

CURRICULUM VITAE

Miguel Angel Pedroza Villarreal, Ph.D.

Assistant Professor of Enology

Department of Viticulture & Enology / Viticulture & Enology Research Center

California State University, Fresno

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Work Experience

- 2017-present** **Assistant Professor of Enology**
Department of Viticulture & Enology, Fresno State, Fresno, California, USA
- 2016-2017** **Research Engineer**
Centre de Neurosciences Cognitives-CNRS
Neuroeconomics, Reward and Decision Making Laboratory, Lyon, France
- 2014-2016** **Postdoctoral Researcher**
Centre de Neurosciences Cognitives-CNRS
Neuroeconomics, Reward and Decision Making Laboratory, Lyon, France

Education

- 2012** **Ph.D. Enology**
Universidad de Castilla-La Mancha, Albacete, Spain
- Thesis Title: Revalorization of waste grape skins from the juice industry as a new enological product
 - **Cum Laude Mention**
 - **International PhD Mention:** Awarded after an international peer-review evaluation, research internship in foreign center, and dissertation written in English
- 2010** **MSc Agricultural Science and Engineering**
Universidad de Castilla-La Mancha, Albacete, Spain
- 2009** **Advanced Studies in Enology Diploma**
Universidad de Castilla-La Mancha, Albacete, Spain
- 2006** **BSc Food Industries Engineering**
Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico

Academic Awards

- 2014-2017** **National Researchers System Level I**
National Science and Technology Council of the Mexican Government (**CONACYT**)
- 2014-2015** **International Post-Doctoral Fellowship, Fellowship No. 232086**
National Science and Technology Council of the Mexican Government (**CONACYT**)
- 2007-2012** **International Doctoral Fellowship, Fellowship No. 207976**
National Science and Technology Council of the Mexican Government (**CONACYT**)

Languages

| Language | Speaking | Reading | Writing |
|----------|---------------------------|----------|--------------|
| Spanish | -----Native Language----- | | |
| English | Fluently | Fluently | Fluently |
| French | Advanced | Advanced | Intermediate |
| Italian | Beginner | Beginner | Beginner |

Scientific Publication in Peer Review Journals

1. **Pedroza, M.A.**, Maggi, L., Amendola, D., Zalacain, A., De Faveri, D.M., Spigno, G. (2015). Microwave assisted extraction of phenolic compounds from dried waste grape skins. *International Journal of Food Engineering*, 11(3), 359-370. DOI: [10.1515/ijfe-2015-0009](https://doi.org/10.1515/ijfe-2015-0009)
2. **Pedroza, M.A.**, Carmona, M., Alonso, G.L., Salinas, M.R., & Zalacain, A. (2013). Pre-bottling use of dehydrated waste grape skins to improve color, phenolic, and aroma composition of red wines. *Food Chemistry*, 136(1), 224-236. DOI: [10.1016/j.foodchem.2012.07.110](https://doi.org/10.1016/j.foodchem.2012.07.110)
3. **Pedroza, M. A.**, Carmona, M., Pardo, F., Salinas, M. R., & Zalacain, A. (2012). Waste grape skins thermal dehydration: potential release of colour, phenolic and aroma compounds into wine. *CyTA - Journal of Food*, 10(3), 225-234. DOI: [10.1080/19476337.2011.633243](https://doi.org/10.1080/19476337.2011.633243)
4. **Pedroza, M. A.**, Carmona, M., Salinas, M. R., & Zalacain, A. (2011). Use of dehydrated waste grape skins as a natural additive for producing rosé wines: study of extraction conditions and evolution. *Journal of Agricultural and Food Chemistry*, 59(20), 10976-10986. DOI: [10.1021/jf202626v](https://doi.org/10.1021/jf202626v)
5. **Pedroza, M. A.**, Zalacain, A., Lara, J. F., & Salinas, M. R. (2010). Global grape aroma potential and its individual analysis by SBSE-GC-MS. *Food Research International*, 43(4), 1003-1008. DOI: [10.1016/j.foodres.2010.01.008](https://doi.org/10.1016/j.foodres.2010.01.008)
6. Lorenzo, C., Garde-Cerdán, T., **Pedroza, M. A.**, Alonso, G. L., & Salinas, M. R. (2009). Determination of fermentative volatile compounds in aged red wines by near infrared spectroscopy. *Food Research International*, 42(9), 1281-1286. DOI: [10.1016/j.foodres.2009.03.021](https://doi.org/10.1016/j.foodres.2009.03.021)
7. Marín, J., Ocete, R., **Pedroza, M.**, Zalacain, A., de Miguel, C., López, M. A., & Salinas, M. R. (2009). Influence of the mite *Carpoglyphus lactis* (L) on the aroma of pale and dry wines aged under flor yeasts. *Journal of Food Composition and Analysis*, 22(7-8), 745-750. DOI: [10.1016/j.jfca.2009.01.017](https://doi.org/10.1016/j.jfca.2009.01.017)

Published Book Chapters

1. **Pedroza, M.A.**, Salinas, M.r. Alonso, G.L., Zalacain, A. (2017). Chapter 10. Oenological applications of wine-making by-products. In. C.M. Glanakis (Ed.), Handbook of Grape Processing By-products: Sustainable Solutions: Elsevier.

Research Internships

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|-------------------|---|
| 11/2011-1/2012 | Research Internship: Microwave assisted extraction of grape marc Univeritá Cattolica del Sacro Cuore, Istituto di Enologia e Ingegneria Agroalimentare, Piacenza, Italy |
| March-April, 2010 | Research Internship: Waste grape skins preliminary evaluation Bodegas San Isidro, Jumilla, España |

Grantsmanship

CONACYT International Postdoctoral Grant

Centre de Neurosciences Cognitives, Centre National de la Recherche Scientifique UMR 5229
Université Claude-Bernard Lyon 1, France

Proposal Title: Effect of wine labels on reward-related brain activity

Financing Organization: National Science and Technology Council of Mexico, CONACYT

Scientific Advisor: Jean-Claude Dreher, PhD

Marie Curie Intra-European Fellowship Candidate

Centre de Neurosciences Cognitives, Centre National de la Recherche Scientifique UMR 5229
Université Claude-Bernard Lyon 1, France

Evaluation: Proposal of Good Quality

Proposal Number: 626313

Proposal Title: Effect of wine labels on reward-related brain activity

Financial Organization: European Council under the 7th Framework Program

Scientist in Charge: Jean-Claude Dreher, PhD

Viticulture & Enology Professional and Academic Experience

- 8/2013-3/2014** **Viticulture and Enology Internship, Domaine Xavier Reverchon, Poligny France**
Region: Côtes de Jura
Harvest, winemaking of red, white, and sweet wine, assamblages, and sales work
- 9/2005-12/2005** **Semester Abroad Program, Oregon State University, Corvallis, OR, USA**
Courses: Wine production and analysis, fruit and vegetable processing
- 7/2005** **Viticulture and Enology Internship, [Château Peneau](#), Bordeaux, France**
Region: Premières Côtes de Bordeaux
Vineyard maintenance, winery and sales work
- 6/2005** **Summer Abroad Program, École Supérieure d'Agriculture PURPAN, Toulouse, France**
Viticulture and Enology

Professional Tasting and Sensory Evaluation

- 2017 **Concours ELLE a Table**
Lyon, France
- 2017 **Chardonnay du Monde International Wine Contest**
Beaujolais, France
- 2017 **Concourse International de Lyon**
Lyon, France
- 2017 **Concours Général Agricole, Paris, France**
- 3/2016 **Chardonnay du Monde 2016 International Wine Contest**
Château des Ravatys
Burgundy, Spain, and Morocco wines
- 2/2016 **Expert jury training for Chardonnay du Monde International Wine Contest**
Institut Paul Bocuse, Ecully, France
- 2/2016 **Concours Général Agricole, Paris 2016**
Paris, France

Ministère de l'Agriculture et l'Alimentation, Cotes de Brouilly, Alsace

2/2015

Concours Général Agricole, Paris 2015

Paris, France

Ministère de l'Agriculture et l'Alimentation, Champagne, South-west wines, Beer

2/2014

Concours Général Agricole, Paris 2014

Paris, France

Ministère de l'Agriculture et l'Alimentation, Saint Emilion Grand Cru

Research Projects

10-12/2012

Project Researcher - Universidad de Castilla-La Mancha, Cátedra de Química Agrícola, Albacete, Spain

Project Title: Evaluation of a methodology for determining grape and wine aroma precursors at wineries

Financing Organization: Bodega Martin Códax (DO Rías Baixas, Galicia, Spain), Bodegas y Viñedos Pittacum (DO Bierzo, Castilla León, Spain), Bodega Heredad Ugarte (DOC Rioja Alavesas, Spain)

Project Leader: Prof. Ma. Rosario Salinas, PhD

10/2010-12/2011

Project Researcher - Universidad de Castilla-La Mancha, Cátedra de Química Agrícola, Albacete, Spain

Project Title: Optimization of phenolic and aroma extracts from grape processing by-products.

Project Reference: 0114101087

Financing Organization: Junta de Comunidades de Castilla-La Mancha (Regional Government of Castilla-La Mancha, Spain) – Julian Soler S.A. Grape Juice Concentrate Factory

Project Leader: Amaya Zalacain Aramburu, PhD

10/2011

Project Researcher - Universidad de Castilla-La Mancha, Cátedra de Química Agrícola, Albacete, Spain

Project Title: Testing of BIOLAN biosensors to determine wine and grape aroma potential

Financing Organization: BIOLAN S.L.

Participant Wineries and Laboratories: Bodegas y Viñedos Labastida Solagüen, La Rioja, Spain; Bodega Contador, San Vicente de la Sonsierra, La Rioja, Spain; Estación Enológica de Haro, La Rioja, Spain.

Project Leader: Manuel Carmona, PhD

2008-2010

Project Researcher - Universidad de Castilla-La Mancha, Cátedra de Química Agrícola, Albacete, Spain

Project Title: Evaluation of dehydrated waste grape skins as new enological product for enhancing wine color and aroma **Project ID:** PAI08-0148-9842

Financing Organization: junta de Comunidades de Castilla-La Mancha (Regional Government of Castilla-La Mancha, Spain)

Project Leader: Amaya Zalacain Aramburu, PhD

Teaching Experience

2016

Internship Advisor

Master 1 Biologie Intégrative Physiologie et Neurosciences

Topic: *Multisensory Integration and Brain Activity*

Université Claude Bernard Lyon 1
Centre de Neurosciences Cognitives-CNRS
Neuroeconomics, Reward and Decision Making Laboratory, Lyon, France

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| 2015 | Internship Advisor Master 1 Biologie Intégrative Physiologie et Neurosciences Topic: <i>Décisions perceptuelles collectives sur l'intensité du saveur du vin</i> | Université Claude Bernard Lyon 1 Centre de Neurosciences Cognitives-CNRS Neuroeconomics, Reward and Decision Making Laboratory, Lyon, France |
| 2015 | Internship Advisor Master 1 Biologie Intégrative Physiologie et Neurosciences Topic: <i>Intégration Multimodal, Rôle de la vision dans le saveur du vin</i> | Université Claude Bernard Lyon 1 Centre de Neurosciences Cognitives-CNRS Neuroeconomics, Reward and Decision Making Laboratory, Lyon, France |
| 2008-2010 | Teacher Assistant (Academic Year) Experimental Enological Chemistry Laboratory | Universidad de Castilla-La Mancha Cátedra de Química Agrícola, Albacete, Spain |
| 2009-2011 | Invited Lecturer Advances in Enological Chemistry (MSc course) | Universidad de Castilla-La Mancha Cátedra de Química Agrícola, Albacete, Spain |
| June 2007 | Summer Course: Introduction to Enology (5 hours) | Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico |

Participation in Scientific Congresses

1. **Pedroza, M. A.**, Park, S. A., & Dreher, J. C. (2017). Of wines and minds: genetic traits and color-odor interactions modulate wine flavor perception and brain activity. Symposium on Biology of Decision Making, Bordeaux, France
2. **Pedroza, M. A.**, Park, S. A., DeSousa, C., Gerardin, A., & Dreher, J. C. (2016). Influences of genetic polymorphism in olfactory sensitivity on wine multisensory integration decisions. Paper presented at the Human Decision Neuroscience Workshop, Delmenhorst, Germany.
3. Serrano de la Hoz, K., **Pedroza, M.A.**, Bonilla, I., Carmona, M., Salinas, M.R. (2013). Diferentes prácticas agronómicas en el potencial aromático glicosídico de uvas de la variedad Tempranillo. In: **Congreso Nacional de Investigación Enológica GIENOL**. Madrid, Spain.
4. Spigno, G., **Pedroza, M. A.**, Amendola, D., Maggi, L., Zalacain, A., DeFaveri, D.M. (2012) Polyphenols microwave assisted extraction from waste grape skins. **Proceedings of the International Conference Bio & Food Electrotechnologies**. ISBN: 978-88-903261-8-9. Salerno, Italy
5. **Pedroza, M. A.**, Carmona, M., Alonso, G. L., Salinas, M. R., & Zalacain, A. (2012). Polyphenol and color release from dehydrated waste grape skins into stored red wines. In: **26th International Conference on Polyphenols**. Florence, Italy.
6. **Pedroza, M. A.**, Amendola, D., Maggi, L., Zalacain, A., & Spigno, G. (2012). Microwave assisted extraction and antioxidant power of dried waste grape skins polyphenols. In: **26th International Conference on Polyphenols**. Florence, Italy.
7. Alonso, G. L., Carmona, M., Serrano-Díaz, J., Martínez-Gil, A.M. Serrano-de-La-Hoz, K., Maggi, L., **Pedroza, M. A.**, Zalacain, A. & Salinas, M. R. (2012). Influencia de los carotenoides en la calidad del azafrán y de las uvas de vinificación. In: **International Workshop Carotenoides como ingredientes de alimentos funcionales**. Universidad de Sevilla, Seville, Spain.
8. **Pedroza, M. A.**, Carmona, M., Pardo, F., Alonso, G. L., Salinas, M. R., & Zalacain, A. (2011). Building Rosé Wines from Dehydrated Waste Grape Skins (Poster 141). In: **XXXIV OIV World Congress of Vine and Wine**. Porto, Portugal.
9. **Pedroza, M. A.** (2011). Recent advances in industrial reprocessing of waste grape skins. In: XXXIV OIV World Congress of Vine and Wine. Porto, Portugal. **(Oral communication)**

10. **Pedroza, M. A.**, Alonso, G. L., Carmona, M., Salinas, M. R., & Zalacain, A. (2010). Estudio de la dosificación, tiempo de maceración y granulometría de hollejos deshidratados sobre el color y la composición fenólica en vino sintético. In: *VII Foro Mundial del Vino*. Logroño, Spain.
11. **Pedroza, M. A.**, Alonso, G. L., Carmona, M., Salinas, M. R., & Zalacain, A. (2010). Evaluation of dehydrated white grape skins as copigment in red wine model solutions. In: *VI International Congress on pigments in food: chemical, biological and technological aspects* (pp. 113-116) ISBN 978-963-9970-04-5. Budapest, Hungary.
12. **Pedroza, M. A.**, Carmona, M., Alonso, G. L., Salinas, M. R., & Zalacain, A. (2010). Use of red grape skins to enhance the phenolic composition of wines. In: *VI International Congress on pigments in food: chemical, biological and technological aspects* (pp. 345-347) ISBN 978-963-9970-04-5. Budapest, Hungary.
13. **Pedroza, M. A.**, Alonso, G. L., Carmona, M., Salinas, M. R., & Zalacain, A. (2009). Efecto de la deshidratación en la composición fenólica de hollejos de distintas viníferas. In: *X Congreso Nacional de Investigación Enológica GIENOL*. ISBN 978-84-8158-438-7. Ourense, Spain.
14. **Pedroza, M. A.**, Lara, J. F., Zalacain, A., & Salinas, M. R. (2008). Resultados Preliminares sobre la determinación del potencial aromático de uvas tintas mediante SBSE-TD-GC-MS. In: *XIV Congreso Nacional de Enólogos*. San Lorenzo del Escorial, Madrid, Spain. **(Invited Speaker)**.

Scientific Divuligation

1. Licon, CC., **Pedroza, M.A.** (2017). Le bon gout...Ca s'explique?. Pint of Science-France (Science Festival). Lyon, France, May 17.
2. **Pedroza, M.A.** (2016). NeuroEnologia. Seminarios sobre neurociencia aplicada a los alimentos. Universidad de Castilla-La Mancha, Albacete, April 7. Spain. (Invited speaker)
3. **Pedroza, M.A.** (2016). La perception du vin : un experience multi-sensorielle. Round table in : La Semaine du cerveau, Musee Claude Bernard, Saint-Julien-sous-Montmelas, March 18th, France. (Invited speaker)
4. **Pedroza, M.A.** (2015). Neuroscience perspective of wine flavor. Foreign Researchers Welcome Event Organized by Espace Ulys-Euraxess. Universite de Lyon. Lyon, France. February 5. (Invited Talk)
5. **Pedroza, M.A.**, Dreher, J.C. (2014). Modulation de la perception de l'arôme du vin par sa robe: une étude d'imagerie cérébrale originale. Dossier Spécial Neurosciences et vin. *Revue des Oenologues*. 153s (Written Article)
6. **Pedroza, M.A.**, Carmona, M., Alonso, G.L., Salinas, M.R., Zalacain, A. (2011). Innovación en el uso de subproductos vitivinícolas: Hollejos de uva deshidratados. *Revista Winetech*.2, 22-24 (Written article)
7. **Pedroza, M.A.** (2009). Evaluación del uso de hollejos agotados de uva para mejorar las características aromáticas y cromáticas de los vinos. Seminar La ciencia In Vivo. Universidad de Castilla-La Mancha. Albacete, Spain. (Invited speaker)

Relevant Undergraduate Experience

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|-----------|--|
| 2004-2005 | Coordinator of the Food Industries Engineering Student Society, Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico |
| 3/2005 | General Coordinator of the XIV International Symposium of Food Industries Engineering "Alimenta tu Ingenio 2" Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico |

Analytical Apparatus, Data Analysis, and Computational Skills

Functional Magnetic Resonance Imaging

- Neurobehavioral Systems Presentation
- Statistical Parametric Mapping (SPM)
- Matlab

Liquid and Gas Chromatography

I have 5 years of experience operating and performing maintenance of both chromatographs.

- Agilent GC-MSD 6890 and 7980
- Agilent HPLC-DAD 1200
- Agilent Chemstation Software for HPLC-DAD and GC-MS

Stir Bar Sorptive Extraction

I have used this technique for analyzing grapes, must, wine, and water.

- Gerstel Twister Stir Bar Sorptive Extraction
- Gerstel Maestro Software

Data Analysis-Statistical Software

I have used both software for performing data analysis statistical tests of ANOVA, Factor Analysis, GLM, Discriminant Analysis, and PCA.

- IBM-SPSS Statistics 19
- Statgraphics XVI Centurion R

Relevant Courses/Experience

- 2/2015 **Journées Interrégional de Formation en Neuroimagerie: IRM Fonctionnelle et Anatomique**
Institut national de la santé et de la recherche médicale INSERM, Lyon, France
- 1/2015 **Fundamentals of Neuroscience II:** Approved, HarvardX.
<https://verify.edx.org/cert/4bf869b883cb4182b20779e392774e06>
<http://www.mcb80x.org>
- 2/2014 **Fundamentals of Neuroscience I:** Approved, HarvardX.
<https://verify.edx.org/cert/f060d5397e4d46d29cb480a9c150a423>
<http://www.mcb80x.org>
- 7/2009 **Advanced Viticulture**, Online Course (120 hours) InfoAgro Spain
<http://www.infoagro.com>
Sustainable agriculture and use of pesticides: Control and Risks (30 hours)
University of Murcia, Águilas, Spain

Journal and Grant Reviewer

- 5/2015 **Journal of the Science of Food and Agriculture PhD Grants Evaluator, CONACYT**
National call for outgoing international applications, Ed. Wiley, National Science and Technology Council, Mexico
- 5/2014 **PhD Grants Evaluator, CONACYT**
National call for outgoing international applications, National Science and Technology Council, Mexico

Other Professional Experience

- 9/2006-1/2007 **GRUMA-Molinos Azteca S.A. de C.V. Quality Assurance Engineer**
Guadalupe, Nuevo León, Mexico