Soraya Pelaz, PhD
ICREA Research Professor | Deputy Director, CRAG
Plant Development, Evo-Devo, and Environmental Adaptation
Email: soraya.pelaz@cragenomica.es

---

1. PROFESSIONAL SUMMARY

Senior research leader with international recognition in **plant development**, **flowering time**, and **environmental adaptation**. I lead two strategic research programs—RAV-mediated stress adaptation and *RAV* gene evolution—that have resulted in **editor-highlighted publications, journal covers, competitive funding, and translational work in crops**.

My leadership roles as **CRAG Deputy Director** and **Head of the Molecular Genetics Department**, combined with editorial duties, international collaborations, and strong mentoring/teaching contributions, demonstrate my sustained commitment to strengthening the centre's scientific excellence and visibility.

---

2. POSITIONS

PRESENT

- **ICREA Research Professor**, CRAG (2003–Present)
- **Deputy Director**, CRAG (2022–Present)
- **Department Director**, Molecular Genetics, CRAG (2020–Present)
- **CRAG Representative at EPSO** (2024–Present)
- **Member**, Internal Scientific Committee (2023–Present)
- **Member**, HRS4R Committee (2023–Present)

PAST

- OECD Fellow as **Visiting Professor**, NYU (2016, 18 weeks)
- MECD Fellow, as **Visiting Professor**, NYBG (2013 and 2015, 3 months each year)
- Scientific **Program Coordinator**, CRAG (2013-2014)
- Principal Investigator **Ramón y Cajal**, INIA (2001-2003)
- Postdoctoral Researcher, **Reintegration Fellow**, INIA (2001)
- Postdoctoral Researcher, **MEC** and **HFSP** Fellow, UCSD (1996-2001)
- Postdoctoral Researcher, **EU Project** Fellow, CBMSO (1993-1995)
- PhD student, **Basque Country Training of Research** Fellow, CBMSO-UAM (1989-1993)
- Bachelor Student, Biological Sciences, **MEC Fellow**, UPV-EHU and UAM (1984-1989)

3. PUBLICATIONS

- Ignacio Cota, Silvia Moschin, Elisabetta Offer, Iene Martínez-Fernández, Francesco Magnanimi, Barbara Ambrose, Sebastiano Nigris, Barbara Baldan, Cristina Ferrándiz and Soraya Pelaz, 2025. NGATHA carpel development genes evolved in the common ancestor of seed plants. **THE PLANT JOURNAL**, DOI: 10.1111/tpj.70488. **Journal Cover** and **Research Highlight comment by Editor**.

- Harold Suárez-Baron, Juan F Alzate, Barbara A Ambrose, **Soraya Pelaz,** Favio González and Natalia Pabón-Mora. Comparative morphoanatomy and transcriptomic analyses reveal key factors controlling floral trichome development in *Aristolochia* (Aristolochiaceae), 2023. **JOURNAL OF EXPERIMENTAL BOTANY**, DOI: 10.1093/jxb/erad345.

- Ata Dejahang, Naeimeh Maghsoudi, Amir Mousavi, Nader Farsad-Akhtar, Luis Matias-Hernandez, **Soraya Pelaz**, Kevin Folta and Nasser Mahna, 2023. TEMPRANILLO homologs in apple regulate flowering time in the woodland strawberry Fragaria vesca. **SCIENTIFIC REPORTS**, 13: 1968-1980.

- Michela Osnato, Ignacio Cota, Poonam Nebhnani and **Soraya Pelaz**, 2022. Photoperiod control of plant growth: Flowering time genes beyond flowering. **FRONTIERS IN PLANT SCIENCE**, 9:12. DOI: 10.3389/fpls.2021.805635.

- Harold Suárez-Baron, Juan F Alzate, Favio González, **Soraya Pelaz,** Barbara A Ambrose and Natalia Pabón-Mora. Gene expression underlying floral epidermal specialization in *Aristolochia fimbriata* (Aristolochiaceae), 2021. **ANNALS OF BOTANY***,* 127, 749-764.

- Michela Osnato, Elia Lacchini, Alessandro Pilatone, Ludovico Dreni, Andrea Grioni, Matteo Chiara, David Horner, **Soraya Pelaz** and Martin M. Kater, 2021. Transcriptome analysis reveals rice OsMADS13 as an important repressor of the carpel development pathway in ovules. **JOURNAL OF EXPERIMENTAL BOTANY**, 72, 398-414.

- Michela Osnato, Unai Cereijo, Jan Sala, Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, María Rosa Rodríguez-Goberna, José Luis Riechmann, Manuel Rodríguez-Concepción and **Soraya Pelaz**, 2021. The floral repressors TEMPRANILLO1 and 2 modulate salt tolerance by regulating hormonal components and photo-protection in Arabidopsis. **THE PLANT JOURNAL**, 105, 7-21. **Journal Cover** and **Research Highlight comment by Editor**. Media attention.

- Michela Osnato, Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, Martin M. Kater and **Soraya Pelaz**, 2020. Genes of the *RAV* family control heading date and carpel development in rice. **PLANT PHYSIOLOGY**, 183, 1663-1680. **Highlighted in Plantae by Mary Williams**.

- Andrea E. Aguilar-Jaramillo, Esther Marín-González, Luis Matías-Hernández, Michela Osnato, **Soraya Pelaz*** and Paula Suárez-López*, 2019. TEMPRANILLO is a direct repressor of the microRNA miR172. **THE PLANT JOURNAL**, 100, 522-535.

- Luis Matías-Hernández, Weimin Jiang, Ke Yang, Kexuan Tang, Peter E. Brodelius and **Soraya Pelaz**, 2017. AaMYB1 and its orthologue AtMYB61 affect terpene metabolism

and trichome development in *Artemisia annua* and *Arabidopsis thaliana*. **THE PLANT JOURNAL**, 90, 520-534. Worldwide media attention.

- Giussepe Pulice, **Soraya Pelaz** and Luis Matías-Hernández, 2016. Molecular farming in *Artemisia annua*, a promising approach to improve anti-malarial drug production. **FRONTIERS IN PLANT SCIENCE**, 7: 329. doi: 10.3389/fpls.2016.00329

- Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, Michela Osnato, Roy Weinstain, Eilon Shani, Paula Suárez-López and **Soraya Pelaz**, 2016. TEMPRANILLO reveals the mesophyll as crucial for epidermal trichome formation. **PLANT PHYSIOLOGY**, 170, 1624-1639.

- 2016 Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, Riccardo A. Cigliano, Walter Sanseverino and **Soraya Pelaz**, 2016. Flowering and trichome development share hormonal and transcription factor regulation. **JOURNAL OF EXPERIMENTAL BOTANY**, 67, 1209-1219.

- Esther Marín-González, Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, Jeong Hwan Lee, Ji Hoon Ahn, Paula Suárez-López and **Soraya Pelaz**, 2015. SHORT VEGETATIVE PHASE up-regulates *TEMPRANILLO2* floral repressor at low ambient temperatures. **PLANT PHYSIOLOGY**, 169, 1214-1224.

- Paloma Más, Jaime F. Martínez-García, José Luis Riechmann and **Soraya Pelaz**, 2015. ICREA Workshop: From model systems to crops – challenges for a new era in plant biology. **PHYSIOLOGIA PLANTARUM**, 155, 1-3.

- Luis Matías-Hernández, Andrea E. Aguilar-Jaramillo, Esther Marín-González, Paula Suárez-López and **Soraya Pelaz**, 2014. *RAV* genes: regulation of floral induction and beyond. **ANNALS OF BOTANY**, 114, 1459-1470.

- Adriana Garay-Arroyo, Enrique Ortiz-Moreno, María de la Paz Sánchez, Angus S. Murphy, Nayelli Marsch-Martínez, Stefan de Folter, Berenice García-Ponce, Fabiola Jaimes-Miranda, Adriana Corvera-Poiré, Mario A. Pacheco-Escobedo, Joseph G. Dubrovsky, **Soraya Pelaz** and Elena R. Alvarez-Buylla, 2013. The MADS transcription factor XAL2/AGL14 modulates auxin transport during *Arabidopsis* root development by regulating PIN expression **EMBO JOURNAL**, 32, 2884-2895.

- **Soraya Pelaz**, 2013. Sugar content regulates flowering. **JOURNAL OF EXPERIMENTAL BOTANY** in Flowering Highlights. (http://floweringhighlights.org).

- Maida Romera-Branchat, Juan José Ripoll, Martin F. Yanofsky and **Soraya Pelaz**, 2013. The *WOX13* homeobox gene promotes replum formation in the *Arabidopsis thaliana* fruit. **PLANT JOURNAL**, 73, 37-49.

- Michela Osnato, Cristina Castillejo, Luis Matías-Hernández and **Soraya Pelaz**, 2012. *TEMPRANILLO* genes link photoperiod and gibberellin pathway to control flowering in *Arabidopsis*. **NATURE COMMUNICATIONS**, 3:808 DOI: 10.1038/ncomms1810.

- Marina Trigueros, Marisa Navarrete-Gómez, Shusei Sato, Sioux Christensen, **Soraya Pelaz**, Detlef Weigel, Martin Yanofsky, and Cristina Ferrandiz, 2009. The *NGATHA* genes direct style development in the Arabidopsis gynoecium. **PLANT CELL**, 21, 1394-1409. **Faculty 1000**.

- **Soraya Pelaz**. The balance between CONSTANS and TEMPRANILLO controls floral induction, 2009. **COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY A MOLECULAR & INTEGRATIVE PHYSIOLOGY**. 153A, S196. Meeting Abstract.

- Cristina Castillejo and **Soraya Pelaz**, 2008. The balance between CONSTANS and TEMPRANILLO activities determines *FT* expression to trigger flowering. **CURRENT BIOLOGY**, 18, 1338-1343. **Featured in the Journal Cover and Faculty 1000**.

- Rosalinda Tapia-López, Berenice García-Ponce, Joseph G. Dubrovsky, Adriana Garay Arroyo, Rigoberto V. Pérez-Ruiz, Sun-Hyung Kim, Francisca Acevedo, **Soraya Pelaz** and Elena R. Alvarez-Buylla, 2008. An *AGAMOUS*-related MADS-box gene, *XAL1* (*AGL12*), regulates root meristem cell proliferation and flowering transition in *Arabidopsis thaliana*. **PLANT PHYSIOLOGY**, 146, 1182-1192.

- Gabriel S. Fonseca; Berenice García, Marcelina García, Úrsula Flores, Soraya Pelaz and Elena R. Álvarez-Buylla, 2007. XAANTAL3 (AGL17) is an ANR1-like MADS-box gene that regulates Arabidopsis root meristern behaviour and mediates morphogenetic responses under nitrogen and phosphorus starvation. **DEVELOPMENTAL BIOLOGY**, 306, 449.

- Pedro Robles and **Soraya Pelaz**, 2005**.** Flower and fruit development in *Arabiodpsis thaliana*. **INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY**, 49, 633-643.

- Castillejo, Maida Romera and **Soraya Pelaz**, 2005**.** A new role of the *Arabidopsis SEPALLATA3* gene revealed by its constitutive expression. **PLANT JOURNAL.** 43, 586-596. **Faculty 1000**.

- Gary Ditta, Anusak Pinyopich, Pedro Robles, **Soraya Pelaz** and Martin F. Yanofsky, 2004. The *SEP4* gene of *Arabidopsis thaliana* functions in floral organ and in meristem identity. **CURRENT BIOLOGY.** 14, 1935-1940. **Journal Cover** and **Faculty 1000**.

- Scott D. Michaels, Gary Ditta, Cindy Gustafson-Brown, **Soraya Pelaz**, Martin F. Yanofsky and Richard M. Amasino, 2003. *AGL24* acts as a promoter of flowering in *Arabidopsis* and is positively regulated by vernalization. **PLANT JOURNAL**. 33, 867-874. **Faculty 1000**.

- **Soraya Pelaz,** Sarah Liljegren, Adrienne Roeder, Cristina Ferrándiz, Anusak Pinyopich, Lars Ostergaard, Kristina Gremski, Pedro Robles, Gary Ditta, Sherry Kempin and Martin Yanofsky, 2003. The role of MADS-box genes in the control of flower and fruit development in *Arabidopsis*. **PLANT BIOTECHNOLOGY 2002 AND BEYOND**. Kluwer Academic Publishers (I.K. Vasil, ed.). The Netherlands.

- Cristina Ferrándiz, Shusei Sato, **Soraya Pelaz**, Sioux Christensen, Detlef Weigel, Juan J. Ripoll, Antonio Martínez-Laborad, Antonio Vera and Martin F. Yanofsky, 2001. An analysis of fruit development in *Arabidopsis thaliana*. **INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY**, 45, S168. Meeting Abstract.

- **Soraya Pelaz**, Cindy Gustafson-Brown, Susanne Kohalmi, William Crosby and Martin F. Yanofsky, 2001. APETALA1 and SEPALLATA3 interact to promote flower development. **PLANT JOURNAL**. 26, 1-11.

- **Soraya Pelaz**, Rosalinda Tapia-López, Elena R. Alvarez-Buylla and Martin F. Yanofsky, 2001. Conversion of leaves into petals in *Arabidopsis*. **CURRENT BIOLOGY**. *11*, 182-184. **Journal Cover and in textbooks**.

- Elena R. Alvarez-Buylla, Sarah J. Liljegren, **Soraya Pelaz**, Scott J. Gold, Caroline N.L. Burgeff, Gary S. Ditta and Martin F. Yanofsky, 2000. MADS-box gene evolution beyond flowers: expression in pollen, endosperm, guard cells, roots and trichomes. **PLANT JOURNAL**, *24*, 457-466. **Journal Cover**.

- **Soraya Pelaz**, Gary S. Ditta, Elvira Baumann, Ellen Wisman, and Martin F. Yanofsky, 2000. B and C floral organ identity functions require *SEPALLATA* MADS-box genes. **NATURE**, 405, 200-203. **Journal Cover and in textbooks**.

- Elena Alvarez-Buylla, **Soraya Pelaz**, Sarah Liljegren, Scott J. Gold, Caroline Burgeff, Gary S. Ditta, Lluis Ribas de Pouplana, León Martínez-Castilla and Matin F. Yanofsky, 2000. An ancestral MADS-Box gene duplication occurred prior to the divergence of plants and animals **PNAS**, 97, 5328-5333.

- Cristina Ferrándiz, **Soraya Pelaz** and Matin F. Yanofsky, 1999. Control of Carpel and Fruit Development in *Arabidopsis*. **ANNUAL REVIEW OF BIOCHEMISTRY**, *68*, 321-354.

- Sarah J. Liljegren, Cristina Ferrándiz, Elena R. Alvarez-Buylla, **Soraya Pelaz** and Martin F. Yanofsky, 1998. *Arabidopsis* MADS-box Genes Involved in Fruit Dehiscence. **FLOWERING NEWSLETTER**, *25*, 9-19.

- Manuel Calleja, Eduardo Moreno, **Soraya Pelaz** and Ginés Morata, 1996. Visualization of Gene Expression in Living Adult *Drosophila*. **SCIENCE**, *274*, 252-255.

- 1994 Ana Macías, **Soraya Pelaz** and Ginés Morata, 1994. Genetic Factors Controlling the Expression of the *abdominal-A* gene of the *Drosophila* within its domain. **MECHANISM OF DEVELOPMENT**, *46*, 15-25.

- **Soraya Pelaz**, Nuria Urquía and Ginés Morata, 1993. Normal and Ectopic domains of the Homeotic gene *Sex combs reduced* of *Drosophila*. **DEVELOPMENT**, *117*, 917-923.

4. COMPETITIVE FUNDING

PROJECTS

- **PI** | **Soraya Pelaz**. Impact of RAVs on gene regulation and plant adaptability (RAV-GENRE). MICIU (PID2024-162119NB-I00). 2025-2028

- **Co-PI** | L. Maria Lois and **Soraya Pelaz** (co-PIs). Reconstruction Biology in Plant Sciences Doctoral Training Program (rePLANT). HORIZON TMA MSCA Cofund Doctoral programme. HORIZON-MSCA-2021-COFUND-01. EUROPEAN RESEARCH EXECUTIVE AGENCY (REA) (Project 101081581). 2023-2028

- **PI** | **Soraya Pelaz**. Evolution of *RAV* genes function in RESponses to abiotic stress In fLowerIng and non-flowEring plaNTS (RAV-RESILIENTS). MICIN (PID2021-127095NB-I00). 2022-2025

- **PI (CRAG Node)** | Cristina Ferrándiz. EvoDevoSigNet: Evolution of regulatory mechanisms in development and plant signaling. MICIN (RED2022-134917-T). 2023-2025
- **Member** | Laura Rodríguez Botigué. **Soraya Pelaz**. CRAG-IBB-HMWDNA-Plants. Institut d'Estudis Catalans. 2023
- **PI** | **Soraya Pelaz**. GEANARADEV: Arabidopsis developmental Genomics. Agencia de Gestión de Ayudas Universitarias – Generalitat de Catalunya (AGAUR, 2021 SGR 00792). 2022-2025
- **PI** | **Soraya Pelaz**. GI-RAV-SVP Gene Regulatory Network in abiotic stress tolerance in the Brassicaceae family. Models to crops and crops to models (M2C&C2M) call from CRAG Severo Ochoa Program. 2023-2024
- **Guarantor** | Paloma Más. CRAG Centro de Excelencia Severo Ochoa (CEX2019-000902S). 2020-2025
- **PI** | **Soraya Pelaz**. Unmasking the mechanism of *RAV* genes in FLOral Repression in Abiotic stress (FLORA). MICIU (PGC2018-095804-B-I00) 2019-2021
- **Member** | José Luis Riechman. Arabidopsis Developmental Genomics. Grups de Recerca Reconeguts i Finançats. AGAUR (2017 SGR 718). 2018-2020
- **Co-PI** | **Soraya Pelaz** and Paula Suárez. Evolution and function of TEMPRANILLO in plant development and adaptive responses. MINECO (BFU2015-64409-P). 2016-2019
- **Guarantor** | José Luis Riechmann. CRAG Centro de Excelencia Severo Ochoa (SEV-2015-0533). 2016-2019
- **PI** | **Soraya Pelaz**. "Hairy but Aromatic" plants: a possible solution to improve cancer treatment. EXPLORA program. MINECO (BIO2013-50388-EXP). 2014-2017
- **Member** | Paula Suárez-López. Red de Floración. Redes de Excelencia. MINECO (BIO2014-54481REDT). 2014-2016
- **Host Member** | Luis Matías-Hernández. Use of trichomes as "natural factories" for pharmaceutical agriculture. In collaboration with Sequentia. Torres Quevedo Program. MINECO (PTQ-13-06459). 2014-2017
- **Member** | José Luis Riechman. Arabidopsis Developmental Genomics. Agencia de Gestión de Ayudas Universitarias – Generalitat de Catalunya (AGAUR, 2014-SGR-1406). 2014-2016
- **PI** | **Soraya Pelaz**. Mode of action of the *TEMPRANILLO* genes in the control of the floral induction and their role in the flower development. MINECO (BFU2012-033746/BMC). 2012-2015
- **Co-PI** | José Luis Riechmann and **Soraya Pelaz**. ICREA conference award 2013. ICREA Workshop: From model systems to crops, challenges for a new era in plant biology. ICREA. 2014
- **Co-PI** | Paloma Más, Jaime F. Martínez-García, José Luis Riechmann and **Soraya Pelaz.** Physiologia Plantarum conference award. ICREA Workshop: From model systems to crops, challenges for a new era in plant biology. 2014

- **Member** | Martin Kater. Flower Power. FINLOMBARDA (Lombardy Region, Italy) *'Call for Technological and Scientific Cooperation Agreements'* (**AGRO-11,** Ref. **16976**). 2010-2012
- **PI** | **Soraya Pelaz**. Floral development in *Arabidopsis*: function of *TEMPRANILLO* genes. MICINN (BFU2009-08325/BMC). 2009-2012
- **Member** | Paloma Más Martínez. *Arabidopsis* Development Group. Agencia de Gestión de Ayudas Universitarias – Generalitat de Cataluña (2009 SGR 697). 2009-2013
- **Member** | Paloma Más Martínez. Development and Cellular differentiation Network (REDIVEG). MICINN (BIO2009-07421-E). 2009-2011
- **Member** | Pere Puigdoménech. Center for Basic Genomics and Agrifood Oriented. MEC (CSD2007-00036) CONSOLIDER Program. 2007-2012
- **PI** | **Soraya Pelaz**. Genetic control of floral induction and flower developmentin *Arabidopsis*. MEC (BFU2006-00771/BMC). 2006-2009
- **Member** | Jaime Martínez García. Development and Cellular differentiation Network (REDIVEG). MEC (BIO2006-26104-E). 2006-2008
- **Member** | Paloma Más Martínez. Group of development in *Arabidopsis*. Agencia de Gestión de Ayudas Universitarias – Generalitat de Catalunya (AGAUR, 2005 SGR 284). 2005-2008
- **PI** | **Soraya Pelaz**. Identification and characterization of genes involved in the development of the distinct floral organs. MCYT (BIO2005-04329). 2005-2006
- **PI** | **Soraya Pelaz**. Identification and characterization of genes involved in the development of the distinct floral organs MCYT (BIO2002-01261). 2002-2005
- **Co-PI** | Jesús Vicente-Carbajosa. Genomic characterization of the DOF transcription factors in Arabidopsis and rice. Comunidad de Madrid (07B/0011/2002). 2003-2005
- **PI** | **Soraya Pelaz**. Identification and characterization of genes involved in the development of the distinct floral organs. MCYT (Ramón y Cajal). 2001-2002
- **Member** | Martin F. Yanofsky. ABCD model of flower organ identity. USDA. 2000-2003
- **Member** | Martin F. Yanofsky. Role of *APETALA1* in regulating flowering in *Arabidopsis*. NIH (R01 GM 55328-02). 1997-2001
- **Member** | Martin F. Yanofsky. Functional analyses of MADS-box genes in *Arabidopsis*. National Science Foundation (IBN-9728402). 1997-2000
- **Member** | Robert J. Schmidt. Control of flower initiation in *maize*. MONTSANTO/BIOSTAR (S97-68). 1998-1999
- **Member** | Ginés Morata. Genetic control of morphogenesis and cellular proliferation in *Drosophila*. DGICYT (PB93-0174). 1994-1998
- **Member** | Giovanni Giudice. A new test for developmental toxicology with a multisystem approach. European Commission Biotechnology Program (BIO2 CT93-0394). 1994-1996

- **Member** | Ginés Morata. Functional Analysis of Homeotic genes in *Drosophila* and in Vertebrates. Human Frontier Science Program (RG0372/1994). 1994-1997
- **Member** | Ginés Morata. Genetic control of morphogenesis and cellular proliferation in *Drosophila*. DGICYT (PB92-0110). 1991-1993
- **Member** | Ginés Morata. Genetic control of cellular proliferation in *Drosophila* DGICYT (PB87-0465). 1988-1990

FELLOWSHIPS

- **OECD**. Co-operative Research Programme. 2016 (18 weeks), NYU, USA.
- Mobility Fellowship **Salvador de Madariaga**. MECD. 2015 (3 months), NYBG, USA.
- Mobility Fellowship **Salvador de Madariaga**. MECD. 2013 (3 months), NYBG, USA.
- **Ramón y Cajal** Contract, MCYT. 2001-2003, INIA, Madrid, as Principal Investigator.
- Postdoctoral **Reintegration** Contract, MCYT. 2001, INIA, Madrid.
- **HFSP** (Human Frontier Science Program) Fellowship. 1996-1998, UCSD, USA.
- **Doctoral and Technologist Training** Fellowship, MEC. 1996, UCSD, USA.
- **NATO** Postdoctoral fellowship, 1995. Declined.
- Basque Country Government Fellowship for **Training of Research Personnel**. 1989-1993, CBMSO, UAM.
- Basque Country Government Fellowship for Research **Collaboration**. 1988-1989, UAM.

5. PATENTS AND CONTRACTS

- Comparison of the effect of a biostimulant on the plant growth and seed production of Arabidopsis and tomato microTom. 2023-2024 LAINCO.
- Study the use of plant trichomes as biofactories to produce important medical compounds. 2015-2018 Sequentia Biotech SL with a Torres Quevedo grant.
- New non-naturally occurring seed plants that exhibit modulated reproductive development, useful for breeding plants with improved characteristics such as improved yield or quality (2004). Patent Numbers: US2004229366-A1; US7273968-B2. Inventors: M. Yanofsky, **S. Pelaz** and G. Ditta. UCSD
- Combinations of genes for producing seed plants exhibiting modulated reproductive development (2004) Patent Number: US 6828478 Inventors: M. Yanofsky, **S. Pelaz** and G. Ditta. UCSD
- A non-naturally occurring seed plant comprising polynucleotides encoding an APETALA1 or CAULIFLOWER gene product and a SEP1, SEP2, SEP3 or AGL24 gene product provides a plant with altered timing of reproductive development (2002) Patent Number: US2002194645-A1; WO2003017751-A2; EP1411762-A2; AU2002305492-A1; US6828478-B2; ZA200308671-A; BR200209498-A; AU2002305492-B2; NZ529628-A;

NZ555221-A; WO2003017751-A3. Inventors: M. Yanofsky, **S. Pelaz** and G. Ditta. UCSD

6. INSTITUTIONAL LEADERSHIP

- Deputy Director, CRAG (2022-)
- Department Director, Molecular Genetics (2020-)
- CRAG representative at EPSO (2024-)
- Member of Internal Scientific Committee (2013-2014; 2023-)
- Member of HRS4R Committee (2022-)
- Coordinator of the Plant Development and Signal Transduction Program at CRAG (2013-2014)
- Host for international senior scientists (Director, NYBG, Barbara Ambrose; Dean, NYU, Michael Purugganan; Professor, University of Tabriz, Nasser Mahna)

7. MENTORING & TEACHING

DOCTORAL THESES

- Unai Cereijo Álvarez de Eulate. Role of RAV genes in the regulation of floral induction in response to abiotic stress: an evolutive and functional analysis. Autonomous University of Barcelona. June 17th, 2024
- Poonam Nebhnani. Elucidating TEM and MYC roles in Arabidopsis thaliana floral repression. Autonomous University of Barcelona. September 19th, 2022
- Andrea Aguilar Jaramillo. Implication of the RAV gene family in floral development. Autonomous University of Barcelona. September 14th, 2016
- Esther Marín González. Flowering regulation by TEMPRANILLO genes in response to environmental and endogenous signals. Autonomous University of Barcelona. October 30th, 2013
- Maida Romera-Branchat. Characterization of new transcription factors involved in the development of the flower and the fruit in *Arabidopsis thaliana*. Barcelona University. July 28th, 2008

MASTER THESES

- Nikoleta Gavala. Evolutionary approach of interactions between RAV and other flowering proteins. Master's thesis in Plant Biology, Genomics and Biotechnology. Autonomous University of Barcelona. September 2023
- Juan José Llorens. Protein interactions between flowering related genes in basal embryophytes. Master's thesis in Plant Biology, Genomics and Biotechnology. Autonomous University of Barcelona. September 2022

- Andrea Rivero. Study of *Arabidopsis thaliana RAV* genes by CRISPR technology and more. Master's thesis in Advanced Biotechnology. Autonomous University of Barcelona. September 2022

- Carlos González. Evolutionary, molecular and functional characterization of *Arabidopsis* thaliana *RAV3* and *RAV3-like* genes. Master's thesis in Plant Biology, Genomics and Biotechnology. Autonomous University of Barcelona. September 2021

- Jan Sala. TEM transcription factors modulate plant development in response to salt stress. Master's thesis in Plant Biology, Genomics and Biotechnology. Autonomous University of Barcelona. July 2018

- Andrea Jaramillo. Study of floral induction in *Arabidopsis* and the involvement of RAV family in this process. Master's thesis in Plant Biology and Biotechnology. Autonomous University of Barcelona. June 2012

- Esther Marín. Floral development in *Arabidopsis*: function of *TEMPRANILLO* genes. Master's thesis in Plant Biology and Biotechnology. Autonomous University of Barcelona. September 2009

- Maida Romera-Branchat. Identification and characterization of new genes involved in floral development in *Arabidopsis thaliana*. University of Barcelona. DEA at Facultad de Farmacia. September 2005

TEACHING AND MENTORING ACTIVITIES

- Pablo Nicolás Jaramillo. Phenotypic analysis of the double *rav1 rav2* mutant of *Physcomitrium patens*. Bachelor's thesis, University Miguel Hernández, Elche, Spain. 2025
- CRAG "Severo Ochoa" Summer Internship Programme for Undergraduate Students. Pablo Nicolás Jaramillo from University Miguel Hernández, Elche, Spain. 2023
- Secondment of the PhD Student Francesco Magnanimi from Sapienza University of Rome, Italy. 2023
- Appointed by the Faculty of Forest Science as opponent in the Evaluation Committee at Domenique André's public PhD thesis defense on Molecular regulation of the annual growth cycle in Populus trees. UPSC, Umea. Sweden. 2021
- Member of the follow-up committee of doctoral students of CRAG PhD program. 2020-present.
- Jonice van Oss. RAV genes function along the green tree of life. Bachelor's thesis, HAS University of Applied Sciences, Hertogenbosch, The Netherlands. 2019
- Ivana Matijevic. CRAG "Severo Ochoa" Summer Internship Programme for Undergraduate Students. From University of Novi Sad, Serbia. 2018
- Teacher in the Plant Biology, Genomics and Biotechnology Master of UAB-CRAG-UB. 2017 - Present
- Tutor and Director of the Plant Biology and Biotechnology PhD Programme at UAB. 2018 - Present

- Member of the International Doctoral Thesis committee of Harold Suárez-Baron on "Developmental and genetic mechanisms underlying epidermal and color patterning in the *Aristolochi*a perianth" from University of Antioquia, Medellin, Colombia under the direction of Natalia Pabón-Mora. 2016-2021
- Member of the Organizing Committee and Chair of Workshop on Molecular Mechanisms Controlling Flower Development. Spain. 2015
- Helena Gabizón Fonollosa. Research Project titled Transgenic: progress or setback? A Secondary school student. 2012-2013
- Invited as a teacher AT UNAM, Mexico DF, Mexico. 1997 (1 week)
- Assistant Professor of Biochemistry at UAM, Madrid, Spain. 1990 (2 months)

.

8. EDITORIAL, EVALUATION & SERVICE

- Editor of the Special Issue of Physiologia Plantarum: Roles of Volatiles and Colors in Eco-Environments. 2023
- Editor of Plants, Plant Development and Morphogenesis section. 2019-2021
- Editor the Physiologia Plantarum issue From Model Systems to Crops – Challenges for a New Era in Plant Biology. 2015
- Member of the Editorial Board of Peer J. 2014-2024
- Handling Editor of Physiologia Plantarum. 2009-Present

- Member of the Evaluation Panel of Ramón y Cajal contracts for Biosciences and Biotechnology (BIO) of the AEI/MCIN. 2022
- Coordinator of the ICREA Academia life & Medical Sciences Panel. 2020
- Member of the Evaluation Panel of the Biotechnology sub-section of the AEI for I+D+i Projects (MCIU). 2020
- Member of the Evaluation Panel of Ramón y Cajal contracts for Fundamental and Systems Biology of MINECO. 2018
- Reviewer for the *European Research Council Executive Agency*, "ERCEA", FP7 *"Ideas" Specific Programme*. ERC advanced Grants. 2013
- Evaluator for "Grants to stimulate new initiatives and support high quality research" at University of Leuven through the Research Council K.U.Leuven. Belgium. 2011
- Evaluator Innovational Research Incentives Scheme Vidi 2010 CW (Netherlands). 2010
- Member of the Evaluation Panel of Juan de la Cierva contracts for Fundamental and Systems Biology of MICINN. 2009
- Expert Adviser appointed by the Associate Professorship Board of the Faculty of Natural Resources and Agricultural Sciences of the Swedish University of Agricultural Sciences. 2008
- Evaluator for ANR (French Nacional Research Agency). 2008-2011

- Evaluator for AGAUR (Agency for Management of University and Research Grants, Catalonia). 2007-2008

- Chair of Inflorescences Section. Workshop on Molecular Mechanisms Controlling Flower Development. Aiquafreda, Italy. 2011
- Session Chair. XXXI Congress of the Spanish Society of Biochemistry and Molecular Biology. 2008
- Reviewer for AEI (Spanish National Research Agency). 2002-Present
- Reviewer for International Journals such as Nature, Nature Plants, Current Biology, Plant Cell, Plant Journal, Plant Cell Reports, Plant Molecular Biology, Plant Science, Physiologia Plantarum, Plos Genetics, Plos One, Annals of Botany, Botany, International Journal of Developmental Biology, Tree Physiology. 2003-Present

9. INTERNATIONAL VISIBILITY

INVITED SPEAKER

- Session speaker in the Iberian Plant Biology meeting. Braga, Portugal. July 2023
- INUPRAG symposium. Umea, Sweden. February 2023
- Keynote speaker in the Workshop on Molecular Mechanisms Controlling Flower Development. Alicante, Spain. June 2022
- Workshop on molecular mechanisms controlling flower development. Presquile de Giens, France. June 2019
- Max Planck Institute. Cologne, Germany. April 2019
- PlantAdapt 2018. Banyuls, France. September 2018
- Flowering Network, 2nd REDFLOR meeting. Barcelona, Spain November 2016
- Center for Genomics and Systems Biology at New York University, New York, USA. March 2016
- Workshop on Mechanisms Controlling Flower Development. Aiguablava, Girona, Spain. June 2015
- Workshop on Mechanisms Controlling Flower Development. Hyeres Les Palmiers, France. June 2013
- 10th International Congress of Plant Molecular Biology, Jeju, South Korea. Two different sessions. October 2012
- University of Milan, Milan. November 2011
- Workshop on Molecular Mechanisms Controlling Flower Development. Maratea, Italy. June 2011
- 20th Internacional Conference on Plant Growth Substances. July 2010
- Center of Biotechnology and Plant Genomics (CBGP), Madrid. January 2010

- Invited professor of the Master in Advanced Genetics of University of Barcelona. October 2009
- Society for Experimental Biology Annual Main Meeting. Glasgow, United Kingdom. June 2009
- Catalan Society of Biology. VII Plant Physiology Workshop. Barcelona, Spain. 2009
- 2nd Languedoc Rousillon-Catalogne meeting on Plant Integrative Biology. Roses. Spain. 2009
- Speaker and Chair. Workshop on Mechanisms Controlling Flower Development. Aiguablava, Girona, Spain. June 2009
- Institute of Molecular and Cellular Biology Plants (IBMCP). Valencia. February 2009
- Lectures of the Department of Genetics, Faculty of Biology. University of Barcelona. October 2008
- Session Speaker at Molecular Mechanisms Controlling Flower Development Workshop. Maratea (Italy). June 2007
- Session Speaker at 8th International Conference of Plant Molecular Biology. Adelaide, Australia. August 2006
- Institute of Agrifood Research and Technology (IRTA). Cabrils, Barcelona. April 2006
- Laboratory of Reproduction and Development of Plants. IFR128 BioSciences Lyon-Gerland. Lyon, France. March 2006
- Internacional Workshop on MADS-box Transcription Factors. Gargnano, Italy. 2005
- Biotechnology and Genetics departments of University of Barcelona. May 2005
- Università degli Studi di Milano, Milan. November 2004
- Parc Científic de Barcelona, Barcelona. April 2004
- University of Jena, Germany. March 2004
- Opening Lecture. 17èmes recontres franco-espagnoles. St Laurent de la Salanque, France. 2003
- Institute of Molecular and Cellular Biology Plants (IBMCP), Barcelona. July 2003
- Upper Technical School of Agricultural Engineers (ETSIA), Madrid. February 2003
- National Biology Center (CNB), Madrid. June 2002
- National Institute for Agricultural and Food Research and Technology (INIA), Madrid. May 2001
- National Biology Center (CNB),, Madrid. March 2001
- Institute of Molecular and Cellular Biology Plants (IBMCP), Valencia. February 2001
- Salk Institute, La Jolla, CA, USA. March 2000
- V Plant Molecular Biology Meeting. Alicante, Spain. 1999
- Salk Institute, La Jolla, CA, USA. September 1998

MEETINGS ORGANIZATION

- Member of the Organizing Committee of the "At the forefront of Plant research conference." Barcelona, Spain. May 8-10, 2023

- Coordinator with the overlapping "Genomics-assisted breeding for boosting crop and livestock improvement" conference. Barcelona, Spain. May 10-11, 2023.

- Member of the Organizing Committee of the ICREA Workshop: From model systems to crops, challenges for a new era in plant biology. Barcelona, Spain. May 7-8, 2014

- Member of the Scientific Committee of the Workshop on Molecular Mechanisms Controlling Flower Development. Hyeres Les Palmiers, France. 2013

RESEARCH STAYS ABROAD

- New York University, USA. *RAV* gene evolution in rice adaptive responses to salinity and water availability: a future biotechnological tool to confront global climate change. 2016 (7 months)

- New York Botanical Garden, USA. Role of *TEMPRANILLO* genes in plant evolution and in intra-species adaptation. 2015 (4 months)

- New York Botanical Garden, USA. Evolutionary conservation of *TEMPRANILLO* genes and their role in artemisinin accumulation in *Artemisia annua*. 2013 (3 months)

- UCSD, La Jolla, USA. Roles of *SEPALLATA* and *AGL3* genes in flower development. 2002 (1 month)

- Max Planck Institute for Plant Breeding Research, Cologne, Germany. Screening for insertions of En-1 transposon in the MADS-box genes. 1999 (1 month)

- Center for Plant Breeding and Reproduction Research, Wageningen, The Netherlands. Screening the I-Ten5 transposon collection for insertions in MADS-box genes. 1999 (1 month)

- UNAM, Mexico DF, Mexico. Teacher of *in situ* hybridization in *Arabidopsis*. 1997 (1 week)

MEETINGS - Posters Presentations

- At the forefront of plant research congress. Barcelona, Spain. 2023
- XVI Plant Molecular Biology Meeting. Seville, Spain. 2022
- Workshop on Molecular Mechanisms Controlling Flower Development. Alicante, Spain. 2022

- Workshop on Molecular Mechanisms Controlling Flower Development. Presquile de Giens, France. 2019
- XV Symposium on Metabolism and Mode of Action of Phytohormones. Valencia, Spain. 2018
- ASPB 2018 Plant Biology Annual Meeting. Montreal, Canada. 2018
- Joint Congress 2017 (SEBC, SEG and SEBD). Gijón, Spain. 2017
- XXII Meeting of the Spanish Society of Plant Physiology. Barcelona, Spain. 2017
- XIII Meeting of the Spanish Society of Plant Physiology. Oviedo, Spain. 2016
- Gordon Research Conference. Plant Molecular Biology. Holderness, NH, USA. 2016
- Workshop on mechanisms controlling flower development. Aiguablava. Spain. Selected for Flash Talk. 2015
- The 26th Conference on Arabidopsis Research. Paris, France. 2015
- Challenges and prospects in PNP metabolic engineering and production. COST Action. Naples, Italy. 2015
- ICREA Workshop: From model systems to crops, challenges for a new era in plant biology. Barcelona, Spain. 2014
- Cell Symposia - Regulatory RNAs. San Francisco, USA. 2014
- Workshop on Mechanisms Controlling Flower Development. Hyeres Les Palmiers, France. Selected for Flash Talk. 2013
- 23rd International Conference in *Arabidopsis* Research. Viena, Austria. 2012
- Interplay of light, photoperiodism and circadian clock function in plant development. Barcelona, Spain. 2011
- 21st International Conference in *Arabidopsis* Yokohama, Japan. 2010
- 18th international conference on *Arabidopsis* research. Beijing, China. 2007
- 17th international conference on *Arabidopsis* research. Madison, USA. 2006
- VIII Plant Molecular Biology Meeting. Pamplona, Spain. 2006
- Summer School in Plant Development. Maratea, Italy. Selected for talk 2005
- 18enes Trobades Franco-Espanyoles. Sant Hilary Sacalm, Spain. 2004
- VII Plant Molecular biology Meeting. Benalmádena, Spain. 2004
- 7th International Congress of Plant Molecular Biology. Barcelona, Spain. 2003
- 13th International Conference on *Arabidopsis* Research. Seville, Spain. 2002
- III Congress of the Spanish Society of Developmental Biology. Málaga, España. 2001
- 11th International Conference on *Arabidopsis* Research. Madison, Wisconsin, USA. 2000
- "Mechanisms in plant development". FASEB Summer Research Conferences. Saxtons River, Vermont, USA. 1998
- "Plant Morphogenesis". Instituto Juan March de Estudios e Investigaciones. Madrid, Spain. 1997
- 8th International Conference on *Arabidopsis* Research. Madison, Wisconsin, USA. 1997
- *Drosophila* meeting in Crete. 1994
- "Molecular and cellular interactions in the development of *Drosophila*". Instituto Juan March de Estudios e Investigaciones. Cuenca, Spain. 1992
- XXVI Jornadas Luso-Espanholas de Genética. 1991
- Drosophila meeting in Boldern, Switzerland. 1991

10. OUTREACH & SOCIETAL IMPACT

- Participation in the Program CROMA2.0 with the workshop "Mutant Plants" as an educative project for vulnerable kids of 21 schools at Vallès Occidental in collaboration with CRECIM. 2024
- Participation in the "Open Mind Week" of the Hamelin-Laie International School with a workshop for secondary students: Hair, eyes, learning to read… Talking about plants. February 21st and 22nd, 2024.
- 24th Science Day at Schools. Plants have hairs, eyes and learn how to read! High School Manuel Carrasco I Formiguera. Sant Feliu de Codines, Barcelona. November 16th, 2023
- Video-interview for Fundación ANTAMA as a result of our article "The floral repressors TEMPRANILLO1 and 2 modulate salt tolerance by regulating hormonal components and photo-protection in Arabidopsis" (Osnato et al., 2021). https://youtu.be/c5csg0OfPAQ
- Media attention of our Osnato et al., 2021 article (l'Efecte Papallona de Catalunya Informació https://www.ccma.cat/catradio/lefecte-papallona/)
- 23rd Science Day at Schools: Eyes, hairs… talking about plants? Secondary School Maremar. El Masnou, Barcelona. November 7th, 2018
- Participation in the Program CROMA2.0 with the workshop "Mutant Plants" as an educative project for vulnerable kids of 21 schools at Vallès Occidental in collaboration with CRECIM. 2018
- Participation in DEUWATTS program *Flors i Ciència*. April 2018. https://beteve.cat/deuwatts/deuwatts-flors-i-ciencia/
- Participation "Open Mind Week" del Hamelin-Laie International School with the workshop Eyes, hairs… talking about plants? Febrero 14th, 2018.
- Worldwide media coverage of our Matías-Hernández et al. 2017 (https://www.cragenomica.es/crag-in-the-media/transgenic-plants-against-malaria-media).
- 22nd Science Day at Schools. Eyes, hairs… talking about plants? Secondary School d'Argentona. Argentona, Barcelona. November 15th, 2017
- "Mutant Plants" workshop for school children. May 18-19th and November Science week, 2017. https://www.youtube.com/watch?v=JNHzFcQbXbo
- CRAG Open day, (Fourth International Fascination of plants day). Experimental station of "Flowers and Hairs". May 20th, 2017
- 19th Science Day at Schools. Flowers learn the alphabet. Secondary School of Premià de Mar. November 2014.
- Participation in the Lab24 Program in RTVE canal 24 horas. June 2014. http://www.rtve.es/alacarta/videos/lab24/lab24-metabolismo-secreto-plantas/2565646/#aHR0cDovL3d3dy5ydHZlLmVzL2FsYWNhcnRhL2ludGVybm8vY29udGVudHRhYmxlLnNodG1sP3BicT0xNCZvcmRlckNyaXRlcmlhPURFU0MmbW9kbD1UT0MmbG9jYWxlPWVzJnBhZ2VTaXplPTE1JmN0eD03NDk5MyZhZHZTZWFyY2hPcGVuPWZhbHNl

- Participation in the elaboration of the CSIC promotional video "Virtual exhibition on model organims" Opening June 2011 http://www.seresmodelicos.csic.es/
- Flowers. TRES14 TVE Program. 2011 http://www.rtve.es/television/20110515/flores/429585.shtml
- 11th Science Day at Schools. Flowers learn the alphabet. IES Bagà. November 2006
- 10th Science Day at Schools. Flowers learn the alphabet. IES Jaume Callís de Vic. November 2005.
- 9th Science Day at Schools. "The mystery of the flowers: the flowers learn the alphabet". IES Joaquim Rubió i Ors. Sant Boi de Llobregat, Spain. November 2004.
- 8th Science Day at Schools. Development of floral organs. Flowers learn the alphabet. Palau Firal i de Congresos, Tarragona and University of Lleida, Lleida. November 2003.