

EUROPEAN CURRICULUM VITAE



PERSONAL INFORMATION

Name	GIACOBELLI VALERIO GUIDO
E-mail	giacobe@natur.cuni.cz
Gender	male
Nationality	Italian
Date of birth	October 4 th 1988

WORK EXPERIENCE

- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- JUNE 2017-TODAY**
CHARLES UNIVERSITY
DEPARTMENT OF CELL BIOLOGY
POSTDOC FELLOWSHIP
Origin of life and synthetic biology research. Tutoring of undergraduate student in thesis preparation.
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- MARCH 2014-MAY 2017**
University of Naples Federico II
Department of Chemical Science
PhD student
Isolation, purification, production and characterization of new wild type and recombinant enzymes. Developing of novel industrial eco-friendly processes. Tutoring of undergraduate student in thesis preparation.
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- NOVEMBER 2013- NOVEMBER 2016**
University of Naples Federico II
Department of Chemical Science
PhD student
Teaching assistant for the molecular biology laboratories.
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- MARCH 2015-SEPTEMBER 2015**
Barcelona Supercomputing Center
Computational science and engineering
Visiting PhD student supported by European Union founded INDOX project (INDOX, 613549) in the frame of the seventh framework programme of the EU
Identification of site-specific enzyme mutants through computational software for a more sustainable dye industry.

- Dates
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

SEPTEMBER 2014-JANUARY 2015

University of Naples Federico II
 Department of Chemical Science
 PhD student

Member of organising committee for the conference “Biotecnologie industriali: unione tra università e imprese (BioUniverse)”.

- Dates
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

JULY 2013-FEBRUARY 2014

University of Naples Federico II
 Department of Chemical Science
 Intern

Optimization of laccase production from *Pichia pastoris* by fed-batch fermentation.

EDUCATION AND TRAINING

- Dates
- Name and type of organisation providing education and training
 - Title of qualification awarded
 - Final mark

March 2011-July 2013

University of Naples Federico II

Master’s degree in Molecular and Industrial Biotechnology
 110/110 cum laude

- Dates
- Name and type of organisation providing education and training
 - Title of qualification awarded
 - Final mark

September 2007-March 2011

University of Naples Federico II

Bachelor degree in Biomolecular and Industrial Biotechnology
 110/110

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE

ITALIAN

OTHER LANGUAGES

ENGLISH (CAMBRIDGE ESOL)

- Reading skills
- Writing skills
- Verbal skills

C1 EUROPEAN LEVEL
 C1 EUROPEAN LEVEL
 C1 EUROPEAN LEVEL

- Reading skills
- Writing skills
- Verbal skills

Spanish

B1 EUROPEAN LEVEL
 B1 EUROPEAN LEVEL
 B1 EUROPEAN LEVEL

SOCIAL SKILLS AND COMPETENCES

Ability to coordinate a research group also in stressful working conditions. Aptitude to share knowledge and expertise and knowledge to get the best results and to solve problems.

ORGANISATIONAL SKILLS AND COMPETENCES

High competencies in successful coordination of research projects trough mentorship of undergraduate students during the development of their thesis.

SCIENTIFIC PROFILE

Knowledge in cellular and molecular biology, genetic, biochemistry, microbiology, microscopy, fermentation processes, fundamentals of organic chemistry and computational science.

TECHNICAL SKILLS AND COMPETENCES

Biochemistry techniques:

Proteins purification by AKTA/BioRad systems
Proteins characterization by spectrophotometer, circular dichroism, surface plasmon resonance and electrophoresis methods.
X-ray crystallography.
Ribosome purification.

Microbiology/Mycology:

Fungi, yeast and bacteria growth culture, media formulation and optimization.
Escherichia Coli knockout construction

Microscopy:

Optical and confocal

Fermentation processes:

Batch, Fed-batch and C-STR fermentation on different production scale (2-20L)

Molecular biology techniques:

DNA library manipulation for expression of random protein library
Nucleic acid mutant library manipulation (mRNA-display technique)
Genes cloning in *Pichia Pastoris* and *E. Coli*
Proteins heterologous expression in *P. pastoris* and *E. coli*

Proteomic:

Basic knowledge of MALDI-TOF

Statistic:

Design of Experiment (Response Surface Methodology)

Computational science:

Knowledge of ExPASy bioinformatic tools
Docking software PELE (Protein Energy Landscape Exploration)
Basic knowledge of Gromacs

Computer literacy:

MS Office package
Linux operating system

DRIVING LICENCE

B category

COMMUNICATIONS:

POSTER

Giacobelli V. G., Fujishima K., Tretyachenko V., Hlouchova K. Test of genetic code evolution hypotheses: Reverse evolution of RNA Binding domain of ribosomal protein L11. Prague Protein Spring 2018, May 3-6 2018, Prague, Czech Republic.

Giacobelli V. G., Fujishima K., Tretyachenko V., Hlouchova K. Test of genetic code evolution hypotheses: Reverse evolution of RNA Binding domain of ribosomal protein L11. XV Discussions in Structural Molecular Biology, March 22-24, 2018, Nove Hradky, Czech Republic.

Giacobelli V.G., Monza E., Piscitelli A., Pezzella C., Lucas F., Guallar V. and G. Sannia. Engineering laccase POXA1B through computational methods. 8th European Meeting on oxidative enzymes (OxiZymes) 3–6 July 2016, Wageningen, Netherlands

Giacobelli V. G., Pezzella C., Piscitelli A., Cicatiello P., Sannia G. *Pichia Pastoris* heterologous expression: filling the *GAP*..promoter with glycerol. 8th Conference on Recombinant Protein Production (RPP) 22-24 April 2015, Palma de Mallorca, Spain

Pezzella C, Piscitelli A, Macellaro G, **Giacobelli V.G.**, Cicatiello P, Sannia G. Effective mutations in a high-redox potential laccase from *Pleurotus ostreatus*. 7th European Meeting on oxidative enzymes (OxiZymes), 1-4, July 2014, Vienna, Austria

Pezzella C, Piscitelli A, Macellaro G, **Giacobelli V.G.**, Cicatiello P, Sannia G. High redox-potential oxidative enzymes for industrial applications. 8th International Conference on Polymer and Fiber Biotechnology; 25-27 May 2014 Braga, Portugal.

Pezzella C, Lettera V, Piscitelli A, Cicatiello P, **Giacobelli V.G.**, Morra S and Sannia G. Laccases as industrial biocatalysts: two case studies. Italian Forum on Industrial Biotechnology and Bioeconomy -IFIB, 22 - 23 October 2013 Naples, Italy.

ADVANCED COURSES

Advanced methods in macromolecular crystallization VIII. June 10–16, 2018, Nove Hradky, Czech Republic

The Astrobiology NASA Proposal Writing Retreat. 1-4 June 2018, Atlanta, Georgia.

ORAL PRESENTATION

Giacobelli VG, Fujishima K, Lepšík M, Tretyachenko V, Kadavá T, Makarov M, Bednářová L, Novák P, Hlouchová K. In Vitro Evolution Reveals Noncationic Protein–RNA Interaction Mediated by Metal Ions. AbSciCon22 - Origins and Exploration: From Stars to Cells. 15-20 May 2022, Atlanta, Georgia.

Giacobelli V. G., Fujishima K., Tretyachenko V., Hlouchova K. Test of genetic code evolution hypotheses: Reverse evolution of RNA Binding domain of ribosomal protein L11. Astrobiology Graduate Conference 4-8 June 2018, Atlanta, Georgia.

Giacobelli V.G., Piscitelli A., Pezzella C., Guarino L., Kilic S., Giacobbe S., Sener M., Sannia G. Laccase assisted synthesis of a new eco-friendly polymeric dye. 9th International Conference on Fiber and Polymer Biotechnology (IFBP) 7-9 September 2016, Osaka, Japan

PUBLICATION

Giacobelli VG, Fujishima K, Lepšík M, Tretyachenko V, Kadavá T, Makarov M, Bednářová L, Novák P, Hlouchová K. In Vitro Evolution Reveals Noncationic Protein–RNA Interaction Mediated by Metal Ions. *Molecular Biology and Evolution*, Volume 39, Issue 3, March 2022. DOI: 10.1093/molbev/msac032.

Makarov M, Meng J, Tretyachenko V, Srb P, Březinová A, **Giacobelli VG**, Bednářová L, Vondrášek J, Dunker AK and Hlouchová K. Enzyme catalysis prior to aromatic residues: reverse engineering of a dephosphoCoA kinase. *Protein Science*. 2021. DOI:10.1002/pro.4068

Giacobbe S., Pezzella C., Della Ventura B., **Giacobelli V. G.**, Rossi M., Sannia G., Velotta R. and Piscitelli A. Green synthesis of conductive polyaniline by *Trametes versicolor* laccase using a DNA template. *Engineering in Life Sciences*, July 2019. DOI: 10.1002/elsc.201900078.

Giacobelli V. G., Pezzella C., Sannia G., Olivieri G., Fontanarosa C., Amoresano A., A. Piscitelli. Laccase-based synthesis of SIC-RED: a new dyeing product for protein gel staining. *Biocatalysis and Agricultural Biotechnology*, June 2018. DOI: 10.1016/j.bcab.2018.06.023

Pezzella C., **Giacobelli V. G.**, Lettera V., Olivier G., Cicatiello P., Sannia G., Piscitelli A.. A step forward in laccase exploitation: recombinant production and evaluation of techno-economic feasibility of the process. *Journal of Biotechnology*, July 2017, DOI: 10.1016/j.jbiotec.2017.07.022

Giacobelli V.G. and Monza E., Piscitelli A., Pezzella C., Lucas F., Guallar V. and G. Sannia. Repurposing designed mutants: a valuable strategy for computer-aided laccases engineering. The case of POXA1b. *Catal. Sci. Technol.*, 2017, DOI: 10.1039/C6CY02410F

Pezzella C., Giacobbe S, **Giacobelli V. G.**, Guarino L., Kylic S., Sener M., Sannia G, Piscitelli A. Green routes towards industrial textile dyeing: A laccase based approach. *J. Mol. Catal. B: Enzym.* 2016, 134 (2016) 274–279

Lettera V., Pezzella C., Cicatiello P., Piscitelli A., **Giacobelli V. G.**, Galano E., Amoresano A. and Sannia G. Efficient immobilization of a fungal laccase and its exploitation in fruit juice clarification. *Food Chemistry*, Volume 196, 1 April 2016, Pages 1272–1278.