AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-031000-I
Área Temática: **Biomedicina**
Correo Electrónico: uge2985@hotmail.com
Título: New mechanisms and factors impairing the hemostatic balance: from post-translational modifications to new molecular defects

Resumen de la Memoria:

My dream to investigate with and for patients has been possible combining my basic degree (Biochemistry) and my first experience during my degree studies in the department of Biochemistry, with a career done in a clinical Department (Internal Medicine/Hematology) in a group of Scientific Excellence recognized by Fundación Séneca. This training has allowed me to do translational research. My whole research career was focused to identify new mechanisms involved in hemostatic diseases (from post-translational modifications to new molecular defects), to develop new diagnostic methods (with a patent and the creation of a technology-based company), and to identify prognostic markers. My PhD, supported by a predoctoral grant from Instituto de Salud Carlos III (ISCIII) was awarded by University of Murcia and Fundación Robles Chillida. My postdoctoral period has been supported by 3 competitive fellowships (Juan de la Cierva, Spanish Society of Thrombosis and Haemostasis, and the last one a SECTI postdoctoral contract from Universidad de Murcia. During my postdoctoral career, I have been PI of 3 research projects; the last one granted by ISCIII (PI21/00137) allowed creating my own group. I got a wide experience in antithrombin (AT) (third worldwide investigator according to Expertscape) with 3 main contributions: N-glycosylation defects as a new mechanism causing AT deficiency; the role of this disorder in atresia of the vena cava system and the identification of transient AT deficiencies (corresponding author). In Belgium, I worked with Prof. Jaeken who discovered congenital disorders of glycosylation and encouraged to study N-glycosylation in other hemostatic elements such as FXI, FXII and platelets. Lastly, I am focused to the contact pathway, and specially FXI, as we characterized a large cohort of patients with FXI deficiency. I point out the archeogenetic study of a F11 founder mutation published in Blood (IF: 17.543) and the impact of this disorder in anticoagulated patients, published in Blood Advances (IF: 6.799) as corresponding author. This project included a promising anticoagulant strategy using CRISPR-Cas9 targeting F11. I have a remarkable scientific production (65 articles in JCR, 3 reviews, h-index: 15). I was involved in the implementation of long-reads nanopore sequencing in hemostatic diseases. In 2020, I co-founded an innovative technology spin-off company (LongSeq Application). I belong to the Spanish Network of Rare Diseases (CIBERER), to 3 Scientific Societies, and I am currently collaborating with 15 groups of excellence a wide international. Other parameters supporting my leadership: 1) teaching activity, supervision and direction of 7 end-of-grade projects, 8 Master Thesis and 3 PhDs+1 in progress; 2) funding capacity, collaborator of 20 scientific projects, and Principal Investigator of 3 projects; 3) responsibility of research, corresponding author of 8 manuscripts; and 4) international recognition, selected to the Translational Research Training Program in Hematology from European Hematology Association.

Resumen del Currículum Vitae:

My scientific career has been developed during the last 13 years mainly in two different institutions (Instituto Murciano de Investigaciones Biomédicas -IMIB- and University of Murcia -UMU-), and stays in Hospital la Fe, Valencia, and KU Leuven, Belgium. I received 2 personal predoctoral and 4 post-doctoral fellowships granted by different institutions (UMU; Instituto de Salud Carlos III -ISCIII-; Spanish Society of Thrombosis and Haemostasis -SETH-). I point out a post-doctoral Juan de la Cierva, and a 5-year SECTI post-doctoral contract from UMU (2018-2023). I am a Junior Group Leader of a new group of 5 members (a PhD is applied) at UMU, thanks to a project granted by ISCIII (PI21/00137). I am expert in antithrombin (third worldwide expert according to Expertscape). Now, I am focused on the contact pathway. I implemented nanopore sequencing, and as result, I co-founded an innovative spin-off technology company (LongSeq Application). Author of 74 documents: 65 papers in JCR, 3 reviews, 4 book chapters, 2 preprint papers. H-index: 15 (scholar), i10-index: 29 (scholar), mean IF: 5.6, accumulated IF: 339.289 (WOS). Total cites: 714. Eigth papers as Corresponding/Senior author: 3 in D1; 2 in Q1 (JCR, WOS). Principal investigator of 3 competitive national projects with 190,570 by: SETH, CIBERER and ISCIII. Member of the scientific team of 20 competitive national or international projects (ISCIII, European Union, CIBERER, SETH, British Heart Foundation) with a whole budget of more than 1,600,000 . I was selected in 2020 to the Translational Research Training program in Hematology by the European and American Hematology Associations. I belong to 3 Scientific Societies (SETH, EHA, ASH). I belong to the Spanish Network of Rare Diseases (CIBERER). Accredited by ANECA as Profesor Ayudante Doctor, Profesor Contratado Doctor, Profesor de Universidad Privada and 2 triennium recognized by UMU. Wide international network with 15 groups of excellence and collaborator of 3 international projects. I translate my research: 1) to the scientific community by JCR papers, participation in national and international meetings (19 national meetings with >50 oral papers (9 in plenary sessions), and 21 international conferences with 26 oral papers (3 symposia)), invited speaker to 5 international and 6 national meetings; 2) to patients in associations, by an International Clinical Guideline and by a Clinical Trial; 3) to the society in press, radio and mass media @ugedelamorbar; 4) to the industry by agreements with 3 international companies, one patent, one intellectual property, and the creation of a company. I am teacher in 2 Masters of UMU, supervisor of 3 PhDs + 1 in progress, 7 end-of grade and 8 end-of master projects. I give scientific talks in High Schools and organizing opendays at the lab, seminars in Hospitals, Societies (one educational), European Union program (TEMPUS for Countries of the Caucasus, in Murcia and Ferrara), CIBERER, IMIB, UMU. I was trainer of national and international visitors. Associated editor in 2 journals: Frontiers in genetics, and Frontiers in Pediatrics, and invited to an editorial and 3 reviews. Reviewer of 13 JCR journals and end-of-grade projects in UMU. 36 awards from SETH, Academia de Medicina Murcia, ISTH, ECTH. Awards to the best International PhD from UMU and Fundación Robles Chillida.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-030837-I
Área Temática: **Ciencias físicas**
Correo Electrónico: raddiroberto@gmail.com

Título: White Dwarfs and their Progenitors in the Next Decade

Resumen de la Memoria:

My research goal is an advancement of our understanding of the past history and evolution of stars as well as their connection with the global properties of the Milky Way. In particular, I focus on the latest stages of evolution for Solar-like stars, that is white dwarfs and related objects, as well as exotic stars that could form through supernova explosions.

More than 95% of the stars in the Milky Way currently are or will eventually become white dwarfs, which evolve from low- and intermediate-mass stars (0.8-10 times the mass of the Sun). Being very old objects, white dwarfs are the perfect astrophysical laboratories that I use to investigate a diverse range of problems that span from their primary properties such as the (i) atmospheric composition, and (ii) mass and luminosity functions, to those connected with the nature of their progenitors like the (iii) initial-to-final-mass relation, (iv) kinematics and metallicity distributions, or the occurrence of (v) thermonuclear supernova explosions in binary systems, ending with the global properties of our Galaxy like the (vi) star-formation history and (vii) the ages of Galactic components. More recently, white dwarfs are also enabling the study of evolved planetary systems, which offer a favorable setting for analyzing the evolution of Solar system equivalents around other stars. Moreover, the discovery of new high-velocity white dwarfs that are indicative of violent phenomena such as supernova explosions can probe the explosion mechanisms and their progenitor systems.

Modern astrophysics is living in a golden era with the advent of all-sky photometric and spectroscopic surveys, and the accurate and precise astrometry of the Gaia mission. My participation in the new generation of multi-fiber spectroscopic surveys such as WEAVE and 4MOST that will become operative in 2022 and 2024, respectively, will give me a unique opportunity for continuing my research career by exploiting this vast array of observations in the proposed or emerging areas of astrophysics. Such ambitious goals are unleashing a rich potential for collaboration with diverse fields of research, strengthening my connections in the Spanish and international communities.

Resumen del Currículum Vitae:

I am employed at the Universitat Politècnica de Catalunya in the Astronomy and Astrophysics Group, where I am holding a Beatriu de Pinos fellowship that is funded by a COFUND programme for the Marie-Sklodowska-Curie actions in the Horizon 2020 framework. I lead my project, collaborating with Prof. S. Torres, to study white dwarfs in different Milky Way environments such as open clusters, binaries, and the solar neighborhood.

I graduated in Physics from the University of Naples (Italy) with a thesis on Low-mass Young Stars as tracers of the Gould Belt , which was supervised by Prof. A. Smaldone (University of Naples), Dr. J. M. Alcala and Dr. E. Covino (INAF - Osservatorio Astronomico di Capodimonte). I completed my PhD degree in 2013, holding a funded studentship at the University of Hertfordshire (United Kingdom), with a thesis on Emission Line Stars In and Beyond the Perseus Arm'' under the supervision of Prof. J. Drew. The results of my PhD work were published in two refereed first-author papers, and I formed collaborations within the IGAPS and VPHAS+ consortia that led to a few other publications.

Between 2013-2018, I was a Research Fellow at the University of Warwick (United Kingdom) in the group of Prof. B. Gaensicke, collaborating in his project funded with an ERC Advanced Grant. I led several projects related to white dwarf science that we published in refereed journals. Since 2015, I joined the NGTS project, characterizing solar-type stars that host planetary systems. Since 2016, I joined the WEAVE project, as a science team member and as a participant in the Survey Working Group. Between 2018-2020, I was a Research Fellow at at the Dr Remeis-Sternwarte (Germany). I continued my independent research and expanded my interests, by focusing more on stellar kinematics.

My work has been sponsored by a number of grants that have payed for my postdoctoral salary and I have obtained travel funding. I have led 20 projects and contributed to more than 50 projects with a large observational component.

I have authored 74 articles (10 as first author in refereed journals); 66 publications are indexed in Web of Science with an h-index of 18; 49 articles are published in Q1 refereed journals. I have been serving as a referee for the Monthly Notices of the Royal Astronomical Society, and as a panel member of Telescope Time Allocation Committees (for the Chandra X-ray Observatory and the Hubble Space Telescope). I am a member of the scientific organizing committee (SOC) of the Online - Meetings on Evolved Stars and Systems, and I served as a SOC member for a session hosted by the European Astronomical Society Meeting in 2019. I have attended 22 international conferences and several workshops, and I have given 11 invited colloquia at universities and research institutes. I am affiliated to the Royal Astronomical Society, International Astronomical Union, and European Astronomical Society.

I supervised two PhD projects, two final-year MSc theses, and one final-year BSc thesis. I supervised Astronomy laboratory classes at the University of Hertfordshire for three years, and I am currently teaching assistant for the Fundamental Physics classes at the UPC. I contributed to the science displays at the Bayfordbury Observatory (United Kingdom), I have delivered interviews with the media, and I have advertised my research through press releases.

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Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-031146-I
Área Temática: **Biomedicina**
Correo Electrónico: ellen.struijk@gmail.com
Título: Nutritional epidemiology applied to aging.

Resumen de la Memoria:

Currently I am a Juan de la Cierva-incorporacion scientist in the Department of Preventive Medicine and Public Health at the Universidad Autonoma de Madrid (UAM). My training includes a PhD in Clinical Epidemiology at Utrecht University, the Netherlands.

During my PhD project in the Netherlands I focused on developing a concept to calculate Disability-Adjusted Life Years (DALYs) in an ongoing cohort study. DALYs are a summary health measure developed by the WHO and have mainly been applied in global burden of disease studies. This is an extremely relevant outcome nowadays as life expectancy is rising in most Western countries; however, this does not necessarily mean people live longer lives in good health. This work was key to define my future research line focused on delaying disability related to aging and provided me with the skills to develop an independent research work using large databases in an international context.

After obtaining my PhD I moved to Spain to work in the Department of Preventive Medicine and Public Health of the Faculty of Medicine of the UAM. I am interested in the characterization of the dietary determinants of health status, including physical function, frailty, multimorbidity, and disability. To assess the potential effect of diet on physical function, disability, and healthy aging, I also work with several European and American databases; The Spanish Seniors-ENRICA II, the English UK-Biobank, the Dutch LASA cohort, and the US Nurses Health Study. I am also a member of the CIBER in the area of Epidemiology and Public Health (CIBERESP).

I am a key co-investigator in the projects: Metabolomic profiles of physical impairment and functional disability and ¿The impact of lifestyles on the development of multimorbidity in older adults which are led by Dr. Lopez-Garcia. These projects can be included in the area of Precision Nutrition, since they address to understand biological mechanisms that explain associations between diet and unhealthy aging. The methodology to address these questions is now developing, and includes elastic regression analyses, and causal mediation analyses, as well as multistate models.

Currently I lead collaborations with the departments of Epidemiology and Nutrition at the Harvard School of Public Health to analyze data from the Nurses Health Study. This collaboration has provided the opportunity to work in a top university, with the people that are currently developing new methodology in the field of nutritional epidemiology. We currently published 6 and planning the further papers to be published with data from this cohort to investigate and better understand the relationship between diet, lifestyle and frailty.

There is still a big gap of knowledge in the field of diet and healthy ageing. This research line will help informing on interventions in public health to prevent unhealthy aging and to improve the wellness of the older population in Spain. For my career progress, the Ramon y Cajal grant will help to set up my incipient independent original research line. I hope that my high expertise training to analyze data with sophisticated methodology, and the opportunity to work with potent longitudinal studies, will allow me making substantial contributions to the knowledge in this field. I also expect continuing mentoring young scientists interested in nutritional and aging epide

Resumen del Currículum Vitae:

Currently I am a Juan de la Cierva-Incorporación scientist in the Department of Preventive Medicine and Public Health at the Universidad Autónoma de Madrid (UAM). My training includes a MSc in Nutritional and Public Health Epidemiology and a PhD in Epidemiology. During my PhD program in the Netherlands, I took the lead in developing a method to calculate DALYs in an ongoing cohort for which I have received two awards.

The focus of my research is to assess the potential effect of diet on physical function, frailty, disability, multimorbidity, and healthy aging. For this research, I have used innovative tools that include precision nutrition, new and relevant health outcomes, and the best study designs. I lead collaborations with top researchers from other international universities including Harvard University and the Amsterdam University Medical Centre. I have used data from several international databases; The Spanish Seniors-ENRICA, the English UK-Biobank, the Dutch LASA cohort, and the US Nurses Health Study.

Additionally, I am a key co-investigator in two projects. The metabolomics project (16/1512) was designed to apply a novel approach to understand the biological mechanism underlying disability. We characterized metabolic profiles predictive of functional and physical impairment and presented the results in three published manuscripts. The multimorbidity project (20/1040) is of importance since multimorbidity can be considered a proxy of biological aging which is a major public health challenge.

To date I have published 57 articles in peer-reviewed international journals of which 89% are in the highest quartile (Q1) and 60% in D1 journals. I am the first author of 14 manuscripts, that were published in medical top ten journals including Journal of Cachexia Sarcopenia and Muscle (2 articles; IF 12.9), PLOS Medicine (IF 10.1), and BMC Medicine (2 articles; IF 8.8), as well as high-quality nutrition journals such as Clinical Nutrition (IF 7.3), and the AJCN (2 articles; IF 7.1), which is the official journal of the American Society of Nutrition. Additionally, I am the second author of 19 papers, obtaining this position because of the relevance of my contribution on those papers. I am also the last author of 1 published paper. My publications have received 623 citations resulting in an H-index of 14 (Scopus up to 21/1/2022).

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Next to my research work I have served as a co-director of a doctoral student (Marcos Machado Fragua) who has defended his dissertation cum laude. I have worked together with doctoral student Daniela Estrada de León by providing her methodological support and I am the second author in her publications. Currently I am supervising the work of doctoral student Veronica Vega Cabello and I am the last author of her work. I also participate in tutoring undergraduate students to perform their Trabajos de Fin de Grado to obtain a bachelor s degree in human nutrition and I am the director of two Epidemiology Master student s research projects Trabajos de Fin de Master . Additionally, I co-direct the course ¿Research methods in Nutritional Epidemiology¿ of the Master Epidemiology at the UAM.

Furthermore, I serve as a reviewer for several journals including JAMA Internal medicine (IF 21.9), BMC Medicine (IF 8.8) and clinical nutrition (IF 7.3). Plus, I am a member of group 25 in CIPERESP.

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Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-031785-I
Área Temática: **Biomedicina**
Correo Electrónico: spmontse2@gmail.com

Título: Mechanisms of cell death and search of novel therapeutic targets for neurodegeneration

Resumen de la Memoria:

I realized my PhD (2004-09) in Dr Mercedes Unzeta laboratory at Universitat Autònoma de Barcelona (UAB, Spain), and did my first postdoc at the same University (2010-17 interrupted by sick leave in 2013-14 and 2016). I studied cerebrovascular system alterations in Alzheimer s disease (AD), focusing on the role of a vascular amine oxidase on the Abeta deposition, blood-brain barrier (BBB) dysfunction, and vascular degeneration related to AD. I generated new cell line models, which were transferred to public and private institutions. This research line has continued with my co-direction of a PhD student that has evaluated the effects of BBB alterations on neurodegeneration using a novel in vitro co-culture system that we have set up (2017-present). I contributed so far to 15 publications on this issue, 5 as first and 4 as corresponding author.

In line with this, I started a collaboration with Dr Montaner at Vall d Hebron Institute of Research (VHIR, Spain) in 2010 to elucidate the role of this amine oxidase in stroke in humans and animal models. In a postdoctoral stay at Stanford University in Dr Marion Buckwalter laboratory (USA, 2012), I learned in vivo stroke models in a project aimed to study the mechanisms of post-stroke dementia. Back to UAB I studied novel molecular targets to prevent BBB dysfunction after stroke, and co-directed a PhD student (2012-15). 6 publications, 2 as corresponding author, were released from these studies.

Next, as postdoc in the Neurovascular lab at VHIR (Spain, 2017-20) with Dr Mar Hernandez-Guillamon, I worked with AD mouse models to evaluate novel treatments for neurodegeneration based on peripheral administration of Apolipoproteins. Through a BrightFocus Foundation-funded project we described the beneficial effect of this treatment by behavioral improvements, brain Abeta mobilization, and decreased neuroinflammation. This stage and associated collaborations reported 8 publications.

Finally I joined Dr Comella s lab at VHIR (2020-present) to lead the research work of the group, as Dr Comella is mainly dedicated to management institutional functions. I am following my main research interests, based on a multifactorial view of dementia, particularly of AD. Since I joined this lab, I have designed studies to elucidate the role of an anti-apoptotic neuronal protein (FAIM-L) in the Tau-dependent neurodegeneration, and in retinal degeneration. We work with in vitro studies of protein interaction, overexpression and cell signaling, as well as in vivo mouse transgenic models. We have generated a specific FAIM-L knockout mouse that will be crossed with the P301S tauopathy model. We modulate protein expression in vivo by adeno-associated virus injections and perform functional in vivo analyses through behavior, and retinal electroretinograms, the latter in collaboration with the Enrique de la Rosa (Madrid, Spain). At present I am co-directing 3 PhD students and 2 Master students working on these projects. I am also involved in teaching tasks as Associate Lecturer at UAB (2019-present).

My achievements, knowledge, skills and willing to collaborate demonstrate my capability to lead and conduct a research laboratory and consolidate my career through the RyC program, that will allow me to continue unravelling molecular pathways of neurodegeneration and finding novel potential therapeutic targets.

Resumen del Currículum Vitae:

CURRENT POSITION
Research Scientist (CIBERNED) at VHIR
Associate Lecturer at UAB (Spain)

PREVIOUS POSITIONS
2017-2020: Postdoc at Neurovascular Research Laboratory of VHIR (Spain)
2012-2017: Postdoc at UAB (Spain), interrupted in 2016 (August-December) and from September 2013 to September 2014 due to sick leave.
2009-2012: Postdoc at UAB (Spain)
2005-2009: Predoctoral fellow at UAB (Spain)
2003-2004: Research collaborator at Universitat Pompeu Fabra (Spain)

INTERNATIONAL RESEARCH STAYS
2018 (May-June): Postdoc stay at Université d Artois (Lens, France)
2012 (March-September): Postdoc at Stanford University (Palo Alto, CA, USA)
2008 (September-December): predoctoral stay at UHP Inserm (Nancy, France)

PUBLICATION METRICS
33 published research articles + 2 in revision (6 first author, 7 corresponding author)
2 published review articles
2 book chapters
7 publications in the first decile (3 in the last 5 years)
16 publications in the first quartile (10 in the last 5 years)
Average impact factor (per publication): 5,46 (7,28 in the last 5 years)

Citations: 761
H-Index: 15

CONFERENCES
36 participations as poster (26 international)
1 invited talk (International Amine Oxidases Conference, 2016, Birmingham)

SCOLARSHIPS AND FELLOWSHIPS
Predoctoral fellowship (UAB2005-203)
Best poster award (Amine oxidases conference 2006, 2008, 2010)

PARTICIPATED GRANTS AND FUNDING
National: 10 public, 2 public-private
International: 1 COST Action (2011-2015), 1 BrightFocus Foundation (2017-20)

TECHNOLOGY/KNOWLEDGE TRANSFER
Agreement with company for knowledge transfer: R-Tech Ueno (Japan) (2015-16)
Technology transfers (as principal investigator)
Boehringer Ingelheim Pharma GmbH & Co (Germany) (2017-19)
Biological Research Centre of the Hungarian Academy of Sciences (Hungary) (2015-17)
Applied Biological Materials (Canada) (2015-present)
National Taiwan University (Taiwan, ROC) (2014-18)
Novartis Pharma (Switzerland) (2012-15)

ONGOING COLLABORATIONS
Dr Francesc Jiménez (UAB, Spain)
Dr Jose Rodríguez (UAB, Spain)
Dr Albert Giralt (UB, Spain)
Dr Eduardo Soriano (UB, Spain)
Dr Enrique de la Rosa (CIB Margarita Salas, Spain)
Dr Tom Rothstein (Western Michigan University, USA)

THESES AND PROJECT SUPERVISION
PhD Thesis: 1 completed, 4 ongoing (UAB/VHIR)
Master Thesis: 3 completed, 2 ongoing
BA projects: 6 completed (UAB, University of Vic, University of Sofia, University of Siena)

ACADEMIC/TEACHING EXPERIENCE
900+ hours of laboratory work and lectures
Member of 6 PhD Theses Committee (2012 and 2015, UPF; 2016 and 2019, UAB; 2020, UB; 2021, VHIR)
Member of the evaluation committee of the Master Theses (2010-2011, Universitat Internacional de Catalunya)
Member of the follow-up committee of PhD Theses (Neuroscience program, UAB) since 2013
Member of the Monitoring Committee of PhD (VHIR) since 2022
Lecturer Accreditation AQU (Catalan University Quality Assurance Agency)
FEDES course (Formacion Docente en Educación Superior, UAB 2018)

OTHER
Reviewer for scientifical journals
Reviewer of the Alzheimer s Association funding programs
Member of the Spanish Biochemistry and Molecular Biology Society (SEBBM), 2011-present
Member of the International CAA Association, 2015-present
Member of the Spanish Society of Neuroscience (SENC), 2021-present
Member of the Federation of European Neuroscie

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Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-033305-I
Área Temática: **Ciencias físicas**
Correo Electrónico: pietro.vischia@cern.ch

Título: NeuroMODE

Resumen de la Memoria:

The optimization of modern particle physics detector is traditionally based on the individual optimization of each subdetector. Approaches like the MODE Collaboration aim at jointly optimizing the subdetector performance and geometry by introducing the ultimate physics goals of the experiment, as well as the financial cost of the apparatus, as optimization targets in a differentiable pipeline. The results of the pipeline can assist the decision making of the expert physicists involved in the experimental design. This project starts from the advanced statistical techniques employed in the study of the top-Higgs Yukawa coupling in ttH production at the LHC and of the Higgs self-coupling in HH production at the LHC to move to extending the MODE program in two ways: a study of the effects of replacing the traditional point-like neurons (perceptrons) with spatially-extended neurons that are often studied in computational neuroscience; and a study of the effects of using quantum machine learning algorithms to gain the computational advantage
needed to make the jump from optimizing relatively simple experiments like muon tomography to optimizing experiments of the complexity of the ATLAS and CMS experiments at the Large Hadron Collider.

Resumen del Currículum Vitae:

I am a leading researcher in experimental particle physics and machine learning techniques, with 13 years experience, 16 papers in Q1 journals, and ~500k euros of funding record. I represented CMS and ATLAS in 17 international conferences, gave 25 invited seminars and lectures, and am under contract for a book on statistics with Springer Nature (to be published in 2022).
Member of CMS since 2019, I performed high-profile measurements and searches that improved our knowledge of Higgs physics (ttH observation, charged Higgs and HH searches), top physics (mass and cross section measurements), and vector-boson physics (WZ cross section and polarization). Nowadays I focus on the coupling of the Higgs boson to the top
quark, of the W to the Z boson, and of the Higgs boson to itself: these studies are a major research goal of the LHC. I have covered several management positions, the latest one being L3 convener of the HWW group.

I focussed all my career on advanced statistical techniques (e.g. machine learning) applied to HEP. I have been the PI of the AMVA4NewPhysics Marie Curie ITN, I am the CERN Interexperiment Machine Learning coordinator, and I have founded and co-lead a new collaboration (MODE) for the machine-learning-assisted optimization of experimental design,
integrating financial constraints and physics goals in a differentiable optimization pipeline.

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Nombre: ****** ********
Referencia: RYC2021-031176-I
Área Temática: **Ciencias y tecnologías de materiales**
Correo Electrónico: crm1988@hotmail.com

Título: Material modeling with quantum first-principles calcaultions

Resumen de la Memoria:

My scientific career, started in 2013 when I was accepted in the Universidad Autónoma de Madrid as a Ph.D. student. Previously, I had obtained a degree in Physics (2011) and a separated degree in Material Engineering (2012), both from Universidad de Sevilla. I graduated in 2017 with a thesis devoted to graphene grown on metals studied by first-principles calculations based on density functional theory. Therefore, my background is essentially theoretical but I am used to work in close collaboration with experimental groups leading to comprehensive publications that contain both theoretical and experimental results. This interplay between theory/simulation and experiments has become a distinctive feature of my research career.

After graduating I was hired for two more years at the same institution as a postdoctoral researcher in two different projects, related to the electron transport in metalloproteins and the modeling of high-resolution atomic force microscopy images of molecules, respectively. Then I moved back to Seville, to Universidad Pablo de Olavide, first with a contract funded by Fundación Once and then as a Juan de la Cierva-Formación researcher. In 2021 I returned to Universidad de Sevilla thanks to a competitive three-year contract awarded by the Junta de Andalucía (current position).

I have also extensively worked on magnetic materials and vibrational spectroscopy. Thus, I have broad research interests involving a number of topics in between the physics, chemistry and material science. In most of the cases the quantum first-principles calculations serve as a common methodology. For this reason, I decided to improve my background studying a degree in Chemistry at UNED, completed in 2018.

Presently, I am starting to get an internationally recognized profile. I have published 33 papers in JCR journals, many of them in collaboration with international groups from Japan, USA, UK, Germany, Switzerland, etc. My works as corresponding and/or main author prove my capability to pursue an independent research career. Furthermore, in 14 out of 33 publications I am the only coauthor of my institution/department.

Resumen del Currículum Vitae:

I defended my PhD thesis in 2017 at the Universidad Autónoma de Madrid in the department of theoretical condensed matter physics, under the supervision of Prof. Rubén Pérez and Dr. Pablo Pou. During my thesis I made two research stays (5 months) at the National institute for Materials Science in Tsukuba (Japan). Previously, I had obtained degrees in physics (2011) and material engineering (2012) from Universidad de Sevilla. During my PhD studies I also completed a degree in chemistry (2018) at UNED.

My research work is mainly based on theoretical calculations within density functional theory applied to a number of topics like graphene grown on metals, magnetic materials, electron transport through metalloproteins, vibrational spectroscopy or atomic force microscopy modeling. I usually work in close collaboration with experimental and theoretical groups all over the word (UK, Germany, Switzerland, Israel, Japan, China, USA, etc.) led by distinguish researchers like Prof. T. Miyazaki (NIMS), Prof. O. Gutfleisch (Darmstadt TU), Prof. D. Cahen (Weizmann Institute of Science), Prof. E. Meyer (University of Basel) or Prof. M. S. Hybertsen (Brookhaven National Laboratory).

I have coauthored 33 JCR publications leading to 331 citations (+100 in 2021) and an H index 11 according to WOS (+400 in Google Scholar). Among these publications 24/33 belong to Q1 journals and 7/33 to D1 journals including 1 JACS, 1 Angewandte Chemie, 1 Nat. Commun, 4 Carbon, 3 Nanoscale, 2 Acta Mater. I am the first author of 16 publications (second one in 8) and the corresponding author in 11 of them. In addition, in 14 out of 33 publications I am the only coauthor from my institution/department. I have presented my scientific results in over 20 national and international conferences, including 8 contributed talks and 1 invited talk.

I started my research career at the Universidad Autónoma de Madrid, first as a PhD student and then as a postdoctoral researcher (23 months). Later, I moved to Universidad Pablo de Olavide in Seville at the group of Prof. S. Calero as a Juan de la Cierva Formación researcher (17 months) and currently I am a researcher at the Universidad de Sevilla thanks to a competitive contract granted by the Junta de Andalucía. I have delivered about 400 hours of lectures in different universities and degrees and I am certified as Profesor Contratado Doctor by ANECA.

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Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-033315-I
Área Temática: **Tecnologías de la información y de las comunicaciones**
Correo Electrónico: maneldz@gmail.com
Título: Energy-Aware High-Performance Computing, Software Parallel Refactoring, and Efficient Deep-Learning and Applications

Resumen de la Memoria:

My research career is framed within the fields of High-Performance Computing (HPC) and Computational Science, two areas that I have explored in several perspectives at the different stages of my research trajectory. My career started in March 2009 with a research fellow at Univ. Jaume I (UJI) and followed by a Superior Technician position at Univ. Politècnica de València (UPV). In March 2010, I was granted a 4-year pre-doctoral fellowship (FPI VALi+D) from Generalitat Valenciana (GVA) where I worked toward my Ph.D. on (1) sustainable, power-aware software techniques for improving the energy efficiency of parallel scientific applications. In March 2013, I moved to the University of Hamburg (UHAM) for a pre-doctoral contract funded by the European (EU) FP7 Exa2Green and shifted to the post-doctoral position after defending my Ph.D. in March 2014. Within Exa2Green, I was responsible for Working Package 1: design of tools for power- and energy analysis on large-scale HPC systems. In May 2015, I moved to the Univ. Carlos III de Madrid (UC3M) to start my second post-doc funded by the EU H2020 RePhrase project and focused on (2) refactoring engineering methodologies for the parallelization of data-intensive applications. Early 2017, I accepted a Juan de la Cierva(JdC)-Formación-2015 position. In these internships, I closely collaborated with different EU institutions (German Climate Comp. Center, École Nationale Supérieure of Lyon, Max Planck Inst. Magdeburg, CERN, Univ. of Pisa, etc.) and participated in multiple scientific forums (EU COST Action IC0804, IC0805, and IC1305, Intl. Supercomp., Cluster Conf., etc.). In Mid 2018, moved back to UJI on a postdoctoral grant APOST-2017 (GVA). Early 2019 I was granted a JdC-Incorporación-2017 and a Plan Gen-T CDEIGENT 2018 (GVA) 4-year distinguished researcher position. Within the Plan Gen-T position at UJI, I lead the research line on (3) HPC optimizations for machine and deep learning-based algorithms, and their use to tackle complex problems in HPC, healthcare, and industrial applications. Currently, I supervise a group of 6 researchers: 2 Ph.D. students, 2 graduate technicians, and 2 undergraduate fellows. This research is funded by 5 R+D+I projects and 2 tech. advisories in which I am principal investigator: Plan Gen-T (68 k), UJI proj. (40 k), two FISABIO R+D+I proj. (19 k), an ESPAITEC-UJI tech. exploitation proj. (50 k), and 2 tech. advisory proj. (Art. 83 L.O.U.) with DISMUNTEL S.A.L. (20 k) and AGC S.L. (24 k) companies. In total, I have fundraised 221 k . Overall, my research has been disseminated in 36 journal articles (27 JCR-indexed: 3 Q1-ranked and 20 Q2-ranked), 41 papers in intl. conf., 8 papers in nat. conf, and 3 book chapters. My h-index is 8 in WOS, 17 in G. Scholar and my publications received more than 800 citations according to G. Scholar. Also, I have received 2 best paper awards from intl. conf., and an innov. award from UJI. I have supervised 4 BSc projects at UC3M, Univ. Pol. de Catalunya, UJI; and 6 MSc theses at UHAM, UJI, Univ. da Coruña, and UPV related to the aforementioned topics. I have participated in the program committee of 9 intl. conf./workshops and reviewed articles for intl. conf., JCR-indexed journals, and projects for the Agencia Estatal de Investigación. I have also a certified research period from the Agencia Valenciana de Evaluación y Prospectiva.

Resumen del Currículum Vitae:

I received the BSc in Computer Science from Universitat Jaume I (UJI) in Sept. 2008, the MSc in Parallel and Distributed Computing from Universitat Politècnica de Valencia (UPV) in Jan. 2011, and the Ph.D. in Advanced Computing Systems from UJI in March 2014. My research career started in early 2008 when I joined the HPC&A research group from UJI through a project research fellowship. In late 2019, I moved to a Superior Technician position at UPV funded by a PROMETEO project from Generalitat Valenciana (GVA). In March 2010, I obtained a 4-year Ph.D. fellowship (FPI VALi+D) from GVA at UJI, where I worked toward my Ph.D. on the development of energy-aware techniques for improving performance and energy efficiency of linear algebra operations on multicore processors and GPUs. In April 2013, I moved to the University of Hamburg (UHAM) to perform pre- and post-doc internships funded by the EU FP7 Exa2Green project (2,1 M). Within these positions, I led Working Package 1 focused on the development of software techniques to improve the energy efficiency of Exascale High-Performance Computing (HPC) platforms. During this time, I collaborated with the German Climate Computing Center and the École Normale Supériere of Lyon. In mid-2015, I moved to the Universidad Carlos III de Madrid (UC3M), where I realized my second post-doc funded by the EU H2020 Rephrase project (3,5 M) and a Juan de la Cierva-Formación-2015 grant. There, I developed refactoring frameworks to automatically parallelize sequential engineering and industrial applications (codes). In mid-2018, I moved back to UJI with an APOSTD-2017 post-doc grant, and in early-2019, I took a 4-year distinguished researcher position funded by the Plan Gen-T-CDEIGENT-2018 GVA for talented researchers (234 k). Nowadays, in this position, I lead a 6-member team on the research line HPC for Machine/Deep Learning and Applications at the HPC&A group at UJI. There, I collaborate with companies (Huawei Ltd., GMS Management Solutions S.L.), the Hospital General of Castellón, and the Foundation for the Promotion of Health and Biomedical Research (FISABIO). I am the principal investigator (PI) of 5 projects obtained in competitive calls: Plan-Gen-T (project-side of 68 k) from GVA; a UJI I+D+i project (40 k); two projects from FISABIO (19 k); and a transfer and exploitation project from ESPAITEC-UJI (49 k). I am also the PI of 2 technical advisory contracts (Art. 83 L.O.U.) with DISMUNTEL S.A.L. (19 k) and AGC S.L. (24). In total, I have fundraised 221 k . I have also supervised 4 BSc projects at UC3M, UPC, UJI; and 6 MSc theses at UHAM, UJI, Universidade da Coruña, and UPV related to the aforementioned topics. Currently, I am supervising 2 Ph.D. theses and have actively cooperated in another 2 at UHAM and UC3M. Overall, my research has been disseminated in 36 journal articles (27 JCR-indexed: 3 Q1-ranked and 20 Q2-ranked), 41 papers in intl. conf., 8 papers in nat. conf, and 3 book chapters. My h-index is 8 in WOS, 16 in G. Scholar and my publications received more than 800 citations. I have received 2 best paper awards from intl. conf., and an innovation award from UJI. I have also participated in the program committee (PC) of 9 intl. conf./workshops and reviewed multiple articles for intl. conf., Journal Citation Reports (JCR)-indexed journals, and projects from the Agencia Estatal de Investigación. I also have a certified research period from the Agencia Valenciana de Evaluación y Prospectiva.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-034349-I
Área Temática: **Ciencias agrarias y agroalimentarias**
Correo Electrónico: montse.rabassa85@gmail.com
Título: Improvement and evaluation of the methods for the development of trustworthy dietary and/or nutritional recommendations (NutriRECOMS)

Resumen de la Memoria:

During my PhD thesis stage within Dr. Andres-Lacueva s group of the University of Barcelona, I performed a research stage at the Istituto Nazionale Ricovero e Cura Anziani (INRCA) - Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS) (Ancona, Italy) for four months (2013) with Dr. Antonio Cherubini. There, I participated in the InCHIANTI study (Invecchiare in Chianti, aging in the Chianti area), a representative population-based study of older persons living in the Chianti geographic area (Tuscany, Italy) (http://inchiantistudy.net/wp/). The MAPFRE foundation granted this mobility (Becas de formación en el extranjero para profesionales españoles 2012). During this stage, I assessed the effect of the intake of diets rich in polyphenols, and their association with conditions associated with aging.

After my PhD thesis stage at the University of Barcelona, I have started a research line in the nutritional and/or dietary recommendations at the Iberoamerican Cochrane Centre, integrated within the Clinical Epidemiology and Healthcare Services Department in the Biomedical Research Institute Sant Pau. The topics that I have addressed during my postdoctoral stage (Sara Borrell contract CD16/00157) have contributed to consolidate this line that I now lead. The topics of this line include: 1) evaluation of the methodological quality of dietary/nutritional guidelines; 2) improvement of the methods for the development of trustworthy nutritional recommendations (NutriRECS); and 3) development of an online resource that contains evaluations of nutrition and health messages for the public (Nutrimedia).

After almost 10 years of my research career in the nutrition field, I established collaborations with international and national experts, as well as, I gained an extensive of experience in all steps of successful approaches within the different research projects:

1) Designing relevant research projects (e.g. INC2014, MAPFRE, DANONE and CIBER projects)

2) Executing research projects from the conception of study proposals to analyzing data, presenting findings and preparing final reports (e.g. INC2014 and MAPFRE projects).

3) Writing and publishing study protocols (e.g. PROSPERO 2019)

4) Coordinating research projects and multidisciplinary research teams (e.g. InCHIANTI studies; Nutrimedia, https://www.upf.edu/web/nutrimedia/equipo).

5) Disseminating research findings by communicating the results to the scientific community through journals of nutrition with high impact factor (e.g. Rabassa 2021, Rabassa 2020, Rabassa 2018, Garcia-Aloy and Rabassa 2017; Khymenets and Rabassa 2016; Rabassa 2015) and to the public general throughout our websites (Iberoamerican Cochrane, https://es.cochrane.org/es/divulgacion/nutrimedia; UB, https://www.ub.edu/web/ub/es/menu_eines/noticies; NutriRECS, http://nutrirecs.com; nutrimedia, https://www.upf.edu/web/nutrimedia) or presenting at international conferences (more than 40 presentations as oral or poster communications). The quality of my research is internationally and nationally well recognized as demonstrated by invited reviews (Garcia-Aloy and Rabassa 2017, and Rabassa 2015), invited speaker (VII Jornades del CoDiNuCat, Barcelona, 22/11/19) and plenary speaker (Congreso Iberoamericano de Nutrición, Pamplona, 03/06/19).

6) Supervising PhD and final projects.

Resumen del Currículum Vitae:

I have a degree in Human Nutrition and Dietetics from the Rovira i Virgili University (2006), a degree in Food Science and Technology from the University of Barcelona (2009), and an Official Master's degree in Food Development and Innovation (2011) from the same university.

In 2011, I started my PhD in nutritional epidemiology under the supervision of Dr Cristina Andres-Lacueva and Dr Raul Zamora-Ros with a pre-doctoral contract at the Biomarkers and Nutritional & Food Metabolomics Research group of the University of Barcelona.

In 2013, I was funded by MAPFRE foundation to perform an international internship in the Geriatrics and Geriatric Emergency Care at IRCSS-INRCA (Italy) for four months under the supervision of Dr Antonio Cherubini.

In 2015, I received my PhD with international mention with the maximum qualification: Cum Laude. I received a PhD Extraordinary Award for the 2015-2016 academic year for my thesis entitled Effect of polyphenol-rich diet intake on aging. Association with physical and cognitive decline, frailty and total mortality within the InCHIANTI cohort (https://www.tesisenred.net/ handle/10803/359655).

In 2017, I moved to the Hospital de la Santa Creu i Sant Pau (Biomedical Research Institute Sant Pau) as postdoc at the Iberoamerican Cochrane Center - Clinical Epidemiology and Healthcare Services Department with a competitive Sara Borrell Program (CD16/00157), granted by Spanish National Institute of Health Carlos III. With Dr Pablo Alonso-Coello, the Head of the Barcelona GRADE center, and the coordinator of the Clinical Epidemiology and Healthcare Services Department. There, I participated in the NutriRECS project with relevant international experts (e.g., Dr. Gordon Guyatt, Dra. Gosia Bala, Dr. Bradley Johnston).

I am an expert on nutrition research and leading the research line on the quality and implementability of nutritional and dietary recommendations. I have published 33 peer-reviewed papers in international scientific journals (11 as main author, 1285 citations, h-index: 19). In addition, I have published six chapter books, two as first author. I have been invited to give 2 talks, and 2 invited reviews and 1 invited letter. I coordinated as a coprincipal investigator 3 R&D projects funded by competitive calls. In addition, I actively participated as a researcher in several R&D projects funded by industry and by competitive calls of the European Union, the Instituto de Salud Carlos III, the Spanish Ministry of Economy and Competitiveness, and the Agència d'Ajuts Universitaris a la Recerca. I have supervised 5 masters and 4 graduate students. I am supervising 2 PhD.

Currently, I am the scientific coordinator of the on-line Nutrimedia resource with high IMPACT for SOCIETY. I am one of the scientists composing the Network of Scientists Communicators created by El Periòdico journal. I am coordinator of the clinical research area at the EURECAT, leading the nutritional research on biomarkers, EURECAT is the Technological Center in Catalonia. I am also a lecturer at the UOC of the master s degree in Nutrition and Health.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-033959-I
Área Temática: **Tecnologías de la información y de las comunicaciones**
Correo Electrónico: cristobal.camarero@unican.es
Título: fundamental aspects of interconnection networks
Resumen de la Memoria:

My research is dedicated to the fundamentals of interconnection networks for High Performing Computing (HPC) and datacenters and its results are published on journals and conferences of high prestige and impact. It includes different proposals of topologies: Lattice graphs as alternative to tori for networks like the ones in the Blue Gene family; projective networks as very optimal topologies for HPC systems whose network is not altered during their lifetime; and Random Folded Clos, with focus on datacenters, that easily allow incremental upgrades during their lifetime. The research on Lattice graphs had a notable digression towards Lee Codes, giving among their results a couple publications in IEEE Transactions on Information Theory, the last being especially remarkable. My research also includes advances on already existing topologies, most prominently about the Dragonfly topology. The most recent result is about the routing on direct topologies. A mostly universal routing that has been published in the HOTI conference and accepted for publication in the IEEE Micro magazine.

Some of these publications had international collaboration. I highlight Ernst M. Gabidulin for some of the first works on Coding Theory and Mateo Valero for some of the work on Dragonfly networks. As example of a more limited collaboration is James E. Smith, whom I helped with his 2018 ISCA's paper entitled ''Space-Time Algebra: A Model for Neocortical Computation,'' which contains one lemma contributed by me for which (and also for more general feedback) he thanks me.

Resumen del Currículum Vitae:

During my degree of Computer Science and Engineering at the Universidad de Cantabria I received several grants, including some of initiation to research. I finished those courses with awards. Most notably, the third national award to the best of the promotion. Then, I enjoyed the FPU national grant to continue with doctoral studies until 2015. Later, I obtained a Juan de la Cierva - formación grant. I received in 2017 from my trajectory an award from the Investigación Sociedad Científica Informática de España y la Fundación BBVA. I am presently with a Personal Técnico de Apoyo contract.

My autism discapacity impides me from tasks requiring social abilities, such as stays in foreign universities. Despite it, I have participated on several seminaries of my research group. I also have directed a master thesis and a degree project. I have been integrated in five national and two international public projects in which my research group participated. From among these projects outstands the MontBlanc projects. In these projects many European institutions collaborated. As part of that project I made software contributions that extended BSC' tools.

My research is dedicated to the fundamentals of interconnection networks for High Performing Computing (HPC) and datacenters and its results are published on journals and conferences of high prestige and impact, including several journal on first quartile and a A++ conference. It includes different proposals of topologies: Lattice graphs as alternative to tori for networks like the ones in the Blue Gene family; projective networks as very optimal topologies for HPC systems whose network is not altered during their lifetime; and Random Folded Clos, with focus on datacenters, that easily allow incremental upgrades during their lifetime. The research on Lattice graphs had a notable digression towards Lee Codes, giving among their results a couple publications in IEEE Transactions on Information Theory, the last being especially remarkable. My research also includes advances on already existing topologies, most prominently about the Dragonfly topology. The most recent result is about the routing on direct topologies. A mostly universal routing that has been published in the HOTI conference and accepted for publication in the IEEE Micro magazine. Taking advantage of the online format of the conference, I made the presentation of the paper at the HOTI conference.

Some of these publications had international collaboration. I highlight Ernst M. Gabidulin for some of the first works on Coding Theory and Mateo Valero for some of the work on Dragonfly networks. As example of a more limited collaboration is James E. Smith, whom I helped with his 2018 ISCA's paper entitled ''Space-Time Algebra: A Model for Neocortical Computation,'' which contains one lemma contributed by me for which (and also for more general feedback) he thanks me.

According to Google Scholar my contributions have received 346 citations and I have an h-index of 11. I have published 14 articles within JCR, 6 of them at first quartile (Q1) and 5 and the second quartile (Q2). I have 7 articles in peer-reviewed conferences with a GGS rating of A- or better. One of them, HPCA, has a A++ rating. The article on the ICPP, with A rating, received the Best Paper Award.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-033470-I
Área Temática: **Estudios del pasado: historia y arqueología**
Correo Electrónico: mc.escosura@hotmail.com
Título: Epigrafía, onomástica y colonización latina en Hispania durante la República

Resumen de la Memoria:

Mis investigaciones se han centrado especialmente en la onomástica de época romana a través de la Epigrafía especialmente en la relación entre el individuo, su comunidad y sus estatus jurídicos en la Historia de Roma.

Comencé a investigar sobre Epigrafía y Onomástica al digitalizar para mi Tesi di Laurea (Sapienza Roma, 2008) todas las inscripciones relacionadas con la inmigración desde Hispania hacia Roma. Profundicé en ello en mi Trabajo Fin de Máster (UCM-UAM, 2011). Para mi tesis doctoral (UCM-UAM, 2017) giré el foco hacia Hispania para investigar el origen de esos movimientos poblacionales y me centré en la colonización latina de Hispania durante época republicana, mi principal tema de investigación.

Durante este trabajo he adquirido la capacidad de diseñar y crear bases de datos complejas, de tratar el tema de forma cualitativa y cronológica (cuando hasta el momento se habían realizado sólo estudios cuantitativos y globales), de proponer novedades en el campo apoyados en datos y no sólo como hipótesis, de aplicar a todo ello perspectiva de género, de colaborar en trabajos colectivos. Los cambios metodológicos que introduje para estudiar la onomástica latina de época republicana en Hispania me llevaron a dos decisiones fundamentales: por un lado, diseñar y construir mi propia base de datos (SPES), por el otro, usar las ciuitates como unidad básica de ordenamiento jurídico de los individuos, siguiendo la lógica del derecho romano.

Como investigadora postdoctoral he comenzado a explorar el paralelo entre los contingentes poblacionales de las posibles colonias latinas hispanas frente a las colonias latinas ciertas de Italia.

Trabajando en ello me han ido surgiendo temas transversales y oportunidades de crecimiento personal y profesional en otras líneas como las Humanidades Digitales con la digitalización epigráfica online en abierto; en el estudio de los hábitos epigráficos y la alfabetización del mundo romano; la recepción de la Antigüedad en la actualidad.

Resumen del Currículum Vitae:

Me doctoré con sobresaliente cum laude en Estudios del Mundo Antiguo por el programa interuniversitario de las Universidades Complutense y Autónoma de Madrid en 2017 con la tesis Movilidad, onomástica e integración en la Hispania republicana: el caso de Carthago Noua, bajo la dirección de las Dras. Estela García Fernández (UCM) y Silvia Orlandi (Sapienza). Con la tesis como base, en 2021 la colección Instrumenta de la Universitat de Barcelona publicó mi libro, La población de Carthago Nova de la conquista al Principado. Epigrafía y onomástica. Este libró fue galardonado por la AIEGL, la Asociación Internacional de Epigrafía Griega y Latina, con el premio Gezà Alföldy 2021.

Mis investigaciones se han centrado especialmente en la onomástica de época romana a través de la Epigrafía especialmente en la relación entre el individuo y su estatus jurídico. He desarrollado estudios sobre Romanización, Latinización, Ciudadanía, Inmigración o Integración desde una perspectiva multidisciplinar que abarca la Historia, la Epigrafía, la Prosopografía, la Numismática y el Derecho Romano. Mi ámbito principal de estudio es la colonización latina de las provincias Hispanas durante época republicana y sus precedentes jurídicos y onomásticos en Italia.

Para profundizar en varios de estos aspectos he realizado estancias de investigación en Roma, Milán y Burdeos. Además, he presentado mi trabajo en varios nacionales e internacionales. Esto se refleja en mis publicaciones, conferencias y organización de congresos.

He puesto especial atención en las Humanidades Digitales en mis investigaciones, diseñando nuevos modelos de bases de datos (SPES) y trabajando en digitalización de la Epigrafía en Epigraphic Database Roma (EDR) o Hispania Epigraphica Online. Además, soy miembro de la plataforma internacional Epigraphy.info, que busca concentrar los esfuerzos de digitalización de la Epigrafía, y he servido como parte del Steering Committee. The Ohio State University (EE.UU.) me ha concedido una fellowship para trabajar en su base de datos epigráfica y poder conectarla con EDR.

Mi segunda línea de investigación es la percepción de la Epigrafía por los propios romanos, un estudio teórico-metodológico derivado de mi investigación principal. He creado un grupo de trabajo para su estudio y la difusión de los resultados a través de intervenciones en la museografía de las instituciones colaboradoras. También he trabajado sobre inmigración en época imperial, la onomástica de las mujeres, la recepción de la Antigüedad en el mundo actual y la difusión internacional de los eventos científicos. He publicado al respecto varios artículos y capítulos de libros y editados dos libros al respecto publicados en 2020.

He trazado una trayectoria laboral en la investigación a través de los concursos públicos del Gobierno: contrato FPU para el periodo predoctoral; contratos Juan de la Cierva Formación y Juan de la Cierva Incorporación para el periodo postdoctoral. He basado conscientemente mi internacionalización en estancias de investigación becadas no muy largas. Mi discapacidad limita los meses que puedo pasar en el extranjero lejos de mi hospital de referencia y medicación. Un contrato postdoctoral fuera de España no es una posibilidad para mí.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-034269-I
Área Temática: **Ciencias y tecnologías medioambientales**
Correo Electrónico: alejandroblanco.bio@gmail.com

Título: Evolution of Crocodyliformes through deep time: systematics, paleobiology and palaeoecology

Resumen de la Memoria:

My main research line focuses on the evolution of crocodyliforms through deep time and their palaeoecological and palaeobiogeographical implications. These questions are approached by integrating comparative anatomy, phylogenetic systematics, 3D geometric morphometrics and palaeoenvironmental reconstructions.

Despite my early postdoctoral career (<5 years), I authored 20 peer-reviewed scientific papers published in the most recognised journals of their disciplines, of which 17 (85%) belong to the first quartile (Q1). I am the first author of 10 papers and second, last or corresponding author in other 6 (leading role 80%). These papers accumulate between 266 (Scopus) and 329 (Scholar) total citations, and my H-index is 10 (Scopus) / 11 (Scholar). I also contributed with 40 congress communications in national and international conferences, as well as invited talks.

I was awarded with two undergraduate, one predoctoral and three postdoctoral research fellowships in competitive calls, as well as several travel grants. My international mobility summarizes more than 28 months among 7 institutions and 3 countries, establishing a broad collaboration network. I was the principal investigator of 3 international and 1 national projects, and research team in other 5 national and 1 international projects.

I taught lessons at the University and supervised several undergraduate students. I have experience in organizing R+D activities such as scientific and organizing committees of international meetings. I have been director or co-director in several field campaigns. I have been reviewer for several top-ranked SCI journals, as well as member in evaluation panels for STEM Bach final projects, exploratory research projects and postdoctoral fellowship projects.

I also disseminated my scientific results in non-scientific journals, newspapers and museums. Additional outreach activities include participation in popular scientific festivals, conferences open to the general public, promotion of the scientific vocation among schools and events such as Scientific Olympiad for students.

Resumen del Currículum Vitae:

I am a palaeontologist and zoologist with a broad range of interests, from basic aspects such as Taxonomy and Systematics of Vertebrates to palaeobiogeographical implications of fossil species and their relationship with ecologic and climatic changes. I graduated in Biology, and specialized in Animal Biodiversity, and more specifically, in Paleontology. My PhD was awarded with maximum qualifications (excellent cum laude) and the International Doctoral Research recognition, and received the Extraordinary Award for the best PhD Thesis on Earth Sciences defended in the UAB in 2017. As an early-career researcher, I was awarded with three competitive postdoctoral fellowships: one funded by the Galician Government (2017-2019) with the goal of developing an international secondment in a recognized research group that allowed me to establish a network of collaborators, and followed by a return stage (2019-2020); a Juan de la Cierva Formación (2021) funded by the Spanish Government; and another postdoctoral fellowship funded by the Galician Government (2021-2023) with the goal to develop my own research project in the Galician University System.

My research has contributed to the knowledge of extinct species of fishes, amphibians, crocodiles and dinosaurs that inhabited the Iberian Peninsula during the Cretaceous and Paleogene. I am the author or co-author of four new species of crocodyliforms and one chondrichthyan fish. Several of my works have made it possible to propose new evolutionary hypotheses about eusuchian crocodiles. Some other studies deepened in the palaeobiogeographical affinities of such vertebrates, and in the faunal composition at different palaeoenvironments recorded in the Upper Cretaceous rocks of Spain, improving the characterization of the latest Cretaceous ecosystems in Europe, closely related to the K-Pg extinction. The results of my research were published in SCI journals and international meetings. They have also attracted the interest of the press on different times. Most of them are exhibited in different museums near the paleontological sites (Museo de la Conca Dellà , Dinosfera and Dinosaures de Fumanya).

During my career, I have accumulated large experience working on forefront centers with worldwide recognised research groups. I have been part of ICP/UAB (predoctoral institution), the Bavarian Collection of Paleontology and Geology, and the UDC (postdoctoral institutions). I have also made stays at the Hungarian Natural History Museum (Budapest), Museum für Naturkunde (Berlin), Mining and Geological Survey of Hungary (Budapest) and Staatliches Museum für Naturkunde (Stuttgart). Throughout that time, I have established a network of collaborators and acquired a comprehensive set of interdisciplinary skills in taxonomy, compared anatomy, phylogenetics, palaeohistology, stratigraphy, advanced statistics, and 3D digitalization methods, as well as complementary skills on leadership, project management and fossil collection management. The main outputs of these collaborations consist of an excellent record of publications and leadership in three R+D projects (Synthesys+ program) funded by the European Commission. Currently, I am developing my own research line in the University of A Coruña, supported by a project funded by the Galician Government and supervising BSc students.

AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2021
Turno de personas con discapacidad

Nombre: ****** ********
Referencia: RYC2021-031193-I
Área Temática: **Ciencias y tecnologías medioambientales**
Correo Electrónico: albert.garcia@icp.cat
Título: The impact of environmental perturbation in the reproductive macro-evolutionary processes on archosaurs

Resumen de la Memoria:

Degree in Geology (2007) by the Universitat de Barcelona, Master in Paleontology (2009) by the Universitat Autònoma de Barcelona, PhD in Earth Science (2012) by the Universitat de Barcelona, post-PhD position and lab assistant (2013) at the Macquarie University (Australia), and PhD researcher and curator (2015-2021) at the Institut Català de Paleontologia Miquel Crusafont (Sabadell). I recently gained a postdoctoral grant as a part of a MICINN-NTEM program.

I performed my first steps in science as a volunteer in 2002 in the paleontological fieldwork at Coll de Nargó dinosaur nesting site (southern Pyrenees), a locality that later became one of the main topics of my PhD dissertation. After that, I coordinated up to 20 fieldwork for over 15 years and participated in several fieldworks projects in three continents (America, Europe, and Australia).

Specialized in the reproductive behavior of extinct taxa and the evolution of reproduction in archosaurians, my PhD was focused on analyzing the oological fossil record from southern Europe. To fulfill the goals, I gained noticeable knowledge in performing SEM and histological analyses, while establishing my own network of collaborations with international institutions. I have published about 40 articles published in national and international journals, congress abstracts, and book chapters. Of those, 28 of them are published in SCI journals. I am author of seven new species including egg types, crocodiles, and one dinosaur.

In 2005 I gained an AGAUR grant, in 2009 I was granted with a doctoral FI fellowship, and since 2009 I have participated as a researcher in six national I+D+I projects, and one international project granted by CONICED (Argentina). Due to my post-doctoral relationship with the Paleobiology Database Working Group in Australia, I obtained remarkable experience in managing extensive databases and analyzing meta-data to explore macro-evolutionary patterns. For the last seven years, I am focused on analyzing the paleoecological relationships between terrestrial Cretaceous vertebrates from a broader viewpoint but especially interested in untangling the ecological interactions derived from evolutionary adaptation under insular environments. I have acquired experience in analyzing the isotopic signature of both fossils and the sediments that carry them. I have also performed several osteohistological analyses meant to characterize growth strategies of insular taxa, and I have gained notable experience in phylogenetic and biogeographic software by which I answer diverse paleontological questions.

Since 2017, I am part of the teaching team of the Inter-University Master in Paleobiology and Fossil Record (UAB-UB-ICP), and since 2014 I have supervised dozens of Grade' (12) and Master' (10) theses and two ongoing PhD thesis. Since 2019 I am the community manager of Dinosaures dels Pirineus, Museu de la Conca Dellà, and Dinosfera, focusing my job in science dissemination. I have served as a reviewer of Nature Geoscience, Nature Ecology and Evolution, Plos ONE, Peer J, Historical Biology, Journal of Vertebrate Palaeontology, Paleoclimatology, Paleogeography, Paleoecology, and Paleoecology, Cretaceous Research, Iberian Journal of Geology, Geological Frontiers, among many other.

Resumen del Currículum Vitae:

SCI Journals: 29
h-index (SCOPUS): 15
h-index (G. Academy): 16
i10 index (G. Academy): 20
Total citations: 663
Cited by: 179 documents
Num. of co-authors: 53
Thesis supervisor: Xavier Martinez Delclós (Universitat de Barcelona, Spain)
Thesis co-supervisor: Àngel Galobart Lorente (Institut Català de Paleontologia, Spain)