



Alba Manga Robles

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**Alba Manga Robles**

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 Gender: **Female**
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Current professional situation

Employing entity: University of León **Type of entity:** University
Department: Faculty of Biological and Environmental Sciences, Plant Physiology Area
Professional category: PhD student
Start date: 2020
Type of contract: Grant-assisted student (pre or post-doctoral, others) **Dedication regime:** Full time

Previous positions and activities

	Employing entity	Professional category	Start date
	University of León	Laboratory technician	2018

Employing entity: University of León **Type of entity:** University
Professional category: Laboratory technician
Start-End date: 2018 - 2020



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

- 1 University degree:** Higher degree
Name of qualification: Master's Degree in Teacher Training in Compulsory Secondary Education, Professional Training and Language Teaching
Degree awarding entity: University of La Rioja
Date of qualification: 2022
- 2 University degree:** Higher degree
Name of qualification: Master's Degree in Research in Fundamental Biology and Biomedicine
Degree awarding entity: University of León
Date of qualification: 2019
- 3 University degree:** Middle degree
Name of qualification: Degree in Biology
Degree awarding entity: University of León
Date of qualification: 2017

Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

- 1 Training title:** Varioskan Lux Smart Orientation
Awarding entity: Thermo Fisher Scientific
End date: 2021
Duration in hours: 6 hours
- 2 Training title:** Agroecology and Food Sovereignty: Resilient Approaches to the Future
Awarding entity: UNED Tudela
End date: 2020
Duration in hours: 5 hours
- 3 Training title:** Fundamentals of social entrepreneurship
Awarding entity: FUNDACION GENERAL DE LA UNIVERSIDAD DE LEON Y DE LA EMPRESA
End date: 2020
Duration in hours: 2 hours
- 4 Training title:** Tools for the financing of research and research results
Awarding entity: FUNDACION GENERAL DE LA UNIVERSIDAD DE LEON Y DE LA EMPRESA
End date: 2020
Duration in hours: 3 hours
- 5 Training title:** English Certificate B2 TOEIC 4 Skills
Awarding entity: TOEIC



Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- Title of course/seminar:** Use of the signature holder
Organising entity: University of León
Duration in hours: 2 hours
Start-End date: 2021 - 2021
- Title of course/seminar:** Digital tools for content curation
Organising entity: University of León
Duration in hours: 2 hours
Start-End date: 2020 - 2020
- Title of course/seminar:** Strategies to increase the visibility and impact of scientific output
Organising entity: University of León
Duration in hours: 4 hours
Start-End date: 2020 - 2020
- Title of course/seminar:** Training programme for PhD students
Organising entity: University of León
Duration in hours: 2 hours
Start-End date: 2020 - 2020

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	B2	B2	B2	B2	B2
Spanish	C2	C2	C2	C2	C2

Teaching experience

General teaching experience

- Type of teaching:** Official teaching
Name of the course: Biology I
University degree: Degree in Biology
Start date: 2021
End date: 2022
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 36
Entity: University of León
Type of entity: University
- Type of teaching:** Official teaching
Name of the course: Biology I
University degree: Degree in Biology
Start date: 2020
End date: 2021



Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 18
Entity: University of León

Type of entity: University

3 **Type of teaching:** Official teaching
Name of the course: Biology I
University degree: Degree in Biology
Start date: 2020
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 42
Entity: University of León

End date: 2021

Type of entity: University

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** Evaluation of the effects of salt stress on different parameters in maize plants (*Zea mays* L.)
Entity: University of León
Student: Álex Sastre Tadeo
Date of reading: 2021

2 **Project title:** Effect of *Fusarium Verticillioides* infection on the cell wall of *Zea mays* L.
Entity: University of León
Student: María González Blanco
Date of reading: 2020

Other activities/achievements not included above

1 **Description of the activity:** Workshop "Fascinating experiments with plants" in Expociencia Unileon 2020
Organising entity: University of León
End date: 2020

2 **Description of the activity:** Workshop "Plant Physiology" in International Day of woman and girls in science
Organising entity: University of León
End date: 2020

3 **Description of the activity:** Workshop "Women in science" in International Day of woman and girls in science
Organising entity: University of León
End date: 2020

4 **Description of the activity:** Workshop "A tree with a bright color" in Expociencia 2018 #ConoceUnileon
Organising entity: University of León
End date: 2018



Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** Development of new tools biotechnological tools in maize: identification of genes for acyltransferases
Entity where project took place: University of León
Name principal investigator (PI, Co-PI....): Antonio Esteban Encina García
Funding entity or bodies: Junta de Castilla y León **Type of entity:** Public
Start-End date: 10/07/2019 - 30/09/2021
- 2** **Name of the project:** Analysis of the polysaccharide component of the lignocellulosic material
Entity where project took place: University of León
Name principal investigator (PI, Co-PI....): Antonio Esteban Encina García
Funding entity or bodies: Alcaliber Investigación, Desarrollo e Innovación, S. L.
Start-End date: 15/12/2020 - 14/01/2021
- 3** **Name of the project:** Expociencia Unileon 2020
Entity where project took place: University of León
Name principal investigator (PI, Co-PI....): María Covadonga Palencia Coto
Funding entity or bodies: Fundación Española para la Ciencia y la Tecnología **Type of entity:** Public
Start-End date: 01/04/2019 - 30/06/2020
- 4** **Name of the project:** Expociencia 2018 #ConoceUnileon (FCT- 17-11931)
Entity where project took place: University of León
Name principal investigator (PI, Co-PI....): María Covadonga Palencia Coto
Funding entity or bodies: Fundación Española para la Ciencia y la Tecnología **Type of entity:** Public
Start-End date: 01/01/2018 - 31/03/2019



Results

Industrial and intellectual property

Title registered industrial property: Technical and commercial development of a "Culture chamber for the study of plant-microorganism interactions through volatiles organic compounds"

Inventors/authors/obtainers: Samuel Álvarez García; Sara Mayo Prieto; Pedro Antonio Casquero Luelmo; Santiago Gutiérrez Martín; Guzmán Carro Huerga; Álvaro Rodríguez González; Alejandra Juana Porteous Álvarez; Sara del Ser Herrero; Antonio Encina García; Hugo Mélida Martínez; Alba Manga Robles

Entity holder of rights: University of León

Date of register: 2021

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- Samuel Álvarez-García; Alba Manga-Robles; Antonio Encina; Santiago Gutiérrez; Pedro Casquero. Novel culture chamber to evaluate in vitro plant-microbe volatile interactions: Effects of *Trichoderma harzianum* volatiles on wheat plantlets. *Plant Science*. 320, El Sevier, 2022.
DOI: 10.1016/j.plantsci.2022.111286
Type of production: Scientific paper **Format:** Journal
- Alba Manga-Robles; Rogelio Santiago; Rosa A. Malvar; Víctor Moreno-González; Silvia Fornalé; Ignacio López; María Luz Centeno; José L. Acebes; Jesús Miguel Álvarez; David Caparros-Ruiz; Antonio Encina; Penélope García-Angulo. Elucidating compositional factors of maize cell walls contributing to stalk strength and lodging resistance. *Plant Science*. 307, El Sevier, 2021.
DOI: <https://doi.org/10.1016/j.plantsci.2021.110882>
Type of production: Scientific paper **Format:** Scientific and technical document or report
Impact source: JCR2020 **Category:** Plant Sciences
Impact index in year of publication: 4.729 **Journal in the top 25%:** Yes
Position of publication: 43 **No. of journals in the cat.:** 251
- Carlos Frey; Alba Manga-Robles; José L. Acebes; Antonio Encina. The graft framework: Quantitative changes in cell wall matrix polysaccharides throughout the tomato graft union formation. *Carbohydrate Polymers*. 276, El Sevier, 2021.
DOI: <https://doi.org/10.1016/j.carbpol.2021.118781>
Type of production: Scientific paper **Format:** Scientific and technical document or report
Impact source: JCR2020 **Category:** Organic Chemistry
Impact index in year of publication: 9.381 **Journal in the top 25%:** Yes
Position of publication: 3 **No. of journals in the cat.:** 57



- 4 Alba Manga Robles; Antonio Encina García. Photosynthesis in action. Fascinating Experiments with Plants. 2021. ISBN 978-84-18490-07-1

Type of production: Book chapter

Format: Book

Works submitted to national or international conferences

- 1 **Title of the work:** Changes in cell wall phenolics and BAHD gene expression throughout early maize development
Name of the conference: XXIV Reunión de la Sociedad Española de Biología de Plantas
City of event: Online,
Date of event: 2021
Organising entity: University of Vigo
Alba Manga-Robles; Alfonso G de la Rubia; Penélope García-Angulo; José L Acebes; María Luz Centeno; Antonio Encina.
- 2 **Title of the work:** Deepening into maize cell wall composition upon Fusarium verticillioides infection: a tool for breeding programs
Name of the conference: XIII Genetics and Biotechnology Conference
City of event: Universidade de Trás-os-Montes e Alto Douro (Portugal) and University of León (Spain),
Date of event: 2021
Alba Manga-Robles; María González-Blanco; Antonio Encina; Penélope García-Angulo; María Luz Centeno.
- 3 **Title of the work:** Effects of jasmonic acid on maize cultured cells: an insight into cell wall modifications
Name of the conference: XXIV Reunión de la Sociedad Española de Biología de Plantas
City of event: Online,
Date of event: 2021
Organising entity: University of Vigo
Pablo Fernández-Carbajo; Alba Manga-Robles; María Luz Centeno; Antonio Encina.
- 4 **Title of the work:** Homemade experiments in pandemic times: a resource to support self-directed learning in plant physiology
Name of the conference: XXIV Reunión de la Sociedad Española de Biología de Plantas
City of event: Online,
Date of event: 2021
Organising entity: University of Vigo
José L Acebes; Alba Manga-Robles; Carlos Frey; Alfonso G de la Rubia; Laura Pascual; Hugo Mérida.
- 5 **Title of the work:** Making short videos by students to learn plant physiology
Name of the conference: XXIV Reunión de la Sociedad Española de Biología de Plantas
City of event: Online,
Date of event: 2021
Organising entity: University of Vigo
Romina Martínez-Rubio; María Luz Centeno; Alfonso G de la Rubia; Alba Manga-Robles; Carlos Frey; Antonio Encina; Ángel Pérez-Pueyo; Penélope García-Angulo.
- 6 **Title of the work:** Teaching from a fascination for plants: some experiences of the innovative educational group "Savia Sabia"
Name of the conference: XXIV Reunión de la Sociedad Española de Biología de Plantas
City of event: Online,
Date of event: 2021



Organising entity: University of Vigo

María Luz Centeno; Antonio Encina; Penélope García-Angulo; Hugo Mérida; Alfonso G de la Rubia; Alba Manga-Robles; Carlos Frey; Laura Pascual; José L Acebes.

7 Title of the work: Time course of cell walls changes along tomato graft healing

Name of the conference: PhD Meeting in Plant Science

City of event: Online,

Date of event: 2021

Organising entity: University of Vigo

Carlos Frey; Alba Manga-Robles; Antonio Encina; José L Acebes.

8 Title of the work: Deepening into cell wall as a renewable resource related to stalk strength

Name of the conference: XV Cell Wall Meeting

City of event: Cambridge, United Kingdom

Date of event: 2019

Alba Manga-Robles; Silvia Fornalé; David Caparrós; Ignacio López; Rogelio Santiago; Rosa Ana Malvar; José L. Acebes; Jesús Miguel Álvarez; Antonio Encina; Penélope García-Angulo.

9 Title of the work: Renewable resource related to maize stalk strength: the cell wall as a biotechnological target

Name of the conference: XI Genetics and Biotechnology Conference

City of event: Universidade de Trás-os-Montes e Alto Douro (Portugal) and University of León (Spain), Spain

Date of event: 2019

Alba Manga-Robles; Silvia Fornalé; David Caparrós; Joan Rigau; José L. Acebes; Jesús Miguel Álvarez; Antonio Encina; Penélope García-Angulo.

Other achievements

Stays in public or private R&D centres

1 Entity: Misión Biológica de Galicia-CSIC

City of entity: Pontevedra, Spain

Start-End date: 2022 - 2022

Duration: 3 months

Goals of the stay: Doctorate

2 Entity: Centre for Research in Agricultural Genomic (CRAG) CSIC-IRTA-UAB-UB at Autonomous University of Barcelona

City of entity: Barcelona, Spain

Start-End date: 2019 - 2019

Duration: 15 days

Goals of the stay: Laboratory technician

3 Entity: University of Limerick

City of entity: Limerick, Ireland

Start-End date: 2018 - 2018

Duration: 3 months

Goals of the stay: Internship

4 Entity: Celignis Analytical

City of entity: Limerick, Ireland

Start-End date: 2017 - 2018

Duration: 4 months

**Goals of the stay:** Internship

- 5** **Entity:** University of León **Type of entity:** University
Faculty, institute or centre: Plant Physiology Area
City of entity: León, Spain
Start-End date: 2017 - 2017 **Duration:** 3 months
Goals of the stay: Internship
- 6** **Entity:** University of León **Type of entity:** University
Faculty, institute or centre: Plant Physiology Area
City of entity: León, Spain
Start-End date: 2016 - 2016 **Duration:** 3 months
Goals of the stay: Internship

Obtained grants and scholarships

- 1** **Name of the grant:** Mobility scholarship for researchers at the University of León
Aims: Congress attendance. XV Cell Wall Meeting
Awarding entity: University of León
End date: 2019
Entity where activity was carried out: University of Cambridge (United Kingdom)
- 2** **Name of the grant:** International Scholarship ERASMUS INTERNSHIP
Awarding entity: University of León
End date: 2018
Entity where activity was carried out: Celignis Analytical (Limerick, Ireland)
- 3** **Name of the grant:** International Scholarship ERASMUS INTERNSHIP
Awarding entity: University of León
End date: 2018
Entity where activity was carried out: University of Limerick (Ireland)
- 4** **Name of the grant:** International Scholarship ERASMUS STUDY
Awarding entity: University of León
Duration: 6 months
End date: 2017
Entity where activity was carried out: University of Siena (Italy)

Scientific societies and professional associations

- 1** **Name of the society:** Physiology and Biotechnology of Plants
Affiliation entity: University of León
City affiliation entity: León, Spain
- 2** **Name of the society:** Savia Sabia Teaching Innovation Group
Affiliation entity: University of León
City affiliation entity: León, Spain



Prizes, mentions and distinctions

- 1** **Description:** First prize in the "In search of the true spirit of the University of León" contest
Awarding entity: Universidad de León
Conferral date: 2022
- 2** **Description:** Honorable mention for the poster entitled "Deepening into maize cell wall composition upon Fusarium verticillioides infection: a tool for breeding programs"
Awarding entity: XIII Genetics and Biotechnology Conference
Conferral date: 2021
- 3** **Description:** Honorable mention for the final project Master entitled "Resistance to lodging in maize: a matter of cell wall?"
Awarding entity: University of León
Conferral date: 2019
- 4** **Description:** Honorable mention for the final project Degree entitled "Relationship between stalk lodging and cell wall composition in maize (Zea mays L.)"
Awarding entity: University of León
Conferral date: 2017

Obtained accreditations/recognitions

Description: Moderator in XIII Genetics and Biotechnology Conference
Accrediting entity: XIII Genetics and Biotechnology Conference
Date of recognition: 2021