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AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2025

Turno de personas con discapacidad

Nombre: *****
Referencia: RYC2025-054495-I
Área Temática: Ciencias y tecnologías medioambientales
Correo Electrónico: aliciavaldes1501@gmail.com
Título: Linking environmental change to biodiversity via phenology and multi-scale monitoring

Resumen de la Memoria:

I am a researcher focused on studying how environmental change influences biodiversity and ecosystem functioning across scales, with a particular interest in plant phenology. I studied Biology (BSc, University of Oviedo 2005). In 2007, I received a competitive PhD Studentship (2007-11, University of Oviedo) to study effects of landscape change on forest herbs, including two stays in different institutions. After my PhD, I worked as postdoctoral researcher in an EU research project at Jules Verne University of Picardy (France, 2012-14). At the end of 2014, I obtained a Marie Curie Cofund Fellowship to work at Stockholm University (Sweden), studying selection on plant phenology mediated by plant-animal interactions. Later (2017-24), I worked as a Researcher at Stockholm University, with two career breaks due to maternity leave (26.5 months in total), studying environmental drivers of phenology and natural selection on phenology. At the end of 2024, I moved to University of Oviedo as a Researcher at the Biodiversity Research Institute, where I am scaling up my research to ecosystem-level phenology. During my career, I have spent 12 years abroad. In total, I have worked or done research visits in 4 research centers in 3 countries.

During the last years, I have raised my capacity to do research in an independent and autonomous, but collaborative way. Part of my career has been supported by individual fellowships obtained through competitive calls including a PhD studentship and one postdoctoral fellowship (>132k € of awarded funding). I have been part of 15 Research Projects totaling >6 Mill. € funding, and also 1 private contract. I have authored 33 peer-reviewed articles (+5 under review) being 1st author on 17/38 (2nd on 6/38), and almost all of them (97%) are in the top 25% journals (CiteScore Rank, Scopus). My h-index is 17 and, overall, these publications have 1075 citations (Dec. 25 Google Scholar). I have the ANECA accreditation of Profesora Ayudante Doctora. I have participated in >26 Conferences, I have organized one national meeting and I am organizing an international meeting.

I aim to use plant phenology as a unifying lens to monitor ecosystem seasonality, condition and change across European habitats. By integrating field observations and vegetation data with multi-sensor Earth observation, I intend to build harmonised, comparable indicators that support adaptive conservation and management. I am exploring two general aims: (1) Characterizing habitats through spectro phenological signatures and translate them into phenology based Essential Biodiversity Variables aligned with the EUNIS framework; and (2) Quantifying multi decadal shifts in phenology and productivity, linking trends and breakpoints to climate and land use pressures to detect early warning signals of reduced resilience. I will develop reproducible workflows for time series smoothing and extracting phenological metrics, validate them against in situ vegetation data, and report uncertainty to ensure operational use. The outputs will include policy ready indicators, maps of hotspots of instability, and guidance for Natura 2000 reporting. This line consolidates my previous expertise on phenology, scaling from populations and communities to ecosystems, and bridges ecology and technology through collaborations at IMIB (University of Oviedo) and international networks.

Resumen del Currículum Vitae:

I am an enthusiastic researcher in ecology, and my main interests are: i) to study how environmental change influences biodiversity and ecosystem functioning across scales; and ii) to use plant phenology as a key trait for predicting responses to climate and land use changes. My research scales up from individuals to communities, and later, to ecosystems. I integrate field observations, long-term and large-scale datasets, and remote sensing to monitor seasonal dynamics and assess environmental impacts, with a general aim of improving ecosystem monitoring and supporting conservation and management. I carry out high-impact, collaborative and international research, and contribute to society by informing policies and fostering technology transfer.

I studied Biology (BSc, University of Oviedo 2005). In 2007, I received a competitive PhD Studentship (2007-11, University of Oviedo) to study effects of landscape change on forest herbs, and did research stays at two different institutions. After my PhD, I worked as postdoctoral researcher at Jules Verne University of Picardy (France, 2012-14), studying biodiversity and ecosystem services of forest fragments in agricultural landscapes. In 2014, I obtained a Marie Curie Cofund Fellowship to work at Stockholm University (Sweden), exploring selection on plant phenology mediated by plant-animal interactions. Later (2017-24), I continued working as a Researcher at Stockholm University, with two career breaks due to maternity leave (26.5 months in total), focusing on environmental drivers of phenology and natural selection on phenology. At the end of 2024, I came back to University of Oviedo as a Researcher at the Biodiversity Research Institute, where I am capitalizing on my previous experience on plant phenology to scale up to ecosystem-level phenology, integrating vegetation and remote sensing data.

I have spent 12 years abroad. I have authored 33 (+5 under review) peer-reviewed articles (1st author on 17/38, 2nd on 6/38), being almost all of them (97%) in the top 25% journals (CiteScore Rank, Scopus). My h-index is 17 and, overall, these publications have 1075 citations (Dec. 25 Google Scholar). I have obtained the ANECA accreditation of Profesora Ayudante Doctora. I have participated in >26 Conferences, organized one national meeting and I am organizing an international meeting. I have obtained >132k € funding from competitive calls, including 1 PhD studentship and one postdoctoral fellowship. I have been part of 15 Research Projects totaling >6 Mill. € funding, and also 1 private contract.

I have reviewed manuscripts for >20 journals. I have reviewed proposals for funding for the European Research Council (ERC Advanced Grant Calls). I have carried out >50 hours of teaching. My research has informed national/international policies (articles used >20 times in Policy Reports, Overton & Sage Policy Profiles). I have also been active in outreach activities for the general public, schools and stakeholders, and involved in a citizen science project. I have contributed to technology transfer and innovation through collaborations with private companies.



AYUDAS RAMÓN Y CAJAL – CONVOCATORIA 2025

Turno de personas con discapacidad

Nombre: *****
Referencia: RYC2025-056051-I
Área Temática: Ciencias físicas
Correo Electrónico: marta.colomer@ulb.be
Título: Studying neutrino oscillations to unveil the properties of the ghost particle

Resumen de la Memoria:

The research project proposes to study neutrino oscillations to unveil the unknown properties of neutrinos. It is divided into two topics: atmospheric neutrino oscillations, and the search for heavy neutral leptons with atmospheric neutrinos. I propose to carry out the project at IFIC, exploiting the data of the KM3NeT-ORCA detector (ORCA).

For the first topic, the work is planned as follows. In the short term, I will optimize the particle identification (track vs cascade events) performance of ORCA, and carry out a dedicated systematic uncertainty study. In the mid-term, I will perform the oscillation analysis, first using the available ORCA data, and later combining the ORCA atmospheric neutrino data with the reactor neutrino data of JUNO. In the long term, I plan to make the synergies with the study of neutrino oscillations from extreme astrophysical environments (supernovae). The main goal of this part of the project will be the determination of the neutrino mass ordering (NMO), which will have a major impact for the physics community. The project timeline fits very well with the detector completion and data-taking exposure, which may allow ORCA to be the first to perform this measurement with enough sensitivity.

For the second topic, the work will be organized as follows. In the short term, I will work on the simulation and reconstruction of the HNL signal in KM3NeT. The simulation will include from its production to its decay, and the reconstruction will aim at double-bang signature event reconstruction. In the mid-term, I will perform the search for GeV HNLs from atmospheric neutrino interactions, which may bring world-leading constraints on the HNL coupling to tau neutrinos. The analysis will be applied to the full recorded ORCA dataset. In the long term, I will extend the HNL search to lower energies (hundreds of MeV), by searching from the signature when they are produced in supernovae explosions and interact with tau neutrinos. The goal of this search will be to probe the existence and properties of a hypothetical new neutrino family, with high mass ($> \text{MeV}$) compared to the "standard neutrinos" of very light mass ($< \text{eV}$). These HNLs can shed light on the origin of neutrino masses and the matter anti-matter asymmetry in the Universe, thus this part of the project will have a relevant scientific impact.

Resumen del Currículum Vitae:

My research activities have mainly been oriented towards astroparticle and neutrino physics with neutrino detectors. During my PhD thesis (2017-2020), I worked within the ANTARES and KM3NeT collaborations. I joined the SNEWS collaboration in 2019, and I coordinate the detector response working group in SNEWS since 2021. After my PhD, I started a postdoctoral research contract in the JUNO collaboration (3 years). In 2023, I was awarded the FNRS chargé de recherche fellowship, and I am now in the 3rd year of the fellowship, finishing in 2026. During these years, I have co-authored 67 publications (17 as corresponding author), I have contributions in renowned international conferences (8 invited, 3 plenary), I have engaged in teaching duties both at Univ. de Paris and ULB, and have been involved in student supervision (at master and PhD level).

During my PhD, I worked on two topics:

1) MeV supernova neutrinos with KM3NeT, developing and implementing the analysis from scratch. I contributed to the simulation development and production, and the full analysis implementation, including the event selection, the real-time trigger, the time capabilities and the energy spectrum analysis. This worked proved that KM3NeT has the capabilities for MeV neutrino detection.

2) the search for TeV-PeV neutrinos in coincidence with gravitational-waves and gamma-ray burst triggers with ANTARES data, in the context of multi-messenger neutrino astrophysics. No neutrino was found in the data coincident with any of the sources studies, but the analysis allowed me to set constraints on their neutrino emission, with the best ANTARES limits for this kind of sources. My contribution was specially focus on the optimization of the shower and downgoing event samples.

During my postdoc, I worked on different topics within the JUNO experiment, including:

1) the first JUNO oscillation analysis: contributing to the energy scale calibration, the background evaluation, and the IBD selection.

2) the detector commissioning: cosmic muon and BiPo214 radioactivity studies.

3) atmospheric neutrino oscillations analysis (coordinator of the working group).

4) supernova neutrinos (trigger, event-selection to identify the different interaction channels, and physics analyses).

5) development of reconstruction and machine learning algorithms for GeV events with different purposes: background rejection/event selection, direction reconstruction, particle identification (identify the interaction products to infer the neutrino type: flavor, charged or neutral current, neutrino or anti-neutrino).

6) phenomenological search for heavy neutral leptons in the MeV mass range using reactor neutrinos. I performed a sensitivity study of the JUNO and TAO (JUNO close detector) capabilities for this kind of searches, showing that reactor neutrino experiments can probe a complementary parameter space with respect to solar neutrinos or beam searches.



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Turno de personas con discapacidad

Nombre: *****
Referencia: RYC2025-054377-I
Área Temática: Biociencias y biotecnología
Correo Electrónico: gquiroar@gmail.com
Título: Integrating cell biology, multi-omics and Evo-Devo through emerging model organisms

Resumen de la Memoria:

My scientific career is defined by a robust international and multidisciplinary trajectory, spanning five countries and work with both model and non-model organisms. From my PhD in the Marie Curie ITN Neptune network to my postdoctoral stages in the USA and France, I have consistently taken leadership in developing new experimental approaches, establishing emerging model systems, and integrating cell biology, Evo-Devo, and multi-omics methodologies. This progression has shaped a research profile marked by independence, advanced technical skills, and the capacity to initiate and drive projects across distinct biological systems.

During my PhD in the Marie Curie ITN Neptune network, I made fundamental contributions to the molecular control of oocyte maturation in the cnidarian *Clytia hemisphaerica*, combining developmental biology, molecular methods, and CRISPR technology to uncover conserved signaling mechanisms. In my first postdoctoral position, I helped establish *Hydractinia symbiolongicarpus* as an experimental system by developing a shRNA-based electroporation platform and identifying the role of conserved stem-cell regulators. As the first postdoc in the lab, I demonstrated leadership by conceiving and executing independent projects, resulting in first-author and co-corresponding publications. Collectively, these contributions illustrate my ability to build the technical foundations of new research lines and translate them into influential publications.

My current postdoctoral work at CRBM-CNRS represents a decisive step toward full independence. I have established the tardigrade *Hypsibius exemplaris* as a tractable system for studying cell proliferation, stress responses, and extremotolerance. I optimized culturing starting from just a few individuals and generated the first evidence that tardigrades are not eutelic, as well as new insights into their sensitivity to DNA-damaging agents. These advances led to first-author and co-corresponding publications, highlighting my capacity to define research questions, generate proof-of-concept data, and coordinate productive collaborations.

The research line I propose as a Ramón y Cajal fellow builds directly on this foundation. I aim to investigate the multifunctionality of tardigrade storage cells: lipid-rich cells uniquely suited for integrated cellular, molecular, and evolutionary analyses. By combining transcriptomics, lipidomics, proteomics, functional assays, and comparative approaches, my project will examine how these cells coordinate metabolic, immune-like, and stress-responsive pathways.

The societal impact of this project is significant, addressing challenges such as climate change adaptation and antimicrobial resistance. Insights into lipid metabolism and immune responses may guide therapeutic innovations, while tardigrade extremotolerance mechanisms could inspire biotechnological applications. This research will position Spain as a leader in the rapidly expanding field of tardigrade biology, foster international collaborations, and generate fundamental insights with translational potential.

Resumen del Currículum Vitae:

My scientific career is defined by sustained international mobility, the establishment of new experimental systems, and a consistent ability to initiate research lines that generate lasting value for the groups in which I have worked. I trained across France, the United Kingdom, the United States, Spain, and now France again, developing a multidisciplinary profile at the interface of cell biology, Evo-Devo, and -omics technologies. This trajectory has endowed me with broad technical expertise and the capacity to adapt to diverse organisms and research environments.

Across my PhD and two postdoctoral stages, a central feature of my curriculum has been the development of functional tools in emerging systems while addressing fundamental biological questions. During my PhD at Sorbonne Université (Marie Curie ITN Neptune), I combined molecular, cellular, and CRISPR-based approaches to uncover conserved mechanisms of oocyte maturation in *Clytia hemisphaerica*, producing first-author publications, including an eLife article recommended by F1000. As a postdoctoral researcher at the Whitney Laboratory (USA), I helped establish *Hydractinia symbiolongicarpus* as a tractable model, introducing an electroporation-based shRNA platform (Scientific Reports) and elucidating the role of the conserved factor GNL3 (Open Biology, cover article), serving in both cases as first and co-corresponding author.

At CRBM-CNRS, I have taken a decisive step toward independence by establishing *Hypsibius exemplaris* as an experimental system for studying cell proliferation, DNA damage responses, and extremotolerance. My work provided the first evidence that tardigrades are not eutelic (Biology Open, cover article) and revealed tissue-specific vulnerabilities to genotoxic stress. I conceptualized and led both studies. In parallel, I have established international collaborations on single-cell transcriptomics, zygotic genome activation, and stress biology.

My curriculum includes active involvement in competitive funding efforts. I provided essential data and intellectual input for major awarded projects, including the NIH MIRA R35 and NSF EDGE grants in the USA, and the MUSE TardiGreat and iPOLDystrophy projects in France. I received a Marie Curie Alumni micro-grant and have independently applied for additional grants in Europe. I have supervised undergraduate and master's students, many of whom contributed to publications. My commitment to community building is reflected in organizing workshops and symposia, as well as serving as a peer reviewer for multiple journals (Current Biology, JoVE, Integrative & Comparative Biology, Frontiers in Aging, BMC Molecular and Cell Biology).

My scientific dissemination includes conference talks and posters at international meetings, alongside outreach activities linking science and art. Collectively, these achievements demonstrate a solid and steadily advancing trajectory marked by innovation, leadership, technical versatility, and growing independence. I believe these skills directly support my application to become a Ramón y Cajal fellow.



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Turno de personas con discapacidad

Nombre: *****
Referencia: RYC2025-055042-I
Área Temática: Ciencias sociales
Correo Electrónico: balsalubarda@gmail.com
Título: Environmental political sociologist

Resumen de la Memoria:

I am an environmental social scientist specializing in environmental politics and the far right, with a strong record of international research, funding acquisition, and scholarly leadership. My contribution on "far-right ecologism" is one of the key works in the contemporary scholarship on the far right and the environment, evidenced in the reviews of my works, citations and the popular reception of the concept.

My MSCA postdoctoral project pursued at Universitat Pompeu Fabra expands this agenda by theorizing "exclusionary environmentalism," showing how environmental claims can reinforce social inequalities. This has generated a paper under review at Political Geography and a forthcoming monograph with a major university press. In addition to conceptual work, I have produced influential empirical studies including those in Nature Climate Change, Environmental Politics, Environmental Values, Sociologia Ruralis, Journal of Political Ideologies etc. These include analyses of far-right and center-right climate communication in the European Parliament, demonstrating increasing climate-change acceptance paired with policy obstruction. Further collaborations examine far-right climate narratives, right-wing populism in power, and overlaps between environmental, rural, and radical-right discourses. I am also co-editing a special issue on center-right politics of environment, set to be out next year in Environmental Politics. I have also published qualitative and mixed-methods studies on agricultural politics, pandemic-climate skepticism, and methodological challenges of researching extremist milieus. My data, coding schemes, and materials are largely open access. Beyond academic outputs, I consistently engage broader publics through media commentary, blogs, podcasts, and outreach trainings across Europe and the Balkans.

My scholarship has received significant recognition: 307,112 EUR in research funding as PI or coordinator; citations of my work in major scholarly, media and popular outlets; multiple awards (Fulbright, MSCA, Chevening, Montenegro's Best Scientist Under 30 in 2024); and membership in prestigious research networks (Global New Far Right, Emancipatory Research Politics Initiative). I also spent 6 years and 5 months at four different universities, conducting research stays (UC Berkeley, Rovigo, UPF) and degree programs (Central European University, Aberystwyth University). I also led the research section at Damar, the first private research institute in Montenegro, opening up new fields of inquiry on environment and radicalism and setting up the working group for early career researchers, among other things.

I have taught and conducted fieldwork in several countries, and led research networks, including the Ideology Research Unit at the Centre for Analysis of the Radical Right, Political Ecology of the Far Right and Montenegrin Social Sciences Working Group. In doing so, I helped organize international scholarly conferences. In addition to that, I served as a consultant for several major international organizations (EU, UNDP), contributing to the important social processes in Montenegro and beyond. My future work will deepen the analysis of mainstream environmental ideologies amid the mainstreaming of far-right ideas, building on my methodological expertise, extensive field networks, and interdisciplinary collaborations.

Resumen del Currículum Vitae:

I am currently a Marie Skłodowska-Curie Postdoctoral Fellow at the Johns Hopkins-UPF Public Policy Center, following earlier roles as Head of Research at Damar Institute in Montenegro and as a Fulbright Visiting Fellow at UC Berkeley. I graduated from Central European University in December 2021 (Summa Cum Laude), and my thesis "ethnography of far-right environmentalists" was turned into a monograph by Routledge in 2024. The book received highly positive reviews in Environmental Politics and Critique Internationale. The relevance of the concept I introduced is reflected in its citation in new editions of major environmental theory monographs (e.g., John Dryzek's The Politics of the Earth), its uptake in popular media (e.g., The New York Times, BBC Radio 4, Wikipedia's "Ecofascism"), and its extension into the forthcoming edited volume Global Far Right Ecologisms (Routledge, 2026), which I co-edit with five colleagues. I am also preparing another, third book for a major university press "monograph based on my Marie Curie Project on 'Exclusionary Environmentalisms'". I also authored 7 articles, out of which 6 in Q1 journals, 11 book chapters out of which 7 in internationally acclaimed university presses (Manchester University Press, Oxford University Press) and 2 book reviews, with 5 more forthcoming in 2026.

My work has been recognized through major awards and fellowships (Marie Skłodowska-Curie, Fulbright, Chevening, Best Scientist U30 Award in Montenegro) and my election as a Junior Fellow of the Montenegrin Academy of Arts and Sciences (2024). I have also demonstrated leadership as Head of Research at the Damar Institute (2023-2024), Head of the Ideology Research Unit at CARR (2021-2024), and as the founder of Montenegrin Social Sciences Working Group. Despite being an early-career researcher, I have secured over 300,000 EUR in competitive funding as PI or co-PI, participated in international projects as a country expert or work-package leader, and developed methodological versatility in both qualitative and quantitative approaches across seven European countries.

I also have an extensive record of public engagement, through podcasts (e.g., Harvard Belfer Center, RevDem), blog posts (OxPol, The Loop), media commentary (The New York Times, BBC Radio, Politico), public lectures, panels, and trainings for environmental activists. I have received more than 20 invitations for keynotes, webinars, visiting lectures, and podcasts; over 50 invitations to review for leading journals (including Nature Climate Change, Environment and Planning E, Geoforum, Party Politics, Patterns of Prejudice); and invitations to review projects for the Hungarian and Polish Academies of Science. Moreover, I applied my expertise as a consultant for the United Nations Development Programme and was frequently invited by the European Commission's EU Knowledge Hub to speak on radicalization prevention. I also organized the CARR Ideology Research Unit's interview series with leading scholars, strengthening communication between academics and practitioners.

I also actively support the development of young researchers, drawing on formal pedagogical training (CEU Teaching and Learning in Higher Education Certificate). I have supervised seven MA students and serve on two doctoral committees (Central European University and Universitat Autònoma de Barcelona).



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Turno de personas con discapacidad

Nombre: *****
Referencia: RYC2025-056441-I
Área Temática: Ciencias agrarias y agroalimentarias
Correo Electrónico: ceciliaolivervelasco@gmail.com
Título: Metabolism of RNA during meiosis and DNA damage response in plants

Resumen de la Memoria:

Cecilia Oliver began her research career in Santos and Pradillo lab (UCM, Spain) working on characterizing the meiotic process in *Arabidopsis thaliana* (López et al., 2011) and localizing histone modifications during plant meiosis (Oliver et al., 2013). CO focused on the role of sRNAs during meiosis (Oliver et al., 2016; Oliver et al., 2014, corresponding author; Oliver et al., 2017) and also worked on other projects about *Arabidopsis* meiosis (Kurzbauer et al., 2018; Pradillo et al., 2014 and 2015) and established a collaboration with A Probst for working about 5S rDNA (Simon et al., 2018). In 2016 CO moved to de Massy lab (IGH, France) for continuing working on meiosis but changing the model organisms (mice), with the aim to widening her technical portfolio with biochemical techniques that will be crucial for her future research (Kumar, Oliver, Brun et al., 2018). In 2019, she moved to Martinez Lab (SLU, Sweden) focusing her career on plants and the role of small RNAs during pollen development (Oliver et al., 2022). Moreover, she led a project about the role of ARGONAUTE proteins on *Arabidopsis* meiosis (Oliver and Martinez 2022, CA). In 2021, she joined the CIALE (Spain) as Research associate establishing a fruitful collaboration with O Lorenzo (OL) and M Calvo-Polanco (MCP) (Mata-Pérez et al., 2023). She obtained a MSCA-COFUND fellowship working on the relationship between nitric oxide and small RNAs and she have also established a collaboration with S Farrona (University of Galway, Ireland) about the role of epigenetic repressors in DNA repair and meiosis.

CO aims to open her own research group working on RNA metabolism and its role on meiosis and DNA damage response in plants. With this project she will combine her previous research with new techniques opening new perspectives in this field. RNA metabolism plays a key role in vital processes including growth, development and stress responses in plants. Meiosis is a vital process as it occupies a central role in the life cycle of sexually reproducing eukaryotes and it plays an important role on agronomy due to its implication on plant fertility. Meiosis is a specialized type of cell division that diploid cells undergo to produce haploid gametes. To ensure the proper segregation of homolog chromosomes ~200 DNA double-stranded breaks (DSBs) are formed and repaired. The formation of this amount of DSBs represents a stress as the failure to repair compromises the genome integrity. Preliminary results of CO revealed that RNA-metabolism components are present during first meiotic stages, probably in response to DSB formation. This results highlights the possible role of RNA metabolism machinery on DNA damage response, for this reason this project will explore the precise role of mRNA metabolism during both meiosis and DNA damage response in plants, using the plant model *Arabidopsis* and a plant with agronomic interest, *Brassica napus*. This will open new venues for future research lines to be developed by CO's independent research group centered on the crosstalk between DNA damage and climate change and the effect on the increase of UVB and other chemicals as consequence of ozone decrease and pollution increase respectively. This project will be the starting point for a new research focus on the plant response against climate change to maintain genome stability and DNA repair.

Resumen del Currículum Vitae:

After CO defended her PhD in 2013 (UCM, Spain), she has stayed in five different labs, three internationals and two nationals. (1) In 2014 she went for three months to GReD (France) to Probst lab for establishing a collaboration (Simon et al 2018). (2) In 2016 CO moved for three years to IGH (France) to de Massy lab (Kumar, Oliver, Brun et al., 2018). (3) In 2019 she went to SLU (Sweden) to Martinez lab (Oliver et al., 2022; Oliver and Martinez, 2022). (4) In 2021 CO came back to Spain, to CIALE-USAL (Spain; Mata-Perez, 2023). (5) Finally in 2025 she went to IRNASA-CSIC (Spain)

During her research career CO has published 13 articles all of them Q1, 11 of which are original research papers and 2 reviews. From the 11 original research papers CO is first author of 7 and corresponding author of 2 of them. Moreover, she has presented her work in 22 congresses, from which 17 of them were international and five nationals, and nine of them were oral presentations and 13 poster presentations. Even more, in three occasions she had the opportunity to organize dissemination events or scientific meetings (one and two respectively), organizing the Fascination of Plants day in Salamanca (Spain, 2022), the Technical Workshop of the MEIOSys consortium (FP7), UCM (Spain, 2012), and The Students and Postdocs meiosis workshop (France, 2018) and 1st International Agrienvironment Symposium (Spain, 2023)

She has participated in several national and international projects mainly European projects. Importantly she has been PI of a project in 2022, entitled Elucidating the role of IBM1 in epigenetic regulation of meiosis in *Arabidopsis thaliana*, from the Foundation in Memorial to Solórzano Barruso (2.300 €) and now she is PI of a MSCA-COFUND project, from 2022 to 2025 for the project Deciphering the crossroads between NO and sRNA in early plant development (168.900,00 €).

Along all these years, CO has established fruitful collaborations with international and national researchers: H. Puchta, MR Ponce, P. Schögelhofer, J Kadlec, C Kolher and K Slotkin (Pradillo et al., 2015; Oliver et al., 2017; Kurzbauer et al., 2018; Kumar, Oliver, Brun et al., 2018; Oliver et al., 2022 respectively) in 2014 with A Probst (Simon et al., 2018), in 2021 with O Lorenzo (Mata-Perez et al., 2023), and also with Mónica Calvo-Polanco and Sara Farrona.

She obtained the docent accreditation for (ANECA). In UCM, she was involved in the mentoring of two master student (MS) and five Bachelor students. and in the CIALE, CO has co-supervised three MSc. Finally, she has been involved in several evaluation committees and she has recently been evaluator for MSCA-PF-2025.