

WORK EXPERIENCE

01/09/2021 – CURRENT – Pisa, Italy

POST-DOCTORAL FELLOW – NANOSCIENCES INSTITUTE–CNR NANO / NEST PISA

- Soft lithography, protein patterning on surface functionalization for cancer diagnostic.

Project: Sinonasal cancer: in depth genetic analysis of patients for personalized treatment and disease monitoring”
(progetto adapta)

16/03/2021 – 16/08/2021 – Pisa, Italy

UNIVERSITY RESEARCH ASSISTANT – UNIVERSITY OF PISA

- Biological characterization of polymeric materials (Polylactic acid –PLA) and their extracts for skin contact in biomedical applications.

15/03/2013 – 22/07/2014

RESEARCH ASSISTANT IN BIOTECHNOLOGY – PONTIFICAL XAVERIAN UNIVERSITY

- Support of scientific and research activities.
- Making, implementation of protocols and experimental procedures in Biotechnology and Molecular Biology Plants.
- Culture preparation and recombinant plants production of (Potato: *Solanum tuberosum*)

Education | Carrera 740–62, Bogotá, Colombia

18/11/2011 – 22/02/2012

INTERNSHIP RESEARCH – WILDLIFE CONSERVATION SOCIETY

- Density population of primates and description of behavioral states of brown spider monkey in the Serrania de San Lucas, Southern Bolívar

Bolivar, Colombia

EDUCATION AND TRAINING

01/10/2019 – 31/03/2020 – Guildford, GU2 7XH, UK, Guildford, United Kingdom

VISITING RESEARCHER – University of Surrey. Bioprocess and Biochemical Engineering (BioProChem) Group.

- Antimicrobial properties of electrospun fiber PHA against *E.coli*, *S.aureus* and *L.innocua*
- Antimicrobial effect of Air Cold Plasma (ACP) and Olive Leaves Extract (OLE) on *E.coli*, *S.aureus* and *L.innocua*

- Fabrication and characterization of 3D scaffold (Polyhydroxyalkanoates + Natural Plant Extract) as model to mimic the physiological conditions of vascular tissue reaction.
- Production of materials through nanofabrication of bioartificial fibers (union of biological and synthetic polymers) for the release of active ingredients.
- Evaluation of Olive Leaves Extract from the Tuscan *Olea europaea* on endothelial cells against oxidative stress generated by reactive oxygen species (ROS).
- Polyhydroxyalkanoates (PHVHV)/OLE-incorporated as Model for Ulcers Patch Applications in Biomedical issues.

Thesis: Autochthonous tuscan olive leaves as antioxidant, antimicrobial and immunomodulatory source.

Excellent

04/09/2014 – 22/07/2016 – Pisa, Italy

MASTER DEGREE IN MOLECULAR AND CELLULAR BIOLOGY. DIPLOMA # 305576. PA CODE: 24-0003157122-0004279114 – University of Pisa

- Culture and differentiation of human mesenchymal stromal cells and human endothelial cells on polymeric scaffolds to improve bone tissue engineered substitutes.
- Molecular and cellular Biology, Stem Cells, Biology of reproduction, Post-genomic Molecular Biology, Biostatistic, Bioinformatic, Molecular Biology of Plants, Cellular Biochemistry, Pathology, Genetic and Genomic Analysis, Molecular Genetics.

Field(s) of study

- Life sciences

Thesis: Culture and differentiation of human mesenchymal stromal cells and human endothelial cells.

02/02/2006 – 02/07/2012 – Sincelejo, Colombia

BACHELOR DEGREE IN BIOLOGY. VALIDATED BY NARIC-ITALIA-CREDENTIAL INFORM. SERVICE-CMTRDE120160127002 – University of Sucre, Colombia.

General Biology, Biochemistry, Molecular Biology, Botanic, Zoology, Statistics methods, Communications Techniques, Phisic, Math, Chemistry Analysis.

16/09/2012 – 16/12/2012 University of Cartagena, Zaragocilla Campus

TRAINING IN IMMUNOLOGY – Institute of Immunological Research. University of Cartagena, Colombia

Standardization of protocols and immunological methods. – Expression and purification of recombinant proteins PF12, PF14C, PF3a for application in murine mice for determination of allergic vaccines.

● LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	C1	B2	B2	B2
ITALIAN	C1	C1	B2	B2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Combined Antimicrobial Effect of Bio-Waste Olive Leaf Extract and Remote Cold Atmospheric Plasma Effluent.

<https://doi.org/10.3390/molecules26071890> – 2021

De la Ossa, J.G.; El Kadri, H.; Gutierrez-Merino, J.; Wantock, T.; Harle, T.; Seggiani, M.; Danti, S.; Di Stefano, R.; Velliou, E. Combined Antimicrobial Effect of Bio-Waste Olive Leaf Extract and Remote Cold Atmospheric Plasma Effluent. *Molecules* 2021, 26, 1890. <https://doi.org/10.3390/molecules26071890>

Immunomodulatory Activity of Electrospun Polyhydroxyalkanoate Fiber Scaffolds Incorporating Olive Leaf Extract.

<https://doi.org/10.3390/app11094006> – 2021

De la Ossa, J.G.; Fusco, A.; Azimi, B.; Esposito Salsano, J.; Digiacomo, M.; Coltelli, M.-B.; De Clerck, K.; Roy, I.; Macchia, M.; Lazzeri, A.; Donnarumma, G.; Danti, S.; Di Stefano, R. Immunomodulatory Activity of Electrospun Polyhydroxyalkanoate Fiber Scaffolds Incorporating Olive Leaf Extract. *Appl. Sci.* 2021, 11, 4006. <https://doi.org/10.3390/app11094006>

Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) electrospun fibers incorporating olive leaf extract as bio-based scaffolds for wound healing.

Submitted

2021

Jose Gustavo De La Ossa, Serena Danti, Jasmine Esposito Salsano, Bahareh Azimi, Niccoletta Barbani, Maria Digiacomo, Caterina Cristallini, Marco Macchia, Rossella Di Stefano, Andrea Lazzeri. Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) electrospun fibers incorporating olive leaf extract as bio-based scaffolds for wound healing. 2021 *Material Science and Engineering C*.

Poly(vinyl alcohol)/Gelatin Scaffolds Allow Regeneration of Nasal Tissues

<https://doi.org/10.3390/app11083651> – 2021

D'Alessandro, D.; Moscato, S.; Fusco, A.; De la Ossa, J.G.; D'Acunto, M.; Trombi, L.; Feula, M.; Serino, L.P.; Donnarumma, G.; Petrini, M.; Berrettini, S.; Danti, S. Poly(vinyl alcohol)/Gelatin Scaffolds Allow Regeneration of Nasal Tissues. *Appl. Sci.* 2021, 11, 3651. <https://doi.org/10.3390/app11083651>

Bio-based electrospun fibers for wound healing

<https://doi.org/10.3390/jfb11030067> – 2020

Azimi, B.; Maleki, H.; Zavagna, L.; De la Ossa, J.G.; Linari, S.; Lazzeri, A.; Danti, S. Bio-Based Electrospun Fibers for Wound Healing. *J. Funct. Biomater.* 2020, 11, 67. <https://doi.org/10.3390/jfb11030067>

Autochthonous Tuscan Olive Leaves (*Olea europaea*) as Antioxidant Source for Biomedicine

<https://doi.org/10.3390/ijms20235918> – 2019

De la Ossa, J.G.; Felice, F.; Azimi, B.; Esposito Salsano, J.; Digiacomo, M.; Macchia, M.; Danti, S.; Di Stefano, R. Waste Autochthonous Tuscan Olive Leaves (*Olea europaea* var. *Olivestra seggianese*) as Antioxidant Source for Biomedicine. *Int. J. Mol. Sci.* 2019, 20, 5918. <https://doi.org/10.3390/ijms20235918>

Pore size distribution and blend composition affect in vitro prevascularized bone matrix formation

<https://doi.org/10.1002/mame.201700300> – 2017

De la Ossa, J. G., Trombi, L., D'Alessandro, D., Coltelli, M. B., Serino, L. P., Pini, R., Lazzeri, A., Petrini, M., Danti, S., *Macromol. Mater. Eng.* 2017, 302, 1700300. <https://doi.org/10.1002/mame.201700300>

● HONOURS AND AWARDS

Erasmus Mundus PUEDES scholarship 2014-2016 – Donated to the PUEDES Consortium by the European Commission.

Erasmus Mundus PUEDES scholarship 2014–2016 for Master Degree at University of Pisa. Agreement Number 2013–2586/001–001–EMA2

01/09/2017

Tuscan Region Pegaso Fellowship for PhD Student. 2017-2020 – University of Siena and Tuscan Region

PHD IN “LIFESCIENCES” CALL FOR THE PEGASO GIOVANISI 2017 PROJECT – XXXIII CYCLE.

● JOB-RELATED SKILLS

Job-related skills

- Scanning Electronic Microscopy
- HPLC
- Gel Permeation Chromatography
- Inverted and Confocal Microscopy
- Immunohistoimmunology
- Electrospinning technique for fibers nanofabrication
- Cell culture and differentiation: Endothelial Cells, MSC cells, Osteocytes.
- Nanodrop, Bacteria cultivation, Microbiological Techniques.
- Cold Plasma Technique.
- Bioscanner for cells and bacteria culture.
- Soft lithography: Microcontact printing of proteins.
- Human Umbilical Vein Endothelial Cells (HUVEC), Fibroblasts and Mesenchymal Stem Cells Culture
- DNA extraction and PCR technique performance
- Fourier–transform infrared spectroscopy (FT–IR)
- Differential Scanning Calorimetry (DSC)

● PRESENTATIONS

03/09/2020 – 04/09/2020

Int'l Healthcare and Life Science (HLS) & Entrepreneurship Workshop

Organizer and Staff. NanoBio surfaces, BioPolymers, Human diagnostic devices, Surface functionalization for coatings and dispensing, Antimicrobial / antifouling coatings & dispensing, Analytics, detection and imaging, Drug delivery systems, Nanomedicine, Cell–material interaction, Organ on chip devices, Novel screening methods, Bio–inspired and bio– based chemistry

22/07/2020 – 24/07/2020

Italian Young Medicinal Chemistry Virtual Meeting" (I-YMC-VMMeet) Congress

Nutraceutical Extract from autochthonous Tuscan olive leaves incorporated in poly(Hydroxybutyrate–co–Hydroxyvalerate) (PHBHV) for medical application

09/09/2019 – 13/09/2019

POSTER presentation at the European Society for Biomaterials 2019 conference (ESB2019) in Dresden/Germany

J.G. De la Ossa–Guerra, Bahareh Azimi, Maria Beatrice Coltelli, Andrea Lazzeri, Rossella Di Stefano, Serena Danti.
Electrospun scaffolds based on polyhydroxyalkanoates/olive leaf extract for tissue engineering applications.
J.H.

12/09/2019 – 12/09/2019

Poster Presentation. PhD Day. Life Sciences. University of Siena

Siena, Italy. 2019. Antioxidant effects of waste autochthonous Tuscan Olive leaves (*Olea europaea*. Var *Olivastra seggianese*) for biomedical application. Authors: J.G. De la Ossa–Guerra, Francesca Felice, Maria Digiacomio, Marco Macchia, Serena Danti, Rossella Di Stefano.

<https://www.unisi.it/unisilife/eventi/giornata-dottorale-2019-dottorato-di-ricerca-scienze-della-vita>

20/10/2016 – 21/10/2016

Poster Presentation. GISM Annual Meeting 2016

Brescia, Italy October 20/21, 2016. A New Strategy to Improve bone tissue Engineered Substitutes. GISM Annual Meeting 2016. Grupo Italiano Staminali mesenchimali. Authors: J.G De La Ossa; Luisa Trombi, Claudio Ricci, Stefano Berrettini, Mario Petrini, Delfo D'Alessandro, Serena Danti.

http://www.gismonline.it/index.php?option=com_content&view=category&layout=blog&id=24&Itemid=139&lang=it

09/09/2016 – 09/09/2016

Speaker. V Regional Symposium in Biological Sciences. University of Sucre

Sincelejo. Colombia. 2016. Stem cells uses and Mesenchymal stem cells to improve bone tissue regeneration. / University of Sucre/September 2016.

● SEMINARS AND CONGRESSES ATTENDANCES.

Seminars and Congresses

- Bogota, Colombia. September 2013. Pontificia Universidad Javeriana Participant. 12 Congress and Symposium Research in the Pontificia Universidad Javeriana.
- Barranquilla, Colombia. May 2012. Universidad del Norte Colombian Congress of Primatology and Biodiversity. mayo 2012 – mayo 2012 Universidad del Norte.
- Sincelejo, Sucre. May 2012. Symposium of Biodiversity in Colombian Caribbean. Universidad de Sucre, Colombia.
- Sincelejo, Sucre–Colombia. October, 2010. Simposio de Biodiversidad del Caribe Colombiano: Manejo, Conservación y conocimiento.
- Sincelejo, Sucre–Colombia. September, 2010. Universidad de Sucre – Asociacion colombiana de ciencias biologicas (ACCB) Seminar Research in Biological Sciences.
- Sincelejo, Sucre–Colombia. Universidad de Sucre. I Seminar of Biology–Caribbean Region septiember 2010 – october 2010 Universidad de Sucre. Organizer.
- Sincelejo, Sucre–Colombia. IV Regional Simposy in Health. Assistant. Universidad de Sucre. October 2009.
- Sincelejo, Sucre–Colombia. Colciencias. Colciencias in the Regions. Plan and Strategics depart. Agreement Ctel. Participant. 13/09/2016.
- Bogota–Colombia. April 6 2017. Webinar CRISPR–CAS9: La revolucion genetica del siglo XXI y el impacto del derecho de patentes en la innovacion. Lloreda–Camacho–Corpogen. .
- Bogota, Colombia. Infections Diseases Symposium. Challenges Century XXI. National University of Colombia. Anne Colombie–France 2017. April 27–28/2017
- Bogotá May 18–19/2017. First International Congress of Science, Technology and Innovation of the Americas. Empowering Latin America: Research with a Purpose. Arizona State University–Yachay Tech University–National University of Colombia.
- Pisa, Italy. OIRS 2017. Congress of Italian ortopedian society. Participant. 31/11/2017– 01/12/2017
- Siena, Italy. 2018. Seminar Ricerche su propli. Conducted by Jose Maurizio Sforzin. University of Siena. 11/01/2018

- Pisa, Italy. 2018. Congress Translational Non-invasive Cardiovascular Imaging. Participant. 25/01/2018–27/01/2018

Seminars and Congresses

- Florence, Italy, 17 June 2019. 2nd Workshop Differentiation and Neoplastic Transformation.
- Seminar High-content Screening. Presentation of Opera Phenix and Operetta CLS System. TLS Sciences, 12th June, 2019
- Belgium, Bruxelles 2020. ViBES Symposium.
- Guildford, Surrey, UK. 2019. University of Surrey, 07 November 2019. How to Write a Great Research Paper and Get it Accepted by a Good Journal. Researcher Academy On Campus.
- University of Surrey, UK. 16–17 January, 2020. Systems Immunology Workshop: Adaptive immune repertoires and beyond,
- Webinar. New Trends and future Directions in Catalysis. BrightTALK. May 28, 2020
- Webinar. The future of Batteries. BrightTALK. May 28, 2020
- Webinar. Organoid and 3D Culture. Webinar Manchester, Biogel, UK. May, 2020

COURSES

Courses

- The cell wall of plant cells: synthesis, deposition, biological function and industrial applications. University of Siena. Conducted by Giampiero Cai. 17/09/2018.
- Molecular mechanisms of T cell signaling and autoimmunity. University of Siena. Conducted by Prof. Cristina Uliveri. 13/09/2018
- Physiology and Immunology of Reproduction by Prof. Francesca Ietta. University of Siena. 27–28/09/2018
- Molecular Immunology by Prof. Laura Patrussi. University of Siena. 20, 21, 25/09/2018
- Set up of cellular in vitro models from primary cultures to 3D model. By Prof. Francesca Ietta. University of Siena, 17–19/09/2018
- Stem Cell Biology conducted by Prof. Giuliano Callairi. University of Siena. 04/09/2018
- Bioimaging and functional morphology of the cell. Conducted by Prof. Piero Lupetti. University of Siena.
- How to publish in scholarly journals. Understanding the publishing process. By Prof. Piero Lupetti. University of Siena 25/09/2018
- Functional proteomics. Conducted by Prof. Luca Bini. University of Siena. 20/09/2018.
- Key Issues in conservation and Management of Large Mammals. Presented by Prof. Francesco Ferretti. University of Siena. 10/09/2018
- Electrospinning Course. By Dts. ssa Bahareh Azimi. University of Pisa. 17/04/2018
- Creating value from big archive and big data. University of Siena. Conducted by Prof. Laura Neri. 13/02/2018
- Spin-off and start up of Research. Conducted by Prof. Francesco Senatore. University of Siena. 19/02/2018
- Scientific writing and communication. Conducted by Prof. Jhon Telford. University of Siena. 12–14/02/2018
- Plagiarism. Researcher Academy. Elsevier. 18 February 2020
- Teaching and Didactic Resources. University of Surrey, Guildford, UK. January 2020

Under my responsibility and aware that false declarations will be persecuted by the Italian Law and special laws declare that the Curriculum vitae et studiorum, with the information about the scientific production, here tells the truth

Pisa, Italy, 15/07/2022

Jose Gustavo De La Ossa
Guerra