

Curriculum Vitae

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Birth: 9 April 1979 in Sion (CH)
Married, two children
Swiss



Summary

After 12 years spent on fundamental research (neuro-genetics) in which I gathered skills in experimental design, team leading and student teaching, I got most interested in open science and research reproducibility as well as the digital tools helping scientists to achieve it. I would like to apply these novel knowledge while doing research and mentoring students.

Research activities

- 2017 - present Postdoctoral fellow, HU (**Berlin**, Germany), by Prof. Y. Winter
Analysing multidimensional dataset: the homecagescan case.
- 2015 - 2016 Postdoctoral fellow, HU & Charité (**Berlin**, Germany), by Prof. Y. Winter
Animal core facility director and project manager.
- 2014 - 2015 Postdoctoral fellow, HU & Charité (**Berlin**, Germany), by Prof. Y. Winter
working on Phenobase.
- 2009 -2013 Postdoctoral fellow, FU (**Berlin**, Germany), by Prof. B. Brembs
working on "the what and where of operant learning in *Drosophila*".
- 2007-2008 Postdoctoral fellow, ESPCI (**Paris**, France), by Dr. T. Preat
working on "appetitive learning in *Drosophila*".

Commercial activities

- 2016-present Freelance scientist,
Animal core facility (Charité): organisation lead, data analysis in R, Phenobase
(Exist, HU): literature curation.
- 2012-present Founder and CEO of Drososhare GmbH (Berlin, Germany), facilitating fruit fly
transactions between scientists

Education

- 2016 FELASA B. HU Berlin
- 2013 Moderation & management (Continuing Education), FU Berlin/Artop.
- 2006 PhD in Biology, University of Fribourg (**Fribourg**, Switzerland).
PhD dissertation: "The chemosensory system of *Drosophila* larvae: neuroanatomy and behaviour" Thesis director: Prof. R.F Stocker

2002 Diploma in Biology, University of Fribourg (**Fribourg**, Switzerland)
1998 "Maturité fédérale type C" (scientific subsection), in the "Collège de la royale
 Abbaye de St. Maurice"

Languages

French (mother tongue), English (fluent), German (fluent), Spanish (basics).

Research output

8 research papers (7 first author), 3 reviews, 1 Scienceopen collection, 3 Open source software
(2 main author), Meeting Presentations > 25
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<https://github.com/jcolomb>

Supervision of student

2010-2014 Co-supervisor of the PhD student Christine Damrau (with Dr. B.Brembs) on
 the role of octopamine in reward, motivation and motor control in *Drosophila*.
2008 Co-supervisor of the PhD student Séverine Trannoy (with Dr. G. Isabel and
 Dr. N. Gervasi) on the role of dopamine in appetitive learning consolidation in
 Drosophila.
2005 Co-supervisor of the diploma work of Claire Huguenin (with Dr. A. Ramaekers)
 on the role of NO in olfactory discrimination in *Drosophila* larvae.

Teaching experience

2016 Animal models of neuropathy, (master student, 2x2h lecture, organisation)

2012 Genetik (bachelor student, 2 x 3 h. lecture, 2x 1h. seminar)
2012 Neurogenetik. (master student, 2 x 2 h. lecture, 2x 1h. seminar)
2011 Practical course neurobiology. (7 x 4 h., Practical course supervision)
2011 Entwicklung der Insekten [Insect development] (2 h. lecture)

2006 Fluorescence and Confocal Microscopy (master student, 3h. lecture)
2003-2006 Studying behavior. (master student, 2 h. lecture)
2003-2005 Developmental- and Neurogenetics (master student, 2 h. lecture).

Computer skills

Organisation: Outlook, Access, labfolder; *Publishing:* L^AT_EX, Office; html, figshare; *Image processing:* Photoshop, Illustrator, Image J; *Programming and data analysis:* R, Rmarkdown, shiny, Git, Labview

Other tasks

Organisation of the Berlin Open Science meetup:
Part of the march for science Berlin Orga team:
Creation of the T. Preat's and R.F. Stocker's lab website.
Co-director in the theater group "les apostrophes" in 2006

RESEARCH PRODUCTS

Open source Software

- (2011-2013) CeTrAn 1.4 to 4.0, developed on Github (<https://github.com/jcolomb/CeTrAn>). Used for more than three research papers.
- (2016) Viewer data concatenator (shiny app).
- (2013-2016) Collaborating on Rfigshare and Rflybase (<https://github.com/ropensci/rfigshare>).

Peer review publications

Five most important publications:

- (2016). **Julien Colomb** and Björn Brembs.
“PKC in motorneurons underlies self-learning, a form of motor learning in *Drosophila*”
PeerJ (e1971).
cited 3 times
- (2014). **Julien Colomb** and Björn Brembs.
“Sub-strains of *Drosophila* Canton-S differ markedly in their locomotor behavior”.
F1000RESEARCH (3:176).
cited 15 times
- (2009). **Julien Colomb**, Laure Kaiser, Marie-Ange Chabaud, Thomas Preat.
“Parametric and genetic analysis of *Drosophila* appetitive long-term memory and sugar motivation”
Genes Brain and Behaviour (8 (4): 407-415).
cited 52 times
- (2007). **Julien Colomb**, Nicola Grillenzoni, Ariane Ramaekers, and Reinhard F. Stocker.
“Architecture of the primary taste center of *Drosophila melanogaster* larvae”.
J. comp. neurol. (502: 834-847).
cited 72 times
- (2007). **Julien Colomb**, Nicola Grillenzoni, Reinhard F. Stocker, and Ariane Ramaekers.
“Complex behavioural changes after odour exposure in *Drosophila* larva”.
Anim. Behav. (73 (4): 579-85).
cited 13 times

Other Publications

- (In revision). Christine Damrau, Naoko Toshima, Teiichi Tanimura, Björn Brembs
Julien Colomb.

"Octopamine and Tyramine contribute separately to the counter-regulatory response to sugar deficit in *Drosophila*." *Frontiers*

- (2014). Ezequiel Mendoza, **Julien Colomb**, Jürgen Rybak, Hans-Joachim Pflüger, Troy Zars, Constance Scharff, and Björn Brembs.
"Drosophila FoxP mutants are deficient in operant self-learning". *Plos One* (9(6): e100648).
- (2012). **Julien Colomb**, Lutz Reiter, Jędrzej Blaszkiewicz, Jan Wessnitzer and Björn Brembs.
"Open Source Tracking and Analysis of Adult *Drosophila* Locomotion in Buridan's Paradigm with and without Visual Targets". *Plos One* (7(8): e42247).
- (2010). **Julien Colomb**, Björn Brembs
"biology of psychology: "simple conditioning"" *Communicative and Integrative Biology* (3 (2): 142-145).
- (2008). **Julien Colomb**
"Discriminative learning, learning generalization and masking tests as three strategies to assess olfactory discrimination." *Animal Behaviour: New Research* 185-192
- (2007). **Julien Colomb***, Rüdiger Bader*, Bettina Pankratz, Anne Schröck, Reinhard F. Stocker, and Michael J. Pankratz.
"Genetic dissection of a neural circuit underlying feeding behavior in *Drosophila*: distinct morphology of single *hugin* expressing neurons". *J. comp. neurol.* (502: 848-856).
* the two authors participated equally to this work.
- (2007). **Julien Colomb**, Reinhard F. Stocker
"Combined rather than separate pathway for hedonic and sensory aspects of taste in *Drosophila* larvae." *FLY* (1 (4): 232-234).

Meeting presentations (4 most representative)

- 2016 Faster and more reproducible science: Open Science. ORAL PRESENTATION at the neurofly meeting, Creta, Greece.
- 2008 New insight into appetitive Long term memory in *Drosophila*. POSTER PRESENTATION at the FENS Forum, Geneva, Switzerland.
- 2006 Sub-regions in the primary taste center of *Drosophila* larvae. ORAL PRESENTATION at the 11th European *Drosophila* neurobiology Conference, Leuven, Belgium
Learning by odor exposure in agar plate. ORAL PRESENTATION at the behavioural neurobiology of *Drosophila* larvae meeting, Würzburg, Germany.
- 2002 Functional studies of the chemosensory system of the *Drosophila* larva using a new tool: the GAL4 / UAS-shi^{ts} system. ORAL PRESENTATION at the Swiss *Drosophila* meeting, Basel, Switzerland.