



# Agalic Rodriguez-Duboc

## MD, PHD IN MOLECULAR AND CELLULAR NEUROBIOLOGY

*Trained as a general physician and passionate about research, I have recently obtained my PhD in the field of cellular and molecular neurosciences. My research is focused on cerebellar development and apnea of prematurity.*

✉ agalic.rd@gmail.com  
🏠 76000 Rouen, France  
📅 33 years old  
🔗 <https://agalic-rd.com/>  
🇫🇷 French

### Languages

#### French

Native language

#### Spanish

Native language

#### English

Native proficiency

#### Norwegian

Intermediate (CEFR: B1)

#### Italian

Beginner (CEFR: A2)

#### German

Beginner (CEFR: A2)

### Assets

#### Determination

#### Creativity

#### Curiosity

#### Autonomy

### Professional interests

Molecular biology and signaling pathways

Neurosciences, neurology, psychiatry

Preventive medicine and public health

### Personal interests

Reading and literature

Painting and drawing

Knitting and crochet

Nature and sustainability

### Education

From September  
2019 to June 2023

#### PhD in Molecular and Cellular aspects of Biology

[Rouen University](#) Mont-Saint-Aignan, France

Specialty in Neurosciences

From October 2019  
to November 2019

#### Certification in Animal Experimentation

[Paris Descartes](#) Paris, France

From September  
2018 to June 2019

#### Master's in Research: Neurosciences (MSc)

[Rouen University](#) Mont-Saint-Aignan, France

Molecular, Cellular, and Integrated Neurosciences - Cum Laude

October 2017

#### USMLE (United States Medical Licensing Examination) Step 1

[National Board of Medical Examiners](#) Philadelphia, PA, USA

From September  
2011 to June 2017

#### Medical Doctor (MD)

[PUCMM University](#) Santiago, Dominican Republic

Magna Cum Laude

### Research Experience

From September  
2019 to May 2023

#### Doctoral Candidate

[INSERM U1245 CBG](#) Rouen, France

- Topic: "Cellular, molecular and vascular alterations induced by apnea of prematurity in the murine cerebellum."
- Advisor: Dr. Delphine Burel.

From January 2019  
to June 2019

#### Master's Research Internship

[Inserm U1239 DC2N](#) Mont-Saint-Aignan, France

- Topic: "Effects of perinatal hypoxia on the expression of genes involved in oxidative stress."
- Advisor: Dr. Delphine Burel.

From August 2015 to  
April 2017

#### Medical Dissertation

[Departamento de Investigación, PUCMM University](#) Santiago de los Caballeros, Dominican Republic

- Topic: "Psychological factors associated with nicotine addiction in college students."
- Advisor: Dr. Zahirá Quiñones de Monegro.

From March 2014 to  
December 2014

#### Research Assistant Experience

[Laboratory of Nanosciences, PUCMM University](#) Santiago de los Caballeros, Dominican Republic

- Topic: "Hypercaloric effect of biofunctionalized carbon nanotubes as a photothermal agent on *Staphylococcus aureus*."
- Advisor: Dr. Oliver Pfaff.

### Publications

- Leroux S, Rodriguez-Duboc A, Arabo A, Basille-Dugay M, Vaudry D, Burel D. 2022. Intermittent hypoxia in a mouse model of apnea of prematurity leads to a retardation of cerebellar development and long-term functional deficits. *Cell Biosci.* 12(1):148.
- Rodriguez-Duboc A, Basille-Dugay M, Debonne A, Rivière M-A, Vaudry D, Burel D. Apnea of Prematurity induces short and long-term development-related transcriptional changes in the murine cerebellum (In Press).

Posters

**LARC Neurosciences 2019** Effects of perinatal hypoxia on oxidative stress-related gene expression in the murine cerebellum.

**JED EDNBISE 2022** Apnea of Prematurity induces molecular, cellular, and vascular alterations in the murine cerebellum: focusing on angiogenesis.

Talks

**JED EDNBISE 2021** Therapeutic potential of neurotrophic factors on cellular and molecular alterations induced by Apnea of Prematurity in the murine cerebellum.

**ISTW Disabilities and Integration 2022** Cellular and molecular alterations induced by Apnea of Prematurity in the murine cerebellum.

Computer skills

Photoshop

Cytoscape

IMARIS

R

PRISM

ImageJ/Fiji

SPSS

Python

Teaching and Supervision

From September 2019 to March 2023	<b>Supervision of Students and Interns</b> Rouen University Mont-Saint-Aignan, France <ul style="list-style-type: none"><li>Supervision of a MSc intern during 3-month</li><li>Training of several students rotating through the laboratory</li></ul>
From October 2014 to November 2015	<b>Teaching Assistant</b> PUCMM University Santiago, Dominican Republic <ul style="list-style-type: none"><li>Topics: Anatomy, Embryology, and Histology.</li><li>Lab and practical sessions</li></ul>

Medical Experience

From March 2017 to May 2017	<b>Social and Family Medicine Internship</b> Centro de Salud Integral Bella Vista Dominican Republic HIV Clinic; Epidemiology; ER
From October 2016 to February 2017	<b>Surgery and Pediatrics Internships</b> Hospital Metropolitano de Santiago Dominican Republic Surgery; Pathology; Oncology; Pediatric and Neonatal ICU
From August 2016 to March 2017	<b>OB/GYN and Psychiatry Internships</b> Hospital Regional Universitario José María Cabral y Báez Santiago de los Caballeros, Dominican Republic Peripartum; Partum; Ambulatory / Consults
From May 2016 to August 2016	<b>Internal Medicine Internship</b> Saint Barnabas Hospital New York, NY, United States Neurology; Rheumatology; Pneumology; Nephrology

Practical Skills

<b>Laboratory and Experimentation</b>	<ul style="list-style-type: none"><li>Preparation and mounting of anatomo-pathological samples</li><li>Bacterial culture (agars, selective media, antibiogram)</li><li>Preparation and analysis of blood smears</li><li>Molecular biology (RNA extraction, reverse transcription...)</li><li>Laser capture microdissection</li><li>Quantitative RT-PCR</li><li>Pipetting system robot programming</li><li>Confocal microscopy</li><li>Immunohistochemistry</li><li>Transparisation and tissue clearing</li></ul>
<b>Research and Communication</b>	<ul style="list-style-type: none"><li>Experimental design</li><li>Statistical modeling (GLM, GLMM...)</li><li>Scientific communication</li><li>Theoretical and practical classes</li><li>Writing scientific reports</li><li>Scientific illustration</li><li>Grant application writing</li><li>Translation and simultaneous interpretation</li></ul>
<b>Surgery and clinical skills</b>	<ul style="list-style-type: none"><li>Minor surgery</li><li>Pre and post-operative follow-up</li><li>Complete physical examination</li><li>Differential diagnosis</li><li>Pharmacology</li></ul>