CURRICULUM VITAE ABREVIADO (CVA) 2025

Part A. PERSONAL INFORMATION

First name	Carmen		
Family name	Fenoll Comes		
Gender (*)	Female	Birth date	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-4653-6268	

A.1. Current position

Position	Full Professor (catedrática) of Plant Physiology		
Initial date	June 2000		
Institution	Universidad de Castilla-la Mancha		
Department/Center	Ciencias Ambientales	Ciencias Ambientales y Bioquímica	
Country	Spain	Teleph. number	
Key words			

A.2. Previous positions (research activity, NO interruptions)

Period	Position/Institution/Country/Interruption cause
August-Dec 2002	Tinker Visiting Full Professor, U Wisconsin Madison- USA
1998-2000	Associate Prof tenured (Prof Titular), Univ Castilla-la Mancha
1987-1988	Associate Prof tenured (Prof. Titular), Univ Autónoma de Madrid
June-sept 1989	Visiting Scientist, Salk Institute, La Jolla, CA-USA
1987-1988	Postdoc Biotech Fellow, Univ California San Diego, USA
1985-1987	Fulbright postdoc, Univ California San Diego, USA
1981-1985	Assistant prof. (Ayudante LRU), Univ Autónoma de Madrid
1979-1981	PhD student (INAPE fellowship), CIB-CSIC, Madrid

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	Univ Autónoma de Madrid, Spain	1983
Master degree	Univ Complutense de Madrid, Spain	1979
5-years Bachelor	Univ Complutense de Madrid, Spain	1978

Part B. CV SUMMARY

Scientific contributions. After a PhD on bacterial bioenergetics, I started research in plants as a Fulbright postdoc in the USA, working with **geminiviruses** (EMBO J. 7:1589). I maintained this line after joining the UAM thanks to my first European project (Twinning Program, FW2), whose main contribution was to discover that viral replication proteins interact with the plant retinoblastoma protein. In parallel, I joined the line on **plant-nematode interactions** initiated by FF del Campo. We obtained national funding and became part of a European network, germ of 3 consecutive European projects (FW 3, 4 and 5) in which I leaded the Spanish group, dedicated to analysis of plant promoters in the giant cells on which the nematode feeds. Among our main achievements is the identification by transcriptomics of differentially expressed genes and their functional analysis (Ann. Rev. Phytopathology 40:191-219). Notably, a geminiviral promoter was activated in giant cells, resulting in an international patent (that was licensed). Since its inception I have leaded this line, focused on transcriptional mechanisms of giant cell differentiation, obtaining competitive funding, and producing publications (in Plant J., New Phytol., Frontiers, Mol Plant, etc.); because of the many international collaborations of this line, I edited 2 international books (Kluwer and Springer). In recent years the direction of this line has passed to Carolina Escobar.

In 1995 I started a line on **stomata development,** a process about which there was hardly any information (our first paper: Plant J. 12:747-755). Since then, this line, which is co-leaded by Montaña Mena, has obtained national and regional funding without interruption. Articles have been published in New Phytol, Trends in Plant Sci and TIGs, Plant J., Plant Phys, Frontiers and other journals; as a result of a strategic international collaboration that is ongoing we co-

author an article in Nature. Our contributions include the identification of natural variation in stomata abundance, the role of stomata abundance on physiology, a new role of MUTE specifying non-stomatal cell identity and new action mechanisms of SPCH and its target genes unravelled through hypomorphic alleles. We described functional orthologs of stomatal genes in tomato and grapevine and are characterizing natural variation in grapevine stomatal abundance in relation to drought and started a line on stomatal development at supra-optimal temperature in the three species.
I initiated the 3 lines at UAM, and since 2000 they are developed in the Consolidated Group of Biotechnology and Molecular Biology of Plants of the UCLM, which I coordinate. In this group there are other researchers acting as PIs, who share equipment, biological materials, and methodologies. As a group we have obtained 11 national grants for scientific infrastructures. I have been granted 6 six-year research periods.
Contributions to society. I have obtained 1 six-year recognition on transference for my activities until 2012. I collaborate assiduously in divulgation, with conferences and publications, obtaining the ANTAMA Award 2014 for biotechnological divulgation. I directed summer courses (at the Menéndez Pelayo International University and at the UCLM) and several training courses in agrobiotechnology for undergraduates of the European Social Fund at the UAM. I am committed to gender and leadership issues in academia and have been Secretary General and President of AMIT (Association of Women Researchers and Technologists) and co-founder and vicepresident of EWORA (European Women Rectors Association). I was President of the Spanish Society of Plant Biology (formerly SEFV). I was Vice-Rector of Academic Affairs, Erasmus coordinator and Director of the Institute of Environmental Sciences at UCLM, and General Director of the Council of Universities (Ministry of Science and Universities). I coordinated the National Team of Bologna Experts funded by the EC, organizing seminars and workshops for university leaders and producing publications. At this moment, I am in my second term as Head of the Department of Environmental Sciences.
Training of personnel and evaluation. I have been director or co-director of 13 PhD Theses, most of them with competitive funding (FPU, FPI and other grants) and made numerous contributions to congresses and conferences in national and international institutions. I supervised 3 postdocs (including an MSC). I regularly advise international and national scientific institutions, evaluating project proposals and research personnel. I also evaluate universities and Study Programs through European, national, or regional agencies and the Institutional Evaluation Program (European University Association), where I was member of the Steering Committee.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications (selected since 2011)

1. Saiz-Pérez J, Baekelandt A, Illescas-Miranda J, Sterck L, Vuylsteke M, Kim EJ, Guo B, Desvoyes B, Gutierrez C, Russinova E, Fenoll C. Warm temperature modifies cell fates to reduce stomata production in Arabidopsis. ***New Phytologist***. 2025 Oct;248(2):672-89. https://doi.org/10.1111/nph.70396
2. Saiz-Pérez J, Fenoll C, Mena M. The PEAPOD repressor complex in Arabidopsis stomatal development. ***Frontiers in Plant Science.*** 2025 Jul 1;16:1641102. https://doi.org/10.3389/fpls.2025.1641102
3. Illescas-Miranda J, Saiz-Pérez J, de Marcos A, Fenoll C, *Mena M. (2025) Synthetic alleles to study MUTE-dependent molecular transitions in stomatal development. ***Physiologia Plantarum***. doi: 10.1111/ppl.70072.
4. Abril-Urias P, Ruiz-Ferrer V, Cabrera J, Olmo R, Silva AC, F Díaz-Manzano FE, Domínguez-Figueroa J, Martínez-Gómez A, Gómez-Rojas A, Moreno-Risueño MA, Fenoll C, Escobar* C (2023) Divergent regulation of auxin responsive genes in root-knot and cyst nematodes feeding sites formed in Arabidopsis. ***Frontiers in Plant Sciences***, DOI 10.3389/fpls.2023.1024815
5. Pérez-Bueno ML, Illescas-Miranda J, Martín-Forero AM, de Marcos A, Barón M, Fenoll C, Mena* M (2022) An extremely low stomatal density mutant overcomes cooling limitations at supra-optimal temperature by adjusting stomatal size and leaf thickness. ***Frontiers in Plant Sciences***, 13: 919299.
6. Silva AC, Ruiz-Ferrer V, Müller SY, Pellegrin C, Abril-Urías P, Martínez-Gómez A, Gómez-Rojas A, Berenguer E, Testillano PS, Andrés MF, Fenoll C, Eves-van den Akker S, Escobar*

C (2022) The DNA methylation landscape of the root-knot nematode-induced pseudo-organ, the gall, in Arabidopsis, is dynamic, contrasting over time, and critically important for successful parasitism. ***New Phytologist,*** https://doi.org/10.1111/nph.18395

7. Olmo R, Cabrera J, Díaz-Manzano FE, Ruiz-Ferrer V, Barcala M, Ishida T, García A, Andrés MF, Ruiz-Lara S, Verdugo I, Pernas M, Fukaki H, Del Pozo JC, Moreno-Risueño MA, Kyndt T, Gheysen G, Fenoll C, Sawa S, Escobar* C (2020) Root-knot nematodes induce gall formation by recruiting developmental pathways of post-embryonic organogenesis and regeneration to promote transient pluripotency. ***New Phytologist,*** https://doi.org/10.1111/nph.16521
8. Delgado D, Sánchez-Bermejo E, de Marcos A, Martín-Jiménez C, Fenoll C, Alonso C, Mena* M. (2019) A genetic dissection of natural variation for stomatal abundance traits in Arabidopsis. ***Frontiers in Plant Sciences***, 10: 1392.
9. Ortega A, De Marcos A, Illescas J, Mena* M, Fenoll* C (2019) The tomato genome encodes SPCH, MUTE and FAMA candidates that can replace the endogenous functions of their Arabidopsis orthologues. ***Frontiers in Plant Sciences***, 10: 1300.
10. Houbaert A, Zhang C, Tiwari M, Wang K, de Marcos A, Savatin D, Urs M, Zhiponova M, Gudesblat G, Vanhoutte I, Eeckhout D, Boeren S, Karimi M, Betti C, Jacobs T, Fenoll C, Mena M, de Vries S, De Jaeger G, Russinova*, E. (2018) POLAR-guided signaling complex assembly and localization drive asymmetric cell division***. Nature,*** 563:574–578
11. Morales-Navarro, S., Pérez-Díaz, R., Ortega, A., de Marcos, A., Mena, M., Fenoll, C., González-Villanueva E. & Ruiz-Lara*, S (2018). Overexpression of a SDD1-Like Gene From Wild Tomato Decreases Stomatal Density and Enhances Dehydration Avoidance in Arabidopsis and Cultivated Tomato. ***Frontiers in Plant Sciences***, 9: 940.
12. Díaz-Manzano FE, Cabrera J, Ripoll JJ, Del Olmo I, Andrés MF, Silva, AC Barcala M, Sánchez M, Ruíz-Ferrer V, de Almeida-Engler J, Yanofsky MF, Piñeiro M, Jarillo JA, Fenoll C, Escobar C (2020) A role for the gene regulatory module microRNA172/TARGET OF EARLY ACTIVATION TAGGED 1/FLOWERING LOCUS T (miRNA172/TOE1/FT) in the feeding sites induced by Meloidogyne javanica in Arabidopsis thaliana. ***New Phytologist***, https://doi.org/10.1111/nph.14839
13. de Marcos A, Houbaert A, Triviño M, Delgado D, Martín-Trillo M, Russinova E, Fenoll C & Mena* M (2017) A mutation in the bHLH domain of the SPCH transcription factor uncovers a BR-dependent mechanism for stomatal development. ***Plant Physiol***. 174 (2), 823-842
14. de Marcos A, Triviño M, Fenoll* C & Mena* M (2016) Too many faces for TOO MANY MOUTHS? ***New Phytologist***, 210 (3): 779–785.
15. De Marcos A, Triviño M., Pérez-Bueno ML, Ballesteros I., Barón M., Mena* M & Fenoll*, C (2015) Transcriptional profiles of Arabidopsis stomataless mutants reveal developmental and physiological features of life in the absence of stomata. ***Frontiers in Plant Science****,* 23, 6: 456.
16. Triviño M, Martín-Trillo M, Ballesteros I, Delgado D, de Marcos A, Desvoyes B, Gutiérrez C, Mena M* and Fenoll C* (2013) Timely expression of the *Arabidopsis* stoma-fate master regulator *MUTE* is required for specification of other epidermal cell types. ***Plant Journal***, 75:808-22
17. Delgado, D., Ballesteros, I., Torres-Contreras, J., Mena*, M. & Fenoll*, C. (2011) Dynamic analysis of epidermal cell divisions identifies specific roles for *COP10* in Arabidopsis stomatal lineage development. ***Planta***, 236:447-61

C.2. Congresses (only organization)

4th Annual Meeting of the EU on "Mechanisms for Resistance against Plant Parasitic Nematodes" (1997, Toledo). President of Scientific Committee. International.

7TH International Congress of Plant Pathology. Chairperson of the session *Nematodes* (1998, Edinburgh). International

VI RBMP (2001, Toledo). President of the Scientific Committee. National.

2nd Annual COST Conference on NEMAGENICS. (Mayo 2009, Toledo). Organizers: Lee Robertson, Carolina Escobar & Carmen Fenoll. International

XVII Congress of the Federation of European Societies of Plant Biology (FESPB). Valencia, Spain on 5-9 July 2010. Member of the Scientific Committee and Chairperson of *Emerging Techniques*. International

FV2015. XIV Congreso Hispano-Luso de Fisiología Vegetal (Toledo, 2015). President of the Scientific Committee (14-17 June, 2015). International

FV2017. XV Congreso Hispano-Luso de Fisiología Vegetal (Barcelona, 2017). Member of the Scientific Committee. International

FV2019. XVI Congreso Hispano-Luso de Fisiología Vegetal (Pamplona, 2019). Member of the Scientific Committee. International.

C.3. Competitive research projects as PI or co-PI (**selected**)

1. MASTER: Molecular analysis of stomatal development master regulators and their temperature-elicited responses. AEI, PID2022-137606NB-I00 (2023-2026). coIPs: C Fenoll y M Mena
2. HEATS: Modifying the leaf epidermis to adjust plant growth to the future climate. MICINN, PID2019-105362RB-I00 (2020-2023). coIPs: C Fenoll y M Mena.
3. EVA: Estomas en Vid y Arabidopsis– genes maestros del desarrollo estomático para el clima futuro. JCCM, SBPLY/21/180501/000144 (2022-2025). coIPs: M Mena y C Fenoll.
4. AIRÉN: Agricultura Inteligente combinando genómica, imagen y teledetección: Riego del viñedo y papel de los Estomas en el clima futuro. JCCM, SBPLY/17/180501/000394 (2018-2021). coIPs: M Mena y C Fenoll
5. SCANNING: Stomata in models and crops: from genes and mechanisms that set their abundance to field phenotyping using non-invasive imaging. MINECO, AGL2015-65053-R (2015-2018). coIPs: C Fenoll y M Mena.
6. AGROGENEMA: Agrobiotecnology and genomics of plant-nematode interactions JCCM, Excellence Project PEII-2014-020-P (2014-2017). IPs: C Fenoll.
7. MOSAICS (2013-2015): Molecular Mechanisms Operating on Stomatal development in Arabidopsis and their Impact in the Control of Stomatal abundance and plant performance. MINECO BIO2012-33952 (2013-2015). IPs: C Fenoll.
8. NESTOR: Nematode Susceptibility Targets fOr A durable Resistance, FW7 EU Project PLANT-KBBE PCIN-2013-053 (2014-2018). IPs: C Fenoll.
9. TRANSPLANTA: Function and biotechnological potential of transcription factors in plants. (Coordinator: J Paz-Ares). CONSOLIDER CSD2007-00057 (2008-2015). IP UCLM: C Fenoll.
10. G-ESTOMA: Global approach to the molecular analysis of the differentiation of stomata in arabidopsis. MEC, BIO2007-60276 (2008-2012). IPs: C Fenoll.
11. HESTOMA: a holistic, global approach to stomata differentiation in Arabidopsis. MEC, BIO2004-01834 (2005-2007). IPs: C Fenoll.
12. NONEMA: Making Plants resistant to plant-parasitic nematodes: no access-no feeding. Coord: H. Helder. EC FW5, QLK5-1999-01501 (2000-2005). IP UCLM: C Fenoll.
13. ARENA: Basis and development of molecular approaches to nematode resistance. EC, Biotecnology Program, BIO4 CT96 318 FW3 (1996-2000). Coord: G. Gheysen. IP UAM: C Fenoll.
14. Engineering and evaluation of cyst nematode resistance in sugarbeet. EC FAIR Program FW4, CT96-1714 (1998-2001). Coord: G. Gheysen. IP UAM: C Fenoll.
15. Investigation of the interaction between geminivirus-encoded transcription factors, host-encoded DNA-binding factors and their target cis sequences in virus and host. EC "Twinnig" Programa Science, FW 2 (1993-1996). CoIPs: C Fenoll y P Mullineaux.

C.4. Contracts, technological or transfer merits.

- Gene expression in tomato. Research contract ENZA-ZADEN, UCTR160337 (2018)
- Inducible Promoters (WO 00/01832), Year: 1999. Countries: International Patent (WO) Owner: Biosciences Ltd. (UK). Authors: FENOLL, C. & MUÑOZ-MARTÍN, A

C.5 Editor of International Books

- Escobar C & Fenoll C Eds (2015) Plant Nematode Interactions: A view on compatible interrelationships. Advances in Botanical Research, Vol 73. **Academic Press, Elsevier**. ISBN: 978-0-12-417161-9
- Jones, J, Fenoll C & Gheysen, G. Editors (2011) Genomics and molecular Genetics of Plant-Nematodes Interactions. Editorial: **Springer**, ISBN 978-94-007-0433-6
- Fenoll C., Ohl, S. & Grundler (Editors) (1997) Cellular and Molecular Basis for Plant-Nematode Interactions. Series: Developments in Plant Pathology, Volume 10. **Kluwer Acad. Publ.** ISBN: 978-94-010-6360-9 (Print) 978-94-011-5596-0 (Online)

C.6.Competitive national funding for Research Infrastructures as Group coordinator
2000. Infraestructuras científicas para el ICAM 0,5 millones €.
2001. Infraestructuras científicas para ICAM. CICYT-FEDER, DGI. 1.6 millones €.
2002. Equipamiento científico para el ICAM. CICYT-FEDER. 1,4 millones €.
2003. Invernadero para experimentación en condiciones controladas. 247.080 €
2003. Sistema de análisis para Genómica Estructural y Funcional. 99.900 €.
2005. Laboratorio inmunolocalización-hibridación in situ. CICYT-FEDER: 109.000 €.
2008. Cámaras de cultivo de plantas. MICINN/JCCM: 80.000 €
2014. Equipos Biología Integrativa Plantas. MINECO UNCM13-1E-1960: 190.000 €
2016. Equipo para la observación remota, UNCM15-CE-3142: 264.560,30 €
2018. Sistemas de captura y análisis avanzado de imagen. EQC2018-004141-P: 210.000€
2019. Growth Chambers for Plants. EQC2019-005528-P. 193.180 €

C.7. Evaluation of Research (main activities in project and personnel assessment)
- Expert for ANEP and Agencia Estatal de Investigacion (since 2000, regularly)
- Panel member in Plan Nacional de Biotecnología calls (4 times)
- Funding agencies of Andalucía, Valencia, Islas Baleares, Argentina, Ecuador, Austria, Francia, Flandes, Polonia; DG VI (Agriculture) EC; Nat. Agency of Energy and Nat. Science Foundation, USA; USA-Israel Agricultural Research & Develop Fund; Genome British Columbia (Canada); BBSRC (UK).
- Promotion to Full Prof. for University of California, Davis (USA) & University of Durham (UK).
- European Young Investigator Award, CE; Panels INIA; CSIC Panels (>20 times); Panel ANEP Progr JdC and RyC; Progr ACADEMIA – ICREA (3 times). Panel for Women in Science L'Oreal-UNESCO.

C.8. Main management and academic policy positions
-Academic Comission PhD Program Ciencias Agrarias y Ambientales, UCLM (2014-**today**)
-Director of the Depto de Ciencias Ambientales (2016-2024)
-Presidenta de la Sociedad Española de Fisiología Vegetal (2017-2021)
-Member of the Steering Committee IEP, European University Associacion (2017-2021)
- Member of the Acad Staff Comision, Consejo de Gobierno de la UCLM (till 2004)
- Director of the Instituto de Ciencias Ambientales, UCLM (till 2003)
- Vicerrectora de Convergencia Europea y Ordenación Académica UCLM (2004-2008)
- Secretaria General Consejo Universidades, Ministerios de Ciencia y de Educación (till 2009).
- Coordinator (2008-2010) or member (2012-14) of the Bologna Experts Team (CE -Ministerio)
- President of the Committee on GMO Reserch, Consejo de Gobierno, UCLM (till 2011)