

Quentin Geissmann

quentin.geissmann13@imperial.ac.uk

Date of Birth: 27th December 1986

Address: 38 Woodleigh gardens, SW16 2SY, London, UK

Nationality: French

Research Experience

2014-2018	<p><i>PhD student.</i> Department of Life Sciences, Imperial College London. High-throughput Acquisition, Analysis and Alteration of Sleep in <i>Drosophila</i> (Dr. G. Gilestro).</p> <ul style="list-style-type: none">• Statistical analysis and modelling of large behavioural data-sets• Computer-aided design, 3d printing and electronics
2010-2013	<p><i>Research technician.</i> Department of Animal and Plant Sciences, Sheffield University. Stress, Resistance and Evolution of Bacteria Facing the Insect Immune System (Prof. J. Rolff).</p> <ul style="list-style-type: none">• Image processing, computer vision and machine learning• Experimental microbiology and flow cytometry• Bioinformatics
2010 (six months)	<p><i>Master's placement.</i> Global Health Institute, EPFL (Switzerland). Molecular and Functional Characterisation of the Peptidoglycan Recognition Protein LC (PGRP-LC) in <i>Drosophila</i> immunity (Dr. C. Neyen, Prof. B. Lemaitre).</p> <ul style="list-style-type: none">• Confocal microscopy• Experimental genetics• Molecular biology
2009 (five months)	<p><i>Master's placement.</i> UMR 1272: Insect Physiology, Signalling and Communication, INRA Versailles. Electrophysiological Study of Olfactory Receptor Neurones of Male <i>Spodoptera littoralis</i> in Response to a Female Pheromone (Dr. P. Lucas, PI. S. Anton).</p> <ul style="list-style-type: none">• Electrophysiological data analysis• Single sensillum recording

Education

2013-2014	<i>MSc. Bioinformatics and Theoretical Systems Biology</i> , distinction. Imperial College, London.
2008-2010	<i>MSc. Integrative Biology and Physiology</i> , equivalent distinction. Specialist modules: Molecular phylogenetics" and "Mathematical modelling in biology". Université Pierre et Marie Curie, Paris.
2005-2008	<i>BSc. Biology of Organisms</i> , equivalent first. Specialist modules: "Behavioural biology", "Ecological interactions". Université de Bourgogne, Dijon.

Scientific Computing and Programming¹

In addition to my primary interest in biology, I have extensive experience in computer programming and have developed several scientific applications in various languages:

R	<i>Highly competent:</i> base functions, statistics, algebra, data visualisation and package development.
python	<i>Highly competent:</i> scientific computing, package development and web applications.
C/C++	<i>Highly competent:</i> OpenCV (image processing & machine learning), OpenMP and standard library.
System	<i>Highly competent:</i> GNU/Linux.
Web	<i>Competent:</i> javascript and HTML/CSS.

Teaching, Supervision and Outreach

2017-2018	<i>Statistics in R</i> to undergraduate students, teaching assistant, 12h/year.
2017	Public engagement at Imperial College festival: interactive presentation of ethomics, 2h.
2016-2017	Lecture seminar: “High-throughput analysis of sleep behaviour” for the Applied Biosciences and Biotechnology MSc, 2h/year.
2014-2017	<i>Python programming</i> for the Bioinformatics and Theoretical Systems Biology MSc, teaching assistant, 12h/year.
2014-2018	Supervision of masters and undergraduate students, on average three students per year.
2013	<i>Unix tools for biologist</i> , at Next Generation Sequencing workshop, Sheffield University, 3h.

Publications²

2017	Q. Geissmann , L. G. Rodriguez, E. J. Beckwith, A. S. French, A. R. Jamasb, and G. F. Gilestro. Ethoscopes: An open platform for high-throughput ethomics. <i>PLoS Biology</i> .
2017	E. J. Beckwith, Q. Geissmann , A. S. French, and G. F. Gilestro. Regulation of sleep homeostasis by sexual arousal. <i>eLife</i> .
2016	S. Fan, Q. Geissmann ³ , E. Lakatos, S. Lukauskas, A. Ale, A. C. Babbie, P. D. W. Kirk, and M. P. H. Stumpf. MEANS: python package for Moment Expansion Approximation, inference and Simulation. <i>Bioinformatics</i> .
2014	L. Duvaux, Q. Geissmann , K. Gharbi, J.-J. Zhou, J. Ferrari, C. M. Smadja, and R. K. Butlin. Dynamics of Copy Number Variation in Host Races of the Pea Aphid. <i>Mol Biol Evol</i> .
2013	Q. Geissmann . OpenCFU, a New Free and Open-Source Software to Count Cell Colonies and Other Circular Objects. <i>PLoS ONE</i> .

Significant Posters and Presentations

2017	Poster: Q. Geissmann , L. G. Rodriguez, E. J. Beckwith, and G. F. Gilestro. Is sleep deprivation really lethal to flies? <i>European Drosophila Research Conference, London</i> .
2017	Invited speaker: Is sleep deprivation really lethal to flies? <i>Champalimaud Centre for the Unknown, Lisboa</i> .
2017	Poster: Q. Geissmann , L. G. Rodriguez, E. J. Beckwith, and G. F. Gilestro. Next generation activity monitoring sheds new light on <i>Drosophila</i> sleep. <i>UK clock club, Oxford</i> .
2015	Invited speaker: High throughput quantification of sleep in fruit fly. <i>MRC translational innovation mixers, London</i> .

¹Most of my contributions are open-source and publicly available (see <http://github.com/qgeissmann>)

²Detailed list, including links and citations on my scholar profile (<https://scholar.google.co.uk/citations?user=sgSsPvUAAAAAJ>)

³Co-first author