

Riccardo Percudani – Curriculum vitae

• Personal information

Born: 27.10.1966

Married, two children

• Education and training

1999 Ph.D. in Biology and Molecular Pathology – University of Parma.

Thesis on “The identification of non coding RNAs in genomic sequences”.

1994 Master Degree in Biology – cum laude – University of Parma.

Thesis on “A novel algorithm for the identification of tRNA genes in DNA sequences”.



• Research and International experience

Sept. 2006 – Present. Associate Professor of Biochemistry, Department of Biosciences, University of Parma. Fields of interest: identification of gene functions through Bioinformatics and Biochemistry, genetic diseases, genetic code, purine metabolism.

May 2013 - Sept. 2013 Visiting Scientist at the Pasteur Institute, Paris, France. Invited by Dr Hilde de Reuse.

Sept. 2012. Visiting Professor at the Dept. of Agricultural Biotechnology, Seoul National University, Korea. Invited by Prof. Sangkee Rhee.

Jun. 2011 – Aug. 2011. Visiting Scientist at the Analytical Genomics laboratory, Université Pierre et Marie Curie, Paris, France. Invited by Prof. Frederic Devaux.

Jul. 2009. Visiting Scientist at the Dept. of Agricultural Biotechnology, Seoul National University, Korea. Invited by Prof. Sangkee Rhee.

Sept. 2001 – Aug. 2006. Researcher, Institute of Biochemical Sciences, University of Parma. Protein evolution, PLP-dependent enzymes, bioinformatic identification of metabolic pathways.

Nov. 1999 – Aug. 2001. Doctoral research, Institute of Biochemical Sciences, University of Parma. Bioinformatics-based determination of wobble rules in eukaryotic genomes.

May 1999 – Oct. 1999. Imperial College scholarship. Analysis of pathways in protein electron transfer.

Oct. 1994 – Feb. 1999. Ph.D. student under Dr. Simone Ottonello, University of Parma. Computer methods for the identification of tRNA genes and other non coding RNAs in genomic sequences.

• Scientific acknowledgements

- Science Editor's Choice, 15 Oct 2010

- Nature Chemical Biology News & Views, Mar 2006

- Faculty of 1000 Prime Recommendation, 28 Mar 2006

• Technology transfers – Third mission

First inventor on Patent PCT/IT2006/000778: "Methods for conversion of uric acid to allantoin and related enzymes". Priority: US/07.11.2005/USP734327. Granted in EU and USA.

- [Teaching duties as Associate Professor](#)

Computational Biochemistry (5 CFU. Degree in Biology: 2006-2009).

Introductory Bioinformatics (3 CFU. Degree in Biology/Bachelor degree in Biology. 2006-2011)

Elements of Biology (6 CFU. Bachelor degrees in Physics and Computer Sciences. 2006-2011).

Bioinformatics (6 CFU. Master degree In Molecular Biology. 2010-Present).

Introductory Informatics and Bioinformatics (6 CFU. Bachelor degree in Biology. 2011-Present).

- [Research funding as Associate Professor](#)

PRIN 2010-2011. Project 2010P3S8BR_004 - Head of Unit

Unraveling structural and functional determinants behind *Helicobacter pylori* pathogenesis and persistence.

Total Budget (MIUR): 580,000 Euros

Unit Budget (MIUR); 70,000 Euros

TELETHON 2013. Project GGP1349 – Coordinator

Development of an uricolytic treatment for HPRT-deficiency in animal models.

Total Budget: 340,000 Euros

Unit Budget: 140,000 Euros

- [Top five peer-reviewed publications in career](#)

Ramazzina I, Costa R, Cendron L, Berni R, Peracchi A, Zanotti G, Percudani R*. 2010. An aminotransferase branch point connects purine catabolism to amino acid recycling. *Nat Chem Biol* 6:801-806. [*corresponding author]

Lamberto I, Percudani R*, Gatti R, Folli C, Petrucco S. 2010. Conserved alternative splicing of Arabidopsis transthyretin-like determines protein localization and S-allantoin synthesis in peroxisomes. *Plant Cell* 22:1564-1574. [*corresponding author]

Ramazzina I, Folli C, Secchi A, Berni R, Percudani R*. 2006. Completing the uric acid degradation pathway through phylogenetic comparison of whole genomes. *Nat Chem Biol* 2:144-148 [*corresponding author].

Percudani R, Peracchi A. 2003. A genomic overview of pyridoxal-phosphate-dependent enzymes. *EMBO Rep* 4:850-854.

Percudani R. 2001. Restricted wobble rules for eukaryotic genomes. *Trends Genet* 17:133-135.

- [Peer-reviewed publications as Associate Professor](#)

Vallese F, Percudani R, Fischer W, Zanotti G. The crystal structure of *Helicobacter pylori* HP1029 highlights the functional diversity of the sialic acid-related DUF386 family. *FEBS J*. 2015 Jun 12.

Francia S, Silvotti L, Ghirardi F, Catzeflis F, Percudani R, Tirindelli R. Evolution of spatially coexpressed families of type-2 vomeronasal receptors in rodents. *Genome Biol Evol*. 2014 Dec 23;7(1):272-85.

Puggioni V, Dondi A, Folli C, Shin I, Rhee S, Percudani R. Gene context analysis reveals functional

divergence between hypothetically equivalent enzymes of the purine-ureide pathway. *Biochemistry*. 2014 Feb 4;53(4):735-45.

Percudani R, Carnevali D, Puggioni V. Ureidoglycolate hydrolase, amidohydrolase, lyase: how errors in biological databases are incorporated in scientific papers and vice versa. *Database (Oxford)*. 2013 Oct 9;

Percudani R. A microbial metagenome (*Leucobacter* sp.) in *Caenorhabditis* whole genome sequences. *Bioinformatics and Biology insights*. 2013. 7:55-72.

Shin I, Percudani R, Rhee. S. Structural and Functional Insights into (S)-Ureidoglycine Aminohydrolase, Key Enzyme of Purine Catabolism in *Arabidopsis thaliana*. *J Biol Chem*. 2012. 18796-18805.

Cendron L, Ramazzina I, Percudani R, Rasore C, Zanotti G, Berni R. Probing the evolution of hydroxymethylglutathione hydrolase into transthyretin through active-site redesign. *J Mol Biol*. 2011. 409:504-512.

Orioli A, Pascali C, Quartararo J, Diebel KW, Praz V, Romascano D, Percudani R, van Dyk LF, Hernandez N, Teichmann M, Dieci G. Widespread occurrence of non-canonical transcription termination by human RNA polymerase III. *Nucleic Acids Res*. 2011. 39:5499-5512.

Pipolo S, Percudani R, Cammi R. Absolute stereochemistry and preferred conformations of urate degradation intermediates from computed and experimental circular dichroism spectra. *Org Biomol Chem*. 2011. 9:5149-5155.

Shaik MM, Cendron L, Percudani R, Zanotti G. The structure of *Helicobacter pylori* HP0310 reveals an atypical peptidoglycan deacetylase. *PLoS One*. 2011. 6:e19207.

Silvotti L, Cavalca E, Gatti R, Percudani R, Tirindelli R. A recent class of chemosensory neurons developed in mouse and rat. *PLoS One*. 2011. 6:e24462.

Lamberto I, Percudani R, Gatti R, Folli C, Petrucco S. Conserved alternative splicing of *Arabidopsis* transthyretin-like determines protein localization and S-allantoin synthesis in peroxisomes. *Plant Cell*. 2010. 22:1564-1574.

Martin F, Kohler A, Murat C, Balestrini R, Coutinho PM, Jaillon O, Montanini B, Morin E, Noel B, Percudani R, Porcel B, Rubini A, Amicucci A, Amselem J, Anthouard V, Arcioni S, Artiguenave F, Aury JM, Ballario P, Bolchi A, Brenna A, Brun A, Buee M, Cantarel B, Chevalier G, Couloux A, Da Silva C, Denoeud F, Duplessis S, Ghignone S, Hilselberger B, Iotti M, Marcais B, Mello A, Miranda M, Pacioni G, Quesneville H, Riccioni C, Ruotolo R, Splivallo R, Stocchi V, Tisserant E, Viscomi AR, Zambonelli A, Zampieri E, Henrissat B, Lebrun MH, Paolocci F, Bonfante P, Ottonello S, Wincker P. Perigord black truffle genome uncovers evolutionary origins and mechanisms of symbiosis. *Nature* 2010. 464:1033-1038.

Ramazzina I, Costa R, Cendron L, Berni R, Peracchi A, Zanotti G, Percudani R. An aminotransferase branch point connects purine catabolism to amino acid recycling. *Nat Chem Biol*. 2010. 6:801-806.

Serventi F, Ramazzina I, Lamberto I, Puggioni V, Gatti R, Percudani R. Chemical Basis of Nitrogen Recovery through the Ureide Pathway: Formation and Hydrolysis of S-Ureidoglycine in Plants and Bacteria. *ACS Chem Biol*. 2010. 19:203-214.

Donini S, Ferrari M, Fedeli C, Faini M, Lamberto I, Marletta AS, Mellini L, Panini M, Percudani R, Pollegioni L, Caldinelli L, Petrucco S, Peracchi A. Recombinant production of eight human cytosolic aminotransferases and assessment of their potential involvement in glyoxylate metabolism. 2009. *Biochem J* 422:265-272.

Percudani R, Peracchi A. The B6 database: a tool for the description and classification of vitamin B6-

dependent enzymatic activities and of the corresponding protein families. BMC Bioinformatics. 2009 10:273.

Petrucco S, Percudani R. Structural recognition of DNA by poly(ADP-ribose)polymerase-like zinc finger families. Febs J. 2008. 275:883-893.

Ramazzina I, Cendron L, Folli C, Berni R, Monteverdi D, Zanotti G, Percudani R. Logical identification of an allantoinase analog (puuE) recruited from polysaccharide deacetylases. J Biol Chem. 2008. 283:23295-23304.

Cendron L, Berni R, Folli C, Ramazzina I, Percudani R, Zanotti G. The structure of 2-oxo-4-hydroxy-4-carboxy-5-ureidoimidazoline decarboxylase provides insights into the mechanism of uric acid degradation. J Biol Chem. 2007. 282:18182-18189.

Donini S, Percudani R, Credali A, Montanini B, Sartori A, Peracchi A. 2006. A threonine synthase homolog from a mammalian genome. Biochem Biophys Res Commun 350:922-928.

Guffanti E, Percudani R, Harismendy O, Soutourina J, Werner M, Iacovella MG, Negri R, Dieci G. 2006. Nucleosome depletion activates poised RNA polymerase III at unconventional transcription sites in *Saccharomyces cerevisiae*. J Biol Chem 281:29155-29164.

Zanotti G, Cendron L, Ramazzina I, Folli C, Percudani R, Berni R. 2006. Structure of zebra fish HIUase: insights into evolution of an enzyme to a hormone transporter. J Mol Biol 363:1-9.

In Fede,

A handwritten signature in black ink, appearing to read "Riccardo Berni". The signature is written in a cursive, flowing style with a large initial 'R'.