

Short CV

Christian Braendle

Education

2000 – 2003	Ph.D. (University of Cambridge & Princeton University)
1999	M.Phil. (University of Cambridge)
1995 – 1998	B.Sc. (University of Basel)

Employment

2009 – present	Group Leader (CNRS), Institut de Biologie Valrose, Nice
2008	Postdoc, Centre d'Immunologie Luminy, Marseille
2004 – 2007	Postdoc, Institut Jacques Monod, Paris

Awards

2010	Prize of the Schlumberger Foundation (FSER)
2008	ATIP Jeunes Chercheurs (CNRS)

Professional Service

Editorial Boards

2014 – present	Review Editor <i>Evolutionary Developmental Biology</i> (<i>Frontiers in Ecology & Evolution</i>)
2012 – present	Review Editor <i>Journal of Evolutionary Biology</i>
2011 – present	Academic Editor <i>PLoS ONE</i>

Reviewer for funding agencies

Agence Nationale de la Recherche France (ANR) , Austrian Academy of Sciences ,
Biotechnology and Biological Sciences Research Council UK (BBSRC), Boehringer Ingelheim
Fonds, Germany, British Ecological Society, Czech Science Foundation, Leverhume Trust
UK, Human Frontiers Science Program (HFSP), National Science Center Poland, National
Science Foundation USA, Natural Environment Research Council (NERC) UK, Netherlands
Organization for Scientific Research

Reviewer for Journals

*Animal Behaviour, Basic and Applied Ecology, BioEssays, Biology Letters, Biological
Reviews, BMC Biology, BMC Ecology, BMC Evolutionary Biology, BMC Genomics, BMC
Microbiology, Cell Reports, Communicative & Integrative Biology, Current Biology,
Development, Ecological Entomology, Ecology & Evolution, eLIFE, European Journal of
Entomology, Evolution, Evolution and Development, Evolutionary Ecology, Ethology,
F1000Research, Frontiers in Zoology, G3 (Genes, Genomes, Genetics), Gene, Genetics,
Heredity, Insectes Sociaux, Integrative & Comparative Biology, Journal of Agricultural Science
& Technology, Journal of Applied Entomology, Journal of Evolutionary Biology, Journal of
Experimental Biology, Journal of Insect Physiology, Journal of Insect Science, Molecular
Biology and Evolution, Molecular Ecology, Nature Communications, Nature Chemical Biology,
Nature Protocols, Oecologia, Philosophical Transactions Royal Society B, Proceedings Royal
Society B, PLoS One, PLoS Pathogens, Scientific Reports, Trends in Genetics, Worm,
Zoological Studies, Zoomorphology*

Publications

- Grimbert S & Vargas Velazquez AM & **Braendle C** 2018 Nutrient deprivation modulates EGF-Ras-MAPK pathway activity via TOR during *C. elegans* vulval induction. *BiorXiv*
- Frézal L, Demoinet E, **Braendle C**, Miska E & Félix MA 2018 Natural genetic variation in a multigenerational phenotype in *C. elegans*. *Current Biology* (in press)
- Ferrari C, Salle R, Callemeyn-Torre N, Jovelin R, Cutter AD* & **Braendle C*** 2017 Ephemeral-habitat colonization and neotropical species richness of *Caenorhabditis* nematodes. *BMC Ecology*. <http://doi.org/10.1186/s12898-017-0150-z> *corresponding authors
- Ludewig AH, Gimond C, Judkins JJ, Thornton S, Micikas RJ, Döring F, Antebi A, **Braendle C** & Schroeder FC 2017 Larval crowding accelerates *C. elegans* development and reduces lifespan. *PLoS Genetics*, e1006717.
- Vielle A, Callemeyn N, Gimond C, Pouillet N, Gray JC & Cutter AD & **Braendle C** 2016 Convergent evolution of sperm gigantism and the developmental origins of sperm size variability in *Caenorhabditis* nematodes. *Evolution* 70: 2485-2503.
- Pouillet N, Vielle A, Gimond C, Carvalho S, Teotonio H* & **Braendle C*** 2016 Complex heterochrony underlies the evolution of hermaphrodite sex allocation in experimental *C. elegans* populations. *Evolution* 70: 2357-2369. *corresponding authors (recommended by *Faculty 1000*)
- Grimbert S, Tietze K, Barkoulas M, Sternberg PW, Félix MA & **Braendle C** 2016 Anchor cell signaling and vulval precursor cell positioning establish a reproducible spatial context during *C. elegans* vulval induction. *Developmental Biology* 416: 123-35. (recommended by *Faculty 1000*)
- Samuel BS, Rowedder H, **Braendle C**, Félix MA & Ruvkun G 2016 *Caenorhabditis elegans* responses to bacteria from its natural habitats. *Proceedings of the National Academy of Sciences USA* 113: E3941-E3949.
- Cook DC, Zdraljevic S, Tanny RE, Seo B, Riccardi DD, Noble LM, Rockman MV, Alkema MJ, **Braendle C**, Kammenga JE, Wang J, Kruglyak L, Félix MA, Lee J & Andersen EC 2016 The genetic basis of natural variation in *C. elegans* telomere length. *Genetics* 204: 371-383.
- Pouillet N, Vielle A, Gimond C, Ferrari C & **Braendle C** 2015 Evolutionarily divergent thermal sensitivity of germline development and fertility in hermaphroditic *Caenorhabditis* nematodes. *Evolution & Development* 17: 380-397.
- Braendle C** & Teotonio H 2015 *Caenorhabditis* nematodes as model organisms to study trait variation and its evolution (workshop report). *Worm* 4: e1021109.
- Pouillet N & **Braendle C** 2015 Sampling and isolation of *C. elegans* from the natural habitat. In: *C. elegans: Methods and Applications* (Editors: Biron D & Haspel G), Springer, New York, USA. 1327:221-9. doi: 10.1007/978-1-4939-2842-2_16.
- Grimbert S & **Braendle C** 2014 Cryptic genetic variation uncovers evolution of environmentally sensitive parameters in *Caenorhabditis* vulval development. *Evolution & Development*. 16: 278-291.
- Cutter AD, **Braendle C** & Félix MA 2014 A streamlined system for species diagnosis in *Caenorhabditis* (Nematoda: Rhabditidae) with name designations for 15 distinct biological species. *PLoS ONE* e94723.
- Gimond C, Jovelin R, Han S, Ferrari C, Cutter AD* & **Braendle C*** 2013 Outbreeding depression with low genetic variation in selfing *Caenorhabditis* nematodes. *Evolution*, 67: 3087-3101. *corresponding authors

- Félix MA, Jovelín R, Ferrari C, Han S, Cho YR, Andersen EC, Cutter AD & **Braendle C** 2013 Species richness, distribution and genetic diversity of *Caenorhabditis* nematodes in a remote tropical rainforest. *BMC Evolutionary Biology*, 13:10.
- Braendle C** 2012 Pheromones: Evolving language of chemical communication in nematodes. *Current Biology*, 22: R294-296.
- Kiontke K, Félix MA, Ailion M, Rockman MV, **Braendle C**, Penigault JB & Fitch DHA 2011 A phylogeny and molecular barcodes for *Caenorhabditis*, with numerous new species from rotting fruits. *BMC Evolutionary Biology*, 11: 339 (recommended by *Faculty 1000*)
- Braendle C**, Heyland A & Flatt T 2011 Integrating mechanistic and evolutionary analysis of life history variation. In: Mechanisms of life history evolution (Editors: Flatt T & Heyland A). Oxford University Press, Oxford, UK.
- Félix MA* & **Braendle C*** 2010 The natural history of *Caenorhabditis elegans*. *Current Biology*, 20: R965-R969. *corresponding authors (recommended by *Faculty 1000*)
- Braendle C***, Baer C & Félix MA 2010 Bias and evolution of the mutationally accessible phenotypic space in a developmental system. *PLoS Genetics*, e1000877. *corresponding author (recommended by *Faculty 1000*)
- Braendle C*** & Félix MA 2009 The other side of phenotypic plasticity: a developmental system that generates an invariant phenotype despite environmental variation *Journal of Biosciences*, 34: 543-551. *corresponding author
- Braendle C*** & Félix MA* 2008 Plasticity and errors of a robust developmental system in different environments. *Developmental Cell*, 15: 714-724.*corresponding authors (recommended by *Faculty 1000*)
- Braendle C***, Milloz J & Félix MA 2008 Mechanisms and evolution of environmental responses in *Caenorhabditis elegans*. *Current Topics in Developmental Biology* 80: 171-207. *corresponding author
- Braendle C*** & Flatt T 2006 A role for genetic accommodation in evolution? *BioEssays* 28: 868-873. *corresponding author
- Braendle C*** & Félix MA 2006 Sex determination: Ways to evolve a hermaphrodite. *Current Biology* 16: R468-R471. *corresponding author
- Braendle C***, Davis GK, Brisson JA & Stern DL 2006 Wing dimorphism in aphids. *Heredity* 97: 192-199. *corresponding author
- Braendle C***, Friebe I, Caillaud CM & Stern DL 2005 Genetic variation for an aphid wing polyphenism is genetically linked to a naturally occurring wing polymorphism. *Proceedings of the Royal Society-Series B*, 272: 657-664. *corresponding author
- Braendle C***, Caillaud CM & Stern DL 2005 Genetic mapping of *aphicarus* - a sex-linked locus controlling a wing polymorphism in aphids. *Heredity*, 94:435-442. *corresponding author
- Braendle C*** & Foster WA 2004 Defensive behavior in primary and secondary host generations of the soldier-producing aphid, *Pemphigus bursarius* (Hemiptera: Aphididae). *Journal of Insect Behavior*, 17: 663-672. *corresponding author
- Pike N, **Braendle C** & Foster WA 2004 Seasonal extension of the soldier instar as a route to increased defence investment in the social aphid *Pemphigus spyrothecae*. *Ecological Entomology*, 29: 89-95.

- Braendle C#**, Miura T#, Kabhampati S, Bickel R, Shingleton AW & Stern DL 2003 Developmental origin and evolution of bacteriocytes in the aphid-*Buchnera* symbiosis. *PLoS Biology*, 1: 70-76. #joint first authors
- Braendle C***, Hockley N, Brevig T, Shingleton AW & Keller L 2003 Size-correlated division of labour and spatial distribution of workers in the driver ant, *Dorylus molestus*. *Naturwissenschaften*, 90: 277-281. *corresponding author
- Miura T#, **Braendle C#**, Shingleton A, Sisk G, Kabhampati S & Stern DL 2003 A comparison of parthenogenetic and sexual embryogenesis of the pea aphid *Acyrtosiphon pisum* (Hemiptera: Aphidoidea). *Journal of Experimental Zoology (Molecular and Developmental Evolution)* 295B: 59-81. #joint first authors
- Braendle C** 2003 The Genetics and Development of Alternative Phenotypes in Aphids. PhD Thesis, University of Cambridge, 158pp.
- Caillaud CM, Boutin M, **Braendle C** & Simon JC 2002 A sex-linked locus controls wing polymorphism in males of the pea aphid, *Acyrtosiphon pisum* (Harris). *Heredity* 89: 346-352.
- Braendle C** & Weisser WW 2001 Variation in anti-predator behaviour of red and green clones of the pea aphid. *Journal of Insect Behavior* 14: 497-509.
- Weisser WW & **Braendle C** 2001 Body colour and genetic variation in winged morph production in the pea aphid. *Entomologia Experimentalis et Applicata* 99: 217-223.
- Braendle C** 1999 The Ecology of Polyphenism in a Soldier-producing Aphid. MPhil Thesis, University of Cambridge, 68pp.
- Weisser WW, **Braendle C** & Minoretti N 1999 Predator-induced morphological shift in the pea aphid. *Proceedings of the Royal Society-Series B* 266: 1175-1181.
- Geissmann T & **Braendle C** 1997 Helping behaviour in captive pileated gibbons (*Hylobates pileatus*). *Folia Primatologica* 68:110-112.
- Braendle C** & Geissmann T 1997 Behavioural development of the pileated gibbon (*Hylobates pileatus*). *International Zoo News* 44: 4-16.