MINISTERIO DE CIENCIA E INNOVACIÓN

CURRICULUM VITAE (maximum 4 pages)

AGENCIA ESTATAL DE INVESTIGACIÓN

Part A. PERSONAL INFORMATION

CV date	25/02/2023

First and Family name	María Belén Picó Sirvent		
Social Security, Passport, ID number		Age	
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0001-7761-990X	
	SCOPUS Author ID (*)		
	WoS Researcher ID (*)	K-6517-2014	

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	Polytechnic University of Valencia/Universitat Politecnica Valencia		
Department	Dept. Biotechnology/I.U.COMAV		
Address and Country	CPI, Building 8E, 2nd fl, Camino de Vera, 46022 Valencia, Spain		
Phone number	616834200	E-mail	mpicosi@btc.upv.es
Current position	Full professor (Catedrático Universidad)	From	20/12/2016
Key words	Cucurbits, breeding, resistance, fungi, viruses, markers, genetics, genomics, maps, QTLs, populations, grafting, roots, agroecology		

A.2. Education

PhD, Licensed, Graduate	University	Year
Agronomic Engineer	Polytechnic University of Valencia	1994
PhD. Agronomist Engineer	Polytechnic University of Valencia	1999

A.3. General indicators of quality of scientific production *(see instructions)*

Six-year research periods: (research, last 2013-2018, +1 transference, 01/01/19).
PhD thesis supervised from 01/01/2010: 6 defended + 4 in progress
Data referred to the last 5 years (2018-2022): 46 SCI papers, total number of citations 1973, and average citations per year 394,46 in Web of Science collection.
Data referred to total research activity, since 1996: 119 SCI papers, 77 Q1, 4741 (4211 withouth self citations) citations Web of science. H-index= 35

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

Dr. Belen Pico is a Full Professor on Genetics (2016) at UPV (5 5-yr periods teaching, and 5 6-year periods research (1995/2019), one of transference). Responsible of 15 courses (degree and master), supervisor of 10 finished and 4 ongoing PhD Thesis, and 45/29 TFG/TFM. Secretary at the Biotechnology department (2008/12), Coordinator of the Biotecnology degree (2012/2017), and Coordinator of the Biotechnology PhD programme (2012/2020). Head of the Cucurbits breeding group at UPV. In the last 26 years, she has published 119 SCI papers (46 in the last 5 years), 77 Q1 (categories Horticulture, Agronomy, Plant science). The others mostly Q2 journals of relevance in the field of genetics and plant breeding. In 30, she is the first/second author, participating in the study design, experimental part and writing. In more than half, she is the corresponding and/or last, or next to last, author, responsible for funding, study conception, design of experiments, supervision of experimental activities, writing and results exploitation. She has also published numerous reports in local or national publications (Phytoma, Agricola Vergel, Vida Rural) to better reach the agricultural productive sector. She has been the author of monographs MAPA and IPGRI, and specialized book chapters published by leading international publishers (Springer, John Wiley & Sons, Cabi Publishing), and contributed with more tan 180 communications to national and international congresses, often with invited conferences. She has been involved in specific international working groups, such as the Cucurbits Working Group of the ECP/GR IPGRI/FAO (2018-2020) and the Cost Action FA1204 “Vegetable Grafting to Improve Yield and Fruit Quality Under Biotic and Abiotic Stress Conditions” (2014-2016). B. Picó has participated as researcher, principal investigator

or coordinator, in the last 24 years, in a total of 30 projects funded in different national (CICYT, MINECO, MICINN, MICIU, INIA) and international calls (ERA-NET, PLANT KBBE, A.Bilaterales), being PI in 16 (AGF97-1208-C03-02, AGL2000-1809-C03-02, RF2004-00003-00-00, RF2008-00003-C02-02, RTA2008-00035-C02-02, RTA2011-00044-C02-02, PIM2010PKB-00691, PHB2012-0098, PHBP14/00021, AGL2014-53398-C2-2, E_RTA2013-00020-C04-03, RTC-2017-6023-2-AR, AGL2017-85563-C2-1-R-AR, TED2021-132130B-I00, AGROALNEXT/2022/025, PID2020-116055RB-C21). She has been responsible of regional projects funded by GV, including two of the PROMETEO programm to support high quality research groups, of which she is the coordinator (PROMETEO/2017/078, PROMETEO/2021/072). In the frame of these projects, she has been involved in the development of genomic tools in cucurbits (sequencing of the first transcriptomes and reference genomes, and also resequencings, of melon and zucchini) interacting with international groups leading cucurbits breeding. Also she has large experience in the use of genomic tools in cucurbits breeding for resistance to viral and fungal pathogens (high throughput genotyping of germplasm collections and mapping populations, QTL analysis, MAS, fine mapping of candidate genes), in collaboration with national groups (IBMCP-CSIC, CRAG, IFAPA, CEBAS), as well as in the use of image analysis for root phenotyping, and characterization of the response to soil-borne fungi. The impact of her activities is evident in the citations and in the contracts with seed companies and institutions (S. Fitó, R. Arnedo, De Ruiter, Rijk Zwaan, Harrys Moran, Vilmorin, Seminis, Sakata, Gautier).

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

C.1. Publications (see instructions)

-López-Martín, M; Pérez-de-Castro, A, Picó, B; Gómez-Guillamón, ML. 2022. Advanced Genetic Studies on Powdery Mildew Resistance in TGR-1551. **International Journal of Molecular Science**, Volume: 23, Issue: 20, Article Number: 12553. IF=6,2 Q1.
-Llorente, B; Torres-Montilla, S; Morelli, L; Florez-Sarasa, I; Matus, JT; Ezquerro, M; D'Andrea, L; Houhou, F; Majer, E; Pico, B; Cebolla, J; Troncoso, A; Fernie, AR; Daros, JA; Rodriguez-Concepcion, M. 2020. **Proceedings of the National Academy of Sciences of the USA**, Volume117, Issue: 35, Page: 21796-21803 IF=12,78 Q1, **52 citations** Web of Science
-Saez, C; Martinez, C; Montero-Pau, et al., **Pico, B (9/9) (AC)**. 2020. A Major QTL Located in Chromosome 8 of *Cucurbita moschata* Is Responsible for Resistance to Tomato Leaf Curl New Delhi Virus. **Frontiers in Plan Science**, Volume: 11, Article Number: 207. IF=6,63, Q1, **18 citations** Web of Science
-Esteras, C; Rambla, JL; Sanchez, G; Lopez-Gresa, MP; Gonzalez-Mas, C; Fernandez-Trujillo, JP; Belles, JM; Granell, A; **Pico, B (AC).** 2018. Fruit flesh volatile and carotenoid profile analysis within the Cucumis melo L. species reveals unexploited variability for future genetic breeding. **Journal of the Science of Food and Agriculture,** Volume:98, Issue:10, Pages: 3915-3925. IF=4,12 Q1, **35 citations** Web of Science
-Montero-Pau, J; Blanca, J; Bombarely, A, et al. (**Pico, B (co AC) 11/12** co-corresponding author); Canizares, J (AC). 2018. De novo assembly of the zucchini genome reveals a whole-genome duplication associated with the origin of the Cucurbita genus. **Plant Biotechnology Journal**, Volumen: 16 (6): 1161-1171. IF=13,26 Q1. **106 citations** Web of Science
-Montero-Pau, J; Blanca, J; Esteras, C; Martinez-Perez, EM; Gomez, P; Monforte, AJ; Canizares, J; **Pico, B (AC)**. 2017. An SNP-based saturated genetic map and QTL analysis of fruit-related traits in Zucchini using Genotyping-by-sequencing. **BMC Genomics** Vol 18: 94. IF=4.56 Q1, **51 citations** Web of Science.
-Ríos, P, Argyris, J, Vegas, et al., (**Picó, B 10/12**) Garcia-Mas, J (AC). 2017. ETHQV6.3 is involved in melon climacteric fruit ripening and is encoded by a NAC domain transcription factor. **The Plant Journal** Q1 IF=7.1 Q1 **48 citations** Web of Science.
-Perpiña, G; Esteras, C; Gibon, Y; Monforte, AJ; **Pico, B (AC).** 2016. A new genomic library of melon introgression lines in a cantaloupe genetic background for dissecting desirable agronomical traits. **BMC Plant Biology**, Vol 16:154. IF=5,26, **39 citations** Web Science.
-Garcia-Mas, J; Benjak, A; Sanseverino, V, et al., (**B. Picó 29/35**), Puigdomenech, P(AC). 2012. The genome of melon (Cucumis melo L.). 2012. **PNAS** Vol 109 (29):11872-11877. IF=9.7 Q1 **640 citations** Web of Science.

-Esteras, C; Formisano, G; Roig, C et al., **Pico, B (AC) (11/11)**. 2013. SNP genotyping in melons: genetic variation, population structure, and linkage disequilibrium. **Theoretical and Applied Genetics**, 126(5):1285-1303 IF=5,57 Q1 **84 citations** Web of Science.

C.2. Research projects

-Resiliencia Ante el Cambio Climático en Cucurbitáceas. Financiado por la UE-Next Generation. AEI. Ministerio de Ciencia e Innovación. PRTR. TED2021-132130B-I00 (01/12/22 - 30/11/24). PI: Belen Pico (UPV-CSIC). Funding: 218.500 €

-Diversidad genética y digitalización para el ahorro de recursos hídricos en el cultivo de las Cucurbitáceas. Financiado por la UE-Next Generation. MRR. GVA. Conselleria de Innovación, Universidades Ciencia y Sociedad Digital AGROALNEXT/2022/025). (01/01/21 - 29/06/25). PI: Belen Pico- Maria Jose Diez (UPV-CSIC). Funding: 177,353 €

- Mejora genética en cucurbitáceas para su transición al cultivo ecológico, los retos del cambio climático global y revitalización de la economía agraria local. Generalitat Valenciana. PROMETEO/2021/072 (01/11/21 - 31/12/24). PI: Belen Pico-Maria Jose Diez. Funding: 474,934 €

-Avances en la Mejora de la Sandia y el Melon para la Resistencia a Virus y Estres de Suelo Causado por Hongos Patogenicos y Deficit Hidrico- AEI. Ministerio de Ciencia e Innovación PID2020-116055RB-C21. (01/09/21 - 31/08/24) PI: Belen Pico and Ana Mª Pérez de Castro (UPV-CSIC). Funding: 223.850,00 €

-Genome editing to introduce resistance to diseases and pests in melon. Ministry of Science, Innovation and Universities (MICIU). RTC-2017-6023-2-AR (01/01/18-01/01/22). PI and coordinator of the 2 subprojects (UPV-CSIC): Belen Pico. Funding: 127,727 €

-Selection of landraces adapted to organic farming. Generalitat Valenciana. PROMETEO/2017/078 (01/01/17-01/11/21). PI: Belen Pico. Funding: 346,733 €

-Multidisciplinary control of fungal and viral diseases in melon and watermelon. Ministry of Science, Innovation and Universities (MICIU). AGL2017-85563-C2-1 (01/01/18-01/01/21). PI and coordinator of 2 subprojects (UPV-IHSM Mayora-CSIC): Belén Pico. Funding:169,400 €.

-Identification of resistant sources to ToLCNDV and genetic dissection of resistance. Inst Nac de Inv. y Tecnol. Agraria y Aliment (INIA). RTA2013-00020-C04-03 (02/10/2014-02/10/2017) PI: Belen Pico (coordinator D. Janssen IFAPA). Funding: 100,000 € .

-Sugars and fruit quality in melon (SAFQIM). Ministry of Economy and Competitivity (MINECO) European call PLANT KBBE. PIM2010PKB-00691 (01/03/2011-01/01/2015) PI: Belen Picó (coordinator J. García Mas CRAG). Funding: 130,000 €.

-Development of genomic tools in cucurbits, including genome sequencing, and their application to melon breeding. Genoma España. MELONOMICS (30/12/2008-30/01/2012). PI COMAV subproject: F. Nuez. B Picó researcher responsible of the COMAV,s activities (coordinator P. Puigdomenech CRAG). Funding: 301,391€.

C.3. Contracts, technological or transfer merits

-Research activities within the framework of a CDTI Project:starting breeding program for the introgression of resistance gene to pathogens into Piel de sapo, Amarillo and Blanco melons. PI: Belén Picó (31/01/20 - 30/04/22). Seed Company: INTERSEMILLAS, S.A. Funding: 101,229 €

-Research activities in the field of Tomato leaf curl New Delhi virus (ToLCNDV) resistance on squash varieties PI: Belén Picó (12/02/2015-12/02/2016). Seed Company: RIJK ZWAAN IBERICA, S.A. Funding: 23,460 €

-Technological support UPV-SAKATA SEED IBERICA to study the genetic diversity of a melón mapping population using SNPs. PI: Belén Picó. (16/06/2015-16/06/2016). Seed Company: SAKATA SEED IBERICA Funding: 10,784 €

-Transference of a DNA set of a RILs Cucurbita pepo population suitable for mapping purposes. PI: Belen Picó. (30/04/2014-30/04/2016). Seed Company: RIJK ZWAAN IBERICA, S.A. Funding: 20.300 €

-Production of a marketable inoculum of the avirulent strain ATCC-PV-593 of ZYMV to be used in cross protection against ZYMV virulent strains. PI: JA Daros, IBMCP. Belen Pico: researcher (23/09/2013-23/03/2014). Company: Inv y Aplic Biotecnológicas, Funding: 20.000 €

-Evaluation of melon lines against Monosporascus cannonballus PI: Belen Picó (10/01/2013-10/01/2014). Seed Company: MONSANTO AGRICULTURA ESPAÑA SL-. Funding: 11,000 €

-Development of melón lines (Cucumis melo L. subsp. melo var. inodorus) with resistance to *Monosporascus cannonballus* and good root structure PI: F. Nuez (UPV-COMAV). B.Picó scientific responsable. Seed Company: Ramiro Arnedo S.A. (15/07/2009-01/01/2013). Funding: 241.311.
-Conservation and Portection of Valencian vegetable landraces. Institution: Generalitat Valenciana (01/01/2008-01/01/2012). PI: Fernando Nuez (UPV-COMAV). Funding: 364.930 €. B. Pico, responsible of the cucurbits.

C.4. Patents
Patent application to CPVO for the protection in EU of the rootstocks Fimy2n (Cucumis)–OB2018/0437 (08/02/2018), and Fian2n (Cucumis) - OB 2018/0431 (07/02/2018). Obtentors: Belén Picó and Maria Carmen Gisbert Domenech. UNIVERSIDAD POLITECNICA DE VALENCIA-PONS, PATENTES Y MARCAS INTERNACIONAL,SL. Not yet in exploitation

C.5 TFG, TFM and PhD Thesis supervision

-In the last 10 years I have supervised 24 Graduate and 27 Master thesis.
-In the last 10 years I have supervised 6 PhD Thesis in the PhD program of Biotechnology at the UPV. Some of them have been performed with fellowships funded by Spanish Ministry or Generalitat Valenciana. All have associated SCI publications.
-Alba Lloret Compañ (fellowship FPU2015/03424, year 2015 Funding: 58.170€). Defense date (DD): 30/09/2020. “A dynamic snapshot of bud dormancy in peach”. UPV. Supervisors: B. Picó, G. Rios, and M. Badenes. 3 SCI publications.
-Cristina Sáez Sánchez (fellowship ACIF/2016/188, year 2016, Grants for short stays BEFPI/2017/011 and BEFPI/2018/028 Funding: 60.000 €). DD:29/09/2020. “Breeding Zucchini and melon for resistance to ToLCNDV”. Supervisors: B. Picó, C. Lopez. M Ferriol. 6 SCI.
-Andres Cáceres Burbano (Fellowship Gobierno de la República del Ecuador (Senescyt)). DD: 05/06/2020. “Characterization of new rootstocks for melón”. Supervisors: B. Picó and C. Gisbert. 2 SCI publications.
-Gorka Perpiñá Martín. DD:27/05/2020. “Development of introgression lines for melon breeding. Supervisors: B. Picó, C. Esteras and AJ. Monforte. 5 SCI publications
-Castro Alcocer, Gabriel Elias. DD:16/10/2019. “Genetic and genomic tools for breeding melons against pathogens and fruit quality”. Supervisors: B. Picó and C. Esteras. 3 SCI publications.
-Cristina Esteras Gómez. 30/07/2012. Development and application of genomic tools for breeding cucurbits for quality and resistance to diseases. Supervisors: B. Picó. 4 SCI publications.
I am also supervising four PhD
-Paula Galarza-Jiménez ((PRE2021-097602, year 2022). EDD: 2026. UPV. Supervisor: B. Picó and Ana Mª Pérez de Castro.
-Clara Pérez Moro (UPV-PAID-01-19- SP20190055, year 2019 Funding: 60.000 €). Expected defense date (EDD): May 2023. UPV. Supervisors: A. Pérez and B. Picó. Until the date 2 SCI
-María López Martín (FPI-PRE2018-083466, year 2018, in project AGL2017-85563-C2-1-R Funding: 92,750 €). EDD: June 2023. UPV. Supervisor: A. Pérez, J. Cebolla and B. Picó. Until the date 2 SCI
-Alejandro Flores León (PROMETEO2017/078 GV, year 2018). EDD: July 2021. UPV. Supervisor: B. Picó. Until the date 4 SCI.
Other fellowships JUAN DE LA CIERVA FJCI-2014-19817 PI: Belen Pico MINECO (09/10/2015-09/11/2017).

C.6 Traning courses for companies
I have participated as a lecturer in courses aimed at training seed companies staff on application of genomic tools to plant breeding (Rijk Zwaan, Ramiro Arnedo, Semillas Fitó)

C7. Reviewer activities
I have been reviewer of scientific journals and of ANEP projects

C8. Member of organizing/scientific committees
Cucurbitaceae 2022 conference ASHS (Naples, Florida), XII Eucarpia Meeting on Cucurbit Genetics and Breeding (Spain, 2021). XIV Solanaceae & Cucurbitaceae Joint Conference (Valencia, 2017). V ISHS International Symposium on cucurbits (Cartagena, 2015). Xth

Eucarpia International meeting on Cucurbitaceae (2012, Antalya Turkey). XIII Congreso Nacional de Ciencias Horticolas (SECH, Almeria, 2011).