks to optional teaching units and specialized paths in M2, and includes extensive **practical activities in laboratories**.

Université Claude Bernard Lyon 1

A 2-year master program

in English
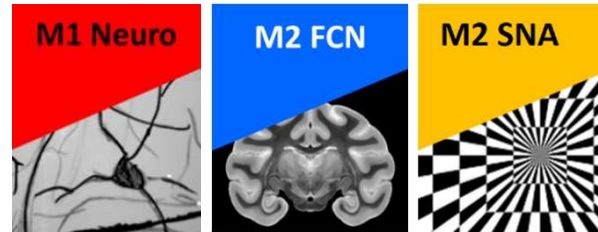
✓ The training is anchored in a rich research environment (about 700 scientists/researchers working in **4 large research institutes** in Neurosciences)

✓ The program **encourages international mobility**.

Neurograduate program (UCBL – ANR)   https://neurograduate.univ-lyon1.fr

o Exchange fellowships (internships abroad)
o Individual mentoring program
o Project-based training on research platforms (state of the art techniques)

A dense laboratory network in Neurosciences in Lyon

Université Claude Bernard Lyon 1

Internship abroad are also possible and encouraged

Stem Cell and Brain Research Institute

http://www.sbri.fr

SBRI

Lyon Neuroscience Research Center

http://crnl.univ-lyon1.fr

CRNL

Institut NeuroMyoGène

NeuroMyoGène Institue

http://www.inmg.fr

ISC
Marc Jeannerod

Cognitive Sciences Institute Marc Jeannerod

http://www.isc.cnrs.fr

Inserm
Institut national
de la santé et de la recherche médicale

cnrs

LABEX
CORTEX
UNIVERSITÉ DE LYON

Hôpitaux de Lyon

Centre hospitalier
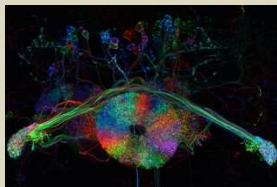Le Vinatier

Université Claude Bernard · Lyon 1

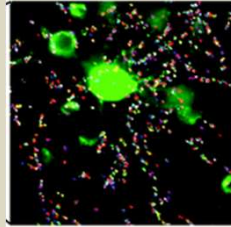## A dense laboratory network in Neurosciences in Lyon

Research from cellular and molecular scale to clinical applications
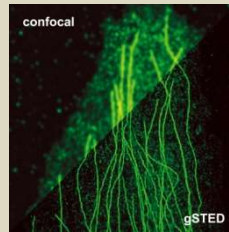Multiple methods to study the brain structure and function

Live or high resolution microscopy

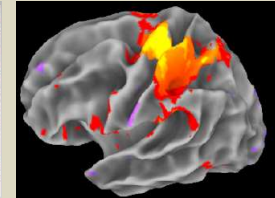Bi-photon   Quantum dot   STED
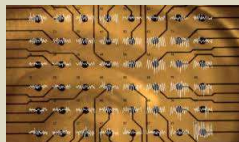
Brain imaging in primates

Structural MRI   EEG   fMRI

Multi-electrodes   Optogenetics   Behavior

Electrophysiology in behaving animals

Rehabilitation   Brain-machine interface

Applications

Université Claude Bernard Lyon 1

Studying in Lyon

- ✓ Lyon 1 university is one of the largest universities in France (~47000 students) in the fields of science and technology, health and sport.

- ✓ The Rhône-Alpes area is an extremely dynamic economic and academic environment (chemical and environment, digital and biotech domains).

- ✓ 2h train to Paris, 2h drive to the French Alpes and 3h drive to the Mediterranean sea !!

https://masterneuro.univ-lyon1.fr

Université Claude Bernard Lyon 1

HOME   PATHS ⌄   ADMISSION   INTERNATIONAL   LABS   CONTACTS

**M1
Neurosciences**

**M2 Fundamental and Clinical
Neurosciences**

**M2 Sensory Neurosciences
and Analysis**

M1 Neuro

M2 FCN

M2 SNA
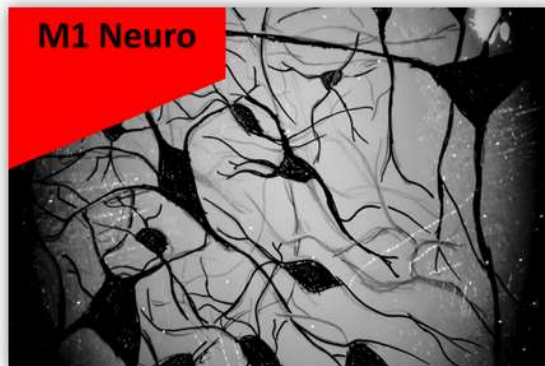
A common first year to provide a strong
Neuroscience background to all the students
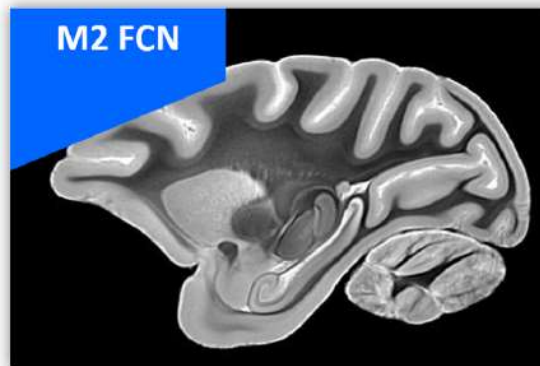
A research-oriented path with emphasis on
advanced methods in Neuroscience

Neurosciences knowledge and tools applied to
sensory analysis

A 2-year master program

Université Claude Bernard Lyon 1

Since 2022-2023

M1 Neuro

36 students

C. Amat
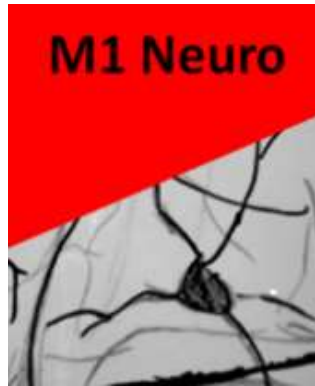
+ Medical students, Engineers, other M1 under conditions…

M. Richard

+ Engineers, psychologists…

I. Cristofori

M2 FCN

Fundamental and Clinical Neurosciences

36 students

M2 SNA

Sensory Neurosciences and Analysis

12 students

Université Claude Bernard Lyon 1

1) **General information about the Master's program**

2) **Master 1 Neurosciences : curriculum**

3) **Master 2 paths : curriculum and job openings**

   3a) Master 2 Fundamental and Clinical Neurosciences (FCN)

   3b) Master 2 Sensory Neurosciences and Analysis (SNA)

4) **How to apply ?**

5) **Your questions**

M1 Neuro

Université Claude Bernard Lyon 1

| Semester 1 | 30 ECTS | | Semester 2 | 30 ECTS |

- ✓ Disciplinary Courses (Cellular Neurosciences, Integrative Neurosciences, Cognitive Neurosciences, Clinical Neurosciences, Computational Neurosciences)

- ✓ Scientific tools (Methodology, Statistics, Bibliography, Communication, Internship)

- ✓ Transversal skills (English, Insertion into a professional environment)

**Sem 2 : Optional disciplinary teaching units
help you choose your M2 path**
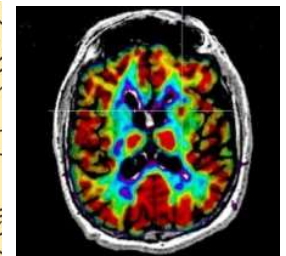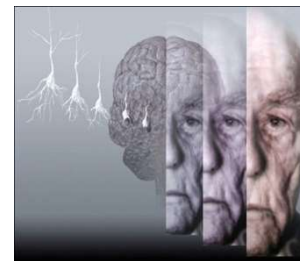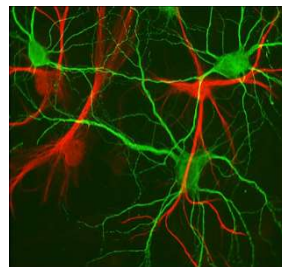
M1 Neuro

Université Claude Bernard Lyon 1

First Semester

DISCIPLINARY COURSES

| Properties of Neuronal cells **(Neuron)** 6 ECTS | Behavioral Neurosciences **(Behavior)** 6 ECTS | Cognitive Neurosciences and Neuroimaging **(NeuroCo)** 6 ECTS |

SCIENTIFIC TOOLS

| Methodology & Statistics **(Methodex)** 6 ECTS | Techniques for empirical research **(TechnEx)** 6 ECTS |

Second Semester

DISCIPLINARY COURSES

Clinical Neurosciences **(Clinical)** 6 ECTS

Physiology of neural networks **(Networks)** 6 ECTS

SCIENTIFIC TOOLS

English 3 ECTS

Professional skills **(ProSkills)** 3 ECTS

Neurosciences internship 6 ECTS

7 weeks

OPTIONAL UNITS

Block 1
- Sensory Measures **(Sensory)**
- Neural trace of memory **(Trace)**
- Computational Neurosciences **(NeuroComp intro)**

Block 2
- Development, Disease and Regeneration **(DDR)**
- Neuropsychologie **(Neuropsycho)**
- **Immunité**

2 units from block 1 or 1 unit in each block

Questions so far ?

Université Claude Bernard Lyon 1

M1 Neuro

M2 FCN

M2 SNA

1) **General information about the Master's program**

2) **Master 1 Neurosciences : curriculum**

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4) **How to apply ?**

5) **Your questions**

Objectives & job openings for each path

Université Claude Bernard Lyon 1

M2 FCN

M2 Fundamental and Clinical Neurosciences

36 students

Researcher (after a PhD)
Engineer…

M2 SNA

M2 Sensory Neurosciences and Analysis

12 students

Possible work-study training called « alternance »

Project manager in Sensory Analysis

Université Claude Bernard Lyon 1

M1 Neuro

M2 FCN

M2 SNA

1) **General information about the Master program**

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https://masterneuro.univ-lyon1.fr

M2 Fundamental & Clinical Neurosciences

Université Claude Bernard Lyon 1

M2 FCN

First Semester
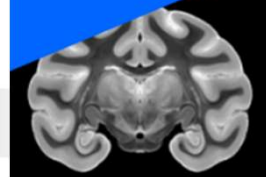
DISCIPLINARY COURSES	SCIENTIFIC TOOLS	OPTIONAL UNITS 12 ECTS	
Neuroconferences **(NeuroConf)** 6 ECTS	Statistics **(Stats)** 3 ECTS	Neural Basis of Cognition **(Cognition)** 6 ECTS	Neuroimmunology **(A2I)** 3 ECTS
	Project Management **(Project)** 6 ECTS	Molecular and Cellular Neurosciences **(Neurobiology)** 6 ECTS	Advanced Clinical Neurosciences **(Advanced Clinical)** 3 ECTS
	English 3 ECTS	Computational Neurosciences **(Neuro Comp)** 6 ECTS	

Second Semester

Full Time Neurosciences **Laboratory Internship**
30 ECTS

M2 FCN
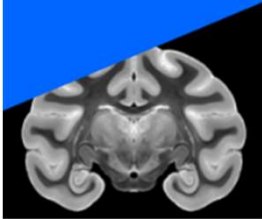
M2 Fundamental & Clinical Neurosciences

Université Claude Bernard Lyon 1

Selected topics covered in fundamental, clinical and applied Neurosciences

CONFERENCES with focus made on hot topics in Neurosciences research and new methodologies.

Neuroconferences *e.g. topics since 2017*

- Cellular Basis of circadian rhythms
- Neural Basis of social interactions
- Neuroimaging and brain stimulations applied to psychiatric pathologies
- Oscillations and Brain rhythms
- Changing scales in Neural Stem Cells research
- Pathophysiology of Parkinson's disease
- Language in the sensory motor brain
- Naturalistic neurosciences ….

OPTIONS for specialization

Molecular and Cellular Neurosciences:
Synaptic plasticity ; Brain development ; Brain repair

Neural Basis of Cognition :
Perception, Action, Plasticity, Attention, Social Cognition

Advanced Clinical Neurosciences:
Neurological and psychiatric diseases, interventions

Computational Neurosciences :
Modeling, machine learning, artificial intelligence

Neuro-immunology :
Autoimmunity, Infection, Inflammation

M2 FCN

M2 Fundamental & Clinical Neurosciences

Université Claude Bernard Lyon 1

Job opportunities after the M2 FCN

1) **PhD program** >70% since 2018
- PhD program « Neurosciences et Cognition » in Lyon:

    http://nsco.universite-lyon.fr

- other PhD programs worldwide (USA, Canada, England…)

2) **Additional training for dual skills** (administration, management, business, big data…) => mixed positions in private companies

3) **Other opportunities,** such as :
- R&D in private companies
- Research engineers in academia
- Scientific publishing, editing, writing
- Clinical Research Coordinator …

For more ex (in French), see
https://www.univ-lyon1.fr/universite/organisation/observatoire-de-la-vie-etudiante#.YinVRnrMI2w
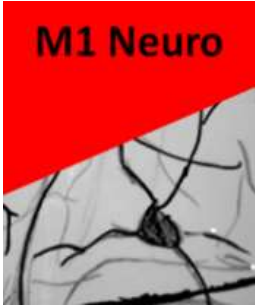
M2 FCN

Questions so far ?

Université Claude Bernard Lyon 1

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5) **Your questions**

MASTER OF NEUROSCIENCES
University Claude Bernard Lyon 1

https://masterneuro.univ-lyon1.fr

M2 Sensory Neurosciences & Analysis

Université Claude Bernard Lyon 1

M2 SNA

Agronomie

Sensory Analysis

Chemistry/ Biochemistry

Physiology/ Neurosciences

Psychology
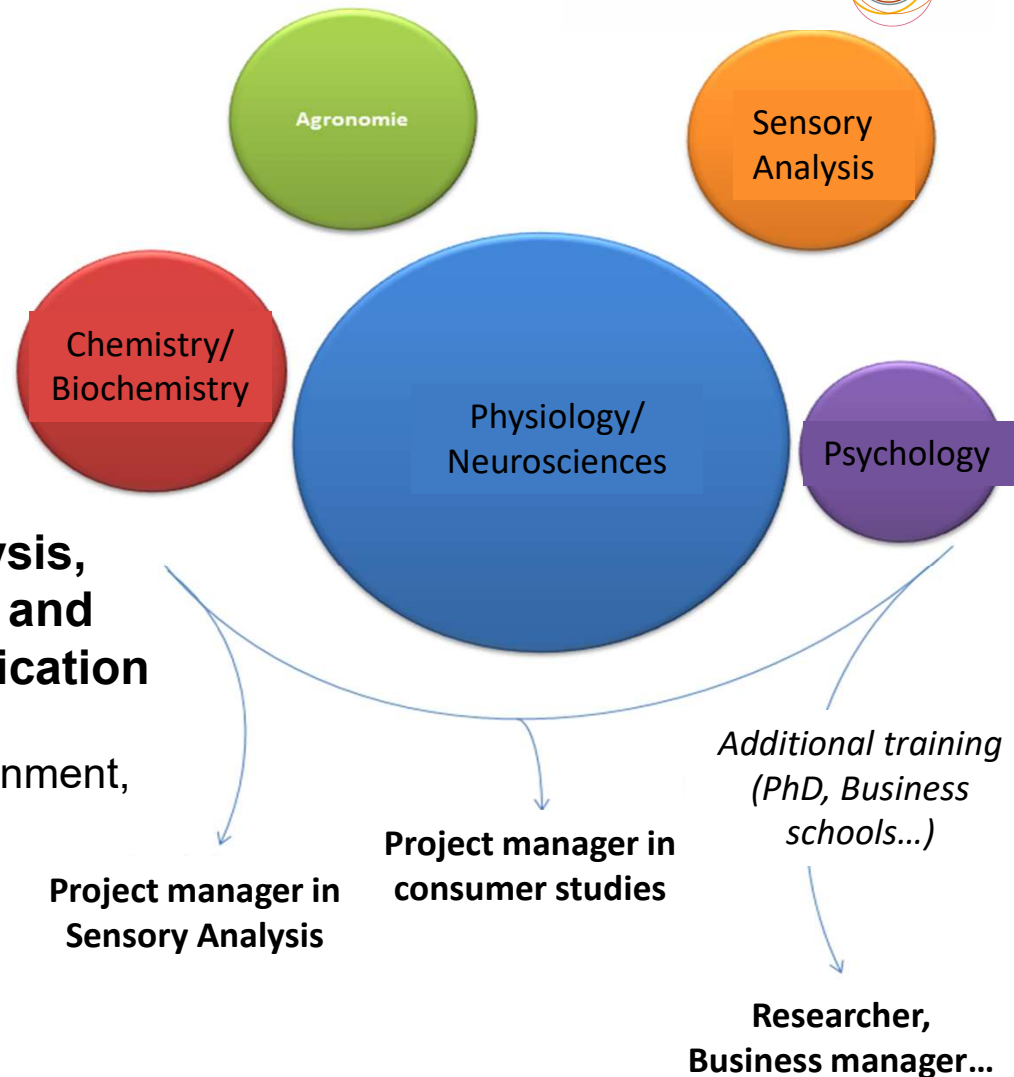
Objective :
To train specialists in Sensory Analysis, able to use the Neurosciences tools and knowledge in different fields of application

(food, cosmetics, perfumes, clothing, environment, car, video games…).

Project manager in Sensory Analysis

Project manager in consumer studies

Additional training (PhD, Business schools…)

Researcher, Business manager…

Université Claude Bernard Lyon 1

M2 SNA

M2 Sensory Neurosciences & Analysis

OPEN to work-study training

Teaching is project-based and involves professionals from the industry.

First Semester

DISCIPLINARY COURSES

Psychophysiology of perception
(PsychoPhy)
6 ECTS

Sensory Analysis and consumer studies
(Sensory Analysis)
6 ECTS

Business Applications
(BusinessApp)
3 ECTS

Data Processing
(Data)
3 ECTS

SCIENTIFIC TOOLS

Statistics
(Stats)
3 ECTS

Project Management
(Project)
6 ECTS

English
3 ECTS

Second Semester

Full Time **Professional Internship**
30 ECTS

M2 SNA

M2 Sensory Neurosciences & Analysis

Université Claude Bernard Lyon 1

Job openings

Immediate professional insertion : 80-100%
PhD : 0-10%

For more details (in French), see
https://www.univ-lyon1.fr/universite/organisation/observatoire-de-la-vie-etudiante#.YinVRnrMI2w

✓ **Jobs:** Project manager in R&D departments (sensory design; sensory impact of manufactured products on consumers)

Linked in

https://www.linkedin.com/groups/8571955/

✓ **Application fields**:
Cosmetic, perfumes, car industry, clothing, food, medical devices, video game...

✓ **PhD opportunities**, often in collaboration with an industry (ex. CIFRE contract in France).

✓ **Complementary training programs:** Business, management or marketing schools, big data

M2 SNA

M2 Sensory Neurosciences & Analysis

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Ex of companies who hosted interns

Université Claude Bernard Lyon 1

Questions so far ?

Université Claude Bernard Lyon 1

M1 Neuro

M2 FCN

M2 SNA

1) **General information about the Master's program**

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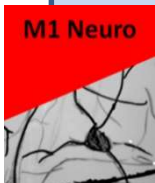
4) **How to apply ?**

5) **Your questions**

General Application rules

Université Claude Bernard Lyon 1

⚠️ Application process depends on your **country of origin** and your **current administrative situation**, and the **Master's year** (M1 ≠ M2)

French citizen ➡️ https://www.monmaster.gouv.fr

Other citizen

- European Union ➡️ https://www.monmaster.gouv.fr

- 67 countries listed on EEF procedure ➡️ https://www.campusfrance.org
  EEF = Etudes en France

- Other countries not listed on EEF ➡️ https://ecandidat.univ-lyon1.fr/

These general rules may change if you are currently residing in France, please contact the Scolarité UFR Biosciences or International Students office to enquire about your specific situation. In any case, you are responsible for obtaining a visa if required to study in France.

M1 Neuro

Université Claude Bernard Lyon 1
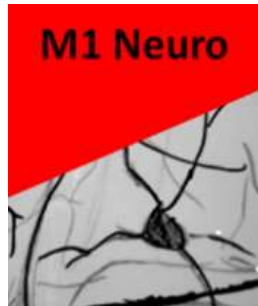
Application for Master 1st year

✓ **EEF procedure** now closed (usually opens in Fall of year N-1)

✓ **monmaster.gouv.fr procedure** : https://www.monmaster.gouv.fr

✓ **eCandidat procedure** : https://ecandidat.univ-lyon1.fr/

   Select : Département de Biosciences / Master LMD / M1 Neurosciences

Calendar

- Application procedure opening: **22th March 2023**
- Application procedure closing: **18th April 2023**
- Results publication: **23rd June 2023**
- Confirm your acceptance on the platform:
    - before **26th June 2023 @ 11.59pm** for proposal received before June 24th included,
    - **Day + 1 @ 11.59pm** for proposals received between June 25th and July 20th (complementary list)

Note 1 : A detailed instruction document is available in English on both platforms & Master's website
Note 2 : Questions related to the administrative procedure should be addressed to
candidatures.biosciences@univ-lyon1.fr

M1 Neuro
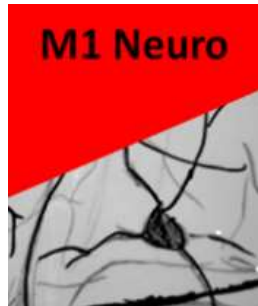
Université Claude Bernard Lyon 1

Application for Master 1st year

Who can apply?

Students having **a deep interest in Neurosciences** and

✓ Holding a **Bachelor of Sciences** in Life Sciences or scientific disciplines related to Neurosciences (Cognitive Sciences, Mathematics / Informatics /Physics applied to Biology…) including

❑ a minimum of 12 ECTS or equivalent in Neurosciences and/or Cognitive Sciences

AND

❑ a minimum of 12 ECTS or equivalent in Physiology, Biology and/or Mathematics / Informatics /Physics applied to Biology…

✓ Holding a B2 level in **English**

✓ Showing **scientific skills** (scientific questioning and reasoning, ability to synthesize, to communicate…)

M1 Neuro

Application for Master 1st year

Selection criteria

⚠️

Université Claude Bernard Lyon 1

Master Neuro specific form to be downloaded, completed and submitted via the platform (monmaster.gouv.fr or ecandidat)

1. **Academic results**
   - ✓ *Evaluated on your grade certificates*

2. **Acquired scientific and methodological knowledge and practical skills**
   - ✓ *Grades of your previous project defense and written reports*
   - ✓ *A personal statement summarizing a scientific project that you developed during a course or an internship*

3. **Motivation & personal project** (being aware of the training program, being able to define your expectations and the adequacy of the training program with your professional project)
   - ✓ *CV, cover letter, support letter(s) from previous teachers or internship supervisor*

M2 FCN

M2 SNA
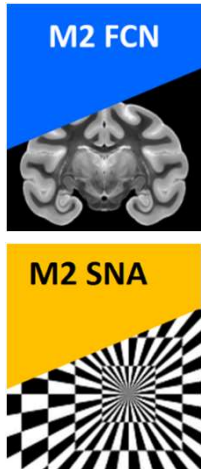
Application for Master 2nd year

Université Claude Bernard Lyon 1

- ✓ **EEF procedure closed** (open Fall of year N-1)

- ✓ **eCandidat procedure** : https://ecandidat.univ-lyon1.fr/

    Select : Département de Biosciences / Master LMD /
    M2 Neurosciences – prcs Fundamental and Clinical Neurosciences
    <u>or</u> M2 Neurosciences – prcs Sensory Neurosciences and Analysis

Calendar

- Application procedure opening : **10th May 2023**
- Application procedure closing : **13th June 2023**
- Results publication : **5th July 2023**
- Confirm your acceptance on eCandidat **before 13th July 2023**
- From mid-July : calling on complementary list

Note 1 : Priority is given to students holding a M1 Neurosciences from UCB Lyon1 (French law)

Note 2 : A detailed instruction document is available in English on eCandidat and Master's website

Application for Master 2nd year

Université Claude Bernard Lyon 1

Who can apply?

✓ Students holding a **1st year Master of Sciences** in Neurosciences or scientific disciplines related to Neurosciences (Cognitive Sciences, Mathematics / Informatics /Physics applied to Biology…).

✓ Students with a B2 level in **English**

✓ Students with **scientific skills** (scientific questioning, scientific reasoning, capacity to synthetize, to communicate…)

M2 FCN

✓ M2 FCN is also open to medical and engineer students

✓ Students with a deep interest for **Research in Neurosciences**

M2 SNA

✓ SNA is open to engineer students

✓ Students with a deep interest for **applied neurosciences in the field of sensory analysis and consumer studies in non academic organizations**

Université Claude Bernard Lyon 1

Application for Master 2nd year

Selection criteria

1. Academic results

2. Acquired scientific and methodological knowledge and practical skills

3. Motivation & personal project (being aware of the training program, being able to define your expectations and the adequacy of the training program with your professional project)

M2 FCN

✓ Letter of acceptance from a qualified research lab (5-6 months internship)

M2 SNA

✓ Interview of short-listed applicants (June 23rd-30th)

Université Claude Bernard Lyon 1

M1 Neuro

1) **General information about the Master's program**

2) **Master 1 Neurosciences : curriculum**

M2 FCN

3) **Master 2 paths : curriculum and job openings**

   3a) **Master 2 Fundamental and Clinical Neurosciences (FCN)**
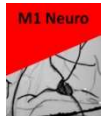
   3b) **Master 2 Sensory Neurosciences and Analysis (SNA)**

M2 SNA

4) **How to apply ?**

5) **Your questions**

CONTACTS

Université Claude Bernard Lyon 1

Master Neurosciences (coordinator) :

Corine Amat *: corine.amat@univ-lyon1.fr*

M1 Neurosciences

Corine Amat : *corine.amat@univ-lyon1.fr*

M2 Fundamental & Clinical Neurosciences (FCN)

Marion Richard: *marion.richard@univ-lyon1.fr*

M2 Sensory Neurosciences & Analysis (SNA)

Irene Cristofori : *irene.cristofori@univ-lyon1.fr*

+ for administrative questions

Scolarité UFR Biosciences
candidatures.biosciences@univ-lyon1.fr

International Relations
Department of UCBLyon 1

https://www.univ-lyon1.fr/en/education

G⁺ Neuro   https://neurograduate.univ-lyon1.fr

Emiliano Macaluso *emiliano.macaluso@univ-lyon1.fr*