

Giorgio F. Gilestro

Senior Lecturer (associate professor)
Department of Life Sciences
Imperial College London, UK

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Previous and current research positions

since 2019 Senior *Lecturer* and *Lab head* at Imperial College London, Department of Life Sciences
2012 – 2018 *Lecturer* and *Lab head* at Imperial College London, Department of Life Sciences
2010 – 2012 *Junior Research Fellow* at Imperial College London, London, UK
2009 – 2010 Paternity leave/career sabbatical
2006 – 2009 *Postdoc* at University of Wisconsin Madison, Madison, WI, USA
2002 – 2006 *PhD Student* at Research Institute of Molecular Pathology (IMP), Vienna, Austria
1998 – 2002 Intern undergraduate student at the Institute for Cancer Research IRCC, Candiolo, Italy

Qualifications

2006 PhD in Molecular Biology, University of Vienna, Austria - “Regulation of Robo receptors in *Drosophila*”
Grade achieved: *mit Auszeichnung bestanden (magna cum laude / passed with Distinction)*
2001 Laurea (BSc + MRes) in Medical Biotechnology, University of Torino, Italy
“Semaphorin signalling via Plexin receptors” Grade achieved: *110/110 Honours*

Fellowships & grants

2019 SPARK KTN Award (£10k – 6 months)
2019 CRUK Pioneer Award (co-PI with Julia Cordero, PI - £196k - 24 months)
2019 Imperial President’s PhD Scholarship to A. Falconio (£120k - 48 months)
2018 BBSRC PhD fellowship (jointly with N. Windblicher and Betabugs £120k - 48 months)
2018 Faculty Strategic Research Funding – SME Engagement (£20k - 12 months)
2018 EPSRC PhD fellowship (£120k - 48 months)
2018 BBSRC Research Grant (£490k - 36 months)
2017 Philanthropic donation (£12.5k)
2017 BBSRC iCASE DTP with Syngenta (£160k - 48 months)
2017 EMBO STF to D. Ricolo (£15k - 3 months)
2016 The Gas Trust Grant (jointly with R. Dickinson £190k - 12 months)
2016 BBSRC Impact Acceleration Award (£15k - 6 months)
2015 ERC Marie Curie IF to E. Beckwith (£240k - 24 months)
2015 BBSRC PhD fellowship (jointly with N. Windblicher £120k - 48 months)
2014 EMBO LTF to E. Beckwith (£120k - 24 months)
2014 BBSRC Research Grant (£480k - 36 months)
2012 BBSRC PhD fellowship (jointly with S. Zafeiriou) (£120k - 48 months)
2012 BBSRC PhD fellowship (jointly with A. Faisal) (£120k - 48 months)
2012 EPSRC Kick-start Scheme (jointly with B. Seemungal and A. Faisal) (£20k - 12 months)
2011 Royal Society Research Grant (£15k - 12 months)
2009 Junior Research Fellowship at Imperial College London (£270k - 36 months)

Teaching experience and recognitions

2018 Awarded an “Excellence in Teaching award” from the Faculty of Natural Sciences
since 2017 Director of the MSc in Applied Biosciences and Biotechnology. I am responsible for the entire course, from admissions and interviews to organisation of the curriculum, the 2 full-time taught terms, exams, practicals, and the lab and literature based terms, for a total of 12 months. The course has an intake of 65 international students a year and generates an income of £1.5 million a year
2014 - 2017 co-Director of the MSc in Applied Biosciences and Biotechnology
since 2013 Systems Neuroscience (3rd year UG), Principles of Neuroscience (3rd year UG), Genes and Genomics (2nd year UG), Behavioural Ecology (2nd year UG), Pharmacology (Bsc Med.)

External teaching and PhD examinations

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| 2021 | Internal examiner for PhD VIVA at Imperial College London |
| 2020 | Internal examiner for PhD VIVA at Imperial College London |
| 2019 | External examiner for PhD VIVA at Open University c/o ICGEB Trieste, Italy |
| 2019 | External examiner for PhD VIVA at University of Geneva, CH |
| 2019 | External examiner for PhD VIVA at University of East London, UK |
| 2018 | External examiner for PhD VIVA at VIB Leuven, Belgium |
| 2018 | Lecturer at the Cajal school "Behaviour of Neuronal Systems", Lisbon, Portugal |
| 2018 | Lecturer at the ICGEB " <i>Drosophila</i> course for neurodegeneration research" - Trieste, Italy |
| 2016 | External examiner for PhD VIVA at University of Lisbon, Portugal |
| 2016 | External examiner for PhD VIVA at University of Cambridge, UK |
| 2012 | Lecturer at the "Biology & Informatics Summer School for graduate students", Tokyotech, Tokyo, Japan |
| 2009,12,13,14 | Lecturer at the Neuroscience Training programme, Champalimaud, Lisbon, Portugal |

Departmental administration

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| 2014 – 2019 | Member of the Departmental Equal Opportunities Committee, responsible, among the rest, for the Athena Swan submission for equal gender opportunities (the department currently holds a Bronze Award, renewal pending). |
| 2013 – 2016 | Member of the college 3Rs advisory group for animal welfare and reduction, reporting to the Provost |
| 2012 | Chair of the committee in charge of renovation of the departmental website |

Outreach activities

The list of outreach activities is too long to be detailed here but can be found on the dedicated lab webpage (<http://lab.gilest.ro/outreach>). Every year we reach to the public by visiting schools, creating digital contents, participating to scientific festivals. The highlight of the past two years was a TEDx talk on the dogmas and facts of sleep, currently available on the lab webpage. We also create digital contents (podcasts and videos), all available on the lab webpage.

Learned societies

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| since 2012 | Member of the British Genetics Society and British Biology Society |
| since 2010 | Co-Founder of the JEDI network (Junior European <i>Drosophila</i> Investigators) for which I still manage the IT aspects of the network (http://www.fly-jedi.org) |

Editorial Boards, Grants Panelling and Reviewing

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| since 2015 | Panel for ERC Marie Curie RISE Grants and Marie Curie Individual Fellowships |
| since 2013 | Reviewer for BBSRC, EPSRC, MRC Project Grants; the Italian Ministry of Research Project Grants, Alzheimer UK; The Research Foundation Flanders (FWO); National Science Foundation (NSF) |
| since 2011 | PLoS ONE, Academic Editor Reviewer for about 25 academic journals (http://publons.com/a/1389817) |

Invited speaker - conferences and seminars (past 3 years only. See <http://lab.gilest.ro/talks> for a full list)

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| 09/2021 | Online | Italian Society of Pharmacology – Myths and errors during the COVID pandemic |
| 09/2021 | Online | Italian Association of Epidemiology – Sars-CoV-2 Evolution |
| 05/2021 | Online | Coffee with EMBL – Coronavirus: global and local perspectives |
| 02/2021 | Online | University of New Mexico, USA |
| 07/2020 | Talk | Crete Meeting – EMBO Molecular and developmental biology of <i>Drosophila</i> , Crete, Greece |
| 11/2019 | Talk | Sleep in <i>Drosophila</i> , HHMI Janelia, USA |
| 06/2019 | Talk | Gordon Chronobiology 2019, Casteldelfells, Spain |
| 06/2019 | Seminar | Institut des Neurosciences Paris-Saclay, Gif-sur-Yvette, France |
| 03/2019 | Talk | American <i>Drosophila</i> Research Conference, Dallas, TX, USA |
| 03/2019 | Talk | Solden 2019 Winter Conference, Solden Austria |
| 02/2019 | Seminar | Max Plank Institute, Seewiesen, Germany |
| 02/2019 | Seminar | Technical University Munich, Munich, Germany |
| 02/2019 | Seminar | University of Birmingham |
| 12/2018 | Talk | Sleep and circadian rhythms from mechanisms to function, London, UK |

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| 08/2018 | Seminar | VIB, Leuven, Belgium |
| 07/2018 | Seminar | Tokyo Institute of Technology and University of Tokyo |
| 07/2018 | Talk | Talk at the 41st Meeting of the Japanese Neuroscience Society, Kobe, Japan |
| 06/2018 | Keynote | XIX Italian Drosophila conference, Padua, Italy |
| 06/2018 | Talk | Crete Meeting – EMBO Molecular and developmental biology of Drosophila, Crete, Greece |
| 05/2018 | Seminar | NEUreka! Seminar series, King's College London – London, UK |
| 04/2018 | Seminar | University College London – London, UK |
| 03/2018 | Seminar | Cajal Institute – Madrid, Spain |
| 02/2018 | Seminar | Gordon Institute, Cambridge, UK |
| 02/2018 | Talk | Understanding Sleep – Wellcome Trust Center, London UK |

Active collaborators - academic

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| Marc Dionne | Dept of Life Sciences, Imperial College London, London, UK | |
| Tony Southall | Dept of Life Sciences, Imperial College London, London, UK | |
| Carlos Ribeiro | Institute for the unknown, Lisbon, PT | |
| Lucia Prieto-Godino | The Crick Research Institute – London | |
| Julia Cordero | The Beatson research institute – Glasgow | (funded by CRUK) |

Active collaborators - industrial

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| Lucy Firth | Syngenta, Bracknell, UK | (funded by iCASE BBSRC) |
| Thomas Farrugia | BetaBugs, Roslin, UK | (funded by KTN/SPARK and BBSRC) |

Preprints

Joyce M^{\$}, French A^{\$}, Prieto-Godino LL, and [Gilestro GF*](#) – Behavioural and molecular differences in sleep regulation suggests convergent evolution of sleep in *Drosophila* – in preparation

Vincent MC^{\$}, Beckwith EJ^{\$}, Pearson WH, Kierdorf K, [Gilestro GF](#) and Dionne M - Infection increases activity via Toll dependent and independent mechanisms in *Drosophila melanogaster* – BiorXiv doi: 10.1101/2021.08.24.457493

In press or published

French A, Geissmann Q, Beckwith EJ and [Gilestro GF*](#) - Sensory processing during sleep in *Drosophila melanogaster* – **Nature**, 2021 Oct 21; 598(3)

[Gilestro GF](#) - Sleep: Imaging the Fly Brain Reveals New Paradoxes - **Curr Biol**, 2021 Feb 8;31(3)

Geissmann Q^{\$}, Beckwith EJ^{\$}, and [Gilestro GF](#) - Most sleep does not serve a vital function: Evidence from *Drosophila melanogaster* – **Science Advances**, 2019 Feb 20; 5(2); eaau9253

Geissmann Q, Garcia Rodriguez L, Beckwith EJ, and [Gilestro GF](#) - Rethomics: an R framework to analyse high-throughput behavioural data - **PLoS ONE**, 2019 Jan 16; 14(1); e0209331

Geissmann Q, Garcia Rodriguez L, Beckwith EJ, French AS, Jamasb AR, and [Gilestro GF](#) - Ethoscopes: an open platform for high-throughput ethomics - **PLoS Biology**, 2017 Oct 19; 15(10);e2003026

Beckwith EJ, Geissmann Q, French AS, and [Gilestro GF](#) - Regulation of sleep homeostasis by sex pheromones - **eLife**, 2017 Sep 12;6:e27445

[Gilestro GF](#) - Video tracking and analysis of sleep in *Drosophila melanogaster* - **Nature Protocols**, 2012 Apr 26;7(5):995-1007

Gilestro GF* and Cirelli C - pySolo: a complete suite for sleep analysis in Drosophila - **Bioinformatics**, 2009 Jun 1;25(11):1466-7.

Gilestro GF, Tononi G & Cirelli C - Widespread changes in synaptic markers as a function of sleep and wakefulness in Drosophila - **Science**, 2009 Apr 3;324(5923):109-12.

Gilestro GF* - Redundant Mechanisms for Regulation of Midline Crossing in Drosophila - **PLoS ONE**, 2008 Nov 24;3(11):e3978.

Dickson BJ* & Gilestro GF* - Regulation of Commissural Axon Pathfinding by Slit and its Robo receptors - **Annu Rev Cell Dev Biol**, 2006;22:651-75.

Christensen C, Ambartsumian N, Gilestro GF, Thomsen B, Comoglio PM, Tamagnone L, Guldberg P, Lukanidin E - Proteolytic processing converts the repelling signal Sema3E into an inducer of invasive growth and lung metastasis - **Cancer Research**, 2005 Jul 15;65(14):6167-6177

Artigiani S, Conrotto P, Fazzari P, Gilestro GF, Barberis D, Giordano S, Comoglio PM and Tamagnone L - Plexin-B3 is a functional receptor for semaphorin 5A - **EMBO Reports**, 2004 Jul;5(7):710-4

Giordano S, Corso S, Conrotto P, Artigiani S, Gilestro GF, Barberis D, Tamagnone L, Comoglio PM - Semaphorin 4D Receptor controls invasive growth by coupling with Met tyrosine kinase - **Nature Cell Biology**, 2002 Sep;4(9):720-4

Petrelli A, Gilestro GF, Lanzardo S, Comoglio PM, Migone N and Giordano S - The Endophilin-CIN85-Cbl complex mediates ligand-dependent downregulation of c-Met - **Nature**, 2002 Mar 14;416(6877):187-90

() corresponding author; (*) equal contribution*

Software - A list of software created by the laboratory is available at <https://lab.gilest.ro/software/> All software is released as Open Source.