Motivation letter

I hereby apply for the positions of research assistant, Kennziffer 31/2017,

I used to work in fundamental research (neuro-genetics). In 2013, the boss of my lab moved to south Germany and let me in charge of the ongoing project, which involved one PhD student and one TA. At the end of the project in 2014, I left the academic race and worked on different projects at the HU, (projects involving an interaction with students and engineers, as well as a practical course organisation). I gathered more experience in scientific project management, and science communication.

During these last 3 years, my interest in open science grew steadily. I launched a "meetup group" (i.e. a group of interested people meeting about once a month) two years ago. The discussion I had during these meetings, brought me to think that the most effective strategy to foster open science in the scientific community is to teach the non-digital and digital skills needed to early career scientists. I am therefore preparing such a course and collaborating on the creation of a MOOC (massive online open course) for open science.

Most recently, I engaged myself in the organisation of the march for science in Berlin. Due to time constrains, my involvement was mostly restricted to providing ideas, helping with the logistics and social media as well as bringing positive thinking. I had the chance to meet great science communicator in the team, as well as discuss the challenges faced by our societies in the communication of scientific results and the scientific literacy of the citizens.

I have therefore a large knowledge of the open science and science communication topics, while I have been showing my capacity and interest to create pragmatic solutions to these problems. This position would allow me to dedicate myself to the ongoing projects on open science and science communication, while giving me the opportunity to be in closer contact with citizen science projects. Although I have not followed a social science curriculum, I think my knowledge of the scientific process and the open science movement will be sufficient to cope with the scientific challenges inherent to this position.

I am looking forward to meet you in person, Dr. Julien Colomb

Links:
Teaching open science: `https://reproducibleresearch.wordpress.com/`
Open science meetup: `http://www.meetup.com/Berlin-Open-Science-Meetup/`
March for science, orga team: `http://marchforscienceberlin.de/wer-wir-sind`
Scientific achievements: `http://orcid.org/0000-0002-3127-5520`

Referees:
Prof. Bjoern Brembs, bjoern@brembs.net

Curriculum Vitae

Julien COLOMB, PhD in Biology
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https://github.com/jcolomb
http://orcid.org/0000-0002-3127-5520

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 then gathered extra experience in business development through the foundation of Drososhare, which turn out not to be sustainable. Since the birth of my second child, i am trying to make a living out of freelance work as data analyst and teaching reproducible research.

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

Non-commercial activities

2015- present	Organisation of the Berlin Open Science meetup: - Discussion and brainstorming on open science themes (Reproducible Research, Open Access, peer review) - Organisation of the open con satellite
2015- present	Part of the march for science Berlin Orga team: we organised a protest in 2017 (11000 people) and are using this momentum to make bridges between science and society

Research activities

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*".

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

https://orcid.org/0000-0002-3127-5520. 8 research papers (7 first author), 3 reviews, 1 Scienceopen collection. meeting presentation > 26
https://github.com/jcolomb. 3 Open source software (2 main author)

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, Zoho; *Publishing:* LaTeX, Office; html; *Image processing:* Photoshop, Illustrator, Image J; *Programming:* R (advanced), Git, Labview

Other tasks

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 1 times
- (2014). **Julien Colomb** and Björn Brembs.
"Sub-strains of Drosophila Canton-S differ markedly in their locomotor behavior". F1000RESEARCH (3:176).
cited 10 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 35 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 43 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 9 times

Other Publications

- (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).
cited 7-8 times

- (2012). **Julien Colomb**, Lutz Reiter, Jedrzej 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).
cited 9 times

- (2010). **Julien Colomb**, Björn Brembs
"biology of psychology: "simple conditioning"" Communicative and Integrative Biology (3 (2): 142-145).
cited 10 times

- (2008). **Julien Colomb**
"Discriminative learning, learning generalization and masking tests as three strategies to assess olfactory discrimination." Animal Behaviour: New Research 185-192
cited 0 times

- (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.
cited 48 times

- (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).
cited 4 times

Meeting presentations (6 most representative)

2016 Faster and more reproducible science: Open Science. ORAL PRESENTATION at the neurofly meeting, Creta, Greece.

2013 Genetic dissection of octopamine action in reward-related behavior and motor control in Drosophila (last author) POSTER at the SFN meeting, San Diego, USA

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

2004 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.