

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

07/2017 - present MRC LMS Section Chair (Genes & Metabolism Section).
09/2016 - present Professor of Genetics and Physiology, Imperial College London.
07/2015 - present Programme Leader. MRC London Institute of Medical Sciences (LMS, formerly CSC).
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, UK.
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, Honours and Fellowships

2019 Elected to the Academy of Medical Sciences (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.

Current Funding

2018 - 2023 ERC Advanced Grant: “IntraGutSex”.
Reviewed every 5yrs MRC core grant “Gut Signalling and Metabolism”.
2020 - 2021 Uehara Memorial Foundation overseas postdoctoral fellowships to T. Ameku (postdoc).
2018 - 2020 JSPS Postdoctoral Fellowship to T. Ameku (postdoc).
2017 - 2019 EMBO Long-term Fellowship to A. Mineo (postdoc).

Committee Membership and Reviewer Activities

2020 - present Associate Editor of *Development* journal.
2020 - 2022 Board Director, Genetics Society of America.
2019 - present Member of MRC Neurosciences & Mental Health Board.
2019 - present Member of Scientific Advisory Committee, Centre for Integrative Genomics (CIG), University of Lausanne, Switzerland.
2019 - present Member of Scientific Advisory Board, Instituto de Investigación Sanitaria del Principado de Asturias (ISPA), Spain.
2019 - present Member of the *Drosophila* Image Award Committee.
2017 - 2019 Chair of Scientific Advisory Board, Institute of Functional Genomics of Lyon (IGFL), France.
2018 Member of promotion panel, University of Cyprus, Cyprus.
2017 Member of promotion panel, Institut Curie, Paris, France.
2015 - 2019 BBSRC Pool of Experts (frequent reviewer and occasional committee member).
2016 - present Wellcome Trust Pool of Prospective Committee Members.
2015 - present Member of MRC LMS Institute Planning and Operations Group.
2017 - present Member of Imperial College European Advisory Group.
2015 - present Member of MRC LMS Space Committee.
2016 - present Member of Faculty of Medicine Imperial College Research Fellowships Panel.
2016 - 2017 Deputy Chair of Athena Swan Opportunities Committee.
2014 - present Member of the Athena Swan Self-Assessment Team and Opportunities Committee.
2015 - present Academic advisor to the LMS Bioinformatics Facility.
2016 - present Member of LMS Facilities Review Committee.
Ad-hoc reviewer for ERC, 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 *Science*, *Nature*, *Elife*, *Cell Metab*, *Nat Genet*, *Nat Cell Biol*, *Dev Cell*, *Genes Dev*, *Nat Methods*, *PLoS Biol*, *Proc Natl Acad Sci U S A*, *EMBO J*, *Curr Biol*, *PLoS Genetics*, *Nat Commun*, *Aging Cell*, *Trends Endoc Metab*, *Development*, *Dis Model Mech*, *Cell Rep*, *J Insect Physiol*, *J Exp Biol*, *Cell Res*, *BMC Genomics*, *Biol Sex Differ*, *PLoS One*.
Guest Editor for *PLoS Genetics*.
Scientific reviewer and committee member for “Ramon y Cajal” awards 2010 (Spanish government returning fellowships for independent researchers).
Interviewer for EMBO Long-Term Fellowships.

Mentoring and Teaching

2016 - 2017 Deputy Chair of Athena Swan Opportunities Committee.
2014 - present Member of the Athena Swan Self-Assessment Team and Opportunities Committee.
2016 - present External mentor to Dr. Sveta Chakrabarti (Wellcome Trust/DBT India Alliance Fellow, Bangalore, India).
2015 - present External mentor to Dr. Julia Cordero (Wellcome Trust Henry Dale Fellow, University of Glasgow).
2016 - present Internal mentor to Drs. Santiago Vernia, Saravana Ramasamy and Louise Fets (LMS junior Group Heads).
2015 - present I am one of four postdoctoral mentors at the MRC London Institute of Medical Sciences.
2017 - present Lecturer, Functional Omics MSc (Imperial College London).
2017 - present Lecturer, “Gut Signalling and Metabolism”, MRC LMS PhD Programme.
2015 - present Lecturer, Microbiome in Health and Disease MRes (Imperial College London).
2016 Lecturer, “Human Culture: the human experience of materials applied to eating food” post-graduate student project, Design Products (Royal College of Art).
2009 - 2012 Neurogenesis sessions of Core Course in Developmental Biology (Wellcome PhD Programme, University of Cambridge).
1998 - 2000 *Drosophila* Genetics Practicals Demonstrator (University of Oxford).
1999 - 2000 Microbial Genetics Practicals Demonstrator (University of Oxford).
Supervision of 6 PhD students and 4 Erasmus/Masters students.
Second advisor to 11 PhD students.
Examiner for 7 PhD and 1 MSc vivas.

Meeting Organiser

03/2021	Keystone Symposium “Metabolic Decisions in Development and Disease”, Santa Fe, New Mexico, USA. Symposium co-organiser.
2020 - 2021	ASCB/EMBO Meeting Program Committee member.
2020 - present	Insect Hormone Workshop. International Advisory Committee member.
08/2020 - 07/2026	EMBO Conference “Molecular and Developmental Biology of <i>Drosophila</i> ”. Organising committee co-chair.
05/2020	“Gastronauts 2020: A Symposium for Gut-Brain Matters”, Nantes, France. Symposium co-organiser.
03/2020	EMBO Symposium “Inter-organ Communication in Development and Disease”, EMBL Heidelberg, Germany. Symposium co-organiser.
02/2020	1 st LMS/Helmholtz Munich Symposium on Metabolism, London, UK.
2019 - present	International Insect Hormone Meeting. Member of the International Organizing Committee.
07/2014 - 07/2020	EMBO Conference “Molecular and Developmental Biology of <i>Drosophila</i> ”, Crete, Greece. Organising committee member.
09/2017	25 th European <i>Drosophila</i> Research Conference, London, UK. Workshop co-organiser and chair.
10/2016	Brainy Tongue: The Sensory Logic of the Gastronomic Brain, San Sebastian, Spain. Workshop co-organiser.
09/2015	24 th European <i>Drosophila</i> Research Conference, Heidelberg, Germany. Workshop co-organiser and chair.
10/2013	23 rd European <i>Drosophila</i> Research Conference, Barcelona, Spain. Workshop co-organiser and chair.
09/2011	22 nd European <i>Drosophila</i> 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 Talks

Conference speaker

08/2021	EMBO Workshop “Cell and Developmental Systems”, Arolla, Switzerland.
05/2021	2 nd EMBO-FEBS Lecture Course (Summer School) “Molecular mechanisms of interorgan crosstalk in health and disease”, Spetses, Greece.
02/2021	2 nd Crick-Beddington Developmental Biology Symposium, Crick Institute, London, UK.
11/2020	ERC conference “Gender Dimension in Research”, Brussels, Belgium.
10/2020	6 th Biennial Symposium on Growth and Regeneration, Begur, Spain.
07/2020	Intestinal Stem Cell - Niche Interactions in Health and Disease Fusion Conference, Lisbon, Portugal.
04/2020	EMBO meeting “Gender and Cancer Susceptibility”. Les Diablerets, Switzerland.
10/2019	10 th Meeting of the Latin American Society for Developmental Biology, Buenos Aires, Argentina.
09/2019	26 th European <i>Drosophila</i> Research Conference, Lausanne, Switzerland. EMBO Keynote Lecture.
07/2019	8 th International Symposium on Molecular Insect Science, Sitges, Spain.
07/2019	4 th 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.

Seminars

02/2021 Instituto de Neurociencias, Alicante, Spain.

01/2021 Beatson Institute, Glasgow, UK. Distinguished seminar.

09/2020 DanStem, Copenhagen, Denmark.

09/2020 Stockholm University, Sweden. “Frontiers in Molecular Life Sciences” seminar.

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

02/2020 University of Sheffield, Sheffield, UK.

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

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 (<i>Drosophila</i> 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 <i>et al.</i> 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 800 th 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 (800 th anniversary feature).
2001/02	Freelance writer (press releases) for the scientific journal <i>Neuron</i> .

Additional Information

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.

Invited by Springer to edit an academic book on the brain-gut axis (declined).

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.

Primary publications

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 couples micronutrient availability with food intake and developmental growth. *Nature*, in press.

Milona, A., Massafra, V., Vos, H., Naik, J., Artigas, N., Paterson, H.A.B., Bijmans, 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. *F1000-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. *F1000-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. *F1000-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. *F1000-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.
- Wayland, M.T., Defaye, A., Rocha, J., Jayaram, S.A., Royet, J., Miguel-Aliaga, I., Leulier, F., Cognigni, P. (2014) Spotting the differences: Probing host/microbiota interactions with a dedicated software tool for the analysis of faecal outputs in *Drosophila*. *J Insect Physiol* 69:126.
- Martorell, O., Merlos-Suárez, A., Campbell, K., Barriga, F.M., Christov, C.P., Miguel-Aliaga, I., Batlle, E., Casanova, J., Casali, A. (2014) Conserved mechanisms of tumorigenesis in the *Drosophila* adult midgut. *PLoS One* 9(2):e88413.
- Linneweber, G.A., Jacobson, J., Busch, K.E., Hudry, B., Christov, C.P., Dormann, D., Yuan, M., Otani, T., Knust, E., de Bono, M., Miguel-Aliaga, I. (2014) Neuronal control of metabolism through nutrient-dependent modulation of tracheal branching. *Cell* 156(1-2):69. *F1000-recommended and highlighted by EMBO J.*
- Sarraf-Zadeh, L., Christen, S., Sauer, U., Cognigni, P., Miguel-Aliaga, I., Stocker, H., Köhler, K., Hafen, E. (2013) Local requirement of the *Drosophila* insulin binding protein imp-L2 in coordinating developmental progression with nutritional conditions. *Dev Biol* 381(1):97.
- Talsma, A., Christov, C.P., Terriente-Felix, A., Linneweber, G., Shafer, O.T., Miguel-Aliaga, I. (2012) Remote control of renal function by an intestinal neuropeptide. *Proc Natl Acad Sci U S A* 109(30):12177.
- Oyallon, J., Aplitz, H., Miguel-Aliaga, I., Timofeev, K., Ferreira, L., Salecker, I. (2012) Regulation of locomotion and motoneuron trajectory selection and targeting by the *Drosophila* homolog of Olig family transcription factors. *Dev Biol* 369(2):261.
- Pulver S, Cognigni P, Denholm B, Fabre C, Gu W, Linneweber G, Prieto-Godino L, Urbancic V, Zwaart, M. Miguel-Aliaga I. (2011) Why flies? Inexpensive public engagement exercises to explain the value of basic biomedical research on *Drosophila melanogaster*. *Adv Physiol Educ* 35(4):384.
- Cognigni, P., Bailey, A.P., Miguel-Aliaga, I. (2011) Enteric neurons and systemic signals couple nutritional and reproductive Status with intestinal homeostasis. *Cell Metab* 13(1): 92.
- Suska, A., Miguel-Aliaga, I., Thor, S. (2011) Segment-specific generation of *Drosophila* capability neuropeptide neurons by multi-faceted Hox cues. *Dev Biol* 353(1): 72.
- Bardet, P.L., Kolahgar, G., Mynett, A., Miguel-Aliaga, I., Briscoe, J., Meier, P., Vincent, J.P. (2008). A fluorescent reporter of caspase activity for live imaging. *Proc Natl Acad Sci U S A* 105(37): 13901.
- Miguel-Aliaga, I., Thor, S., Gould, A.P. (2008) Postmitotic specification of *Drosophila* insulinergic neurons from pioneer neurons. *PLoS Biol* 6(3): e58.
- Baumgardt, M., Miguel-Aliaga, I., Karlsson, D., Ekman, H., Thor, S. (2007) Specification of neuronal identities by feedforward combinatorial coding. *PLoS Biol* 5, e37.
- Sheldon, T.J., Miguel-Aliaga, I., Gould, A.P., Taylor, W.R., Conklin, D. (2007) A novel family of single VWC-domain proteins in invertebrates. *FEBS Lett* 581(27): 5268.
- Miguel-Aliaga, I., Thor, S. (2004) Segment-specific prevention of pioneer neuron apoptosis by cell-autonomous, postmitotic Hox gene activity. *Development* 131(24): 6093.

Miguel-Aliaga, I., Allan, D.W., Thor, S. (2004) Independent roles of the dachshund and eyes absent genes in BMP signaling, axon pathfinding and neuronal specification. *Development* 131(23): 5837.

Allan, D.W., St Pierre, S.E., Miguel-Aliaga, I., Thor, S. (2003) Specification of neuropeptide cell identity by the integration of retrograde BMP signaling and a combinatorial transcription factor code. *Cell* 113(1): 73. [F1000-recommended](#).

Chan, Y.B., Miguel-Aliaga, I., Franks, C., Thomas, N., Trulzsch, B., Sattelle, D.B., Davies, K.E., van den Heuvel, M. (2003) Neuromuscular defects in a *Drosophila* survival motor neuron gene mutant. *Hum Mol Genet* 12(12): 1367.

Vargas, J.D., Culetto, E., Ponting, C.P., Miguel-Aliaga, I., Davies, K.E., Sattelle, D.B. (2002) Cloning and developmental expression analysis of *ltd-1*, the *Caenorhabditis elegans* homologue of the mouse kyphoscoliosis (*ky*) gene. *Mech Dev* 117(1-2): 289.

Miguel-Aliaga, I., Chan, Y.B., Davies, K.E., van den Heuvel, M. (2000) Disruption of SMN function by ectopic expression of the human SMN gene in *Drosophila*. *FEBS Lett* 486(2): 99.

Miguel-Aliaga, I., Culetto, E., Walker, D.S., Baylis, H.A., Sattelle, D.B., Davies, K.E. (1999) The *Caenorhabditis elegans* orthologue of the human gene responsible for spinal muscular atrophy is a maternal product critical for germline maturation and embryonic viability. *Hum Mol Genet* 8(12): 2133.

Talbot, K., Miguel-Aliaga, I., Mohaghegh, P., Ponting, C.P., Davies, K.E. (1998). Characterization of a gene encoding survival motor neuron (SMN)-related protein, a constituent of the spliceosome complex. *Hum Mol Genet* 7(13): 2149.

Review articles

Ameku, T., Beckwith, H., Blackie, L., Miguel-Aliaga, I. (2020) Food, microbes, sex and old age: on the plasticity of gastrointestinal innervation. *Curr Opin Neurobiol*. In press.

Lemaitre, B., Miguel-Aliaga, I. (2013) The digestive tract of *Drosophila melanogaster*. *Annu Rev Genet* 47:377.

Miguel-Aliaga, I. (2012) Nerveless and gutsy: intestinal nutrient sensing from invertebrates to humans. *Semin Cell Dev Biol* 23(6):614.

Miguel-Aliaga, I., Oliver, B., Teleman, A. A. (2012) The flies of Icarus: science with wings in Crete. *EMBO Rep* 13(11):945.

Miguel-Aliaga, I., Thor, S. (2009) Programmed cell death in the nervous system--a programmed cell fate? *Curr Opin Neurobiol* 19(2): 127.

Interviews

Miguel-Aliaga, I. (2017) Q&A: Irene Miguel-Aliaga. *Curr Biol* 27: R286-R287.

Miguel-Aliaga, I. and Bobrowska, A. (2015) Cell scientist to watch--Irene Miguel-Aliaga. *J Cell Sci* 128: 3519-20.