



Karen Rihani

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21th February 1993

EDUCATION

• **2016 – 2019** at the “Centre des Sciences du Goût et de l’Alimentation”, Dijon, France

PhD in life sciences from the University of Bourgogne Franche-Comté

Role of odorant-binding proteins in *Drosophila melanogaster* chemosensory perception.

• **2015 – 2016** at University of Grenoble Alpes, France

Master’s degree (2nd part) in Biodiversity-Ecology-Environment

Internship: Studies of the molecular interactions between *Bacillus thuringiensis israelensis* toxins and their putative receptors in the mosquito gut at the “Institut de Biologie Structurale (IBS)” in collaboration with the “Laboratoire d’Écologie Alpine”.

• **2014 – 2015** at Saint Joseph University, Beirut, Lebanon

Master’s degree (1st part) in Molecular Genetics

Internship: Molecular characterization of Lebanese isolates *Bacillus thuringiensis* strains in order to study the parasporin genes.

Research training during my masters

-Laboratory assistant of the geology course. • Jan. - Jun. 2015

-Laboratory assistant of the animal world organization course (dissection) • Nov. - Jan. 2014

• **2012 – 2014** at Saint Joseph University, Beirut, Lebanon

Bachelor Degree in Bio-chemistry

Research internships during my bachelors

-Quantitative and qualitative study of the grape phenolic compounds “Chateau KSARA” • Aug. - Sep. 2013

-*Bacillus thuringiensis* strains isolation from Lebanese soil in order to identify the different types of crystals • Jan. - Jun. 2013

Publications

• **A conserved odorant binding protein is required for essential amino acids detection in *Drosophila***

Rihani K, Fraichard S, Chauvel I, Poirier N, Delompré T, Neiers F, Tanimura T, Ferveur J.F and Briand L.

Communications Biology • November 22 th 2019 doi: 10.1038/s42003-019-0673-2.

• **The *Drosophila* odorant binding protein 28a is involved in the detection of the floral odour β -ionone**

Gonzalez D, Rihani K, Neiers F, Poirier N, Fraichard S, Gotthard G, Chertemps T, Maibèche M, Ferveur J.F and Briand L.

Cellular and Molecular Life Sciences • September 28 th 2019 doi: 10.1007/s00018-019-03300-4.

• Desiccation resistance: effect of cuticular hydrocarbons and water content in *Drosophila melanogaster* adults.

Ferveur J.F., Cortot J, Rihani K, Cobb M, Everaerts C.

PeerJ • February 12th 2018 doi: 10.7717/peerj.4318.

Oral communications

• September 2019 • European Symposium for Insect Taste and Olfaction (ESITO), Villasimius, Italy

A conserved odorant binding protein is required for amino acid detection in *Drosophila melanogaster*.

• June 2019 • Visit to the Professor's Bernard Moussian laboratory, University of Tübingen, Germany

A conserved odorant binding protein is required for amino acid detection in *Drosophila melanogaster*.

• June 2018 • "Forum des jeunes chercheurs", Besançon, France

The implication of OBP19b in the taste perception of amino acid in *Drosophila melanogaster*.

• May 2018 • "Association pour la Recherche en Toxicologie" meeting (ARET), Dijon, France

The implication of OBP19b in the taste perception of amino acid in *Drosophila melanogaster*.

• December 2018 • PhD students day at "Centre des Sciences du goût et de l'Alimentation", Dijon, France

Drosophila that do not smell the violet...

• November 2017 • 31st French *Drosophila* meeting, Presqu'île de Giens, France

The implication of OBP28a in *Drosophila melanogaster* chemosensory perception.

• October 2017 • "Groupement de recherche odorant-odeur-olfaction", Paris, France

Role of Odorant Binding Protein 28a in *Drosophila melanogaster* chemosensory perception.

Poster presentation

• September 2018 • Neurofly, Krakow, Poland

Poster entitled: OBP19b is involved in the taste perception of amino acid in *Drosophila melanogaster*.

• June 2017 • 18th meeting of the "Club de Neurobiologie des Invertébrés", Dijon, France

Poster entitled: Function of odorant-binding proteins in the *Drosophila melanogaster* chemoreception.

• June 2017 • "Forum des jeunes chercheurs", Dijon, France

Poster entitled: Function of odorant-binding proteins in the *Drosophila melanogaster* chemoreception.

Honors

• March 2018 • Prize of the Jury, Prize of the Public, Prize of the Young Public MT180

During the regional finals of the competition "My thesis in 180 seconds", my presentation was voted as the most loved by the Jury, the public and high school students.

- **2015 - 2016 • Excellence Scholarship**

From Grenoble Alliance for Integrated Structural & Cell Biology.

Teaching

- **Oct. - Dec. 2018 • Laboratory training in biochemistry for second year students in the faculty of pharmacy and in the IUT of Dijon, France (31 H)**

- **February. 2019 • Laboratory training of the animal world organization course (dissection), for first year students in the faculty of science of Dijon, France (12 H)**

Congress organisation

- **December 2018 • PhD students day at "Centre des Sciences du Goût et de l'Alimentation"**

- **June 2018 • PhD students day at "Centre des Sciences du Goût et de l'Alimentation"**

- **June 2017 • "Forum des jeunes chercheurs"**

Popularization of sciences

One important aspect of research is to make it accessible to everybody. Therefore I got involved in the "Expérimentarium" network and I participated to different events.

- **May 2019 • "Expérimentarium" festival in Dole, France**

- **November 2018 • "Rencontrer les chercheurs" at "Centre des Sciences et du goût et de l'Alimentation", Dijon, France**

- **September • "La nuit des chercheurs Européenne", Besançon, France**

- **May 2018 • "VIVO! Entrez en nature" festival Bourgogne-Franche comté, France**

- **May 2018 • "Expérimentarium" festival in Rouen, France**

- **March 2018 • "Semaine du cerveau" at "Centre des Sciences et du Goût et de l'Alimentation", Dijon, France**

- **March 2018 • Open doors day at "Arts et métiers" ParisTech campus, Cluny, France**

- **October 2017 • "Improve the value of science in the general audience", French Drosophila meeting, Presqu'île de Giens, France**

ACQUIRED TECHNIQUES

- Behavioural assays: CAFE assay, Y-maze assay

- Expression localisation: Immunochemical labeling

- Single-taste sensilla electrophysiology

- Biomolecular: cloning, protein expression and purification

- Biophysical analysis of proteins: Circular dichroism (CD)

- Binding properties of proteins: Fluorescence-based binding assay

- Bioinformatic analysis

Languages

- **English • French • Arabic**