

Irene Miguel-Aliaga

Curriculum vitae

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Education

- 09/1997 - 03/2001 DPhil in Genetics. Supervisor: Prof. Kay Davies, Department of Human Anatomy and Genetics, University of Oxford, UK.
- 09/1991 - 06/1997 First-class honours in Biochemistry. Universitat Autònoma de Barcelona, UAB, Spain.

Appointments

- 09/2016 - present Professor of Genetics and Physiology, Imperial College London.
- 07/2015 - present MRC Investigator, MRC LMS.
- 07/2017 - 04/2021 Section Chair, Genes & Metabolism Section, MRC London Institute of Medical Sciences (LMS).
- 08/2014 - 08/2016 Reader in Genetics and Physiology, Imperial College London.
- 10/2012 - 06/2015 Programme Leader Track, MRC LMS.
- 06/2008 - 10/2012 Wellcome Trust Research Career Development Fellow, Department of Zoology, University of Cambridge.
- 01/2005 - 05/2008 Marie Curie and MRC Postdoctoral Fellow in the lab of Dr. Alex P. Gould, Division of Mammalian Development, MRC National Institute for Medical Research, London.
- 03/2001 - 12/2004 Postdoctoral Research Fellow in the lab of Prof. Stefan Thor. Department of Neurobiology, Harvard Medical School, USA and Linköping University, Sweden.

Awards and Honours

- 2022 Elected to the Royal Society as a Fellow (FRS).
- 2022 Genetics Society Mary Lyon Medal.
- 2021 Featured in *Dev Cell* journal ("Voices" article).
- 2020 Featured in *Development* journal.
- 2019 Elected to the Academy of Medical Sciences as a Fellow (FMedSci).
- 2018 Suffrage Science Women in Science Award.
- 2017 Elected to EMBO.
- 2015 Featured by the *Journal of Cell Science* as a "cell scientist to watch".
- 2015 Featured in the Physiological Society's "Women Physiologists" book.
- 2012 - 2014 Elected to EMBO Young Investigator Programme (EMBO YIP).
- 2008 - 2014 Wellcome Trust Research Career Development Fellowship.
- 2008 Royal Society University Research Fellowship (declined in favour of RCDF).
- 2005 - 2007 EU Marie Curie Intra-European Fellowship.
- 1998 University of Oxford Goodger Scholarship.
- 1997 - 1998 "La Caixa"-British Council award.
- 1997 Spanish Ministry of Education and Science prize: Best National Academic Record.
- 1997 UAB Prize for the best academic record.
- 1996 Spanish Ministry of Education and Science Studentship.

Funding

- 2021 - 2026 MRC core grant "Gut Signalling and Metabolism".
- 2018 - 2023 ERC Advanced Grant: "IntraGutSex".

Previous significant lab funding: ERC Starting Grant, 2 x BBSRC project grants, Wellcome Trust RCDF, 3 x EMBO LTFs, EMBO Advanced Fellowship, JSPS and Uehara Foundation postdoctoral fellowships.

Committee Membership and Reviewer Activities

2023 - 2024	Member, Keystone Symposia Study Group.
2022 - present	Member, COS Heidelberg Scientific Advisory Board.
2021 - present	Member, Institute Curie Department of Genetics and Developmental Biology Unit's Scientific Advisory Board.
2021 - present	Member, Vienna Drosophila Resource Center (VDRC) Scientific Advisory Board.
2021	Member, MRC Sex in Experimental Design Working group.
2021	Member, BIH Excellence Award for Sex and Gender Aspects in Health Research Panel.
2022 - present	Member, LMS External Awards Committee.
2021 - present	Academic advisor, MRC LMS Microscopy facility.
2021 - present	Academic advisor, MRC LMS Grants, Engagement and Communications (GEC) facility.
2021 - present	External consultant for Fundación AdiTech (gender dimension in research).
2020 - present	Associate Editor, <i>Development</i> journal.
2020 - 2022	Director, Genetics Society of America Board of Directors.
2020 - 2021	Member, MRC LMS Virtual Institute Planning and Emergency Response (VIPER) group.
2019 - present	Board Member, MRC Neurosciences & Mental Health Board.
2020 - present	Board Member, Scientific Advisory Board, Centre for Developmental Neurobiology, King's College London, UK.
2020 - present	Board Member, External Advisory Board for Utah Intestinal Stem Cell & Metabolism group.
2019 - present	Committee Member, Scientific Advisory Committee, Centre for Integrative Genomics (CIG), University of Lausanne, Switzerland.
2019 - present	Board Member, Scientific Advisory Board, Instituto de Investigación Sanitaria del Principado de Asturias (ISPA), Spain.
2019 - present	Committee Member, <i>Drosophila</i> Image Award Committee.
2017 - present	Chair or Member, Scientific Advisory Board, IGFL Lyon, France.
2018	Panel Member, University of Cyprus promotion panel, Cyprus.
2017 - present	Member, Imperial College European Advisory Group.
2017	Panel Member, Institut Curie promotion panel, Paris, France.
2016 - present	Panel Member, Faculty of Medicine Imperial College Research Fellowships Panel.
2016 - present	Member, Wellcome Trust Pool of Prospective Committee Members.
2016 - present	Committee Member, LMS Facilities Review Committee.
2015 - present	Academic advisor, MRC Bioinformatics facility.
2015 - 2019	Member, BBSRC Pool of Experts (grant reviewer and occasional committee member).
2015 - present	Member, MRC LMS Institute Planning and Operations Group.
2010	Panel member, "Ramon y Cajal" awards 2010 (Spanish government).
	Ad-hoc reviewer for ERC (Advanced, Consolidator and Starting Grants), Wellcome Trust, MRC, BBSRC, Leverhulme Trust, NC3Rs, ANR (France), DFG (Germany), ANEP (Spain), ISF (Israel), Novo Nordisk (Denmark), Research Foundation Flanders – FWO (Belgium), Research Promotion Foundation (Cyprus) and the Nutrition Obesity Research Center (University of Michigan).
	Ad-hoc reviewer for <i>Science</i> , <i>Nature</i> , <i>Elife</i> , <i>Cell Metab</i> , <i>Nat Metab</i> , <i>Nat Genet</i> , <i>Nat Cell Biol</i> , <i>Dev Cell</i> , <i>Genes Dev</i> , <i>Nat Methods</i> , <i>eLife</i> , <i>PLoS Biol</i> , <i>Proc Natl Acad Sci U S A</i> , <i>EMBO J</i> , <i>Curr Biol</i> , <i>PLoS Genetics</i> , <i>Nat Commun</i> , <i>Aging Cell</i> , <i>Trends Endoc Metab</i> , <i>Development</i> , <i>Dis Model Mech</i> , <i>Cell Rep</i> , <i>J Insect Physiol</i> , <i>J Exp Biol</i> , <i>Cell Res</i> , <i>BMC Genomics</i> , <i>Biol Sex Differ</i> , <i>PLoS One</i> .
	Guest Editor for <i>PLoS Genetics</i> .
	Interviewer for EMBO Long-Term Fellowships.

Mentoring and Teaching

2022	Member, Reviewing panel for Genomic Education Partnership microPublication articles.
2020 - present	Mentor, Academy of Medical Sciences SUSTAIN mentoring programme.
2019 - present	Mentor, Imperial College's mentoring scheme.
2016 - present	External mentor to Wellcome Trust/DBT India Alliance Fellow.
2016 - 2017	Deputy Chair, Athena Swan Opportunities Committee.
2015 - present	External mentor to Wellcome Trust Henry Dale Fellow.
2016 - present	Internal mentor to MRC LMS junior Group Heads.
2015 - present	In-house postdoctoral mentor, MRC London Institute of Medical Sciences.
2014 - 2019	Committee Member, Athena Swan Self-Assessment Team and Opportunities Committee.
2020 - present	Lecturer, MSc Genetics and Genomics (University of Barcelona, Spain).
2017 - present	Lecturer, MSc Applied Genomics (Imperial College London).

2017 - 2019 Lecturer, MRC LMS PhD Programme.
 2015 - present Lecturer, MRes Biomedical Research, MHD stream (Imperial College London).
 2016 - 2017 Lecturer/Tutor, MA Design Products "Human Culture: the human experience of materials applied to eating food" post-graduate student project (Royal College of Art).
 2009 - 2012 Lecturer, Core Course in Developmental Biology, Wellcome PhD Programme, Neurogenesis sessions (University of Cambridge).
 1998 - 2000 Demonstrator, *Drosophila* Genetics Practicals (University of Oxford).
 1999 - 2000 Demonstrator, Microbial Genetics Practicals (University of Oxford).
 Supervision of 8 PhD students and 6 Erasmus/Masters students.
 Second advisor to 12 PhD students.
 Examiner for 11 PhD and 3 MPhil vivas.

Meeting Organiser

09/2023 27th European *Drosophila* Research Conference, IGFL, Lyon. Workshop co-organiser and chair.
 03/2023 5th RIKEN BDR Symposium 'Transitions in Biological Systems', Kobe, Japan. External organiser.
 03/2022 EMBO-EMBL symposium "Inter-organ communication in physiology and disease", Heidelberg, Germany. Co-organiser.
 08/2022 - 07/2026 EMBO Conference "Molecular and Developmental Biology of *Drosophila*", Crete. Organising committee co-chair.
 03/2021 Keystone Virtual Symposium "Metabolic Decisions in Development and Disease". Co-organiser.
 2020 - 2022 ASCB/EMBO Meeting Program Committee member and Symposium Chair (virtual).
 2020 - present Insect Hormone Workshop. International Advisory Committee member.
 11/2020 Inter-organ Communication in Health and Disease Virtual Symposium. Co-organiser.
 02/2020 1st MRC LMS/Helmholtz Munich Symposium on Metabolism, London, UK. Co-organiser.
 2019 - present International Insect Hormone Meeting. Member of the International Organising Committee.
 07/2014 - 07/2022 EMBO Conference "Molecular and Developmental Biology of *Drosophila*", Crete, Greece. Organising committee member.
 09/2017 25th European *Drosophila* Research Conference, London, UK. Workshop co-organiser and chair.
 10/2016 Brainy Tongue: The Sensory Logic of the Gastronomic Brain, San Sebastian, Spain. Co-organiser.
 09/2015 24th European *Drosophila* Research Conference, Heidelberg, Germany. Workshop co-organiser and chair.
 10/2013 23rd European *Drosophila* Research Conference, Barcelona, Spain. Workshop co-organiser and chair.
 09/2011 22nd European *Drosophila* Research Conference, Lisbon, Portugal. Workshop co-organiser and chair.
 2016 - present LMS external seminar series coordinator.
 2014 - 2015 LMS external seminar series organiser.
 2010 - 2012 Department of Zoology Tea Talks organiser (University of Cambridge).
 2010 - present London Gut Club (formerly Cambridge Gut Club) organiser: a biannual series of presentations by members of labs working on the mammalian or invertebrate intestine.

Invited Research Presentations

Conference speaker

09/2023 EMBO Workshop "Developmental Metabolism - flows of energy, matter and information", Heidelberg, Germany.
 05/2023 Conférence Jacques Monod "Growth and regeneration during development and aging". Roscoff, France.
 04/2023 Cell Symposia "Neurometabolism in Health and Disease", Singapore.
 02/2023 Joint Keystone Symposia on Stem Cells: Advances in the Application of Stem Cells and their Role in vivo / Organoids as Models of Development and Disease, and their Impact on Drug Discovery, Keystone, Colorado, USA.
 11/2022 UNIA workshop "Cellular Plasticity in Homeostasis and Disease", Baeza, Spain.
 11/2022 ASCB/EMBO Cell Bio 2022, Washington, USA.
 10/2022 International Society of Developmental Biology (ISDB) Congress, Algarve, Portugal.

10/2022 2nd Crick-Beddington Developmental Biology Symposium, Crick Institute, London, UK.

10/2002 6th Symposium on Growth and Regeneration, Begur, Spain.

09/2022 15th meeting of the Zebrafish Disease Models Society, Sheffield, UK. Keynote talk.

09/2022 BSRA/BioChemSoc Nutrition and the Biology of Ageing conference, Canterbury, UK.

08/2022 EMBO Workshop “Cell and Developmental Systems”, Arolla, Switzerland.

07/2022 FENS Forum, Paris, France. Plenary Speaker.

06/2022 Annual Harvard Digestive Diseases Center (HDDC) Symposium, Cambridge MA, USA.

11/2021 EMBO | EMBL Symposium: Metabolism Meets Epigenetics (virtual).

02/2021 Janelia Workshop on Cellular Mechanisms of Brain-Body Interactions (virtual).

11/2020 ERC conference “Gender Dimension in Research”, Brussels, Belgium (virtual).

09/2020 2020 Oxford Autumn School in Neuroscience (virtual).

10/2019 10th Meeting of the Latin American Society for Developmental Biology, Buenos Aires, Argentina.

09/2019 26th European *Drosophila* Research Conference, Lausanne, Switzerland. EMBO Keynote Lecture.

07/2019 8th International Symposium on Molecular Insect Science, Sitges, Spain.

07/2019 4th Insect Hormone Meeting, Kolymbari, Crete, Greece.

05/2019 Mechanisms of Insect Nutritional Homeostasis workshop, Bonn, Germany

01/2019 Keystone Symposia on Cellular Plasticity/ Developmental Signaling, Keystone, Colorado, USA.

09/2018 EU-LIBRA Workshop “Sex and Gender in Research and Experimental Design”, Babraham Institute, Cambridge, UK.

09/2018 “Developing Brains” Conference, Stockholm, Sweden.

08/2018 EMBO Workshop “Cell and Developmental Systems”, Arolla, Switzerland.

07/2018 Gordon Research Conference on Neural Development, Newport, USA.

07/2018 “1st International Helmholtz Conference on Engineering Biomedical and Metabolic Breakthroughs”, Venice, Italy.

05/2018 “Gastronauts: A Symposium on Gut-brain Matters”, Duke-NUS Singapore.

05/2018 6th UK Workshop on Developmental Cell Biology of *Drosophila*, The Burn, Scotland, UK.

03/2018 Annual Postdoc Symposium, Sir William Dunn School of Pathology, University of Oxford, UK. Keynote speaker.

02/2018 Keystone Symposium on Endoderm Development and Disease: Cross-Organ Comparison and Interplay, Taos, New Mexico.

12/2017 “Hot Topics in Biology” workshop. Max Planck Institute for Biophysical Chemistry, Goettingen, Germany.

10/2017 SEG- SEBC- SEBD Joint Congress, Gijon, Spain.

10/2017 MDC Careers Day, Berlin, Germany.

09/2017 Portuguese *Drosophila* Meeting, Tomar, Portugal. Keynote speaker.

06/2017 ISDB 18th International Congress of Developmental Biology, Singapore.

05/2017 EMBO Conference “Stem Cells in Cancer and Regenerative Medicine”, EMBL Heidelberg, Germany.

05/2017 4th Asia-Pacific *Drosophila* Research Conference, Osaka, Japan.

05/2017 EMBO | EMBL Symposium “Metabolism in time and space”, Heidelberg, Germany.

03/2017 58th Annual *Drosophila* Research Conference, San Diego, USA. Plenary talk.

11/2016 18th EMBL PhD Symposium “Life by Numbers: Towards Quantitative Biology”. EMBL Heidelberg, Germany.

10/2016 Cell Press/Fondation IPSEN Exciting Biologies meeting “Biology of Commitment”. Phoenix, Arizona, USA.

09/2016 German *Drosophila* Meeting. Cologne, Germany. Keynote speaker.

07/2016 Rank Prize Funds mini-symposium on Dietary Restriction and Ageing, Cumbria, UK.

07/2016 10th FENS Forum of Neuroscience, Copenhagen, Denmark. Symposium speaker.

06/2016 20th EMBO Conference Development of *Drosophila*, Crete, Greece.

05/2016 Shaping Life, Marseille, France.

05/2016 EMBO Workshop “Neural control of metabolism and eating behaviour”, Cascais, Portugal.

04/2016 Fondation des Treilles “Integrative Physiology” meeting, France.

07/2015 Society for Developmental Biology 74th Annual Meeting. Snowbird, Utah, USA.

04/2015 Enteric Nervous System 2015, Rotterdam, the Netherlands.

04/2015 British Societies of Developmental Biology and Cell Biology Meeting, Warwick, UK.

09/2014 5th ASM Conference on Beneficial Microbes, Washington, USA.

06/2014 Gordon Research Conference on Molecular and Cellular Neurobiology, Hong Kong, China (declined because of conflicting dates).

06/2014 19th EMBO Conference Development of *Drosophila*, Crete, Greece.

04/2014 “Visions in Cell Biology” Symposium, Max Planck Institute, Dresden, Germany.

06/2012 18th EMBO Conference “Development of *Drosophila*”, Crete, Greece. I was also invited to write the meeting report.

01/2012 Temasek Life Sciences Laboratory Annual Symposium, Singapore (declined because of maternity leave).

10/2011 25th Annual French *Drosophila* Conference, Lyon, France.

09/2011 1st Junior European *Drosophila* Investigator Meeting, Leysin, Switzerland.

06/2010 17th EMBO Conference “Development of *Drosophila*”, Crete, Greece. Talk highlighted in an EMBO reports article: *EMBO reports* 11, 724 - 726.

03/2009 21st Cambridge Neuroscience Meeting “New Approaches in Neuroscience”, UK.

Invited talks

06/2023 FMI Basel, Switzerland.

06/2023 BIG Seminar, Lausanne, Switzerland.

01/2023 COS Keynote seminar, Heidelberg, Germany.

11/2022 Life Science Seminar Series, Zurich, Switzerland (virtual).

06/2022 Annual Harvard Digestive Diseases Center (HDDC) Symposium, USA.

04/2022 Pasteur Institute, Paris, France.

01/2022 Fred Hutchinson Cancer Research Center, Seattle, USA (virtual).

12/2021 Novo Nordisk Foundation Center for Stem Cell Biology (DanStem), Copenhagen, Denmark.

11/2021 Babraham Institute « My Life In Science » seminar series, Cambridge, UK.

11/2021 Centre for Cancer Cell Reprogramming (CanCell), Oslo, Norway.

09/2021 Broad Institute's Metabolism Program, Cardiovascular and Kidney Disease Initiatives (virtual).

04/2021 Instituto de Neurociencias, Alicante, Spain (virtual).

04/2021 IST Vienna, Austria (virtual).

03/2021 “Frontiers in Biology” webinar series, Stanford University, USA (virtual).

03/2021 Developmental Biology Seminar Series, University of Cambridge, UK (virtual).

01/2021 Beatson Institute, Glasgow, UK. Distinguished seminar (virtual).

10/2020 Stowers Institute for Medical Research, Kansas City, USA (virtual).

09/2020 WorldWideNeuro – Brain-body Interactions virtual seminar series (virtual).

09/2020 Centre for Stem Cells and Regenerative Medicine, King's College London (virtual).

02/2020 University of Sheffield, Sheffield, UK.

01/2020 Molecular and Cellular Biology Department, Harvard University, USA.

01/2020 NIH/NIDDK, Bethesda, USA.

11/2019 University of Münster, Münster, Germany.

11/2019 Dundee School of Life Sciences, UK.

08/2019 The Biosciences Patricia Clarke Lecture 2019, UCL London, UK.

05/2019 Molecular and Cellular Biology Department, Harvard University, USA.

03/2019 Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany.

12/2018 MRC Harwell Institute, Harwell, UK.

09/2018 UCL Metabolism Club, London, UK.

05/2018 CIG Lausanne, Switzerland.

04/2018 Centre for Developmental Neurobiology, King's College London, UK.

01/2018 Berlin Life Science Colloquium, Germany.

01/2018 Centre for Molecular Neurobiology, Hamburg, Germany.

11/2017 ESPCI-CNRS Paris, France.

07/2017 Helmholtz Center and Helmholtz Pioneer Campus, Munich, Germany.

04/2017 Linda Partridge's lab retreat, Ringberg Castle, Germany.

04/2017 Stanford University School of Medicine, Stanford, USA.

03/2017 University of California Los Angeles (UCLA), USA.

02/2017 Gurdon Institute, University of Cambridge, UK.

12/2016 Institute of Metabolic Science, University of Cambridge, UK.

12/2016 Max Delbrück Center for Molecular Medicine, Berlin, Germany.

02/2016 Max Planck Institute of Neurobiology, Martinsried, Germany.

01/2016 Manchester University, UK.

12/2015 Oxford University, UK.

10/2015 Université Nice Sophia Antipolis, France.
 02/2015 Umea University, Sweden.
 10/2014 Skirball Institute, New York, USA.
 02/2014 École Polytechnique Fédérale de Lausanne, Switzerland.
 01/2014 Randall Division of Cell & Molecular Biophysics, King's College London, UK.
 12/2013 Institut Curie, Paris, France.
 11/2013 MRC Laboratory for Molecular Cell Biology, UCL, London.
 03/2013 Institute of Molecular Life Sciences, University of Zurich, Switzerland.
 02/2013 MRC Centre for Developmental Neurobiology, King's College London.
 02/2013 VIB and KU Leuven School of Medicine, Leuven, Belgium.
 11/2012 Beatson Institute for Cancer Research, Glasgow, UK.
 06/2012 Oxford University, UK.
 02/2012 Trinity College Dublin, Ireland (declined because of maternity leave).
 07/2011 Queen Mary University of London, UK.
 06/2011 École Polytechnique Fédérale de Lausanne, Switzerland.
 05/2011 IRB Barcelona, Spain.
 02/2011 Institut de Biologie du Développement de Marseille Luminy, France.
 10/2010 Centre de Biologie du Développement, Toulouse, France.
 10/2010 UCL, London, UK.
 09/2010 University of Helsinki, Finland.
 10/2009 Wolfson Centre for Age-Related Diseases, London, UK.

Public Engagement

06/2022 Interviewed by El Pais, La Vanguardia, XL Semanal (Royal Society election).
 06/2022 Imperial Science Festival "Bungee Gut" activity.
 02/2022 Contribution to "A Picture of Health" multimedia project.
 01/2021 Contribution to EXP-editions, The Living Library of Knowledge (<https://exp-editions.com/>).
 05/2019 Lab contribution to Pint of Science 2019 event: "Tomorrow's medicine, today!"
 04/2018 Imperial Festival. We contributed an interactive installation to demonstrate the use of *Drosophila* to replace and reduce animal experimentation.
 10/2016 "Brainy Tongue: The Sensory Logic of the Gastronomic Brain" workshop (San Sebastian, Spain), featuring world-renowned chefs and neurobiologists. Included open session featured by media worldwide (e.g. <http://www.bbc.co.uk/news/business-37800097>).
 02/2016 BBC Radio 4 interview (<http://www.bbc.co.uk/programmes/b0713p30>).
 02/2016 Hudry *et al.* featured by The Daily Mail, The Daily Telegraph, Medical News Today, i (the paper for today), Press and Journal (Scotland), Medical Xpress, Yahoo! News, BT.com, Irish Examiner, The Conversation.
 02/2016 Lab stand at the "Imperial Fringe: Food of Tomorrow" public engagement event.
 01/2016 My lab contributed a talk to the University of the Third Age visit.
 10/2015 Hosted Minister for the Life Sciences George Freeman during his visit to the LMS. In the lab, we showed him how flies can be used to study obesity and cancer.
 07/2015 Reiff *et al.* featured by New Scientist, Daily Mail, Daily Telegraph, Daily Mirror, Evening Standard, Metro, CBS News, Irish Independent, SBS and 9 News (amongst others).
 03/2014 Contributed video to New York Imagine Science Films Festival (<http://imaginesciencefilms.org/>).
 01/2014 Joint MRC / University of the Arts London workshop "Fabrics of Life" (<http://csc.mrc.ac.uk/fabrics-of-life-2014-big-data/>).
 2013 - present Microscopy demonstrations (*Drosophila* life cycle) to primary school children.
 07/2012 Contributed images to "The Cell: An Image Library" (www.cellimagelibrary.org/).
 03/2012 My lab contributed a video to the University of Cambridge "Under the microscope" series, accessible on YouTube (<http://www.youtube.com/watch?v=CDg2Keu3HT8>).
 03/2011 BBC audio slideshow (<http://www.bbc.co.uk/news/science-environment-12686745>).
 03/2011 Cambridge Science Festival. Organiser of the event "Playing with the entrails of fruit flies".
 01/2011 Cognigni *et al.* featured by New Scientist, Times Higher Education, CBS News, Le Point, Discover Magazine, Times of India (amongst others).
 01/2010 Contributed images to the University of Cambridge's 800th anniversary light show. One of them was also the exclusive image used for the posters and flyers advertising the event.
 01/2010 Interviewed by ITV Anglia (800th anniversary feature).
 2001/02 Freelance writer (press releases) for the scientific journal *Neuron*.

Additional Information

Chief investigator on IRAS project “Optimisation of Intestinal Imaging” involving human participants (ethical approval ref 20/SW/0172, 04/2021 – 03/2026).

Holder of an NIHR Good Clinical Practice certificate 02/2021.

Holder of a Home Office Project Licence (for mouse work) 04/2018 – 04/2023.

Member of the Biochemical Society, Genetics Society, British Society for Developmental Biology, British Society for Cell Biology, Physiological Society, Society for Developmental Biology, Organization for the Study of Sex Differences and Genetics Society of America.

Publications

Book chapters

Miguel-Aliaga, I., Jasper, H., Lemaitre, B. (2018) Anatomy and Physiology of the Digestive Tract of *Drosophila melanogaster*. In Development & Growth section of *FlyBook*, edited by Cooley, L., Hawley, S., Markow, T., Spradling, A. In *Genetics* 210(2):357-396.

Peer-reviewed publications

Wang, Y., Blackie, L., Miguel-Aliaga, I., Bai, W. (2022) Memory-efficient segmentation of high-resolution volumetric microCT images. *Proc Mach Learn Res*, accepted.

Imambocus, B.N., Zhou, F., Formozov, A., Wittich, A., Tenedini, F.M., Hu, C., Sauter, K., Macarenhas Varela, E., Herédia, F., Casimiro, A.P., Macedo, A., Schlegel, P., Yang, C.H., Miguel-Aliaga, I., Wiegert, J.S., Pankratz, M.J., Gontijo, A.M., Cardona, A., Soba P. (2021) A neuropeptidergic circuit gates selective escape behavior of *Drosophila* larvae. *Curr Biol* S0960-9822(21)01513-X.

Messal, H.A., Almagro, J., Thin, M.Z., Tedeschi, A., Ciccarelli, A., Blackie, L., Anderson, K.I., Miguel-Aliaga, I., van Rheenen, J., Behrens, A. (2021) Antigen retrieval and clearing for whole organ immunofluorescence by FLASH. *Nat Protoc* 16(1):239-262.

Millington, J.W., Brownrigg, G.P., Chao, C., Sun, Z., Basner-Collins, P.J., Wat, L.W., Hudry, B., Miguel-Aliaga, I., Rideout, E.J. (2021) Female-specific upregulation of insulin pathway activity mediates the sex difference in *Drosophila* body size plasticity. *Elife* 10:e58341.

Hadjieconomou, D., King, G., Gaspar, P., Mineo, A., Blackie, L., Ameku, T., Studd, C., de Mendoza, A., Diao, F., White, B.H., Brown, A.E.X., Plaçais, P.-Y., Preat, T., Miguel-Aliaga, I. (2020) Enteric neurons increase maternal food intake during reproduction. *Nature* 587(7834):455-45. *Highlighted by Nat Rev Neurosci*.

Redhai, S., Pilgrim, C., Riabinina, O., Lopes, T., Chanana, B., Dahalan, F., Yuan, M., Wilsch-Brauninger, M., Lin, W., Milona, A., Dennison, N., Capriotti, P., Lawniczak, M.K.N., Baines, R.A., Warnecke, T., Windbichler, N., Miguel-Aliaga, I. (2020) An intestinal zinc sensor regulates food intake and developmental growth. *Nature* 580(7802):263-268. *F1000Prime-recommended and highlighted by Nature News and Views and Allergy News and Views*.

Milona, A., Massafra, V., Vos, H., Naik, J., Artigas, N., Paterson, H.A.B., Bijsmans, I.T.G.W., Willemsen, E.C.L., Ramos Pittol, J.M., Miguel-Aliaga, I., Bosma, P., Burgering, B.M.T., Williamson, C., Vernia, S., Dhillon, W.S., van Mil, S.W.C., Owen, B.M. (2019) Steroidogenic control of liver metabolism through a nuclear receptor-network. *Mol Metab* 30:221-229.

Hudry, B., de Goeij, E., Mineo, A., Gaspar, P., Hadjieconomou, D., Studd, C., Mokochinski, J.B., Kramer, H.B., Plaçais, P.-Y., Preat, T., Miguel-Aliaga, I. (2019) Sex differences in intestinal carbohydrate metabolism promote food intake and sperm maturation. *Cell* 178(4):901-918.e16. *F1000Prime-recommended and highlighted by Dev Cell and Nat Rev Urol*.

Grmai, L., Hudry, B., Miguel-Aliaga, I., Bach, E. A. (2018) Chinmo prevents transformer alternative splicing to maintain male sex identity. *PLOS Genet* 14(2):e1007203.

Perea, D., Guiu, J., Hudry, B., Konstantinidou, C., Milona, A., Hadjieconomou, D., Carroll, T., Hoyer, N., Natarajan, D., Kallijärvi, J., Walker, J.A., Soba, P., Thapar, N., Burns, A.J., Jensen, K.B., Miguel-Aliaga, I. (2017) Ret receptor tyrosine kinase sustains proliferation and tissue maturation in intestinal epithelia. *EMBO J* 36(20):3029-3045. *F1000Prime-recommended*.

- Hudry, B., Khadayate, S., Miguel-Aliaga, I. (2016) The sexual identity of adult intestinal stem cells controls organ size and plasticity. *Nature* 530:344-8. *F1000Prime-recommended and highlighted by Cell Stem Cell Preview, Curr Biol Dispatch and Nature News and Views.*
- Reiff, T., Jacobson, J., Cognigni, P., Antonello, Z.A., Ballesta, E., Tan, K.J., Yew, J.Y., Dominguez, M., Miguel-Aliaga, I. (2015) Endocrine remodelling of the adult intestine sustains reproduction in *Drosophila*. *Elife* 4:e06930. *F1000Prime-recommended and highlighted by Elife Insight and Curr Biol Dispatch.*
- Soba, P., Han, C., Zheng, Y., Perea, D., Miguel-Aliaga, I., Jan, L.Y., Jan, Y.N. (2015) The Ret receptor regulates sensory neuron dendrite growth and integrin mediated adhesion. *Elife* 4:05491.
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