



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date	06-06-2025
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First name	Cristina		
Family name	Ferrandiz		
Gender (*)	Female	Birth date	-
ID number	-		
e-mail	-	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	orcid.org/0000-0002-2460-1068		

(*) Mandatory

A.1. Current position

Position	Profesora de investigación de OPIS		
Initial date	19-04-2023		
Institution	CSIC		
Department/Center	Instituto de Biología Molecular y Celular de Plantas		
Country	Spain	Teleph. number	-
Key words	plant development, flower development, fruit development, transcriptional networks, Arabidopsis, legumes, evo-devo		

A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
2018-2023	Investigadora científica de OPIS/IBMCP-CSIC/Spain
2002-2017	Científica Titular de OPIS/IBMCP-CSIC/Spain
2002	Investigadora Ramón y Cajal/ IBMCP-CSIC/Spain
2001-2002	Contrato de Incorporación de Doctores/ U. Miguel Hernández/Spain
2000-2001	Beca postdoctoral Com. Madrid/ Dpto Biotecnología. ETSIA. UPMadrid/Spain
1996-1999	Postdoc. Research Associate/UCSanDiego/USA

A.3. Education

PhD in Biological Sciences	University of Valencia, Spain	1996
Master thesis (Tesina de licenciatura)	University of Valencia, Spain	1992
Degree in Biology sp. Biochem.and Mol. Biology	University of Valencia, Spain	1991

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Cristina Ferrándiz is currently project leader of the Lab of *Evolution and Development of Flowers, Fruits and Reproductive Meristems* at IBMCP (CSIC) since 2002. She has worked for almost 25 years on different aspects of Plant Developmental Genetics, focusing on the genetics of carpel and fruit development in several plant species including Arabidopsis, solanaceae, crop legumes and, more recently, rice. Her work aims to better **understand the genetic and molecular interactions leading to coordinated patterning of the pistil and the fruit in model systems as well as the functional conservation of these networks in different crop and non-crop species**. Her major contributions in this field have been the characterization of several key transcription factors required for **dehiscence** in Arabidopsis and other crops; she also has identified the NGATHA factors, which are essential for the formation of the **stigma and style** both in Arabidopsis and other species, and to control the distribution of auxin during development gynoecium regulating the synthesis and transport. It has also contributed to **develop non-hierarchical genetic models**



that explain gynoecium morphogenesis through the formation of protein complexes and how variations in these networks affect the morphological evolution. More recently, her work has also focused on the **regulation of the end of flowering in monocarpic species**, which are those with a single reproductive cycle in their lives, and that after producing a certain number of fruits enter senescence and die. The work of the lab has **uncovered a novel genetic mechanism that controls the length of the reproductive phase** and hence fruit production and is currently applying this knowledge to develop biotechnological strategies to increase yield in several crops.

C. Ferrándiz has **led 9 Spanish research projects and has participated in research at EU level** in a FP6, FP7 and H2020 projects. She has co-authored **72 publications** in SCI Journals on plant development in some of the most prestigious scientific journals in Multidisciplinary Science and in the areas of Plant Biology, Development and Biochemistry. These articles are well cited and valuable for the community (5700 citations, h-index 39 in WoS), and thus, C. Ferrándiz has been acknowledged among the **top 2% world ranking of scientists** elaborated by Stanford University (2021). She is also author in **five biotechnological patents**. One of them has been applied successfully to the development of Pod Resistant Hybrid canola (<https://agriculture.basf.ca/west/invigor-hybrid-canola.html>) and is currently in exploitation.

Ferrándiz's group is **well positioned in the international scientific community**, and enjoys good visibility. As proof of this, in the last 10 years he has taught >20 invited lectures at national and international conferences and >20 invited seminars in various institutions, among which are some of prestige as the John Innes Center (UK), the Max Planck (Cologne, Germany), the ENS in Lyon (France) or the Sainsbury lab (Cambridge, UK).

C. Ferrándiz is member of the Asociación de Mujeres Investigadoras y Tecnólogas, and participates actively in different **outreach activities**. She is also, since 2021, the Spanish representative at the Multinational Arabidopsis Steering Committee.

Among **academic activities**, C. Ferrándiz has been lecturer for the Master de Biotecnología Molecular y Celular de Plantas since 2006. She has supervised 12 PhD theses and >15 TFM. She was member of the Comisión Académica del Programa de Doctorado en Biotecnología of the UPV (2014-2022).

C. Ferrándiz has participated in several on-site panels for **grant evaluation**: ANR (France) 2019; MINECO /MICINN/AEI (BIO2015, AYF2019, BTC2020, BTC2023); EU (FP7, ERA-NET, 2007); FRIMEDBIO (2012, 2013, 2014) Norway Research Council; HCERES (2015) France; Colciencias (2014, 2015) Colombia; Irish Research Council (2022) and served as external evaluator for >20 agencies. She is currently member of the **Scientific Advisory Board** for Max Planck Institute for Plant Breeding (Cologne, Germany) and RPD-ENS Lyon (France).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications Only corresponding authored papers listed in the last 10 years (out of a total of 35).

For full list of publications go to <https://ferrandizlab.webs.upv.es/publications.html>

1. I. González-Cuadra, **C. Ferrándiz**[©], P. Merelo[©] (2025) Local regulation of auxin-related pathways in the shoot apical meristem plays a major role during proliferative arrest. **Curr Biol**, 35:4394-4407.
2. M.J. López-Martín, **C. Ferrándiz**[©], C. Gómez-Mena[©] (2025) The end of flowering in tomato is triggered by the quantitative effect of seed production. **Plant Phys** doi.org/10.1093/plphys/kiaf195.
3. I. Martínez-Fernández, C. Fourquin, D. Lindsay, A. Berbel, V. Balanza, S. Huang, M. Dalmais, C. LeSignor, A. Bendahmane, T. Warkentin, F. Madueño[©], **C. Ferrándiz**[©] (2024) Analysis of pea mutants reveals the conserved role of FRUITFULL controlling the end of flowering and its potential to boost yield. **PNAS** 121, e2321975121.
4. J. Moya-Cuevas, E. Ortiz-Gutiérrez, P. López-Sánchez, M. Simón-Moya, P. Ballester, E. R. Alvarez-Buylla, **C. Ferrándiz**[©] (2024) A model for the Gene Regulatory Network Along the Arabidopsis Fruit Medio-Lateral Axis: Rewiring the Pod Shatter Process. **Plants** 13(20), 2927
5. Burillo E, Ortega R, Vander Schoor JK, Martínez-Fernández I, Weller JL, Bombarely A, Balanzà V, **Ferrándiz C**[©] (2024) Seed production determines the entrance to dormancy of the inflorescence meristem of *Pisum sativum* and the end of the flowering period. **Physiol Plant**. 176:e14425.
6. V. Sánchez-Gerschon, I. Martínez-Fernández, M. R González-Bermúdez, S. de la Hoz-Rodríguez, F. V González, J. Lozano-Juste, **C. Ferrándiz**[©], V. Balanzà[©] (2024) Transcription factors HB21/40/53



- trigger inflorescence arrest through abscisic acid accumulation at the end of flowering. **Plant Phys**, 195:2743-2756.
7. Merelo P[©], González-Cuadra I, Ferrándiz C[©]. A cellular analysis of meristem activity at the end of flowering points to cytokinin as a major regulator of proliferative arrest in Arabidopsis (2022) **Current Biology** 32:749-762
 8. Ballester P, Martínez-Godoy MA, Ezquerro M, Navarrete-Gómez M, Trigueros M, Rodríguez-Concepción M, Ferrándiz C[©] (2021) A transcriptional complex of NGATHA and bHLH transcription factors directs stigma development in Arabidopsis. **Plant Cell** 33:3645-57.
 9. V. Balanzà, I. Martínez-Fernández, S. Sato, M. F. Yanofsky and C. Ferrándiz[©] (2019) Inflorescence meristem fate is dependent on seed development and FRUITFULL in Arabidopsis thaliana. **Frontiers in Plant Science** 10:1622
 10. C. Ferrándiz[©] (2019) Fruit Development: Turning Sticks into Hearts. **Curr Biology** 29, R337-9
 11. V. Balanzà, I. Martínez-Fernández, S. Sato, M. F. Yanofsky, K. Kaufmann, G. C Angenent, M. Bemer, C. Ferrándiz[©] (2018). Genetic control of meristem arrest and life span in Arabidopsis by a FRUITFULL-APETALA2 pathway. **Nature Communications** 9:565 doi:10.1038.
 12. A. Gomariz-Fernández, V. Sánchez-Gerschon, C. Fourquin, C. Ferrándiz[©] (2017) The role of SHI/STY/SRS genes in organ growth and carpel development is conserved in the distant eudicot species Arabidopsis thaliana and Nicotiana benthamiana. **Frontiers in Plant Science** 8:814.
 13. P. Ballester, C. Ferrándiz[©] (2017) Shattering fruits: Variations on a dehiscent theme. **Current Opinion in Plant Biology** 35: 68-75
 14. P. Ballester, M. Navarrete-Gómez, P. Carbonero, L. Oñate-Sánchez, C. Ferrándiz[©] (2015) Leaf expansion is controlled by a TCP-NGA regulatory module likely conserved in distantly related species. **Physiol. Plantarum** 155: 21-32.

C.2. Congress (only invited)

- 2024 *Invited Speaker: IV Frontiers in Plant Biology*. Madrid, Spain
Invited Speaker: 11th Workshop in Molecular Mechanisms Controlling Flower Development. Palermo, Italy.
- 2023 *Invited Speaker: 23rd International Congress of Genetics*. Melbourne, Australia.
Invited speaker: At the forefront of plant research. Barcelona, Spain.
Keynote Speaker II Congreso de la Sociedad Colombiana de Biología del desarrollo, Medellín, Colombia.
Selected talk International Legume Society Conference, Granada
- 2022 *Invited Speaker: 10th W. in Molecular Mechanisms Controlling Flower Development*. Alicante, Spain.
Invited speaker: 11th Utrecht PhD Summer School "Environmental Signaling in Plants". Utrecht, Netherlands.
Invited speaker: Sino-German Workshop "Environmental Impact on Plant Reproductive Development". Online/Shanghai, China.
- 2019 *Invited speaker: 23rd International Conference on Plant Growth Substances*. Paris, France.
Invited speaker: International Symposium on Plant Reproductive Development. Shanghai, China.
- 2018 *Keynote speaker: at 7th Euro Evo Devo Conference*. Galway, Ireland
Keynote speaker: Annual Main Meeting of the Soc. for Experimental Biology. Firenze, Italy.
- 2017 *Keynote speaker: at International Symposium on Plant Reproductive Development*. Shanghai, China.
Invited Speaker: Int. Conference of Legume Genetics and Genomics. Siófok, Hungría.
Keynote Speaker: Latin American Society for Developmental Biology. Medellín, Colombia.
- 2016 *Keynote speaker at Plant Biology Europe EPSO/FESPB 2016 Congress*. Prague, Czech Republic. June 2016
- 2015 *Invited Speaker: 7th W. in Molecular Mechanisms Controlling Flower Development*. Aiguablava, Spain.
- 2014 *Invited Speaker: "ICREA Workshop: From model systems to crops, challenges for a new era in plant biology*. Barcelona, Spain.

C.3. Research projects

1. FULLSTOP: Characterization of the molecular mechanisms underlying FRUITFULL activity to STOP flowering in Arabidopsis. PID2024-155648NB-I00. Ministerio de Ciencia e Innovación. 9/2025-8/2028 IP: **C. Ferrándiz**. 285.000 €
2. DontStopMeFlow: El control de la duración de la floración y el rendimiento de los cultivos en respuesta a condiciones ambientales y señales endógenas. Generalitat Valenciana. PROMETEO CIPROM/2022/1. 1/2023-12/2026 IP: **C. Ferrándiz** (of a 7 researcher team) 600.000 €
3. LEGUMEPOWER: Improving legume performance for more sustainable agricultural practices: FUL and AP2 genes effect on pod yield and root development. Ministerio de Ciencia e Innovación. TED2021-129963B-I00. 12/2022– 11/2024. IP: **C. Ferrándiz**, F. Madueño 189.750 €
4. Hecatomb: Studying the central role of HECATE in the specificatiOn of Multiple plant reproductive Boundaries. Ministerio de Ciencia e Innovación. PID2021-122754OB-I00. 9/2022- 8-2025 IP: **C. Ferrándiz**. 278.300 €
5. EvoFruLand: Evolution of genetic network required for fruit and fruit-like structures development of land plants. Unión Europea H2020-MSCA-RISE-2020. 2021-2024. Participants: 10 international institutions. PI: B. Baldan (coordinator, U. Padova, Italy), **C. Ferrándiz** (IP CSIC). 87.400 (CSIC) €
6. CSLM-IBMCP: Implementación De Análisis De Imagen Mediante Microscopía Confocal De Barrido Láser Con Superresolución Y Posibilidad De Estudios No Invasivos En Tejido Vivo Para Investigación En Biotecnología De Plantas. Generalitat Valenciana. IDIFEDER2020/010. Period: 2020-2021. Participants: IBMCP-CSIC. PI: **C. Ferrándiz**. Budget: 628.500 €
7. Non-Stop-Crop: Identificación de factores que influyen en el rendimiento de los cultivos mediante el control de la actividad meristemática. Generalitat Valenciana. PROMETEU/2019/004. 2019-2022.. PI: **C. Ferrándiz**. 273.000 €
8. TimeToSleep: Towards an Integrated model of inflorescence MEristem arresT Agency/Ref: Ministerio de Ciencia e Innovación. RTI2018-099239-B-I00. 2019-2022. PI: **C. Ferrándiz** 262.200 €
9. ExpoSeed: Exploring the molecular control of seed yield in crops. Unión Europea H2020-MSCA-RISE-2015. 2016-2019. Participants: 6 international institutions. PI: Raffaella Bataglia (coordinator), **C.Ferrándiz** (CSIC). 108.000 € (IBMCP-CSIC)
10. LongLifeCrop: Understanding the molecular basis of global proliferative arrest in monocarpic plants: biotechnological strategies for increased fruit and seed production in annual crops. Ministerio de Economía y Competitividad. BIO2015- 64531-R. 2016-2018. PI: **Cristina Ferrándiz**. 278.300 €
11. Expresión y caracterización funcional comparada de genes de desarrollo de fruto en capsulas y bayas de las Solanaceae. CSIC-ICOOP+2016. COOPB20250. 2017-2018. Participantes: IBMCP, U.de Antioquia. PI: **C. Ferrándiz** (Spain) y N. Pabón Mora (Colombia) 25.000€
12. CarpelCode: A combinatorial code of transcription factors to regulate carpel and fruit patterning. Min. de Ciencia e Innovación. DGI BIO2012-32902. 1/2013–12/2015. PI: **C. Ferrándiz**. 187.200 €
13. FRUITLOOK: The physiology and genetics of fruit formation: from genes to networks. Unión Europea. FP7-PEOPLE- PIRSES-2013-612640. 2013-2017. Participants: 5 int. institutions. PI: Simona Masiero. U. degli Studi di Milano, coordinator, **C. Ferrándiz** (CSIC). 86.100 € (IBMCP-CSIC)

C.4. Contracts, technological or transfer merits

Patents

C. Ferrándiz, V. Balanzà, I. Martínez-Fernández, F. Madueño, A. Berbel, C. Fourquin, A. Serrano. Method for increasing the production of flowers and fruits in monocarpic plants by reducing the activity of the gene FRUITFULL or its orthologs or increased APETALA2 activity, its orthologs and genes of the same subfamily in the apical meristem of the stem. EP14382126 (Filed: 31.3.2014). CSIC-UPV. Licensed to PBL, not commercialized.

Yanofsky MF, **Ferrándiz C**. Seed Plants Characterized By Delayed Seed Dispersal .Nº US 6198024 B1 (Filed: 28.4.1998, Issued: 6.3.2001) Licensed to BASF, Comercialized: InVigor hybrid canola Pod Shatter Reduction (<https://agriculture.basf.ca/west/invigor-hybrid-canola.html>)