

Motivation letter

I hereby apply for the position Scientific Manager supporting the RDA Europe 4.0 project

Dear Dr. Schmidt,

I am a former neurobiologist whose interest in the optimisation of the scientific process has brought to promote open science and open data. I am an enthusiastic and pragmatic science manager, who advocates that efficacy and efficiency goes hand in hand with being more open and sharing data in interoperable formats. Owing to my education, my skill set, my goal-oriented and practical thinking, as well as my zeal, I believe I am qualified for the position of scientific manager for the RDA Europe 4.0 project and I would be thrilled to spent my energy for assuring the success of the RDA projects.

My participation to the course "Moderation & management" in 2013 allowed me to consolidate the management experience gathered doing research (Phd in biology in 2006, 10 years post-doctoral research, supervision of 2 PhD students). I applied this knowledge in science management while working for the "Forschungsgruppe Biogenic amines" (FOR 1363) and during my time as the director of the AOCF, which involved a lot of coordination between the different preclinical researchers and our team. I have been running multiple projects in parallel for the last years (Drososhare, scientific projects, meetups organisation, teaching open science, open source programming, ...) and I have learned ways to keep up with all the organisational tasks and the different communication channels. My abilities to rapidly analyse problematics, find creative solutions and implement them has been highly valued by my peers, while my talents in successful meeting organisation and efficient project management, was an asset for the team.

I have been advocating for open science for years, both on theoretical (see <https://f1000research.com/articles/6-1151/v2>) and practical levels (living figure, publication of data, code and computer readable material and method section, open source software). My current project is an open science project aiming at creating a repository for mice home cage monitoring data using OSF, zenodo and github (https://github.com/jcolomb/HCS_analysis). I did advocate for open science principles in two Drosophila neurobiology specific conference in 2004 and 2006, where I was selected for oral presentations twice (see <https://www.slideshare.net/JulienColomb/p-02-2014>).

I believe the institutional, grassroots and commercial initiatives shall try to coordinate and modulate their efforts to develop the science and science communication of the future. Accordingly, I have have been pushing the development of open science communities (open science meetups series, mozilla science lab), networking in the startup scene for (open) science (labfolder, digital science, knowledge unlatched) and learning about the activities at the institutional level (OpenAIRE, FOSTER, FORCE11, TIB). I hope you will give me the opportunity to achieve a serious rise in the amount and quality of shared research data while working for the RDA Europe 4.0 project.

Dr. Julien Colomb

Referees:

Prof. York Winter, Berlin, york.winter@charite.de

Prof. Bjoern Brembs, Regensburg, bjoern@brembs.net

Curriculum Vitae

Julien COLOMB, PhD in Biology
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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 to bring open science principles forward.

Research activities

- 2017 - present Postdoctoral fellow, HU (**Berlin**, Germany), by Prof. Y. Winter
Analysing mulitdimensional 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 & Charite (**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: neu-
roanatomy 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
<https://orcid.org/0000-0002-3127-5520>
<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, overleaf, markdown, html, figshare; *Image processing:* Photoshop, Illustrator, Image J; *Programming and data analysis:* R, Rmarkdown, shiny, Git, Labview; *Collaborative working:* Github, redmine

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.
- (2016-2017) Viewer data concatenator and flystockcleaner (shiny apps).
- (2013-2017) Collaborating on osfR, Rfigshare and Rflybase (on github).

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.