

Application for the job: Scientist (systems biology) & business developer

Since my profile on linkedin is far from complete, I would encourage you to read this letter. Indeed, I may be the perfect candidate for your position: I have 10 years experience in fundamental biology, good knowledge in computer science and last but not least, I have written my own business plan while building my startup. With the development of open science, open data and OA publishing, the academic life sciences business model is in mutation. Your company seem to be able to play a significant role in these changes.

I am a neurogeneticist and I started to use R for my statistical analysis about seven years ago. More recently, I used R to analyze more complex data: trajectory of walking animals; a work that was published in 2012 (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0042247>). More recently, I worked on the automatic publishing of data in R: On figshare, you can access the learning data I uploaded directly during the data analysis (pre-analysed data here : <http://dx.doi.org/10.6084/m9.figshare.830423>). I am thus able to work with R to analyse complex data types. I am also quite good with statistical analysis, although I did not work with omics data so far.

For the last two years, I have been planning and building Drososhare GmbH, a company which aims at facilitating exchange of material between scientists, in particular the sharing of transgenic Drosophila flies. My business plan made it to the 15th place (over 62) in the BPW last year, although it had been written in less than one month. I am participating in the contest again this year (I modified the market size, and therefore the whole plan) and have been following the different workshops proposed by the BPW and the Science4Life contests. I have therefore some experience in business planning, market analysis and marketing strategies.

I am between jobs, since my grant application was refused last november. I am looking for a job in different sectors: academic science as a post doc, a job in the industry as well as Drososhare CEO: I am trying to find investors for my company to finance its development. I would be very interested in talking to your team about your business. As I explained during my panton fellowship application (<http://vimeo.com/72518561>), there is a need for private-company solutions dealing with the problems of data analysis and data storage (once scientists are united on the metadata format they want to have).

If I would not perfectly fit this position, it might be fruitful to discuss the development of a new branch in your business model, where my qualifications would be best used ?

Sincerely yours,

Dr. Julien Colomb

Curriculum Vitae

Julien COLOMB, PhD

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Birth: 9 April 1979 in Sion (CH)

Single
Swiss

Commercial activities

2012-present Founder and CEO of Drososhare GmbH (Berlin, Germany),
a company aiming to facilitate fly stock exchanges between scientists.

Research activities

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

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).

Computer skills

Publishing: L^AT_EX, Office; html; Image processing: Photoshop, Illustrator, Image J;
Programming: Labview, R (freeware for statistics), Git

Research output metrics

h-index =5, RG score = 16.34 (>60%), Meeting Presentations = 23

8 research papers (5 first author), 2 Open source software (1 main author)

Supervision of student

- 2010-present Co-supervisor of the PhD student Christine Damrau (with Dr. B. Brems) 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

- 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).

Approved grants

- 2010 DFG Forschungsgruppe "biogenic amines in insects", cowritten with Dr. Brems.
2009 SNF for advanced researchers: PA00P3-124141 - "The what and where of operant learning in *Drosophila*"
2007 SNF for prospective researchers: PBFR33-116951 - "Memory phases of reward learning in *Drosophila melanogaster*"

Organization of conferences

- 2004 Co-organizer of a PhD meeting, in Cerniat. (30 participants)

Reviewer for the following journals

PRE-PUBLICATION: Current Biology, Proceedings of the royal society B, The Journal of Experimental Biology, learning and memory, PLoS one, JEAB

POST-PUBLICATION: Associate member of faculty of 1000

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

Cashier of and actor in the theater group "les apostrophes" in 2002-2005.

RESEARCH PRODUCTS

Open source Software

- (2011-2013) CeTrAn 1.4 to 4.0, available at www.buridan.sourceforge.net, developed on Github (<https://github.com/jcolomb/CeTrAn>). Used for at least two research papers.
- (2013) Collaborating on Rfigshare (<https://github.com/ropensci/rfigshare>).

Peer review publications

Five most important publications:

- (2012). **Julien Colomb**, Lutz Reiter, Jędrzej Blaszkiwicz, 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).
- (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 22 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 35 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 33 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 8 times

Other Publications

- (2010). **Julien Colomb**, Björn Brembs
"biology of psychology: "simple conditioning"" Communicative and Integrative Biology (3

(2): 142-145).
cited 5 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**, Reinhard F. Stocker
“Combined rather than separate pathway for hedonic and sensory aspects of taste in *Drosophila* larvae.” *FLY* (1 (4): 232-234).
cited 2 times

Meeting presentations (seventh most representative)

- 2012 PKC and DFoxP are necessary for operant self-learning.
POSTER PRESENTATION at the FENS meeting, Barcelona, Spain.
- 2011 Hide if you can't fly !?
POSTER PRESENTATION at the GNS meeting, Göttingen, Germany.
- 2010 The what and where of operant learning in *Drosophila*.
POSTER PRESENTATION at the SNF 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.