

CV date	31/07/2019
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First and Family name	Rosa Ana Malvar Pintos		
Social Security, Passport, ID number	35289006Z	Age	58
Researcher numbers	Researcher ID	E-7926-2012	
	Orcid code	0000-0001-7915-4675	

A.1. Current position

Name of University/Institution	Consejo Superior de Investigaciones Científicas		
Department	Misión Biológica de Galicia		
Address and Country	El Palacio Salcedo. 36143 Pontevedra. Spain		
Phone number	986850048	E-mail	rmalvar@mbg.csic.es
Current position	Research Professor	From	01/05/1991
Espec. cód. UNESCO	3103		
Palabras clave	Maize, Breeding, Genetics, Germplasm, Resistance, Tolerance, Biotic Stresses, Corn Borers		

A.2. Education

PhD	University	Year
In Biology	Santiago de Compostela	1989

A.3. JCR articles, h Index, thesis supervised...

Six-year research periods: 4 + 1 the last period has not been evaluated because I belong to the National Committee for the Assessment of the Research Action (CNEAI)

Date of the last positive period: 2006-2011, 2012-2017 (in evaluation)

PhD supervised in the last ten years: 3 (9 in total)

Total cites: 2063

Average of cites per year in the last five years:164

Total publications in SCI journals:155

Publications since 2009: 66; 46 Q1 (13 D1), 19 Q2 and 1 Q4

H index: 24

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

My research is focused on maize breeding and it began with my PhD (1986-1989). I studied the genetics structure of maize Galician germplasm and these studies followed with Spanish and European maize germplasm designing maize core collections. I have participated in several researches about maize breeding focused on: 1) breeding for early vigor and adaptation, 2) sweet corn adaptation, 3) maize for food uses and 4) breeding for drought and cold tolerance. However my research is mainly focused on breeding for resistance against biotic stresses specifically against corn borer pests. Thus I am researching about: 1) pest dynamics, 2) plant defense categories (antixenosis, antibiotoxic and tolerance), 3) looking for new resistance sources, 4) inheritance of the resistance, 5) selection programs, 6) causes of resistance, 7) looking for genomic regions and genes related to resistance, 8) relationship between cell wall and resistance and 9) relationship between insect damage, fungi and food health (micotoxins). These researches have been published in 155 articles published in SCI journals. I have also developed 40 research project and in 13 I have been main researcher (7 of National Research Program). I have participated in contracts with companies, in divulgation programs, and also in teaching programs (master and PhD) but mainly I was PhD advisor of 9 students who continue to develop successful research careers. Besides, I have obtained new material and have also contribute to research management specially from 2002 to 2011 when I was Director of the Institute.

Part C. RELEVANT MERITS

C.1. Publications (including books). (10 relevant publications since 2009)

1. Butrón A, Sandoya G, Revilla P, Malvar RA. 2009. Genetics of resistance to the pink stem borer (*Sesamia nonagrioides*Lef.) in maize (*Zea mays* L.). *Annals of Applied Biology* 154:205-215
2. Santiago R, Butron A, Revilla P, Malvar RA. 2011. Is the basal area of maize internodes involved in borer resistance. *BMC Plant Biology*, 11: 137
3. Ordás B, Butrón A, Álvarez A, Revilla P, Malvar RA. 2012. Comparison of two methods of reciprocal recurrent selection in maize (*Zea mays* L.). *Theor Appl Genet* 124: 1183-1191
4. Butrón A, Romay MC, Peña-Asín J, Álvarez A, Malvar RA. 2012. Genetic relationship between maize resistance to corn borer attack and Yield. *Crop Sci* 52:1176-1180
5. Butrón A, Samayoa F, Santiago R, Malvar RA. 2014. Comparison of two breeding methods to obtain maize inbred lines resistant to stem borer attack. *Euphytica* 197:295-302
6. Samayoa LF, Butrón A, Malvar RA. 2014. QTL mapping for maize resistance and yield under infestation with *Sesamia nonagrioides*. *Molecular Breeding* 34:1331-1344
7. Barros-Rios J, Santiago R, Jung HJG, Malvar RA. 2015. Covalent cross-linking of cell wall polysaccharides through esterified diferulates as a Maize resistance mechanism against corn borers. *J Agr Food Chem* 63:2206-2214
8. Revilla P, VM Rodríguez, A Ordás, R Rincent, A Charcosset, C Giauffret, AE Melchinger, CC Schön, E Bauer, T Altmann, D Brunel, J Moreno-González, L Campo, M Ouzunova, Á Álvarez, JI Ruíz de Galarreta, J Laborde, RA Malvar. 2016. Association mapping for cold tolerance in two large maize inbred panels. *BMC Plant Biology* 16:127
9. Jiménez-Galindo JC, Ordás B, Butrón A, Samayoa LF, Malvar RA. 2017. QTL Mapping for Yield and Resistance against Mediterranean Corn Borer in Maize. *Frontiers in Plant Science*. 8: 698
10. Samayoa LF, Butrón A, Malvar RA. 2019. Usefulness of marker-assisted selection to improve maize for invreased resistance to *Sesamia nonagrioides* attack with no detrimental effect on yield. *Ann Appl Biol* 1:4

C.2. Research projects and grants (As main researcher since 2009)

REFERENCE: AGL2006-13140

TITLE: Maize breeding for corn borer resistance

FINANCIAL SUPPORT: Ministerio de Educación y Ciencia

CALL: Plan Nacional de I+D+i de 2005, subprograma de investigación fundamental no orientada

MAIN RESEARCHER: Rosa Ana Malvar Pintos

START DATE: January 2007

FINISH DATE: December 2009

FINANCIAL AID: 281446 €

REFERENCE: AGL2009-09611

TITLE: Maize breeding for corn borer resistance

FINANCIAL SUPPORT: Ministerio de Ciencia e Innovación

CALL Nacional de I+D+i de 2008, subprograma de investigación fundamental no orientada

MAIN RESEARCHER: Plan RINCIPAL: Rosa Ana Malvar Pintos

START DATE: January 2010

FINISH DATE: December 2013

FINANCIAL AID : 217000 €

REFERENCE: AGL2012-33415

TITLE: Maize breeding for corn borer resistance

FINANCIAL SUPPORT: Ministerio de Economía y Competitividad
CALL: Plan Nacional de I+D+i de 2012, subprograma de investigación fundamental no orientada
MAIN RESEARCHER: Rosa Ana Malvar Pintos
START DATE: January 2013
FINISH DATE: December 2015
FINANCIAL AID : 175500 €

REFERENCE: AGL2015-67313-C2-1-R
TITLE: Breeding for resistance and defense mechanisms against biotic stresses
FINANCIAL SUPPORT: Ministerio de Economía y Competitividad
CALL: Plan Nacional de I+D+i de 2012, subprograma de investigación fundamental no orientada
MAIN RESEARCHER: Rosa Ana Malvar Pintos y Ana María Butrón Gómez
START DATE: January 2016
FINISH DATE: December 2015
FINANCIAL AID : 157300 €

REFERENCE: : RTI2018-096776-B-C21
TITLE: Breeding for resistance and defense mechanisms against biotic stresses
FINANCIAL SUPPORT: Plan Nacional de I+D+i de 2018
MAIN RESEARCHER: Rosa Ana Malvar Pintos y Ana María Butrón Gómez
START DATE: January 2019
FINISH DATE: December 2021
FINANCIAL AID : 181500 €

C.3. Contracts

1. Organic maize for food. Company: Promotora Orxeira SA
2. Processing and storage of grain and derived products of organic maize. Company: Promotora Orxeira SA
3. Use of local varieties of for energy production. Company: Cespa SA
4. Development of early maize varieties. Company: Semillas Fito
5. Development of maize hybrids adapted to Extremadura for food. Company: ACOPAEX

C.4. Patents

Ordás A, Malvar RA, Revilla P, Butrón A, Ordás B, Santiago R. BOE 24 of February of 2009 and 30 of November of 2009 .

Conservation varieties included in the registration of commercial varieties.

Variety Ribadumia. Register number: 20080244.

Variety Rebordanes. Register number: 20080245.

Variety Tuy. Register number: 20080246.

Variety Sarreaus. Register number: 20080248.

Variety Bibeí. Register number: 20080247.

C.5 Institutional responsibilities and research management

1. Vicedirector of Misión Biológica de Galicia from 1994 to 2002
2. Director of Misión Biológica de Galicia from 2002 to 2011
3. Head of Genetics and Plant Breeding Department from 2014 to nowadays
4. Head of Genetics and Maize Breeding group from 2014 to nowadays
5. Expert Commission to Project Evaluation 2004, 2011 y 2014.
6. Project evaluation for Argentina National Agency (FONCYT). 2000, 2002 y 2004
7. Project evaluation for Federal Research Funding Organization of Canada (2014)
8. Technical expert for project certification (ACIE) since 2014.
9. Project evaluation for Spanish ANEP
10. Associated Editor of EUPHYTICA since 2016
11. Associated Editor of Frontiers in Plant Science desde 2017
12. Member of National Committee for the Assessment of the Research Action (CNEAI) since 2018

C.6. PhD advisor since 2009

Title: Strengthening of the cell wall as a defense mechanism against the corn borer pest.

PhD student: Jaime Barros Ríos.

PhD advisors : Rosa Ana Malvar Pintos and Rogelio Santiago Carabelos.

University: Vigo.

Department : Ingeniería de los recursos naturales y medio ambiente.

Date: 2/02/2012.

Calification : Sobresaliente “cum laude”

Title: Localization of QTLs and identification of genes for resistance and tolerance to corn borer pest

PhD student: Fernando Samayoa López

PhD advisors: Rosa Ana Malvar Pintos and Ana María Butrón Gómez

University: Santiago de Compostela.

Department: Producción Vegetal.

Date : 7/11/ 2014.

Calification: Sobresaliente “cum laude”

Title: Genomic regions associated with insect resistance and maize yield

PhD student: José Cruz Jiménez Galindo.

PhD advisor: Rosa Ana Malvar Pintos and Bernardo Ordás López.

University: Santiago de Compostela.

Department: Producción Vegetal.

Date: 28/7/ 2017.

Calification: Sobresaliente “cum laude”