

Part A. PERSONAL INFORMATION

Part A. PERSONAL INFORMATION			CV date		2021/10/18	
First and Family name		Miren Amaia Mena Petite				
Social Security, Passport, ID number		16.287.642-P			Age	52
Researcher numbers		Researcher ID		K-7622-2017		
		Orcid code		0000-0002-0176-1587		
		Scopus (Author ID)		6506338192		

A.1. Current position

Name of University/ Institution	University of the Basque Country		
Department	Plant Biology and Ecology		
Address and Country			
Phone number	+34945013283	E-mail	amaia.mena@ehu.eus
Current position	Lecturer	from	January 2008
UNESCO code	2417-19		
Keywords	Carbon assimilation, biomass assessment, biostimulants, climate change, drought, food security, grapevine disease resistance, high CO ₂ , oxidative stress, photosynthesis, powdery mildew, <i>Vitis vinifera</i> , water relations.		

A.2. Education

PhD	University	Year
Sciences	University of the Basque Country (UPV/EHU)	2001

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

Six-year research periods: 3, the last one granted with date of effects of 01/01/2018.

Thesis supervised in the last 10 years: 3 (other one in progress)

Total citations Web of Science: 1138

JCR articles: 37

Publications Q1: 24

Index h: 20 (Web of Science)

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

Graduated in Biology in 1992. PhD in Sciences since 2001 by the University of the Basque Country (UPV/EHU). She has been a professor at the Faculty of Science and Technology of the University of the Basque Country (UPV/EHU) since 1996. Since 2008 she has been an Lecturer at the University of the Basque Country (UPV/EHU). She has 3 six-year research periods recognized by the CNEAI National Commission for the Evaluation of Research Activity (the last one granted with date of effects of 01/01/2018), 4 teaching five-year periods recognized in the UPV/EHU, as well as 8 teaching trienniums recognized by the Social Council of the UPV/EHU. She has the UNQUAL positive evaluation of the remuneration supplements C1, C2, B1, B2 and B3. She has extensive experience in research, supported by her participation as a researcher in 37 funded projects, many of them related to the effect of climate change conditions, such as drought or salinity in the response of numerous plant species, including barley and grapevine. She has 63 publications, of which 37 are international articles with review and recognition in the ISI Web of Knowledge. She has presented 96 communications to Congresses, of which 26 have been in International Congresses. She belongs to the Spanish Society of Plant Physiology (SEFV) and to the European Society of Plant Physiology (FESPB). She has been a reviewer in several international journals, including Environmental and Experimental Botany and Plant Ecology. In addition, she has directed three Doctoral Theses, of which two, Dr. Jon Miranda and Dr. Usue Pérez, were International Theses. The three doctoral theses obtained the highest rating. In addition, the Thesis of Dr. Usue Pérez was awarded with the VII Iberian Prize for research in water relations (SEFV, 2012). She has also directed numerous master's degree projects, end-of-degree projects, DEAs, supervised internships in companies, voluntary internships in companies, etc. On the other hand, she has never neglected his own training and specialization as a teacher and researcher, making for this purpose more than 87 courses organized by various entities, including the SAE / HELAZ of the UPV/EHU, and has attended more than 43 seminars, workshops, etc. In a medium/long term, the research of D. Amaia Mena has as interest and fundamental scientific-technical objective the analysis of the combined effect of the factors associated with climate change (drought, high CO₂, temperature) in various species and crops because, to date, effects have been described independently, but, according to the forecasts of the IPCC, under the future climatic conditions, those factors will be manifested jointly. At present, she is investigating the effect that algae extracts can have as biostimulators and protectors of the vine against diseases such as mildew and powdery mildew.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Soba D, Aranjuelo I, Gakiere B, Gilard F, Pérez-López U, Mena-Petite A, Muñoz-Rueda A, Lacuesta M, Sanz-Saez A. (2021) *Bradyrhizobium* strains isolated at elevated CO₂ in soybean show an impaired C and N metabolism when grown at ambient CO₂. *Frontiers in Plant Sciences* Vol 12: 656961.

Sanz-Saez A, Pérez-López U, Del-canto A, Ortiz-Barredo A, Mena-Petite A, Aranjuelo I, Muñoz-Rueda A, Lacuesta M. (2019) Changes in environmental CO₂ concentration can modify *Rhizobium*-soybean specificity and condition plant fitness and productivity. *Environm. and Exp. Botany* 162: 133-143.

Miranda-Apodaca J, Pérez-López U, Lacuesta M, Mena-Petite A, Muñoz-Rueda A. (2018) The interaction between drought and elevated CO₂ in water relations in two grassland species is species-specific. *Journal of Plant Physiology*, 220: 193-202.

Perez-Lopez U, Sgherri C, Miranda-Apodaca J, Micaelli F, Lacuesta M, Mena-Petite A, Quartacci MF, Muñoz-Rueda A. (2018) Concentration of phenolic compounds is increased in lettuce grown under high light intensity and elevated CO₂. *Plant Physiology and Biochemistry* 123: 233-241.

Sgherri C, Perez-Lopez U, Micaelli F, Miranda-Apodaca J, Mena-Petite A, Munoz-Rueda A, Quartacci M. (2017) Elevated CO₂ and salinity are responsible for phenolics-enrichment in two differently pigmented lettuces. *Plant physiology and Biochemistry*, 115: 269-278.

Pérez-López U, Miranda-Apodaca J, Muñoz-Rueda A, Mena-Petite A. (2015) Interacting effects of high light and elevated CO₂ on the nutraceutical quality of two differently pigmented *Lactuca sativa* (cvs. Blonde of Paris Batavia and Oak Leaf). *Scientia Horticulturae* 191: 38-48.

Pérez-López U, Miranda-Apodaca J, Muñoz-Rueda A, Mena-Petite A. (2013) Lettuce production and antioxidant capacity are differentially modified by salt stress and light intensity under ambient and elevated CO₂. *Journal of Plant Physiology*, 170: 1517-1525.

Pérez-López U, Robredo A, Lacuesta M, Mena-Petite A, Muñoz-Rueda A. (2012) Elevated CO₂ reduces stomatal and metabolic limitations on photosynthesis caused by salinity in *Hordeum vulgare*. *Photosynthesis Research*, 111: 269-283.

Robredo A, Pérez-López U, Miranda-Apodaca J, Lacuesta M, Mena-Petite A, Muñoz-Rueda A. (2011) Elevated CO₂ reduces the drought effect on nitrogen metabolism in barley plants during drought and subsequent recovery. *Environmnetal and Experimental Botany*, 71: 399-408.

Pérez-López U, Robredo A, Lacuesta M, Sgherri C, Mena-Petite A, Navari-Izzo F, Muñoz-Rueda A. (2010) Lipoic acid and redox status in barley plants subjected to salinity and elevated CO₂. *Physiologia Plantarum*, 139: 256-268.

Pérez-López U, Robredo A, Lacuesta M, Mena-Petite A, Muñoz-Rueda A. (2009) The impact of salt stress on the water status of barley plants is partially mitigated by elevated CO₂. *Environmental and Experimental Botany*, 66: 463-470.

C.2. Research projects and grants

Selección de extractos y dosis de alga eficaces en la reducción de la afección de mildiu y oidio en viña: efectos sobre la fisiología de la vid, y la microbiota de uva y vino.

Entidad financiadora: Ministerio Ciencia e Innovación PID2020-112644RR-C21

Investigador principal: Emma Cantos Villar

Tipo de participación: Investigadora

Duración: septiembre 2021- septiembre 2023

Subvención concedida: 191.180 euros

Evaluación de la presencia de hongos micotoxigénicos del género *Alternaria* en alimentos animales y humanos producidos en la CAPV

Entidad financiadora: Gobierno Vasco. PA 19/05

Investigador principal: Iratxe Zarraonaindia

Tipo de participación: Investigadora

Duración: enero 2019-31 diciembre 2020

Subvención concedida: 46.000 euros

Quinoa: ¿Opción de cultivo en Álava? Búsqueda de variedades productivas y de alta calidad bajo condiciones climáticas actuales y futuras

Entidad financiadora: Gobierno Vasco. 38-2018-00042

Investigador principal: Usue Pérez López

Tipo de participación: Investigadora

Duración: 2018-2018

Subvención concedida: 23.133,60 euros

Mejora de la tolerancia a la sequía de la alubia en Álava mediante asociaciones simbióticas de alta eficiencia

Entidad financiadora: i+d+i Gobierno Vasco. 37-2017-00047

Investigador principal: María Teresa Lacuesta Calvo

Tipo de participación: Investigadora

Duración: 2017-2018

Subvención concedida: 137.311,20 euros

Inóculos autóctonos eficientes como estrategia de tolerancia a la sequía de la alubia en Álava

Entidad financiadora: i+d+i Gobierno Vasco. 32-2016-00043

Investigador principal: María Teresa Lacuesta Calvo

Tipo de participación: Investigadora

Duración: 2016-2017

Subvención concedida: 82.603,88 euros

Cambio Climático y Cultivos Bioenergéticos

Centro: Dpto. Biología Vegetal y Ecología. UPV/EHU

Entidad financiadora: Gobierno Vasco. Grupo de Investigación IT1022-16 (reconocimiento A)

Investigador principal: Alberto Muñoz Rueda

Tipo de participación: Investigadora

Duración: 2016-21

Subvención concedida: 338.920€

Mejora de la tolerancia a la sequía de la alubia en Álava mediante asociaciones simbióticas de alta eficiencia

Centro: Dpto. Biología Vegetal y Ecología. UPV/EHU

Entidad financiadora: i+d+i Gobierno Vasco. 37-2017-00047

Investigador principal: María Teresa Lacuesta Calvo

Tipo de participación: Investigadora

Duración: 2017-18

Subvención concedida: 137.311,20€

Valoración energética y agronómica de diversos cultivos energéticos

Centro: Dpto. Biología Vegetal y Ecología. UPV/EHU

Entidad financiadora: INIA-MEC. RTA2010-00041-C02-02

Investigador principal: María Teresa Lacuesta Calvo

Tipo de participación: Investigadora

Duración: 2010-13

Subvención concedida: 69.960€

Programa de Ayudas a la Investigación Estratégica ETORTEK 2008

K-EGOKITZEN –Cambio climático: impacto y adaptación

Centro: Dpto. Biología Vegetal y Ecología. UPV/EHU

Entidad financiadora: Gobierno Vasco. Proyecto nº Etortek 2008 (Etortek/44)

Investigador principal: Alberto Muñoz Rueda

Tipo de participación: Investigadora

Duración: 2008

Subvención concedida: 82.457€

C.3. Contracts / C.4. Patents / C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)

C5- Thesis supervised in the last 10 years

Name and Surname: Usue Pérez López

Title of the Thesis: Respuestas fisiológicas de la cebada a la interacción de la salinidad y el elevado CO₂-
Prospección ante el cambio climático-.

Date of obtaining the Ph degree: April 25, 2008

Name and Surname: Anabel Robredo Ruíz de Azúa

Title of the Thesis: Interacción entre el elevado CO₂ y el déficit hídrico en plantas C3 y C4

Date of obtaining the Ph degree: November 7, 2011

Name and Surname: Jon Miranda González de Apodaca

Title of the Thesis: Impacto del elevado CO₂ y la sequía, consecuencia del cambio climático, en la respuesta fisiológica de especies pratenses en monocultivo y en competencia mixta.

Date of obtaining the Ph degree: February 5, 2016

C6-Institutional responsibilities

Coordinator of the “integrated Vineyard practices and production indicators” subject. Master in Innovative Enology (UPV/EHU).

Coordinator of the first year of study of the Environmental Sciences degree (UPV/EHU)

Responsible for the “plant biology” subject of the pharmacy degree (UPV/EHU).

Participant in the Complaints Commission of the plant physiology area of the Department of Plant Biology and Ecology (UPV/EHU).

Member of the Court of 5th and 6th convocation, and extinct subjects. Department of Plant Biology and Ecology (UPV/EHU).

Member of the Court of the access to the UPV/EHU University (secretary of the 35th court).

C7-Memberships of scientific societies

Ordinary Member of the Spanish Society of Plant Physiology (SEFV)

Ordinary Member of the European Society of Plant Physiology (FESPB)

C8-Direction of academic works

She has also directed numerous master's degree projects, end-of-degree projects, DEAs, supervised internships in companies, voluntary internships in companies, etc.

C9- Reviewer in scientific journals

Plant Ecology and Environmental and Experimental Botany, among others.

C10-Awards

The Thesis of Dr. Usue Pérez López was awarded with the VII Iberian Prize for research in water relations (SEFV, 2012).