

Wen-Juan Ma

Assistant Professor
Biology Department | Vrije Universiteit Brussel

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Education

10.2009-12.2014 **Ph.D. Evolutionary Genetics**, University of Groningen, The Netherlands
09.2006-07.2009 **M.S. Evolutionary Ecology**, *Summa cum laude*
Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences
09.2002-07.2006 **B.S. Biological Science**, *Summa cum laude*
Nanyang Normal University, China

Academic Employment

01.2023- **Assistant Professor**, Biology Department, Vrije Universiteit Brussel, Brussels, Belgium
08.2020-12.2022 **Postdoctoral research associate**, Department of Molecular Biosciences,
The University of Kansas, Lawrence, KS, USA
06.2018-07.2020 **NIH Postdoctoral research associate**, Department of Biology, Amherst College, MA, USA
08.2018-10.2018 **Visiting scholar**, Department Ecologie Systematics and Evolution,
Université of Paris-Sud, Orsay, France
03.2018-05.2018 (Informal) **visiting scholar**, Department of Biology, University of Indiana, IN, USA
08.2014-02.2018 **SNSF Postdoctoral fellow**, Department of Ecology and Evolution,
University of Lausanne, Switzerland
08.2014-01.2018 **Teaching assistant**, Department of Ecology and Evolution
University of Lausanne, Switzerland
01.2010-01.2014 **Graduate teaching assistant**, University of Groningen, the Netherlands
07.2009-08.2009 **Research associate**, Chinese Academy of Science, Xishuangbanna, China
09.2003-08.2005 **Undergraduate teaching assistant**, Nanyang Normal University, China

Honors, Awards, Fellowships and Grants experiences

Pending grants

2023	\$707,823	Australian Discovery Grant (partner PI)
2023	€541,476	FWO junior research grant (leading PI)
2023	€999,460	FWO medium-scale research infrastructure grant (partner PI)

Grant/Fellowship/Honors (in total: €1,682,450; \$25,500; ¥12,000)

2023	€500	FWO travel grant
2023-2027	€100,000	VUB startup funding , Vrije Universiteit Brussel, Belgium
2023-2028	€1,499,950	ERC (European Research Council) Starting Grant
05.2022	€500	ESEB2022 conference aid grant
02.2022	\$25,000	K-INBRE Postdoc Awards Year 2022
08.2021	€1,000	ESEB satellite symposium fund , 'The remarkable diversity in the rate and mechanisms of sex chromosome evolution'
05.2018	\$500	Travel grant , Society for the Study of Evolution
06.2016	¥1,000	Team award to fig-fig wasp coevolution, Chinese Academy of Sciences, China
2013	€500	Travel grant , Dutch Uyttenboogaart-Eliassen Foundation

2009-2014	€80,000	PhD Ubbo Emmius faculty fellowship , University of Groningen, The Netherlands
2009	¥2,000	Best master thesis award of DiAo , Chinese Academy of Sciences, China
2009	Top 4%	Outstanding Graduate in Xishuangbanna Tropical Botanical Garden, CAS, Chinese Academy of Sciences, China
2002-2006	¥4,000	First-Class Departmental Scholarship for 4 years, Nanyang Normal University, China
2006	Top 1%	Outstanding Graduate , Nanyang Normal University, China
2004	¥5,000	National Scholarship for Excellent Study (Top 0.1%), Nanyang Normal University, China

Grant/fellowship passed interview stage but not funded

09.2019	£725,397	*Royal Society University Research Fellowship , shortlisted. I wrote the proposal by myself .
03.2018	€195,455	**Maire-Curie Postdoc fellowship ‘Guppy Young Y’ was awarded the ‘Marie Skłodowska-Curie Actions Seal of Excellence’. I wrote the proposal by myself .

*Top 20% of proposals from all science domains (life science, physics, chemistry) were shortlisted.

** The proposal was scored 89.5 right below the cutoff of 92 funded score for that round of funding.

Publications

Total citations until 10.2023: 641, h-index: 13, i10-index: 15

I have published **24 articles** in peer-reviewed, international journals (*Genome Biology, Nature Communications, Molecular Biology and Evolution, Molecular Ecology, Genome Biology and Evolution*) (3 more are in preparation ready for submission soon), and **20 of them are first-author publications**. A full list of my publications and citation statistics is available at Google Scholar: https://scholar.google.com/citations?hl=en&user=D21ZTf0AAAAJ&view_op=list_works&sortby=pubdate
ORCID: <https://orcid.org/0000-0003-2585-6406>

26. **W-J Ma**, M. Rovatsos. (2022) Sex chromosome evolution: The remarkable diversity in the evolutionary rates and mechanisms.
 - **Journal of Evolutionary Biology** 35: 1581-1588 (**IF=2.441, citation=0**)
25. **W-J Ma**, K. Brunzell**, E. Knoles^{##}, MM. Schoaib^{##}, RL Unckless (2022). Hoisted with his own petard: how sex-ratio meiotic drive in *Drosophila affinis* creates resistance alleles that limit its spread.
 - **Journal of Evolutionary Biology** 35: 1765-1776 (**IF=2.441, citation=0**)
24. **W-J Ma**, P Veltsos (2021). The diversity and evolution of sex chromosomes in frogs.
 - **Genes** 12: 483. (**IF=4.096, citation=17**)
 - <https://doi.org/10.3390/genes12040483>
23. **W-J Ma**, BA Pannebakker, X Li[#], E Geyverink, SY Anvar, P Veltsos, T Schwander, L van de Zande, LW Beukeboom. (2021). A single QTL with large effect is associated with decay of female functional virginity in an asexual parasitoid wasp.
 - **Molecular Ecology** 30: 1979-1992. (**IF=6.131, citation=7**)
 - doi: 10.1111/mec.15863.
22. **W-J Ma**, F Carpentier[#], T Giraud, M Hood. (2020). Differential gene expression between fungal mating types is associated with sequence degeneration.
 - **Genome Biology and Evolution** 12: 234-258. (**IF=3.726, citation=8**)
 - doi: <https://doi.org/10.1093/gbe/evaa028>
21. **FE Hartmann***, **W-J Ma***. (2020). Digest: Climate plays marginal role for homomorphic sex chromosome differentiation in common frogs.
 - **Evolution** 74: 690-693. (**IF=4.201, citation=2**).
 - doi : <https://onlinelibrary.wiley.com/doi/10.1111/evo.13936>
20. P Veltsos, N Rodrigues[#], T Studer^{##}, **W-J Ma**, S Sermier^{**}, N Perrin. (2020). No evidence that Y-chromosome differentiation affects male fitness in a Swiss population of common frogs.
 - **Journal of Evolutionary Biology** 33: 401-409. (**IF=2.792, citations=11**)
 - doi: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jeb.13573>

19. FE Hartmann, RC Rodríguez de la Vega, P Gladieux, **W-J Ma**, J Antonovics, ME Hood, T Giraud. (2019). Higher gene flow in sex-related chromosomes than in autosomes during fungal divergence.
 - **Molecular Biology and Evolution** 37: 668-682. (IF=14.797, citations=16)
 - doi : <https://doi.org/10.1093/molbev/msz252>
18. **W-J Ma**, L Santos Del Blanco, JR Pannell. (2019). A new biological species in the *Mercurialis annua* polyploidy complex: functional divergence in inflorescence morphology and hybrid sterility.
 - **Annals of Botany** 124: 165-178. (IF=4.041, citations=4)
 - doi : <https://doi.org/10.1093/aob/mcz058>
17. **W-J Ma**, R Sermier^{**}, P Veltsos, DJ Parker, N Perrin. (2018). Evolutionary and developmental dynamics of sex-biased gene expression in common frogs with proto-Y chromosomes.
 - **Genome Biology** 19: 156. (IF=13.214, citation=27)
 - doi : <https://doi.org/10.1186/s13059-018-1548-4>
16. DL Jeffries, G Lavanchy^{##}, R Sermier^{**}, MJ Sredl, I Miura, A Borzée, LN Barrow, D Canestrelli, P-A Crochet, C Dufresnes, J Fu, **W-J Ma**, C Macías Garcia, K Ghali[#], AG Nicieza, RP O'Donnell, N Rodrigues[#], A Romano, Í Martínez-Solano, I Stepanyan, S Zumbach, A Bresfold, N Perrin. (2018). A rapid rate of sex-chromosome turnover and non-random transitions in true frogs.
 - **Nature Communications** 9 : 4088. (IF=14.920, citation=133)
 - doi : <https://doi.org/10.1038/s41467-018-06517-2>
15. **W-J Ma**, P Veltsos, MA Toups, N Rodrigues[#], R Sermier^{**}, DL Jeffries, N Perrin. (2018). Tissue specificity and dynamics of sex-biased gene expression in a common frog population with differentiated, yet homomorphic, sex chromosomes.
 - **Genes** 9: 294. (IF=4.096, citation=25)
 - doi : <https://doi.org/10.3390/genes9060294>
14. N Rodrigues[#], T Studer^{##}, C Dufresnes, **W-J Ma**, P Veltsos, N Perrin. (2017). *Dmrt1* polymorphism and seks chromosome differentiation in *Rana temporaria*.
 - **Molecular Ecology** 26: 4897-4905. (IF=6.131, citation=30)
 - doi: <https://doi.org/10.1111/mec.14222>
13. **W-J Ma**, T Schwander. (2017). Patterns and mechanisms in instances of endosymbiont-induced parthenogenesis.
 - **Journal of Evolutionary Biology** 30: 868-888. (IF=2.792, citation=84)
 - doi : <https://doi.org/10.1111/jeb.13069>
12. **W-J Ma**, N Rodrigues[#], R Sermier^{**}, A Brelsford, N Perrin. (2016) *Dmrt1* polymorphism covaries with sex-determination patterns in *Rana temporaria*.
 - **Ecology and Evolution** 6: 5107-5117. (IF=2.537, citation=24)
 - doi : <https://doi.org/10.1002/ece3.2209>
11. **W-J Ma**, JR Pannell. (2016). Seks determination: separate sexes are a double turnoff in melons.
 - **Current Biology** 26: R171-R174. (IF=9.193, citation=11)
 - doi: <https://doi.org/10.1016/j.cub.2015.12.026>
10. **W-J Ma**, BA Pannebakker, L van de Zande, T Schwander, B Wertheim, LW Beukeboom. (2015). Diploid males support a two-step mechanism for endosymbiont-induced thelytoky in a parasitoid wasp.
 - **BMC Evolutionary Biology** 15: 84. (IF=3.027, citation=45)
 - doi: <https://doi.org/10.1186/s12862-015-0370-9>
9. **W-J Ma**, BA Pannebakker, LW Beukeboom, T Schwander, L van de Zande (2014). Genetics of decayed sexual traits in a parasitoid wasp with endosymbiont-induced parthenogenesis.
 - **Heredity** 113: 424-431. (IF=3.801, citation=16)
 - doi: <https://doi.org/10.1038/hdy.2014.43>
8. **W-J Ma**, F Vavre, LW Beukeboom (2014). Manipulation of arthropod sex determination by endosymbionts: diversity and molecular mechanisms.
 - **Sexual Development** 8: 59-73. (IF=2.250, citation=53)
 - doi: <https://doi.org/10.1159/000357024>
7. **W-J Ma**, B Kuijper, JG de Boer, L van de Zande, LW Beukeboom, B Wertheim, BA Pannebakker (2013). Absence of complementary sex determination in the parasitoid wasp genus *Asobara* (Hymenoptera: Braconidae).
 - **PloS ONE** 8: e60458. (IF=2.776, citation=21)
 - doi: <https://doi.org/10.1371/journal.pone.0060459>

6. **W-J Ma**, D-R Yang, Y-Q Peng (2009). Disturbance effects on community structure of *Ficus tinctoria* fig wasp in Xishuangbanna, China: implication for the fig/fig wasp mutualism.
 - **Insect Science** 16: 417-424. (IF=2.71, citation=8)
 - doi: <https://doi.org/10.1111/j.1744-7917.2009.01265.x>
5. **W-J Ma**, Y-Q Peng, D-R Yang, J-M Guan (2009). Coevolution of reproductive characteristics in three dioecious fig species and their pollinator wasps.
 - **Symbiosis** 49 : 87-94. (IF=2.009, citation=10)
 - doi: <https://doi.org/10.1007/s13199-009-0018-x>
4. **W-J Ma**, F-P Zhang, Y-Q Peng, D-R Yang (2009). Comparison of style length and reproduction success in *Ficus* of different breeding systems.
 - **Chinese Journal of Plant Ecology** 33: 911-918. (IF=2.541, citation=4)
3. **W-J Ma**, Y-Q Peng, D-R Yang (2009). Variation of reproduction success in *Ficus tinctoria* and the implication in fig evolution.
 - **Zoological Research Suppl.**: 139-145.

* Equal contribution.

** Publications include contribution from supervised technicians.

Publications include contribution from informally supervised PhD students.

Publications include contribution from supervised master/undergraduate students.

PhD thesis and thesis chapter

2. E Geuverink, M van Leussen, **W-J Ma**, LW Beukeboom, L van de Zande. (2017). Identification, seks-specific splicing and maternal provision of *transformer* and *transformer-2* in arrhenotokous and *Wolbachia*-infected thelytokous *Asobara japonica*. Chapter 6. *Parental and Endosymbiont Effects on Seks Determination in Haplodiploid Wasps-Who is in Control?* **PhD thesis** of E. Geuverink. University of Groningen, The Netherlands.
1. **W-J Ma**. 2014. Evolutionary genetics of *Wolbachia*-induced parthenogenesis in the parasitoid *Asobara japonica*: seks determination and sexual decay. **PhD thesis**, University of Groningen, The Netherlands (citation=2)

Invited talks

In total, I have been invited to give a talk for 25 departmental seminars, 6 symposiums and 1 workshop.

- | | |
|---------|---|
| 10.2023 | Current Topics in Zoology and Evolution Seminar. University of Basel, CH |
| 10.2023 | IB2 Research Day 2023. Interuniversity Institute of Bioinformatics in Brussels, Belgium |
| 05.2023 | Evolution & Ecology Seminar. University of Lille, Lille, France |
| 03.3023 | Departmental Seminar. Université Libre de Bruxelles, Brussels, Belgium |
| 12.2022 | Institute seminar. KU Center for Genomics early career researcher seminar. University of Kansas, Lawrence KS, USA |
| 07.2022 | Departmental seminar. University of Groningen, Groningen, The Netherlands |
| 06.2022 | Departmental seminar. University of East Anglia, Norwich, UK |
| 05.2022 | Departmental seminar. University of Dublin, Dublin, Ireland |
| 04.2022 | Departmental seminar. Vrije Universiteit Brussel, Brussels, Belgium |
| 02.2022 | Institute seminar. Earlham Institute, Norwich, UK |
| 02.2022 | Institute seminar. The Institute of Functional Genomics of Lyon, Lyon, France |
| 07.2021 | Departmental seminar. School of Life Sciences, University of Essex, Colchester, UK |
| 02.2021 | Departmental seminar. Department of Biology, Southeast Missouri State University, Cape Girardeau, MO, USA |
| 09.2020 | EEB Genetics seminar. Department of Ecology & Evolutionary Biology and Department of Molecular Bioscience, University of Kansas, Lawrence, KS, USA |
| 06.2020 | Evolutionary Biology Group seminar. Department of Biology, University of Konstanz, Konstanz, Germany |

- 02.2020 **Departmental seminar.** Department of Biology, George Mason University, Fairfax, VA, USA
- 02.2020 **Departmental seminar.** Department of Biological Sciences, University of Arkansas, USA
- 01.2020 **Departmental seminar.** School of Biological Sciences, Illinois State University, Normal, IL, USA
- 01.2020 **Conference speaker.** Invited but declined. Symposium ‘Emerging frontiers in sex chromosome evolution’, 9th World Congress of Herpetology, Dunedin, New Zealand.
- 01.2020 **Conference speaker.** ‘The International Plant and Animal Genome (PAG) conference’, ‘Sex Chromosome and Sex Determination’ workshop, San Diego, CA, USA.
- 08.2019 **Departmental seminar.** School of Biological Sciences, University of Aberdeen, UK
- 06.2019 **Conference speaker.** ‘Evolution 2019, Providence, Rhode Island
- 05.2019 **Departmental seminar.** Institute of Integrative Biology, University of Liverpool, UK
- 04.2019 **Departmental seminar.** Milner Center for Evolution, University of Bath, UK
- 01.2019 **Conference speaker.** Invited but declined. ‘The International Plant and Animal Genome (PAG) Conference’, San Diego, CA, USA.
- 12.2018 **Departmental seminar.** Seminar for Department of Biology, Amherst College, MA, USA
- 09.2018 **Departmental seminar.** Seminar for Department of Genetic and Ecology Evolution, Université Paris-Sud, Orsay, France
- 06.2016 **Departmental seminar.** Institutional external seminar, Chinese Academy of Sciences, Xishuangbanna, China
- 08.2015 **Conference speaker.** ‘Nöthiger insect sex determination’ workshop, University of Lausanne, Lausanne, Switzerland
- 07.2014 **Workshop speaker.** ‘Evolution of asexual genome’ workshop, University of Lausanne, Lausanne, Switzerland
- 10.2013 **Departmental seminar.** Laboratory of Genetics seminar, Wageningen University, NL
- 02.2010 **Departmental seminar.** Lab seminar, Leiden, The Netherlands

Conference presentations

All as first author presentations: I have presented my work to give a talk at 20 international conferences, and presented a poster at 11 conferences.

- 09.2023 **Talk** “The evolutionary consequences, genomic signature and genetic mechanism of sex-chromosome meiotic drive in *Drosophila affinis*”, Conferences Jacques-Monod, Sex unfolded: sex, asex, sexes, Roscoff, France
- 08.2022 **Talk** “The evolution and genetic mechanism of sex-ratio meiotic drive in *Drosophila affinis*”, ESEB 2022, Prague, Czech Republic
- 04.2022 **Talk** “The evolution and genetic mechanism of sex-ratio meiotic drive in *Drosophila affinis*”, 63rd Annual *Drosophila* Research Conference, San Diego, CA, USA
- 01.2022 **Talk** “The evolution and genetic mechanism of sex-ratio meiotic drive in *Drosophila affinis*”, 55th PopGroup meeting, the Earlham Institute, John Innes Centre, University of East Anglia, UK
- 06.2021 **Talk** “A single QTL with large effect is associated with female functional virginity in an asexual wasp”, virtual Evolution meeting 2021
- 06.2021 **Talk** “A single QTL with large effect is associated with female functional virginity in an asexual parasitoid wasp”, ESEB satellite symposium 2021, ‘Genomic signatures and consequences of sex and asexuality’
- 01.2021 **Talk** “A single QTL with large effect is associated with female functional virginity in an asexual parasitoid wasp”, the virtual 54th PopGroup meeting, University of Liverpool, Liverpool, UK
- 01.2020 **Talk** “Differential gene expression between fungal mating types is associated with sequence degeneration”, PAG XVIII, San Diego, CA, USA
- 08.2019 **Poster** “Differential gene expression between mating types is associated with sequence degeneration in the absence of sexual antagonism”, ESEB, Turku, Finland
- 06.2019 **Poster** “Differential gene expression is associated with degeneration of mating-type chromosomes in the absence of sexual antagonism”, Evolution, Providence, USA
- 06.2019 **Talk** “Y-chromosome differentiation is associated with developmental transcriptome masculinization and earlier male gonad completion in common frogs”, Evolution 2019,

- Providence, Rhode Island, USA
- 08.2018 **Poster** “Y chromosome differentiation masculinises gene expression on sex chromosomes and correlates with faster male development”, Joint meeting of ESEB and Evolution, Montpellier, France
- 08.2017 **Poster** “Evolution and temporal dynamics of sex-biased gene expressions in the common frog with a proto-sex chromosome”, European Society for Evolutionary Biology, Groningen, The Netherlands
- 01.2017 **Talk** “Is a novel reproductive trait conferring high siring success associated with postzygotic isolation in an annual plant”, PoPGroup meeting, Cambridge, UK
- 06.2016 **Talk** “Characterization of Y chromosomes of varying differentiation levels by haploid genome sequencing in the common frog”, Evolution of sex det. Workshop, La Sage, Switzerland
- 02.2016 **Poster** “Sex-chromosome differentiation covaries with polymorphism at the candidate sex-determination gene *Dmrt1* in common frogs”, Swiss Biology Meeting, Lausanne, Switzerland
- 12.2015 **Talk** “*Dmrt1* polymorphism covaries with sex-differentiation patterns in the common frog”, PopGroup 49 meeting, University of Edinburgh, Edinburgh, Scotland
- 08.2015 **Poster** “Polymorphism in the candidate sex determination gene *Dmrt1* covaries with sex-chromosome differentiation patterns in the common frog”, European Society for Evolutionary Biology, Lausanne, Switzerland
- 07.2014 **Talk** “Evolutionary and genetic consequences of *Wolbachia*-induced parthenogenesis in the parasitoid wasp *Asobara*, ‘Evolution of asexual genome’ workshop, University of Lausanne, Lausanne, Switzerland
- 08.2013 **Poster** “Genetic basis of sexual traits decay in a parasitoid wasp with endosymbiont-induced parthenogenesis”, European Society for Evolutionary Biology, Lisbon, Portugal
- 06.2013 **Talk** “Genetics of decayed sexual traits in a parasitoid wasp with endosymbiont-induced parthenogenesis”, Insect sex determination workshop, Gif-sur-Yvette, Paris, France
- 02.2013 **Talk** “Genetics of vestigialized sexual traits in an asexual wasp”, Netherlands Annual Ecology meeting, Lunteren, The Netherlands
- 12.2012 **Talk** “Genetics of decayed sexual traits in an asexual wasp”, Entomologen Dag, Ede, The Netherlands
- 12.2011 **Talk** “How is sex determined in the parasitoid wasp genus *Asobara*”, Entomologen Dag, Ede, the Netherlands
- 11.2011 **Talk** “Experimental test of sex determination in solitary parasitoid genus *Asobara*”, NEV herfstvergadering, Groningen, The Netherlands
- 10.2011 **Poster** “Absence of complementary sex determination in the parasitoid wasp genus *Asobara*”, Sixth International Symposium on Molecular Insect Science, Amsterdam, The Netherlands
- 10.2011 **Poster** “No Complementary Sex Determination in the parasitoid wasp genus *Asobara* (Hymenoptera: Braconidae)”, European workshop on sex determination in insects, Amsterdam, The Netherlands
- 06.2011 **Poster** “Sex determining mechanisms in the *Asobara* genus”, Genetics, Epigenetics and Evolution of Sex Chromosomes, Paris, France
- 11.2010 **Talk** “Sex determining mechanisms in the *Asobara* genus (Hymenoptera: Braconidae)”, Meeting of the Insect Parasitoid Special Interest Group of the Royal Entomological Society, University of York, York, UK
- 11.2010 **Poster** “Sex determining mechanisms in the *Asobara* genus (Hymenoptera: Braconidae)”, Plant-Insect interaction workshop, Wageningen, The Netherlands
- 11.2007 **Talk** “Strategy of female flower resource consumption in dioecious fig species by fig wasps”, conference of “Biodiversity—Challenges to the New Century”, Jinghong, China

Additional training (workshops/conferences, in total 21x)

- 06.2023 **Tree of Sex 2.0 workshop**, Sanger Institute, Cambridge, UK
- 05.2023 **Supervisor Training**, Vrije Universiteit Brussel, Brussels, Belgium
- 05.2022 **1st KU Centre for Genomics Symposium 2022**, University of Kansas, USA
- 12.2021 **ADVANCEGeo “DEI” workshop**, University of Kansas, USA
- 09.2021 **“SafeZone Training”** (training program to be the allies to the LGBTQ+ students),

University of Kansas, KS, USA

- 06.2021 “**Plant Sex Chromosome Evolution**” workshop, virtue, organized by University of Munich
- 06.2018 “**Scientific Programming with Python**”, Amherst College, Amherst, MA, USA
- 04.2018 “**De novo transcriptome assembly**”, University of Indiana, USA
- 02.2018 “**Lausanne Genomic Days**”, University of Lausanne, Switzerland
- 03.2017 “**Python for Life Scientists**”, University of Basel, Basel, Switzerland
- 02.2017 “**Lausanne Genomic Days**”, University of Lausanne, Switzerland
- 10.2016 “**De novo Transcriptome assembly**”, University of Bern, Bern, Switzerland
- 06.2016 “**Evolution of sex determination**”, La Sage, Switzerland
- 02.2016 “**Lausanne Genomic Days**”, University of Lausanne, Switzerland
- 08.2015 “**Nöthiger insect sex determination**”, University of Lausanne, Lausanne, Switzerland
- 01.2015 “**Introductory Course in Laboratory Animal Science**”, University of Lausanne, Switzerland
- 12.2014 “**Learning Python for life sciences**”, University of Basel, Basel, Switzerland
- 07.2014 “**Evolution of asexual genome**”, University of Lausanne, Lausanne, Switzerland
- 06.2014 “**NGS genome & transcriptome assembly and analysis**”, University of Fribourg, Fribourg, Switzerland
- 11.2013 “**Writing a Grant Proposal**”, University of Groningen, Groningen, The Netherlands
- 10.2013 “**RNAseq data analysis workshop**”, University of Groningen, Groningen, The Netherlands
- 08.2013 “**MGC Next Generation Sequencing data analysis**”, Medical Genetics Centre South-West Netherlands, Leiden, The Netherlands
- 06.2013 “**Nöthiger Insect sex determination**”, Gif-sur-Yvette, Paris, France
- 10.2011 “**Nöthiger Insect sex determination**”, Amsterdam, The Netherlands

Service as reviewer and editor

Grant Agencies:

Czech Science Foundation (CSF, 2)

French National Research Agency (ANR, 1)

Scientific Journals: (until 10.2023, total = 47)

- Genome Biology
- PLoS Biology
- PLoS Genetics
- Molecular Biology and Evolution
- Molecular Ecology
- New Phytologist
- Proceedings of the Royal Society B
- Genome Biology and Evolution
- Axios
- Entomologia Experimentalis et Applicata
- Biological Journal of the Linnean Society
- General and Comparative Endocrinology
- Evolution
- Journal of Evolutionary Biology
- Heredity
- Genes
- Journal of Heredity
- Ecology and Evolution
- Sexual Development
- Cells
- Current Opinion in Genetics & Development
- Frontier in Zoology
- International Journal of Molecular Sciences
- PLoS ONE

Guest editor for *Journal of Evolutionary Biology*:

Special issue on ‘Sex Chromosome Evolution’ (2022)

Associate Editor at *Journal of Evolutionary Biology*:

02.2023 - Current

Teaching activities

Guest lecturer (Evolution)

Fall 2023 Giving guest lecture for ‘Evolution’ course (2nd year bachelor course), Universite Libre Brussel, Brussels, Belgium

Titular (Evolutionary Genetics and Genomics of Sex)

Fall 2023 Titular for course ‘Evolutionary Genetics and Genomics’ (1st year Master course), Vrije Universiteit Brussel, Brussels, Belgium

Instructor of record (Genetics and Genomics of Sex course, 1x)

Fall 2021 **Instructor of record** for ‘**Genetics and Genomics of Sex**’ course (**BIOL599**), University of Kansas, Lawrence, KS, USA

Teaching assistant experience (Mol. Genetics course 4x; Zoology course 2x)

09-10.2017 **Teaching assistant, ‘Molecular Genetics’, Master course**, University of Lausanne, Switzerland
 09-10.2016 **Teaching assistant, ‘Molecular Genetics’, Master course**, University of Lausanne, Switzerland
 02-06.2016 **Teaching assistant, ‘Zoology’, Undergraduate course**, University of Lausanne, Switzerland
 09-10.2015 **Teaching assistant, ‘Molecular Genetics’, Master course**, University of Lausanne, Switzerland
 02-06.2015 **Teaching assistant, ‘Zoology’, Undergraduate course**, University of Lausanne, Switzerland
 09-10.2014 **Teaching assistant, “Molecular Genetics”, Master course**, University of Lausanne, Switzerland

Mentoring activities

Postdoc advisor

11.2023- **Meriç Erdolu**. Biology Department, Vrije Universiteit Brussel, Brussels, Belgium
 10.2023- **Sagar Shinde**. Biology Department, Vrije Universiteit Brussel, Brussels, Belgium
 01.2023- **Paris Veltsos**. Biology Department, Vrije Universiteit Brussel, Brussels, Belgium

PhD student supervision

03.2023- **Promoter of PhD candidate Era-Alexandra Decuyper**. Biology Department, Vrije Universiteit Brussel, Brussels, Belgium

Supervising/mentoring experience (5 technicians, 12 undergraduates, 5 master students)

08-09.2023 **Summer internship Master student**, 8 weeks, Vrije Universiteit Brussel, BL
 08-09.2023 **Summer internship undergraduate student**, 8 weeks, Vrije Universiteit Brussel, BL
 06-11.2023 **Supervisor of animal lab technician**, Marzie Bagheri, Vrije Universiteit Brussel, BL
 04.2023 **Supervisor of an undergraduate student project**, Marie Aerts, Vrije Universiteit Brussel, BL
 04.2023 **Supervisor of a first-step Master project**, Marzie Bagheri, Vrije Universiteit Brussel, BL
 04.2023- **Supervisor of lab technician**, Evert Bruyninckx, Vrije Universiteit Brussel, BL
 01.2023- **Supervisor of lab technician**, Ann Pauwels, Vrije Universiteit Brussel, BL
 09.2021- **Supervisor of an undergraduate student project**, Jordanne Paxton, University of Kansas, KS, USA
 06.2021- **Supervisor of an undergraduate student project**, Murtaza Shoaib, University of Kansas, KS, USA
 06.2021- **Supervisor of a lab technician**, Hunter Duke, University of Kansas, KS, USA
 09.2018 **PhD mid-thesis evaluation, ‘Evolution of mating-type chromosomes in the anther-smut fungi’**, Fantin Carpentier, University of Paris-Sud, Orsay, France
 08-09.2015 **Supervisor of internship undergraduate student, 6 weeks**, Anthony Sonrel, University of Lausanne, Switzerland

- 07-08.2015 **Supervisor of internship undergraduate student, 8 weeks**, Sarah Beuvier, University of Lausanne, Switzerland
- 10.2014-03.2016 **Co-supervisor of master project, 1.5 year**, Guillaume Lavanchy, University of Lausanne, Switzerland
- 09.2014-01.2018 **Supervisor of a lab technician**, Roberto Sermier, University of Lausanne, Switzerland
- 02-06.2014 **Supervisor of undergraduate student from NHL Hogeschool**, Kevin Noorman, 4 months, Netherlands
- 02.2014 **Supervisor of two Master students** during the course 'Animals meet Microbes', The Netherlands
- 09.2013-01.2014 **Supervisor of one Undergraduate student** from NHL Hogeschool, Mathijs Nas, 5 months, Leeuwarden, The Netherlands
- 02-03.2013 **Supervisor of two Undergraduate students**, Maarten Doornkamp, Heleen Fakkert, 'Evolutionary Genetic research' course, 6 weeks, University of Groningen, The Netherlands
- 02-03.2011 **Supervisor of two Undergraduate students**, 'Evolutionary Genetic research' course, 6 weeks, University of Groningen, The Netherlands

PhD thesis committee service

- 01.2023 - Jie Wang, Max Planck Institute for plant breeding research
- 04.2023 - Sophie Smith, Leibniz Institute for the Analysis of Biodiversity Change (LIB)

Master thesis committee service

- 10.2023 - Erwan Denné, Master thesis 'Diving into genome size variation in Batoidea: from habitat interactions to methodological challenges', VUB, Brussels, BL
- 09.2023 - Zoë De Corte, Master thesis 'Genome annotation and transcriptomic underpinning of a genetic wing dimorphism in *Bembidion properans*', ULB, Brussels, BL

Bachelor thesis committee service

- 06.2023 - Phebe Arnauts Bachelor thesis 'From fungi to leather-like materials: how do mycelium materials differ depending on the fungal species', VUB, Brussels, BL
- 06.2023 - Nathan van Dam, Bachelor thesis 'Model reduction of neural induction in ascidian embryo', VUB, Brussels, BL

Academic organization/leadership services

Symposium organization: (total 7x)

- 08.2022 **Main organizer for ESEB symposium** 'Sex chromosome evolution: the canonical model and so much beyond', ESEB 2022, Charles University, Czech Republic
- 05.2022 **Organizing member** for the 1st KU Centre for Genomics Symposium 2022, University of Kansas, KS, USA
- 08.2021 **Main organizer for ESEB satellite symposium** 'The remarkable diversity in the rate and mechanisms of sex chromosome evolution', ESEB satellite symposia 2021
- 08.2021 **Main organizer for AsiaEvo Symposium** "Evolutionary genetics and genomics of sex determination and sex chromosomes", AsiaEvo conference 2021
- 08.2019 **Main organizer for ESEB Open Symposium** sub-theme 'Genome Evolution', ESEB 2019, University of Turku, Turku, Finland
- 08.2015 **ESEB 2015 organizing staff**, ESEB 2015, University of Lausanne, Switzerland
- 02.2013 **Main organizer for symposium**, "Evolutionary Ecology: Genetics of Adaptation to Environmental Shift & Species interactions", Netherlands Annual Ecology meeting (NAEM), Lunteren, The Netherlands
- 07.2006 **Symposium organizing member** for 'the 7th international fig-fig wasp symposium', Chinese Academy of Sciences, Xishuangbanna, China

Departmental seminar/journal club organization: (total 4x)

- 01.2023- **Departmental seminar organizer**, Biology Department, Vrije Universiteit Brussel, Belgium

- 09.2020-2021 **Journal club discussion founder and organizer**, University of Kansas, KS, USA
 10.2014-2016 **Journal club discussion founder and organizer**, University of Lausanne, Switzerland
 10.2014-2016 **Topic group seminar organizer**, '*Reproductive System Dynamics*', University of Lausanne, Switzerland
 10.2012-2013 **Institute PhD colloquia committee member**, organizing monthly-based institute colloquia in Evolution and Ecology, University of Groningen, The Netherland

Service on faculty search as postdoc representative: (total 1x)

- 03.2017 **Member of PhD-Postdoc search committee** for an Assistant/Associate Professor hire, University of Lausanne, Department of Ecology and Evolution, Switzerland

Contribution to DEIB service and leadership: (total 8x)

- 12.2021 **ADVANCEGeo "DEI" workshop**, University of Kansas, KS, USA
 09.2021 **Participating and active engaging in the "SafeZone Training"** (training program to be the allies to the LGBTQ+ students), University of Kansas, KS, USA
 08.2021- **Written DEIB statement in my course '*Genetics and Genomics of Sex*'**, led DEIB discussion in class and implementing the statement throughout my teaching
 06.2020-2021 **Member of *Journal of Evolutionary Biology* Advisory Group**, including discussion on DEI issues within ESEB society, European Society of Evolutionary Biology
 11.2020 **Active discussion on DEIB issues** in undergraduate researchers working in the lab during lab journal club discussion
 2018-2020 **Participating in promoting campus-wide minority cultural events**, Indiana University, USA
 2007-2009 **Organizing bi-monthly cultural diversity events**, Chinese Academy of Sciences, China
 2002-2006 **Summer internship to help minority girl students** (secondary and high school levels) with study, Nanyang Normal University, China

Professional membership

- European Society for Evolutionary Biology (**ESEB**): 2013 - present
 Society for the Study of Evolution (**SSE**): 2017 - present
 American Society of Naturalists (**ASN**): 2017 – present
 Genetics Society of America (**GSA**): 2021 –
 American Genetic Association (**AGA**): 2021 -

References (for research and teaching)

Prof. Dr. Robert Unckless

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 USA

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Email: unckless@ku.edu

Webpage: <https://molecularbiosciences.ku.edu/people/robert-unckless>

Prof. Dr. Michael E. Hood

Relationship: previous postdoc advisor

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 Amherst, MA 01002-5000, USA

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Prof. Dr. John Pannell

Relationship: previous postdoc advisor

Professor, group leader

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Prof. Dr. Leo W. Beukeboom

Relationship: PhD advisor

Professor, group leader in Evolutionary Genetics group

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