

CURRICULUM VITAE of Claudia Binda



Claudia Binda
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Education and work experience

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| 1997 | Degree in Biological Sciences conferred at the University of Pavia. |
| 1997-2000 | PhD at the University of Pavia. Area of research: structural biology of polyamine oxidase and glutamate synthase (mentor: Prof. Andrea Mattevi). |
| 2000-2001 | Post-doc supported by NIH (USA) for structural investigations of human monoamine oxidase, a drug target for the treatment of neurodegenerative diseases (University of Pavia). |
| 2002, March-April | Biochemical studies on human monoamine oxidase in the Laboratory of Biochemistry of Prof. Dale Edmondson (Emory University, Atlanta, USA). |
| 2002-2004 | Post-doc supported by a grant from Pfizer. Area of research: characterization of a transcriptional co-repressor complex that controls neuron differentiation (University of Pavia). |
| 2005-2007 | Post-doc “Alunno speciale MINTAS” supported by Collegio Ghislieri for structural and biochemical studies on monoamine oxidases and lysine-specific histone demethylase (University of Pavia). |
| 2008-2015 | Permanent position as Assistant Professor at the University of Pavia, Dept. Biology and Biotechnology. |
| 2015-present | Permanent position as Associate Professor at the University of Pavia, Dept. Biology and Biotechnology. |

Teaching and other appointments

2009-present: teacher for various courses (Molecular Biology, Laboratory of Molecular Biology, Methods for Protein Engineering) in both bachelor degree and master degree programs.

2008-present: member of the PhD program in Genetics, Molecular and Cell Biology.

2013-2019: member of the Orientation Center (COR) of the University of Pavia to assist students in their academic studies in the area of Biotechnology.

2013-2017: member of the teaching joint committee of the Department of Biology and Biotechnology.

2018-2019: Coordinator of the master degree in Advanced Biotechnology.

2019-present: Chair of the Teaching Board in Biotechnology.

2012: member of the scientific committee of the 15th Amine Oxidase Congress 2012, Toulouse, France.

2013-present: member of the Italian Society of Biophysics and Molecular Biology (SIBBM).

2009-present: member of the panel to review PRIN grant proposal (italian Ministry for Education and Research).

Oral presentations during conferences

1. “Three-dimensional structure of polyamine oxidase from *Zea mays* L.” at the *ELETTRA Users Meeting*, Trieste, Italy (1999).
2. “Structure of glutamate synthase, a complex iron-sulphur flavoprotein” at *Frontiers in macromolecular crystallography*, Bischemberg, Strasbourg, France (2000).
3. “Structure of enzymes acting on biogenic amines” at *PROTEINE 2002*, L’Aquila, Italy (2002).
4. “Structure of the outer-membrane mitochondrial flavoenzyme: monoamine oxidase B” at the *14th International Symposium on Flavins and Flavoproteins*, Cambridge, UK (2002).
5. “Structure of the outer-membrane mitochondrial monoamine oxidase B at 2.3 Å resolution” at the *7th International School on Crystallography of Biological Macromolecules*, Como, Italy (2003).

6. “Structure of the human outer-mitochondrial membrane Monoamine Oxidase B at 1.7 Å resolution” at *Structure, dynamics and function of proteins in biological membranes*, Ascona, Switzerland (2003).
7. “Structure of human Monoamine Oxidase B at 1.7 Å resolution” at *11th Amine Oxidase Workshop*, St Andrews, Scotland (2004).
8. “Structural biology of two flavin-dependent amine oxidases” at the *SILS (Società Italiana Luce di Sincrotrone) 15th National Meeting*, Milano (2007).
9. “The histone demethylase LSD1: a flavoenzyme in chromatin biology” at the *16th International Symposium on Flavins and Flavoproteins*, Jaca, Spain (2008).
10. “The histone demethylases LSD1 and LSD2: non-identical twins in repressor chromatin complexes” at *Proteine 2010*, Parma, Italy (2010).
11. “Neurobiochemistry of flavin-dependent amine oxidases” at the *55th Conference of the Italian Society of Biochemistry*, Milano, Italy (2010).
12. “From monoamine oxidases to lysine histone demethylases: two flavoenzyme drug targets” at the *CM1103 COST Action Meeting*, Lisbon, Portugal (2012).
13. “From monoamine oxidases to lysine histone demethylases: two flavin amine oxidases for different cellular contexts” at the *15th Amine Oxidase Congress 2012*, Toulouse, France (2012).
14. “Verso nuovi farmaci antitubercolari” (“Towards new antitubercular drugs”) at the Istituto Lombardo – Accademia di Scienze e Lettere, Milano, Italy (2013).
15. “The mitochondrial membrane-bound Monoamine Oxidases A and B drug targets” at the *MISSCA 2013*, Como, Italy (2013).
16. “Structural studies on the tuberculosis drug target DprE1” at the *Natta’s seeds grow meeting*, Politecnico di Milano, Italy (2013).
17. “A peculiar mechanism-based inhibition by nitro-benzothiazinones in the tuberculosis drug target enzyme DprE1” at the *EMBO Conference on Enzyme Mechanisms by Biological Systems*, Manchester, UK (2014).
18. “Update on human flavin-dependent amine oxidases: MAO and LSD1” at the *16th Amine Oxidase Congress 2016*, Birmingham, UK (2016).
19. “Structural and biochemical studies on flavoenzyme drug targets” (seminar) at the Faculty of Pharmacy, University of Ljubljana, Slovenia (2019).
20. “Structural studies on flavoenzymes at the cross-road of drug design and cell biology” (keynote lecture) at the *MISCA 2019*, Napoli, Italy (2019).
21. “Monoamine oxidases: neurons and beyond” (invited lecture) at the 4th Italian Crystallographic Association Biological Macromolecules (AIC-BMM) meeting, Fiesole, Firenze, Italy (2023).

Courses

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| October 1998 | “Advanced training course on the expression, purification and crystallization of macromolecules”, EMBL Hamburg outstation, Hamburg (Germany). |
| May 2004 | “Structural characterization of macromolecular complexes: modern techniques and strategies”, EMBL Grenoble outstation, Grenoble (France). |

October 2005	“Molecular Modelling for Macromolecular Crystallographers” MAX-INF2 workshop, Diamond Light Source, Oxfordshire (UK).
September 2008	“Computational Aspects of the Protein Target Selection, Protein Production Management and Structure Analysis Pipeline” EMBL-EBI, Hinxton, (UK).

Honors

May 1998	Prize for the best poster at the conference “PROTEINE 1998”, Genova (Italy).
December 2002	Prize “Il nuovo a Pavia” from “Camera di Commercio” of Pavia for the work on human monoamine oxidase.
October 2007	Prize “Enrico Gavuzzo 2007” from “Istituto di Cristallografia del CNR” (Roma) for young researchers working in the field of drug design.
November 2012	Prize “BioEconomy Rome 2012” from Consorzio CNCCS (Roma) for research in the field of poverty, rare and neglected diseases.

Grants

As participant in many projects funded by NIH, AIRC, EU-FP7 and as main proposer for the following ones:

- PRIN09 from MIUR (Italy), 2011-2013, 62814 €, project “Role of monoamine oxidases and mitochondrial oxidative stress in the pathogenesis of muscular dystrophies and cardiac injury”.
- CM1103 COST Action, 2010-2015, funds for participation to meetings on the project “Structure-based drug design for diagnosis and treatment of neurological diseases: dissecting and modulating complex functions in the monoaminergic systems of the brain”.
- Grant 2014-0672 from Fondazione Cariplo, 2015-2018, 256200 €, project “Monoamine oxidases as molecular players of cardiac senescence and failure”.
- Grant NODES-Spoke2 (PNRR-MUR, Italy), 2022-2025, 119000 €, project “Green technologies and sustainable industry”.

Collaborations

- Dr. Stanislav Gobec, University of Ljubljana, Slovenia
- Dr. Christa Müller, University of Bonn, Germany
- Dr. Angelo Parini, INSERM, Toulouse, France
- Dr. Leonardo Pisani, University of Bari, Italy
- Dr. Marco Fraaije, University of Groningen, The Netherlands