

Florent Figon, Ph.D.

florent.figon@univ-tours.fr florent.figon@gmail.com
Tel: +33 (0)2 47 36 69 81 Postdoctoral Researcher CNRS
ORCID: [0000-0002-6172-3865](https://orcid.org/0000-0002-6172-3865) Insect Biology Research Institute, UMR 7261,
<https://florent-figon.cygale.net/> CNRS–University of Tours, France

Education

- Sep 2017 – Aug 2020 **Ph.D. Student**, Biology
University of Tours, Insect Biology Research Institute, Tours, France
- Sep 2016 – Aug 2017 **Master of Science** (2nd year), Biology
École normale supérieure de Lyon, Lyon, France
- Sep 2013 – Jul 2014 **Teacher Diploma** (Agrégation de SV-STU), Biology and Geology
École normale supérieure de Lyon, Lyon, France
- Sep 2012 – Aug 2013 **Master of Science** (1st year), Biology
École normale supérieure de Lyon, Lyon, France
- Sep 2011 – Aug 2012 **Bachelor of Science** (3rd year), Biology
École normale supérieure de Lyon, Lyon, France
- Sep 2009 – Jun 2011 **Bachelor of Science** (1st and 2nd year), Biology and Geology
Lycée du Parc, Lyon, France

Research Experience

- Oct 2020 – present **Postdoctoral Researcher CNRS**
Physics and chemistry of insect olfaction
Insect Biology Research Institute, CNRS–University of Tours, Tours, France
- Sep 2017 – Aug 2020 **Ph.D. in Biology** (Supervisor: Prof. J. Casas)
Photobiochemistry and Cell Biology of Ommochromes: Implications in Color Change
University of Tours, Insect Biology Research Institute, Tours, France
- Jan 2020 – Jun 2020 **Co-supervisor** (with Prof. J. Casas)
Laurène Chevallier – M2 internship: Study of the Map butterfly polyphenism
University of Tours, Insect Biology Research Institute, Tours, France
- Jan 2017 – Jul 2017 **Lab Intern** (Supervisor: Dr. C. Delevoe)
Myosin VI and the WASH Complex Drive the Fission of Membrane to Export VAMP7 within Melanosomal Tubules
Curie Institute, UMR144 Cell Biology and Cancer, Paris, France
- Jan 2013 – Aug 2013 **Lab Intern** (Supervisor: Prof. E. Gaquerel)
Ethylene is a local modulator of jasmonate-dependent phenolamide accumulation during Manduca sexta herbivory in Nicotiana attenuata
Max Planck Institute for Chemical Ecology, Department of Molecular Ecology, Jena, Germany
- Jun 2012 – Aug 2012 **Lab Intern** (Supervisors: Prof. J. Casas and Dr. A. L. Llandres)
Mechanisms and molecular basis of colour change in a crab spider
University of Tours, Insect Biology Research Institute, Tours, France

Teaching Experience

- Sep 2017 – Aug 2020 **Teaching Assistant** (1st and 2nd year undergraduate students)
University of Tours, Genetics and Animal Biology Department, Tours,
France
182 h – Disciplines: Cell biology and Histology; Genetics
- May 2017 – Jun 2017 **Oral Examiner**
Lycée du Parc, Classe préparatoire BCPST, Lyon, France
- Sep 2014 – Jun 2015 **Oral Examiner**
Lycée du Parc, Classe préparatoire BCPST, Lyon, France

Non-academic Experience

- Aug 2015 – Mar 2016 **Editor-in-chief**
Lelivrescolaire.fr (middle school publisher), Lyon France
- Jun 2015 – Jul 2015 **Eco-volunteer**
Projects Abroad, Galapagos Islands, Ecuador
- Sep 2014 – Jun 2015 **Editorial Intern**
Lelivrescolaire.fr (middle school publisher), Lyon France

Grants, Scholarships and In-kinds

- Oct 2020 **Scientific Meeting Grant:** *The Company of Biologists* (\$1,051)
n°EA380 « The integrative biology of pigment organelles »
- Oct 2019 **Scientific Meeting Grant:** Divisions of the *Society for Integrative and Comparative Biology* and the *American Microscopical Society* (\$3,250)
- May 2019 **In-kinds:** Nanoscopium beamline at Synchrotron SOLEIL (\$61,125)
n°20190205 « The dynamics of chemical elements in ommochromosomes during reversible colour changes of crab spiders using hierarchical length-scale X-ray fluorescence at the Nanoscopium beamline »
- May 2018 **In-kinds:** Nanoscopium beamline at Synchrotron SOLEIL (\$61,125)
projet n°20180104 « Elemental composition of ommochrome-containing pigment organelles of invertebrates using hierarchical length-scale X-ray fluorescence at the Nanoscopium beamline »
- Sep 2017 **Doctoral scholarship** (3 years): École normale supérieure de Lyon (\$73,350)
- Sep 2011 **Scholarship** (4 years): École normale supérieure de Lyon (\$85,575)

Organizational Roles

- Jan 2021 **Symposium co-organizer** (with Prof. Jérôme Casas and Prof. Leila Deravi)
Society-Wide Symposium S7: The integrative biology of pigment organelles.
Virtual annual meeting of the *Society for Integrative and Comparative Biology*. <http://sicb.burkclients.com/meetings/2021/symposia/S7pigment.php>

Languages & Activities

Languages French, English, Spanish

Interests Guitar, Photography, Education, Management, Swimming

Journal Publications

Florent Figon, Jérôme Casas, Ilaria Ciofini, Carlo Adamo (2021). *Electronic Coupling in the Reduced State Lies at the Origin of Color Changes of Ommochromes*. *Dyes and Pigments*; **185**: 108661. DOI: [10.1016/j.dyepig.2020.108661](https://doi.org/10.1016/j.dyepig.2020.108661)

Florent Figon, Ian T. Baldwin, Emmanuel Gaquerel (2020). *Ethylene is a local modulator of jasmonate-dependent phenolamide accumulation during Manduca sexta herbivory in Nicotiana attenuata*. *Plant Cell and Environment*. 1–18. DOI: [10.1111/pce.13955](https://doi.org/10.1111/pce.13955)

Florent Figon, Thibaut Munsch, Cécile Croix, Marie-Claude Viaud-Massuard, Arnaud Lanoue, Jérôme Casas (2020). *Uncyclized xanthommatin is a key ommochrome intermediate in invertebrate coloration*. *Insect Biochemistry and Molecular Biology*; **124**: 103403. DOI: [10.1016/j.ibmb.2020.103403](https://doi.org/10.1016/j.ibmb.2020.103403)

Florent Figon, Jérôme Casas (2019). *Ommochromes in invertebrates: Biochemistry and cell biology*. *Biological Reviews*; **94**(1): 156–183. DOI: [10.1111/brv.12441](https://doi.org/10.1111/brv.12441)

Léa Ripoll, Xavier Heiligenstein, Ilse Hurbain, Lia Domingues, **Florent Figon**, Karl J. Petersen, Megan K. Dennis, Anne Houdusse, Michael S. Marks, Graça Raposo, Cédric Delevoye (2018). *Myosin VI and branched actin filaments mediate membrane constriction and fission of melanosomal tubule carriers*. *The Journal of Cell Biology*; **217**(8): 2709–2726. DOI: [10.1083/jcb.201709055](https://doi.org/10.1083/jcb.201709055)

Ana L. Llandres, **Florent Figon**, Jean-Philippe Christidès, Nicole Mandon, Jérôme Casas (2013). *Environmental and hormonal factors controlling reversible color change in crab spiders*. *Journal of Experimental Biology*; **216**(20): 3886–95. DOI: [10.1242/jeb.086470](https://doi.org/10.1242/jeb.086470)

Book Chapters

Florent Figon, Jérôme Casas (2018). *Morphological and Physiological Colour Changes in the Animal Kingdom*. eLS (eds: John Wiley & Sons, Ltd); Pages 1-11, ISBN: 9780470016176, DOI: [10.1002/9780470015902.a0028065](https://doi.org/10.1002/9780470015902.a0028065)

Léa Ripoll, **Florent Figon**, Cédric Delevoye (2018). *Mécanismes inter- et intracellulaires contrôlant la pigmentation des mélanocytes de la peau*. *Biologie cutanée CoBIP: fonctions normales et pathologiques de la barrière cutanée* (ed: M Haftek); Lyon, France: Matrix; Pages 4-28.

Peer Review

Biomolécules (1) and **Evolutionary Ecology** (1)

Scientific Communications

Florent Figon*, Ilse Hurbain, Xavier Heiligenstein, Sylvain Trépout, Kadda Medjoubi, Andrea Somogyi, Cédric Delevoye, Graça Raposo, Jérôme Casas (2021). Within-cell cycle of endolysosome-related pigment organelles in crab spiders leads to reversible color changes. Virtual annual meeting of the *Society for Integrative and Comparative Biology*. **Oral communication**.

Florent Figon*, Jérôme Casas*, Leila Deravi* (2021). Introduction to the Symposium: The integrative biology of pigment organelles. Virtual annual meeting of the *Society for Integrative and Comparative Biology*. **Oral communication**.

Florent Figon*, Thibaut Munsch, Cécile Croix, Marie-Claude Viaud-Massuard, Arnaud Lanoue et Jérôme Casas (2019). *Identification de la xanthommatine non cyclisée, un intermédiaire clé de la biosynthèse pigmentaire des ommochromes chez les invertébrés*. 32nd Biotechnocentre symposium, Seillac, France. **Best oral communication award**.

Florent Figon*, Jérôme Casas (2019). *Color-changing Crab Spiders: Classical Ecological Model, New Cell Biology Tools*. UMR 144 Seminar, Institut Curie, Paris, France. **Oral communication**.

Florent Figon*, Teresita Insausti, Jérôme Casas (2018). *How the Ommochromasome Life Cycle of Colour-Changing Crab Spiders Can Enlighten Melanosome Catabolism*. 21st annual meeting of the European Society for Pigment Cell Research, Rennes, France. **Flash-talk and poster**.

Science Communication (in French)

Thibault Lorin, **Florent Figon** (2020). *Adaptive functions and evolution of colors in animals*.

<https://planet-vie.ens.fr/thematiques/ecologie/rerelations-interspecifiques/fonctions-adaptatives-et-evolution-des-couleurs-des>. Planet-Vie (ENS).

Florent Figon, Thibault Lorin (2019). *Animal coloration: Physical and chemical bases*. <https://planet-vie.ens.fr/thematiques/cellules-et-molecules/biophysique/la-coloration-des-animaux-elements-de-physique-et-de>. Planet-Vie (ENS).

Florent Figon (2019). *Erosion, processes and consequences*. Sciences de la vie et de la Terre 2nd, collection 2019 (eds: Lelivrescolaire.fr); Pages 163–178. <https://www.lolivrescolaire.fr/page/7184122>

Florent Figon (2019). *Erosion and human activities*. Sciences de la vie et de la Terre, lycée 2nd, collection 2019 (eds: Lelivrescolaire.fr); Pages 193–205. <https://www.lolivrescolaire.fr/page/7255496>

Florent Figon (2017). *Biodiversity evolution*. Sciences de la vie et de la Terre, collège 3^e, collection 2017 (eds: Lelivrescolaire.fr); Pages 131–145. <https://www.lolivrescolaire.fr/manuel/1339497/svt-3e-2017/chapitre/1339647/l-evolution-de-la-biodiversite/page/1341398/l-evolution-de-la-biodiversite/lecon>

Florent Figon, Thibault Lorin (2017). *Where are Galapagos iguanas coming from?* *Espèces*; **24**: 12–19. Available on [Planet-Terre](#) and [Planet-Vie](#).

Networks

ORCID: [0000-0002-6172-3865](https://orcid.org/0000-0002-6172-3865)

HAL: [florent-figon](https://hal.archives-ouvertes.fr/florent-figon)

ResearcherID/Publons: [U-6880-2019](https://publons.com/urn:ri:pii:U-6880-2019)

[Lab page](#) - [Google Scholar](#) – [ResearchGate](#)