



**PROGRAMA RAMÓN Y CAJAL - CONVOCATORIA 2012**  
**Investigadores seleccionados - Correo electrónico y resumen de CV**

Ámbito Multidisciplinar: Ciencias de la Vida

Orden dentro del ámbito multidisciplinar	Área Temática	Referencia	Investigador	Correo electrónico	Resumen del Curriculum Vitae
1	Biomedicina	RYC-2012-10033	VILCHEZ GUERRERO, DAVID	dvilchez01@gmail.com	<p>Publications:</p> <ul style="list-style-type: none"> <li>-Vilchez, D., et al. (2012). Increased proteasome activity in human embryonic stem cells is regulated by PSMD11. <i>Nature</i> 489 (7415): 304-308.</li> <li>-Vilchez, D., et al. (2012). RPN-6 determines <i>C. elegans</i> longevity under proteotoxic stress conditions. <i>Nature</i> 489 (7415): 263-268.</li> <li>-Solaz-Fuster, M.C., et al. (2008). Regulation of glycogen synthesis by the laforin-malin complex is modulated by the AMP-activated protein kinase pathway. <i>Human Molecular Genetics</i> 17(5):667-78.</li> <li>-Vilchez, D., et al. (2007). Mechanism suppressing glycogen synthesis in neurons and its demise in progressive myoclonus epilepsy. <i>Nature Neuroscience</i> 10(11):1407-13.</li> <li>-Sebastià, J., et al. (2006). Carboxyl-terminal fragment of amyloid precursor protein and hydrogen peroxide induce neuronal cell death through different pathways. <i>Journal of Neural Transmission</i> 113(12):1837-1845.</li> <li>-Sebastià, J., et al. (2004). Down's syndrome astrocytes have greater antioxidant capacity than euploid astrocytes. <i>European Journal of Neuroscience</i> 20: 2355-2366.</li> <li>-Cristòfol, R.M., et al. (2004). Neurotoxic effects of trimethyltin and triethyltin on human fetal neuron and astrocyte cultures: A comparative study with rat neuronal cultures and human cell lines. <i>Toxicology Letters</i> 152: 35-46.</li> </ul> <p>Books:</p> <ul style="list-style-type: none"> <li>-Vilchez, D., et al. (2009). Enfermedad de Lafora: epilepsia y regulación del metabolismo del glucógeno por laforina y malina in <i>Avances en Neurociencia: Neurotransmisores y Patologías Nerviosas (Monografías de la Real Academia de Farmacia, Monografía XXV: 315-343, Real Academia Nacional de Farmacia, Madrid, 2009)</i>.</li> </ul> <p>Patents:</p> <ul style="list-style-type: none"> <li>-13/558,307-♦Modulators of Proteasome Activity♦</li> </ul> <p>Awards:</p> <ul style="list-style-type: none"> <li>-Josep Trueta prize for the best research (David Vilchez et al., Mechanism suppressing glycogen synthesis in neurons and its demise in progressive myoclonus epilepsy. <i>Nature Neuroscience</i> (2007) 10(11):1407-13). Awarded by L♦Acadèmia de Ciències Mèdiques i de la Salut de Catalunya i de Balears in 2008.</li> <li>-Award for young scientists ♦Promega Biotec Ibérica♦ 2008. Awarded by the Spanish Society of Biochemistry and Molecular Biology (SEBBM) in 2008. Second prize.</li> </ul>



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					<p>Professional Experience:</p> <p>2012-Present: Postdoctoral Research Associate. Postdoctoral advisor: Prof. Andrew Dillin. Li Ka Shing Center, University of California, Berkeley, USA.</p> <p>2009-2012: Postdoctoral Research Associate. Postdoctoral advisor: Prof. Andrew Dillin. Molecular and Cell Biology Laboratory, Salk Institute, La Jolla, California, USA.</p> <p>2008-2009: Postdoctoral fellow at the Metabolic Engineering and Diabetes Therapy laboratory of the Institute for Research in Biomedicine (IRB), Barcelona, Spain.</p> <p>2003-2008: Ph.D. student. Thesis advisor: Prof. Joan Guinovart. Metabolic Engineering and Diabetes Therapy laboratory, Institute for Research in Biomedicine (IRB), Barcelona, Spain.</p> <p>2002: Research collaborator. Research advisor: Dr. Coral Sanfeliu. Institut de Investigacions Biomèdiques de Barcelona-IDIBAPS-CSIC, Barcelona, Spain.</p> <p>Fellowships:</p> <p>2011-Present: Beatriu de Pinós postdoctoral fellowship (Generalitat de Catalunya).</p> <p>2010: F.M. Kirby Foundation Inc. Postdoctoral Scholar Award.</p> <p>2009: Howard Hughes Medical Institute postdoctoral fellowship.</p> <p>2007-2008: A fellowship from the Institute for Research in Biomedicine for PhD studies.</p> <p>2003-2007: A fellowship from the Spanish Ministry of Science and Technology for PhD studies.</p> <p>2003: Research grant from the Barcelona Science Park (PCB).</p>
2	Biología Vegetal, Animal y Ecología	RYC-2012-11867	MARGALIDA VACA, ANTONIO	antoni.margalida@iee.unibe.ch	<p>I received my PhD in Science (Ecology and Evolution) in 2010 (University of Bern, Switzerland). Since 2008 I have been collaborating with the University of Lleida (Department of Mathematics) and Doñana Biological Station (CSIC) (Department of Conservation Biology). Most of my research career has been developed as an independent researcher working with the Ministry of Environment and Autonomous Governments and collaborating with several universities and research centers on issues related to behavioural ecology and conservation biology. As a result, I have participated in a variety of international projects (Life, Poctefa) and acted as scientific advisor in several countries (Spain, France, Greece). After my PhD, I became Associate Senior scientist in the Division of Conservation Biology (Institute of Ecology and Evolution) at the University of Bern. I participate in research lines encompassing a wide range of topics in Ecology (Behavioural Ecology, Conservation Biology, Ecotoxicology, Population Biology, Ecological Modelling). This multidisciplinary experience has allowed fruitful collaborations with researchers from a variety of areas and countries. This research has yielded numerous contributions in leading journals: Science (3 Letters), Nature (Correspondence), Scientific Reports, PLoS ONE (6 articles), Biol. Conserv., J. Appl. Ecol., Biol. Lett., Ecol. Appl., Anim. Behav. and Behav. Ecol. Sociobiol. To date, I have published six books, 107 papers (91</p>



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					articles published in journals included in the SCI, 42 as first author and 29 as second, totaling >900 citations) and 50 book chapters (WoS h-index = 18; average impact factor during 2009-2012= 5.8, n=32). My scientific responsibilities have included reviewing (98 manuscripts for 39 journals) for a broad array of journals, including Conserv. Lett., Biol. Conserv., Ecol. Appl., PLoS ONE, Behav. Ecol. Sociobiol., Ecography, Ecotoxicology, Biol J. Linn. Soc., Behav. Process., J. Zool., Behaviour and J. Avian Biol. I have served as a member of a PhD committee (Universidad Politécnica de Madrid) and co-supervisor of a current PhD student (Universidad Complutense de Madrid). I am a member of the Editorial Board of Bird Conservation International and Dataset Papers in Ecology. I have reviewed grant proposals for the ANEP and the United States-Israel Binational Science Foundation (BSF). I was awarded in 2004 (Premio Joven 2004) with an Honorable Mention in Science and Technology by the Universidad Complutense de Madrid. Currently, I am applying novel bio-inspired computing models (P-systems) developed with the collaboration of the University of Seville and University of Lleida (several papers published in Ecol Model., Nat. Comput., PLoS ONE, Sci. Rep.) to inform sound conservation schemes to restore ecosystems and populations. My current research line is based on quantitative ecology, focused on the study of ecosystem services, their interaction with agro-grazing systems, human-wildlife conflicts and their economic implications. I am interested in finding ways to balance human development and wildlife conservation goals. My primary research interest is understanding how natural and human-mediated spatiotemporal variation in the environment affect populations. In addition, part of my current research is also focused on biological invasions through the application of mathematical computing models.
3	Agricultura	RYC-2012-10254	DE LA PEÑA ALONSO, EDUARDO	eduardo.delapena@ugent.be	<p>Name: Eduardo Last name: de la Peña Alonso Birth date: 11/12/1978 Nationality: Spanish/Belgian DNI: 50747228 Address: Albert Schweitzerstraat 18, 9000 Gent, Belgium E-mail: eduardo.delapena@ugent.be</p> <p>Work experience</p> <p>December 2011- October 2014: Postdoctoral fellow at the Department of Soil and Water Management, Faculty of Agricultural Engineering, and Department of Biology, Faculty of Sciences of Ghent University, Belgium.</p>



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					<p>February 2011-November 2011: Visiting postdoctoral fellow (FWO) Community Ecology Lab at the School of Biological Sciences, University of Bristol, UK.</p> <p>October 2007-February 2010: Postdoctoral fellow (FWO) at the Department of Biology, Ghent University, Belgium.</p> <p>October 2007-February 2010: Postdoctoral fellow (FWO) at the Department of Biology, Ghent University, Belgium.</p> <p>July 2006- October 2007: Research Associate at the Plant Unit, Institute for Agricultural and Fisheries Research (ILVO), Belgium.</p> <p>June 2002- June 2006: Marie-Curie RTN Pre-doctoral researcher, Crop protection department, Faculty of Bioscience Engineering, Ghent University, Belgium.</p> <p>Education</p> <p>2006: PhD in Applied Biological Sciences, Faculty of Agricultural Engineering, Ghent University, Belgium. PhD Thesis: ♦ Interactions between root lesion nematodes, plant mutualists and Ammophila arenaria in coastal dunes ♦</p> <p>1997-2002: MSc (♦ Licenciado ♦) in Biological Sciences. IE University, Spain.</p> <p>Publications</p> <p>♦ Number of publications indexed in the Web of Science (with impact factor): 30</p> <ul style="list-style-type: none"> <li>o 13 of them as first author</li> <li>o 4 as senior author</li> <li>o 2 co-authorships</li> <li>o 5 as second author</li> </ul>



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					<ul style="list-style-type: none"> <li>◆ Peer-reviewed publications non-indexed in the web of science: 2               <ul style="list-style-type: none"> <li>o As first author 1</li> <li>o As coauthor 1</li> </ul> </li> <li>◆ Number of book chapters: 2 one as first author, one as third author</li> <li>◆ Books: 1 as first author</li> <li>◆ Activity as referee for the following journals: PNAS, Ecology Letters, New Phytologist, American Journal of Botany, Plos One, Journal of Ecology, Entomologia experimentalis et applicata, Oikos, Functional Ecology, Journal of Applied Ecology, Oecologia, Biological Invasions, Web Ecology, Applied Soil Ecology, Applied Vegetation Science, Journal of Coastal Research, Advances in Agronomy, Restoration Ecology, Plant Ecology, Agroforestry Systems, Plant and Soil, Microbial Ecology, Annals of Applied Biology, Journal of Natural Resources, Nematology, Revista Ecosistemas</li> <li>◆ Research funds for research and development projects               <ul style="list-style-type: none"> <li>◆ As principal researcher (PI)- personal grants: 2 projects: 30000 euros</li> <li>◆ Involved in a research consortium involved in the writing and coordination: 6 projects: 595.000 euros</li> <li>◆ As research partner: 245.000 euros</li> <li>◆ Collaborator as undergraduate researcher: 3 projects</li> <li>◆ Participation in international research networks: 2 (1 as national representative)</li> </ul> </li> <li>◆ Teaching experience               <ul style="list-style-type: none"> <li>◆ Since 2011: Strategies for research, 3 ECTS, MSc. level subject</li> <li>◆ Since 2008: Terrestrial Ecology, 3 ECTS, BSc. level subject</li> <li>◆ Since 2011: Management and biocontrol, 6 ECTS, MSc. level subject</li> <li>◆ Between 2004 and 2006: Assistant of the MSc. level subject sampling techniques</li> </ul> </li> <li>◆ Direction of scientific research               <ul style="list-style-type: none"> <li>◆ PhD. thesis directed: 1</li> <li>◆ MSc. thesis directed: 15</li> </ul> </li> </ul>



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					<p>◆ BSc. thesis directed: 6</p> <p>International Stays Taita Hills Research Station (Kenya), University of Helsinki: 1 month Bristol University, School of Biological Sciences: 9 months Netherlands Institute of Ecology: 2 months Bristol University, School of Biological Sciences: 1 month Universidade</p>
4	Biología Fundamental y de Sistemas	RYC-2012-09994	SALVATELLA GIRALT, XAVIER	xavier.salvatella@irbbarcelona.org	<p>Soy licenciado en Química por la Universidad de Barcelona, Master en Investigación Química por la Universidad de Londres y doctor en Química por la Universidad de Barcelona. He llevado a cabo una estancia postdoctoral de más de 5 años en la Universidad de Cambridge financiada primero por una Individual Marie Curie Fellowship de la Comisión Europea (FP6) y, posteriormente, por una Early Career Fellowship otorgada por el Leverhulme Trust. Además disfruté de una Research Fellowship en el college Clare Hall de esta Universidad.</p> <p>Desde el inicio de mi actividad investigadora he centrado mi interés en el estudio de cómo la flexibilidad de las proteínas afecta a su capacidad de interactuar y formar complejos con otras biomoléculas mediante una aproximación multidisciplinar que combina la resonancia magnética nuclear y la simulación molecular. Mis principales descubrimientos en la fase formativa de mi carrera fueron la unión de compuestos tetraguanidínicos a la superficie del supresor de tumores P53, el mecanismo de plegamiento de la proteína barnasa, la estructura de los intermedios de plegamiento de un dominio SH3 así como el desarrollo de métodos para el análisis de la estructura y la dinámica de proteínas mediante el uso de desplazamientos químicos medidos por resonancia magnética nuclear.</p> <p>En 2008 regresé a España al conseguir un contrato como investigador ICREA, que terminará en 2013, y una posición de jefe de grupo en el Instituto de Investigación Biomédica de Barcelona (IRB Barcelona). En 2011 fui admitido, después de un proceso de evaluación, en el programa conjunto del centro nacional de supercomputación (BSC) y el IRB en biología computacional. Tanto en BSC como el IRB fueron seleccionados como centros de excelencia Severo Ochoa en la primera convocatoria del programa. En el IRB lidero un grupo de investigación, formado por cuatro investigadores postdoctorales, cuatro estudiantes de doctorado y un técnico, financiado por proyectos de investigación del Plan Nacional de I+D otorgados en 2009 y 2012 y por un proyecto, otorgado por la Fundació Marató de TV3 en su convocatoria dedicada a</p>



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SECRETARÍA DE ESTADO  
DE INVESTIGACIÓN  
DESARROLLO E INNOVACIÓN

SECRETARÍA GENERAL  
DE CIENCIA, TECNOLOGÍA  
E INNOVACIÓN

DIRECCIÓN GENERAL  
DE INVESTIGACIÓN  
CIENTÍFICA Y TÉCNICA

SUBDIRECCIÓN GENERAL  
DE RECURSOS HUMANOS  
PARA LA INVESTIGACIÓN

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					<p>las enfermedades raras del 2010, que implica a otros dos grupos de investigación y que yo coordino. El principal interés de mi grupo de investigación en el IRB es estudiar la implicación del dominio de transactivación del receptor de andrógenos en el cáncer de próstata resistente a la castración, que mata a aproximadamente a 70.000 europeos cada año, y la atrofia muscular espinobulbar, una enfermedad neurodegenerativa rara causada por la expansión de una región de poliglutamina en esta proteína. Mi aproximación a este problema es multidisciplinar y combina tanto aspectos experimentales como computacionales.</p> <p>Como resultado de mi carrera hasta hoy he publicado artículos en las principales revistas de mi campo (Nature -1, Nat. Nanotechnol. - 1, Proc. Natl. Acad. Sci. USA ♦ 2, Angew. Chem. Int. Ed. 4, J. Am. Chem. Soc. ♦ 11, etc), acumulando más de 1200 citas y un factor h de 19. También he sido invitado a dar conferencias en los principales congresos de mi especialidad y contratado como consultor por compañías de biotecnología españolas y británicas.</p>
5	Ganadería y Pesca	RYC-2012-10230	GUTIERREZ GIL, BEATRIZ	beatriz.gutierrez@unileon.es	<p>Licenciada en Veterinaria y Premio Extraordinario Fin de carrera (1999; Universidad de León, ULE). XIII Premio Santos Ovejero al mejor expediente académico espec. Medicina y Sanidad Animal. Becaria FPU del Ministerio de Educación para realizar la tesis doctoral en el grupo de Mejora Genética Animal de la ULE en el marco del proyecto Europeo GeneSheepSafety (LifeQ-5thFP). Doctora por la ULE con calificación de Sobresaliente cum laude y mención de "Doctor Europeo" (2004). IX Premio Mariano Rodríguez para Jóvenes Investigadores (Fundación Carolina Rodríguez 2005). Mediante una beca de Especialización en el Extranjero de la Fundación Alfonso Martín Escudero realicé una estancia Postdoctoral de 1 año en el Roslin Institute (Edinburgh, UK). Esta estancia se prolongó 2 años más con un contrato postdoctoral del programa IntraEuropean Individual Marie Curie (MC) Fellowships (6thFP). En ese periodo participé en un proyecto financiado por la industria cárnica del Reino Unido y en el proyecto Europeo BeefGenes. En 2008 me reincorporé al grupo de Mejora Animal de la ULE con un contrato Juan de la Cierva (JdC) y obtuve financiación del programa European Reintegration MC fellowships para ejecutar como Investigadora Principal (IP) el proyecto SheepMilkGenes (People-7thFP). Tras el JdC he estado contratada por el proyecto Europeo 3SR (Cooperation-7thFP). Actualmente soy Coordinadora Nacional IP del Subproyecto español de la red de formación de estudiantes MC de posgrado ITN NematodeSystemHealth (Programa People-7thFP). En resumen, he participado en 17 proyectos de investigación competitivos financiados por la Comisión Europea (5), el Ministerio de Ciencia-Plan Nacional (4), la AECID (3), la Junta de Castilla y León (3) y organismos públicos y privados británicos (2) y en actividades de transferencia de tecnología a la</p>





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					<p>asociación ANCHE y al Censyra de León. He publicado 32 artículos en revistas SCI (19 de primer autor, 8 de segundo y 2 de último autor). De ellos, 20 artículos están publicados en revistas del 1er cuartil (Q1) de sus respectivas áreas temáticas, 7 en revistas del Q2 y 5 en revistas del Q3 (en 4 de estos el impacto equivale al Q1 de mi área). Autora de 1 libro y co-autora de 2 capítulos de libro. He contribuido con 12 artículos en revistas científicas no indexadas y actas de congresos con censores (4 de primer autor, 5 de segundo), 7 artículos publicados en revistas de divulgación (2 de primer autor, 5 de segundo) y 22 comunicaciones a congresos internacionales (6 de primer autor, 6 de segundo, 3 de último) y 11 nacionales (6 de primer autor). En 2012 he obtenido una Exchange Grant competitiva de la European Science Foundation para realizar una estancia en The Roslin Institute y financiación de la Red Europea COST para asistir a cursos de especialización en Genómica. Miembro del Editorial Board de la revista Dataset Papers in Biology y revisora de manuscritos para las revistas Anim Genet, J Anim Breed Genet y J Dairy Sci entre otras. He codirigido 2 Tesis Doctorales, 1 depositada que será defendida en Dic. 2012, 1 tesina y 1 trabajo DEA; codirijo otras 2 Tesis en desarrollo. Participación, en la ULE, en la docencia teórica y práctica de 4 asignaturas de las Licenciaturas de Veterinaria y Biotecnología y 9 asignaturas de dos Masters Universitarios. Acreditada por la ANECA y la ACSUCYL para todas las figuras de profesor contratado de Universidad.</p>
6	Biomedicina	RYC-2012-10017	QUESADA FERNANDEZ, VICTOR	quesadavictor@uniovi.es	<p>My research spans two complementary fields whose common goal is the understanding of cancer and other diseases to help the design of novel strategies for their treatment.</p> <p>The first field is degradomics, the global physiopathological study of proteases. Thus, I identified and characterized more than 20 novel protease genes in the human genome, which led to my participation in 14 articles published in international journals. I signed 7 of these publications as first or second author (i. e., Quesada V et al., J. Biol. Chem. 2004 279:26627-26634 and Cal S, Quesada V et al., Proc. Natl. Acad. Sci. U.S.A. 2003). This work allowed me to lead the work on bioinformatic protease gene annotation in additional genomes of biomedical interest, including orangutan (Locke DP et al., Nature 2011; 469:529-533) and zebra finch (Warren C et al., Nature 2010; 464:757-762 and Quesada V et al. BMC Genomics, 2010; 11:220). This work is being followed by Patricia Marques, an international Ph. D. student whom I tutor. The brilliant work of Patricia has already yielded a publication in an international journal, which I sign as co-corresponding author.</p> <p>With the experience accumulated in degradomics, and our position in international consortia, I started a second research interest in cancer genomics. Thus, I entered the Spanish node of the International Cancer Genome Consortium (ICGC), to study the genome of chronic lymphocytic leukemia (CLL). For this work, I developed Sidrón, a novel method for mutation detection with second-generation sequencing, which, to</p>





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					<p>our knowledge, has yielded the best results so far in terms of sensitivity and specificity in this consortium. The results of this work are described in several high-impact publications, including the marker paper for the consortium (Nature 2010; 464:993-998), its first experimental result (Puente XS, Pinyol M, Quesada V et al. Nature 2011; 475:101-105), the first study of epigenomic patterns in CLL (Kulis M et al., Nature Genet. 2012; 44:1236-1242) and the genomic and clinical description of 105 CLL cases (Quesada V et al. Nature Genet. 2012; 44:47-52 and Quesada V et al. N. Engl. J. Med. 2012; 366:2530). In addition, Sidrón, as well as the related program Mutandis, are protected by international patents in use by the private company DREAMgenics. I also signed a collaboration contract with DREAMgenics to help the development of new tools.</p> <p>In summary, this work has yielded 33 publications in international indexed journals, including 4 in Nature, 3 in Nature Genet., one in Proc. Natl. Acad. Sci. U.S.A. and one in N. Engl. J. Med. Among these publications, I am the first author in 9 articles, and corresponding author in 4. My articles have been cited more than 1,400 times with an h index of 19. My research has been funded by several national and international projects, including two European Framework (FP6) projects and one ongoing Consolider project in which I am the Principal Investigator. I have also participated in transference of technology from the University to a private company through two patents in use and one collaboration contract. In addition, I am co-supervising an international Ph. D. student and one graduate student. These accomplishments, together with the indispensable and continued support of my brilliant co-workers, define several lines of work that we intend to explore in the following years.</p>
7	Biología Vegetal, Animal y Ecología	RYC-2012-11404	ALONSO SAEZ, LAURA	laura.alonsosaez@gmail.com	<p>My specialty is Microbial Oceanography, and I am interested in the ecology of marine microorganisms and their biogeochemical role in the ocean. In field and experimental studies, I have addressed different topics such as patterns of bacterial diversity along spatio-temporal marine gradients, bacterial carbon processing in coastal and open-ocean systems, and the metabolism of relevant marine bacteria through <b>omics</b> approaches. My main objectives are to link diversity and metabolism in microbial ecology studies, to identify key players of ocean biogeochemistry, and understand how the environment affect their activities. I did my PhD at the Institut de Ciències del Mar (CSIC) in Barcelona studying the diversity and carbon metabolism of heterotrophic bacteria in Mediterranean and Atlantic waters. During that time, I gained skills in a wide range of techniques for studying both bacterial carbon processing and diversity, including single-cell approaches such as the MAR-FISH method. This technique allowed me to open the <b>black box</b> of marine bacteria, and learn about the activity of individual bacterial groups in marine systems. At the end of my PhD I participated in an oceanographic cruise in the Arctic, where I started studying a very abundant</p>



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					group of organisms in polar systems, the marine Archaea. In 2007 I joined the Centre d'Estudis Avançats de Blanes (CSIC) to collaborate in a project studying the biogeochemical role of Archaea in freshwater environments. Six months later I moved to Sweden to carry out a two-years Marie Curie postdoctoral project in Uppsala University, where I intensively worked on the ecology and metabolism of polar Archaea. Back in Spain since 2010, after obtaining a ♦Juan de la Cierva♦ postdoctoral fellowship and a Marie Curie European Reintegration Grant, I am currently working in the Oceanographic Center of Gijón, focusing on the levels of functional redundancy of marine microorganisms, and the effect of temperature on microbial metabolism.
8	Biología Vegetal, Animal y Ecología	RYC-2012-10977	BARTOMEUS ROIG, IGNACIO	nacho.bartomeus@gmail.com	I am a community ecologist interested in understanding how different drivers of global change are affecting ecosystem functioning. I obtained my PhD (Suma Cum Laude) in 2008, at the ♦Universidad Autonoma de Barcelona" advised by Dr. Montserrat Vilà. My PhD explored how biological plant invasions can modify the structure of plant-pollinator networks. Our pioneer work on this field resulted in several publications, being the main manuscript already cited more than 60 times since late 2008 (source: G-Scholar; Oecologia 2008, 155:761-770). In 2009 I did a short PostDoc with Dr. Daniel Sol (CREAF-CSIC) exploring further the role of life history traits on explaining biological invasions, resulting in a collaborative article now published in the prestigious journal Science (2012, 337:580-583). In parallel, I lead an article challenging the biotic resistance hypothesis using macroecological analysis (GEB 2012, 21:524-533). In 2010 I moved to the US, initially with a 6 month starting grant awarded to my advisor Dr. Rachael Winfree, which I helped to obtain, and extended my stage at Rutgers University for two more years with a postdoctoral Fellowship (EX2009-1017) funded by the Spanish Education Ministry. My main interest was investigating changes in native bee communities over time in North America, and changes in bee phenology attributable to climate change, using long-term data sets assembled from museum collections. The main result is published in Proceedings of the National Academy of Science (2011, 108:20645♦20649), and a second paper is currently re-submitted to the same journal after positive reviewer comments. Among several collaborations started during this stage I want to highlight an extensive review on native pollinators in anthropogenic habitats published in the Annual Reviews in Ecology, Evolution and Systematics (2011, 42:1-22) and a commentary published in Current Biology (2011, 21:653-655). Starting on September 2012 I was offered a Postdoctoral Position in Swedish University of Agricultural Sciences by Dr. Riccardo Bommarco to work on the LIBERATION EU FP7-project (Grant nu. 311781). During 2013 I plan to explore the interactions among different ecosystem services, like pollination, pest control and below-ground mutualisms, by using analysis of existing datasets in



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					combination with field experiments. Along my scientific career, I combine observational and experimental studies with synthesis of big datasets to answer general questions in ecology from different complementary perspectives. I make a strong emphasis in incorporating theory and sound statistical methods to my research in order to obtain robust and generalizable results. I published 16 scientific papers (6 more currently under review) cited more than 190 times. I am engaged with the scientific community by attending regular meetings and I believe in open sharing of data and ideas to stimulate science advances. Likewise, I find important to be involved in science outreach in order to transfer my results to a wider audience as illustrates my contribution to the IUCN North American Bumble Bee Conservation Working Group. In the future I want to continue exploring the relationship between biodiversity, species traits and ecosystem functions in different systems under global change pressure by studying biotic resistance to invasive species and pollination function to plants.
9	Agricultura	RYC-2012-09790	CAYUELA GARCIA, MARIA DE LA LUZ	mlcayuela@cebas.csic.es	I finished my studies on Chemistry at the University of Murcia in 1999. One year later I defended the ♦ Tesina de Licenciatura ♦ in the Department of Analytical Chemistry. On January 2001 I started my PhD studies in the Department of Soil and Water Conservation and Waste Management in CEBAS-CSIC. The PhD Thesis (2004), entitled ♦ Industrial production of ecological compost from olive mill wastes ♦, was awarded with a prestigious National Prize (Premio Fertiberia). I have more than 5 years of international postdoctoral experience (2 postdoctoral stays (24 months each) in Italy (Council of Agricultural Research, CRA) and The Netherlands (Wageningen University), 6 months at Cornell University (USA), and several short stays (3-4 months) in Italy (CRA), The Netherlands (Alterra) and USA (ARS-USDA). During this period I collaborated also with other research institutes: Rothamsted Research (UK), University of Innsbruck (Austria) and Alterra (The Netherlands), which led to the publication of several communications at conferences and peer-reviewed articles. I have 25 publications in journals included in SCI. More than 80% of my publications are within the first quartile (Q1), being the rest also published in acknowledged high-quality journals such as Biology and Fertility of Soils (Q2) or Applied Soil Ecology (Q2). The authorship is as follows: 12 publications as first author, 2 as senior author, 7 as second author and 4 as third author (11 as corresponding author). Most of my publications are very recent, but some have already been highly cited: Waste Management 2006 (116 citations), Process Biochemistry 2006 (50 citations), Biology & Fertility of soils 2006 (39 citations), Bioresource Technology 2008 (23 citations). My h index at present is 12 (ISI web of knowledge). I have participated in 36 National and International Conferences with 49 communications. I have given 12 oral presentations in International conferences and seven more as invited speaker in different workshops and seminars. I also worked as Guest Editor for the journal Waste Management



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					(impact factor: 2.208; 7/38 Engineering, Environmental) for a Special Issue devoted to the OECD Conference: Soils and Waste Management: a challenge to Climate Change held in Gorizia (Italy). I was selected as European expert within the ♦European orientation group♦ in the project «Integrated Systems to enhance sequestration of carbon, producing energy crops by using organic residues» - ♦Seq-Cure♦ (2007/2010). I work as referee for 16 SCI journals. I have been awarded numerous prestigious (highly competitive) fellowships to develop research projects on my own initiative: Fulbright fellowship (2005); Postdoctoral Fellowship (Fundación Séneca, Regional Agency for Science and Technology. Murcia) (2006); European Science Foundation exchange grant (2007); Marie Curie Fellowship for career development ♦PEOPLE♦ - Call FP7-PEOPLE-2007-2-1-IEF (2008); JAE-Doc 2009 (CSIC) (2010); Marie Curie Re-Integration Grant ♦PEOPLE♦ - Call FP7-PEOPLE-2010-2-1-ERG Proposal N° 277069 (2010); OECD Fellowship (Cooperative Research Programme: Biological Resource Management for Sustainable Agricultural Systems) (2010). I have supervised 3 Master students and 1 BSc student. At present I am supervising 2 PhD students. I have participated on the elaboration of successful proposals for national and international research projects.
10	Biología Vegetal, Animal y Ecología	RYC-2012-10237	GALVAN MACIAS, ISMAEL	ism.galvan@gmail.com	B.S. Environmental Sciences, University of Extremadura (Spain), 2004. As an undergraduate student, I received a university collaboration grant and published three articles in a SCI journal. I conducted my PhD thesis with a MEC-FPI grant at the National Museum of Natural Sciences-CSIC (Spain) and got my PhD degree by the Complutense University of Madrid in 2009 ('sobresaliente cum laude' and extraordinary prize). During my doctorate, I spent six months at other centers which allowed me to establish collaborations with research groups in France (University Pierre et Marie Curie), Canada (University of Saskatchewan) and Spain (Doñana Biological Station-CSIC). After completion of my PhD, I was hired on contract as postdoctoral researcher at Rey Juan Carlos University (Spain, 2009) and University of Alcalá (Spain, 2010), and received a grant for invited professors of the University of Castilla-La Mancha (Spain) at the Research Institute for Game Biology (IREC, 2010). Then I was awarded a CSIC JAE-Doc grant at Doñana Biological Station (Spain, 2010) and a Marie Curie Intra-European Fellowship at the University of Paris-Sud 11 (France, 2010-2012). I am the main responsible for the intellectual development of my research activity. My research is primarily focused on the evolution of melanins and melanic traits, adopting a novel approach consisting of the combination of knowledge on the chemistry of melanogenesis with that on evolutionary mechanisms. This multidisciplinary approach has resulted in numerous publications in leading journals in Biology, Evolutionary Biology and Ecology such as P. Roy. Soc. B-Biol.



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					<p>Sci., BioEssays, PLoS ONE, Funct. Ecol. and J. Evol. Biol., but also in a leading journal in Dermatology such as Pigment Cell Melanoma Res.. I combine experiments to investigate the mechanisms of expression of melanic traits with field and comparative studies to explore their effects on the life histories and fitness of animals. I have published 49 articles in peer-reviewed journals, 45 of them in SCI journals. I am the first author in 41 (84%) articles and single author in 12 articles. My publications have been cited 324 times (h-index = 10) and have been coauthored by 52 researchers from 30 institutions and 12 countries. Apart from my project in France funded by the 7th Framework Program (7PM), I have participated in four research projects in Spain funded by national and regional research schemes. A new project is starting in 2013. I have given invited talks in research centers in Belgium, France and Switzerland and presented my results in conferences and seminars in different countries. I am member of the Editorial Board of Dataset Papers in Biology, and member of the European Network for Melanin Research (EuMelaNet) to promote multidisciplinary research on melanins and melanogenesis. My research has been highlighted two times by Nature and featured several times on the public media in Spain (El Mundo, ABC and others, three press releases by CSIC, radio interviews) and other countries (The Daily Mail, BBC and others). I have reviewed 80 manuscripts for 37 scientific journals, including top-ranked journals such as P. Roy. Soc. B-Biol. Sci., Am. Nat., Evolution and PLoS ONE, and projects for funding agencies such as the French National Research Agency, the Czech Science Foundation and the Romanian National Council for Scientific Research.</p>
11	Agricultura	RYC-2012-10970	RESCO , VICTOR	v.rescodedios@gmail.com	<p>El solicitante cursó ingeniería de montes en la Universitat de Lleida (2003) y el doctorado en ♦Rangeland Ecology and Watershed Management♦ en la Universidad de Wyoming (12/12/2008). Trabajó, primero como investigador posdoctoral, y luego como contratado doctor, en la Universidad de Castilla-la Mancha y en el Centro de Investigación del Fuego en Toledo (2008/2011). Desde mediados del 2011 ejerce de ♦lecturer♦ en la University of Western Sydney.</p> <p>Su investigación se centra en los procesos que conducen a cambios en la cobertura vegetal tras los incendios o las invasiones vegetales, así como los efectos de dichos cambios en la cobertura sobre la productividad del ecosistema. Su capacidad para integrar campos aparentemente dispares, tales como la biología molecular, la gestión forestal y la ciencia atmosférica (ver artículos en Ecol. Lett. o Glob. Change Biol. citados en el CV completo), así como para trabajar en ecosistemas marcadamente diferentes (como el Desierto de Sonora o los bosques mixtos del Norte de Japón) ha conducido a un gran número de publicaciones de alto impacto. El factor de impacto medio de las revistas en las que el solicitante ha</p>



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12	Biomedicin	RYC-2012-	COMAS	comas_ina@gva.es	<p>publicado tras la conclusión de su doctorado es de 4,9, considerablemente superior al factor de impacto medio de las revistas de su área.</p> <p>Publicaciones y citas: El solicitante ya cuenta con casi 25 publicaciones y aunque como doctor desde una fecha relativamente reciente (diciembre 2008) el número de citas es poco indicativo del impacto de sus investigaciones (dado el escaso tiempo transcurrido desde el inicio de su carrera) ya ha conseguido un índice-h de 8, que indica un bagaje que ya empieza a ser valorado y destacado a nivel internacional.</p> <p>Proyectos competitivos: El solicitante ha contribuido a 3 proyectos del 7º programa marco de la UE - FUME, GHG-Europe y CarboExtreme - y recibió un beca Marie Curie para visitar la Universidad de Liverpool. Actualmente ejerce de investigador principal en un proyecto financiado por el competitivo Australian Research Council Discovery Projects (tasa de éxito del 20%) y del Bushfire CRC. Además, ha obtenido financiación del ♦Programa de Investigación Orientada♦ de la Junta de Castilla-la Mancha. La suma recibida por el grupo del solicitante por todos estos proyectos asciende a 1,8 millones de euros.</p> <p>Editor: El solicitante es Editor Asociado en la revista Plant Ecology and Diversity (indexada en ISI) y fue editor invitado del volumen 19 (3) de la revista ♦Ecosistemas♦.</p> <p>Organizador de congresos: El solicitante ha actuado como organizador o co-organizador en los congresos generales de la European Geosciences Union (Viena, 2011 y 2013), European Ecological Federation (Ávila 2011) y de la Ecological Society of Australia (Melbourne 2012).</p> <p>Revisiones: El solicitante fue contactado por el IPCC para revisar el borrador del 5º Assessment Report. Revisa regularmente un gran número de propuestas de proyectos (Agencia Nacional de Evaluación de Proyectos, COST, Fonds de la Recherche Scientifique) y artículos en revistas tales como Journal of Ecology, Forest Ecology and Management, Global Change Biology, Journal of Geophysical Research, Agriculture, Ecosystems and Environment, entre muchas otras.</p> <p>Liderazgo: El solicitante creó y coordinó la Red sobre Isótopos Estables, un grupo de trabajo de las Asociaciones de Ecología Terrestre y Limnología españolas.</p> <p>I graduated in biological sciences at the University of Valencia and did my PhD in the Cavanilles Institute of</p>





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	a	10627	ESPADAS, INAKI		<p>Biodiversity and Evolutionary Biology. My PhD was funded by a FPU fellowship. During my PhD I authored 7 papers all of them as first author. My PhD allowed me to specialized in bacterial pathogens genome analysis. As part of my training I did a research stay at the University of Pittsburgh which resulted in a publication (Comas et al. 2006 Mol. Biol. Evol. IF 5.5) and we were among the first to publish a full evolutionary analysis of a single genome (Comas et al. 2007 Syst. Biol. IF 10.22).</p> <p>After my thesis I moved to London, to the National Institute for Medical Research (part of the MRC). I got a position as a Career Development Fellow in the group of Sebastien Gagneux in the Mycobacterial division. In London I specialized in the application of next generation sequencing techniques to new tuberculosis diagnoses and treatment. During this postdoc (3 years and 5 months) I published nine papers on three main topics: antigenic variation in tuberculosis isolates (Nat. Genet. 2010, IF 35.5), rifampicin resistance (Nat. Genet. 2012, IF 35.5) and evolution and epidemiology of tuberculosis (PloS One 2009 IF 4.1, Nature Genetics submitted). We have also published two reviews in important journals to summarize the current status of tuberculosis research (Comas et al. PloS Path. 2009 IF 9.17 and Trends in Microb. 2011 IF 7.9), have characterized different immune responses depending on the infecting strain (Portevin et al. PloS Path. 2011 IF 9.17) and applied Illumina sequencing to tuberculosis transcriptomics (Arnvig et al. PloS Pathogens 2011 IF 9.17). During my stay at NIMR I was awarded a year of extension and a pay reward award for outstanding research.</p> <p>After London, I applied and got a Marie Curie IEF FP7 to work in my current institution, CSISP in Valencia. The proposal was scored with a mark of 95.40 (out of 100) and included funding to carry out the proposed project (Amount: 166,565 euros). Since my arrival to CSISP I have published three papers with another one already accepted and two more submitted one of them as first author with the first results from the FP7 project (Nat. Genet., submitted).</p> <p>As part of my work on tuberculosis I have been involved in activities in developing countries to foster collaborations, technology transfer and training in Ghana and Ethiopia. I have been involved and participated in funded proposal by (see CV) and I have built together with Dr. Gagneux a network of collaborations from different developing countries and local collaborations in Valencia and Spain to study the pathogen, the host and drug resistance.</p> <p>During my PhD I was involved in teaching courses (12 credits) and during last year in an official Master of the U. of Valencia (30 credits) and I will continue this year in the new Master of Bioinformatics. I have published a total of 20 papers and 4 chapters. I have been first author or second author in 85% of the papers (mean IF 9.8). Three of my publications (Nat. Genet. 2010 and 2012, PloS Path. 2011) has been selected by Faculty of 1000 and have been highlighted by "News and Views" editorials as well press</p>





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					releases. Finally I review grants proposals for the ERC (Advance and Starting) and the Hong Kong FHB as well as research papers for journals like Genome Research or Nuc. Acids. Res.
13	Biología Vegetal, Animal y Ecología	RYC-2012-11970	ACEVEDO LAVANDERA, PELAYO	pacevedo@irec.csic.es	<p>I graduated in 2002 from the University of Oviedo (Spain) in Biological Sciences and in March 2003, I began my scientific career as a PhD student at the Instituto de Investigación en Recursos Cinegéticos (IREC); a center under the joint authority-collaboration of the Spanish National Research Council (CSIC) and the University of Castilla-La Mancha (UCLM, Spain). I completed my PhD studies with honors (Cum Laude) on December 1, 2006, in UCLM. Since then, I have been awarded 5 postdoctoral contracts by competitive research programs: Junta de Castilla-La Mancha, Juan de La Cierva, Beatrui Pinós, INCRECYT and Fundação para a Ciência e a Tecnologia. Throughout my scientific career, I have actively participated in 17 highly competitive-evaluated research grants (two of these grants are European projects) and in 12 publicly funded contracts (in one of them I acted as Principal Investigator). So far, I have published 53 peer-reviewed papers in journals indexed in the Science Citation Index (SCI). These papers have been cited 920 times, giving me an h index of 17 (<a href="http://scholar.google.com/citations?user=vecKO2QAAAAJ&amp;hl=en">http://scholar.google.com/citations?user=vecKO2QAAAAJ&amp;hl=en</a>). In 26 of these papers I act as first, senior and/or corresponding author. Twenty-six papers were published in top ranked journals (first quartile) such as: Diversity and Distributions, Journal of Biogeography, PLoS ONE and Global Change Biology, to name a few. Furthermore, I have published 5 peer-review papers in non-SCI journals, 5 chapters in books, 7 articles in popular journals, and have more than 50 communications at scientific congresses.</p> <p>With respect to my major achievements, since 2009, I am Associate Editor for the European Journal of Wildlife Research (a SCI journal), have reviewed manuscripts for more than 20 SCI journals, among others, some of which are top ranked Biodiversity Conservation journals (e.g. Global Change Biology, Biological Conservation and Diversity and Distributions). I have also evaluated 13 research projects as participant of two evaluation panels (Stock-rearing and Fisheries, and Plant, Animal and Ecology) for the [Spanish] National Evaluation and Foresight Agency. Finally, since 2007, at IREC, I have delivered approximately 30 hours per year in lectureship MSc courses on Basic and Applied Research in Game Resources. Also, I successfully supervised 2 PhD students and 6 MSc students, and am currently supervising one PhD student and one MSc students.</p>
14	Ganadería y Pesca	RYC-2012-10459	MONROIG MARZA, OSCAR	oscarmonroig@yahoo.es	<p>I completed my degree in Marine Sciences (Universidad de Cádiz) in 1998. My first research experience took place over three summer internships (1997-1999) at the Instituto de Acuicultura Torre de la Sal (CSIC) and the Centre d'Aqüicultura (IRTA). In 1999 I was awarded a postgraduate scholarship to work</p>



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					<p>with Dr. F. Hontoria, scientist at IATS and subsequently my PhD supervisor. My doctorate studies (2002-2006) investigated liposomes as tools to deliver nutrients into live preys for larviculture, and the results were included in 6 first-author papers that were published in well-recognised journals within the field. My PhD studies received the Extraordinary Doctorate Award 2008 from the Universidad de Valencia. In November 2006 I was appointed to the Centro Oceanográfico de Canarias (Tenerife, IEO) to work in a project investigating nutritional aspects influencing the pigmentation of cultured red porgy. From Tenerife, I moved to Bangor University (UK) to work at the School of Ocean Sciences as postdoctoral research officer within the EU-funded project Atlantic Arc Aquaculture Group 2. In November 2007 I joined the Institute of Aquaculture (Stirling University, UK), to work with Prof. D. Tocher, a renowned scientist and world-class expert in lipid nutrition and metabolism of aquatic organisms. Initially, I was funded by a postdoctoral fellowship from the Ministerio de Educación y Ciencia, and thereafter I was successful in obtaining a Marie Curie Intra-European fellowship. My research at Stirling Univ. (3 years and 3 months) focused on elucidating the molecular control and regulation of polyunsaturated fatty acids (PUFA) biosynthesis in fish. I published 10 papers, with particularly relevant results included in 3 first-author articles published in BBA-Mol Cell Biol Lipids (IF 4.357-5.084) and another paper published in PNAS (IF 9.771), for which I contributed equally as joint first author (Prof. Y. Li). In this paper we established, for the first time in vertebrates, a new pathway for the biosynthesis of docosahexaenoic acid (DHA), a key compound in neuronal tissues. In February 2011 I was appointed on a Juan de la Cierva postdoctoral contract at IATS and, importantly, I obtained further funding through a Marie Curie Reintegration Grant that has been critical in the implementation of novel molecular methodologies into ongoing investigations of my host group. Since arriving at IATS, I have published a book chapter (first author) and 4 papers (3 as first author), with me as sole author from IATS in two. This clearly demonstrates my ability to work independently and that I have created a solid network of colleagues in national and, especially, international (Australia, China, Malaysia, Mexico, Portugal, UK, USA) institutions. I am currently studying PUFA biosynthesis in marine organisms, with particular interest in implementing our understanding of key enzyme functions into biotechnological applications for PUFA production. I am also actively exploring a novel area of research, the biosynthetic pathways of very long-chain (&gt;C24) PUFA, a group of compounds with demonstrated roles in mammalian reproduction and vision, but barely investigated in fish. During my career I have presented over 20 oral (included invited talks) and poster communications in symposia and have visited research institutions in several other countries.</p>
15	Biología Vegetal,	RYC-2012-12277	ARMAS KULIK, CRISTINA	cris@eeza.csic.es	I am a postdoctoral researcher working at Estación Experimental de Zonas Áridas-CSIC. In 1993 I graduated in Biological Sciences and in 2004 I got a PhD in Biology, both at the U Autónoma de Madrid



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	Animal y Ecología				<p>(Spain). I was a Fulbright postdoctoral fellow at Duke University (2005-2007).</p> <p>My main areas of research interest are: Functional and Physiological Plant Ecology, Plant-Plant and Plant-Soil Interactions, Community dynamics, Arid and Alpine Ecosystems, Global Change.</p> <p>Overall impact of my work: I co-authored 24 manuscripts published in SCI-ranked journals, 71% of which are in the top 25% journals in their category as: Nature (1), New Phytologist (1), J. Ecology (3), PLoS One (1), PPEES (1), Oecologia (2), Ecology (1), Functional Ecology (1), Soil Biology &amp; Biochemistry (1), Functional Plant Biology (1), J Vegetation Science (3), and Plant &amp; Soil (1). The mean impact factor of all journals where I published is 4.07. I was first author of 11 and I am included in the ISI Essential Science Indicators (Thomson-Reuters), which lists the top 1% of scientists in each field. My H-index is 10 and my work has received approx. 1283 cites (Scopus and/or Web of Science, 15 Nov 2012). I also coauthored 4 book chapters and 7 papers in non-ISI journals and popular science magazines.</p> <p>Editorial duties: I am Associate Editor (i.e., Deputy Editor-in-Chief) of Journal of Arid Environments since 2009. I was leading Editor of the Special Issue ♦The Iberian Southeast♦ published by Journal of Arid Environments.</p> <p>Teaching and expertise: Since 2004 I am reviewer for competitive calls of research proposals submitted to ANEP, AEET, BBVA Foundation (Spain), FONCyT (Argentina) or NICRR (USA), and a regular reviewer for 20 science journals included in SCI-ranked journals.</p> <p>I am involved in the following postgraduate programs: 1) CSIC-UIMP Graduate Program on Global Change (Official MSc and PhD program of the European Area of Higher Education). Lecturer in ♦Vulnerability of arid and semi-arid ecosystems to Global Change♦ since 2009; 2) Course on basic methods in Evolutionary and Functional Ecology (2012), and; 3) Member, Graduate Program on Biodiversity, Ecology and Global Change at Almeria University since 2009.</p> <p>I was an evaluation committee member of 1 PhD Thesis (2008, Spain) and 1 Master Thesis (2012, Brasil). I am Co-supervisor of three PhD Theses. One defended in 2010. Two ongoing (expected 2014).</p> <p>Other experience at the international level and collaborations in research projects: Overall, I have been around 3 years working abroad, either as a postdoc (~2.5 years), PhD student (3.5</p>



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					<p>months), or undergraduate student (4.5 months). Since 2010, I work for an EU funded project where I mentored PhD students and other international partners on ecophysiological trait measurement in the field. During the last 5 years I am or have been involved in 3 international projects (being IP of one funded by CSIC and FCT, Portugal), 3 national and 1 regional RTD projects (IP of one funded by MICINN and ICTS network) and collaborated in the writing of several other proposals.</p> <p>I have collaborated, and still keep collaborations, with colleagues from Argentina, Australia, Brazil, Canada, Chile, Costa Rica, France, Georgia, Nicaragua, Norway, Portugal, Senegal, UK, and US.</p>
16	Agricultura	RYC-2012-11432	ORDAS LOPEZ, BERNARDO	bernardo@mbg.cesga.es	<p><b>FORMACIÓN ACADÉMICA</b></p> <ul style="list-style-type: none"> <li>◆ Licenciado en Biología por la Universidad de Vigo (1998).</li> <li>◆ Graduado en Biología por la Universidad de Vigo (2000).</li> <li>◆ Doctor en Biología por la Universidad de Vigo (2002).</li> </ul> <p><b>BECAS Y CONTRATOS.</b></p> <ul style="list-style-type: none"> <li>◆ Beca de introducción a la investigación del Consejo Superior de Investigaciones Científicas (CSIC). Fecha: 1/1/1998 ◆ 31/12/1998. Centro: Misión Biológica de Galicia (MBG) que pertenece al CSIC.</li> <li>◆ Beca de Formación de Personal Investigador en España (FPI) del Ministerio de Educación y Cultura para realización de la tesis doctoral. Fecha: 1/1/1999 ◆ 31/12/2002. Centro: MBG (CSIC).</li> <li>◆ Beca para estancia postdoctoral en el extranjero del Ministerio de Educación, Cultura y Deporte. Fecha: 1/12/2003 ◆ 30/11/2005. Centro: Universidad de Edimburgo, Reino Unido.</li> <li>◆ Contrato de investigador postdoctoral I3P del CSIC. Fecha: 16/3/2006 ◆ 29/12/2008. Centro: MBG (CSIC).</li> <li>◆ Contrato de investigador postdoctoral (Programa Parga Pondal) de la Xunta de Galicia. Fecha: 1/1/2009 ◆ actualidad. Centro: MBG (CSIC).</li> </ul> <p><b>PUBLICACIONES (REVISTAS Y LIBROS)</b></p>



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					<ul style="list-style-type: none"> <li>◆ 35 artículos en revistas incluidas en el JCR (20 de primer o último autor).</li> <li>◆ 4 capítulos de libro en editoriales internacionales (3 por invitación personal) y 2 en una editorial nacional (1 por invitación personal).</li> <li>◆ Editor (por invitación personal) de un volumen temático de una revista incluida en el JCR.</li> </ul> <p>PARTICIPACIÓN EN PROYECTOS DE INVESTIGACIÓN EN CONVOCATORIAS COMPETITIVAS</p> <ul style="list-style-type: none"> <li>◆ 4 proyectos internacionales.</li> <li>◆ 13 proyectos nacionales (2 como investigador principal).</li> <li>◆ 3 proyectos autonómicos (1 como investigador principal).</li> </ul> <p>PARTICIPACIÓN EN CONTRATOS Y CONVENIOS CON EMPRESAS Y OTRAS INSTITUCIONES</p> <ul style="list-style-type: none"> <li>◆ 2 acuerdos de transferencia de material vegetal con empresas de semillas.</li> <li>◆ 4 contratos de investigación con empresas.</li> <li>◆ 1 convenio de cooperación internacional para investigación científica (coordinador).</li> </ul> <p>PATENTES Y MODELOS DE UTILIDAD</p> <ul style="list-style-type: none"> <li>◆ 5 variedades de maíz registradas en el Registro de Variedades Comerciales del Ministerio de Medio Ambiente y Medio Rural y Marino.</li> <li>◆ 3 líneas puras de maíz dulce, 3 líneas puras de maíz grano resistentes al taladro y 4 compuestos de poblaciones de maíz resistentes al taladro descritas en el IV Congreso de Mejora Genética de Plantas (Córdoba 2008).</li> </ul> <p>ESTANCIAS POSTDOCTORALES EN CENTROS DE RECONOCIDO PRESTIGIO INTERNACIONAL</p> <ul style="list-style-type: none"> <li>◆ 2 años en el grupo de Genética Cuantitativa de la Universidad de Edimburgo.</li> </ul> <p>CONGRESOS</p>



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					<ul style="list-style-type: none"> <li>◆ 7 congresos internacionales.</li> <li>◆ 16 congresos nacionales.</li> </ul> <p>FORMACIÓN DE PERSONAL</p> <ul style="list-style-type: none"> <li>◆ 3 tesis doctorales: <ul style="list-style-type: none"> <li>1 presentada en 2012</li> <li>1 pendiente de fijación de fecha de lectura</li> <li>1 en realización (fecha prevista de lectura: 2013)</li> </ul> </li> <li>◆ 1 tesis de licenciatura.</li> <li>◆ 1 tesis de master.</li> </ul> <p>OTROS MÉRITOS</p> <ul style="list-style-type: none"> <li>◆ Docencia: Profesor de Producción Vegetal en la Universidad de Vigo (2000-2002), profesor de Biología y de Biodiversidad Vegetal de la Universidad Nacional de Educación a Distancia (2006-2012).</li> <li>◆ Premio de Investigación de la Diputación de Pontevedra a la tesis de licenciatura (2002) y a la tesis doctoral (2004).</li> <li>◆ Miembro del comité organizador del X Congreso Nacional de Ciencias Hortícolas (2003).</li> <li>◆ Coordinador del curso ◆ Introducción a la mejora vegetal ◆ del CSIC (2010).</li> <li>◆ Revisor de 8 revistas incluidas en el JCR.</li> <li>◆ Evaluador de proyectos del Romanian National Development and Innovation Council</li> </ul>
17	Biología Vegetal, Animal y Ecología	RYC-2012-11207	VILA COSTA, MARIA	mariavilacosta@gmail.com	<p>I am interested in the role of microorganisms in the biogeochemistry of the oceans and freshwater systems. I seek linking microbial phylogenetic and functional patterns to biogeochemical functions and estimating the effects of environmental changes on the bacterially-mediated biogeochemical cycling of elements. Coming from a chemical background, I devoted my PhD to study the role of marine microorganisms controlling the emission of the potential climate cooling gas dimethylsulfide from oceans to the atmosphere in the Institute of Marine Sciences (ICM-CSIC, Barcelona; 2002-2006). During my postdoctoral stage in the University of Georgia (GA, USA) supported by a Marie Curie grant, I broadened</p>



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					<p>my research to learn and apply an innovative technique that takes advantage of the massive sequencing technology called metatranscriptomics (which is the sequencing of messenger RNA directly from the environment) in order to obtain an unbiased view of microbial functionality at high resolution in marine systems. At the end of 2010, I obtained a Juan de la Cierva fellowship to integrate biogeochemical, molecular and genomic approaches to study the functionality of microbial communities in freshwater systems in the Centre Estudis Avançats de Blanes (CEAB-CSIC, Blanes). The interdisciplinary nature of my studies, combining techniques from different fields (microbial ecology, molecular biology, environmental genomics, aquatic biogeochemistry) have provided innovative information to the different subjects analyzed, resulting in 22 SCI publications in some of the best scientific journals of the area including Science, ISME journal and Environmental Microbiology, with an averaged impact factor of 5.5/paper (3.4 excluding Science paper). All publications but 3 are in journals ranked within Quartile 1 of their corresponding discipline fields and accumulate 410 citations (365 without self-citations), 10 of them with more than 20 citations. My H-index is 12. I currently have 2 additional SCI papers under submission. I am the first author of 11 of them (1 submitted), and 5 as second author. Additionally, I contributed writing 3 book chapters. I would like to emphasize that I am the first author of those publications with the highest impact factor and highest citations (impact factor 9.0/paper, 4.5 excluding Science paper). Most of the additional collaborations result from teamwork approaches. I am currently serving the scientific community acting as manuscript reviewer for 7 international journals and I have reviewed grant proposals for the National Foundation for Science of the Republic of Croatia. Additionally, I am review Editor of the journal Frontiers in Aquatic Microbiology. I have participated in 17 research national and international projects, the most recent ones providing mainly expertise integrating biogeochemical data to genomic studies. Especially relevant is the project GENS (MIOF-CT-2008-219811 Marie Curie-EU- FP7) which allowed me to develop my own project in the USA. My work has been presented in 28 congresses and I have been invited to give 4 talks mainly on metatranscriptomics. I have shown a high capacity to obtain fellowships to cover my salary during my years of research and the several national and international courses I attended (10 in total), including the declination of 2 postdoctoral grants.</p>
18	Ciencia y Tecnología de los Alimentos	RYC-2012-11910	LARROSA , MARIA DEL MAR	marllarrosa@cebas.csic.es	<p>La solicitante es Licenciada en Ciencias Biológicas por la Universidad de Murcia (1994/1999). En el año 2000 inició su carrera investigadora con una beca de investigación en el Departamento de Fisiología de la Universidad de Murcia y en el año 2001 comenzó sus estudios de doctorado, incorporándose al Centro de Edafología y Biología Aplicada del Segura (CEBAS-CSIC), donde disfrutó de una beca predoctoral I3P del CSIC. En febrero de 2006 defendió su Tesis Doctoral con título ♦Bioactividad y Metabolismo de Polifenoles</p>





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					<p>de la Dieta y sus Metabolitos en Líneas Celulares Humanas: Efectos Anticancerígenos y Estrogénicos ♦ obteniendo la máxima calificación Sobresaliente Cum Laude por unanimidad con mención ♦ Doctor Europeo ♦ y el Premio Extraordinario de Doctorado del bienio 2006-2007. Durante este periodo tuvo la oportunidad de realizar una estancia predoctoral en el Institute of Food Research (IFR), Norwich, Reino Unido con una Marie Curie Training Site Fellowship. A partir de Septiembre de 2006 realiza una estancia postdoctoral en la Universidad de Florencia (Italia) bajo la supervisión del Profesor Piero Dolara con una beca postdoctoral de la Fundación Alfonso Martín Escudero a la que siguió un contrato postdoctoral del MICINN (duración total 33 meses) adquiriendo conocimientos en la temática de inflamación y más concretamente en inflamación intestinal. En Junio de 2009 se incorporó en el Departamento de Tecnología de los Alimentos del CEBAS-CSIC con un contrato JAE-Doc en el que ha implementado una línea de investigación de polifenoles, enfermedad inflamatoria intestinal y cáncer de colon. Toda su labor investigadora se refleja en un total de 38 publicaciones en revistas de alto índice de impacto (Mol. Nutr. Food Res., J. Nutr. Biochem., J. Agric. Food Chem) además de 2 publicaciones más que se encuentran en fase de revisión, 4 capítulos de libro en prestigiosas editoriales (CRC Press, Wiley-Blackwell). Ha participado activamente en 17 proyectos de investigación competitivos y en 17 proyectos no competitivos en uno de los cuales es la investigadora principal. Los resultados obtenidos han sido presentados en congresos nacionales e internacionales con un total de 18 comunicaciones. Ha codirigido 2 Tesis Doctorales y tres trabajos para la obtención del DEA. En la actualidad se encuentra dirigiendo otra Tesis Doctoral cuya defensa tendrá lugar a principios de 2013. Además ha colaborado en labores de docencia en la asignatura de Nutrición del aula Senior de la Universidad de Murcia y en el Máster de Nutrición y Seguridad Alimentaria. La candidata dispone de la acreditación de la Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA) para las figuras de profesor de Universidad privada, profesor ayudante doctor y profesor contratado doctor. La candidata ha participado en el desarrollo de la patente ♦Compuestos con actividad antiinflamatoria♦. Como resultado de su experiencia investigadora, la candidata colabora asiduamente como censora en revistas incluidas en el SCI (Eur. J. Nutr., J. Agric. Food Chem., Mol. Nutr. Food Res. etc).</p>
19	Agricultura	RYC-2012-10307	ROSADO , ABEL	abeluso@uma.es	<p>Dr. Abel Rosado Rey earned his B.Sc. in Chemistry at the University of Malaga in 1999 and his Ph.D. degree in Sciences at the Department of Biochemistry and Molecular Biology of the same University in 2006. As a Ph.D student Dr. Rosado worked under the supervision of Dr. Victoriano Valpuesta and Dr. Miguel Angel Botella and his research goal was the characterization of novel abiotic stress tolerance</p>



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					<p>determinants in tomato and Arabidopsis. This research project led to the identification of potassium transporters as essential for salt tolerance in tomato (Rosado et al., 2004. Plant. Physiol.), the characterization of the interplay between ABA and ethylene in osmotically stressed tomatoes (Rosado et al., 2006. J.Exp. Bot), and the identification of tetratricopeptide thiredoxin like proteins as essential elements for osmotic stress tolerance in Arabidopsis (Rosado et al., 2006. Plant Physiol.).</p> <p>As a PhD. student Dr. Rosado visited in two different occasions the Department of Horticulture at Purdue University, West Lafayette, IN. USA. In his first period (November 2003- June 2004), Dr. Rosado worked under the supervision of Distinguished Professor Paul M. Hasegawa, and performed the screening and cloning of mutants involved in osmotic stress tolerance from an Arabidopsis mutagenized T-DNA population. As a result, a paper characterizing the role of synaptotagmin1 in osmotic stress and plasma membrane repair was later published (Schapire et al., 2008. Plant Cell). During his second visit to Purdue University (June 2005- September 2005), Dr. Rosado developed molecular tools using the Gateway clonig system. Part of this work was used in a manuscript describing the role of the squalene epoxidase in oxidative stress (Pose et al., 2009. Plant Journal).</p> <p>In October 2006 Dr. Rosado was awarded with a Fulbright postdoctoral fellowship FU-2006-0248 for a project aimed to the identification of additional abiotic stress tolerance determinants. The 24 months project was carried out at the Department of Botany at the University of California-Riverside (USA). During that period, the identification of several vacuolar trafficking machineries involved in salt tolerance allowed a fruitful collaboration with Distinguished Professor Natasha V. Raikhel's lab. During this collaboration Dr. Rosado used cell biology approaches that allowed to describing the role of auxin regulation in vacuolar trafficking (Rosado et al., 2010, Plant Cell. Rosado and Raikhel, PlantSign.&amp; Behav. 2010). In the period (2008-2011), Dr. Rosado continued his postdoctoral training at UC-Riverside working in an independent project aimed to the identification of elements involved in the accumulation of vacuolar targeted cargoes using chemical genomics. As a result, a manuscript describing the role of flavonoids in vacuolar trafficking (Rosado et al., 2011 Chemistry and Biology) was published.</p> <p>Currently, Dr. Rosado is working as a Marie Curie Postdoctoral Incoming Fellow at the University of Malaga studying the molecular mechanisms that drives storage proteins into the plant vacuoles. This project has important biotechnological applications as a first step to increase the nutritional value of cereal crops. In the initial part of the project Dr. Rosado is using Arabidopsis as a model plant, and part of the results has</p>



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					been featured in a recent paper (Rosado et al., 2012 PNAS).
20	Biología Fundamental y de Sistemas	RYC-2012-10196	IRIMIA MARTINEZ, MANUEL	mirimia@gmail.com	<p>During my research career I have worked in various labs from several countries (Spain, Denmark, New Zealand, USA, Canada), giving me the opportunity to get to know many research environments, learn different experimental techniques, and participate in a wide range of scientific projects. In addition, I have closely worked with a dozen of Principal Investigators, from whom I have obtained a great deal of insight into diverse lab managing styles.</p> <p>My research has been mainly focused on three highly overlapping topics: (i) genome evolution, (ii) function, regulation and evolution of alternative splicing, and (iii) evolution of embryonic development (Evodevo). My work on these areas has so far resulted in the publication 44 research articles and reviews, 25 on which I am first or co-first author. Most of these papers are published in high profile journals (Nature, Science, Genome Res, Nat Str Mol Biol, Mol Cell, PNAS, Trends Genet, PLoS Genet, Mol Biol Evol, etc.). In addition, I am corresponding or co-corresponding author in 15 of these publications, highlighting my role as a senior contributor to the work.</p> <p>In terms of funding, I currently hold the highly competitive Long Term postdoctoral Fellowship from the prestigious international Human Frontiers Science Program Organization. In addition, I am co-responsible (together with the other two principal investigator co-applicants, from New Zealand and USA) of a research grant awarded with ~350,000 euros by The Marsden Foundation to investigate the genomic properties of the last eukaryotic common ancestor. Furthermore, among other internationally funded projects, I have participated in an international ♦Community Sequencing Program♦ that involved 27 institutions from 9 countries to sequence the genome of two eukaryotic species, and which resulted in a recent publication in the journal Nature.</p> <p>Finally, I am currently co-supervising the PhD thesis of Demian Burguera Hernandez, from the Department of Genetics at Universitat de Barcelona. He has already obtained his Master♦s diploma and published four research articles in which I am a corresponding author.</p>
21	Biomedicina	RYC-2012-12014	PEREA PARRILLA, GERTRUDIS	gertruperea1@gmail.com	<p>1. Perea G, Araque A (2005). Properties of synaptically evoked astrocyte calcium signal reveal synaptic information processing by astrocytes. Journal of Neuroscience 25: 2192-2203. 168 citations. Demonstration that astrocytes discriminate between the activity of different synapses, that astrocytic calcium signal is controlled by the synaptic activity level, and that release glutamate in situ. Demonstration</p>



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					<p>that astrocytes integrate and process synaptic information and modulate neuronal electrical activity in situ.</p> <p>2. Perea G, Araque A (2007) Astrocytes potentiate transmitter release at single hippocampal synapses. Science 317:1083-1086. 208 citations. First demonstration that astrocytes regulate synaptic transmission at single synapses, and demonstration that astrocytes induce synaptic plasticity.</p> <p>3. Perea G, Navarrete M, Araque A (2009) Tripartite synapses: astrocytes process and control synaptic information. Trends in Neurosciences 32:421-431. 236 citations. Invited review regarding astrocyte-neurons signaling that defines the Tripartite Synapse concept, which represents a novel view of synaptic function.</p> <p>4. Navarrete M*, Perea G*, Fernandez de Sevilla D, Gómez-Gonzalo M, Núñez A, Eduardo Martín ED, Araque A (2012) Astrocytes mediate in vivo cholinergic-induced synaptic plasticity. PLoS Biology 10(2):e1001259. *Equal contribution. 13 citations. First demonstration that astrocytes mediate synaptic plasticity in vivo.</p> <p>5. Navarrete M*, Perea G*, Maglio L, Pastor J, García de Sola R, Araque A (2012). Astrocyte calcium signal and gliotransmission in human brain tissue. Cerebral Cortex 10.1093/cercor/bhs122. *Equal contribution. First demonstration of the existence and properties of astrocyte-neuron signaling in human brain tissue.</p> <p>6. Chen N, Sugihara H, Sharma J, Perea G, Petravicz J, Le C, Sur M (2012) Nucleus basalis enabled stimulus specific plasticity in the visual cortex is mediated by astrocytes. Proc Natl Acad Sci USA 109:E2832-41. Demonstration that astrocytes are actively and necessarily involved in cholinergic-induced cortical synaptic plasticity in vivo.</p> <p>7. Perea G, Yang A, Boyden ES, Sur M. Astrocytes contribute to visual information processing in vivo. (Submitted). Demonstration that astrocytes control neuronal activity of visual cortex in vivo. First demonstration that astrocytes are actively involved in sensory information processing in vivo. The Abstract of this manuscript has been selected as "Hot Topic" in the 2012 Society for Neuroscience Meeting.</p> <p>8. Invited participation in internationally recognized conferences ◆ Gordon Research Conference on Glial Biology, Ventura, CA. U.S.A (2007). ◆ Annual Meeting of the Priority Program of the DFG. Berlin, Germany (2008).</p>



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					<ul style="list-style-type: none"> <li>◆10th Meeting of the German Neuroscience Society. Goettingen, Germany (2013).</li> <li>9. Scientific management activities</li> <li>◆Reviewer ad hoc for Journals: Cerebral Cortex, Glia, PLoS ONE, PLoS Computational Biology, Epilepsy, Neuroscience, NeuroPharmacology, Journal of Neurochemistry, NeuroChemical Research, Brain Research Reviews, Cellular Physiology and Biochemistry, FEBS Letters, American Journal Physiol-Cell Physiology, Scientific World Journal, Brazil Journal of Medical and Biological Research.</li> <li>◆Reviewer ad hoc of research grants for: ANEP, Spain. The Wellcome Trust, UK. Biotechnology and Biological Sciences Research Council (BBSRC), UK. NEURON ERANET: NEURON (Federal Ministry of Education and Research), European Union. Israel Science Foundation, Is</li> </ul>
22	Ciencia y Tecnología de los Alimentos	RYC-2012-10456	RODRIGUEZ GUTIERREZ, GUILLERMO	guirogu@cica.es	<p>The candidate, Guillermo Rodríguez Gutiérrez, achieved the Degree Chemistry in 1997 and PhD in Food Science and Technology in 2006 both at University of Seville. He is currently working as a researcher on a Instituto de la Grasa (Spanish National Research Council (CSIC)); postdoctoral contract in the Biothecnology Department under the supervision of professor Juan Fernández-Bolaños Guzmán, since May 2009. This group is member of the competitive reference group ceiA3 (Food Science, Food Nutrition and Health). He carried out her PhD studies from 2000 to 2006 at the Instituto de la Grasa (CSIC, Seville, Spain). From 2006 to December 2007 he continued working as post-doctoral researcher at the same group with different appointments. In December, he moved to United Kingdom where he joined Prof. Garry Duthie and Baukje de Roos in Lipids and Atherosclerosis group at the Rowett Institute of Nutrition and Health (University of Aberdeen) to perform a post-doctoral stay funded by Ministry of Science and Technology. The scientific trajectory of the candidate can be summarized in the following data: h index=10, author of 31 articles in high impact factor journals and 4 paper in revision (such as Food Chemistry, Food Hydrocolloids, Journal of Agricultural and Food Chemistry, British Journal of Nutrition, Food Science and Technology, or Molecular Nutrition and Food Research) being 23 in the first and second quartiles accepted and 4 in the first quartiles in revision, author of 4 book chapters, 29 communications in national and international scientific meetings, principal investigator of two international research projects, one funded by European Social Fund (FSE) and Regional Agency (Junta de Andalucía) in 2012 and the other funded by State Agency of Peru (FIDECOM) in 2012. The candidate is co-inventor of 9 national and international patent, 5 in exploitation and 4 in negotiation or license phase, two of them have been extended to Europe and EEUU, and four is been also extended to Europe and EEUU. Member of other 14 research projects, co-director of 2 PhD thesis (1 defended in 2011 and 1 in progress) and 2 final project of Master in Chemical. The candidate has experience in docent activities in the signature of the Oils and</p>



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					Fermented Drink at the University Pablo de Olavide (Seville). In addition the candidate participates actively in the creation on a Technologic Company called Subproductos Vegetales del Mediterráneo S.L. (SVM S.L.) to develop four patent in which the candidate is co-inventor.
23	Biología Vegetal, Animal y Ecología	RYC-2012-11346	DIEZ , JEFFREY	jeffdiez@gmail.com	<p>As an ecologist, I am interested in the relative importance of climate and biotic interactions in determining species distributions and community composition. I study the ecological processes underlying different aspects of global change, including biological invasions, climate change, and land use changes. My research uses unique experimental designs and statistical modeling that can test hypotheses and quantify relationships at different scales. I am focused on building stronger links between the basic biology of how organisms respond to the abiotic and biotic environment and larger scale patterns of ecological communities across landscapes.</p> <p>I received my bachelor's degree (B.A.) in Biology and master's degree (M.A.) from the University of Pennsylvania in 1997. After completion, I worked as a research assistant for two years at the Smithsonian Institution Conservation and Research Center on a wide variety of ecological projects. In December 2005 I received my Ph.D. in Ecology from the University of Georgia, where Prof. Ron Pulliam was my advisor. As a postdoc I have worked extensively around the world in order to broaden my view of science and foster international collaborations. I completed a postdoctoral position at Lincoln University in New Zealand. I then worked as a postdoc at the University of Michigan, with Dr. Inés Ibáñez, on a collaborative project with scientists from Korea and Japan. And I am now a postdoctoral researcher at ETH Zürich in Switzerland, where I am collaborating with Prof. Jonathan Levine and other researchers in the Institute for Integrative Biology.</p> <p>I have published 20 peer-reviewed articles, with 5 more currently in revision or in review. Six of these articles have been published in the highly ranked Ecology Letters journal (impact factor 17.6), and most others are published in preeminent ecology journals. Together these articles have been cited 345 times, and my h-index is 9. Performing most of this work on previously attained funding, I have not yet applied for many grants, however I received two funding awards for my research on phenological patterns in Asia and plant-fungus interactions in North America. I have presented this work at over 15 national and international scientific meetings.</p> <p>I also perform significant professional service within the field. I am an Associate Editor for the journal</p>





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DESARROLLO E INNOVACIÓN

SECRETARÍA GENERAL  
DE CIENCIA, TECNOLOGÍA  
E INNOVACIÓN

DIRECCIÓN GENERAL  
DE INVESTIGACIÓN  
CIENTÍFICA Y TÉCNICA

SUBDIRECCIÓN GENERAL  
DE RECURSOS HUMANOS  
PARA LA INVESTIGACIÓN

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					<p>Diversity and Distributions, a high-ranking journal of conservation biogeography. I am currently serving as a scientific advisor for the National Ecological Observatory Network (NEON), a continental-scale program designed to gather ecological data in North America. And I have served as a reviewer for over 26 journals and funding agencies.</p> <p>Teaching has also been an important part of my career. I have taught numerous courses in ecology and advanced statistical modeling to undergraduates, graduate students, and as a professional service to other ecologists at national meetings. While a graduate student, I taught a course at Morehouse College, an elite HBCU (Historically Black Colleges and Universities). At the University of Michigan, I participated in a 6-week course organized by the Center for Research on Learning and Teaching.</p>
24	Ganadería y Pesca	RYC-2012-09999	TORRENT BURGAS, MARC	marc.torrent.burgas@gmail.com	<p>I received my PhD in the Universitat Autònoma de Barcelona on 2009 for my work in the group of Profs. Ester Boix and Victòria Nogués. During this time I was funded by the Generalitat de Catalunya and by Marató TV3 Foundation to pursue my research on antimicrobial ribonucleasases. Then, I moved to the Barcelona Biomedical Research Park (PRBB), in the group of Prof. David Andreu and funded by an Alianza Cuatro Universidades (A4U) postdoctoral fellowship to develop new peptide-based therapeutic strategies. I am currently a postdoctoral researcher in the Laboratory of Molecular Biology (Medical Research Council) at Cambridge, UK. In the LMB I am investigating how to apply systems biology in the study of diseases, in particular to investigate how tRNA abundance can regulate protein expression in cells under stress conditions. To conduct this research I have been awarded first with a MRC Career Development fellowship (MRC, UK) and later with a Beatriu de Pinós fellowship, the later included in the 7th Frame project (EU). Therefore, during my career I have been always been funded independently.</p> <p>I have 22 scientific publications indexed in JCR®. I am first author in 19 and corresponding author on 9 publications. I have an accumulated impact factor of 101 (sum of article impact factors according to JCR® 2012) and an h-index of 10 (according to Scopus®). Out of 22 publications, 14 were published in the first quartile (Q1) in their respective area and 8 in the second quartile (Q2). Among all publications, I shall highlight articles published in <i>Agewandte Chemie</i> (IF 13.5), <i>Plos Pathogens</i> (IF 9.1), <i>Biomacromolecules</i> (IF 5.5), <i>Bioinformatics</i> (IF 5.5) and <i>Journal of Medicinal Chemistry</i> (IF 5.2), all as first author and as corresponding author on 3 of them. I have participated in 17 national and international meetings, four of them as speaker. I have also contributed as evaluator for funding grants and reviewer for several journals, including <i>Nucleic Acids Research</i>, <i>Journal of Medicinal Chemistry</i>, <i>Journal of Innate Immunity</i>, <i>PLoS One</i> and <i>Current Pharmaceutical Design</i> among others.</p> <p>I have participated in 8 national and international investigation projects (including two FP7 funded projects</p>





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					<p>and one project co-financed with FEDER funds). I have also applied for an MRC grant together with Prof. Steven Cobb and Prof. Paul Denny (Durham University) to investigate new therapeutic strategies on parasitic infections. During my research experience I had the pleasure to collaborate with numerous outstanding scientists and had the opportunity to host them at my institution. This has given me the opportunity to create not only friendship with other scientists but also a prolific network of scientific contacts.</p> <p>I have also been involved in student teaching by co-directing 2 end-career project students and 3 master theses, including one international student funded by the ERASMUS program (FP7 Project, EU). I am now co-directing one PhD student, with expected lecture date on summer 2013 and I have also been involved in teaching innovation programs.</p>
25	Biomedicina	RYC-2012-10322	PEINADO SELGAS, HECTOR	hps2002@med.cornell.edu	<p>I obtained my PhD in Dr. Amparo Cano's laboratory at the Universidad Autonoma Madrid, from which I received my B.S. in biology and in biochemistry in 2001 and 1999 respectively. I received the extraordinary thesis award from the Real Academia de Doctores de España in 2003. During my PhD, I was also the beneficiary of a summer research fellowship at Dr. Norbert Fusenig's lab (German Cancer Center, Heidelberg) in 2002 as FPU to learn specific approaches in cell invasion and metastasis (Peinado et al. J.Cell. Sci, 117:2827-2839, 2004). My doctoral research described the molecular mechanisms of EMT regulated by Snail transcription factor and lysyl oxidase 2 (Peinado et al. Mol. Cell Biol. (24):306-309, Peinado et al. EMBO J (2005) 24:3446-58, Peinado et al. Nat. Rev Cancer. (2007). 7:415-28) and defined a role for beta-catenin in regulating cancer stem cell behavior in skin cancer (Malanchi et al. Nature. (2008) 452:650-3). In 2008, after completing my research in Madrid, I went to the Unites States of America and I joined Dr. Lyden's laboratory as a postdoctoral associate to understand the crosstalk between tumor cells and bone marrow derived cells. I was appointed to a Faculty position in Pediatrics Department at Weil Cornell Medical College in 2010 and he is in the process of being promoted to an Assistant Professorship in the same Department. My current research is focused on analyzing the role of bone marrow derived cells in metastatic progression and understanding the role of tumor-derived exosomes in this process. I just published a groundbreaking study where I identified a novel crosstalk mechanism between tumor and bone marrow progenitor cells by tumor-secreted exosomes (Peinado et al. Nature Medicine 18 (6), 883-891 (2012). I continue my collaborations with Dr. Cano, and Dr. G Moreno at the UAM, Spain, working in epithelial to mesenchymal transition. Importantly, my exosome research has sparked a collaboration with Drs. Nazarenko and Giselbrecht (KIT, Germany), to develop new nanodevices for exosome analysis. My current research is aimed at developing novel approaches to investigate exosome function based on</p>



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					lipidomics and metabolomics in collaboration with Dr. Trent Norton (UCSF, USA) and Dr. Falcon (CiC Biogune, Bilbao) respectively. In addition, I maintain active collaborations with the other PIs participating in this grant, specifically Drs. Lyden, Bromberg, Chapman and Brady, with whom I co-authored the recent ground-breaking Nature Medicine (Peinado et al, 2012) study on the role of melanoma exosomes in bone marrow derived cell education and metastasis. Furthermore, I am preparing together with Drs. Lyden, Bromberg, Zhang a manuscript focused on the genetic content of circulating melanoma exosomes and its biomarker potential in melanoma patients. I have a total of 27 publications published since 2003 and 2 book chapters that have been cited a total of 3662 times in peer-reviewed journal. My work has generated a total of 3 international patents. I have assisted at international meetings and conferences, given formal and invited lectures. I have participated in the mentorship of 6 volunteers, 12 PhD and 5 MD students in the last 7 years. Finally, my scientific activity has been granted by international offices such as the NIH and Komen Foundation and 4 private foundations as a co-principal investigator in the last 3 years.
26	Biología Vegetal, Animal y Ecología	RYC-2012-09797	BASELGA FRAGA, ANDRES	andres.baselga@usc.es	Andres Baselga (PhD by the University of Santiago de Compostela, 2002) is interested in biodiversity and works on several biodiversity-related disciplines (from basic taxonomy to phylogenetics and macroecology). From 2004 to 2008 he worked in the National Museum of Natural Sciences (CSIC, Spanish Research Council) funded by the Juan de la Cierva program (Spanish Ministry of Education and Science) and the MACIS project (European Union). From 2009 to 2013 he worked in the University of Santiago de Compostela funded by the Parga Pondal program (Xunta de Galicia). He has collaborated in 11 R&D funded projects, being the principal investigator in 2 of them (including current grant CGL2009-10111). He is the author of 2 books, 4 book chapters and 83 articles in refereed journals (59 as first author). 51 of these articles have been published in journals indexed in ISI WoS (22 in journals with IF>2, 16 in journals with IF>4). Andrés Baselga was the sole author of 11 indexed papers. His papers have received 507 citations according ISI WoS (h-index=13) and 840 citations according Google Scholar (h-index=14). He serves as Associate Editor for Global Ecology and Biogeography (ISSN 1466-822x, IF=5,1) and Diversity (ISSN 1424-2818), and has served as a reviewer for 35 indexed journals, including the leading journal in Ecology, Biogeography and Entomology (>70 reviews between 2002 and 2012). He has served as Expert Referee in several calls evaluated by the Spanish National Evaluation and Foresight Agency (ANEP; 19 times 2009-2012), the Czech Science Foundation (GACR, 1 time 2010) and the Argentinean Ministry of Education, Science and Technology (1 time, 2011). Regarding teaching activities, Andres Baselga has supervised 1 PhD thesis (2008), two master theses (2010 and 2011) and several undergraduate research works (2007-2012). He was responsible of several undergraduate courses in the Biology Degree at the



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					University of Santiago de Compostela (Zoology, Zoology 1, Fundamentals of Applied Biology 1 and 2) totaling 564 hours of teaching work between 1999 and 2012.
27	Biomedicina	RYC-2012-11029	YANES TORRADO, OSCAR	oyanes@gmail.com	<p>Starting with my thesis, continuing with the postdoctoral period, and now as principal investigator leading my own group, the two major aspects of my research have been: (i) the development of new methodology in mass spectrometry-based proteomics and metabolomics; and (ii) solving challenging biomedical problems for systems that are often largely uncharacterized (Nature Reviews Molecular Cell Biology, 2012). This has resulted in 9 research articles as Ph.D. student, 10 during my postdoctoral period, and 4 so far as principal investigator, including 2 review articles.</p> <p>Such efforts have included the development of a new method to study protein interactions using mass spectrometry (Analytical Chemistry, 2003; Journal of Proteome Research, 2006; J. Am. Soc. Mass Spectrom., 2007; Nature Protocols, 2007), which I used to discover 17 new small proteins in leeches that inhibited serine proteases involved in the blood coagulation cascade (Cover figure in the October issue of Molecular &amp; Cellular Proteomics 2005). During my thesis I also got involved in the characterization of the proteome of the Bacterium Mycoplasma penetrans (Journal of Proteome Research, 2006), and the elucidation of post-translational modifications in proteins during my collaboration with Prof. Ole N. Jensen and Peter Roepstorff.</p> <p>I have complemented my knowledge and skills in proteomics with an intense and successful training in metabolomics at the Center for Metabolomics and Mass Spectrometry (The Scripps Research Institute) headed by Prof. Gary Siuzdak. Once again, the development of new methodology in mass spectrometry (Nature, 2007; Nature Protocols, 2008; Analytical Chemistry, 2009; Analytical Chemistry, 2010; Journal of Proteomics, 2012) was complemented with my leadership in several multi-disciplinary studies that combined metabolomics with other omic approaches including proteomics and transcriptomics, and more classical biochemical and molecular biology techniques to interrogate biologically relevant areas such as: stem cell differentiation (Nature Chemical Biology, 2010) and reprogramming (Cell Research, 2011), stem cell therapy in diabetic retinopathy (Scientific Reports, 2011), diabetes and associated metabolic conditions (PLoS ONE, 2011), oxidative stress (Journal of Clinical Investigation, 2009), and neuropathic pain (Nature Chemical Biology, 2012) involving animal models and human samples.</p> <p>- Impact of my research: Among the many implications, my work may have a large impact on researchers working in the field of: stem cells, using small molecules to control stem cell development or inducing pluripotency; neuropathic pain, providing a new metabolic pathway to target this condition; ischemic</p>



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					retinopathy, revealing the mechanism by which umbilical cord blood-derived myeloid progenitor cells promotes tissue remodeling and repair; and cardiovascular disease, revealing new protease inhibitors that have potential to be used as drugs. In addition, the development of surface-based technologies such as NIMS has enormous potential in metabolomic applications including activity-based assays, small molecule arrays, and tissue imaging.
28	Biomedicina	RYC-2012-11873	QUINTANA ROMERO, ALBERT	albertq@uw.edu	<p>I have always been interested in neuropathology and neuroinflammation. During my graduate work under the direction of Dr Juan Hidalgo (Universitat Autònoma de Barcelona), I used mouse genetics to elucidate the role of cytokines (IL-6 and TNF-<math>\alpha</math>;) in the behavioral and molecular responses elicited by insults to the central nervous system: traumatic brain injury and multiple sclerosis. Cytokines are small molecules involved in signaling between cells and their actions are complex; depending on the network of factors and receptors involved, their effects can range from pro-inflammatory to pro-survival. I characterized the transcriptomic profiles of IL-6 and TNF-<math>\alpha</math>; signaling after brain injury, which allowed me to analyze mechanisms underlying the resulting behavioral deficits. In addition, during a stay in the laboratory of Dr. Iain Campbell (University of Sydney, Australia) I identified a novel role of IL-6 in the pathogenesis of a mouse model of multiple sclerosis, showing that its expression is able to redirect inflammatory lesions from their original target regions. My work in this area (J Immunol, 2009) opened new avenues for the treatment of the disease. Furthermore, I generated the only IL-6 conditional knock-out mouse currently available (Brain Behav Immunol, 2012), which has been extensively requested, showing that it is an invaluable tool to expand our knowledge of IL-6 signaling.</p> <p>During my postdoctoral research in the laboratory of Dr. Richard Palmiter (University of Washington, Seattle), I continued my interest in neuropathology and focused my efforts on understanding basal ganglia circuitry and signaling (Nat Neurosci, 2012) as well as the neural mechanisms leading to the fatal outcome of mitochondrial disease (PNAS, 2010; J Clin Invest, 2012). To function properly, mitochondria require a considerable number of nuclear DNA-encoded proteins which need to be trafficked into the mitochondria. There are few mouse models of mitochondrial disease that recapitulate the human disease. Mice lacking NDUFS4 (Ndufs4KO) generated by the Palmiter lab present a severe phenotype including failure to thrive, anesthetic sensitivity, severe motor deficits, and early death; classic signs of mitochondrial disease, underscoring their usefulness as a model of the disease. Because the cause of death in both in humans and mice was unknown, I used mouse genetics and molecular biology approaches to confirm the neural origin of the pathology. By selectively inactivating Ndufs4 in the central nervous system, I could demonstrate that the vestibular nucleus (VN), a brainstem structure, is the principal site of Ndufs4 lesions (Quintana et al., 2010). I investigated the role of VN lesions in the pathology. Using a combination of</p>



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					<p>viral-mediated selective Ndufs4 inactivation in the VN, coupled with behavioral, histological and electrophysiological analyses we described abnormal breathing and premature death in Ndufs4-ablated animals. Conversely, viral-mediated re-expression of NDUFS4 in the VN corrected the breathing deficits and prolonged the lifespan of mice lacking NDUFS4 everywhere else.</p> <p>My work has defined a new and relevant model of mitochondrial disease and identified an unexplored neural circuit involved in the pathology. Hence, I will focus on uncovering new neural substrates and proposing new therapeutic targets for treating mitochondrial diseases.</p>
29	Biomedicina	RYC-2012-10651	MUÑOZ , JAVIER	jmunoze@gmail.com	<p>In 2002, after graduating in Biochemistry by the University of Navarra, I joined the PhD program in the group of Dr. Jose M. Mato. My doctoral thesis was co-directed by Dr. F. Corrales and Dr. J. A. Obeso and dealt with the proteomic analysis of human diseases such as Parkinson's disease and liver cancer. In this period, I obtained a substantial background in molecular biology techniques and developed experimental models which I finally analyzed with proteomics. During this period, I noticed an important gap when working in multidisciplinary projects that involve classic biology and new high-throughput technologies like proteomics. Therefore, for my postdoctoral training, I decided to specialize on MS-based proteomics as a tool to answer biological questions, becoming a bridge between both fields. In 2007, I joined, as a postdoctoral fellow, the Biomolecular Mass Spectrometry and Proteomics Group at the University of Utrecht (The Netherlands) directed by Prof. Albert Heck, one of the world leaders in the field of proteomics. Throughout five years, I acquired a broad experience in shotgun MS-based proteomics workflows and bioinformatic analysis of proteomics data. I also conducted several multi-layered studies that integrated proteomics and transcriptomics data. My main role in the group was the application of proteomic technologies to address biological questions, mainly in the fields of developmental biology and stem cells. To this end, I actively worked with several groups in the Netherlands and abroad as part of big international consortia. These studies span from large-scale proteome expression profiling and phosphoproteome analyses to understand global signaling events (e.g. stem cell differentiation and cellular reprogramming) to more targeted studies to reveal protein-protein interactions in the control of asymmetric divisions in C.elegans. Up to date, I have published 21 articles (9 as first author), including first authorships in high-profile journals such as Cell Stem Cell, Nature Reviews Genetics, The EMBO Journal or Molecular Systems Biology. In addition, I have developed a high degree of independence which is reflected by co-directing two PhD thesis and two Master projects. I also have three publications as senior author including a an invitation for a review on the applications of MS-based approaches in stem cells. These efforts have been rewarded with recognition by the field: I was awarded as ♦Young Investigator 2010♦</p>



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					by the Human Proteome Organization (HUPO), I have been invited to several international conferences and I act as a referee in 4 specialized journals. Since October 2012, I am the Head of the Proteomics Unit at the Spanish National Cancer Research Centre (CNIO), currently formed by 8 people. The mission of the Unit is to perform top-notch MS-based proteomic studies in collaboration with researchers at the CNIO as well as external institutions. We are mainly focused in understanding the molecular mechanisms of cancer at the proteome level, including proteome expression analysis, post-translational modifications (e.g. phosphoproteomics) and protein-protein interactions.
30	Biología Vegetal, Animal y Ecología	RYC-2012-10519	RAMIREZ LLODRA, EVA	ezr@icm.csic.es	In 1998, I joined the National Oceanography Centre Southampton (NOCS, UK) to undertake a PhD degree investigating life-history patterns of invertebrates from deep-sea ecosystems, funded by a Marie Curie grant. During my PhD, I participated in two EU-FP4 projects resulting in 2 papers on reproductive patterns of deep-sea invertebrates (Ramirez-Llodra et al., 2000, 2002) and 1 review on fecundity (Ramirez-Llodra, 2002). In parallel, I worked at Harbor Branch Oceanographic Institution (USA), both as a student and teaching assistant, acquiring laboratory and sea-going expertise that resulted in 1 publication on the gametogenetic and embryological patterns of a methane-hydrate polychaete (Eckelbarger et al., 2001). Between 2002-2010, I coordinated the Census of Marine Life project ChEss ♦Biogeography of Deep-Water Chemosynthetic Ecosystems♦ (Sloan Foundation, USA) at NOCS, with participation of research teams from 14 countries (Tyler et al., 2003; Ramirez-Llodra et al., 2007; Baker et al., 2010), where I gained management skills of large international projects. In parallel, I continued my research in reproduction of deep-sea fauna, resulting in 4 papers (Olabarria & Ramirez-Llodra, 2004; Ramirez-Llodra et al., 2005a,b, 2006) and participated in studies of endogenous rhythms of deep-sea fauna (Aguzzi et al., 2007, 2009). I also participated in the discovery of the first hydrothermal vents in the South Mid-Atlantic Ridge (German et al., 2008) and south of the Polar Front (Rogers et al., 2012). From 2005, I started collaborating with Prof Sardà♦s group at the Institut of Marine Sciences (ICM-CSIC, Barcelona, Spain), applying my expertise on reproductive studies to deep-sea Mediterranean fauna (Ramirez-Llodra et al., 2007; Fernandez-Arcaya et al., 2012 & submitted). I developed studies on deep-sea biodiversity of Mediterranean megafauna, resulting in 4 publications (Ramirez-Llodra et al., 2008, 2010; Tecchio et al., 2011a,b) and the co-edition of a special volume on Mediterranean canyons for Progress in Oceanography (2013, in prep). During the Census synthesis phase (2008-2010), I co-coordinated the ChEss PLoS ONE Special Collection (2010) and I was PI of the SYNDEEP project that synthesised the results of the 5 Census deep-sea projects, resulting in 3 major reviews: unique characteristics of the deep sea (Ramirez-Llodra et al., 2010), biodiversity of the deep Mediterranean Sea (Danovaro et al., 2010) and anthropogenic impact on deep-sea ecosystems





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					(Ramirez-Llodra et al., 2011). The SYNDEEP project led to the establishment of the INDEEP International Network for Scientific Investigations of Deep-Sea Ecosystems (Fondation Total, 2011-2014), of which I am co-PI. I am guest editor for the Deep-Sea Research Special Issue ♦Deep-Sea Biodiversity and Life History Processes♦ in honour of Prof Tyler♦s career (2013, in prep). Overall, I have published 34 scientific peer-reviewed papers, 4 book chapters), co-edited 3 special volumes, written 4 scientific reports and 3 outreach books, led 6 international projects (or their national components) and participated in 8 national and international projects, participated in 16 oceanographic cruises, presented my results in over 50 symposia, co-supervised 6 MSc students and 3 on-going PhD projects, and led/participated in several outreach activities and projects.
31	Biomedicina	RYC-2012-11914	PEÑA LLOPIS, SAMUEL	Samuel.Pena-Llopis@UTSouthwestern.edu	<p>I obtained a B.Sc. in Biochemistry from the University of Barcelona in 1997. While earning my Ph.D. at the University of Valencia, I was privileged to be mentored by Dr. M.D. Ferrando, as well as Dr. J.B. Peña, my own father, who allowed me to open my own research line at one of the Spanish Research Council (CSIC) centers, the Institute of Aquaculture Torre de la Sal. At that time I was able to support myself through two fellowships from CSIC and a research grant I wrote about the mechanisms of resistance to oxidative stress and pesticides in aquatic animals. That work led to a couple of patents and several first-author papers, where I am also the corresponding author. One of these papers was distinguished with the 'Best Publication Award on Environmental Research' and recently I was awarded with a Nature.com Innovation Award.</p> <p>A few months after defending my PhD in 2003, I received a postdoctoral fellowship from Generalitat Valenciana to study the effects of oxidative stress on gene regulation with Professor Bruce Dimple at the Harvard School of Public Health. I learned many techniques of molecular biology and published two co-first-author papers. Since I am skilled with computers and statistics, I was also interested in using state-of-the-art technologies, such as microarrays. Then, in 2006 I got the chance to lead a project to uncover the molecular events driving kidney cancer using a variety of genomic tools and I moved with Dr. James Brugarolas to UT Southwestern Medical Center. Shortly thereafter, I received a postdoctoral fellowship of Excellence from Generalitat Valenciana.</p> <p>Initially, I developed the area of genomics and bioinformatics in the laboratory. Thus, I taught myself a broad variety of methods, including the analysis of gene expression microarrays using false discovery rate (FDR) correction; the calculation of DNA copy numbers from SNP arrays and their segmentation using</p>





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DE INVESTIGACIÓN  
DESARROLLO E INNOVACIÓN

SECRETARÍA GENERAL  
DE CIENCIA, TECNOLOGÍA  
E INNOVACIÓN

DIRECCIÓN GENERAL  
DE INVESTIGACIÓN  
CIENTÍFICA Y TÉCNICA

SUBDIRECCIÓN GENERAL  
DE RECURSOS HUMANOS  
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					<p>circular binary segmentation to identify areas of chromosomal loss or gain; the use of bioinformatic tools, like the prediction of putative transcription factor binding sites; the analysis of whole-exome sequencing by developing algorithms to identify somatic mutations with high confidence; and the correlation of clinical variables of patients with specific mutations.</p> <p>Using the methods I established I was able to publish three first author papers, two of them in high-profile journals; one about basic science and one about clinical science. Firstly, using a genetic and pharmacological approach I found that the mammalian target of rapamycin complex 1 (mTORC1), whose pathway is deregulated in more than half of human tumors, regulated the transcription factor EB (TFEB), which promotes lysosomal biogenesis and it is the third transcription factor involved in metabolism found to be regulated by mTORC1. Secondly, using innovative integrative analyses I recently found that the novel tumor suppressor BAP1 (BRCA1-associated protein 1) is mutated in about 15% of clear-cell renal cell carcinomas (ccRCC). Most importantly, I discovered that the mutations in BAP1 tended to be mutually exclusive to a previously described tumor suppressor gene, PBRM1, and patients with loss of BAP1 were associated with higher grade, activation of mTORC1, and poorer prognosis whereas patients with loss of PBRM1 were associated with lower grade.</p>
32	Agricultura	RYC-2012-10949	GOMEZ LOPEZ, PEDRO	pgomezlopez@gmail.com	<p>I graduated with a degree in Biological Sciences (2000) and obtained my PhD in Plant Pathology (2005) at the University of Murcia (Spain). I devised my own PhD project and secured funding for this under supervision Prof. J.A. del Río. Thereafter, in 2006, I moved to work as PhD researcher in a private company by Postdoctoral Fellowship (within Torres Quevedo programme) from the Spanish Ministry of Education, developing competitive skills and setting priorities. Later on, I applied and succeeded in the application for the prestigious postdoctoral ♦Juan de la Cierva♦ fellowship at the Spanish National Research Council (CEBAS-CSIC, Spain). Then, I moved to the laboratory of Prof. M.A. Aranda, which provided me with a sound conceptual framework on virus evolution and experimental skills including from field work to molecular biology of plant viruses. Furthermore, I improved my training as evolutionary virologist by national and international collaborations. By then, in 2010, I obtained my first research grant as Principal Investigator to work on epidemiology and evolutionary dynamic of the Cucurbit aphid-borne yellows virus, allowing me co-supervise my first PhD student. Subsequently, I was awarded with the "José Castillejo" mobility research grant from the Spanish Ministry of Science and Innovation to join the Evolutionary Ecology group headed by Prof. Angus Buckling at Oxford University (UK). Whereby, in addition of ongoing my mentioned research project and students training, I acquired novel laboratory</p>



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					<p>skills, a strong background in statistics and bioinformatics, and advance my knowledge in the evolutionary ecology of host and virus interaction. Thereafter, I have succeeded in the application for a postdoctoral ♦Marie Curie♦ grant (IEF-FP7-PEOPLE, within &gt;10 years experienced research action) moving to University of Exeter (UK) with Bucklings group, where I have learned to combine community ecology, microbiology and host-virus interaction with help of evolutionary theory, and supervised undergraduate students. Currently, my research work has just been rewarded by a prestigious grant of the Natural Environment Research Council (NERC, UK).</p> <p>During this period, I have authored 24 peer-reviewed articles (13 as first or corresponding author), 2 book chapters (1 as first author), 2 patents (1 as first author), and 6 technical reports. In particular, I have recently published in &lt; Science &gt; as first and corresponding author, in addition to the leading journals in the fields of Ecology (Ecol Let., ISME J), Plant Biology (BMC Plant Biol., BMC Genomics, Plant Methods), Virology (J. Virol., Adv Virus Res., Eur. J. Plant Pathol, Plant Disease), Plant Pathology (Phytopathol., Physiol. Mol. Plant Pathol.) and Biotechnology (Food Chem., Plant Growth Regul., J. Agric. Food Chem.), among others. I have been cited &gt; 305 times and my H-index is 11 (Nov 2012). Some of these articles have been highlighted in post-publication review and featured in the local and international media. I am currently recognized as a leading expert in the field of plant virus evolution. I am regularly invited to give presentations in national and international conferences and workshops (over 30 contributions). I have also participated in numerous research projects, belong to perform frequent reviewer tasks for specialized and multidisciplinary journals.</p>
33	Biología Fundamental y de Sistemas	RYC-2012-10363	CLEMENTE BLANCO, ANDRES	andres.clemente@imperial.ac.uk	<p>I obtained my degree in Biology at the University of Extremadura (1994-1999) and soon after I was awarded with a Junta de Extremadura Predoctoral Fellowship to start my scientific career at professor Jaime Correa-Bordes♦s lab (Universidad de Extremadura, 2001-2006). During this time I focused on the link between cell cycle and morphogenesis, characterizing the effect of mitotic CDK activity on the ability of cells to grow apically or isotropically, and the dual role of the phosphatase Cdc14 as a CDK inhibitor and activator of cytokinesis. These works resulted in the publication of two articles in internationally recognized journals (Bensen ES. et al., 2005, Mol. Biol. Cell, and Clemente-Blanco A. et al, 2006, Journal of Cell Science). After my PhD, I moved to professor Luis Aragon♦s lab at the Clinical Sciences Centre in London (Medical Research Council, UK), where I obtained a position to work in DNA damage repair. We investigated how the Smc5-Smc6 complex was recruited to a double strand break and how this complex was involved in repair of DNA lesions (De Piccoli G., et al., 2006, Nature Cell Biology). At that time I was</p>



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					<p>awarded with a Junta de Extremadura Postdoctoral Fellowship (being co-funded by the MRC)(2007-2008) to work at the same institute in order to study the cell cycle transcriptional regulation of the RNA pol I complex, work that generated a first authorship in a high impact factor journal (Clemente-Blanco A. et al., 2009, Nature). In this article we showed how transcription by RNA polymerase was down-regulated in mitosis by the phosphatase Cdc14. This yielded a second project to analyze the transcriptional regulation of RNA polymerase II complex. To this end I was funded with a Medical Research Council contract (2009-2010) and the investigation was published in another high impact factor journal (Clemente-Blanco et al., 2011, Nature Cell Biology). In this study we showed how Cdc14 was involved in the negatively regulation of RNA polymerase II complex during anaphase. Soon after, I obtained an Imperial College Research Associated position (funded by the European Research Council) to work on the role of the cohesin complex in DNA damage (From 2011), participating in the publication of an article showing the importance of the SUMOylation of the alpha-kleisin cohesin subunit during DNA damage (McAleenan A. et al., 2012, Current Biology). Recently I have published another high impact factor article about the mechanism of cohesin mediated cohesion during a DNA lesion (McAleenan A. *, Clemente-Blanco A. *, et al., Nature. * Shared first authorship). It its noteworthy to mention that during the last year I have been collaborating with professor Correa-Bordes in his research, participating in one of his latest publications about the role of the kinase Cbk1 during biofilm formation in Candida albicans (Gutierrez-Escribano P. et al., 2012, PloS Pathogens). Altogether, I have been working in cutting-edge research in two areas: RNA transcription regulation and DNA damage repair, generating high quality research in the scientific fields, as shown by the publication of outstanding high impact factor articles. Finally, during my career I have taken part in academic activities, such as lecturing, PhD supervision and conference presentations, providing me with an optimal background and leadership required for developing an independent group.</p>
34	Biología Fundamental y de Sistemas	RYC-2012-10835	GONZALEZ BLANCO, MIGUEL	miguel.blanco@cancer.org.uk	<p>Most of my research career has focused on the study of homologous recombination (HR), a DNA repair system characterized by exchange of information between two DNA molecules that share sequence homology. All forms of life have exploited this extremely versatile mechanism to promote variability in natural populations as well as to ensure genomic stability in the individual organisms.</p> <p>Pre-doctoral stage (2001-2006)</p> <p>In Prof. Jaime Gómez-Márquez's lab at University of Santiago de Compostela, I worked in several aspects of the biology of human minisatellites MsH42 and MsH43, including their evolution, their ability to promote</p>



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					<p>homologous recombination (HR) in vitro and the identification of a region of the Msh43 minisatellite capable of adopting a stable G-quadruplex. These results were communicated in a total of 9 articles (5 as first co-author) in reputed journals including J. Biol. Chem., J. Mol. Biol., FEBS Lett., Mol. Biol. Evol. and Mol. Phylogenet. Evol.</p> <p>Postdoctoral stage (2006-present)</p> <p>I joined Stephen C. West lab at Cancer Research UK as a postdoctoral fellow to gain further insight into the molecular machinery behind HR, in particular about those enzymes involved in Holliday junction (HJ) resolution, and to understand how defects in HR may lead to cancer predisposition. Our results in these projects have been published in journals like Nature, DNA Repair and Cell.</p> <p>Identification of HJ resolvases in budding yeast and humans.</p> <p>Using a combination of biochemical and genetic approaches, we showed that budding yeast Yen1 and its human homolog GEN1, members of the new sub-class IV of the XPG-family of structure-specific nucleases, are able to process HJs in a symmetrical manner, leading to the formation of nicked duplex DNA molecules in a similar way to the archetypical bacterial HJ resolvase RuvC. This established Yen1 and GEN1 as the first examples of the elusive bona-fide, RuvC-like HJ resolvases in <i>S. cerevisiae</i> and humans and demonstrated the conservation of this type of enzymatic activity from bacteria to mammals.</p> <p>Cooperation of Mus81-Mms4 and Yen1 for the repair of DNA damage in <i>S. cerevisiae</i>.</p> <p>We also provided the first evidence that the structure-specific nucleases Mus81-Mms4 and Yen1 have overlapping roles in DNA repair and that the loss of both enzymes leads to DNA segregation defects due to the accumulation of unresolved HR intermediates. In this paper we established for the first time that Yen1 provides a back-up activity for Mus81-Mms4, an observation that has now been confirmed by several other labs.</p> <p>Cell-cycle dependent regulation of the structure-specific nucleases Mus81-Mms4 and Yen1.</p> <p>We have recently uncovered a robust regulatory system that controls the timing of activation of the</p>



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					endonucleases Mus81-Mms4 and Yen1, ensuring the coordination of homologous recombination with cell cycle progression required for the specialized chromosome segregation patterns of meiosis and mitosis. In yeast meiosis, these enzymes are controlled by phosphorylation events that lead to their sequential activation, generating the crossovers necessary for chromosome segregation. In yeast and human mitotic cells, a similar regulatory network restrains these nuclease activities until mitosis, ensuring the elimination of persistent joint molecules while limiting the potential for loss of heterozygosity and sister-chromatid exchanges.
35	Biomedicina	RYC-2012-11422	GARCIA CAO, ISABEL	igarciac@bidmc.harvard.edu	I started my scientific career during my BSc education in Biochemistry. I joined Dr. Rosalia Rodríguez's lab as Assistant Student at the Complutense University, where I studied the biochemical properties of allergens with the final aim of improving allergy diagnosis and treatment. My research was supported by the Last Term Student Fellowship from the Education and Science Ministry of Spain (MEC). In 1998 I received my BSc in Biochemistry (Complutense University, Madrid), obtaining the Degree's Extraordinary Prize of the Faculty of Chemistry. After my graduation, I joined Dr. Manuel Serrano's lab at the National Centre of Biotechnology (CNB) to start my thesis project on tumor suppression. During my PhD, I have developed several genetically modified mouse models to study cancer. In particular, the generation of Super p53 mice proved that it is possible to increase cancer resistance without accelerating aging. Super p53 mice have been very useful to test several hypothesis on tumor suppression, stress and aging. I received funding support from the MEC Predoctoral Fellowship. In 2003 I defended my PhD Thesis entitled New mouse models for the study of cancer: increased gene dosage of p53 and elimination of Par4, obtaining the maximum qualification of Cum laude by unanimity and the Doctoral Extraordinary Prize of the Faculty of Chemistry (Autonoma University, Madrid). My thesis project led to 4 publications in prestigious scientific journals, 3 of them as first-author. After obtaining my PhD, I continued my research focused on cancer biology and mouse genetics as Postdoctoral Researcher at Dr. Serrano's lab at the Spanish National Cancer Research Centre (CNIO). One of my projects was the generation and characterization of Par4-null mice. This mouse model was useful to reveal the tumor suppression role of Par4, with particular impact in the endometrium and prostate. My research led to 3 first-author and several co-author articles in prestigious cancer journals. During these years, I acquired a solid background in cell biology and cancer mouse models, which led me to join Dr. Pier Paolo Pandolfi's lab initially at the Sloan Kettering Institute (New York), and subsequently at Beth Israel Deaconess Medical Center (Harvard Medical School, Boston). When I joined Dr. Pandolfi's lab I was interested in studying the consequences and potential benefits of



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					elevating PTEN. Our study revealed PTEN as a key metabolic modulator that shifts cellular energy metabolism towards tumor suppression. PTEN elevation can offer a therapeutic approach to prevent cancer and obesity. The findings of this study have been published as an article in Cell. During my research at Pandolfi's lab I received funding from the MEC Postdoctoral Fellowship and the HFSP Long Term Fellowship. During this time I had the opportunity to interact on a daily basis with experts on the field of cancer, and establish successful collaborative relationships with groups at Harvard Medical School -Dr. Lew Cantley and Dr. Marcia Haigis- as well as international collaborations abroad. The interaction with scientific collaborators working at the forefront of cancer research gave me the opportunity to broaden my knowledge on cancer biology and metabolism. The ♦Ramón y Cajal♦ Programme offers me a unique opportunity to develop my career and enforce scientific research back at my home country.
36	Biología Vegetal, Animal y Ecología	RYC-2012-11353	AMO DE PAZ, LUISA	luisa.amo@eeza.csic.es	I completed my PhD thesis, performed at the Museo Nacional de Ciencias Naturales (El Ventorrillo-CSIC predoctoral fellowship), in 2005. My PhD project contributed to the knowledge of the factors affecting lizard populations and to the conservation of several species of endangered reptiles. My research has also contributed to the knowledge of the antipredatory strategies of prey in response to multiple predators in order to avoid an increase in the risk of predation due to predator facilitation. At the beginning of my postdoctoral stage, I focused my attention on the study of chemical ecology of birds. I obtained an I3P postdoctoral contract at the Museo Nacional de Ciencias Naturales to examine the ability of birds to use the chemical cues of their predators to assess the risk of predation. I acquired European international experience in the Netherlands during 2 years at the Centre for Terrestrial Ecology (Netherlands Institute of Ecology) thanks to a MEC postdoctoral fellowship. After that, I continued my international training at the Instituto de Ecología of the Universidad Nacional Autónoma de México by enjoying a UNAM postdoctoral fellowship. Finally I have been funded by the Juan de la Cierva programme at the Estación Experimental de Zonas Áridas (CSIC). My studies have been the first ones in finding clear evidence that birds can use the chemical cues of predators to assess the level of predation risk. My research has also contributed to the knowledge of the role of olfaction in other aspects of avian ecology and evolution, such as foraging and social behavior. Since the beginning of my scientific career I have been continuously financed by the most competitive national, European and non-European international programmes to conduct research in outstanding centers of recognized prestige. I have participated in 9 projects and I have recently participated in the application of a Cost Action (OLF action) funded by the European Cooperation in Science and Technology. I have taught postgraduate courses. I have 35 publications of which 32 are published in SCI journals. I have also published 2 book chapters and 3 publications for the general public.





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					Since I began my postdoctoral stage, I am the sole responsible of the intellectual development of my projects, although I maintain productive collaborations with national and international researchers. I am the first author in 80% of my SCI publications (25/32). The mean number of authors by publication is 3.56 and most of them have three authors (25/32). Many of my publications are published in journals of the Quartile 1 (13/32), especially my recent publications, published in 2011 and 2012 (5/6) in relevant journals of the area such as Animal Behaviour, Functional Ecology, Plos One, Marine Ecology Progress Series and Journal of Animal Ecology. My work has received more than 450 citations and some papers have been widely covered by public media in many countries. The mean number of citations per publication (excluding recently published from 2011 onwards) is 17.15. My h-index is 13 and will rapidly increase as I have many recent publications. I have been invited to review more than 20 articles for SCI journals of relevance such as Biological Conservation, Animal Behaviour, Behavioral Ecology or Functional Ecology I have presented my research results in 10 national and international conferences.
37	Biomedicina	RYC-2012-10019	LANDEIRA FRIAS, DAVID	david.landeira@csc.mrc.ac.uk	After receiving my bachelor in Biology from the University of Sevilla in 2001, I worked in the application of bayesian networks to the analysis of gene expression data at the School of Informatics, University of Granada. In 2003 I joined the laboratory of Dr. Miguel Navarro at the Instituto de Parasitología y Biomedicina Lopez-Neyra (CSIC) to carry out my PhD in biochemistry and molecular biology (University of Granada). During this period I was funded by the Spanish Ministry of Education and Science and by the international Howard Hughes Medical Institute (USA). The aim of my project was to address the impact of nuclear architecture in the transcriptional regulation of RNA polymerase I (RNAPI)-transcribed loci in Trypanosoma brucei. To develop key microscopy tools required for the success of this project, I was awarded a Maria-Bueno fellowship (CSIC-DFG (Germany)) to visit the lab of Prof. Markus Engstler at the University of Munich, Germany. My pioneering work applying deconvolution microscopy to the study of the nucleus of trypanosomes led to the novel finding that RNAPI-transcribed loci can be repositioned to the periphery of the nucleus during developmental silencing (Landeira et al. J Cell Biol 2007 and related review Navarro et al. Trends Microbiol 2007). Importantly, my subsequent work showed that the cohesin complex regulates the monoallelic expression of the VSG gene (Landeira et al. J Cell Biol 2009). This work, together with studies in other eukaryotes, established a universal role of the cohesin complex in the regulation of gene expression. During my PhD I also made significant contributions to another project providing a molecular explanation of how the trypanosome-RNAPI can transcribe protein coding genes (Peñate et al. Embo Rep 2009 and commented in Navarro et al. Mol Biochem Parasitol 2011). After completing my PhD in 2008, I decided to study epigenetics in pluripotent mammalian embryonic stem cells (ESCs), motivated by their potential application in regenerative medicine. I was awarded a Career Development Fellowship by



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DE INVESTIGACIÓN  
DESARROLLO E INNOVACIÓN

SECRETARÍA GENERAL  
DE CIENCIA, TECNOLOGÍA  
E INNOVACIÓN

DIRECCIÓN GENERAL  
DE INVESTIGACIÓN  
CIENTÍFICA Y TÉCNICA

SUBDIRECCIÓN GENERAL  
DE RECURSOS HUMANOS  
PARA LA INVESTIGACIÓN

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					the Medical Research Council (MRC) to join the group headed by Prof. Amanda Fisher and Prof. Matthias Merkenschlager at the Clinical Science Centre, London, UK. Notably, my work, funded by MRC and European Research Council grants, led us to identify Jarid2 as a novel and specific subunit of Polycomb complexes in ESCs that is required for the establishment of primed chromatin and execution of cell differentiation (Landeira et al. Nat Cell Biol 2010). This key observation highlights the importance of chromatin plasticity in pluripotent cells. Moreover, we further reported that polycomb activity is required for the establishment of the pluripotent state (Pereira et al. Cell Stem Cell 2010). These studies led to an invitation to write a review about Jarid2 during development (Landeira and Fisher. Trends Cell Biol 2011). I have also contributed extensively to other cutting-edge projects showing that successful epigenetic reprogramming of somatic cells requires DNA synthesis (Tsubouchi et al. Cell, submitted) and Tet-mediated erasure of DNA methylation in genomic imprints (Piccolo et al. Cell, submitted). More recently I have completed an innovative study showing that Jarid2 regulates signalling pathways and transcription factors that mediate pluripotency (Landeira et al. in preparation). Overall, my extensive and leading-edge research experience will allow me to become a successful independent researcher.
38	Agricultura	RYC-2012-09875	ROMERO AZORIN, PASCUAL	pascual.romero@carm.es	Pascual Romero Azorín, es licenciado en ciencias biológicas (20/06/1995) y doctor en biología (14/02/2002) por la Universidad de Murcia. Fui becario predoctoral de la Fundación Séneca en el Centro de Investigación de Desarrollo Agroalimentario, perteneciente a la Consejería de Agricultura de Murcia, estudiando aspectos fisiológicos y agronómicos para mejorar la eficiencia en el uso del agua en cultivos frutales. Realicé la tesis doctoral titulada ♦Respuesta del almendro (cv. Cartagenera) al riego deficitario controlado en condiciones de riego subterráneo♦ calificada con sobresaliente cum laude. Durante los años 2002 al 2005 obtuve una beca postdoctoral del Instituto Euromediterráneo de Hidrotécnica para trabajar en aspectos fisiológicos y agronómicos relacionados con la eficiencia en el uso del agua en cultivos frutales (principalmente en cítricos) en el Departamento de Citricultura del Instituto Murciano de Investigación y desarrollo Agrario y Alimentario (IMIDA). En 2005 obtuve un contrato INIA-CC.AA. de investigador agrario con el tema ♦Uso eficiente del agua. Desarrollo de nuevas tecnologías de riego♦ en el departamento de Viticultura y Enología del IMIDA. En 2006 realicé una primera estancia postdoctoral en la Universidad de Wageningen, en el Centre for Crop Systems Analysis bajo la supervisión del profesor Paul struik para ampliar conocimientos teóricos y prácticos sobre modelización de fotosíntesis en plantas C3. Fruto de esta colaboración han salido dos artículos científicos en revistas de alto impacto. Posteriormente en 2010 realicé otra estancia postdoctoral en el Prosser Irrigated Research and Extensión Center de Washington State University bajo la supervisión del Profesor Markus Keller para ahondar más en aspectos relacionados con la



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					<p>fisiología de la vid en condiciones de estrés hídrico, principalmente estudiando limitaciones hidráulicas al transporte de agua en la planta. He participado en 12 proyectos de investigación científica (financiados por INIA, CICYT, Consejería de Agricultura, fondos europeos y empresas) siempre en aspectos relacionados con fisiología del estrés hídrico, relaciones hídricas e intercambio gaseoso, eficiencia en el uso del agua y aplicación de diferentes técnicas de riego deficitario y nuevas tecnologías del riego (como riego subterráneo o deshidratación parcial de las raíces, PRD) en diferentes especies frutales como son: almendros, melocotoneros, cítricos y vid y también en especies silvestres de interés forrajero como Bituminaria bituminosa. En 5 de ellos he sido investigador principal (tres en proyectos INIA, un proyecto regional y uno con empresas) y actualmente soy investigador principal de un proyecto financiado por INIA titulado ♦Aplicación de estrategias de riego deficitario en la variedad Monastrell sobre diferentes portainjertos♦.Obtuve la evaluación final de INIA con calificación de excelente y obtención del certificado I3 del Ministerio de Ciencia e Innovación. Coautor de un capítulo de un libro, he publicado 22 artículos científicos en revistas pertenecientes al SCI (y otro está en fase revisión en Agricultural Water Management), casi todos ellos en revistas del primer cuartil de su área temática y 5 artículos de divulgación. Ganador del premio ♦Best Viticultural Paper Award♦ por el mejor artículo en viticultura publicado en 2010 en la revista ♦American Journal of Enology and Viticulture♦ concedido por la ASVE. He participado con contribuciones orales y/o posters en 28 congresos.</p>
39	Biomedicina	RYC-2012-12068	CREMADES CASASIN, NUNILO	nc347@cam.ac.uk	<p>PhD: Jan.2003-Dec.2007. Prof. Javier Sancho group, University of Zaragoza (Spain):</p> <ul style="list-style-type: none"> <li>-Thesis on the characterisation of the conformational landscape of H. pylori flavodoxin and the identification of new specific inhibitors, awarded summa cum laude qualif.</li> <li>-11 publications in leading international journals with an average impact factor of 5.5. I was first author in 7 of them and second in other two.</li> <li>-I developed a home-made general high throughput screening methodology to identify high affinity compound ligands of, in principle, any protein, and validated the methodology with two different projects: 1) the identification of potent inhibitors of flavodoxin from H. pylori, related with human diseases such as ulcer and gastric cancer. Four compounds are being currently tested in animal models and have been patented (four Spanish patents). 2) the use of pharmacological chaperons as new therapeutic agents to treat phenylketonuria disease. One European patent.</li> <li>-2 short stays at foreign and prestigious Institutions:</li> </ul>



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					<p>- May ♦ Aug.2003, in Prof. Ernesto Freire ♦s group at the Johns Hopkins University (Baltimore, USA). Protein biophysics, calorimetry and drug development.</p> <p>- Oct. ♦ Dec.2005, in Prof. Paul S. Hoffman ♦s group at the University of Virginia (Charlottesville, USA), Enzymology, microbiology.</p> <p>As a result of both stays 3 papers were published (first author in 2); the highlight of which is the work published in Trends Biochem. Sci. (2011-IF: 10.847) and in J. Bacteriol, where we report the discovery of a novel metabolic pathway specific of the phylum epsilon-proteobacteria.</p> <p>Post-doctoral career: Apr.2008 ♦ today. Christopher Dobson group in the Department of Chemistry at the University of Cambridge (U.K.):</p> <p>- Apr.2008 ♦ Apr.2009: one-year collaboration with Elan Pharmaceuticals to develop a drug discovery research project. This research resulted in two publications and a US patent.</p> <p>- Apr.2009 ♦ today. Long-term HFSP Postdoctoral Fellowship (followed by a Research Associate position) to undertake a challenging project on the study of amyloidogenic proteins implicated in neurodegenerative diseases:</p> <p>- Development of a new single-molecule intermolecular FRET approach, which allowed me to study in unprecedented detail the toxic amyloidogenic oligomers of alpha-synuclein, the protein whose deposition in the brain tissue represents the hallmark of Parkinson ♦s disease. This work was recently published in the prestigious journal Cell, which has a 2011 impact factor of 32.403</p> <p>- Characterisation of the amyloidogenic conformations of human lysozyme protein linked with the development of systemic amyloidosis at atomic resolution (2 JACS papers, 2011-IF: 9.9)</p> <p>- I have established independent collaborations with the aim of understanding protein disorder in cellular function; initial work published in an especial issue on intrinsically disordered proteins in Mol. BioSyst. journal, where it was selected hot paper of the issue.</p> <p>- I supervised a Ph.D. student for one year on a project on the characterisation of the molecular chaperone Hsp70 oligomerisation, a work that has resulted in a publication recently submitted to J. Mol. Biol., where I am the corresponding author. I am currently supervising another Ph.D. student and a Part III student to continue the work on the role of molecular chaperones as regulators of protein misfolding and amyloid aggregation.</p>



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40	Biomedicina	RYC-2012-11137	ENCINAS PEREZ, JUAN MANUEL	jm.encinas@ikerbasque.org	<p><b>FORMACIÓN:</b> --Licenciado en Biología especialidad Neurobiología por la Facultad de Ciencias Biológicas de la Universidad Complutense de Madrid (UCM) en 1999. --Doctorado en Neurociencias por la UCM en Apr 2003.</p> <p><b>EXPERIENCIA PROFESIONAL.</b> --Posición actual (desde Nov 2011): Ikerbasque research profesor (Ikerbasque, the Basque Science Foundation/Achucarro Basque Center for Neuroscience) y Profesor Visitante en el Departamento de Neurociencias de la Universidad del País Vasco (UPV/EHU). --Research associate en el laboratorio de la Dr. Mirjana Maletic-Savatic, en el Neurological Research Institute dependiente de Baylor College of Medicine y el Texas Children's Hospital (Houston, Texas, EEUU), de Nov 2008 a Jul 2011. --Postdoctoral Fellow en el laboratorio del Dr. Grigori Enikolopov, en Cold Spring Harbor Laboratory (Cold Spring Harbor, NY, EEUU), de Jun 2003 a Nov 2008. ♦ Becario predoctoral en el laboratorio de José Rodrigo, en el Instituto Cajal (CSIC, Madrid) de Sep 1999 a Mar 2003. --Prácticas en Empresa en el Instituto Cajal durante 1999.</p> <p><b>PRODUCCIÓN CIENTÍFICA:</b> 26 publicaciones internacionales en revistas con revisión por pares, en 9 de ellas como primer autor (compartido en 1) y en 4 como segundo; Con 1254 citas acumuladas, 1035 de ellas desde 2007. El índice h es 19 (19 publicaciones con 19 citas o más) y el índice i10 es 24 (24 publicaciones con más de 10 citas. El índice de impacto mayor alcanzado es 25.41, en dos publicaciones: Encinas et al. 2011. Cell Stem Cell y Sierra, Encinas et al. 2010. Cell Stem Cell, en una como primer autor y otra de segundo. El número mayor de citas alcanzado es 272 (Encinas et al. PNAS 2006). Además, 17 presentaciones a congresos (10 de ellas con como comunicación oral y en 8 como primer autor), y 13 conferencias invitadas.</p> <p><b>FINANCIACIÓN OBTENIDA, PROYECTOS COMO INVESTIGADOR PRINCIPAL:</b> --Programa Nacional de Proyectos de Investigación Fundamental No Orientada (2012, MINECO). Ámbito nacional, competitivo. 100.000♦ para el periodo 2013-2015. --Programa Saiotek (2012, departamento de Industria, Comercio y Turismo del Gobierno Vasco). Ámbito autonómico, competitivo 50.000♦ para el periodo 2012-2013. -- ♦Start-up♦ asociado a la posición de Ikerbasque research profesor (2011, Ikerbasque, the Basque Foundation for Science). Ámbito internacional, competitivo. 40.000♦ para el period 2012-2013. -- NARSAD Young Investigator Award (2007, the National Alliance for Research on Schizophrenia and</p>



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					<p>Depression, EEUU). Ámbito internacional, competitivo. 60.000\$ para el periodo 2007-2009.</p> <p>FINANCIACIÓN OBTENIDA, BECAS. --Marie Curie Fellow, COFUND/SmartBrain program (2011, Comisión Europea). Ámbito internacional, competitivo. De Nov 2011 a Feb 2014. --Beca Postdoctoral (2004, Ministerio de Educación y Ciencia). Ámbito nacional, competitivo. De 2005 a 2006. --Beca Postdoctoral (2003, Cold Spring Harbor Laboratory Association, EEUU). Ámbito regional, competitivo (solo una beca se otorga anualmente). Para 2004. --Beca Predoctoral (Laboratorios Lacer S.A.). Ámbito nacional, no competitivo. De 2001 a 2003.</p> <p>LÍNEAS DE INVESTIGACIÓN (palabras clave). Células Madre Neurales; Neurogénesis; Hipocampo; Actividad neuronal; Envejecimiento; Epilepsia; Depresión; Ratones transgénicos.</p>
41	Biomedicina	RYC-2012-12246	TORMO MAS, MARIA ANGELES	tormo_man@gva.es	<p>Doctora en Farmacia por la Universidad Cardenal Herrera-CEU (octubre 2005)</p> <p>Actualmente, investigadora del IVIA-CITA:</p> <p>Estudiando posibles genes implicados en el proceso de adaptación al hospedador de Staphylococcus ssp a las distintas especies. Así como un nuevo método de tipado molecular para Staphylococcus aureus. Por otro lado estoy interesada en la relación entre bacteriófagos e isla de patogenicidad y en el estudio de los factores de virulencia que poseen dichos elementos genéticos móviles, los cuales suponen un peligro para la salud.</p> <p>También estoy estudiando una posible diana terapéutica contra staphylococcus aures (Staphyloxanthin) y como se controla dicho carotenoide,</p> <p>Por último y tras los últimos hallazgos, estoy interesada en el estudio de la dUTPasa como molécula señalizadora implicada en diversos procesos celulares, como la transferencia de elementos genéticos móviles, regulación del sistema inmune o apoptosis.</p> <p>Participación en proyectos I+D+I financiados en convocatorias competitivas: Participación en 15 proyectos, 3 internacionales y 6 nacionales. 2 nacionales como investigadora principal y uno autonómico como investigadora principal</p> <p>Actividad docente Dirección de una tesis doctoral y 5 DEAS</p>





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					<p>Publicaciones (19) 18 publicaciones en revistas internacionales, 11 de las cuales se encuentran entre el Q1 de su área. 6 publicaciones como primera autora, destacando una publicación en Nature. Evaluada en <math>\diamond</math>Faculty of 1000 Biology<math>\diamond</math> (F1000 puntuación 6) Dos comentarios al artículo en Cell y en la ASM.</p> <p>Una publicación como <math>\diamond</math>coresponding author<math>\diamond</math> en Mol Micro.</p> <p>Una publicación de divulgación en revista nacional</p> <p>Una posible publicación que se encuentra en 2ª revisión en Moll Cell con comentarios muy positivos de los revisores</p> <p>h-index=13</p> <p>Presentaciones en Congresos (29) 7 presentaciones en Congresos internacionales. 7 ponencias</p> <p>Estancias en Centro I+D+I Estancia predoctoral de tres meses en la Universidad de Tübingen (Alemania). Beca EMBO de corta estancia. Estancia Postdoctoral en el Roslin Institut, Edinburgh University (Reino Unido). Beca (BEST/2012/162).</p> <p>Acreditación como personal competente de categoría C</p> <p>Participación en la organización de Jornadas de transferencia tecnológica en ganadería del CITA.</p>
42	Ciencia y Tecnología de los Alimentos	RYC-2012-09950	SANCHEZ MORAGAS, GLORIA	gloriasanchez@iata.csic.es	<p>Doctorate in Biology at the University of Barcelona in the Department of Microbiology (extraordinary award; 2003) related to the genetic and antigenic characterisation of Hepatitis A virus (HAV). Thereafter I moved to the Nestlé Research Center in Switzerland as a postdoctoral scientist, in the microbiological safety group at the quality and safety department. For almost five years I was project leader of a virus team coordinating the research activities for three persons, mainly working on method development for virus detection in food and also evaluating different food-processing technologies for virus inactivation. During this period I managed three internal projects and I was in charge of preparing a guide for viral risk</p>



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					<p>management and assessment of critical raw materials. In 2008 I was granted with a postdoctoral contract JAE-doc at the IATA-CSIC where I have started research activities in the food virology area within the field of food safety.</p> <p>Reporting 44 international publications, 40 belonging to SCI journals, 13 of them as a first author, and seven as a last author. I currently have 4 publications under revision and four more in preparation. On the other hand, I have been invited to prepare a book on HAV in food (SpringerBriefs in Food, Health, and Nutrition), and I am co-author of 4 book chapters. My publications report an h-index of 16 and have been cited 584 times. I have been co-author of 60 communications in scientific congresses, three of them as invited speaker and more than 20 as oral presentation in both, national and international congresses. I have participated in more than 10 research projects, being principal investigator in one of them. I am actively involved in a European group (CEN/TC 275 ♦ WG 6 ♦ TAG4) for the establishment of an ISO norm for virus detection in food (ISO/PRF TS 15216), in the Expert Panel on ♦Systematic Review of Public Health effectiveness of Molecular typing of Bacteria and Viruses♦, in two European projects (FP7-PEOPLE-2009-IRSES n° 247650 and EcoBioCAP) and in a national project (AGL2009-08603), which I am responsible of the tasks related with enteric viruses. During 5 years I was member of the management committee of the COST action 929 (A European Network for Environmental and Food Virology), where I organized an international meeting of the WG2. I am currently taking part of the organizing committee of an international congress (Polymar2013). Advisory board member of the Spanish Food Safety Agency (AESAN) and editorial board member of ♦Food and Environmental Virology♦, ♦ISRN Virology♦ and ♦Insight Microbiology♦ journals.</p> <p>In the field of teaching, I was ♦ayudante LRU♦ during 5 years at the University of Barcelona. At present I am teaching at ♦Master in Molecular, Cellular and Genetic Biology♦ (University of Valencia) and ♦Master in Food Safety♦ (Instituto de Formación Continua. University of Barcelona). I supervised a thesis master on ♦Development of a real-time PCR for the quantification of viable bacteria♦. I got a positive evaluation of the ANECA and the Catalan agency for the figures of ♦agregado♦, ♦contratado doctor♦ and ♦profesor colaborador♦. I have also been qualified by the FAO and WHO for future work on viruses in foods. Recently I have cofounded the biotech company BioInicia.</p>



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43	Agricultura	RYC-2012-10206	GOBERNA ESTELLES, MARTA	mgestelles@cebas.csic.es	<p>Marta Goberna (MG) obtained her Bachelor in Science (Hons; Biology) in June 1999 with the Best Student Award (University of Valencia, UV) and her PhD in Biology in September 2004 (UV). She is currently coursing the last level to get a Degree in Biochemistry (UV). MG has gained 11 competitive grants, two of them supported by European funds that amounted 194.396 € indicating ability to obtain external funds in highly competitive calls. Since 2005 (excluding 10 months of career break due to maternity leave), MG has published 19 papers on Soil and Organic Waste Microbiology and Environmental Biotechnology in SCI journals (ten as first author, three as senior author and six as a co-author), 80% of which was published in journals ranked in the top quarter in their fields with an impact factor ranging from 1.93 to 4.98. These papers have received a total of 226 cites, making an h value of 10. She has co-authored three other papers which have been submitted to similar SCI journals (one as first author, one as senior author and one as co-author). MG is co-editor of an international book (Springer) and co-author of three book chapters in international books (one as first and two as senior author). The PhD supervisors of the applicant co-author only 30 % of these publications what shows that she has developed an independent career. MG has participated in eight research projects (funded by European, Spanish and Austrian institutions) and three scientific contracts with Spanish public funding bodies. She cooperated with the spin-off company BioTreat (Austria) from 2006 to 2009 and produced two technical innovations: i) an oligonucleotide microarray, the ANAEROCHIP, for the detection of microbes involved in the production of energy from wastes, and ii) the set up of a new type of biogas plant, the BIO4GAS® reactor. MG spent 11 months in national (Murcia) and international stays (Peru and Austria) as a predoctoral student, and 41 months as a postdoctoral researcher abroad (Austria and Sweden). MG supervised a PhD thesis, a Master thesis, the work of two exchange PhD students and two undergraduates in Innsbruck University (2007-2011). Currently, she is supervising a PhD thesis and the work of two exchange PhD students. She is member of the editorial scientific board of Applied Soil Ecology since 2007 and frequent reviewer of articles and projects in international panels. MG has made 30 contributions to scientific conferences, 30% of which were oral communications including an invited lecture in an international conference. MG has been involved in teaching in Postgraduate courses and Masters, as well as in the organisation of international scientific events in Spain and Austria. Apart from her current host group (led by Dr. García in CEBAS-CSIC, Murcia), she holds active collaborations with four Spanish research groups (led by Drs. Verdú in CIDE-CSIC, Valencia; Rincón in ICA-CSIC, Madrid; González-Martínez in INIA, Madrid; Querejeta in CEBAS-CSIC, Murcia), an Austrian research group (led by Dr. Insam in Innsbruck University), and a Swedish research group (led by Dr. Hallin in Swedish University of Agricultural Sciences, Uppsala). MG speaks Spanish and Catalan as mother tongues, as well as English and German.</p>



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44	Biomedicina	RYC-2012-12018	CRESPO MAULL, MARTA	macrespo@vhebron.net	<p>I started my PhD in 2001 in the Hematology Department, Hospital Clinic of Barcelona under the supervision of Francesc Bosch, focusing on Chronic Lymphocytic Leukemia (CLL). We described the correlation between IgVH mutational status and ZAP-70 and the prognosis value of ZAP-70 expression itself in CLL. With this report we provided an easy and reliable method to assess ZAP-70 expression by flow cytometry and therefore, prognosis in CLL which has from then become a widely used parameter to assess prognosis in CLL. (Crespo M, et al. N Engl J Med. 2003). Since the finding of ZAP-70 in CLL was the first description of ZAP-70 in a B-cell, we elucidated whether ZAP-70 was ectopically expressed and found that it was expressed in normal immature B cells, but not in mature B-cells which are the normal counterpart of CLL cells (Crespo M, et al Clin Cancer Res. 2006). The expertise about ZAP-70 that we acquired allowed us to write several reviews (Bosch F, Muntanola A, Giné E, Carrió A, Villamor N, Moreno C, Crespo M, Montserrat E. Cytometry B Clin Cytom. 2006) (Codony C, Crespo M, et al. Best Pract Res Clin Haematol. 2009).</p> <p>In 2007, after I obtained my PhD degree, I moved New York to improve my independent research skills, learn new techniques and acquire further experience. After obtaining a Fulbright Fellowship I joined Prof. Dalla-Favera laboratory in the Institute for Cancer Genetics that he directs (Columbia University, New York, USA). One of the main objectives of my postdoctoral stage was to learn new ways of studying CLL so that, in a near future, I could continue with that work independently. I worked on the role of the deletion of 13q14 region in CLL, which contains several non-coding RNAs. First I demonstrated that the intronic microRNAs (miR15a/16-1) had no independent promoter but their expression was dependent on the primary transcript that contains them (DLEU2). For this purpose I engineered mouse embryonic stem cells deleted for the promoter region of DLEU2, which avoided miRNAs expression. This work allowed me to acquire expertise in mice genetics and embryonic stem cells manipulation. The main part of the research was to elucidate the role of DLEU2 and the miRNAs (miR15a/16-1) both in vivo (mouse models designed by Ulf Klein) and in vitro (re-introducing DLEU2 or the miRNAs in a 13q14 deleted CLL cell line), for which I was responsible. Furthermore, the analysis of the miRNAs targets involved the use of several bioinformatic tools, e.g.: miRanda, Pictar, TargetScan, Ingenuity, David. The results from this research were published in Cancer Cell (Klein U, Lia M, Crespo M, et al. Cancer Cell. 2010). After that, I proposed to elucidate the role of another candidate gene in that region; for this I engineered mice with deletion of the candidate gene which are at this time under the supervision of the animal facility and the observation and analysis of the mice is currently ongoing.</p> <p>In October 2009 I joined the Experimental Hematology group directed by Francesc Bosch, at the Vall</p>



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					d♦Hebron Research Institute (Barcelona, Spain). I am currently working as a postdoctoral research scientist where I continue focusing on CLL. I am also in charge of supervising all projects conducted by PhD students. As a result, I have published two papers as a senior author: 'Calpe et al' in Blood, 2011 and 'Baptista et al' in Clin Cancer Research, 2012.
45	Biología Fundamental y de Sistemas	RYC-2012-10266	O'LOGHLEN VELICIA, ANA	aologhlen@hotmail.com	In the course of her research, the applicant has made important contributions to the cancer field, specially describing a new phenotype in senescence that has made and is still making an extremely important impact in the cancer field. On the other hand, recently, she has characterized a protein and a family of microRNAs that are essential for stem cells pluripotency which will contribute also to understand cancer. During her postdoctoral position at the CNIO, she studied cell cycle regulation and further characterized the role of several important interactors of cyclin-dependent kinases (CDK). Her PhD was more focused on a different field of biology: cerebral ischemia and translation regulation. However, she also managed to make important contributions as she discovered and characterized a new kinase isoform, Mnk1b, implicated in ischemia and also cancer. Therefore, her scientific standard has been of extreme excellence since she has started the scientific career in 2001. She has demonstrated independence as a researcher, high productivity, the ability to lead her own research group and to be able to obtain funding.
46	Medicina Clínica y Epidemiología	RYC-2012-10995	DADVAND , PAYAM	pdadvand@creal.cat	I am a medical doctor by training and have a PhD in epidemiology. I have also commenced an MSc in Geographical Information Systems (GIS, distance-learning, part-time). Integrating my understanding of human physiology and disease pathogenesis as a medical doctor, together with my knowledge of research methodology as an epidemiologist and my expertise in spatial data analysis and GIS-based exposure assessment has put me in a unique position to lead research on the impacts of the environment on human health. My interest in having a bird♦s-eye view over the health impacts of the environment has led to my working on both environmental stressors (e.g. air pollution and climate change) and environmental mitigation measures (e.g. green spaces). Considering the growing evidence on the long-term health impacts of adverse pregnancy outcomes in later life, I believe that reproductive health is one of the critical foundations for the prosperity of future generations. In addition to air pollution as the main present environmental stressor that is associated with the largest burden of disease due to environmental factors, I see climate change as the main future environmental stressor and at the same time I think green spaces are a sustainable way of mitigating the impacts of these stressors. I have therefore conducted a number of pioneering works on the impacts of air pollution, climate change (e.g. temperature and humidity, heat waves, and Saharan dust episodes), and green spaces on pregnancy complications (e.g. preeclampsia and



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					bacteriuria) and adverse outcomes (e.g. congenital anomalies, low birth weight, and preterm birth). After finishing my PhD in 2009, I started to work as a postdoctoral researcher in the Professor Mark J Nieuwenhuijsen team at the Centre for Research in Environmental Epidemiology (CREAL), a world-leading centre in environmental health research. In CREAL I have been working on several European Commission-funded projects (e.g. PHENOTYPE, ICEPURE, ENRIECO, MED-PARTICLES, BREATHE and ECRHS III) as well as Spanish projects (e.g. INMA, ARIBA, and PSCINA) where I have been leading a range of studies and have been involved in day-to-day management of a number of projects including heading research teams to develop protocols, organize and conduct the fieldworks, and supervising the analyses and the dissemination of results. I am co-directing two MSc dissertations and a PhD thesis and teaching on an environmental health course as part of the ISGlobal Master of Global Health. During the last two years, I have authored 11 journal articles and co-authored 4, of which 13 were published in journals within the top 25% impact factors (ISI) in their fields and the other 2 were published in journals among the top 50% impact factors. Further to these, I have authored three articles that are now under review. Up to now, I have received two prestigious awards (Rebecca James Baker Award and Outstanding Abstract by a New Investigator, both awarded by the International Society of Environmental Epidemiology) and two highly competitive fellowships (International Research Scholarship by the Newcastle University, UK, and Juan de la Cierva postdoctoral fellowship by the Spanish Ministry of Economy and Competitiveness).
47	Biomedicina	RYC-2012-11025	YAÑEZ MO, MARIA	myanez.hlpr@salud.madrid.org	<p>After a training stay in the laboratory of Dr Giménez at the UAM, I joined Dr Sanchez-Madrid's lab for my PhD. My PhD work started a new line of research in the lab focused on the characterization of tetraspanin complexes in intercellular adhesions of endothelial and epithelial cells. This work was published in 4 manuscripts in which I am first author in J Cell Biol, J Cell Sci, FASEB J and Blood and reviewed in Microcirculation.</p> <p>During my PhD I made a few stays in different laboratories: 1- with Dr C. Enrich (Barcelona), to study the subcellular localization of tetraspanins by electron microscopy, 2- in the lab of Dr WJ Nelson at Stanford, to apply time-lapse confocal microscopy with fluorescent proteins to the study of polarized growth of epithelial cells and, 3- with Dr Trendelenburg in Heidelberg, to train in digital microscopy. With this background, after my PhD defense, I was in charge of setting up the Videomicroscopy Facility at the Hospital de la Princesa. It became the first confocal facility in Spain to perform time-lapse microscopy in living cells, and served as training platform for other confocal units in Spain.</p> <p>During this first postdoctoral period I was involved in a multi-departmental study on the ethiopathology of fibrosis on peritoneal dialysis patients that was published in 2003 as a full article in The New Engl J Med, and gave rise to a patent.</p>





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					<p>In 2003 I applied to a competitive contract Miguel Servet. The first period of the Miguel Servet I worked at the Servicio de Inmunología deciphering the role of tetraspanin complexes in leukocyte extravasation, in collaboration with the predoctoral fellow Olga Barreiro (Blood 2005, J Cell Biol 2008).</p> <p>After my second maternity leave, I joined the CNIC as Junior Visiting Researcher. In this time I started my two main actual research lines: 1- intracellular connections of tetraspanins, in close collaboration with the proteomics group of J Vázquez (J Biol Chem 2006, J Cell Sci 2012, J Immunol 2012, Mol Biol Cell in press and another article in preparation and four PhD thesis), 2- functional association of tetraspanins with proteases (Blood 2008, CMLS 2011). The evidences from these two articles are the main background for the project submitted to Human Frontier Science Program and proposed for full application.</p> <p>I also collaborated with the IVI (Valencia) to extrapolate the role of tetraspanin adhesion platforms to the process of embryonic implantation (FASEB J 2005, Plos One 2010 and one patent).</p> <p>In 2009 I rejoined the Servicio de Inmunología, due to the opportunities posed by the creation of the Instituto de Investigación Sanitaria Princesa. In this context I was appointed Director of Technical Facilities and promoted to Young Group Leader of the new Research Unit at the Hospital Santa Cristina, to where we moved in May 2010.</p> <p>Recently, due to our data relating tetraspanins in exosome biogenesis, I became founder member of the International Society of Extracellular Vesicles (ISEV) and of the Spanish Group of Research in Extracellular Vesicles (GEIVEX). I organized the first GEIVEX Symposium (Segovia 8th and 9th November 2012) and I am also Member of the Management Committee in BM1202 European Network on Microvesicles and Exosomes in Health and Disease COST ACTION.</p> <p>From 2008 I have obtained funding as Principal Investigator, as well as additional funding as collaborator. I have currently 52 published articles, with 49 average citations per item and an h index of 31.</p>
48	Agricultura	RYC-2012-10194	PERALES , MARIANO MANUEL	marianoperales@gmail.com	<p>I got my Master Science degree in Plant Biotechnology in 2001, at Universidad de Rosario, Argentina. The backbone of my scientific career was guided for my interest in understanding basic questions of Plant Biology with potential application in Plant Biotechnology. According to this motivation, I got my PhD thesis in molecular biology and biotechnology in 2005 at the Instituto de Investigaciones Biotecnológicas- Instituto Tecnológico de Chascomus, (IIB-INTECH) CONICET-UNSAM, Buenos Aires, Argentina, acquiring expertise into the role of the energetic metabolism in the plant physiology and development, specifically in the functional study of mitochondrial proteins codified in the nuclear genome and their regulatory signaling.</p> <p>Granted as a DAAD fellowship in 2004, I carried out an important part of my PhD research, specifically in plant mitochondria physiology, biochemistry and proteomics, at the Institute of Plant Genetics, University of Hannover, Germany. During 2005-2009, I spent a postdoctoral period, most of it as Juan de la Cierva</p>



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					<p>researcher, in the department of Plant Genomics at the Institute of Molecular Biology of Barcelona, IBMB-CSIC, Spain. My research was focus in the understanding how the perception of the external cues such us light or temperature is translated in to changes in plant physiology and development, through the study of the mechanism of biological clock function. Since 2009 I was appointed as Assistant specialist level II in the department of Botany and Plant Sciences, at the University of California Riverside, USA. My research is focused on understanding the cell-cell communication mechanism mediated by both, the local factors and long-range signals that have been implicated in stem cell homeostasis in shoot apical meristem of higher plants.</p> <p>Along my scientific career I have published 11 peer-review articles 8 of them as a main author (in journals with 12 to 3 impact factors in JCR, Median IF: 7.4), with a total number of citations of 310 to date. I have contributed to the development of 15 research project granted by prestigious international evaluation agencies. I have performed teaching at University of Rosario, Argentina. I have mentored 7 final projects of undergraduate students and I am co-directing two doctoral theses at the University of California, USA. I maintain fruitful collaborations with scientist from high level international institutions. At this step of my scientific career I have acquired a solid knowledge of different important aspect of plant biology, therefore, I feel qualified to use this experience and skills to address innovative scientific projects, aimed to apply plant molecular biotechnology to agricultural sciences.</p>
49	Biomedicina	RYC-2012-10290	NOMBELA ARRIETA, CESAR	Cesar.NombelaArrieta@childrens.harvard.edu	<p>I obtained a degree in Pharmacy by the Universidad Complutense of Madrid in 2001, with highest honors and several academic prizes (Premio Extraordinario de Fin de Carrera y Premio Mejores Expedientes de la Universidad Complutense de Madrid). Following graduation, I joined the lab of Dr.Stein in the Department of Immunology and Oncology of the National Center for Biotechnology (Madrid, CNB-CSIC) to embark in a thesis project studying the molecular mechanisms regulating lymphocyte trafficking using advanced imaging tools. For the completion of my PhD I obtained funding through an I3P fellowship of the Comunidad Autónoma de Madrid, and the Canton of Bern after the lab moved to the Theodor Kocher Institute of the University of Bern, where I worked for the last 2 years of my predoctoral period. My research led to 4 co-authorships in collaborations and 2 first author articles in high impact factor journals (Immunity, and Journal of Experimental Medicine), both of which were highlighted by Faculty of 1000. The latter manuscript resulted from a productive collaboration for which I performed a 2-month internship in the lab of Dr.von Andrian (Harvard Medical School, Boston) funded by an EMBO short-term fellowship. In addition, I attended 8 major international conferences, for some of which I was awarded oral presentations and travel awards (see CV). I obtained my PhD in Immunology from the Universidad Complutense Madrid</p>



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					<p>in January 2007 (Sobresaliente cum laude) and was awarded two major prizes by the Royal Academy of Doctors and the Francisco Cobos Foundation. I subsequently moved to the laboratory of Dr. Silberstein in Children's Hospital Boston, obtaining the prestigious Long Term Postdoctoral fellowship from the Human Frontiers Science Program. During this time I have devised novel powerful quantitative imaging approaches to visualize hematopoietic stem cells, probe their hypoxic phenotype and dissect the properties of the bone marrow microenvironment. My results were summarized in a manuscript (of which I am first and co-corresponding author) that was very well received and is currently under revision in Nature Cell Biology. I have presented in 12 international conferences in the past four years (in 3 of which it was selected as an oral presentation and was provided a travel). During my postdoctoral period I have delivered 7 invited lectures in institutions in the US, Australia, Switzerland and Spain (including the Harvard Stem Cell Institute, the Garvan Institute and Centenary Institute Sydney, or the CNIC Madrid). In addition, I was selected by the International Society for Advanced Cytometry (ISAC) as workshop organizer and facilitator on Quantitative Imaging in the Annual ISAC Meeting 2010. My research activity has attracted multiple collaborations within the Harvard Medical Campus and abroad, which altogether have resulted in 3 papers accepted or in press (Molecular Cell, Blood, Journal of Immunology) and 2 papers under revision (Cell and Developmental Cell). The exposure obtained throughout these years led to an invitation to write a review in Nature Reviews Molecular Cell Biology (IF:39.123) of which I am the first author. I co-directed a masters thesis from a student of the University of Leiden and supervised the work of 4 summer students. I have contributed to the writing of 3 major grants from the NIH in my current lab.</p>
50	Biología Fundamental y de Sistemas	RYC-2012-11961	CASANUEVA IOMMI, MARIA OLIVIA	moc771@gmail.com	<p>Maria Olivia Casanueva was a postdoctoral fellow from 2006 to 2008 at Northwestern University under the supervision of Dr. Rick Morimoto. From 2008 to 2012, she has been a postdoctoral fellow in the laboratory of Dr. Ben Lehner at the Center for Genomic Regulation (CRG) in Barcelona. She obtained her PhD from the University of Chicago where she received an award for her outstanding performance in the general field of Developmental Biology.</p> <p>Dr. Casanueva's main areas of research are genetics, systems biology and Caenorhabditis elegans. Throughout her career her interest have been to understand a central biological question: how are genotypes translated into phenotypes and what are the buffering mechanisms that maintain phenotypic robustness despite environmental and genetic perturbations. During her postdocs she used Caenorhabditis elegans to understand how protein quality control mechanisms keep phenotypic robustness during development and aging. Protein quality control mechanisms (PQC) rely on chaperones to buffer protein</p>



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					<p>folding defects. During her first postdoc, she studied how the failure of PQC mechanisms can lead to neurodegenerative diseases. The main subject of her second postdoctoral work has been how the stochastic variability of PQC has consequences for the stability of phenotypes. As an independent researcher, Dr. Casanueva wishes to continue studying the molecular mechanisms that ensure phenotypic robustness during development, aging and aging related disorders in metazoans.</p> <p>Dr. Casanueva has received many fellowships and awards including: ♦Beatriu de Pinos♦ postdoctoral fellowship, ♦The American Parkinson♦s disease Association♦ postdoctoral fellowship, a travel Award from the Center of Developmental Biology in Japan, a travel Award from the University of Chicago Women♦s Board, several Fellowships to attend to courses at the Marine Biological Laboratory in Massachusetts. She also received a University of Chicago Award for outstanding performance in the general field of Developmental Biology.</p> <p>Dr. Casanueva has published in high impact journals such as Plos Biology, Science, Nature, Genes and Development, Development and Neuron. She has given talks in international conferences including the C. elegans Research Conference in USA, the Developmental Biology Meeting in Japan, the Drosophila Research Conference in USA, the Society for Integrative Biology Meeting in USA, the Sixth International Meeting on Cholinesterases and related proteins in USA. She has also reviewed papers for international journals.</p> <p>Dr Casanueva gained teaching experience as a teaching assistant at Pontificia Universidad Católica de Chile for the undergraduate courses ♦Genetics♦ and ♦Cellular Physiology♦. At the University of Chicago for the Ph.D. courses ♦Cell Biology♦, ♦Developmental Genetics♦ and ♦Developmental Neurobiology♦. She has also been a lecturer for a C. elegans genetics graduate course at the CRG. She has mentored undergraduate students in the laboratory of Dr. Rick Morimoto at Northwestern University where she also directed a bachelor♦s thesis.</p> <p>Dr. Casanueva has also been engaged in outreach activities. She reviewed books for the American Association for the Advancement of Science, participated in the ♦open day♦ for the general public at the CRG and served as the Systems Biology unit♦s postdoctoral representative at the CRG.</p>
51	Biomedicina	RYC-2012-09884	PEREZ MANCERA,	paperezmancera@gmail.com	During my PhD under the supervision of Dr Isidro Sanchez-Garcia (1999-2002), I worked on the identification of essential components of malignant transformation of mesenchymal progenitor cells by the



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			PEDRO ANTONIO		<p>myxoid liposarcoma associated fusion protein TLS-CHOP. By generating transgenic mouse strains, we unveiled the role of different molecular pathways in the genesis and development of myxoid liposarcomas (Pérez-Losada et al., Oncogene. 2000; Pérez-Mancera et al., Oncogene. 2002; Pérez-Mancera et al., Carcinogenesis. 2007; Pérez-Mancera et al., PLoS ONE. 2008). After obtaining my PhD, I had the opportunity to conduct 6 months of research fellowship in Dr Tyler Jacks lab, where I was involved in a project in which we observed that the acute loss of function of the Retinoblastoma tumor suppressor gene had different phenotypic consequences than its germline loss of function (Sage et al., Nature. 2003). As a junior postdoctoral fellow in Dr Sanchez-Garcia's lab (2002-2004), I studied the function of the members of the Snail family in DNA damage response, development and cancer. I was involved in a project in which we showed that Slug mediates a radioprotective effect through the stimulation of SCF/c-kit production, suggesting that Slug may be a molecular component in both promoting metastasis and conferring radioresistance to cancer cells (Pérez-Losada et al., Oncogene. 2003). Moreover, we generated transgenic mice expressing Slug and Snail and found that ectopic Slug or Snail expression increases tumor development in a variety of tissues (Pérez-Mancera et al., Oncogene. 2005; Pérez-Mancera et al., Hum Mol Genet. 2005). Additionally, we showed that ectopic Slug expression confers cardiac developmental defects and modulates adipose tissue mass (Pérez-Mancera et al., Cytogenet Genome Res. 2006; Pérez-Mancera et al., Hum Mol Genet. 2007). As senior postdoctoral fellow in David Tuveson's lab (2004-2012), my studies have been focused on the identification of new genes and pathways that promote pancreatic ductal adenocarcinoma (PDA). I developed a transposon-based insertional mutagenesis strategy with Sleeping Beauty to accelerate PDA in mice. This screen implicated several genes previously associated with human pancreas cancer including p16Ink4a, members of the TGFb signaling pathway or Arid1a. Moreover, the screen unveiled USP9X as a major new tumor suppressor gene with prognostic and therapeutic relevance in PDA. I found that loss of Usp9x enhances transformation of pancreatic cancer cells in vitro. Using well annotated clinical collections, I found that low USP9X protein and mRNA expression in PDA correlates with poor survival following surgery. Additionally, patients whose tumors express low USP9X protein levels are at increased risk to develop widely metastatic PDA. Interestingly, chromatin modulators elevate USP9X expression in human PDA cell lines, which suggests a potential clinical approach for certain patients. Lastly, using a conditional knock-out allele of Usp9x, I found that Usp9x inactivation cooperates with KrasG12D to accelerate PDA in mice, confirming their genetic interaction (Perez-Mancera et al., Nature. 2012). Finally, our Sleeping Beauty model has confirmed the functional relevance of novel mutations in tumor suppressor genes in PDA and melanoma (Varela et al., Nature. 2011; Karreth et al., Cell. 2011; Biankin et al., Nature.</p>



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52	Biomedicina	RYC-2012-10699	PASTOR RODRIGUEZ, FERNANDO	fpasrodri@unav.es	<p>2012).</p> <p>Throughout my years studying Biochemistry at University of Oviedo, I developed a great interest in the field of immunology. Afterwards, I decided to become an expert in the field of immunology. To that end, I prepared myself for the BIR (♦Resident Intern Biologist♦) exams. I ended up in the top ten at the state level, which offered me the possibility to choose a national centre with a high degree of competence in scientific research (especially in the field of cancer immunotherapy). I started my BIR formation in Immunology at the Clínica Universidad de Navarra in 2002. I perform my doctoral dissertation on this field of cancer immunotherapy under the guidance of Dr. Maurizio Bendandi. My doctoral dissertation constituted a comparative study of the idiotypic vaccines generated via the technology of the recombinant DNA and the idiotypic vaccines generated via hybridoma.</p> <p>Two months after presenting my dissertation, in January 2007, I started working in the immunotherapy lab at the University of Miami as a four-year postdoctoral fellow under the supervision of Dr. Eli Gilboa. During my first year in the United States, I established collaboration with other members of the team and we managed to develop the first anti 4-1BB aptamer, described as having a costimulatory capacity and an anti-tumour effect. This research ended up being published in 2008 by JCI (Journal of Clinical Investigation).</p> <p>I have not only shown a high qualification for the development of aptamers and their variants, as well as for associated molecular biology techniques. I have also shown large knowledge and ability in monitoring immunological responses, and abilities designing new in vitro and in vivo experiments. Some of the research line that I am conducting nowadays first appeared in the United States, at the Dodson Interdisciplinary Immunotherapy Institute. Those projects were conceived by me; one of them consisted in augmenting the tumour antigenicity via target inhibition of NMD, and the other one in potentiating the immunogenicity by targeting costimulation ligands to the tumour site, this work was published in Nature 2010 and Mol Ther 2011 respectably. After a four-year postdoc under the supervision of Dr Eli Gilboa, I was offered to stay in his department as Research Assistant Professor at Immunotherapy Institute. However, I decided to accept an offer as head of the aptamer core facility in the CIMA. Few months after accepting the position, I was awarded with a career development grant from AACR for the development of new immunotherapy strategies for pancreatic cancer patients. Unfortunately, the grant was only valid for researchers that were going to do their work within the US.</p> <p>Few months after my incorporation in the institution I got a three years government career award (Torres Quevedo 89.719♦) and a three-year national grant entitled ♦Overcoming chemotherapy resistance and</p>





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					induction of tumor immunity to lung carcinoma by MRP blockade & targeted inhibition of NMD (FIS 141.129). During the first year and half in the institution, I had just finalized the selection of anti-CD28 (manuscript submitted), CD40, mesothelin and PD1 aptamers and I am in the process of selection for MRP1, among others. The selection techniques that are used are not only based on conventional SELEX, but also on Whole cell SELEX also in combination with deep sequence technology.
53	Biomedicina	RYC-2012-10981	CARVAJAL VERGARA, XONIA	xcarvajal@inbiomed.org	<p>The work of my scientific career is reflected in ten publications of which I am principal author of two, in Blood and Nature journals.</p> <p>I graduated from University of Navarra in Biochemistry in 2001 and completed a doctorate in Biochemistry at University of Salamanca in 2006. As a PhD student in Dr. Atanasio Pandiella and Dr. Jesús F. San Miguel laboratories at Centro de Investigación del Cáncer (Salamanca) I analyzed the role of a novel mitogen-activated protein kinase (MAPK) route, ERK5 pathway in the regulation of myeloma cell proliferation and apoptosis. I also investigated the effectiveness of various novel drugs such as STI571, Bortezomib and LBH589 for the treatment of multiple myeloma and analyzed their mechanism of action. My contribution to these studies resulted in 6 publications, most of them in top-ranked journals, and I was first author in Blood for Multifunctional Role of Erk5 in Multiple Myeloma, work awarded by the Royal Academy of Medicine and Surgery in 2005. During this research period I was financially supported by a CSIC-Glaxosmithkline fellowship (2002-2006).</p> <p>In 2006 I moved to Mount Sinai School of Medicine (MSSM, New York), and after a short stay in Dr. Bernardo Nadal laboratory, learning cardiac stem cells isolation technique, I joined Dr. Ihor Lemischka laboratory right after his incorporation to MSSM in 2007. I was awarded with a Sara Borrell contract from Ministerio de Ciencia e Innovación-Instituto de Salud Carlos III linked to Dr. Antonio Bernad laboratory at Centro Nacional de Investigaciones Cardiovasculares (CNIC) in Madrid, which financially supported me since 2008 to the end of 2011. During my postdoctoral training I gained knowledge of the gene regulatory networks that control self-renewal versus differentiation cell fate decisions. I specialized in human embryonic stem cell biology, patient-specific induced pluripotent stem cell (iPSC) derivation, maintenance and lineage specific, especially cardiac, differentiation. Results from my main research line, iPSC derivation from patients with LEOPARD syndrome and demonstration of their utility for disease modeling, were published in Nature, with an image of a LEOPARD cardiomyocyte on the cover. My participation in other iPSC cell related studies resulted in another 3 publications in top-ranked journals.</p>



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					<p>In 2010 I joined Dr. Antonio Bernad laboratory at CNIC, where I started a new project ♦Direct Reprogramming of Human Fibroblasts into Functional Multipotent Cardiac Progenitors by Defined Factors♦.</p> <p>In 2012 I joined Inbiomed. I am currently running the Cell Reprogramming and Differentiation Platform and continue developing the research project mentioned above with support of the technicians from the platform.</p>
54	Ganadería y Pesca	RYC-2012-10053	BEDFORD GUAUS, SYLVIA	sylvia.bedford.guaus@gmail.com	<p>After veterinary school (UAB, 1986-1991), I was funded by ♦La Caixa♦ to pursue a MS Degree in Reproductive Physiology (Colorado State University, 1991-1993) performing research on semen extenders and the preservation of stallion sperm. Thereafter I performed a residency in Large Animal Internal Medicine at Tufts University (1993-1996) followed by a residency in Animal Reproduction at the University of Pennsylvania (1996-1998). While these were clinical programs, I was also involved in basic and clinical research projects spanning sperm physiology, fertility and cryopreservation in horses, with one-month stay at a research laboratory in Texas A&amp;M University. In 1997 I passed the examination of the American College of Theriogenologists (ACT) becoming a clinical specialist in Animal Reproduction. I was then hired at the University of Massachusetts (1998-2004) as a faculty member to teach animal management and pre-veterinary classes, while also pursuing a PhD degree. The research I performed conferred me with basic molecular training, studying activation-driven calcium kinetics in mare oocytes. A small portion of the work was completed at a laboratory at Texas A&amp;M University. Notably, in 2003 I was given an award for best department♦s doctoral thesis. Meanwhile, I also completed a collaborative research project with a group at Harvard Medical School assessing reproductive parameters in male mice infertile after knocking out a complement factor. In 2004 I was hired as an Assistant Professor at Cornell University College of Veterinary Medicine where I had research, teaching, clinical and service duties. In this position I led my own laboratory where we studied basic aspects of fertilization in the horse such as the molecular basis of sperm capacitation and hyperactivation; remarkably we obtained the highest rates of in vitro fertilization (IVF) ever reported for this species. We also cloned and characterized equine phospholipase C (PLC), the testis-specific protein responsible for oocyte activation at fertilization, and begun to analyze expression problems related to infertility in stallions. This work was partly funded by competitive grants in which I was the PI, and led to collaborations within the college, as well as with the U. of Massachusetts and Texas A&amp;M U. Overall, my research and clinical work has led to 25 peer-reviewed publications, a book chapter, and 24 research presentations at international conferences. My research expertise allowed the production of a foal</p>



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					<p>following the mare's death, whereby oocytes were retrieved and shipped to a distant lab for fertilization. I have directed one PhD and four Honor's theses, and co-directed one PhD and two MS projects. I have also taught numerous lectures and laboratories to undergraduate and veterinary students, conferring me with excellent reviews and an Excellence in Teaching Award in 2006. I can also account for 30 participations in continuing education courses/conferences for veterinarians and producers, three of which I organized. I have served on university committees and the exam committee of my clinical specialty (ACT; which I chaired in 2008). Given that my interests in the physiology of fertilization and molecular pathways governing sperm capacitation span further than the equine, my work may contribute to improving livestock production and wildlife conservation efforts.</p>
55	Biología Fundamental y de Sistemas	RYC-2012-10373	ESCUDERO CUADRADO, LUIS MARIA	lmescudero-ibis@us.es	<p>NAME: Luis M. Escudero      DATE AND PLACE OF BIRTH: Sevilla (Spain), October, 25 th, 1975 ADDRESS: Edificio IBiS, Lab 109. H.U. Virgen del Rocío. Avda. Manuel Siurot s/n. 41013. Sevilla. SPAIN PHONE: +34 955923048 e-mail: lmescudero-ibis@us.es</p> <p>EDUCATION 1993-1998, B.S. in Biology. Faculty of Biology. University of Seville. April 2004, Ph.D. in Sciences (Biology) Cum Laude. Ph. D Advisor: Prof. Juan Modolell. PhD obtained at Univ. Autónoma de Madrid, Madrid (Spain).</p> <p>EMPLOYMENT January 2011 - present. - Miguel Servet - Investigator. Instituto de Biomedicina de Sevilla (IBiS) Hospital Universitario Virgen del Rocío/CSIC/Universidad de Sevilla, Seville, Spain.</p> <p>GRANTS AND FELLOWSHIPS 2011 PI in the project grant - Drosophila genetics and computerized image analysis for the study of neurological diseases. - Funded by the Spanish Ministry of Science and Innovation. 2010 PI in the project grant - Search and selection of Parkinson's disease candidate genes and validation by human genetic analysis. - Funded by the Carlos III Health Institute. 2010 Awarded with a Spanish Ministry of Health, - Miguel Servet - contract</p>



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					<p>2005 Awarded with an EMBO Postdoctoral fellowship 2005 Awarded with a Postdoctoral Marie Curie Fellowship. 1999 Awarded with a Predoctoral Comunidad Autónoma de Madrid Fellowship 1997 Awarded with a Spanish Ministry of Science undergraduate fellowship</p> <p>PRESENT RESEARCH SUPPORT AS PRINCIPAL INVESTIGATOR Project grant ♦ Search and selection of Parkinson's disease candidate genes and validation by human genetic analysis♦. CP10/00435. Founded by the Carlos III Health Institute. Principal investigator: Luis M. Escudero. Length 2011-2014. Amount: ♦120000 (including the contract for a Technician).</p> <p>Project grant ♦ Drosophila genetics and computerized image analysis for the study of neurological diseases♦. BFU2011-25734. Founded by the Spanish Ministry of Science and Innovation. Principal investigator: Luis M. Escudero. Length 2012-2014. Amount: ♦76000.</p> <p>PEER-REVIEWED PUBLICATIONS - Escudero, L.M.*, Wei, S.-Y.*, Chiu, W.-H., Modolell, J., Hsu, J.-C. (2003). Development 130 (* Co-first authors ) - Escudero, L.M., Caminero, E., Schulze, K.L., Bellen, H.J., Modolell, J. (2005). . Development 132. - Wei, S.-Y., Escudero, L.M., Yu, F., Chang, L.H., Chen, L.-Y., Ho, Y.-H., Lin, C.-M., Chou, C.-S., Chia, W., Modolell, J., Hsu, J.-C. (2005). Developmental Cell 8. - Escudero, L.M., Freeman, M. (2007). BMC Developmental Biology 7, art. no. 13. - Escudero, L.M., Bischoff, M., Freeman, M. (2007). Developmental Cell 13 (5). - Aldaz, S., Escudero, L.M. (2010). Current Biology 20. - Aldaz, S*, Escudero, L.M.*, Freeman, M. (2010). PNAS 107 (* Co-first authors ). - Escudero, L.M.#, Costa, L. da F., Kicheva, A., Briscoe, J., Freeman, M. and Babu, M. M.# (2011). Nature Communications 2, 526. (# Corresponding authors). - Escudero, L.M.*, Aldaz, S.*, Freeman, M. Dual role of myosin II during Drosophila imaginal disc</p>



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DE INVESTIGACIÓN  
DESARROLLO E INNOVACIÓN

SECRETARÍA GENERAL  
DE CIENCIA, TECNOLOGÍA  
E INNOVACIÓN

DIRECCIÓN GENERAL  
DE INVESTIGACIÓN  
CIENTÍFICA Y TÉCNICA

SUBDIRECCIÓN GENERAL  
DE RECURSOS HUMANOS  
PARA LA INVESTIGACIÓN

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					metamorphosis. Under second revision in Nature Communications (* Co-first authors ) - Sáez, A., Rivas, E., Montero-Sánchez, A., Paradas, C., Acha, B., Pascual, A., Serrano, C., Escudero, L.M.* Under second revision in BMC Medicine.
56	Biomedicina	RYC-2012-12104	SAINZ ANDING, BRUNO	bruno_sainz@yahoo.com	I received my Bachelor of Science in Biology from the American University (Washington, DC USA 1997). Afterwards, I obtained my PhD in Microbiology and Immunology at Tulane University (New Orleans, LA USA 2000-2005) in the laboratory of Dr. R.F. Garry, where I characterized and indentified the fusion-inducing domains of the SARS-CoV Spike glycoprotein for the purposes of developing inhibitory peptides of viral entry. My PhD work was supported by a National Institutes of Health (NIH) Pre-doctoral NRSA fellowship and resulted in 11 publications, 6 as 1st author and 5 as 2nd author: Härle P et al (Virology, 2002); Sainz B et al (J Virol, 2002); Sainz B et al (Virology, 2004); LaMarca H et al (Virol J, 2004); Sainz B et al (Biochemistry, 2005); Sainz B et al (Virol J, 2005); Sainz B et al (J Virol, 2005); Colmegna I et al (J Rheumatology, 2005); Sainz B et al (Virus Res, 2005); Mossel E et al (Adv Exp Med Biology, 2005) and Colmegna I et al (J Rheumatology, 2008). From Jan-2005 to July-2006 I completed my 1st postdoctoral fellowship in the laboratory of Dr. F.V. Chisari at The Scripps Research Institute (La Jolla, CA USA) as a recipient of an NIH Post-doctoral NRSA fellowship, and I was part of the groundbreaking development of the Hepatitis C Virus (HCV) cell culture infection system: Sainz B and Chisari FV (J Virol, 2006). From July-2006 to Nov-2011 I completed my 2nd postdoctoral fellowship in the laboratory of Dr. S.L. Uprichard at the University of Illinois at Chicago (USA). My work on HCV in vitro model development and mathematical modeling of HCV infection resulted in 9 publications, 5 as first author or co-first author(*): Choi S et al (Xenobiotica, 2008); Dahari H* et al (J Virol, 2009); Li L et al (PLoS One, 2009); Sainz B et al (Virol J, 2009), Yu X et al (Antimicrob Agents Chemother, 2009); Sainz B et al (PLoS One, 2009); TenCate V et al (Hep Med Exp Res, 2010); Sainz B et al (Virol J, 2012); Yu X et al (Antimicrob Agents Chemother, 2012). More importantly, as part of my independent research project, I discovered that the Niemann-Pick C1-Like 1 protein is an HCV entry factor that is amenable to therapeutic intervention with the FDA-approved drug ezetimibe. This discovery is of major importance because I have discovered a new HCV entry factor and a promising new HCV antiviral agent (Sainz B et al, Nature Med, 2012), which is currently being evaluated in clinical trials. Since Nov-2011 I have joined the Centro Nacional de Investigaciones Oncológicas (CNIO, Madrid, Spain) as a Staff Scientist where I am currently investigating the role of cancer stem cells in pancreatic cancer. My work over the past 14 months have given rise to three manuscripts currently under review: Sainz B et al (Cell Stem Cell); Hermann PC* and Sainz B* et al (*co-first author, Nature Med); Miranda I et al (Cell Stem Cell). In summary, to date my scientific career has resulted in 27 publications; 23 original articles, 3 reviews and 1 book chapter. Of my primary research articles, 20 have



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					been published in journals that are within the top 25% of their respective subject area, with a cumulative impact factor of 114.34 (IF average 5.7) and a total of 730 citations. In addition, I have presented abstracts at over 35 conferences, I currently hold two patent applications US61/093,549 and US12/566,074 and I have received two NIH-funded fellowships and one supplement.
57	Biomedicina	RYC-2012-10252	NAVARRO LOBATO, MARIA DE LAS NIEVES	M.N.Navarro@dundee.ac.uk	<p>Mi doctorado comenzó en 2000 bajo la supervisión de la Dra. María L. Toribio en el Centro de Biología Molecular Severo Ochoa (Madrid, España) centrado en el desarrollo de las células T humanas, en particular, en uno de los componentes del complejo pre-TCR, la cadena pre-TCR<math>\alpha</math> (pT<math>\alpha</math>). Mis estudios sobre las isoformas a y b de pT<math>\alpha</math>; contribuyeron a una publicación como segunda autora<sup>1</sup>. Posteriormente, determinamos que la degradación constitutiva del pre-TCR es clave en la regulación de su expresión. Este estudio fue publicado en un artículo en el que soy coautora<sup>2</sup>, y fue la base conceptual en una revisión en la soy segunda autora<sup>3</sup>. Tras la identificación de una interacción entre CMS/CD2AP y pT<math>\alpha</math>; necesaria para señalización del pre-TCR, estos datos resultaron en una publicación como coautora<sup>4</sup>. Obtuve mi doctorado en diciembre de 2006, y en enero de 2008 me incorporé al laboratorio de la Dra. Doreen Cantrell (Universidad de Dundee, Reino Unido) donde actualmente soy investigadora posdoctoral senior. Mi trabajo se ha centrado en las vías de señalización en células T citotóxicas. Partiendo de un estudio fosfoproteómico, descubrimos que la fosforilación de la histona deacetilasa 7 (HDAC7) es clave para la función de las células T. Estos datos condujeron a la publicación de un artículo como primera autora<sup>5</sup>. Posteriormente me centré en el estudio de ratones deficientes en la proteína quinasa D2 (PKD2), determinando que PKD2 es necesaria para la respuesta inmune. Este trabajo ha contribuido a dos publicaciones en las que figuro como coautora<sup>6</sup> y como primera autora<sup>7</sup>. Actualmente estoy terminando dos manuscritos, uno estableciendo PKD2 como un regulador esencial de la señalización en células T8, y otro usando un análisis fosfoproteómico para identificar nuevos sustratos de PKD2<sup>9</sup>. Durante mi carrera científica he adquirido experiencia considerable en técnicas bioquímicas, citometría de flujo y microscopía confocal, uso de modelos de ratón y manejo de grandes cantidades de datos (genómicos, proteómicos y fosfoproteómicos).</p> <p>He participado activamente en la divulgación científica mediante la asistencia a conferencias (nacionales e internacionales), y he impartido diversos seminarios tanto internos como ponente invitada en otros centros. Asimismo, he realizado estancias en otros laboratorios, y he colaborado de forma activa con otros grupos, siendo incluida como autora en dos publicaciones<sup>10,11</sup>. Con el objetivo de trasladar mis investigaciones a la aplicación clínica, participo en reuniones trimestrales con empresas farmacéuticas (AstraZeneca, Boehringer Ingelheim, GlaxoSmithKline, Janssen, Merck-Serono y Pfizer) en las que nuestros</p>





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					<p>datos contribuyen al desarrollo de nuevos fármacos cuya base es la inhibición de proteínas quinasas.</p> <p>1)Ramiro, Navarro. J. Immunol. 2001. 167:5106.            2)Carrasco*, Navarro*. J. Biol. Chem. 2003. 278:14507. *coautores            3)Carrasco, Navarro. Sem. Immunol. 2002. 14:325.            4)Navarro*, Nusspaumer*. Blood. 2007. 110:4331. *coautores            5)Navarro. Nat. Immunol. 2011. 12:352.            6)Matthews*, Navarro*. Biochem. J. 2010. 432:153. *coautores            7)Navarro. Biochem. J. 2012. 442:649.            8)Navarro. ♦Protein kinase D2: gatekeeper of the TCR affinity threshold ♦. *en preparación            9)Navarro. ♦Quantitative phosphoproteomics of PKD2 deficient cytotoxic T cells reveals PKD2 regulated networks♦. *en preparación            10)Zapata. J. Biol. Chem. 2004. 279: 24485.            11)Konopatskaya. Blood. 2011. 118:416.</p>
58	Ciencia y Tecnología de los Alimentos	RYC-2012-10556	MALDONADO VALDERRAMA, JULIA	julia@ugr.es	<p>Me doctoré en Ciencias Físicas por la Universidad de Granada (UGR) en 2006 obteniendo la máxima calificación de Sobresaliente Cum Laude y mención especial de Doctorado Europeo. He realizado estancias de investigación de un total de 4 años en centros de investigación europeos. En el Max Planck Institute fur Kolloid und Grenzflächenforschung (Berlin, Alemania) en el Laboratoire de Physique des Solides (Paris, Francia) y en la Universidad Complutense de Madrid (España). Entre los años 2006 y 2010 trabajé en el Institute of Food Research (Norwich, Reino Unido); primero con un contrato posdoctoral financiado por la UGR y posteriormente con un contrato Marie Curie Intra European Fellowship financiado por la Unión Europea, VII Programa Marco (FP7-EU-IEF-2007). He participado en 6 proyectos de investigación nacionales, 1 proyecto Europeo y actualmente lidero un proyecto de investigación financiado por la Unión Europea, VII Programa Marco, Marie Curie European Reintegration Grants (FP7-EU-ERG-2010). Desde mayo de 2010 disfruto de un contrato Juan de la Cierva (MICINN-JDC) en el Departamento de Física Aplicada de la UGR. Mi investigación se centra en la caracterización física y modelización coloidal de materiales de interés biotecnológico (coloides alimentarios, proteínas, ADN♦). Dado el carácter multidisciplinar y aplicado de mi investigación, he participado en un contrato de transferencia tecnológica suscrito entre la UGR y la compañía Petróleos de Venezuela S.A. y en el desarrollo de una patente</p>



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					(P201001588, en trámite). Además, he publicado 29 artículos en revistas indexadas en el JCR y 4 capítulos de libro en editoriales extranjeras contrastadas, siendo primera autora de 23 de las publicaciones. Como índices de calidad, destacar que 23 de los 29 artículos (casi el 80%) se encuentran en el primer cuartil de su área y han dado lugar a un total de 340 citas y un índice H=12. Uno de los capítulos de libro fue publicado en un libro de divulgación científica (Columbia University Press, EEUU) dedicado a la aplicación de la física en la cocina y que ha suscitado una gran repercusión en medios de comunicación nacionales e internacionales (incluyendo una reseña en Nature). Prueba de la internacionalización de mi investigación es el número de coautores extranjeros: 24, pertenecientes a 13 centros de investigación internacionales. He presentado 62 comunicaciones en congresos nacionales e internacionales entre los que se incluyen 34 contribuciones orales y 5 conferencias invitadas. Además, he sido invitada a impartir 3 seminarios en talleres científicos especializados o de divulgación, nacionales e internacionales. He formado parte del comité organizador de 4 congresos internacionales. Soy revisora de artículos para 13 revistas internacionales (Soft Matter, Langmuir, JPC) y miembro de un comité editorial. Mi capacidad formadora viene avalada por la codirección de 2 tesis doctorales calificadas como APTO Cum Laude con mención internacional, y de un Trabajo Fin de Máster. Poseo la evaluación positiva de la ANECA en las figuras de profesor ayudante doctor (PAD2008-291) y de profesor contratado doctor (PCD2011-1724). He impartido docencia en la licenciatura en Ciencias Físicas y en los Grados de Ingeniería de Edificación, Bioquímica, y Ciencia y Tecnología de Alimentos así como en el Máster Interuniversitario en Ciencia y Tecnología de Coloides e Interfases.
59	Agricultura	RYC-2012-11387	PETRI SERRANO, CESAR	cpetri@cebas.csic.es	Soy uno de los pocos expertos en el mundo en Biotecnología de frutales de hueso ( <i>Prunus</i> spp.), aunque también he realizado varias líneas de trabajo en planta modelo, como <i>Nicotiana benthamiana</i> y <i>N. tabacum</i> . (Ver archivo adjunto)
60	Biología Fundamental y de Sistemas	RYC-2012-10288	LOPEZ-RIOS MORENO, JAVIER	javier.lopez-rios@unibas.ch	<p>Education</p> <p>BsSc in Biology (Biochemistry and Molecular Biology), 1997. PhD in Molecular Biology. Universidad Autónoma de Madrid, 2002. Supervisor: Prof. Paola Bovolenta.</p> <p>Fellowships and Grants</p> <p>Undergraduate fellowship, Ministerio de Educación y Cultura, 1996-1997; Predoctoral fellowship FPU, Ministerio de Educación y Cultura, 1998-2002. EMBO Short Term Fellowship, 2000. Postdoctoral contract, Comunidad Autónoma de Madrid (2004-2005). EMBO Long-Term Fellowship, 2005-2006. Marie Curie Intra-European Fellowship, 2006-2008. Marie Curie European Re-integration Grant 2009-2012.</p>



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					<p>Research experience Laboratory of Prof. Rolf Zeller. University of Basel, Switzerland. Regulation and temporal changes in function of Gli3 during mouse limb bud development. From 2005-present; Laboratory of Prof. Paola Bovolenta. Instituto Cajal-CSIC, Madrid, Spain. Study of Sfrp1 functions during vertebrate eye development. 2002-2005. Laboratory of Prof. Paola Bovolenta. Laboratory of Prof. Paola Bovolenta. Instituto Cajal-CSIC, Madrid, Spain. Role of the Six3 and Six6 genes during early eye development. 1998-2002. Laboratory of Dr. Jochen Wittbrodt (visiting scientist). EMBL, Heidelberg, Germany. Identification and functional characterization of Six3 and Six6 interacting proteins. 2000; 2001. Laboratory of Prof. Santiago Rodríguez de Córdoba (visiting scientist). CIB-CSIC/FJD, Madrid, Spain. Cloning and analysis of the human SIX3 and SIX6 genes and their role in human congenital malformations. 1998; 1999.</p> <p>My scientific productivity has been constant during my entire career, and most of these articles are frequently cited (H-index: 11; average of citations per item: 38; average citations per year: 41). During my PhD in the group of Prof. Paola Bovolenta, I published four primary research articles (two as first author: Development, Mechanisms of Development) and one review article. After my PhD defense, I stayed for an early postdoctoral stage in the same group. From this period I have other two publications, both as first author (Mechanisms of Development, Neural Development), and one review article (Journal of Cell Science). Since I joined the group of Prof. Rolf Zeller in Basel, Switzerland, I have published seven primary research articles in prestigious journals (Developmental Cell [first author], Nature Methods [senior corresponding author], PNAS, Development, etc), one review in Nature Reviews in Genetics and one chapter in a book. The University of Basel has protected and licensed the technology described in the Nature Methods publication, which has received significant attention (see Nat Methods. 2010 Nov;7(11):861; Faculty of 1000: Rating 8, Must read). I have also presented my research in several international meetings and workshops, often as speaker.</p> <p>In my postdoctoral period, I have been involved in the daily supervision of more junior lab members, such as one PhD student and two Master students. Moreover, under the supervision of Prof. Zeller, I have had the opportunity to learn many complementary skills, such as group management, competitive grant writing and administration of research funds. I have also lectured for several years in the Vertebrate Development and Genetics Courses and in Embryology practical lessons at the University of Basel. I am as well a frequent reviewer for several international funding agencies and scientific journals.</p>
61	Biología	RYC-2012-	MORGAN ,	andrew.morgan@ed.ac.uk	I use evolving populations of microbes in the laboratory to study evolutionary and ecological processes. My



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	Fundamental y de Sistemas	12279	ANDREW		<p>PhD was obtained from the University of Oxford, UK, supervised by Angus Buckling. During my PhD, I used the bacterium, <i>Pseudomonas fluorescens</i>, as a model host; and its lytic bacteriophage (phage), SBW25&amp;#934;2, as a model parasite, to study general evolutionary and ecological processes associated with host parasite coevolution. Using this system I published five journal articles, including one article in the high impact general science journal, <i>Nature</i>, which has been cited over 100 times.</p> <p>After my PhD I was a postdoc in Greg Velicer's group at the Max Plank Institute for Developmental Biology in Tuebingen, Germany. Using the predatory bacterium <i>Myxococcus xanthus</i>, I examined patterns of predation of natural isolates and compared these patterns to their phylogeny, and I also started to screen for potential cheats during social predation. I was also developing an experimental predator-prey system using the bacterium <i>Bdellovibrio bacteriovorus</i> as the model predator. After a year I moved with the lab to continue this postdoctoral position for a further year at Indiana University in the USA.</p> <p>After my position in the USA, I returned to the lab of Angus Buckling at the University of Oxford, UK as a postdoc. I used experimentally evolving populations of bacteria as models for the evolution of bacteria themselves, using <i>Pseudomonas fluorescens</i> as a model organism. For example, I determined the effect of phage on biofilms, the effect of bacterial mutation rate on the rate of coevolution with phage, and the effect of strong selection pressures on bacterial cooperation. The last study was published in the high impact factor journal, <i>Ecology Letters</i>.</p> <p>I am currently a postdoc working on a collaborative project with Nick Colegrave and Peter Keightley. I am using an experimental evolution approach to address one of the fundamental questions in population genetics: the nature of new mutations. I bottlenecked several strains to a single cell under relaxed selection, which allowed all but the most strongly deleterious mutations to accumulate. I am currently determining the change in fitness of these strains to infer the distribution of fitness effects of mutations. We will combine the fitness data with the genomic data to determine the deleterious genomic deleterious mutation rate, which is an important parameter in many evolutionary models. This project has called on my experience of microbial experimental evolution, and in turn I've learnt a new set of skills from my collaborators, including population genetic and sequence analyses.</p> <p>In addition to my journal articles, I was invited to write a book chapter alongside some very eminent disease biologists in the book <i>Genetics and Evolution of Infectious Diseases</i>. I am also a reviewer for <i>Ecology Letters</i>, <i>PLOS ONE</i>, <i>Evolution</i>, and <i>BMC Evolution</i>.</p>
62	Biomedicina	RYC-2012-11349	GIRALDEZ , TERESA	giraldez@ull.es	<p>Realicé mi Tesis Doctoral (2001) en la Universidad de Oviedo, dirigida por los Dres. Pilar de la Peña y Francisco Barros en el Depto. de Bioquímica. A continuación realicé estancias postdoctorales en el Dept. of Cellular and Molecular Physiology, Yale University School of Medicine (2002-2005) con Fred J. Sigworth, y</p>



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					<p>en la Universidad de Washington con W.N. Zagotta (2005), dos referentes científicos a nivel mundial en el campo de los canales iónicos. Mi proyecto era muy interesante y novedoso pero también arriesgado ya que implicaba el desarrollo de dos nuevas aproximaciones técnicas de gran dificultad para estudiar la dinámica estructural del canal neuronal BK. Mi afán por desarrollar este proyecto ha supuesto un gran reto en mi carrera pero ha dado lugar a resultados muy importantes que son objeto de un artículo en revisión en PNAS en el que soy autora para la correspondencia y a una patente en curso. Todo este trabajo comenzó en los laboratorios arriba citados y ha continuado como parte de mis propias líneas de investigación desde 2006, cuando volví a España con un contrato de investigador en la ULL. Desde 2008 lidero mi propio grupo de investigación en la Unidad de Investigación del Hospital Universitario NS Candelaria/ULL contratada con el Programa "Miguel Servet" del Instituto de Salud Carlos III. Mi línea de investigación se centra en el estudio de canalopatías asociadas a canales iónicos de sodio y potasio, con tres sublíneas que estudian el canal humano delta-ENaC, canales Kv7 y el canal BK. Actualmente mi grupo consta de un estudiante predoctoral, un investigador postdoctoral, una técnico y dos colaboradores clínicos.</p> <p>Mi actividad investigadora se refleja en un total de 21 artículos científicos en revistas internacionales (y 2 más en revisión), mas de 50 comunicaciones en congresos nacionales e internacionales y financiación en convocatorias competitivas. Durante toda mi carrera he obtenido financiación constante, en convocatorias competitivas, primero como becas de investigación de prestigio y, posteriormente, como investigadora principal de proyectos de investigación nacionales. Acabo de obtener por segunda vez consecutiva un Proyecto de investigación del FIS/ISCIII/MINECO (PS12/00428). Destaco mi participación en el Proyecto Consolider "The Spanish Ion Channel Initiative" y el Proyecto IMBRAIN financiado por la EU-FP7.</p> <p>Un aspecto que creo avala adicionalmente mi calidad científica es el hecho de haber sido invitada a impartir 10 seminarios científicos en Universidades nacionales y extranjeras, entre las destaco el NIH (EEUU), el Instituto Max Planck- Goettingen o el Karolinska de Estocolmo, y el reconocimiento de mi trabajo con tres Premios Científicos nacionales e internacionales.</p> <p>Mantengo colaboraciones científicas con diversos grupos tanto a nivel nacional como internacional destacando, entre otros, los de Andrew Plested (FMP Berlin) y Patricio Rojas (Chile).</p> <p>He dirigido dos tesis doctorales en la ULL, una de ellas con mención europea. Además, he formado parte del Tribunal de 10 Tesis Doctorales.</p> <p>Finalmente, es importante destacar que compagino mi actividad investigadora con la docente en la ULL y en 2007 fui acreditada como Profesora Contratada Doctora por la ANECA.</p>
63	Ganadería y Pesca	RYC-2012-09897	LOUZAO ARSUAGA,	maite.louzao@gmail.com	My main research interests are ecological modeling, spatial ecology, oceanography, population dynamics



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			MAITE		<p>and ecosystem-based management approach for the conservation of marine top predators. I am Principal Investigator of a Marie Curie Career Integration Project (CONPELHAB; PCIG09-GA-2011-293774) with the aim of using focusing marine top predators as bioindicators in order to conserve pelagic habitats in changing environments. I have participated in more than 15 international projects, mainly directed at studying the biology and ecology of marine top predators in order to develop ecosystem-based management approaches to marine zoning strategies such as Marine Protected Areas and fisheries management.</p> <p>I have published 22 peer-reviewed articles (13 only during my PhD) and some of these studies have been published in top journal such as Science, Current Biology, Ecology, Ecological Applications, Ecography, PlosOne, Biological Conservation, Marine Ecology Progress Series, Biology Letters, Fisheries Oceanography, Marine Biology, Acta Oecologica and Journal of Experimental Marine Biology and Ecology. I have broadly contributed to the international dissemination of my research output by participating in 29 conferences at the international and national level, apart from elaborating 8 technical reports, 8 general public articles and contributed to 5 book chapters. Moreover, I have been recently invited to participate in the Pelagic Working Group of the Global Ocean Biodiversity Initiative (GOBI, www.gobi.org), in support of the Convention on Biological Diversity, apart from participating in the Seabird Ecology Working Group of the International Council for the Exploration of the Sea and the Working Group of Balearic Shearwater of the Spanish Ministry of Environment.</p> <p>Based on my extensive research experience, I have been invited 8 times to internationally recognized research centers to give talks on the spatial modeling of marine top predator distribution in Spain, Portugal, France, Canada and Germany. Moreover, I have contributed as an expert to the Red List of Vertebrates from the Balearic Islands (Balearic Government), as well as to the Plans of Red Natura 2000 and Important Bird Areas in Spain (SEO/BirdLife) as well as to the International species action plan for the Balearic shearwater (SEO/BirdLife &amp; BirdLife International). Also, I have contributed to the Marine Important Bird Areas toolkit (BirdLife International) where standardised techniques for identifying priority sites for the conservation of seabirds at sea are provided. Finally, I am reviewer of internationally recognise scientific journals (number of revisions between brackets) such as Ardeola (2), Biological Conservation (1), Catalan Journal of Ornithology (1), Deep-Sea Research II (1), Ecography (1), Endangered Species Research (2), Hydrobiology (2), Ibis (2), Journal of Animal Ecology (1), Journal of</p>





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					Marine Systems (1), Marine Ecology Progress Series (4), Oikos (2), Oryx (1), Scientia Marina (1).
64	Ciencia y Tecnología de los Alimentos	RYC-2012-11856	AZNAR RAMOS, MARGARITA PILAR	marga@unizar.es	<p>En 1997 me licencié en Ciencias Químicas (Especialidad: Química Analítica) y obtuve el grado de licenciatura con una calificación de sobresaliente dentro del Departamento de Química Analítica de la Universidad de Zaragoza. A continuación, obtuve una beca predoctoral FPI del Ministerio de Educación y Ciencia (MEC) para la realización de la tesis doctoral, que llevé a cabo bajo la dirección del Dr.Cacho y del Dr.Ferreira dentro del Laboratorio de Análisis de Aroma y Enología (LAAE) de la Universidad de Zaragoza. Este grupo es un grupo pionero en el estudio del aroma desde un punto de vista analítico. En septiembre de 2002 defendí mi tesis doctoral titulada ♦Jerarquización, identificación y determinación cuantitativa de los odorantes más importantes de los vinos crianza españoles. Construcción de modelos quimiométricos para la predicción de los descriptores sensoriales a partir de la composición química♦ obteniendo la máxima calificación de Sobresaliente Cum Laude. Durante esta etapa (1998-2002), colaboré también en la docencia del Departamento y realicé estancias en centros de investigación de reconocido prestigio como la Universidad de Barcelona y la Universidad Rovira i Virgili donde pude completar mi formación en HPLC-MS y en quimiometría respectivamente. Tras obtener el doctorado realicé una estancia 2 años (2002-2004) en el Grupo de Investigación de Tecnología del Aroma de la Universidad de Nottingham (UK) bajo la supervisión del Profesor Dr. Andrew Taylor, referente a nivel mundial en el campo de la química del aroma. Esta estancia fue posible gracias a la obtención de una beca postdoctoral del MEC y a un contrato postdoctoral del British Council. Mi trabajo en esta etapa se desarrolló en dos líneas de investigación: el estudio mediante APC1-MS (atmospheric pressure chemical ionization - mass spectrometry) de la influencia del etanol en la liberación de odorantes desde matrices hidroalcohólicas y el estudio de la utilización de CO2 supercrítico para la infusión de aromas y vitaminas en matrices poliméricas. Posteriormente, obtuve un contrato doctor-INIA financiado por el Instituto Nacional de Investigaciones Agrarias (INIA) para trabajar en el Departamento de Agroalimentación del Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA) en la línea de investigación de mejora de la calidad aromática del vino (2004-2007). Durante esta etapa, además del trabajo de investigación, destacaría la experiencia adquirida en gestión de proyectos, ya que participé como investigador principal de 2 proyectos de investigación. Desde 2008 trabajo como investigador contratado dentro del Grupo GUIA (13A-Universidad de Zaragoza) dirigido por la Dra. Nerín, con una amplia y reconocida experiencia en el campo del envase alimentario y con una gran cantidad de recursos tecnológicos. Mi labor científica realizada hasta el momento se refleja la participación en 19 proyectos de investigación y 3 contratos de investigación con empresas, 28 publicaciones científicas (+4 enviadas), destacando entre ellas 1 capítulo en el libro y 19</p>



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					artículos en revistas SCI (17 dentro del cuartil 1 y 2 en el cuartil 2), 42 comunicaciones a congresos nacionales e internacionales y jornadas, la dirección de 2 tesis doctorales y un proyecto fin de carrera. He realizado a su vez numerosas actividades de transferencia científica.
65	Biología Fundamental y de Sistemas	RYC-2012-10367	CARO BERNAT, ELENA	ecarobernat@gmail.com	<p><b>EXPERIENCE</b></p> <p>June 2012: Teacher, Bioinformatics Class - Biotech Business Management Master Escuela Internacional Aliter</p> <p>2012 - present: Postdoctoral fellow Crisanto Gutierrez lab, Centro de Biología Molecular ♦Severo Ochoa♦, CSIC/UAM, Madrid, Spain</p> <p>2008 - 2011: Postdoctoral fellow Steve Jacobsen lab, Molecular, Cell and Developmental Biology Department, University of California, Los Angeles, CA, USA</p> <p>2003 - 2008: PhD. student Crisanto Gutierrez lab, Centro de Biología Molecular ♦Severo Ochoa♦, CSIC/UAM, Madrid, Spain</p> <p>March 2007 - May 2007: Visiting scientist Pascal Genschik lab, Institut de Biologie Moléculaire des Plantes, Strasbourg, France</p> <p>May 2006 - August 2006: Visiting scientist Ben Scheres lab, Universiteit Utrecht, Utrecht, The Netherlands</p> <p><b>PUBLICATIONS</b></p> <p>Caro E, Stroud H, Greenberg MVC, Bernatavichute YV, Feng S, Groth M, Vashisht AA, Wohlschlegel J and Jacobsen SE (2012) PLoS Genet 8(10):e1002995</p> <p>Du J, Zhong X, Bernatavichute YV, Stroud H, Feng S, Caro E, Vashisht AA, Terragni J, Chin HG, Tu A, Hetzel J, Wohlschlegel JA, Pradhan S, Patel DJ and Jacobsen SE (2012) Cell 151:167-180</p>



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					<p>Stroud H, Hale C, Feng S, Caro E, Jacob Y, Michaels SD and Jacobsen SE (2012) PLoS Genet 8(7):e1002808</p> <p>Sanmartin M, Sauer M, Muñoz A, Zouhar J, Ordóñez A, van de Ven WT, Caro E, Sánchez MP, Raikhel NV, Gutiérrez C, Sánchez-Serrano JJ and Rojo E (2011) Curr Biol 21:999-1008</p> <p>Jacob Y, Stroud H, Leblanc C, Feng S, Zhuo L, Caro E, Hassel C, Gutierrez C, Michaels SD and Jacobsen SE (2010) Nature 466:987-991</p> <p>Sanchez MP, Caro E, Desvoyes B, Ramirez-Parra E and Gutierrez C (2008) Semin Cell Dev Biol 19:537-546</p> <p>Caro E, Desvoyes B, Ramirez-Parra E, Sanchez MP and Gutierrez C (2008) Endoreduplication control during plant development in <i>Eukaryotic cell cycle</i>, J. Bryant, D. Francis (Eds), Taylor and Francis, UK</p> <p>Caro E and Gutierrez C (2007) Plant Sign Beha 2:494-495</p> <p>Caro E and Gutierrez C (2007) Trends Cell Biol 17:580-585</p> <p>Caro E, Castellano MM and Gutierrez C (2007) Nature 447:213-217            Leading Edge, Cell 129, 845 (2007)            News &amp; Views, Nature Cell Biol 9, 623 (2007)            Previews, Dev Cell 12, 841-842 (2007)            Recommended, Must Read, Faculty of 1000</p> <p>Castellano MM, Boniotti MB, Caro E, Schnittger A and Gutierrez C (2004) Plant Cell 16:2380-2393</p> <p><b>ACHIEVEMENTS</b>            2012: U.S. Patent Application Serial No. 61/585,619. Methods and Compositions for Reducing Gene Expression in Plants. Named inventors: Steven E. Jacobsen and Elena Caro</p>



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					<p>2011: Invited for attendance to the 2011 Lindau Nobel Laureate Meeting of Physiology and Medicine</p> <p>2009: Awarded ♦Marie Curie International Outgoing Fellowship for Career Development♦, European Commission People program of FP7</p> <p>2008: Awarded ♦Ayuda de movilidad para la investigación posdoctoral♦ postdoctoral fellowship, Ministerio de Ciencia e Innovación</p> <p>2008: ♦Profesor Ayudante Doctor♦ ANECA certification</p> <p>2007: ♦Best research work in the Centro de Biología Molecular Severo Ochoa♦ Award</p> <p>2007: ♦Best Spanish young scientist research work♦ Award, Sociedad Española de Bioquímica y Biología Molecular, sponsored by Promega Biotech</p> <p>2007: Selected speaker, 18th Internacional Conference on Arabidopsis Research, Beijing, China</p> <p>2006: Selected speaker, VIII Reunión de Biología Molecular de Plantas, Pamplona, Spain</p> <p>2004: Awarded ♦Formación de Personal Investigador♦ predoctoral fellowship, Ministerio de Educación y Ciencia</p>
66	Agricultura	RYC-2012-10842	SANCHEZ BEL, PALOMA	palomasb@cebas.csic.es	<p>Licenciada en Bioquímica por la Universidad de Murcia, inicié mi carrera investigadora como colaboradora en el Dpto de Bioquímica y Biología Molecular-A (Universidad de Murcia). Posteriormente realicé mi doctorado en el CEBAS-CSIC, bajo la dirección de los Dres F Romojaro y MC Martínez-Madrid. En 2003 obtuve el grado de Doctor. Durante esta etapa predoctoral colaboré también en varios proyectos nacionales abordando aspectos del estudio de la calidad y conservación de frutos. Para ampliar mis conocimientos y formación en la transferencia de tecnología al sector privado, tras la obtención del título de doctora participé en dos contratos de colaboración con empresas. Uno de ellos fue con la empresa Azucarera del Ebro S.A. para el estudio de la conservación de remolacha azucarera a distintas</p>



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					<p>temperaturas y tratamientos de conservación. Más tarde me incorporé al departamento de mejora varietal de Syngenta Seeds, una de las más importantes empresas de semillas; mi labor allí se centró en la tipificación de variedades de melón para la elaboración de productos mínimamente procesados. En 2006, inicié una estancia posdoctoral en el ♦Genomics and fruit biotechnology♦ research group (UMR990 INRA-INP/ENSAT, Toulouse, France), bajo la dirección del Prof JC Pech y con una duración de 24 meses, participando en el proyecto ♦Study of potential determinants of the formation of volatile compounds in tomato♦. A raíz del interés de los resultados obtenidos, fui responsable de poner en marcha un proyecto de investigación dirigido al ♦aislamiento y análisis proteómico de cromoplastos intactos de tomate♦. Esto supuso la apertura en el grupo receptor de la nueva línea de investigación de ♦Proteómica vegetal♦. Finalizado este periodo, me incorporé de nuevo al CEBAS-CSIC en el grupo ♦Estrés abiótico, producción y Calidad♦ del Dpto de Biología del estrés y Patología vegetal, seleccionado por la Agencia de Ciencia y Tecnología de la Región de Murcia como Grupo de Excelencia (Ref 04553/GERM/06) y en Septiembre de 2009 obtuve un contrato del programa JAE-Doc (2009-2012) del que disfruto hasta el momento. Desde mi reincorporación soy responsable de la línea de investigación ♦Estudio proteómico para mejorar la respuesta a estrés abiótico, implementando la línea de proteómica vegetal que inicié en el laboratorio del prof. Pech. Esta nueva línea de investigación que he abierto en el grupo ha permitido ampliar los objetivos que se están abordando en los proyectos de investigación del Plan Nacional y de la convocatoria europea (Plant KBBE 2009) en los que participo. Como resumen de mi carrera, he publicado 19 artículos en revistas SCI (14 de ellas en el primer cuartil) de las cuales en 10 soy primera autora (+ 2 en proceso) y en 2 corresponding author, 1 Invited review en revista de revisión por pares, 14 publicaciones en revistas no SCI, 3 capítulos de libro, 43 contribuciones a congresos nacionales e internacionales. He participado en 2 contratos de investigación con empresas, 8 proyectos nacionales, 2 proyecto europeos, 1 proyecto Profit y 3 proyectos regionales. He dirigido tres proyectos fin de carrera más una tesis doctoral que codirijo actualmente y cuya lectura está prevista para el año 2013. He sido miembro del comité de organización de 2 congresos internacionales, evaluadora de revistas SCI y miembro del comité editorial de dos revistas.</p>
67	Biología Fundamental y de	RYC-2012-11872	LUCAS LLEDO, JOSE IGNACIO	ignasilucas@gmail.com	<p>07/1999 - BS in Biology, Universitat d'Alacant, with award (Premio Extraordinario de Licenciatura). 2000 to 2003 - Collaboration with Dr. Lorenzo Ferrer Figueras (Universitat de València). 05/2003 - Fellowship from 'Generalitat Valenciana'.</p>



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	Sistemas				<p>05/2003 to 07/2007 - Research fellow at Dr. Ignacio Marín Lozano's lab (Universitat de València).            04/2007 - PhD. Dissertation title: Evolutionary and functional context of genes Parkin and DJ1, involved in Parkinson's disease.            09/2007 to 12/2010 - Postdoctoral research fellow at Michael Lynch's lab (Indiana University, USA).            02/2011 to present - Postdoctoral research fellow at Mario Cáceres' lab (Universitat Autònoma de Barcelona).            09/2011 - 'Beatriu de Pinòs' grant (co-founded by European Union, Marie Curie Action, 7th Framework).</p> <p>Publications:</p> <p>Lucas-Lledó, JI, Maddamsetti, R, &amp; Lynch, M. Phylogenomic analysis of the uracil-DNA glycosylase superfamily. <i>Mol. Biol. Evol.</i> 28(3):1307-1317            Ossowski, S, Schneeberger, K, Lucas-Lledó, JI, Warthmann, N, Clark, RM, Shaw, RG, Weigel, D &amp; Lynch, M. The rate and molecular spectrum of spontaneous mutations in <i>Arabidopsis thaliana</i>. <i>Science</i> 327(5961):92-94            Denver, DR, Dolan, PC, Wilhelm, LJ, Sung, W, Lucas-Lledó, JI, Howe, DK, Lewis, SC, Okamoto, K, Thomas, WK, Lynch, M &amp; Baer, CF. A genome-wide view of <i>Caenorhabditis elegans</i> base-substitution mutation processes. <i>Proc. Natl. Acad. Sci. U.S.A.</i> 106(38):16310-16314            Lucas-Lledó, JI &amp; Lynch, M. Evolution of the mutation rates: phylogenomic analysis of the photolyase/cryptochrome family. <i>Mol. Biol. Evol.</i> 26(5):1143-1153            Lucas, JI &amp; Marín, I. A new evolutionary paradigm for the Parkinson disease gene DJ-1. <i>Mol. Biol. Evol.</i> 24(2):551-561            Lucas, JI, Arnau, V, Marín, I. Comparative genomics and domain graph analysis link ubiquitination and RNA metabolism. <i>J. Mol. Biol.</i> 357(1):9-17.            Arnau, V, Gallach, M, Lucas, JI &amp; Marín, I. UVPAR: fast detection of functional shifts in duplicate genes. <i>BMC Bioinformatics</i> 7(1).            Marín, I, Lucas, JI, Gradilla, AC &amp; Ferrús, A. Parkin and relatives: the RBR family of ubiquitin ligases. <i>Physiol. Genomics</i> 17(3):253-263.            de Renzi, M, Lucas-Lledó, JI &amp; López de Brines, A. La jerarquía genealógica y la selección natural. <i>Revista Internacional de Sistemas</i> 11(1):49-56.            Nemiche, M, Caselles-Moncho, A, Lucas-Lledó, JI, Quintero, LA &amp; El Kharraz, J. A systemic model to simulate the formation and employment in 'La Coma'. <i>Revista Internacional de Sistemas</i> 12(1):12-18.</p>





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					<p>Participation in international projects:</p> <p>Name of the project: Evolutionary and functional analysis of polymorphic inversions in the human genome (243212 INVVEST) Head researcher: Cáceres Aguilar, Mario Funding body or bodies: European Research Council Start date: 01/02/2010 , 5 years Total amount: 1.475.377</p> <p>Scientific meetings:</p> <p>Title: Rate and spectrum of spontaneous mutations in Daphnia pulex Name of the conference: Tercer Congreso de la Sociedad Española de Biología Evolutiva Role: Presentation City: Madrid, Spain Date: 21/11/2011 Authors: Lucas-Lledó, JI, Tucker, A, Schridder, D, Schaack, S &amp; Lynch, M.</p> <p>Title: The rate and spectrum of spontaneous mutations in Arabidopsis thaliana Name of the conference: Annual Meeting of the Society for Molecular Biology and Evolution Role: Presentation City: Iowa City, USA Date: 03/06/2009 Authors: Lucas-Lledó, JI, Ossowski, S , Schneeberger, K, Warthmann, N, Clark, RM, Shaw, RG, Weigel , D &amp; Lynch, M.</p>
68	Medicina Clínica y Epidemiología	RYC-2012-11700	NOON , LUKE	lnoon@cipf.es	As a highly motivated and experienced investigator, I am seeking the opportunity to progress from senior postdoc to independent researcher. My published work and experience to date show that I have the ability to work successfully in a range of fields including endocrinology, neuroscience, regenerative medicine and cancer. As my career has progressed I have focused my interests on cellular differentiation and intracellular signalling, both in the context of regeneration and in human metabolic diseases. In my present



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69	Biología	RYC-2012-	JELIER , ROB	r.jelier@gmail.com	<p>role as CIBERDEM investigator, I have been studying the role of insulin signalling in the development and regeneration of the liver. Interestingly, patients with metabolic diseases such as obesity and type II diabetes are at higher risk of developing diseases of the liver, such as steatosis (fatty liver), fibrosis and cancer although the link between these disease states remains unclear. My goal is to develop a line of investigation, within the framework of the CIBERDEM, to more closely analyse molecular links between these diseases and to study the role of insulin signalling in hepatic stem cells and hepatocellular carcinoma.</p> <p>Since the start of my postdoctoral career, I have worked in centres of international excellence, initially in London (United Kingdom) as a Cancer Research UK Research Fellow at the MRC-LMCB, before moving to Valencia (Spain) and the Centro de Investigación Principe Felipe (CIPF) in 2009. At the MRC-LMCB, in the laboratory of Professor Alison Lloyd (2004-2009), I received a solid training in the practicalities of research at the highest level, whilst gaining insight into the running of a competitive and dynamic laboratory. I also developed experience writing and publishing in top international journals. In my 5 years in with Professor Lloyd I was involved in the coordination and direction of several successful lines of investigation relating to cell signalling pathways in peripheral nerve regeneration and cancer. My responsibilities included the supervision of both undergraduate and PhD students and preparation of research articles and grants.</p> <p>In 2009 I joined the laboratory of Dr Deborah Burks where I have developed expertise in insulin signalling and liver function. By working as an active member of the LIV-ES project (an international consortium funded by the European Commission's FP7 framework) I have gained a great insight into the process of coordinating large collaborative projects and have worked closely with Dr Burks to facilitate the financing of a second European Commission funded project InnovalIV.</p> <p>Throughout my postdoctoral training in an international environment, I have gained the maturity, technical excellence, and experience to now direct my own research group. The support of the Ramón y Cajal subprogram, together with the framework provided by the CIBERDEM, would provide the critical stepping-stone to enable me to launch my career as an independent investigator.</p>



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	Fundamental y de Sistemas	11523			<p>of Systems Biology, Barcelona. He completed his PhD in Bioinformatics at the Erasmus University of Rotterdam in January 2008.</p> <p>His main research areas are in Bioinformatics and Computational Biology. His research is focused on the use of individual genome sequences to predict phenotypes in model organisms. Next-generation sequencing made individual genome sequences within reach, and bioinformatics can now make headway towards the fundamental goal in genetics of understanding directly from sequence an important part of phenotypic variation. A second line of research uses image analysis to automatically retrieve the development through embryogenesis of <i>C. elegans</i> embryos from confocal microscopy recordings. The development of the roundworm embryo is an important model for understanding pattern formation in animals. In his research, computational modeling is used in combination with experimentation to efficiently test and evaluate hypotheses about the processes that form the observed constellations of cells. During his PhD he worked on the automatic extraction of knowledge from scientific literature and developed several new data mining approaches and tools.</p> <p>Rob Jelier has published his research in leading international academic journals such as Nature Genetics, Briefings in Bioinformatics, Genome Biology and Bioinformatics. He has presented his work in major international academic conferences, as well as at top 100 academic institutions such as Utrecht University, Leuven University and Edinburgh University.</p> <p>He was awarded a Juan de la Cierva Grant by the Ministerio de Ciencia e Innovación (Spain).</p>
70	Biología Fundamental y de Sistemas	RYC-2012-11410	CASAS TINTO, SERGIO	scasas@cajal.csic.es	<p>I have contributed to the field of molecular genetics through the study of <i>Drosophila</i> development. My professional life begun with the characterization of two new Fork Head genes involved in embryonic development and muscle regeneration. That work allowed me to acquire which served to unravel the in vivo function of these two genes. Also, the project led to establish my first international collaborations (Dr. Oscar Puig, Univ. of Helsinki, Finland) and provided the necessary skills to present my work at international events. During my postdoc, I focused in developing <i>Drosophila</i> models for human diseases. At the University of Texas I created transgenic flies expressing the prion protein (PrP) from Syrian hamster to study the mechanisms controlling PrP. These results provided new insights into the mechanisms of spontaneous accumulation of PrP with potential therapeutic applications. In addition, we developed a model for Alzheimer's disease (AD) expressing human Abeta 1-42 peptide in the fly brain. We used these flies to screen for modifiers of neurodegeneration. Among the candidates, we demonstrated that modulating the transcription factor XBP1 protects neurons exposed to pathological Abeta 1-42 oligomers. Upon my return to Spain, I joined the National Cancer Institute (CNIO) to study the phenomenon of cell competition. Cell competition is a selection process that occurs in proliferating cells where the best adapted</p>



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					<p>cells (winners) survive and proliferate at the expense of the less adapted ones (losers), which die by apoptosis. We discovered a mechanism of cell-to-cell communication during cell competition: the "flower code" that distinguishes losers from winners. Currently, cell competition is thought to have implications in development, tissue homeostasis, regeneration and tumor development, issues which are actively being studied in many laboratories worldwide. I also led the research on a novel mechanism that modulates the elimination of loser cells during cell competition. We discovered a protective function for the protein SPARC in cell competition. Our study showed that SPARC is upregulated in potential loser cells and acts as a protective signal. SPARC does not simply inhibit apoptosis but, instead, protects cells from a putative 'killing signal' emitted by their competitors, providing an unexpected mechanism to counteract cell competition during development. During my stay at the CNIO, my interest for brain tumors grew substantially. Finally, in 2010 I moved to the Cajal Institute where I have merged my previous knowledge of neuroscience with novel concepts about cell competition and cancer. I am working on the role of TroponinI in cell competition and synapse formation. The first manuscript is currently being written. Also, I have developed a model for Glioblastoma in Drosophila on which I am tutoring a PhD student. I am directing two additional PhD students and have introduced novel expertise to the hosting laboratory. I have been awarded with a European grant for bio-Imaging studies: ♦Glioma induced synapse loss and neurodegeneration♦ in which I am the PI. My 10 years long scientific career has yield 11 international papers. I have worked in different institutes worldwide always with success. My professional plans intend to submit an EU grant using my international contacts and to collaborate with colleagues from whom I am always open to learn. In that context, my track record demonstrates that I am able to do it.</p>