Curriculum Vitae

Name	**Marco Milán**
Born	Madrid (Spain), 29-7-1968
Address	ICREA and Institute for Research in Biomedicine (IRB Barcelona) Baldiri I Reixac, 10 08028 Barcelona (Spain) Tel: 34 93 403 4902 (office)/34 93 403 4901 (lab) Network: marco.milan@irbbarcelona.org
Nationality	Spain

Education

B.Sc.	Universidad Complutense de Madrid, Spain (1991)
D.Phil	Universidad Autónoma de Madrid, Spain (1995)
Post-doctoral fellow	Centro de Biología Molecular, Spain (1996-97)
Post-doctoral fellow	European Molecular Biology Laboratory, Germany (1997-2000)

Professional experience

2000-2003	Staff Scientist European Molecular Biology Laboratory (EMBL) Heidelberg (Germany)
2003-	ICREA Research Professor Barcelona (Spain)
2003-	Group Leader, IRB Barcelona Barcelona (Spain)
2007-18	Head, Cell and Developmental Biology Programme IRB Barcelona Barcelona (Spain)
2010	Visiting Professor IMCB and National University of Singapore Singapore
2018-	Head, Mechanisms of Disease Programme IRB Barcelona Barcelona (Spain)
2020-	Lecturer University of Barcelona (Spain)

Fellowships:

Formación de Personal Investigador (Spanish Ministry) PhD fellowship	1992-95
Fundación Rich Long term postdoctoral fellowship	1996-97
EMBO Long term postdoctoral fellowship	1997
Human Frontier Science Project Long term postdoctoral fellowship	1997-99

Awards:

Peter und Traudl Engelhorn Stiftung Research Award	2001
EMBO Young Investigator Programme Award	2007
EMBO member	2023

International Committees:

EMBO Journal, Editorial Board, January 2009-September 2020.

EMBO reports, Editorial Board, January 2009-July 2017.

High Council for the Evaluation of Research and Higher Education (HCERES), Chairman of the Evaluation Committee of the Institute of Genetics and Development of Rennes (CNRS-France), February 2016

High Council for the Evaluation of Research and Higher Education (HCERES), Member of the Evaluation Committee of the Institute of Biology Valrose (CNRS-France), February 2017

High Council for the Evaluation of Research and Higher Education (HCERES), Chairman of the Evaluation Committee of the Laboratoire de Biologie du Développement (LBD) (CNRS, UPMC-France), December 2017

Disease, models and mechanisms, Editorial Board, January 2016-

European Drosophila Society (EDS), member of the European Drosophila Board, May 2021-

European Drosophila Society (EDS), vice-President of the European Drosophila Board, May 2023-

Institut Génétic Reproduction et Développement (iGReD, Clermont Ferrand, France), member of the Scientific Advisory Board, July 2022-

Agence Nationale de la Recherche (ANR, France), Cell Biology, Developmental Biology and Evolution Panel Review, 2023-

Cancer Research UK, Discovery Expert Review Panel 3, Autumn 2023

National Committees:

Comisión de Biología Fundamental de evaluación del programa de Formación Posdoctoral Juan de la Cierva, Dirección General de Investigación Científica y Técnica, Madrid, 18,19 May 2015.

Comisión de selección de proyectos de Retos y Excelencia 2015 del Área de Biologia Molecular y Celular, Dirección General de Investigación Científica y Técnica, Madrid, 14-16 December 2015.

Comisión del Area de Biociencia y Biotecnología del Programa Ramón y Cajal 2019 del Área de Biologia Molecular y Celular, Dirección General de Investigación Científica y Técnica, Madrid, 19-20 May 2020.

Jornada de Seguimiento 2020 de Proyectos del Programa de Biociencias y Biotecnología (BIO) Subprograma Biología Molecular y Celular (BMC), 8-9 October 2020

Comisión Técnica del área de Biociencias y Biotecnología, sub-área de Biología Molecular y Celular (BMC), 28-30 April 2021

Comisión de Biología Fundamental de evaluación del programa de Formación Posdoctoral Juan de la Cierva, Agencia Estatal de Investigación, ONLINE, 3 and 4 July 2023

GRANTS:

European Grant- “Abnormal proteins in the pathogenesis of neurodegenerative disorders (APOPIS)” EU-Commission FP6-2002-Lifescihealth-LSH-2002-2.1.3.3 (2004-2006)

Complementary grant to the European Grant: "Abnormal proteins in the pathogenesis of neurodegenerative disorders".BFU2004-0142-E (2004-2006)

BBVA grant “Genome re-modelling in evolution: functional annotation of segmental gene duplications in Drosophila and other invertebrates” (2004-2005)

Ministerio de Educación y Ciencia Grant “Cell affinities in the development of multicellular organisms: the dorsal-ventral affinity boundary in the Drosophila wing” BFU2004-00167/BMC (2004-2007)

Generalitat de Catalunya-DURSI “Ayuda Grupos de Investigación Emergentes”- 2005 SGR 00118 (2006-2009)

Ministerio de Ciencia e Innovación Grant “Establishment and maintenance of compartment boundaries in the Drosophila wing imaginal disc” BFU2007-64127/BMC (2007-2010)

Ministerio de Ciencia e Innovación Grant “From genes to shape: analysis of morphogenesis in Drosophila and vertebrates” CSD2007-00008 (2008-2012)

EMBO Young Investigador Programme “Compartments, Organizing Molecules and Growth Control in Drosophila” (2008-2010)

Generalitat de Catalunya-DURSI “Ayuda Grupos de Investigación Singulares”- 2009 SGR 00005 (2010-2013)

Ministerio de Ciencia e Innovación “Compartment boundaries in the Drosophila wing: growth organizers and affinity boundaries” BFU2010-21123 (2011-2013)

Generalitat de Catalunya-DURSI “Grupo de Investigación Reconocido”- 2014 SGR 481 (2014-2016)

Ministerio de Economía y Competitividad “Signaling molecules and growth control, SIGNAGROWTH” BFU2013-44485 (2014-2016).

Ministerio de Economía y Competitividad “Growth control and signaling, INTERGROWTH” BFU2016-77587-P (2017-2020).

Generalitat de Catalunya-DURSI “Ayuda Grupos de Investigación Reconocidos”- 2017 SGR 443 (2017-2021)

Ministerio de Ciencia, Innovación y Universidades “Analysis of the cellular bases of morphogenesis in vertebrates and invertebrates (CELLMOVES)” BFU2017-90869-REDT (2018-2021).

Ministerio de Ciencia e Innovación “Growth control in development, tissue homeostasis and tumorigenesis” (HOMEOGROWTH) PID2019-110082GB-I00 (2020-2023).

Ministerio de Ciencia e Innovación “Chromosome dynamics and stability” (Chromodyst) Red de Investigación, RED2022-134961-T (2023-2025).

Ministerio de Ciencia e Innovación “Growth control in development, tissue homeostasis and tumorigenesis” (HOMEOGROWTH) PID2019-110082GB-I00 (2020-2023).

Ministerio de Ciencia e Innovación “Aneuploidy-induced celular behaviours” (ANEUCELL) PID2022-137673NB-I00 (2023-2026).

EXTERNAL FUNDING FOR PHD STUDENTS AND POST-DOCS:

PhD student fellowships:

Ministerio Educación y Ciencia PhD fellowship to Neus Rafel (2005-2009)

Ministerio de Ciencia e Innovación PhD fellowship to Lara Barrio (2009-2013)

Fundacion La Caixa PhD fellowship to Laura Boulan (2009-2013)

Fundaçao para a Ciencia e Tecnologia PhD fellowship to Ana Ferreira (2011-2015)

Ministerio de Ciencia e Innovación PhD fellowship to Carles Recasens (2011-2015)

Fundación La Caixa PhD fellowship to Lada Murcia (2014-2018)

Ministerio de Ciencia e Innovación PhD fellowship to Celia Santos (2015-2019)

Ministerio de Ciencia e Innovación PhD fellowship to Jery Joy (2015-2019)

Ministerio de Ciencia e Innovación PhD fellowship to Daniella Romao (2017-2021)

Ministerio de Ciencia e Innovación PhD fellowship to Elena Gracia (2018-2022)

Ministerio de Ciencia e Innovación PhD fellowship to Elena Gaspar (2017-2021)

Fulbright Grant (USA) to Adrian Acuna Higaki (2019-2020)

Fundación La Caixa INPhINIT-Incoming PhD fellowship to Elena Fusari (2020-2023)

Ministerio de Ciencia e Innovación PhD fellowship to Amanda González (2021-2025)

Ministerio de Ciencia e Innovación PhD fellowship to Aishwarya Kunchur (2021-2025)

Marie Curie – IRB Dream/Marie Curie PhD fellowship to Kaustuv Ghosh (2021-2025)

Joan Oró FI 2023 – AGAUR/Generalitat de Catalunya PhD fellowship to Berta Muñoz (2023-2026)

Fulbright Grant (USA) to David Hoeffner (2023-2024)

Post-doctoral fellowships:

Ministerio Educación y Ciencia post-doctoral fellowship to Fernando Bejarano (2004-2005)

Juan de la Cierva Post-doctoral Grant to Héctor Herranz (2005-2008)

Juan de la Cierva Post-doctoral Grant to Isabel Becam (2007-2010)

Juan de la Cierva Post-doctoral Grant to Andrés Dekanty (2011-2014)

Juan de la Cierva Post-doctoral Grant to Najate Benhra (2012-2015)

Juan de la Cierva Post-doctoral Grant to Marta Clemente (2013-2016)

Marie Curie post-doctoral contract to Christopher Sinadinos (2011-2013)

Marie Curie post-doctoral contract to Juan M. Murillo (2011-2013)

Marie Curie post-doctoral contract to Ana Terriente (2014-2015)

Juan de la Cierva Post-doctoral Grant to Marta Clemente (2017-2019)

Beatriu de Pinos Post-doctoral Grant to Sergio Juárez-Carreño (2023-2026)

RESEARCH INTERESTS: GROWTH CONTROL

Research in my lab is centered on the two following topics:

1. Cell and tissue biology of **Chromosomal Instability** (CIN): CIN, defined as an increased rate of changes in chromosome structure and number, is a feature of most, if not all, solid tumors. While CIN promotes the gain of oncogene-carrying chromosomes and the loss of tumor-suppressor-gene-carrying chromosomes in certain cancers, its impact on the biology of the cell and on the homeostasis of the tissue, as well as its role in tumorigenesis, are far from being fully elucidated. Of note are the highly deleterious effects of CIN as a result of the generation of highly aneuploid karyotypes and the production of DNA damage. Our lab has recently developed an epithelial model of CIN in Drosophila where the relevant cell populations and pertinent cell interactions involved in the response of an epithelial tissue to CIN have been identified and where the molecular mechanisms driving emerging, tumor-like, cellular behaviors have started to be elucidated. Cellular behaviors as a response to aneuploidy such as epithelial to mesenchymal (EMT)-like cell fate transition, invasiveness, and the entry into a senescence-like state are currently characterized at the genetic and molecular level.

2. **Regulation of tissue size**: How the size of a developing organ is regulated by the combined activity of morphogens, growth promoting genes and systemic hormones is probably one of the most interesting questions in developmental biology nowadays. We use the highly proliferative epithelial primordium of the Drosophila wing to address these questions because of its suitability for genetic and molecular manipulations, its well-described developmental biology and its simple epithelial architecture. We take an integrative approach as we aim to understand how the final size of the developing wing is achieved not only during normal development but also in stress conditions. This integrative approach helps to understand the robust interplay between morphogens, growth promoting genes and systemic hormones in normal development or in stress situations, and contributes to identifying emerging stress signaling molecules transiently induced to compensate for tissue loss that can contribute to tumorigenesis in a condition of chronic expression.

COMMUNICATIONS TO CONGRESSES (TALKS):

"Establishment of the dorsal-ventral lineage restriction boundary in the Drosophila wing" EMBO Workshop on "Embryonic organizer signaling: the next frontiers", Heidelberg (Germany), 2001

"Short-range cell interactions and cell survival in the Drosophila wing" ELSO Meeting", Nice (France), 2002.

"Proximo-distal axis formation in developing limbs: the elbow-no ocelli gene complex" EMBO Workshop on "Boundaries in development: 30 years of progress", Heidelberg (Germany) 2003

"Dorsal-ventral boundary formation in the Drosophila wing" 4th Spanish Developmental Biology Meeting, Santander (Spain) 2004

"Boundary formation in the Drosophila wing" The Cell in Development, Barcelona (Spain) 2004

"Boundary formation in the Drosophila wing" First Developmental Biology Meeting "Bioregion", Barcelona (Spain) 2005

"Boundary formation in the Drosophila wing"15th EMBO Workshop on Mol and Dev Biol of Drosophila" Kolymbari, Crete, (Greece) 2006

"Hedgehog restricts its own expression domain in the Drosophila wing" ICREA & IRB Joint Meeting on Drosophila as a model of human diseases, Barcelona, 2006

"A linear pathway controlling G1/S in the Drosophila wing primordium" The Notch Meeting, Athens (Greece), 2007

"Coordination of Growth and Fate specification in the Drosophla wing" 16th EMBO Workshop on Mol and Dev Biol of Drosophila" Kolymbari, Crete (Greece) 2008

"Coordination of Growth and Fate specification in the Drosophla wing" 8th EMBO Young Investigator Meeting" European Molecular Biology Laboratory, Heidelberg (Germany) 2008

"Growth control in the Drosophila wing" Symposium on Developmental Biology from a Cell Biology and Biophysics Perspective, CNIC, Madrid (Spain) 2009

"Growth control in the Drosophila wing" 9th EMBO Young Investigator Meeting" Istanbul (Turkey) 2009

"Notch mediated cis-inhibition in Drosophila" The Notch Meeting, Athens (Greece), 2009

"A role of the miRNA machinery in regulating dMyc protein levels", European Drosophila Research Conference, Nice (France), 2009

"Coordination of growth in Drosophila tissues" 10th EMBO Young Investigator Meeting", Heidelberg (Germany) 2010

"Coordination of growth in Drosophila tissues" 17th EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2010

"Growth and signaling molecules" 28th Singapore Developmental Biology Club, Singapore, 2010

"Growth control in Drosophila tissues" Frontiers in Biology, Barcelona, (Spain) 2011

"A counter-intuitive way of regulating hedgehog expression in the *Drosophila* wing" Hh-Gli Signalling in Development, regeneration and cancer, Kolymbari, Crete, (Greece) 2011

"Notch-mediated repression of bantam miRNA contributes to boundary formation in the Drosophila wing", The Notch Meeting, Athens (Greece), 2011

"Enhancer-PRE communication contributes to the expansion of gene expression domains in proliferating primordia", European Drosophila Research Conference, Lisbon (Portugal), 2011

"Systemic growth control: connecting Insulin and Ecdysone signaling" 18th EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2012

"Mecanismos homeostáticos para mantener órganos y animales bien proporcionados" Cáncer, avances y retos. Universidad Internacional de Andalucía, Málaga (Spain) 2012

"Aneuploidy-induced delaminating cells drive tumorigenesis in Drosophila epithelia"=Cold-blooded Cancer: Non-Mammalian Models for Oncology Research, Beatson Institute, Glasgow (Scotland) 2012

"A systemic role of bantam in growth control" 1st Spanish Conference on The Molecular, Cellular and Developmental Biology of Drosophila, Begur (Spain) 2012

"Aneuploidy-induced delaminating cells drive tumorigenesis in Drosophila epithelia" Chromosome instability and aneuploidy in cancer: from mechanisms to therapeutics, CNIO, Madrid (Spain) 2013

"Molecular and cellular mechanisms underlying tumorigenic behavior in Drosophila epithelia" "Cold blooded Cancer workshop" 23rd European Drosophila Research Conference, Barcelona (Spain) 2013

"CIN-induced tumorigenesis in Drosophila epithelia" 108th International Titisee Conference on Causes and consequences of aneuploidy, Titisee (Germany) 2013

"Dp53 and nutrient deprivation" 19th EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2014

"Dp53 and nutrient deprivation" 2nd Spanish Conference on The Molecular, Cellular and Developmental Biology of Drosophila, Begur (Spain) 2014

"Nutrients, miRNAs and Drosophila p53" 2nd P53 isoforms workshop, Aix-en-Provence (France) 2015

"PI3K/TOR and Dpp spreading" 24th European Drosophila Research Conference, Heidelberg (Germany) 2015

"The other side of genomic instability in tumorigenesis: a fly view" Towards predictive cancer models, Vall d'Hebron Institute of Oncology, Barcelona (Spain) 2016

"Inestabilidad genómica y cáncer ¿Qué nos puede enseñar una mosca?" XXIX Congreso Nacional de la Asociación Española de Técnicos de Laboratorio, Salamanca (Spain) 2016

"Morphogens, fate specification and wing growth" 3rd "Drosophila Growth and Regeneration Meeting" Girona (Spain) 2016

"Control of growth and fate specification by JAK/STAT" 20th EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2016

"Growth control and fate specification by JAK/STAT" 3rd Spanish Conference on The Molecular, Cellular and Developmental Biology of Drosophila, Begur (Spain) 2016

"Growth control and fate specification by JAK/STAT" 11th Spanish Developmental Biology Meeting, Girona (Spain) 2016

"Dpp in growth control" Development: From limbs to miRNAs, Heidelberg (Germany) 2016

"The other side of genomic instability in tumorigenesis: a fly view", XXVIII Developmental Biology Meeting, Barcelona, Spain 2016

"Morphogens and organ growth" Biomed Conference on Morphogenetic engineering, Barcelona, Spain, 2017

"Morphogens, gradients and growth" 5th "Drosophila Growth and Regeneration Meeting" Girona (Spain), 2018

"Chromosomal Instability induces cellular invasion in epithelial tissues" Biomed Conference on Centrosomes, Cilia and Cell Cycle, Barcelona, Spain, 2018

"Chromosomal Instability induces cellular invasion in epithelial tissues" 21th EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, 2018

"Chromosomal Instability: a matter of imbalance" 4th Spanish Conference on The Molecular, Cellular and Developmental Biology of Drosophila, Begur (Spain) 2018

"Specific killing of RAS malignant tissues by exploiting oncogene-induced DNA damage" Biomed Conference on "Drosophila as a model in cancer", Barcelona, Spain, 2019

"Tissue Biology of Chromosomal Instability" EMBO Meeting on "Chromosome segregation and aneuploidy", Cascais, Portugal, 2019

"Regulation of Tissue Growth by two orthogonal Signaling Centers" 42nd Congress of the Spanish Society of Biochemistry and Molecular Biology, Madrid, Spain, 2019.

"Regulation of Anisotropic Growth by two orthogonal Morphogen Gradients" 25th European Drosophila Research Conference, Lausanne (Switzerland) 2019

"Regulation of Anisotropic Growth by two orthogonal Morphogen Gradients" Growth, patterning and scaling during development, Fondation des Treilles (France) 2019

"Using flies to delineate the pathway that leads to aneuploidy-induced senescence" 1st Annual Meeting of the Spanish Network on Cell Senescence, SENESTHERAPY-III, Webinar (Spain) 2020

"Tissue Biology of Chromosomal Instability" 22nd EMBO Workshop on Mol and Dev Biol of Drosophila, Webinar (Crete) 2020

“Aneuploidy, protein quality control mechanisms and senescence” 62nd Annual Drosophila Research Conference, Workshop on Lysosomal degradation pathways in development and disease, Webinar (USA) 2021

“A WNT enhancer devoted to wing specification and regeneration” 1st European Drosophila Board Meeting, Institute Curie, Paris (France) 2021

"Regulation of anisotropic growth" 2nd Plenary Meeting CELLMOVES, Webinar (Spain) 2021

"From aneuploidy to cellular senescence: dissecting the mechanisms" 2nd Cell & Tissue Research in Catalonia (CATCAT), Webinar (Spain) 2021

“Tissue biology of Chromosomal Instability” 63rd Annual Drosophila Research Conference Work, San Diego (USA) 2022

“Wing specification and regeneration” 23rd EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2022

“Aneuploidy-induced cellular behaviors in epithelial tissue” FASEB conference: The Consequences of Aneuploidy Conference: Honoring the Contributions of Angelika Amon, Southbridge Hotel & Conference Center, Southbridge, New England (USA) 2022

“Aneuploidy-induced cellular behaviors in epithelial tissue” 2nd European Drosophila Board Meeting, College de France, Paris (France) 2022

“Aneuploidy-induced cellular behaviors in epithelial tissue” 6th "Drosophila Growth and Regeneration Meeting" Girona (Spain), 2022

“Tissue Biology of Chromosomal Instability” 34th "French Drosophila Research Conference" Sète (France), 2022

“Tissue Biology of Chromosomal Instability” New EMBO Members Meeting, Heidelberg (Germany), 2023

OTHER TALKS:

"Boundary formation in the Drosophila wing". Department of Genetics, Cambridge University. Cambridge. United Kingdom. 21/06/2004.

"Boundary formation in the Drosophila wing". Universidad de Valencia. Valencia. Spain. 05/05/2004.

"Boundary formation in the Drosophila wing". European Molecular Biology Laboratory. Heidelberg. Germany. 24/11/2006.

"Boundary formation in the Drosophila wing". Centro de Biologia Molecular, CSIC. Madrid. Spain. 22/03/2007.

"Growth control in Drosophila tissues”. NUS. Singapore. Singapore. 11/08/2010.

"A dp53 dependent mechanism involved in coordinating tissue growth in Drosophila"". IMCB. Singapore. Singapore. 09/08/2010.

“Growth control in Drosophila”. Instituto de Biologia Evolutiva, CSIC/UPF, Barcelona, Spain, 11/04/2011

“The interplay between tissue growth and morphogens in Drosophila”. Departamento Genetica, Facultad de Biología, Universitat de Barcelona, Barcelona, Spain, 21/10/2011

"Growth Control in development and disease in Drosophila tissues" Institute of Molecular Life Sciences, University of Zurich, Switzerland, 18/09/2012

"Drosophila p53, Growth Control and Metabolism", University of Cambridge, UK, 8/11/2013

"CIN-induced tumorigenesis in Drosophila", CABIMER, Sevilla (Spain), 11/04/2014

"CIN-induced tumorigenesis in Drosophila", Centro de Investigación del Cáncer, Salamanca (Spain), 8/05/2014

"Interplay between tissue growth and patterning: the Drosophila wing as a model system", PRBB Developmental Biology Chats, Barcelona (Spain), 23/05/2014

"microRNAs, Dp53 and growth control" Institute of Molecular Systems Biology, ETH Zurich, University of Zurich, Switzerland, 30/10/2014

"microRNAs, Dp53 and growth control" Centro Andaluz de Biología del Desarrollo (CABD), Sevilla, Spain, 28/11/2014

"Nutrition, growth and survival" Centro de Biología Molecular Severo Ochoa, Madrid, Spain, 23/02/2015

"Nutrition, growth and survival" Institut de Génétique Humaine (IGH – CNRS), Montpellier, France, 13/03/2015

"Control of growth and pattern by the JAK/STAT pathway" Institute of Molecular Systems Biology, ETH Zurich, University of Zurich, Switzerland, 12/04/2016

"CIN-induced tumorigenesis" IFOM-IEO Campus, Milan, Italy, 1/07/2016

"Model organisms in cancer research" 79th ICREA Colloquium – Barcelona, Spain, 20/12/2017

"Morphogens, gradients and growth" Hubrecht Institute – Utrecht, The Netherlands, 19/04/2018

"Chromosomal Instability: a matter of imbalance" Sir William Dunn School of Pathology, University of Oxford, UK, 25/09/2018

"Chromosomal Instability: a matter of imbalance" Institute of Systems Biology, ETH Zurich, Switzerland, 11/01/2019

"Regulation of anisotropic tissue growth by two orthogonal signaling centers" Centre for Organismal Studies (COS), Heidelberg, Germany 9/12/2019

"Tissue Biology of Chromosomal Instability" CPH's Fly Club, Copenhague, Denmark 21/02/2020

"Tissue Biology of Chromosomal Instability: aneuploidy-induced cellular behaviours" IFOM, Milán, Italy 20/02/2023

"Tissue Biology of Chromosomal Instability: insights from Drosophila", Centro de Biología Molecular Severo Ochoa, Madrid, Spain, 26/09/2023

ORGANIZATION OF INTERNATIONAL CONGRESSES & WORKSHOPS

1. "*Drosophila as a Model of Human Diseases*" ICREA & IRB Joint Meeting, Barcelona (Spain), 2006.

2. "*Morphogenesis and Cell Behaviour*" BBVA & IRB Barcelona Biomed Conference, Barcelona (Spain) 2008

3. "*The Notch Meeting*", Athens (Greece) 2009

4. 1st "*Drosophila Growth and Regeneration Meeting*" Barcelona (Spain) 2010
5. 2nd "*Drosophila Growth and Regeneration Meeting*" Girona (Spain) 2011
6. 3rd "*Drosophila Growth and Regeneration Meeting*" Nice (France) 2013
7. 23rd "*European Drosophila Research Conference*" Barcelona (Spain) 2013
8. "*Drosophila as model in cancer*" BBVA & IRB Barcelona Biomed Conference, Barcelona (Spain) 2015
9. 4th "*Drosophila Growth and Regeneration Meeting*" Girona (Spain) 2016
10. "*Development: From limbs to miRNAs*" EMBL, Heidelberg (Germany) 2016
11. "*Morphogenetic engineering*" BBVA & IRB Barcelona Biomed Conference, Barcelona (Spain) 2017
12. 5th "*Drosophila Growth and Regeneration Meeting*" Girona (Spain), 2018
13. EMBL in SPAIN Alumni Meeting Barcelona (Spain), 2019
14. Virtual Workshop on Molecular and Developmental Biology of Drosophila, 2020
15. 6th "*Drosophila Growth and Regeneration Meeting*" Girona (Spain), 2022
16. EMBO Workshop on Mol and Dev Biol of Drosophila, Kolymbari, Crete, (Greece) 2024

ORGANIZATION OF SEMINAR SERIES

From January 2008 to December 2018, I have organized the seminars of the Cell and Developmental Biology Programme at the IRB Barcelona.

From May 2019 to March 2020, I have organized together with the IMBM/CSIC, IBEC and IBUB/UB the PCB Seminars in Development, Regeneration and Disease.

Since 2019, I am organizing the Biomed Seminars at the IRB

ORGANIZATION OF LOCAL WORKSHOPS

1. 1st and 2nd Barcelona Cell & Developmental Biology Meetings at the IRB Barcelona & CRG Barcelona
   May and November 2009.
   Organizers: Hernán López-Schier, Vivek Maholtra and Marco Milán.

CONTRIBUTION TO DIVULGATION ACTIVITIES

1. "1st Drosophila training course for secondary school teachers"
   Barcelona (Spain), 2011.
   Organizers: IRB Barcelona & EMBL

2. "2nd Drosophila training course for secondary school teachers"
   Barcelona (Spain), 2012.
   Organizers: IRB Barcelona

3. "3rd Drosophila training course for secondary school teachers"
   Barcelona (Spain), May 29-30, 2015.

Organizers: IRB Barcelona

4. "4th Drosophila training course for secondary school teachers"
   Barcelona (Spain), March 17-18, 2017.
   Organizers: IRB Barcelona

TEACHING ACTIVITIES

Participation as teacher of the following Masters at the University of Barcelona

1. Master in Genetics and Developmental Biology, 2007-12 "Genetic and cellular analyses of organogenesis, growth and aging"
2. Master in Genetics and Genomics, 2012- 2019 "Genetic and cellular analyses of organogenesis, growth and aging"

Participation as teacher of the following Master at the University of Utrecht

1. Master in Developmental Biology and Stem cells. 2018 "Drosophila wing development, morphogens and growth"

Lecturer at the University of Barcelona since September 2020.

LIST OF PUBLICATIONS:

Research Articles

1. G. Colmenarejo, **M. Milán** and F. Montero "Nonspecific DNA-ligand interaction models" (1992) Anales de Química 88, 5-18

2. G. Colmenarejo, **M. Milán**, A. I. Rodríguez, and F. Montero "A theoretical study, using the sequence generating function method, of the nonspecific and simultaneous interaction of two competitive ligands with DNA" (1992) Anales de Química 88, 123-129

3. A. García-Bellido, F. Cortés and **M. Milán** "Cell Interactions in the control of size in Drosophila wings" (1994) Proc. Natl. Acad. Sci. USA 91, 10222-10226

4. **M. Milán**, S. Campuzano and A. García-Bellido "Cell cycling and patterned cell proliferation in the wing primordium of Drosophila" (1996) Proc. Natl. Acad. Sci. USA 93, 640-645

[This article received the following comment: Bioessays 1996; 10:781-4]

5. **M. Milán**, S. Campuzano and A. García-Bellido "Cell cycling and patterned cell proliferation in the Drosophila wing during metamorphosis" (1996) Proc. Natl. Acad. Sci. USA, 93, 11687-11692.

6. **M. Milán**, S. Campuzano and A. García-Bellido "Developmental parameters of cell death in the wing disc of Drosophila" (1997) Proc. Natl. Acad. Sci. USA, 94, 5691-5696.

7. **M. Milán**, A. Baonza and A. García-Bellido "Wing surface interactions in venation patterning in Drosophila" (1997) Mechanisms of Development, 67, 203-213.

8. J. F. Santarén, **M. Milán**, and A. García-Bellido "Two-dimensional gel analysis.of proteins in Drosophila wing imaginal disc mutants fat and lethal (2) giant discs" (1998) Experimental Cell Research, 243, 199-206.

9. P. Rorth,.K. Szabo, A. Bailey, T. Laverty, J. Rehm, G. M. Rubin, K. Weigmann, **M. Milán**, V. Benes, W. Ansorge and S. M. Cohen "Systematic gain-of-function genetics in Drosophila" (1998) Development, 125, 1049-1057

10. **M. Milán**, F. J. Diaz-Benjumea and S. M. Cohen "Beadex encodes an LMO protein that regulates Apterous LIM-homeodomain activity in Drosophila wing development: a model for LMO oncogene function" (1998) Genes & Development, 12, 2912-2920.

[This article received the following comment: Trends Genet (1998) 12:480-2]

11. **M. Milán** and S. M. Cohen "Regulation of LIM-homeodomain protein activity in vivo: A tetrameric complex of dLDB and Apterous confers activity and the capacity for regulation by dLMO" (1999) Molecular Cell, 4, 267-273.

12. **M. Milán** and S. M. Cohen "Notch signaling is not sufficient to define the affinity boundary between dorsal and ventral compartments" (1999) Molecular Cell,4, 1073-1078

13. **M. Milán** and S. M. Cohen "Temporal regulation of Apterous activity during development of the Drosophila wing" (2000) Development, 127, 3069-3078.

14. **M. Milán**, U. Weihe, S. Tiong, W. Bender and S. M. Cohen " msh specifies dorsal cell fate in the Drosophila wing" (2001) Development, 128, 3263-3268.

15. U. Weihe, **M. Milán** and S. M. Cohen "Regulation of Apterous activity in Drosophila wing development." (2001) Development, 128, 4615-4622.

16. **M. Milán**, U. Weihe, L. Pérez and S. M. Cohen "The LRR-proteins Capricious and Tartan mediate cell interactions during DV boundary formation in the Drosophila wing" (2001) Cell, 106, 785-794.

[This article received the following comments: Nature Cell Biology (2001) 3: E247 &.Current Biology (2001) 24: R1017-21]

17. **M. Milán**, L. Pérez and S. M. Cohen "Short-Range Cell Interactions and Cell Survival in the Drosophila Wing" (2002) Developmental Cell 2, 797-805.
[This article received the following comment: Cell (2002) 110: 403-406]

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   El País, November 8th, 2008

2. “Biología: cuestión de forma” (authors: J. Casanova and **M. Milán**)
   El Mundo, November 6th, 2008

PhD theses of the group

1. **Georgina Sorrosal,** “Scarface, a secreted serine protease-like protein, regulates polarized localization of Laminin A at the basement membrane of the Drosophila embryo” *Cum Laude por unanimidad (29/06/2010, Universidad de Barcelona, Spain)*

2. **Neus Rafel**, “The roles of Notch in wing fate specification and DV affinity boundary formation in the Drosophila wing primordium” *Cum Laude por unanimidad (05/11/2010, Universidad de Barcelona, Spain)*
3. **Duarte Mesquita**, “Coordination of Growth between territories within the Developing Wing Primordium of Drosophila melanogaster” *Cum Laude por unanimidad (10/06/2011, Universidad de Barcelona, Spain)*
4. **Laura Boulan**, “Systemic growth control in Drosophila: a new role of bantam miRNA in the crosstalk between insulin signaling and steroid hormone ecdysone” *Cum Laude por unanimidad (29/11/2013, Universidad de Barcelona, Spain)*
5. **Lara Barrio**, “"MicroRNA-mediated regulation of p53 in Drosophila: a new role in adaptation to nutrient deprivation” *Cum Laude por unanimidad (12/12/2014, Universidad de Barcelona, Spain)*
6. **Ana Ferreira**, “"Regulation of tissue growth: a molecular bridge between extrinsic and intrinsic mechanisms” *Cum Laude por unanimidad (9/02/2016, Universidad de Barcelona, Spain)*
7. **Carles Recasens**, “Control of Growth and Patterning: a novel role for JAK/STAT in regulating morphogen production and signaling” *Cum Laude por unanimidad (13/01/2017, Universidad de Barcelona, Spain)*
8. **Lada Murcia**, “Selective killing of RAS-malignant tissues by exploiting oncogene-induced DNA damage” *Cum Laude por unanimidad (28/10/2019, Universidad de Barcelona, Spain)*
9. **Celia Santos**, “Understanding Chromosomal-Instability-induced senescence” *Cum Laude por unanimidad (30/10/2019, Universidad de Barcelona, Spain)*
10. **Jery Joy**, “Chromosomal Instability: Interplay between proteotoxic and metabolic stress” *Cum Laude por unanimidad (03/02/2020, Universidad Pompeu Fabra, Spain)*
11. **Daniela Romao**, “Systemic effects of Chromosomal Instability induced Tumorigenesis: A role of JAK/STAT and cytokine secretion in coupling inflammation to maturation defects in *Drosophila*” *Cum Laude por unanimidad (10/09/2021, Universidad Pompeu Fabra, Spain)*
12. **Elena Gaspar**, “Inestabilidad cromosómica y migración celular: JAK/STAT y una función no apoptótica de las caspasas efectoras” *Cum Laude por unanimidad (30/11/2021, Universidad de Barcelona, Spain)*
13. **Elena Gracia**, “Study and characterization of the *Drosophila* wg1-enhancer in development, regeneration and tumorigenesis” *Cum Laude por unanimidad (30/5/2023, Universidad de Barcelona, Spain)*

Master theses of the group

1. **Lara Barrio**, “Mecanismos genéticos y epigenéticos que controlan la represión de hedgehog en el compartimento anterior del ala de Drosophila” (*Universidad de Barcelona, Spain, 2008*)
2. **Ana Ferreira**, “Understanding the general role of the microRNAs in *Drosophila* wing development” (*Universidade de Lisboa, Portugal, 2009*)
3. **David Cano**, “Regulation of hedgehog expression in the Drosophila wing” (*Universidad de Barcelona, Spain, 2010*)
4. **Carles Recasens**, “Parameters of growth involved in *Drosophila* wing shape formation” (*Universidad de Barcelona, Spain, 2012*)
5. **Guillem Parés**, “Coordination of growth between compartments of a developing organ” (*Universidad Pompeu Fabra, Spain,* 2012)
6. **Gonzalo Quiroga**, “Molecular mechanisms underlying genomic instability-induced JNK activation” (*Universidad de Barcelona, Spain,* 2013)
7. **Lada Murcia**, “Oncogene-induced tumorigenesis in *Drosophila*” (*Universidad de Barcelona, Spain,* 2014)
8. **Aleix Puig**, “Coordinación del crecimiento entre dominios adyacentes” (*Universidad de Barcelona, Spain,* 2014)
9. **Patricia de la Mata**, “Contribution of ROS to CIN-induced programmed cell death and tumorigenesis” (*Universidad de Barcelona, Spain,* 2015)
10. **David Alonso**, “Characterization of the systemic effects in CIN-induced tumorigenesis” (*Universidad de Barcelona, Spain,* 2017)
11. **David Sanfeliu**, “El origen del ala de Drosophila: wg1-LacZ como un enhancer temprano para la expresión de wingless.” (*Universidad de Barcelona, Spain,* 2018)
12. **Adrián Gaite**, “ELIMINACIÓN SELECTIVA DE TUMORES RAS MEDIANTE LA INDUCCIÓN DE ESTRÉS REPLICATIVO” (*Universidad de Barcelona, Spain,* 2018)
13. **Adrián Acuña**, “The dynamics of neural stem cells affected by chromosomal instability” (*UPF-BIST, Spain, 2020*)

14. **Laura Revert**, “Regeneration of the Drosophila adult gut: the role of Wingless” (*UPF-BIST, Spain, 2021*)
15. **Emma Cervera**, “New tools to generate chromosome-specific aneuploidies: hs-I-Cre-I” (*Universidad de Barcelona, Spain,* 2021)
16. **Valentín-Cosmín Pletea**, “Role of ERK in Chromosomal instability-induced tumorigenesis” (*Universidad de Barcelona, Spain,* 2022)
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