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| **CV date** |  10-8-2025 |

**PERSONAL INFORMATION**

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| First and Family name | Pere Arús |
| Social Security, Passport, ID number | 39009128R | Age | 75 |
| Researcher numbers | Researcher ID |  F-6443-2015 |
| Orcid code |  0000-0003-0939-8038 |

**Current position**

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| --- | --- |
| Name of University/Institution | IRTA (Institute of Agrifood Research and Technology), CRAG (Centre for Research in Agriculural Genomics CSIC-IRTA-UAB-UB)   |
| Department | Genomics and Biotecnology |
| Address and Country | Campus UAB, Edifici CRAG, Cerdanyola del Vallès (Bellaterra), 08193 Barcelona   |
| Phone number |  +34607072923 | E-mail:  | pere.arus@irta.cat |
| Current position |  Researcher Emeritus | From | 7-2022 |
| UNESCO code | 310705   |
| Keywords | Molecular markers, plant genetics and genomics, plant breeding  |

**Education**

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| --- | --- | --- |
|  | University | Year |
| Agricultural Engineer | València | 1974 |
| PhD Genetics  | University of California, Davis |  1984 |

**SUMMARY of JCR articles, h Index, theses supervised, participation in scientific conferences…**

Citation data taken from WoS (Core collection)

Total citations: >10,000; ~6,000 citations of all papers in the last 10 years (2015-current)

Average citations/year last 5 years (2020-2024): 513

Total publications: 273; JRC publications: 156. First Quartile: Total 108 (of 156); last 10 years 43 (of 47). Non-JCR publications, 117: 21 book chapters, 64 international non-JCR publications, 32 vulgarization and other papers.

h index: 54 (Google scholar h=73); last 10 years (2014-current) h=20

PhD Theses supervised. Total: 16; in the last 10 years: 7

Participated in 71 meetings, 65 international and 6 national. Keynote invited speaker 31 times (16 in the last 10 years). Convener, twice (Meeting of the Spanish Society of Horticultural Science, in 1995 and 10th Rosaceae Genomics Conference, in 2020)

**Research projects and Contracts with companies**

Coordinator of one European project (FAIR; 1993-1997). Workpackage leader in the project EU ISAFRUIT (2006-2010). PI for the IRTA partner and member of the executive committee of the EU project FruitBreedomics (2011-2015). Partner PI in three additional EU projects (1996-2012). Partner PI in two USDA projects (2000-2008). PI of 15 national projects of the Ministry of Science or Ministry of Educación” or “Ministry of Economy and Knowledge” or of INIA. Researcher of 9 additional projects of the same granting sources.

Contracts with 16 companies, 14 from Spain, 2 international: five of them ongoing.

**Teaching experience**

Assistant Professor for the International Advanced Course in Horticulture at the Mediterranean Agronomic Institute (IAMZ-CIHEAM) at Zaragoza (Spain) (1977-1979). Professor of the IAMZ Course on Plant Breeding once every two years since 1984. Responsible for the organization of four editions of the International Course “Use of Molecular Markers in Plant Breeding” (1995, 2000, 2005 and 2012). Member of the organizing committee and professor of five short courses (two weeks) of IAMZ. Professor in charge of the module 6 “Molecular markers for plant improvement” in the Master on Plant Biotechnology of the International University of Andalucía at La Rábida (Huelva), 1998-2006. Sixty-one invited seminars of which 29 in countries other than Spain (France, Italy, Switzerland, Andorra, Australia, Chile, New Zealand, China, USA). Occasional professor of PhD and MSc courses at various Spanish Universities.

**Protected cultivars**

- Co-author (with M. Llauradó and P. Cabot) 14 registered varieties of carnation, and of 52 varieties of *Pelargonium* (with M. Mnejja and A. Ortigosa): 33 of *P. zonale*, 11 of *P. peltatum* and 8 of *P.* x *grandiflorum*. All *Pelargonium* varieties in joint projects with Grup Roig SAT.

**Research and publication evaluation**

- Collective evaluation of six INRAE research Centers (2004-2016). Evaluation committee of advancement to DR1 (INRAE 2014-2016), CR2 (2016) and CRCN (2022).

- Referee/Editor: Associate Editor of Tree Genetics and Genomes for three years (2005-2008). Reviewer of papers in 23 JRC journals. Evaluator of Research Projects and Research Programs: ANEP, MEC, INIA, European Projects –FAIR Programme, BARD (Israel-USA), MUIR-COFIN (Italy), Fonds zur Förderung (Austria), Fundaçaõ para a Ciência e a Tecnologia (Portugal), Agence Nationale de la Recherche (France), CONICYT (Chile), Marsden Fund and Ministry of Business, Innovation and Employment (New Zealand), USDA and National Science Foundation (USA).

**Others**

- Member of the Scientific Advisory Committee of the USDA-NIFA project RosBREED (Enabling marker-assisted breeding in the Rosaceae; <http://www.rosbreed.org/>) (2009-2013) and RosBREED 2 (2014-2019).

- Member of the Scientific Advisory Committee of “Groupe d’Interêt Scientifique (GIS) Biotechnologies Vertes” (2012 to 2020).

- Member of “Standing Committee on Agricultural Research” of the European Commission as representative of the Spanish Autonomous Communities (2014 to 2017).

- Elected member of US RosEXEC (USA Rosaceae Genetics, Genomics and Breeding excecutive committee) (2006-2008).

- Member of the Board of Directors of the Spanish “Asociación Nacional de Obtentores Vegetales (National Association of Plant Breeders)” (ANOVE) (January 2009 to January 2012).

- Medal “Narcís Monturiol” of the Government of Catalonia for personal merit in Science and Technology. December 2003.

- Prize “City of Cordoba” of the Spanish Society of Horticulture to the best scientific paper (Dirlewanger et al. 2004; PNAS) May 2007.

- The public-private collaboration between Semillas FITÓ S.A. and IRTA received the Prize ‘City of Barcelona' of technology (1994).

- Highly cited article award 2020-2021 of Horticulture Research

- Member of the French Academy of Agriculture (since 2016).

- Genomics lead at the seed company Semillas Fitó SAU (2022-2023)

- Technical director of the Peach germplasm resources and improvement team of the “Zhengzhou Fruit Research Institute, CAAS” from China (2022-2025).

- Member of the External Scientific Advisory Board of the CEBAS-CSIC Research Center (Murcia, Spain) (2024-current)

**Publications of the last 5 years (2020-present)**

Li Y, Arús P, Wu J, Zhu G, Fang W, Chen C, Wang X, Cao K, Wang L (2025). Panvariome and pangenome of 1,020 global peach accessions shed light on evolution patterns, hidden natural variations and efficient gene discovery. Mol. Plant. 18(6): 995-1013.

Fan J, Wu J, Arús P, Li Y, Cao K, Wang L (2025) Integrating whole-genome resequencing and machine learning to refine QTL analysis for fruit quality traits in peach. Horticulture Research 12(7) uhaf087.

Castanera R, de Tomás C, Ruggieri V, Vicient C, Eduardo I, Aranzana MJ, Arús P, Casacuberta J (2024) A phased genome of the highly heterozygous 'Texas' almond uncovers patterns of allele-specific expression linked to heterozygous structural variants. Horticulture Research 11(6) uhae106

Pérez de los Cobos F, García-Gómez BE, Orduña-Rubio L, Batlle I, Arús P, Matus JT, Eduardo I (2024) Exploring large-scale gene coexpression networks in peach (Prunus persica L.): a new tool for predicting gene function. Horticulture Research, 11(2), uhad294.

Pradas N, Jurado-Ruiz F, Onielfa C, Arús P, Aranzana MJ (2024). PERSEUS: an interactive and intuitive web-based tool for pedigree visualization. Bioinformatics 40.

Pérez de los Cobos FP, Romero A, Lipan L, Miarnau X, Arús P, Eduardo I, Batlle I, Calle A (2024) QTL mapping of almond kernel quality traits in the F1 progeny of 'Marcona' x 'Marinada'.

Front Plant Sci 15:16.

Batlle I, Miarnau X, Calle A, Arús P, Vargas, FJ (2024). ‘Intensia’, a new Dwarfing Almond× Peach Hybrid Rootstock for Almond and peach. HortScience, 59(9), 1430-1432.

Pérez de los Cobos F, Coindre E, Dlalah N, Quilot-Turion B, Batlle I, Arús P, Eduardo I, Duval H (2023) Almond population genomics and non-additive GWAS reveal new insights into almond dissemination history and candidate genes for nut traits and blooming time. Horticulture Research 10: uhad193

Zaracho N, Reig G, Kalluri N, Arús P, Eduardo I (2023) Inheritance of fruit red-flesh patterns in peach. Plants 12, 394

Duval H, Coindre E, Ramos-Onsins SE, Alexiou KG, Rubio-Cabetas MJ, Martínez-García PJ, Wirthensohn M, Dhingra A, Samarina A, Arús P (2023) Development and evaluation of an axiomtm 60k snp array for almond (*Prunus dulcis*). Plants 12, 242

Kalluri N, Serra O, Donoso JM, Picañol R, Howad W, Eduardo I, Arús P (2022) Construction of a collection of introgression lines of ‘Texas’ almond DNA fragments in the ‘Earlygold’ peach genetic background. Horiculture Research 9 (1), uhac070

Cao K, Peng Z, Zhao X, Li Y, Liu KZ, Arús P, Fang WC, Chen CW, Wang XW, Wu JL, Fei ZJ, Wang LR (2022). Chromosome-level genome assemblies of four wild peach species provide insights into genome evolution and genetic basis of stress resistance. BMC Biology 20 (1):139

Kalluri N, Eduardo I, Arús P (2022) Comparative QTL analysis in peach ‘Earlygold’ F2 and backcross progenies. Scientia Horticulturae 293,110726

Pérez de los Cobos F, Martínez-García PJ, Romero A, Miarnau X, Eduardo I, Howad W, Dicenta F, Socias i Company R, Rubio Cabetas MJ, Gradziel TM, Whirthensohn M, Duval H, Holland D, Arús P, Vargas FJ, Batlle I (2021) Pedigree analysis of 220 almond genotypes reveals two world mainstream breeding lines based on only three different cultivars. Horticulture Research 8:11

Peñuelas J, Germain J, Álvarez E, Aparicio E, Arús P, et al. (2021) Impacts of Use and Abuse of Nature in Catalonia with Proposals for Sustainable Management. Land. 10(2):144.

Li Y, Cao K, Li N, Zhu G, Fang W, Chen C, Wang X, Guo J, Wang Q, Ding T, Wang J, Guan L, Wang J, Liu K, Guo W, Arús P, Huang S, Fei Z, Wang L (2021) Genomic analyses provide insights into peach local adaptation and responses to climate change. Genome Research 31: 1-15

Jin J, Gan K, Zhao L, Jia H, Zhu Y, Li X, Yang Z, Ye Z, Cao K, Wang Z, Yu M, Zhang Y, Ma Z, Liu H, Arús P, Akkerdaas JH, Gao Z, van Ree R (2021) Peach allergen Pru p 1 content is generally low in fruit but with large variation in different varieties. Clinical and Translational Allergy e12034

Alioto T, Alexiou KG, Bardil A, Barteri F, Castanera R, Cruz F, Dhingra A, Duval H, Fernández i Martí A, Frias L, Galán B, García JL, Howad W, Gómez-Garrido J, Gut M, Julca I, Morata J, Puigdomènech P, Ribeca P, Rubio Cabetas MJ, Vlasova A, Wirthensohn M, Garcia-Mas J, Gabaldón T, Casacuberta JM, Arús P (2020) Transposons played a major role in the diversification between the closely related almond and peach genomes: Results from the almond genome sequence. The Plant Journal 101:455-472

Jin J, Gao L, Gao ZS, Zhao L, Li XW, Xie HB, Ni JB, Gan KX, Wu SD, Ye ZW, Luo J, Cao K, Ma RJ, Chen MJ, Arús P, Versteeg SA, Wang HY, Liu ML, Jia HJ, van Ree R (2020)  Selection of Pru p 3 hypoallergenic peach and nectarine varieties, Allergy 75:1256-1260 DOI: 10.1111/all.14102

Giné-Bordonaba J, Eduardo I, Arús P, Cantín CM (2020) Biochemical and genetic implications of the slow ripening phenotype in peach fruit. Scientia Horticulturae 259:108824.

[Cantin CM](https://apps.webofknowledge.com/OutboundService.do?SID=E47VjRY8yGjFbvUglqR&mode=rrcAuthorRecordService&action=go&product=WOS&lang=es_LA&daisIds=31580403), [Wang XW](https://apps.webofknowledge.com/OutboundService.do?SID=E47VjRY8yGjFbvUglqR&mode=rrcAuthorRecordService&action=go&product=WOS&lang=es_LA&daisIds=2861547), [Almira, M](https://apps.webofknowledge.com/OutboundService.do?SID=E47VjRY8yGjFbvUglqR&mode=rrcAuthorRecordService&action=go&product=WOS&lang=es_LA&daisIds=32044976), [Arús P](https://apps.webofknowledge.com/OutboundService.do?SID=E47VjRY8yGjFbvUglqR&mode=rrcAuthorRecordService&action=go&product=WOS&lang=es_LA&daisIds=186751), [Eduardo I](https://apps.webofknowledge.com/OutboundService.do?SID=E47VjRY8yGjFbvUglqR&mode=rrcAuthorRecordService&action=go&product=WOS&lang=es_LA&daisIds=31731489) (2020) Inheritance and QTL analysis of chilling and heat requirements for flowering in an interspecific almond x peach (Texas x Earlygold) F-2 population. Euphytica 216:5

Eduardo I, de Tomás C, Alexiou KG, Giovannini D, Pietrella M, Carpenedo S, Bassols Raseira MC, Batlle I, Cantin CM, Aranzana MJ, Arús P (2020). Fine mapping of the peach pollen sterility gene (*Ps*/*ps*) and detection of markers for marker-assisted selection. Molecular Breeding 40:57

Eduardo I, Alegre S, Alexiou K, Arús P (2020) Resynthesis: Marker-based partial reconstruction of elite genotypes in clonally-reproducing plant species. Frontiers in Plant Science 11:1205

Marimon N, Luque J, Arús P, Eduardo I (2020) Fine mapping and identification of candidate genes for the peach powdery mildew resistance gene *Vr3*. Horticulture Research 7:175

Cirilli M, Micali S, Aranzana MJ, Arús P, Babini A, Barreneche T, Bink M, Cantin CM, Ciacciulli A, Cos-Terrer JE, Drogoudi P, Eduardo I, Foschi S, Giovannini D, Guerra W, Liverani A, Pacheco I, Pascal T, Quilot-Turion B, Verde I, Rossini L, Bassi D (2020) The multi-site PeachRefPop: cultural heritage and international scientific tool for fruit trees. Plant Physiology 184:632-646