MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA)

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

CV date	01-06-2023

Part A. PERSONAL INFORMATION

First name	Adoración		
Family name	Cabrera Caballero		
Gender (*)	Mujer		
e-mail	ge1cabca@uco.es		
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-3612-0245	

(*) Mandatory

A.1. Current position

Position	Catedrática de Universidad (Full Profesor)		
Initial date	09-03-2011		
Institution	University of Córdoba		
Department/Center	Genética	Escuela Técnica Superior de Ingeniería Agronómica y de Montes	
Country	Spain	Teleph. Nº	957-218510
Key words	Plant breeding, wheat, genetic resources, introgression		

A.2. Previous positions

Period	Position/Institution/Country/Interruption cause
1984-1988	PhD Student/Universidad de Córdoba/Spain
1989-2010	Profesora Titular de Universidad/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Bachelor in Biology	Universidad de Córdoba/Spain	1982
PhD in Biological Sciences	Universidad de Córdoba/Spain	1988

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

PhD in Biology and Professor of Genetics at the University of Córdoba, teaching in genetics and plant breeding. The research focuses on genetics and wheat breeding, particularly in the development, evaluation and characterization of wheat genetic resources with the focus on gene introgressions in bread wheat with the aim to broaden the genetic pool of this crop. The objective is to incorporate genes of resistance to fungal diseases and genes affecting grain quality in wheat background from related species of Triticeae tribe using the *Ph1* gene and gametocidal genes to increase the frequency of genetic exchange between the genome of wheat and the genome of the donor species. Development of pre-breeding materials, study collinearity with wheat, and construction of both genetic and physical maps. Collaboration in research projects on asparagus, chickpea, rose and raspberry breeding programs. Visiting scientific in USA (Dept. of Plant Pathology, Kansas State University), Germany (Max Plank Institute of Cologne) and UK (Experimental Station of Rothamsted). Leader of six competitive projects and participation in 15 national projects supported by grants from Spanish Ministry of Science and Innovation and the European Regional Development Fund (FEDER) from the European Union. Participation in one Project funded by EU. Publications of 15 book chapters (14 international, one national). Participation in 21 International and 26 National Conferences. Supervision of 10 PhD Thesis of professionals, some of them are currently: Scientist at the

CSIC, postdoctoral position in the Czech Republic, postdoctoral position in the University of Córdoba, researcher in INTA (Costa Rica), researcher in CONICET (Argentina). Supervision of 18 Bachelor Thesis and 14 Master Thesis. Assistant Coordinator of the Agriculture area of the National Evaluation and Foresight Agency (2004-2006). Coordinator of the Doctorate program "Breeding and Genetic Engineering" from the University of Córdoba (2002-2007). Coordinator of the Research line "Plant Genetics Resources and Breeding" within the Doctorate programs of the University of Córdoba (since 2013). Responsible for the organization of the VI Seminar on Cytogenetics, of the Spanish Society of Genetics (Córdoba, 2010.) and has participated in the organization of the III International *Ascochyta* Workshop (Córdoba, 2012).

Number of sexennial: 6 (uno de transferencia de conocimiento e innovación)
Number of PhD thesis: 10
Author or co-author of 54 scientific publications (10 first author, 25 last author) (26 in Q1) that appear in the Science Citation Index (h = 17, Web of Science; 1099 total citations) and **15 book chapters.**

Part C. RELEVANT MERITS

C.1. Publications

1. **Cabrera A**, Porras R, Palomino C, Sillero JC (**2023**). Introgression of seedling plant resistance to leaf rust from Agropyron cristatum into wheat by induced homoeologous recombination. ***Agronomy***, 13, 334. DOI: 10.3390/agronomy13020334
2. Prieto P, Palomino C, Cifuentes Z, **Cabrera A**. (**2021**). Analysis of chromosome associations during early meiosis in wheat lines carrying chromosome introgressions from *Agropyron cristatum*. Plants, 10, 2292. https://doi.org/10.3390/plants10112292 .
3.Copete-Parada A, Palomino C, **Cabrera A** (**2021**). Development and characterization of wheat-*Agropyron cristatum* introgressions lines induced by gametocidal genes and wheat *ph1b* mutant. *Agronomy* 2021, *11*(2), 277. https://doi.org/10.3390/agronomy11020277
4.Cabrera A, Copete A, Madrid E **(2020)**. Cloning and characterization of a putative orthologue of the wheat vernalization (*VRN1*) gene in perennial wheatgrass (*Agropyron cristatum*). Plant Breeding 139(6):1290-1298. https://doi.org/10.1111/PBR.12874. 1 citation
5.Cabrera A, Castellano L, Recio R, Alvarez JB **(2019)** Chromosomal location and molecular characterization of three grain hardness genes in *Agropyron cristatum*. Euphytica 215:165. https://doi.org/10.1007/s10681-019-2496-0. 2 citations
6.Palomino C, **Cabrera A (2019)** Development of wheat-*Hordeum chilense.* Chromosome $2H^{ch}$ introgression lines potentially useful for improving grain quality traits. Agronomy *9*, 493. doi:10.3390/agronomy9090493. 3 citations
7.Said M, Copete A, Gaál E, Molnár I, **Cabrera A**, Doležel J, Vrána J **(2019)** Uncovering macrosyntenic relationships between tetraploid *Agropyron cristatum* and bread wheat genomes using COS markers. Theoretical and Applied Genetic 132: 2881-2898. doi.org/10.1007/s00122-019-03394-1. 6 citations
8.Alvarez JB, Castellano L, Recio R, **Cabrera A. (2019)** *Wx* Gene in *Hordeum chilense*: Chromosomal Location and Characterisation of the Allelic Variation in the Two Main Ecotypes of the Species. Agronomy 9, 261. doi:10.3390/agronomy9050261. 1 citation
9.Copete A and **A Cabrera (2017)** Chromosomal location of genes for resistance to powdery mildew in *Agropyron cristatum* and mapping of Conserved Orthologous Set molecular markers. Euphytica 213:189-297. DOI :10.1007/s10681-017-1981-6. 9 citations
10.Ochoa V, Madrid E, Said M, Rubiales D and **A Cabrera (2015)** Molecular and cytogenetic characterization of a common wheat-*Agropyron cristatum* chromosome translocation conferring resistance to leaf rust. Euphytica 201: 89-95. http://dx.doi.org/10.1007/s10681-014-1190-5. 27 citations

C.2. Congress

1. Gaol E, Said M, Copete Parada A, **Cabrera A**, Cápál P, Szakács É, Farkas A, Ivanizs L, Türkösi E, Endo T, Doležel J, Molnár I. Widening the genepool of bread wheat by dissection of added *Agropyron cristatum* chromosomes 5P and 6P using gametocidal system. CBB&, 6th Conference on Cereal Biotechnology and Breeding, jointly organized by EUCARPIA Cereals, Sections. 3-5 November, **2021**, Budapest, Hungria. Comunicación oral.

2. Said M, Kubaláková M, Karafiátová M, Molnár I, Čížková J, **Cabrera A**, Vrána J and Doležel J. Characterization and Dissecting the Complex Nuclear Genome of Crested Wheatgrass by Chromosome Flow Sorting. International Conference of Analytical Cytometry, September **2019**, Seč-Ústupky, Czech Republic. Poster

3.Said M, Copete A, Gaál E, Molnár I, **Cabrera A**, Doležel J, Vrána J. Uncovering the macrosyntenic relationships at chromosome level between the genomes of tetraploid *Agropyron cristatum* and bread wheat by dissecting P genome into chromosomes and the use of COS markers. 22 nd International Chromosome Conference. September 2-5, **2018**, Prague, Czech Republic. Poster

4.Said M, Vrána J, Karafiátová M, Čížková J, **Cabrera A**, J Doležel. Flow Cytometric characterization of nuclear genome and chromosome sorting in *Agropyron cristatum*, a wild relative of wheat. Conference of the Czech Society for Analytical Cytology "Analytical Cytometry IX". October 14 - 17, **2017**. Prague, Czech Republic. Comunicación oral.

5.Moreno R, Carmona S, Copete A, **A Cabrera.** Uso de mutantes *Ph1* en la introgresión de *Agropyron cristatum* en trigo duro. VIII Congreso de Mejora Genética de Plantas, SEG, Vitoria, 12-14 Julio, **2016**. Poster. Actas de Horticultura Nº 74, ISBN 978-84-7821-864-6, pp. 163-164

6.Mattera MG, **Cabrera A**, Hornero-Méndez D, Atienza SG. Potential of chromosomes 7D and 7H^{ch} for the enhancement of lutein esterification in wheat. 8th International Congress Pigments in Food: Colores Food for Health Benefits. 28th June-1st July **2016**. Cluj-Napoca (Romania). Póster.

7.Said M, **Cabrera A**, Vrána J, Číhalíková J, Doležel J. A trial for chromosome identification in *Agropyron cristatum*. Plant Biotechnology: Green for Good III, 15 - 18 June, 2015. Olomouc, Czech Republic

8.Said M, **Cabrera A**, Vrána J, Číhalíková J and J Doležel. Molecular and Flow Cytometric Karyotype analysis in *Agropyron cristatum*. Plant Molecular Cytogenetics in Genomic and Postgenomic Era Conference. 23-24 September, Katowice-Poland: 91-91, **2014**. Póster

9.Said M, **Cabrera A** and J Doležel. Karyotype analysis in *Agropyron cristatum*. Cereals for Food, Feed and Fuel Challenge for Global Improvement Joint EUCARPIA Cereal Section and ITMI Conference. June 29 - July 4, **2014**, Wernigerode, Germany. Póster

10.Mattera MG, Hordero-Méndez D, Ávila CM, Atienza SG, **A. Cabrera**. Effect of chromosome 7H^{ch} from *Hordeum chilense* Roem. Et Schuktz. on carotenoid content and lutein esterification in common wheat. Cereals for Food, Feed and Fuel – Challenge for Global Improvement Joint EUCARPIA Cereal Section & ITMI Conference. June 29 - July 4, **2014**, Wernigerode, Germany. Póster

C.3. Research projects

1. PID2021-1225300B-100- Mejora genética de cereales: Caracterización y uso de especies de Triticineas como fuente de variación. Agencia Estatal de Investigación. IPs: Juan Bautista Alvarez Cabello / Adoración Cabrera Caballero. Universidad de Córdoba. 01/01/2021-30/09/2024. 180.000

2.RTI2018-093367-B-I00. Caracterización y uso de especies de la tribu Triticeae en la mejora genética del trigo. Agencia Estatal de Investigación. IPs:Juan Bautista Alvarez Cabello / Adoración Cabrera Caballero. Universidad de Córdoba. 01/01/2019-30/09/2022. 157.300 €.

3. AGL2014-52445-R 20. Caracterización y uso de especies de la tribu Triticeae en la mejora genética del trigo. Ministerio de Economía, Industria y Competitividad. Juan Bautista Alvarez Cabello. Universidad de Córdoba. 01/01/2015-31/12/2018. 163.350 €. Researcher.

4. AGL2014-53195-R. Determinación y utilización de la variabilidad genética para el contenido en carotenoides y su esterificación en trigo y tritórdeo. Ministerio de Ciencia e Innovación. Sergio Atienza Peñas. CSIC/ Universidad de Córdoba. 2015-2017. 169.400 euros. Researcher

5. AGL2011-24399. Desarrollo de herramientas para el uso de *Hordeum chilense* en la mejora del contenido en carotenoides en grano de trigo duro y tritórdeo. Ministerio de Ciencia e Innovación.. Sergio Atienza Peñas. CSIC/ Universidad de Córdoba. 2012-2014. Researcher

6. AGL2011-23953. Contribución a la mejora de espárrago mediante el uso de técnicas clásicas y biotecnológicas. Ministerio de Ciencia e Innovación. Juan Gil Ligero. Universidad de Córdoba. 2012-2014. 100.00 euros. Researcher.

C.4. Contracts, technological or transfer merits

1. Gil Juan, Millán Teresa, Cabrera Adoración. Desarrollo varietal en frambuesas Marco Jurídico: ARTÍCULO 83. Contrato 11/45 LRU - 68/83 LOU. OTRI: 12014036. 2014/03/27-2015/03/31

2. Gil Juan, Millán Teresa, Cabrera Adoración. Desarrollo varietal en moras. Marco Jurídico: ARTÍCULO 83.: Contrato art. 11/45 LRU - 68/83 LOU. OTRI: 12014037. 2014/03/11-2015/03/31

C.5 PhD Thesis supervised.

1. Alejandro Copete Parada. Variabilidad genética en *Agropyron cristatum* y su uso en la mejora de trigo. Universidad de Córdoba. Diciembre, 2018. Sobresaliente Cum Laude, Mención Internacional.

2. Gabriella Mattera. Introgresión de *Hordeum chilense* en trigo para la mejora del contenido de pigmentos carotenoides en grano. Universidad de Córdoba. Abril, 2017. Codirigida con el Dr. Sergio Atienza Peñas. Sobresaliente Cum Laude, Mención Internacional.

3. Alfredo Bolaños Herrera. Obtención y caracterización de híbridos interespecíficos en *Pisum* y *Lathyrus*. Universidad de Córdoba. Diciembre de 2014. Codirigida con el Dr. Diego Rubiales Olmedo. Sobresaliente Cum Laude.

C.6. Evaluation of R&D projects

National Evaluation and Foresight Agency [Agencia Nacional de Evaluación y Prospectiva - ANEP]. (From 1990 until now).

C.7. Revision of scientific articles

Reviewer for different scientific journals in the area (Agronomy, Plos One, Frontiers in Plant Sciences, Genome, IJMS, BMC Plant Biology, Genes, Planta, Scientific Reports, etc.)

C.8. Scientific, technical and/or assessment committees

Assistant Coordinator of the Agriculture area of the National Evaluation and Foresight Agency (ANEP) (2004-2006).