Morgane Nouvian

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Date of birth: 17th June 1988
Nationality: French

Website: https://www.social-neuroethology.com/

Scientific career

2019-to date: **Research fellow of the Zukunftskolleg / Junior group leader**
Neurobiology and Collective behaviour
Konstanz Universität, Konstanz, Germany

2016-2019: **Post-doctoral fellow**
Neurobiology of insect olfaction, Lab of Pr. Galizia
Konstanz Universität, Konstanz, Germany

2013-2016: **PhD (cotutelle), awarded the "Prix Dominique Clos" and the UQ Dean's Award**
Neuroethology of the olfactory modulation of honeybee aggression
The University of Queensland, Brisbane, Australia
Université Paul Sabatier, Toulouse, France

2011-2012: **Research engineer**
Neuroethology of the zebrafish, Lab of Dr. Sumbre
Ecole Normale Supérieure, Paris, France

2009-2011: **Master Biosciences, mention Bien**
Equivalent to a Master degree in Science (M.Sc.), awarded with distinction; Major: Biology
Ecole Normale Supérieure de Lyon (ENS), Lyon, France
Internships: *Neurobiology, CNRS-UMR 5167, Lyon, France*
Population Genetics, The University of Sydney, Sydney, Australia
Neurobiology, CNRS-UMR 5020, Lyon, France

2008-2009: **Licence de biologie fondamentale, 3rd year**
Equivalent to the final year of a Bachelor of Science (B.Sc.); Major: Biology
Ecole Normale Supérieure de Lyon (ENS), Lyon, France
Internship: *Ecology, CNRS-UMR 6116, Marseille, France*

2006-2008: **Classe préparatoire BCPST (Biologie Physique et Sciences de la Terre)**
Two-year intensive course before the competitive entrance examinations to French "Grandes Ecoles"; Major: Science
Lycée Lakanal, Sceau, France

2003-2006: **Baccalauréat S, mention Très Bien**
Equivalent to A-levels, awarded with the highest distinction; Major: Science
Lycée de la Vallée de Chevreuse, France

Additional formations

2015: **FENS/CAJAL Behaviour and Neural Systems course**, Lisbon, Portugal.

2014: **International Brain Research Organization (IBRO) Advanced School of Neuroethology**, Sapporo, Japan.

2012: **Ecole des Neurosciences de Paris (ENP) Spring School** "Optical imaging and Electrophysiological recordings in Neuroscience" (lectures only), Paris, France.

Teaching and supervision

Courses on honeybee physiology, as part of the formation "Apiculture, Pathologie Agricole" of the Veterinary School of Nantes (ONIRIS), France. (2016 – to date)

Participation in the advanced course on animal physiology (Universität Konstanz, Germany; 2017 – to date) and in the honeybee neurobiology course (University of Queensland, Australia; 2013).

Supervision:

- 1 PhD student: Kavitha Kannan
- 1 visiting PhD student, 3-month stay: Souvik Mandal
- 4 Master students: Charlene Jamme, Maxime Pocher, Mukilan Deivarajan-Suresh, Liliana Fischer
- 3 Bachelor students: Karoline Weich, Cesar Bertinetti-Ceratto, Sinje Tigges
- 3 VTK students: Feng Liu, Sven Lauke, Johanna Roller
- 6 Student assistants (HiWi): Feng Liu, Dario Walser, Karoline Weich, Cesar Bertinetti-Ceratto, Aamir Rizwani, Shehide Gashi

Publications

Nouvian M, Galizia C.G. (2020) Complexity and plasticity in honey bee phototactic behaviour. *Scientific Reports* 10:7872.

Nouvian M, Breed M. (2020) Colony defense. *In: Starr C. (eds) Encyclopedia of Social Insects.* Springer, Cham.

Hajnal M, **Nouvian M**, Šafránek D, Petrov T. (2019) Data-Informed Parameter Synthesis for Population Markov Chains. *In: Češka M., Paoletti N. (eds) Hybrid Systems Biology. HSB 2019. Lecture Notes in Computer Science*, vol 11705. Springer, Cham.

Nouvian M, Galizia C.G. (2019) Aversive training of honeybees in an automated Y-maze. *Frontiers in Physiology* 10:678.

Nouvian M, Deisig N, Reinhard J, Giurfa M. (2018) Seasonality, alarm pheromone and serotonin: insights on the neurobiology of honeybee defence from winter bees. *Biology Letters* 14:20180337.

Nouvian M, Mandal S, Jamme C, Claudianos C, d'Ettorre P, Reinhard J, Barron A, Giurfa M. (2018) Cooperative defence operates by social modulation of biogenic amine levels in the honeybee brain. *Proceedings of the Royal Society of London B* 285: 20172653.

Nouvian M, Reinhard J, Giurfa M. (2016) The defensive response of the honeybee *Apis mellifera*. *Journal of Experimental Biology* 219: 3505-3517.

Pérez-Schuster V, Kulkarni A, **Nouvian M**, Romano S.A, Lygdas K, Jouary A, Dippopa M, Pietri T, Haudrechy M, Candat V, Boulanger-Weill J, Hakim V, Sumbre G. (2016) Sustained rhythmic brain activity underlies visual motion perception in zebrafish. *Cell Reports* 17: 1098–1112.

Nouvian M, Hotier L, Claudianos C, Giurfa M, Reinhard J. (2015) Appetitive floral odours prevent aggression in honeybees. *Nature Communications* 6, doi: 10.1038/ncomms10247

Seebacher F, Holmes S, Roosen N, **Nouvian M**, Wilson R, Ward A. (2012) Capacity for thermal acclimation differs between populations and phylogenetic lineages within a species. *Functional Ecology* 26(6):1418-1428.

Mandairon N, Sultan S, **Nouvian M,** Sacquet J, Didier A. (2011) Involvement of neurogenesis in olfactory associative learning? The operant or non-operant component of the task makes all the difference. *Journal of Neuroscience* 31: 12455-60.

Conference contributions

Etho 2020 (Tübingen, Germany) – **Nouvian M**. Recruitment during honeybee colony defence. (oral)

GRS/GRC 2019 "Modulation of neural circuits and behavior" (Les Diablerets, Switzerland) – **Nouvian M**, Mandal S, Jamme C, Claudianos C, d'Ettorre P, Reinhard J, Barron A, Giurfa M. Alarm pheromone regulates aggression through dopamine and serotonin brain levels. (poster)

NWG 2019 (Göttingen, Germany) – **Nouvian M**, Galizia CG. Interactions between phototaxis and colour learning in honeybees. (poster)

IUSSI 2018 (Guarujá, Brazil) – Chair of symposium "Social and complex forms of learning in social insects" – **Nouvian M**, Galizia G. Towards automated conditioning of honeybees in complex tasks. (oral)

ICN 2018 (Brisbane, Australia) – **Nouvian M**, Galizia CG, Mercer A. Effect of group size on the stinging responsiveness of honeybees. (poster)

IUSSI-SF 2017 (Paris, France) – **Nouvian M**, Mandal S, Jamme C, Claudianos C, d'Ettorre P, Reinhard J, Barron A, Giurfa M. Alarm pheromone regulates aggression through dopamine and serotonin brain levels. (poster)

NeuroFrance 2017 (Bordeaux, France) – **Nouvian M**, Mandal S, Jamme C, Claudianos C, d'Ettorre P, Reinhard J, Barron A, Giurfa M. Alarm pheromone regulates aggression through dopamine and serotonin brain levels. (poster)

ICN 2016 (Montevideo, Uruguay) – **Nouvian M**, Hotier L, Claudianos C, Giurfa M, Reinhard J. Appetitive floral odours prevent aggression in honeybees. (poster)

CNI 2015 (Gif-sur-Yvette, France) – **Nouvian M,** Barron A, Giurfa M, Reinhard J. Changes in brain biogenic amines levels after aggression and alarm pheromone exposure in honeybees. (oral)

ICN 2014 (Sapporo, Japan) – **Nouvian M**, Giurfa M, Reinhard J. Insights into honeybee aggression: role of the olfactory context. (poster)

IUSSI 2014 (Cairns, Australia) – **Nouvian M**, Giurfa M, Reinhard J. Olfactory modulation of honeybee aggressiveness. (oral)

ASSAB 2014 (Katoomba, Australia) – **Nouvian M**, Giurfa M, Reinhard J. Olfactory modulation of honeybee aggressiveness. (oral)

Academic services

Review of journal articles for: Science; Scientific reports; Brain, Behavior & Evolution; PeerJ; Ecological Entomology; Journal of Insect Behavior.

Review of grant proposals for: Swiss National Science Foundation.

Committees: Zukunftskolleg Executive Committee (2020)

Awards and Grants

Awards:

Prix Dominique Clos, Académie des Sciences et Belles Lettres de Toulouse, rewarding an outstanding thesis in biology (2017)
Dean's Award, the University of Queensland, rewarding an outstanding thesis (2017)

Research grants:

Research fellowship, Zukunftskolleg, 5-year funding for position and start-up grant (2019)
DFG Research grant, 3-year funding for position and equipment (2019)
Young Scholar Fund Bridge fellowship, 2-month funding for position (2018)
Independent Research Start-up grant, Zukunftskolleg, for laboratory equipment (2017)
Post-doctoral fellowship, Fyssen Fondation, 2-year funding for position (2016)
Bourse d'aide à la cotutelle, Université Paul Sabatier, support for joint PhD (2015)
Centennial Scholarship + International tuition fee waiver, the University of Queensland, 3.5-year PhD scholarships (2013)

Travel grants:

Erasmus+ Staff mobility, for co-supervision of a MSc student at the University of Trento (2019)
Mentorship grant, Zukunftskolleg, continuing cooperation with Pr. Alison Mercer (2018)
IUSSI-SF Travel Grant, International Union for the Study of Social Insects – French Section, travel to IUSSI (2018)
Mentorship grant, Zukunftskolleg, enabling cooperation with Pr. Alison Mercer (2017)
Heiligenberg Student Travel Award, International Society of Neuroethology, travel to ICN (2016)
Graduate School International Travel Award, the University of Queensland, travel to partner university in France (2015)
IBRO grant, International Brain Research Organization, travel to ICN and associated Advanced School of Neuroethology (2014)
Heiligenberg Student Travel Award, International Society of Neuroethology (returned, 2014)
IUSSI Travel Grant, International Union for the Study of Social Insects, travel to IUSSI (2014)
ExploRA'Sup, Région Rhône Alpes, 4-month allowance for MSc internship abroad (2010)