

Donatella Tondi

Curriculum Vitae et Studiorum

Education

- 1998-2000. Post-Doctorate in Pharmaceutical Chemistry, Department of Pharmaceutical Sciences, UNIMORE.
Project: *"Design and synthesis of novel non-beta lactam like inhibitors of AmpC beta-lactamase"*.
- 1998. Ely-Lilly Fellow, NorthWestern University-UNIMORE.
Project: *"Structure-based Drug Design & In-Parallel Synthesis of Inhibitors of AmpC beta-lactamase"*.
- 1994-1997. PhD in Medicinal Chemistry, UNIMORE - UNIMI.
PhD Project: *"Structure-based design, synthesis and biological activity of the novel Thymidylate Synthase inhibitors (TS)"*
- 1994. Degree in Pharmacy (cum laude), University of Modena.
Thesis: *"Synthesis of purinic derivatives as new Xanthine Oxidase inhibitors"*.

Research Activity as visiting PhD and visiting scientist

- 01.2010-10.2010. Visiting Professor, HITS, Heidelberg, Germany.
- 10.2005-11.2005. Visiting Professor, University of California San Francisco UCSF, CA USA
- 01.2004-10.2004. Visiting Professor, University of California San Francisco UCSF, CA USA. (Research activity carried out as part of the NIH GM63815 project "Structure, function and inhibition of beta-lactamases. 2005-2009 Renewal).
- 04.1996-09.1997. Visiting PhD student, NorthWestern University, Molecular Pharmacology and Biological Chemistry Department. Chicago, USA. (Tutors at NorthWestern University: Proff. Brian Shoichet &. Martin Watterson.

Research Activity

Dr. Tondi is Associate Professor (PA, SSD CHIM-08) at the University of Modena and Reggio Emilia since 2022.

She is interested in the Structure Based Drug Design and development of de novo inhibitors active towards proteins involved in antimicrobial resistance mechanisms. Targets of her studies are in particular (i) the beta-Lactamases, bacterial enzymes involved in the inactivation of β -lactam antibiotics and (ii) the SOS response, a DNA repair system that allows bacteria to survive under stress thus developing resistance to antimicrobials.

In total, Dr. Tondi is author of 45 papers published by international peer-reviewed journals (JACS, PNAS, J.Med.Chem, CellChemical Biology, ACS Medicinal Chemistry Letters, ACS Infectious Diseases, Pharmaceuticals, Biochimica & Biophysica Acta, Scientific Reports, Current Medicinal Chemistry). Dr. Tondi is co-inventor of 5 international patents.

In total, Dr. Tondi has participated, in her carrier, to 19 national and international competitive projects; among these a NIH project with the University of California San Francisco UCSF, two European Projects and a WHO project.

From 2013 to 2017, Dr. Tondi was a member of the Faculty Board of the Doctoral Course "Clinical and Experimental Medicine (CEM) - Clinical and Experimental Medicine" of the University of Modena and Reggio Emilia and for from 2006-2013 member of the Academic Board of the Research Doctorate School in "Science and Technology of Health Products".

Principal Investigator activity

- FAR UNIMORE 2017. Project Title "LexA is the SOS response in bacteria: design and optimization of inhibitors contrasting the development of bacterial resistance". (PI Tondi, duration 18 months).
- FAR UNIMORE 2014. Project Title: "The role of class A Carbapenemases in bacterial resistance to beta-lactam antibiotics: from structural analysis to the development of new broad-spectrum inhibitors". (PI Tondi, duration 20 months).
- Young Researchers Project 2001. Project "Structure Based Drug Design and automated synthesis of non-analogous TS inhibitors". (PI Tondi, duration 12 months).
- Young Researchers 2000 Project. Project "Functional studies and inhibition of thymidylate synthase: synthesis of non-classical inhibitors as potential antitumor agents". (PI Tondi, duration 12 months).

Scientific Awards

- Meet Italian Scientists 2016. Visiting Professor, University of Sussex, Brighton, UK; laboratory of Prof. Chris Prodromou.
- NATO Award 2005 to attend the "Evolving Methods in Macromolecular Crystallography" Meeting, Erice, Italy, 12-22 May 2005.
- Gordon Conference Traveling Grant 2004 to attend the "Medicinal Chemistry" Meeting, Colby-Sawyer College, New London, NH August 1-6, 2004
- Prize MIPTEC- Basel Award for the best poster, March 2003
- Spinner award for regional competition in the ambit of technological transfer, Emilia Romagna, 2004
- Gordon Conference Grant 2000 to attend The Combinatorial Chemistry Gordon Conference held in May 28 - June 2, 2000 at Renaissance Tuscany Il Ciocco Resort Lucca (Barga), Italy

Organization of international meetings and schools

Dr. Tondi was part of the organizational team of the following international conferences:

- 2009: "Drug resistance in Ovarian Cancer" 19-29 February 2009. UNIMORE
- 2007: "Medicinal Chemistry in parasitology: new avenues in drug discovery." Annual Meeting COSTB22 on Drug development in parasitic Diseases. UNIMORE
- 2005: "Second Joint Italian-Swiss Meeting on Medicinal Chemistry". Italy, Modena 19-20 February 2005. "UNIMORE
- 2005 "Evolving Methods in Macromolecular Crystallography", Erice, Italy, 12-22 May 2005. Chair: R.J. READ, CAMBRIDGE UK and J. SUSSMAN, REHOVOT.
- 2004: "Medicinal chemistry in parasitology." Meeting on drug discovery in neglected diseases. UNIMORE

University spin offs:

As part of technology transfer initiatives, Dr. Tondi was a member of the TyDock University spin off (University-Enterprise 2004 technology transfer). TyDock has won many official awards including the second prize for high-tech projects at the StarCup Modena and Reggio Emilia 2005 and was the 1st regional business project in 2005 and the 14th at the national level. <http://www.premioinnovazione.it>.