

# What you will learn

**Original and innovative clinical practice** aimed at connecting the basic mechanisms of disease to clinical symptoms

**Biomarkers and treatments** of neurometabolic and neurodegenerative diseases

The **biochemical and cell biology bases of neurological symptoms**



Director:  
**Pr García-Cazorla**  
Head Neurometabolic Unit  
Sant Joan de Déu (SJD), Barcelona

Coordinators:  
**Pr. Jean-Marie Saudubray**  
Emeritus Professor of Pediatrics and  
Inborn Errors of Metabolism, Paris

**Pr. Oscar Marin**  
Director of the Centre for  
Developmental Neurobiology at King's  
College, London

**Dr. Juliana Ribeiro**  
Pediatric Neurologist at SJD, Barcelona

**Pr. Fanny Moche**  
Head Neurometabolic Unit, La Pitié  
Salpêtrière, Paris

**Dr Heidy Baide**  
Pediatric Neurologist at SJD, Barcelona

**Dr Nazareno Lascano**  
Pediatric Neurologist at SJD, Barcelona

## Contact Us

Dr. Juliana Ribeiro Dr. Heidy  
Baide

neurometab.bio.master@gmail.com

+34 666884586



UNIVERSITAT DE  
BARCELONA

**SJD**  
Sant Joan de Déu  
Barcelona - Hospital

# Master in NEUROMETABOLISM AND CELL BIOLOGY FOR CLINICIANS



Holistic training in  
neurometabolism and cell  
biology for a new generation  
of talented clinicians

# NOVEL PARADIGM

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This international master aims to lay the ground for the much-needed novel paradigm in clinical neurology.

While classic approach is mainly based on clinical symptoms, here we aim to integrate different levels of complexity in agreement with the intricate operational network of the nervous system.

The neurological manifestations will be linked to genetic, molecular and biochemical markers, cellular pathways, and brain circuitries in a comprehensive manner as a necessary and new approach.

Most of all, we will provide educational tools to integrate the "pathophysiological thinking" in the clinical practice of both neurology and inborn errors of metabolism (in which >80% of diseases have neurological involvement).

This is indeed linked to the current development of new therapies

# ONLINE MASTER with on-site summer schools

Duration: **2 years**

Beginning: **October 2024**

Credit: **45 credit/year**

Dedication regime: **Part Time**

Language: **English**

Target audience:

Health professionals dedicated to **neurology (pediatric and adult) and/or inborn errors of metabolism**



# OUR PROGRAMME

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The educational content of the first year is related to basic knowledge on brain metabolism and cellular neurobiology.

Part I: Cellular Neurochemistry and related diseases

Part II: Nervous system compartments 1: Intracellular communication and related diseases

Part III: Nervous system compartments 2: Intercellular communication and related diseases

The second year aims to connect neurochemistry and cell biology to the main neurological syndromes

Part IV: Neurodevelopment and Systems Neurobiology

Part V: Clinical syndromes and related biological mechanisms

Part VI: Biomarkers and New treatments

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We empower our students to a new perspective on the knowledge of brain diseases"

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# SUMMER SCHOOLS

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This master includes two summer schools in Barcelona



# International renowned teachers



Professors of renowned international prestige will give the online lectures and will have the possibility through specific tutorial classes to interact and discuss with the students during live sessions.