CURRICULUM VITAE

PERSONAL INFORMATION

Ana I. Caño-Delgado, PhD
CRAG Distinguished Investigator
Elected EMBO Member
Centre de Recerca en Agrigenòmica (CRAG)
Campus UAB, Cerdanyola del Vallès (08193)
Barcelona- Spain.

Tel: +34 93 563 66 00 Ext. 3210
Mobile Phone: + 34 646 688 212
E-mail: ana.cano@cragenomica.es

Date of birth: 5th November 1972
Nationality: Spanish – mother of 2 kids (2010 y 2012)
Sitio Web URL: https://www.cragenomica.es/staff/ana-i-cano-delgado
CODIGO ORCID: http://orcid.org/0000-0002-8071-6724
Twitter: @Ana_CanoDelgado
Linkedin: https://www.linkedin.com/in/ana-caño-delgado-11711933/

- **SHORT BIOGRAPHY**

Ana I. Caño-Delgado is a Distinguished Investigator and founder of PLANeT BIOTECH the first spin off at the Centre for Research in Agricultural Genomics (CRAG, Barcelona, Spain. She did a PhD in Biology at John Innes Centre (UK) and was a HFSPO Postdoctoral Fellow at Salk Institute (USA). She is internationally recognized for publishing numerous groundbreaking scientific publications, has received awards in science and entrepreneurship and is an elected EMBO Member since 2016. She is considered one of the 500 most-influencing women in Spain. At CRAG, she leads the "Brassinosteroid signaling group" supported two consecutive times by the European Research Council (ERC) grants to engineering crops able to grow on severe drought. These achievements are the results of two decades of studies in plant steroid hormones, in which she pioneers the study of signaling mechanisms with cell-specificity. In the context of a climate emergency, her lab works for the translation of these results to crops, including social cereal Sorghum. In addition, Caño-Delgado is an engaged science communicator chasing two specific goals: encouraging women in science leadership and acceptance of genomic edition tools for sustainable agriculture.

• EDUCATION

6/2015	Lean Startup Entrepreneurship Course, Haas School of Business, University of California, Berkeley, USA.
10/2014	Direction and Management of StartUps, "Formación de Dirección de Empresas del Programa Emprendores", EcoEmprendedor XXI Program, ESADE Business & Law School, Barcelona.
7/2001	Ph.D. in Biology, John Innes Centre, University of East Anglia (UEA), United Kingdom.
6/1996	Licenciada en Biología. Universidad de Alcalá (UAH), Madrid, Spain.

• INSTITUTIONAL RESPONSIBILITIES AND SCIENTIFIC SERVICE

2023- now	Co-founder and Scientific Advisor of PLANeT BIOTECH SL (CRAG/Eureka, UAB Campus)
2023	FCYT and AGAUR trainee for European Research Council (ERC) Consolidator Grant applicants.
2022	Panel Member at the European Research Council (ERC) Consolidator Grants. Panel LS9
2022- now	Co-Founder and Research Director of a INVAIO Sciences subsidiary in Spain (Eureka Building, UAB Campus).
2021- now	Member of the Scientific Advisory Board at European Federation of Biotechnology (EFB), Division Plant, Agriculture and Food.
2020- 2022	Member of the Scientific Advisory Board at INVAIO Sciences (Flagship Pioneering, Boston, USA)
2020	Topic Editor -Frontiers in Plant Science. Plant Science's Contribution to Fighting Viral Pandemics: COVID-19 as a Case Study. (over 150,000 views)
2019&2020	Lectures to project managers and directors of research institutes: "Disruptive proposals for ERC applications". Convenio de colaboración Consellería Educación / FEUGA. Acción 2. Programa GOSCI. Santiago de Compostela, Spain.
2019- 2023	Programme Coordinator Plant Development and Signal Transduction at CRAG
2018	Member of the advisory board at ICAR 2018, Wuhan, China.
2017- present	Distinguished Investigator contract at CRAG, Spain
2016	Evaluator of "Juan de la Cierva" Program. Spanish Ministry of Education and Science.
2015-2016	Visiting Professor, Genetics Institute, University of Florida, Gainesville, USA.
2014-now	Member of the Multinational Arabidopsis Steering Committee (MASC) in representation of Spain.
2013-now	Teaching ¨Career Paths in Science", Master of Advance Genetics, UAB, Barcelona. Spain.
2018-2019	Teaching ¨Career Paths in Science", Máster Oficial Biotecnología Avanzada, UIA, Malaga, Spain.
2023	Teaching ¨Career Paths in Science", Máster Biotecnología, UCO, Cordoba. Spain
2013-now	Coordinator of the Plant Biology section at the Catalan Society of Biology (SCB).
2012-2014	Founder Member of the Business Development Committee, CRAG, Barcelona, Spain.
2010	Evaluator of "Ramón y Cajal" Program. Spanish Ministry of Education and Science.
2009	CSIC Investigator (since 2017 on leave permit)
2004–2009	Contract "Ramón y Cajal Junior Group Leader, IRTA, Barcelona, Spain.
2009–now	Member of the Spanish Society of Plant Physiology, SEFV.

2008–2011	PhD committee member of J. Pizon (Director: E. Russinova, VIB, Ghent, Belgium).
2005–2007	Organizer of the Internal Seminars, Consorcio CSIC-IRTA/ Barcelona/ Spain.
2004–now	Evaluation of Research Projects and Research Programs: Juan de la Cierva, Ramón y Cajal and Spain ANEP, ANR, FWO, BBSRC. Projects, LABEX "Laboratories of excellence" - ANR (French Research Funding Agency), ANG-Genoplante, BBSRC, German-Israel grants, VIB grants (Belgium), and ERC StG and CoG.
2001–2004	HFSP Postdoctoral Long-Term Fellow (LTF), The Salk Institute, La Jolla, California, US.
2000–2001	Postdoctoral Contract at the John Innes Centre, UK
1997–2000	PhD Fellowship, John Innes Foundation, UEA, Norwich, UK
1996–1997	ERASMUS Fellow, University of East Anglia (UEA), Norwich, UK
1995	Undergrad fellow at the Botanical Garden, UAH, Madrid, Spain.

- **FELLOWSHIPS, AWARDS AND HONOURS**

2023	PLANeT BIOTECH award for being among the two most innovative start ups at UAB Campus.
2023	Finalist of Catalonia Exponential Leaders. ACCIO, Generalitat de Catalunya
2022	International Science Award from the "**Scandinavian Society of Plant Physiology**" (under press embargo).
2020	National Award "**Mujeres a Seguir**" (MAS, Women to Follow Award 2020) in the Science category.
2018	Member of Faculty1000. Word leading researcher across biology and medicine.
2016	Elected member of the **European Molecular Biology Organization** (EMBO).
2014	3rd Prize for **Entrepreneurship Program"EcoemprenedorXXI**", prize for Entrepreneurship in Biotechnology, Barcelona City Council, Barcelona Activa, Spain.
2014	Finalist of Entrepreneurship Award of Generació D`ideas (UAB, Barcelona) with AG tech project.
2006	Young-Biologist National Award "**J.M. Sala Trepat**", Catalan Society of Biology, Spain.
2005-2008	Career Development Award (CDA) from HFSPO (Human Frontiers Science Program Organization) (CDA07/2004)
2004 –2009	"Ramón y Cajal" contract from MICCIN (Ministerio de Ciencia e Innovación)
2001	**Human Frontiers Science Program**, (HFSP) Long-Term Postdoctoral Fellowship
1997–2000	John Innes Foundation PhD Fellowship, John Innes Centre, Norwich, UK
19961997	ERASMUS Undergraduate Fellowship, Univ. Alcalá de Henares, Madrid, Spain.

- **PUBLICATIONS IN INTERNATIONAL PEER REVIEWED JOURNALS**

More than 80 scientific publications in high quality journals, the majority as corresponding author. Here, I include the 30 most relevant and recent publications from the last 15 years. The publications can be accessed at: https://www.ncbi.nlm.nih.gov/pubmed/?term=caño-delgado: (*last and corresponding author). A total of 55 ISI articles with >6000 citations.

1. Gupta A., Lozano-Elena, F., Marquès-Bueno M., Fàbregas, N., Rico-Medina A., Fontanet J., Fernie A., and Caño-Delgado A.I.* (2023) Brassinosteroid receptor BRL3 triggers systemic plant adaptation to elevated

temperature from the phloem cells. (doi: https://doi.org/10.1101/2023.03.07.531487; CURRENT-BIOLOGY-D-23-00999, 2nd revision).

2. Planas Riverola, Rico-Medina, A., A., Lozano-Elena F., Lopez- Jimenez, A., Fontanet-Manzaneque, J- B and Caño-Delgado A.I.* (2024). Inhibitor role of BRL3 brassinosteroid receptor in DNA repair mechanisms in the Arabidopsis root meristem (2nd revision, DEVELOPMENTAL-CELL-D-23-00611).
3. Fontanet-Manzaneque, J- B., Laibach, N., Herrero-García, I., Coleto-Alcudia,V., Blasco-Escámez, D., Zhang, C., Orduña, L., Alseekh, S., Miller, S., Bjarnholt, N., Fernie, A., Merz, P., Caño-Delgado, A.I*. Plant and Untargeted mutagenesis of brassinosteroid receptor SbBRI1 confers drought tolerance by altering phenylpropanoid metabolism in Sorghum bicolor. Plant Biotechnology Journal,. (under revision, PBI-01288-2023), IF:.13.2.
4. Coleto-Alcudia V., Lozano-Elena F., Vera G., Betegón-Putze I., Gupta A., Efroni I., and Caño-Delgado A.I. * (2024). TOTEM: A web tool for tissue-enrichment analysis on gene lists. (submitted).
5. Marquès-Bueno M.M., Herrero-García I., Pistillo S., Gupta A., Lozano-Elena F., Blasco-Escámez D., Karampelias M., Fàbregas N., Strotmann V., Stahl Y., and Caño-Delgado A.I.* (2024, submitted). Dehydrin ERD14 chaperones brassinosteroid receptor kinase BRL3 to confer drought resistance in plants. (submitted)
6. Miller, S., Rønager, A., Holm R., Fontanet-Manzaneque JB., Caño-Delgado, A.I., Bjarnholt,, N.(2023), New methods for sorghum transformation in temperate climates. ***AoB Plants***. Jun 3;15(3):plad030. doi: 10.1093/aobpla/plad030.
7. Mercadal J, Betegón-Putze I, Bosch N, Caño-Delgado AI, Ibañes M.BRAVO self-confined expression through WOX5 in the Arabidopsis root stem-cell niche. (2022) ***Development*** 1;149(15):dev200510. doi: 10.1242/dev.200510.
8. Benítez-Alfonso, Y., Caño-Delgado A.I.* (2023). Brassinosteroids en route. ***Nature Chemical Biology*****,19**, pages 1294–1295. Article Accesses: 880. Citations: 3. IF: 14.8.https://doi.org/10.1038/s41589-023-01367-6.-
9. Lozano-Elena, F, Coleto V., Fàbregas, N and Caño-Delgado, A.I*. (2022) Analysis of metabolic dynamics during drought stress in Arabidopsis plants. ***Scientific data***,. doi: 10.1038/s41597-022-01161-4. IF:9.8
10. Caño-Delgado, A. I., Ponz, F., Avesani, L.,eds. (2022). Plant Science's Contribution to Fighting Viral Pandemics: COVID-19 as a Case Study. Lausanne: ***Frontiers Media SA***. doi: 10.3389/978-2-88974-157-1.
11. Mecchia, M., García-Hourquet, M., Lozano-Elena, F., Planas-Riverola, A., Blasco-Escamez, D., Marquès Bueno, M., Mora-García, S., Caño-Delgado A.I.* (2021). TheBES1/BZR1-family transcription factor MpBES1 regulates cell division and differentiation in Marchantia polymorpha. ***Current Biology*** 31 (21), 4860-4869. e8. Citation:14. IF:10.9. https://doi.org/10.1016/j.cub.2021.08.050
12. Betegón-Putze I., Mercadal J., Bosch N., Planas-Riverola A., Marquès-Bueno M., Vilarrasa-Blasi J., Frigola D., Burkart RC., Martínez C., Conesa A., Sozzani R., Stahl Y, Prat S., Ibañes M., Caño-Delgado A.I.* (2021). Precise transcriptional control of cellular quiescence by BRAVO/WOX5 complex in Arabidopsis roots. ***Mol Syst Biol.*** **17**(6): e9864. doi: 10.15252/msb.20209864. IF:11.4.
13. Gupta A., Rico-Medina A. and Caño-Delgado A.I.* (2020**)**. The Physiology of Plant Responses to Drought. ***Science***, 368(6488):266-269. doi: 10.1126/science.aaz7614. Downloads: 18.144, Citations: 1094. IF: 41.6.
14. Ferreira G., Marqués-Bueno B., Mora García, S., and Caño-Delgado A.I.* (2020). Delving into the evolutionary origin of steroid sensing in plants. ***Curr Opin Plant Biol.*****;** 57:87-95. doi: 10.1016/j.pbi.2020.06.005. IF:7.5

15. Martignago D, Rico-Medina A, Blasco-Escámez D, Fontanet-Manzaneque JB, Caño-Delgado A.I.* (2020) Drought Resistance by Engineering Plant Tissue-Specific Responses. ***Front Plant Sci***. Jan 22;10:1676. doi: 10.3389/fpls.2019.01676. Review. Citation: 109. IF: 4.1.
16. Lozano-Elena F, Caño-Delgado AI.* (2019) Emerging roles of vascular brassinosteroid receptors of the BRI1-like family. ***Curr Opin Plant Biol.*** 51:105-113. doi: 10.1016/j.pbi.2019.06.006. IF:7.4
17. Betegón-Putze I, González A, Sevillano X, Blasco-Escámez D, Caño-Delgado AI. *(2019) MyROOT: a method and software for the semiautomatic measurement of primary root length in Arabidopsis seedlings. ***Plant Journal*** 98(6):1145-1156. doi: 10.1111/tpj.14297. Citation:8. IF:5.8
18. Planas-Riverola A, Gupta A, Betegón-Putze I, Bosch N, Ibañes M, Caño-Delgado AI.* (2019) Brassinosteroid signaling in plant development and adaptation to stress. ***Development***. 146(5). pii: dev151894. doi: 10.1242/dev.151894. Citation: 138. IF:5.8.
19. Fàbregas, N.*, Lozano-Elena, F.*, Blasco-Escámez, D., Tohge, T., Martínez-Andújar, C., Osorio, S., Bustamante, M., Riechmann, J.L., Conesa A., Pérez-Alfocea, F., Fernie, A.R., Caño-Delgado, A.I*. (2018).
20. Overexpression of vascular receptor BRL3 confers drought resistance without penalizing growth. Nature Comms. 9, 4680. ***Nature Comms***. 9, 4680. (doi: 10.1038/s41467-018-06861-3). Citation: 75. IF: 12.35.
21. Pavelescu, I., Vilarrasa-Blasi, J., Planas-Riverola, A., González-García, M.P., Caño-Delgado, A.I.*, Ibañes, M.* (2018) A Sizer model for cell differentiation in Arabidopsis thaliana root growth. ***Mol. Syst. Biol.*** Jan 10;14(1):e7687. (doi: 10.15252/msb.20177687). Citation: 25. IF: 10.87
22. Lozano-Elena, F., Planas-Riverola, A., Vilarrasa-Blasi, J., Schwab, R., Caño-Delgado, A.I* (2017) Paracrine brassinosteroid signaling at the stem cell niche controls cellular regeneration. ***J Cell Sci.*** 29;131(2). pii: jcs204065. (doi: 10.1242/jcs.204065). Citation: 22. IF: 4.6
23. Espinosa-Ruiz, A., Martínez, C., de Lucas, M., Fàbregas, N., Bosch, N., Caño-Delgado, A.I., Part, S. (2017) TOPLESS mediates brassinosteroid control of shoot boundaries and root meristem development in Arabidopsis thaliana. ***Development*** 144, 1619-1628 (doi: 10.1242/dev.14321) IF:5.4.
24. Blasco-Escámez D, Lozano-Elena F, Fàbregas N, Caño-Delgado A.I.* (2017) The Primary Root of Sorghum bicolor (L. Moench) as a Model System to Study Brassinosteroid Signaling in Crops. ***Methods Mol Biol***. 1564:181-192. (doi: 10.1007/978-1-4939-6813-8_15).
25. Fàbregas N, Formosa-Jordan P, Ibañes M, Caño-Delgado A.I*. (2017) Experimental and Theoretical Methods to Approach the Study of Vascular Patterning in the Plant Shoot. ***Methods Mol Biol.*** 1544:3-19. (doi: 10.1007/978-1-4939-6722-3_1).
26. Salazar-Henao JE1, Lehner R, Betegón-Putze I, Vilarrasa-Blasi J, Caño-Delgado AI*. BES1 regulates the localization of the brassinosteroid receptor BRL3 within the provascular tissue of the Arabidopsis primary root. (2016) ***J Exp Bot.*** **Sep**;67(17):4951-61. (doi: 10.1093/jxb/erw258). Citation: 22. IF:5.8
27. González-García, M.P., Pavelescu, I., Canela, A., Sevillano, J., Leehy, K., Nelson, A, Shippen D., Blasco, M. and Caño-Delgado, A.I*. Telomere length gradients preserve the meristematic potential and stem cell function in the root of Arabidopsis thaliana. (2015) ***Cell Reports*** (11(6):977-89. doi: 10.1016/j.celrep.2015.04.013. 2. IF:7.8.
28. Fàbregas, N., Formosa-Jordan, P., Confraria, A., Caño-Delgado, A.I.* and Ibañes, M*. Auxin influx carriers control vascular development in Arabidopsis. (2015) ***Plos Genetics*** (11(4): e1005183. doi: 10.1371/journal.pgen.1005183. Citation: 60. IF:6.8.
29. Vilarrasa-Blasi J., González-García M.P, Frigola D., Fàbregas. N., Alexiou K, López-Bigas N., Rivas, S., Jauneau A., Lohmann J U., Benfey P., Ibañes M. and Caño-Delgado, A.I.*(2014) ***Developmental Cell*** 'Regulation of plant stem cell quiescence by a Brassinosteroid signaling module'. 30(1):36-47. Citation: 127. IF: 14.49

30. Monforte AJ, Diaz A, Caño-Delgado A, van der Knaap E. The genetic basis of fruit morphology in horticultural crops: lessons from tomato and melon. (2014) ***J. Exp. Bot***. Aug;65(16):4625-37. doi: 10.1093/jxb/eru017. Review. Citation: 152. IF: 5.8
31. Fabregas, N, Li, N, Boeren, S., Nash, T.E., Goshe, M.B., Clouse S.D., de Vries S. and Caño-Delgado, A.I*.(2013). "Specific roles for BRL3 signalosome complex in Arabidopsis root development". ***Plant Cell***, IF 2012: Citation:70. IF: 10.9.
32. Caño-Delgado, A.I. *. Blázquez MA. (2013) Spatial control of plant steroid signaling. ***Trends Plant Sci.*** (5):235-6. doi: 10.1016/j.tplants.2013.01.005. Epub 2013 Feb 4. Citation: 10. IF: 12.9
33. Irani, N. G., Di Rubbo, S., Mylle, E., Pizon, J., Van den Begin, J., Hniliková,J., Šíša, M., Szatmári, A., Vilarrasa Blasi, J., Van Damme,D., Kohout, L., Strnad, M., Caño-Delgado, A.I., Madder, A., Friml,J., Russinova E. (2011) 'Control of brassinosteroid signalling from the plasma membrane by clathrin- and ARF GEF-dependent endocytosis'. ***Nature Chemical Biology.*** 8(6):583-9. Citation: 185. IF: 14.690.
34. González-García, M. P., Vilarrasa-Blasi, J., Zhiponova, M., Divol, F., Mora-Garcia, S., Russinova, E. and Caño-Delgado, A. I. * (2011) 'Brassinosteroids control meristem size by promoting cell cycle progression in Arabidopsis roots', ***Development*** 138(5): 849-59. (COVER) Citations: 404, IF:7.476.
35. Caño-Delgado, A. I. *, Lee JY, Demura T. Regulatory mechanisms for specification and patterning of plant vascular tissues. ***Annu Rev Cell Dev Biol.*** 26:605-37. doi: 10.1146/annurev-cellbio-100109-104107. Review. Citation: 125. IF: 18.65.
36. Ibañes M, Fàbregas N, Chory J, Caño-Delgado, A. I. * (2009) Brassinosteroid signaling and auxin transport are required to establish the periodic pattern of Arabidopsis shoot vascular bundles. ***Proc Natl Acad Sci USA.*** 106(32):13630-5. doi: 10.1073/pnas.0906416106. Citation: 161. IF: 11.78

- **PATENTS**

Patent 1.
Inventors: Caño-Delgado A.I., Fàbregas N. (CSIC/CRAG)
Title: **'A method for improving the water-use efficiency and drought tolerance in plants**'. Application Number: P6049951EP; Country of Application: Europe. (Priority May 2014). Field of Invention: The current invention relates to the field of plant biology, breeding and agriculture. The invention also relates to methods of generating a drought resistant plant or improving water use efficiency in plants, in particular methods involving down regulating brassinosteroid signaling.
Valorization work: LLAVOR Project 2015, Valortec2014, Generació D´idees Program 2014, EcoEntreneurs Program 2014 (see projects section).

Patent 2.
Inventors: Caño-Delgado A.I., Gupta A., Lozano F. (CRAG)
Title: **'A method for modulating plant adaptation traits'.** Application Number: P6100130EP, Country of Application: Europe, EP patent application no. 21382498.0 (Priority June 2021). Field of the invention: The current invention relates to the field of plant biology, breeding and agriculture. The invention relates to methods of generating a plant comprising expressing the BRL3 pathway in phloem tissues of said plant.
Valorization work: Grant ´CaixaValidate´ (starting date: 10/2021).
Licenced to StartUp PLANeT BIOTECH (2023).

Patent 3. Inventors: Caño-Delgado A.I. et al. Title: **Natural lipid particle formulations for uptake of an active agent by a plant.** Country of Application: USA (Filed PCT; Priority date: February 2024). Field of the invention: The current invention relates to the fields of plant biology, crop protection and agriculture.

- **COMPETITIVE RESEARCH PROJECTS**:

Since 2005 I have attracted >6Mill. Euro funding from Competitive Research Projects as PI to my lab at CRAG. In addition of being guarantor IP of the two Severo Ochoa Institutional grants awarded to CRAG.

Active projects as PI:

1. **ERC PoC Grant 2022**- Title: **"Products for pLant AdaptatioN to Elevated Temperatures: mitigating crop losses caused by climate change"**)". Funding agency: European Commission (European Research Council-Consolidator Grant). Dates: 11/2023-11/2024. Awarded with: 150.000,00€. Participation as: P.I.
2. **BIO2020-(PID2020-118218RB-I00) Ministerio de Economía y Competitividad, Spain** (Programa de Excelencia). Title: Decoding Brassinosteroids signaling in single stem cells of Arabidopsis. Evolutive implications in plant development (Awarded: 200.000 Euro +indirect cost) Period: 09/2021-08/2023.
3. **INNNVAL20/34**. Anti-fibrotic treatment for SARS-CoV2 infected lungs. Financing entity: Cantabria Regional Collaborative Project. PIs: A.V. Vilar-Ramos (CSIC), M. Blasco (CNIO) and Ana I. Caño-Delgado (CRAG) Awarded 25,000 Euro. Period: 11/2020-10/2021.
4. **H2020 INVITE**: INnovations in plant Variety Testing in Europe to foster the introduction of new varieties better adapted to varying biotic and abiotic conditions and to more sustainable crop management practices. Project coordinator: INRA- CRAG PI: Ana I. Caño-Delgado. Financing entity: H2020-SFS-2018-2020. Period: 2019-2024. SEP-210492810. Funding: 639,000€ (approx. 47K Euro to A.C.-D. lab).
5. **ERC Consolidator Grant**-683163 (H2020). Title: IDRICA: "Improving plant resistant to DRought In Crops and Arabidopsis". Funding agency: European Commission (European Research Council-Consolidator Grant). Dates: 11/2016-4/2022. Awarded with: 2.000.000,00€. Participation as: P.I.
6. **EX2019-000902-S - SO2 «Centros de Excelencia Severo Ochoa» to CRAG** – Funding agency: Ministerio de Economía y Competitividad. Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/2020 to 12/2023. Awarded with: 4.000.000,00€. Participation as: guarantor P.I

Previous projects as PI:

7. EU FRAMEWORK PROGRAM FP7. Developing an European American NGS Network (DEANN). FP7-PEOPLE-2013-IRSES (Awarded 87000 Euros to A.C-D lab) 2015-2017,
8. BIO2016-78955. Title: "BASES MOLECULARES DE LA SEÑALIZACION MEDIADA POR BRASSINOSTEROIDES EN LAS CELULAS MADRE DE ARABIDOPSIS". Funding agency: Ministerio de Economía y Competitividad (Programa de Excelencia). Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/01/2017-31/12/2020. Awarded with: 220.000,00€. Participation as: P.I.
9. BIO2013-43873-P. Title "REGULACIÓN ESPACIOTEMPORAL DE LA RUTA DE BRASINOSTEROIDES EN LAS CÉLULAS MADRE". Funding agency: Ministerio de Ciencia e Innovación. Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/01/2014-31/12/2016. Awarded with: 254.100,00€. Participation as: P.I.
10. BIO2010-16673. Title: "SEÑALIZACION DE BRASINOSTEROIDES DURANTE EL DESARROLLO VASCULAR DE ARABIDOPSIS THALIANA". Funding agency: Ministerio de Ciencia e Innovación. Affiliation: CENTRE

DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/01/2011-31/12/2013. Awarded with: 229.900,00 €. Participation as: P.I.

11. BIO2008-00505. Title "SEÑALIZACIÓN POR BRASSINOSTEROIDES DURANTE EL DESARROLLO VASCULAR EN ARABIDOPSIS THALIANA". Funding agency: MINISTERIO DE EDUCACIÓN Y CIENCIA. Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates:01/01/2009-31/12/2010. Awarded with: 145.200,00€. Participation as: P.I.
12. PITN-GA-2008-215118. Title: "BRAVISSIMO: BRAssinosteroid Venture Increasing StudentS' International MObility". Funding agency: European Commission: Marie Curie Initial Training Networks (ITN). Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/09/2008-31/08/2012. Awarded with: 1.950.000,00 €. Participation as: P.I.
13. SEV-2015-0533. Title: Centros de excelencia "Severo Ochoa". Funding agency: Ministerio de Economía y Competitividad. P.I.: José Luis Riechmann. Affiliation: CENTRE DE RECERCA EN AGRIGENOMICA CSIC-IRTA-UAB-UB (CRAG). Dates: 01/01/16-31/12/19. Awarded with: 4.000.000,00€. Participation as: guarantor P.I.
14. EU FRAMEWORK PROGRAM FP7-PEOPLE-ITN-2008-215118-"BRAssinosteroid Venture Increasing StudentS'International Mobility" European Commission 2008-2012. (150.000 Euros)
15. EU FRAMEWORK PROGRAM FP6-ERCG-CT-2006-038335 MOBSIV "Modelling Brassinosteroid Signalling in Vascular development" European Commission 2006-2007.
16. Contrato de Investigator "Ramón y Cajal"- Junior Group Leader Position: "Ramón y Cajal" 2003 MICINN, Spain 2004-2009.
17. Human Frontiers Science Program Career Development Award HFSP CDA-007/2004 HFSP 2005-2008, (Awarded: 180.000 US $).

- **TECHNOLOGY TRANSFER CONTRACTS AND PHYLANTROPIC PROJECTS**:

Projects as PI:

1. **Research Contract with INVAIO Sciences at CRAG** (2024-2026): Uptake and Biodistribution analysis of Lipid Nano particles in Plants (Awarded: 600.000 €.).
2. **AGAUR-PRODUCTE 2022**. Generatitat de Catalunya (Awarded: 100.000 €). Project: EARTH 2.0 "Enable Agricultural Resilience when Temperatures are High".
3. **Caixa Impulse Validate 2021**´. Project: EARTH "Enable Agricultural Resilience when Temperatures are Hight". (Awarded: 100.000 €).
4. **Philanthropic Project**: "Fundación RENTA Corporation", from a company that builds luxury buildings. Project: "Biotechnological Applications of kinase receptors in Agriculture" (Awarded: 268.000 €). (2013-2015). This funding was key to set the scientific and technological bases from later ERC CoG IDRICA.
5. (2013-2015) **Several contract Services to National Biostimulant Companies**: Fertiberia (CDTI), Bioiberica, Arvensis Agro. Seed project to set a CRAG Facility. Expertise: Efficacy using Root analysis. Key revenue to maintain team members contracts when there was no public funding available due to Spanish economic crisis. Seed project for transference collaborative project with IRTA funded by the Spanish Ministry in 2016.

- **INVITED SCIENTIFIC SEMINARS**

Below selected representative conferences in the last 12 years.

10/2024	Invited Speaker Plant Biology Series, Buenos Aires, Argentina.
6/2024	Chair and invited speaker of the ISPMB conference, Queensland, Australia.
05/2024	Invited seminar at FHNW, Basel, Switzerland, Host: Sebastian Wendeborn
05/2024	Invited seminar at KAUST, Saudi Arabia. Host: Brande Wulf.
12/2023	Invited seminar at "Casa de la Ciencia CSIC", Valencia. Host: Jose Pio Beltrán
10/2023	Regulation of New Genomic Techniques in Agriculture, SDG, Brussels, European Commission.
08/2023	Organizer and Invited Speaker at the IV International Brassinosteroid Conference, Ghent, Belgium.
06/2023	Speaker. (seminar by Juan Fontanet). Global Soghum Conference, Montpellier (France)
04/2023	Invited speaker at SFN23 Conference (Freising, Germany)
6/2022	Organizer and Chair of the EMBO workshop "Molecular Responses of Plants Facing Climate Change". Montpellier, France.
9/2021	Speaker at the XXXIII Argentinian meeting of Plant Physiology, (RAFV2021), Mendoza, Argentina. (online)
08/ 2021	Speaker at the "Cono Sur" seminar series, Chile. (online)
6/2021	Lecture at the IHSM La Mayora, Malaga, Spain.
06/2021	Speaker at the Systems Biology CPSBB meeting, Bulgaria. (online)
06/2021	Speaker at the "Plant Science for Climate Emergency", VIB, Ghent, Belgium. (online)
02/2020	Lecture at the Univ. Helsinki, Finland.
01/2020	Speaker at the "Plant hormones" meeting, VISCEA, Vienna, Austria.
12/2019	Lecture at the John Innes Centre, Norwich, UK.
09/2019	Speaker at the" R&I Days" Horizon Europe, ERC STOA event 'Empowering scientists to dream the future–the ERC', Brussels, Belgium.
11/2018	Speaker at the EMBO Workshop in Plant Evolution, Lisbon, Portugal.
10/2018	Speaker at the Florida Genetics Symposium, UF, Gainesville, USA.
08/2018	Chair and Speaker at the Brassinosteroid Conference, San Diego, USA.
07/2017	Chair of Hormone Session at the ICAR 2017, Arabidopsis Meeting, Missouri USA.
12/2016	Speaker at CSHL Asia Conference, Japan.
10/2016	Speaker at the EMBO Members meeting, Heidelberg, Germany.
09/2015	Speaker at the Cancer and Genetics Institute, Univ. Florida, UF, USA.
05/2015	Speaker and Chair at the International Brassinosteroid Conference, Wuhan, China.
06/2015	Lecture at the INRA, Montpellier, France.
10/2014	Speaker at PhenoDays Conference for Plant Phenotyping, Dijon, France.
10/2014	Lectures at the Techniche Univ. Munchen, Munich and Univ. Regensburg, Germany.
12/2014	Lecture at the Max Plank Institute for Plant Breeding, Cologne, Germany.
06/2014	Lecture at CPIC, Nottingham, UK.
04/2014	Speaker at Genetics Symposium, Iowa State Univ., Iowa, USA.
04/2014	Invited Speaker at D. Danforth Centre, St. Louis, USA.
07/2013	Speaker at the international Plant Vascular meeting, Helsinki, Finland.

05/2011 Lecture at CBGP, Madrid, Spain.
04/2013 Speaker at the international Brazilian Society of Plant Genetics meeting, Brasil.
11/2013 Seminar at College Station, Texas University, USA
12/2013 Lecture at Univ. Autónoma de Mexico DF, Mexico.
06/2013 Lecture at Univ. Heidelberg and Univ. Tubingen, Germany.
05/2013 Lecture IBMCP, Valencia, Spain.
06/2012 Speaker and Chair at the International Brassinosteroid Conference, Barcelona,
12/2011 Lecture at GMI, Vienna, Austria.
12/2011 Lecture at Univ. of Edinburg, United Kingdom.
11/2011 Invited Lecture at Gregor Mendel Institute, Vienna, Austria.
07/2011 Speaker at the International Plant Growth Biology and Modelling workshop, Spain.
06/2010 Chair at Systems Biology Session, International Plant Hormone Meeting, Tarragona, Spain.

- **PHD THESIS DIRECTION AND POSTDOC SUPERVISION**

Direction of 17 PhD thesis. Of those 12 are accomplished and 5 currently undergoing in the lab.
Supervision of a total of 15 postdocs in the last 10 years.
Supervision of >20 Master Degree research projects (TFM) from several universities (mainly UAB, UB, UPF).

- **COLLABORATIONS**

- National collaborators: I have established a network of interdisciplinary research with: X. Sevillano (Computational Science, Univ. Ramón Llull, La Salle, Barcelona), B. Oliva (Structural Bioinfomatics, UPF, Barcelona) and A. Conesa (Bionformatics for Functional Genomics, I2SysBIO, CSIC, Valencia). Biomedical researchers Prof. Maria Blasco (CNIO, Madrid) and Dra. Ana V. Villar Ramos (CSIC, Santander). At CRAG, I collaborate with Dr. M. Lois (CSIC), Dr. N. Bologna (Junior PI) and Dr. M. J. Aranzana (IRTA). Since 2004, I shared a long-term collaborator with physicist Dr. M. Ibañes (UB, Barcelona).

- International collaborators are recognized plant biologists with different expertise: presently I collaborate with A. Fernie (Max Planck, Germany), J. Russinova (VIB, Ghent), R. Sozzani (NCSU, USA), I. Efroni (Hebrew Univ. Jerusalem, Israel), Y. Stahl (HH Univ., Dusseldorf, Germany), Dirk Inze (VIB, Ghent), Blake Mayers (Danford Center, USA) and S. Mora-Garcia (Fundación Leloir, Argentina).

- Industrial collaborators: with Invaio Biosciences (Boston, US), Syngenta (Switzerland) and Micropep (France).

- **ORGANISATION OF SCIENTIFIC MEETINGS**

08/2023 Organization Committee Member of the "4th International Brassinosteroid Conference", Ghent, Belgium (>150 attendants).
06/2022 Member of the Organizing Committee at the EMBO Workshop ¨ PLANT MOLECULAR RESPONSES TO FACE CLIMATE CHANGE¨, Montpellier, France.
06/2022 Organization Committee Member of the "4th International Brassinosteroid Conference", Ghent, Belgium.

7/2018	Organization Committee Member of the "3rd International Brassinosteroid Conference", San Diego, US (>250 attendants).
5/2015	Organization Committee Member of the "2nd International Brassinosteroid Conference", Wuhan, China (>200 attendants).
12/2013	Organizer of the "1st Meeting Plant Scientist with Industry" at the Catalan Society of Biology, Barcelona, Spain, (80 attendants).
7/2012	Organizer of the "1st International Brassinosteroid Conference¨, Barcelona, Spain (140 attendants).

- **INSTITUTIONAL REPRESENTATION ACTIVITIES AND OUTREACH**

Participation in numerous activities to promote the visibility and acceptance of New Genetic Techniques in Agriculture, for the benefit of Agriculture and Food sovereignty. A selected summary of activities is shown below:

2024	Corporative Video for FITA investor initiative from Generalitat de Catalunya.
2024	Interview at Radio Cadena Ser, La Ventana, by Pipo Serrano and Carlos Francino.
2024	Spanish TV interview at Cuatro Chanel. Planeta Calleja, by Jesus Calleja about NGT and resilient agriculture.
2024	Spanish TV interview at La Sexta "La gran sequía" by Emilio Domeneq about NGT in agriculture
2023	Round Table about Women Leadership IS Global, Barcelona Organizes by by Prof. Marta Sanz at CERCA Institution. "TAULA RODONA (CERCA) SOBRE LIDERATGE FEMENÍ".
2023	Session about Women in Science and Entrepreneurship. Week of Science, UAB, Barcelona.
2021	Webinar on science communication, organized by Global Plant Council. (online)
2021	Scientific culture presentation for Secondary School alumni, Alcala de H., Madrid. International day of Women in Science. (online)
2020	Analogue Mars Station Experience, Astroland, Santander, Spain. Fetured at German TV program Galileo, ProSieben. Unterirdische Mars-Station: Wie würde Urlaub auf dem Mars aussehen?.
2020	WEBINAR organized by Universitat Vic-UCC, Barcelona. "any internacional de la Sanitat vegetal"
2020	Jury at the 'Mothers of Science Awards', BIST, Barcelona, Spain.
2019	Featured at Danish television Sunday KLIMA, TV program evaluating climate impact on agriculture.
2019	'Science meets Parliament' event at the European Parliament, Brussels, Belgium. 'The Role of Science in 21st Century Policy-Making'. Invited by ERC and STOA. Presentation on Genomic Edition tools to make crops resistant to drought.
2019	Lecture at the Barcelona Museum of Contemporary Art (CCCB) "300 ERC" Celebration. Science policy event organized by the Catalan Government to honor 300 ERCs so far awarded to Catalunya.
2019	Research & Innovation Days (R&I Days) next week. Horizon Europe, Brussels. Science policy Event organized by European Europe to explain next European Framework program. Oral presentation on IDRICA project funded by ERC CoG. New crops resistant to drought.
2019	Monographic interview about the ¨Future of Food¨ by renowned national journalist Mr. Iñaki Gabilondo ¨Cuando ya no esté¨ on Movistar Spanish TV channel.

2019	Casa de La Ciencia, Valencia (CSIC). Talk: The future of food.
2019	Presentation at the Word Plant Fascination Days. Feria de la Ciencia, FIBE, Sevilla, Spain.
2019	"Científics en Joc"contest - Project: "Ana Caño", Escola Canigó, Barcelona, Spain.
2018	Escola Pau Casal, Barcelona. Project: "Ana Caño" Class- 5th grade, Barcelona, Spain.
2018	'Congres de les Dones del Baix Llobregat', Local policy meeting for Women in Science and Technology at Barcelona.
2015	Monographic interview at "La Ciencia en Nuestra Vida 5: El desarrollo de las plantas y la inmortalidad", an original initiative CSIC Professor Dr. J. Pio Beltrán to feature scientist on TV.
2015	Round Tables: ¨Women in Science¨, Spanish Society for Plant Physiology (SEFV) Meeting, Toledo, Spain.
2013	Talent Lab: CSIC school of science of High School Teachers.
2013	Organizer of Fascination of Plants Day (FoPD) in Catalunya, EPSO
2012	Organizer of Fascination of Plants Day (FoPD) in Catalunya, EPSO.
2011- present	Jury at the Young Scientist Awards: Exporecerca Jove (CosmoCaixa, Barcelona, Spain).

Any additional information and a complete press file can be endorsed upon request.