

**Part A. PERSONAL INFORMATION**

<b>CV date</b>	22/10/21
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First and Family name	José Angel Traverso Gutiérrez		
Social Security, Passport, ID number	18.168.277W	Age	47
Researcher numbers	Researcher ID	B-4342-2008	
	Orcid code	0000-0003-4623-6118	

**A.1. Current position**

Name of University/Institution	University of Granada		
Department	Cell Biology		
Address and Country	Campus de Fuentenuueva , Spain		
Phone number	0034 958246332	E-mail	<a href="mailto:traverso@ugr.es">traverso@ugr.es</a>
Current position	Profesor Titular de Universidad	From	2020
Key words	Redox signaling, Abiotic stress, Salt, protein lipidation, Plant reproduction, Dithiol proteins		

**A.2. Education**

PhD	University	Year
Doctor Biología	Granada	2005

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

Thesis supervised: 1 (25 Sept 17 UAM)  
 Publicaciones en Isi Web of Science: 21  
 Primer o último autor: 11  
 Artículos en primer decil (D1):13, y en primer cuartil (Q1): 17  
 Factor de Impacto promedio de mis publicaciones: ~5.5  
 Índice h (octubre 21): 13  
 Nº Citaciones (octubre 21): 520; Sin citaciones: 487  
 Average citations per item: 24

**Part B. CV SUMMARY**

**Associated student:** Dept. Biochem. (U. Granada). Degree in Biology: (1999; U. Granada).

**PhD studies** (grant FPI; 2000) Estación Experimental del Zaidín (CSIC) + 2 additional international labs. Subject: Plant redox regulation using *Pisum sativum* as model plant and thioredoxins as specific subject. PhD co-supervised by Research Professors Ana Chueca / Julio López Gorgé. PhD degree (2005) Cum Laude. Main results: (a) 2 h-type TRXs playing antagonistic roles in redox signalling<sup>1,2</sup>. (b) First transcription factor targeted by a plant TRX using a new-developed proteomic approach<sup>3</sup>. (c) Plastidial TRXs in non-photosynthetic tissues<sup>4</sup>. (d) New data about structure-functions of the plant TRXs<sup>5</sup>. In addition, several conferences, 3 congress proceedings and 4 book chapter.

**First postdoctoral stage:** ~4-years (Gif-sur-Yvette; CNRS, France). 2-years-postdoctoral position + a researcher contract (20 months). Dr Meinel lab (First class Research Director and Deputy Scientific Director of CNRS). Subject: N-terminal modifications in plant proteins. Main results: (a) Molecular mechanisms explaining the essentiality of the N-myristoylation (N-MYR) in plants<sup>6,7</sup>. (b) Huge proteomic analysis comparing N-terminal modifications in plants, humans, yeast and Archaea<sup>8</sup>. (c) New high-throughput method to study the N-myristoylome of any organism, using the *A.thaliana* proteome as model<sup>9</sup>. (d) Description of a novel integrated model in which N-Methionine Excision, protein N-acylation, proteolysis, and glutathione homeostasis operate in a sequentially regulated mechanism that directs both growth and development<sup>10</sup>. (e) New method to *in vitro* myristoylate recombinant proteins<sup>11</sup>.

**Second postdoctoral stage:** 3 year-contract (JAE-DOC;CSIC;May 2010) + ~6-month research contract. Dr. Alché Lab. Estación Experimental del Zaidín-CSIC. Main results: (a) Role of N-terminal lipidation

in the h-type thioredoxin cluster<sup>12</sup>. (b)Thiol-based redox regulation in sexual plant reproduction<sup>13</sup>. (c)Subcellular localization of a Cu/Zn-SOD from olive pollen<sup>14</sup>.

**Professor:** Dpt. of Cell Biology (U.Granada; January 2014). Main results: Co-edition of a special issue about thiol-based redox regulation and signaling, in a peer-reviewed journal<sup>15</sup>. Role of NADPH oxidase in sexual plant reproduction<sup>16</sup>. Experimental work about the involvement of nitric oxide and S-nitrosylation in reproduction (*Olea europaea L.*) reproduction<sup>17</sup>. PhD Thesis supervision in Sept. 2017<sup>18</sup> (Production and signaling mediated by superoxide and nitric oxide in olive (*Olea europaea L.*) pollen). Role of NO in olive pollen development<sup>19</sup>. New research line: Plant & salt stress: Involvement of HKT1 proteins in salt stress adaptation in tomato plants<sup>20,21</sup>

<sup>1</sup>Traverso et al.2007 PlantPhysiol

<sup>2</sup>Traverso et al.2007 PlantSignBehav

<sup>3</sup>Traverso et al.2010 J.PlantPhysiol

<sup>4</sup>Traverso et al.2008 JExpBot

<sup>5</sup>Aguado-Llera et al.2011PlosOne

<sup>6</sup>Pierre, Traverso et al.2007PlantCell

<sup>7</sup>Traverso et al.2008 PlantSignBehav

<sup>8</sup>Martinez et al.2008 Proteomics

<sup>9</sup>Traverso et al. 20013 Proteomics

<sup>10</sup>Frottin et al.2009PlantCell

<sup>11</sup>Padovani et al. 2013SmallGTPases

<sup>12</sup>Traverso et al,2013 PlantCell

<sup>13</sup>Traverso et al,2013 Front.PlantSci

<sup>14</sup>Zafra et al.2012 Microsc.Microanal

<sup>15</sup>Cejudo et al.2014 Front.PlantSci

<sup>16</sup>Jimenez-Quesada et al.,2016 Front.PlantSci

<sup>17</sup>Jimenez-Quesada et al.,2017 Nitric Oxide

<sup>18</sup>Jimenez-Quesada PhD,2017 UAM

<sup>19</sup>Jimenez-Quesada et al.,2019 Front.PlantSci

<sup>20</sup>Romero-Aranda et al., 2020 PlantPhysiolBiochem

<sup>21</sup>Romero-Aranda et al., 2021 PlantPhysiolBiochem

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

#### C.1. Publications

- Maria Remedios Romero-Aranda, Jesús Espinosa...Andrés Belver (2021) Role of Na<sup>+</sup> transporters HKT1;1 and HKT1;2 in tomato salt tolerance. I. Function loss of cheesmaniae alleles in roots and aerial parts. [Plant Physiol Biochem](#) 168:282-293.
- Maria Remedios Romero-Aranda, Paloma González-Fernández, ... , Andrés Belver (2020) Na<sup>+</sup> + Transporter HKT1;2 Reduces Flower Na<sup>+</sup> Content and Considerably Mitigates the Decline in Tomato Fruit Yields Under Saline Condition. [Plant Physiol Biochem](#) 154:341-352. (Position 7/12)
- Jiménez-Quesada, MJ, Traverso, JA, Potocký M, ... Alché, JD. (2019). Generation of superoxide by OeRbohH, a NADPH oxidase activity during olive (*Olea europaea L.*) pollen development and germination. [Frontiers in Plant Science](#) 19: 1149 (Posición 2/6)
- Carmona R, Jimenez-Quesada MJ, Lima-Cabello E, Traverso JÁ, Castro AJ, Claros MG, de Dios Alché J (2017). S-nitroso- and nitro- proteomes in the olive (*Olea europaea L.*) pollen. Predictive versus experimental data by nano-LC-MS. [Data Brief](#). 2017 Oct 6;15:474-477.
- Zafra A, Carmona R, Traverso JA, Hancock JT, Goldman MHS, Claros MG, Hiscock SJ, Alché JD (2017). "Identification and Functional Annotation of Genes Differentially Expressed in the Reproductive Tissues of the Olive Tree (*Olea europaea L.*) through the Generation of Subtractive Libraries". [Front Plant Sci](#). 2017 Sep 13;8:1576. doi: 10.3389/fpls.2017.01576.
- Jimenez-Quesada MJ, Carmona R, Lima-Cabello E, Traverso JÁ, Castro AJ, Claros MG, Alché JD (2017). "Generation of nitric oxide by olive (*Olea europaea L.*) pollen during in vitro germination and assessment of the S-nitroso- and nitro-proteomes by computational predictive methods". [Nitric Oxide](#). 2017 Aug 1;68:23-37. doi: 10.1016/j.niox.2017.06.005.

- Jiménez-Quesada MJ, **Traverso JA**, Alché Jde D (2016). "NADPH Oxidase-Dependent Superoxide Production in Plant Reproductive Tissues". *Front Plant Sci*. 2016 Mar 31;7:359. doi: 10.3389/fpls.2016.00359.
- Book Edition. Cejudo FJ, Meyer AJ, Reichheld JP, Rouhier N, **Traverso JA**. *Thiol-based redox homeostasis and signaling*. (2014). *Frontiers Research Topics* (Nature Publishing group). (<http://journal.frontiersin.org/researchtopic/1257/thiol-based-redox-homeostasis-and-signalling>).
- **Traverso JA**, Pulido A, Rodríguez-García MI, Alché JD. (2013) Thiol-based redox regulation in sexual plant reproduction: new insights and perspectives. *Front Plant Sci*.4:465. doi: 10.3389/fpls.2013.00465.
- **Traverso JA**, Micaella C, Martínez A, S. Brown, Satiat-Jeunemaître B, Meinel T & Giglione C. (2013) Roles of N-terminal Fatty Acid Acylations in Membrane Compartment Partitioning: Arabidopsis h-TRXs as a Case Study. *Plant Cell*, 25(3):1056-77.
- **Traverso JA**, Giglione C, Meinel T. "High-throughput profiling of N-Myristoylation substrate specificity across species including pathogens" (2013). *Proteomics* 10.1002/pmic.201200375.
- Padovani D, Zeghouf M, **Traverso JA**, Giglione C, Cherfils J.(2013). "High yield production of myristoylated Arf6 small GTPase by recombinant N-myristoyl transferase." *Small GTPases*. 20134:3-8.
- Aguado-Llera D, Martínez-Gómez AI, Prieto J, Marenchino M, **Traverso JA**, Gómez J, Chueca A, Neira JL. (2011). The conformational stability and biophysical properties of the eukaryotic thioredoxins of *Pisum sativum* are not family-conserved. *PLoS One*. ;6(2):e17068. doi: 10.1371/journal.pone.0017068.
- **Traverso JA**, López-Jaramillo JF, Serrato AJ, Ortega-Muñoz M, Aguado-Llera D, Sahrawy M, Santoyo-Gonzalez F, Neira JL and Chueca A (2010). "Evidence of non-functional redundancy between two pea h-type thioredoxins by specificity and stability." *J Plant Physiol* 15: 423-429
- Frottin F, Espagne C, **Traverso JA**, Maud C, Valot B, Zivy M, Noctor G, Meinel T and Giglione C (2009). "Cotranslational proteolysis dominates Glutathione homeostasis for proper growth and development" *The Plant Cell* 21:3296-314.
- Martínez A, **Traverso JA**, Valot B, Ferro M, Espagne C, Ephritikhine G, Zivy M, Giglione C, and Meinel T. (2008). "Extent of N-terminal modifications in cytosolic proteins from eukaryotes". *Proteomics*, 8: 2809-31.
- **Traverso JA**, Vignols F, Cazalis R, Serrato AJ, Pulido P, Sahrawy M, Meyer Y, Cejudo J and Chueca A (2008). "Immunocytochemical localization of *Pisum sativum* TRXs f and m in non-photosynthetic tissues". *Journal of Experimental Botany* 59: 1267-77.
- Traverso JA, Meinel T and Giglione C. (2008). "Expanded impact of protein N-myristoylation in plants". *Plant Signaling & Behavior* 3: 501-2.
- Pierre M, **Traverso J.A.**, Boisson B, Domenichini S, Bouchez D, Giglione C, and Meinel T. (2007). "N-Myristoylation Regulates the SnRK1 Pathway in Arabidopsis". *The Plant Cell* 19:2804-21.
- **Traverso JA**, Vignols F, and Chueca A. (2007) "Thioredoxin and Redox Control within the New Concept of Oxidative Signaling". *Plant Signaling & Behavior* 2: 426-7.
- **Traverso, JA**, Vignols F, Cazalis R, Pulido A, Sahrawy M., Cejudo J. Meyer, and Chueca A. (2007). "PsTRXh1 and PsTRXh2 Are Both Pea h-type Thioredoxins with Antagonistic Behaviour in Redox Imbalances". *Plant Physiology* 243: 300-11.

## C.2. Research projects and grants

- *Regulación de la expresión del gen HKT en tomate. Análisis funcional de su promotor*. PLAN PROPIO DE INVESTIGACION 2018. Programa de Acciones Especiales y convenio. 3000 Euros **IP: José A. Traverso. Duración Enero - diciembre 2019.**
- *Caracterización de tioredoxinas miristoliladas*. PLAN PROPIO DE INVESTIGACION 2016. Programa de Proyectos de Investigación Precompetitivos. Concesión 2016. 3000 Euros **IP: José A. Traverso. Duración Enero - diciembre 2017.**
- Caracterización de proteínas de almacenamiento en la semilla del olivo y en subproductos de la extracción del aceite. Proyecto de Excelencia de la Junta de Andalucía. AGR-6274 (2011-2014). Investigador principal: Juan de D. Alché. Investigador contratado

- Papel de las especies de Oxígeno Reactivo (ROS) y el NO en la Biología Reproductiva del Olivo. Proyecto. Ministerio de Ciencia e Innovación (BFU2011-22779). **2012-2014**. Estación Experimental del Zaidín (CSIC). Ene 12-Dic 14. Responsable : Juan de D. Alché. Investigador contratado
- *Reactive Oxygen Species Functions in Pollen-Stigma Cross-Talk and Pollen tube Growth*. Acción Integrada (2010CZ0001) concedida por el Ministerio de Ciencia e Innovación. **2011-2012**. Colaboración Internacional entre el laboratorio dirigido por el Dr. Juan D. Alché (Granada, España) y el Lab. del Dr. Victor Zarsky (Republica Checa). Investigador contratado
- Caracterización Molecular y Celular de Enzimas relacionadas con el metabolismo del oxígeno en órganos reproductivos de olivo. MICINN (BFU2008-00629). Estación Experimental del Zaidín (CSIC). **Ene 09-Dic 11**. Participación : Investigador Contratado. Responsable : Juan de D. Alché. Investigador contratado
- *Analyse protéomique, génétique et phylogénomique de la N-myristoylation: comparaison entre les règnes végétal et animal*. Ref-IMPB-022 (Fond National de la Science, Francia). Duración: **01/01/2006-01/01/2009**. Institut des Sciences du Végétal, Gif sur Yvette (CNRS). Responsable : Thierry Meinel. Participación: Becario Posdoctoral e Investigador Contratado

### C.3. Contracts

- **Contrato de Profesor Docente e Investigador (PDI). Profesor Contratado Doctor Indefinido**. Universidad de Granada, Dpto. de Biología Celular. (Abril 2018-Junio 2020)
- **Contrato de Profesor Docente e Investigador (PDI). Profesor Ayudante Doctor**. Universidad de Granada, Dpto. de Biología Celular. (Julio 2015-Marzo 2018)
- **Contrato de Profesor Docente e Investigador (PDI). Profesor interino**. Universidad de Granada, Dpto. de Biología Celular. (Enero 2014-Julio 2015)
- **Contrato de Titulado Superior (Investigador) con cargo a proyecto (CSIC)**. Estación Experimental del Zaidín (Julio 2013- Enero 2014). Investigador Principal del Proyecto Dr. Juan de Dios Alché.
- **Contrato de Doctor en Prácticas** en el CSIC (Programa JAE-DOC 2009). Estación Experimental del Zaidín (mayo 2010-Abril 2013). Investigador Principal del Proyecto Dr. Juan de Dios Alché.
- **Contrato de Investigador (Doctor)** en el *Centre National de la Recherche Scientifique* (CNRS; Francia). Institut des Sciences du Végétal, Gif sur Yvette. Francia ; Sep 08 - abr 10. Investigador Principal del Proyecto Dr. Thierry Meinel & Carmela Giglione. 1 contrato inicial (Sept 2008, 1 año) + Ampliación (Sept 2009, 5 meses) + Ampliación (Feb 2010, 3 meses).

### C.5, Others (e. g., Institutional responsibilities, memberships of scientific societies...)

- **Guest Associated Editor** in JCR journal “Frontiers in Plant Science”
- **Usual reviewer** in high impacted journals
- **Componente de la Junta de Instituto** de la Estación Experimental del Zaidín (CSIC), Granada. Representante de Personal (Septiembre 2011- Enero 2014).
- **Thesis supervised** (Sept 2017)