



# Agalic Rodriguez-Duboc

## MD, PHD IN DEVELOPMENTAL NEUROBIOLOGY

*Trained as a general physician and passionate about research, I am currently finalizing my PhD dissertation in the field of cellular and molecular neurosciences. My project is focused on cerebellar development and apnea of prematurity.*

✉ agalic.rd@gmail.com  
🏠 76000 Rouen, France  
📅 Date of birth 10/05/1990  
🇫🇷 French

### Languages

#### French

Native language

#### Spanish

Native language

#### English

Native proficiency

#### Norwegian

Intermediate (CEFR: B1)

### Assets

Determination

Creativity

Curiosity

Autonomy

Organisation

### 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 May 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 05 Panthéon, 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](#) 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, Université PUCMM](#) Santiago de los Caballeros, République Dominicaine

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

From March 2014 to  
December 2014

#### Research Assistant Experience

[Laboratory of Nanosciences, PUCMM University](#) Santiago de los Caballeros, République Dominicaine

- 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. <https://doi.org/10.1186/s13578-022-00869-5>
- **Rodriguez-Duboc A**, Rivière M-A, Basille-Dugay M, Debonne A, Burel, D. Apnea of prematurity induces oxidative stress-mediated transcriptional changes in the murine cerebellum (in preparation).

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 October 2014 to November 2015

**Teaching Assistant**  
PUCMM University Santiago, Dominican Republic  
Anatomy, Embryology, and Histology.

From September 2019 to March 2023

**Supervision of Students and Interns**  
Rouen University Mont-Saint-Aignan, France

- Supervision of a MSc intern during 3-month
- Training of several students rotating through the laboratory

Medical Experience

From May 2016 to August 2016

**Internal Medicine Internship**  
Saint Barnabas Hospital New York, NY, États-Unis  
Neurology; Rheumatology; Pneumology; Nephrology

From August 2016 to March 2017

**OB/GYN and Psychiatry Internships**  
Hospital Regional Universitario José María Cabral y Báez Santiago de los Caballeros, République Dominicaine  
Peripartum; Partum; Ambulatory / Consults

From October 2016 to February 2017

**Surgery and Pediatrics Internships**  
Hospital Metropolitano de Santiago République Dominicaine  
Surgery; Pathology; Oncology; Pediatric and Neonatal ICU

From March 2017 to May 2017

**Social and Family Medicine Internship**  
Centro de Salud Integral Bella Vista République Dominicaine  
HIV Clinic; Epidemiology; ER

Practical Skills

Laboratory and Expérimentation

- Preparation and mounting of anatomo-pathological samples
- Bacterial culture (agars, selective media, antibiogram)
- Preparation and analysis of blood smears
- Molecular biology (RNA extraction, reverse transcription...)
- Laser capture microdissection
- Quantitative PCR (Techniques, Robot, Analysis...)
- Conventional microscopy
- Immunohistochemistry
- Transparisation

Research and Communication

- Research methodology and statistical analysis
- Scientific presentation and communication
- Theoretical and practical training
- Writing scientific reports
- Grant application writing
- Translation and simultaneous interpretation

Surgery and clinical skills

- Minor surgery
- Pre and post-operative follow-up
- Complete physical examination
- Differential diagnosis
- Pharmacological prescription