

Brief Curriculum vitae: Luciano Andrés Abriata, PhD

Born 1981. Argentinian & Italian. Swiss permit B. e-mail: luciano.abriata@epfl.ch Website: <http://labriataphd.altervista.org/>

Languages: Native Spanish, Fluent English, Good Italian, Basic French.

Education and Research Positions

- **January 2017 - present: Biological NMR specialist**, Protein Expression and Structure Facility, EPFL, Switzerland.
- **June 2012 - present: Research assistant** (started with **EMBO long-term** postdoctoral fellowship), Dal Peraro lab, École Polytechnique Fédérale de Lausanne, Switzerland.
- **April 2010 - May 2012: Postdoctoral fellow** (CONICET fellowship), A. Vila lab, IBR-CONICET, Argentina.
- **March 2005 - March 2010: PhD in Chemistry** (ANPCyT/CONICET fellowships), A. Vila lab, IBR-CONICET, Argentina. Marked 10/10.
- **October 2004 - February 2005: Trainee** at the Magnetic Resonance Center, Italy.
- **March 1999 - September 2004: Lic. in Biotechnology** (5-year career): School of Biochemistry – University of Rosario, Argentina. Final thesis supported by an award from Fundación Josefina Prats. Marked 10/10.
- **Key extension courses:** EMBO course on biological NMR (2009), CECAM course on MD simulations (2012), “Dissolution Dynamic Nuclear Polarization” course at EPFL (2013), EMBO Laboratory Management course (2014), EMBO course on Biomolecular Simulations (2014)

Teaching and Academic Positions of Responsibility

- Ongoing: Reviewer** for grant agencies (ANPCyT, Argentina) and for international journals: *Nature Protocols*, *Scientific Reports* (NPG), *Bioinformatics*, *Briefings in Bioinformatics*, *Databases*, *PLoS One*, *ChemPhysChem*, *Biopolymers*, *J. Chem. Theor. Comp.* (ACS), *J. Phys. Chem. B* (ACS) - **Invited lecturer** at the course Biomolecular Structure and Mechanics at EPFL - **Cosupervision** of Master students.
- April 2010 – May 2012: **Evaluation of undergraduate theses** for the School of Biochemistry of the University of Rosario, Argentina.
 - March 2009 – December 2011: **Cosupervisor** of two **undergraduate theses** at the National University of Rosario, Argentina.
 - March 2001 – September 2009: **Laboratory assistant** at the School of Biochemistry of the University of Rosario, in the areas of Physical Chemistry, Biotechnological Processes and Biophysics, Argentina
 - 2007-2010: **Instructor of practical activities** for courses like the **EMBO NMR practical course** “Structure and dynamics of biomolecules by NMR spectroscopy” held in 2009 in Argentina.

Fellowships, Awards and Grants in the last 4 years

- November 2014: Award from **Sociedad Argentina de Biofísica** for the best PhD thesis on biophysics.
- September 2014: Granted access to **2 million CPU hours** from **CSCS** (Swiss National Supercomputing Center, estimated USD 40,000).
- November 2013: Granted access to **8 million CPU hours** from **PRACE** (Partnership for Advanced Computing in Europe) for 2014 (estimated USD 160,000).
- October 2013: **Travel grant** to attend the Black Forest Focus 9 conference *Protein Dynamics: From Water Hydration to Crowding Effects*, Germany.
- June 2012 – May 2014: **EMBO Long-Term** postdoctoral fellow.

Selected Conference and Invited Talks from the last 4 years

- **Abriata LA** and Dal Peraro M, Understanding amino acid variation in terms of protein structure, dynamics and function, *CECAM Conference: Enzyme Engineering: Bright Strategies from Theory and Experiments*, Switzerland, **2016**
- **Abriata LA**, Spiga E and Dal Peraro M, Experimental and Computational Studies of the Effects of Highly Concentrated Solutes on Proteins: Insights Into the Causes and Consequences of Quinary Protein Structure and Cytoplasmic Organization. *The 29th Annual Symposium of the Protein Society*, Spain, **2015**
- **Abriata LA** Integrative and knowledge-based modeling of biomolecular systems. *Meeting of the Life Sciences Post-Docs of the ETH domain*, Switzerland, **2015**
- **Abriata LA**. On the physicochemical traits that constrain the sequence space of functional proteins: insights from TEM lactamases, *12th β -Lactamase Meeting International Workshop*, Spain, **2014**
- **Abriata LA**. *Data mining of protein structure, dynamics and function*, Joint Conference of the Argentinian and Latin American Associations for Biological Computing and Bioinformatics, Argentina, **2013**

Selected Peer-Reviewed Publications Representative of Research Domains (out of 33)

(superscripts **1** and **#** indicate first and corresponding authorships, respectively)

All publications up to date in my [Google Scholar Profile](#)

- **Abriata LA[#]**, Spiga E and Dal Peraro M[#]. Molecular Effects of Concentrated Solutes on Protein Hydration, Dynamics, and Electrostatics. *Biophysical Journal* (**2016**)
- Saita E¹, **Abriata LA¹**, Tsai Y, Trajtenberg F, Lemmin T, Buschiazzo A, Dal Peraro M, de Mendoza D and Albanesi D. A coiled coil switch mediates cold sensing by the thermosensory protein DesK. *Molecular Microbiology* (**2015**)
- **Abriata LA^{1#}** and Dal Peraro M[#], Assessing the potential of atomistic molecular dynamics simulations to probe reversible protein-protein recognition and binding. *Sci. Rep.* (**2015**)
- **Abriata LA^{1#}**, Palzkill T and Dal Peraro M, How structural and physicochemical determinants shape sequence constraints in a functional enzyme. *PLoS One* (**2015**)
- **Abriata LA¹**, Zaballa ME¹, Berry RE, Yang F, Zhang H, Walker FA and Vila AJ. Electron Spin Density on the Axial His Ligand of High-Spin and Low-Spin Nitrophorin 2 Probed by Heteronuclear NMR Spectroscopy. *Inorg Chem* (**2013**)
- **Abriata LA¹**, Alvarez-Paggi D, Ledesma GN, Blackburn NJ, Vila AJ and Murgida DH. Alternative ground states enable pathway switching in biological electron transfer. *Proc Natl Acad Sci U S A* (**2012**)
- **Abriata LA^{1#}**, Salverda MLM, Tomatis PE. Sequence-function-stability relationships in proteins from datasets of functionally annotated variants: the case of TEM β -lactamases. *FEBS Lett* (**2012**)
- **Abriata LA^{1#}**, Utilization of NMR spectroscopy to study biological fluids and metabolic processes: Two introductory activities. *Conc Magn Reson A* (**2012**)
- **Abriata LA¹**, Ledesma GN, Pierattelli R and Vila AJ, Electronic Structure of the Ground and Excited States of the CuA Site by NMR Spectroscopy, *J Am Chem Soc* (**2009**)
- **Abriata LA¹**, Cassina A¹, Tórtora V¹, Marín M, Souza JM, Castro L, Vila AJ and Radi R, Nitration of solvent-exposed tyrosine-74 on cytochrome *c* triggers heme iron-methionine-80 bond disruption: Nuclear magnetic resonance and optical spectroscopy studies, *J Biol Chem* (**2009**) (Journal Cover)
- **Abriata LA¹**, Banci L, Bertini I, Ciofi-Baffoni S, Gkazonis P¹, Spyroulias G, Vila AJ and Wang S¹, Mechanism of CuA Assembly, *Nature Chem Biol* (**2008**)