



# Agalic Rodriguez-Duboc

MD, PHD IN MOLECULAR AND CELLULAR NEUROBIOLOGY

Trained as a general physician and passionate about neurodevelopmental and neurodegenerative research, I focus on the molecular and cellular bases of human neuropathologies. I am currently working as a postdoctoral fellow at the Kavli Institute for Systems Neuroscience, developing a new model to better understand the initiation of Alzheimer's disease.

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🏠 Trondheim, Norway  
🌐 <https://agalic-rd.com/>  
📖 French

## Languages

### French



Native language

### Spanish



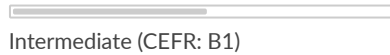
Native language

### English



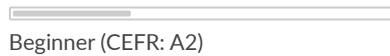
Native proficiency

### Norwegian



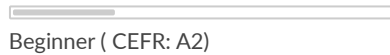
Intermediate (CEFR: B1)

### 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

## Research Experience

- Since February 2024 **Postdoctoral Fellow**  
[Kavli Institute for Systems Neuroscience](#) Trondheim, Norway  
"AD-CORE: Alzheimer's Disease - Cellular Origins and Reelin Effects"
- From September 2019 to May 2023 **Doctoral Candidate**  
[INSERM U1245 CBG](#) Rouen, France  
"Cellular, molecular and vascular alterations induced by apnea of prematurity in the murine cerebellum."
- From January 2019 to June 2019 **Master's Research Internship**  
[Inserm U1239 DC2N](#) Mont-Saint-Aignan, France  
"Effects of perinatal hypoxia on the expression of genes involved in oxidative stress."
- From August 2015 to April 2017 **Medical Dissertation**  
[Departamento de Investigación, PUCMM University](#) Santiago de los Caballeros, Dominican Republic  
"Psychological factors associated with nicotine addiction in college students."
- From March 2014 to December 2014 **Research Assistant Experience**  
[Laboratory of Nanosciences, PUCMM University](#) Santiago de los Caballeros, Dominican Republic  
"Hypercaloric effect of biofunctionalized carbon nanotubes as a photothermal agent on *Staphylococcus aureus*."

## 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
- 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

## 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. 2023. Apnea of Prematurity induces short and long-term development-related transcriptional changes in the murine cerebellum. *Curr. Res. Neurobiol.* 5:100113.
- Rodriguez-Duboc A, Racine C, Basille-Dugay M, Vaudry D, and Burel D, Vascular changes are associated with Apnea of Prematurity in the developing murine cerebellum. *In press.*

## Awards and grants

**Nasjonalforeningen for folkehelsen 2023**  
Postdoctoral grant for dementia research

**Janssen France 2022** Prize for women in science

**JED EDNBISE 2022** Public prize for the best poster

## 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

### Adobe Photoshop



### Cytoscape



### IMARIS



### Adobe Illustrator



### R



### PRISM



### ImageJ/Fiji



### Python



## Teaching and Supervision

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

From October 2014  
to November 2015

### Teaching Assistant

**PUCMM University** Santiago, Dominican Republic

- Topics: Anatomy, Embryology, and Histology.
- Lab and practical sessions

## Medical Experience

From March 2017 to  
May 2017

### Social and Family Medicine Internship

**Centro de Salud Integral Bella Vista** Dominican Republic

HIV Clinic; Epidemiology; ER

From October 2016  
to February 2017

### Surgery and Pediatrics Internships

**Hospital Metropolitano de Santiago** Dominican Republic

Surgery; Pathology; Oncology; Pediatric and Neonatal ICU

From August 2016 to  
March 2017

### OB/GYN and Psychiatry Internships

**Hospital Regional Universitario José María Cabral y Báez** Santiago de los Caballeros, Dominican Republic

Peripartum; Partum; Ambulatory / Consults

From May 2016 to  
August 2016

### Internal Medicine Internship

**Saint Barnabas Hospital** New York, NY, United States

Neurology; Rheumatology; Pneumology; Nephrology

## Practical Skills

### Laboratory and Experimentation

- 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 RT-PCR
- Pipetting system robot programming
- Confocal microscopy
- Immunohistochemistry
- Transparisation and tissue clearing

### Research and Communication

- Experimental design
- Statistical modeling (GLM, GLMM...)
- Scientific communication
- Theoretical and practical classes
- Writing scientific reports
- Scientific illustration
- Grant application writing
- Translation and simultaneous interpretation

### Surgery and clinical skills

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