

Silvia Onesti - Curriculum Vitae

Higher Education

- 1982-1987 Laurea in Chimica (Chemistry Master degree), University of Pavia: 110/110 cum laude. Alumnus of Collegio Ghislieri.
- 1987-1990 PhD in Biophysics, Imperial College London, Physics Department, under the supervision of Peter Brick & David Blow.

Appointments

- 1991-1994 Post-doctoral research fellow in Prof. David Blow's group at Imperial College.
- 1994-1995 CNR Research Scientist, University of Pavia.
- 1995-2001 Lecturer, Department of Physics, Imperial College.
- 2001-2004 Lecturer, Department of Biological Sciences, Imperial College.
- 2004-2008 Senior Lecturer, Department of Biological Sciences, Imperial College.
- 2008-present Teaching Structural Biology at SISSA
- 2009-present Head of Structural Biology, Sincrotrone Trieste

<http://www.elettra.trieste.it/PEOPLE/index.php?n=SilviaOnesti.HomePage>

<http://www.elettra.trieste.it/labs/structural-biology>

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Other activities

EMBO Short Term Fellowship to carry out a project at l'École Polytechnique (Palaiseau, Paris) in collaboration with Sylvain Blanquet and Pierre Plateau (September-November 1996).

Member of the Biological Structures Group Committee of the British Crystallographic Association (BSG-BCA), 1997-2000.

Maître de conférences at the École Polytechnique (Palaiseau, Paris), March-July 1999.

Chairman of the of INSTRUCT Italian Working Group on Complementary Techniques (<http://www.cerm.unifi.it/about-cerm/italian-users-of-instruct>).

Member of the Editorial Board of Scientific Reports, Nature Publishing Group.

Member of the Commission on Biological Macromolecules (CBM) of the International Union of Crystallography (<http://www.iucr.org/iucr/commissions/cbm.html>).

Invited by Treccani Cultura to give a *lectio magistralis* in Rome, 14th March 2017 (http://www.treccani.it/webtv/videos/Conv_Onesti_Silvia.html).

Organization of Conferences and Workshops

Winter meeting of the Biological Structure Groups of the BCA on "Protein-Nucleic Acids Interactions", London (UK), December 1998.

Microsymposium "Enzymes and allostery" for the XXth Congress and General Assembly of the International Union of Crystallography, Florence (Italy), August 2005 (with A. Wlodlaver).

Workshop on "Emerging application of synchrotron radiation to the life sciences", Trieste (Italy), 25-26 November 2008.

Scientific Committee of the meeting "Bio&medical sciences with new light sources", British Embassy, Rome (Italy), 12-13 March 2009.

Workshop "Thermodynamically unstable proteins: chance or necessity?", Trieste (Italy), 14-16 Dec 2009.

Workshop "R3: DNA replication, recombination and repair", San Miniato (Pisa, Italy), 30 June - 2 July 2010.

ICTP Advanced School "From genes to atomic structures: an introduction to synchrotron-based structural biology". Trieste (Italy), 23-27 April 2012.

ICTP Advanced School "Synchrotron radiation techniques and nanotechnology: a synergic approach to life sciences and medicine". iThemba Laboratories, Cape Town (South Africa), 11-22 November 2013.

Member of the Scientific Committee for the Conference "Proteine 2014", to be held in Padua (Italy) 31st March - 1st April 2014.

Member of the 2014 International Programme Committee (IPC) for the organization of the XXIII IUCr Congress and General Assembly, to be held in Montreal (Canada), 5-12 August 2014. (http://www.iucr2014.org/side_organization/international_program_committee_e.shtml).

ICTP Advanced School "Structural Biology: using Synchrotron Radiation to Visualise Biological Molecules" to be held in Trieste (Italy), 15-19th December 2014.

Member of the Programme Committee for the organization of the meeting 2014: Crystal (cl-)Year to celebrate the International Year of Crystallography to be held in Turin (Italy), 16-17 October 2014.

Organiser of the workshop "New synchrotron radiation and optical techniques for nanoscale microscopy of biological systems: from single molecules to cells", Trieste, 9-10 December 2015.

ICTP Advanced School "Imaging, Structural and Single Molecule Approaches to Biology: Understanding Life at Higher Resolution". Jawaharla Nehru Centre for Advanced Scientific Research (JNCASR), to be held in Bangalore (India), 4-15 January 2016.

Selected publications

*corresponding author

- Deka J., Mojumdar A., Parris P., **Onesti S.*** and Casalis L.* (2017). DNA-conjugated gold nanoparticles based colorimetric assay to assess helicase activity: a novel route to screen potential helicase inhibitors. *Scientific Rep.* In press.
- De March M., Merino N., Barrera-Vilarmau S., Crehuet R., **Onesti S.***, Blanco F.S.* and De Biasio A*. (2017). *Nature Commun.* 8, 13935.
- Carroni M., De March M., Medagli B., Krastanova I., Taylor I.A., Amenitsch H., Araki H., Pisani F.M., Patwardhan A. and **Onesti S.*** (2017). *Scientific Rep.* 7, 40188.
- Mojumdar A., De March M., Marino F. and **Onesti S.*** (2017). *J. Biol. Chem.* 292, 4176-4184
- Ormaza G., Medagli B., Rodríguez J.A., Ibáñez de Opakua A., Merino N., Villate M., **Onesti S.** and Blanco F.J. (2016). *FEBS Letters*. [Epub ahead of print]
- Marino F., Mojumdar A., Zucchelli C. Bhardwaj A., Buratti E., Vindigni A., Musco G. and **Onesti S.*** (2016). *Scientific Rep.* 6, 21501.
- Medagli B., De Crescenzo P., De March M. and **Onesti S.*** (2016). Chapter in book: "The initiation of DNA replication in eukaryotes", Ed. D. Kaplan, Springer.
- Napolitano L.M.R., Bisha I., De March M., Marchesi A., Arcangeletti M., Demitri N., Mazzolini M., Rodriguez A., Magistrato A., **Onesti S.***, Laio A.* and Torre V.* (2015). *Proc. Natl. Acad. Sci. USA.* 112, E3619-E3628.
- Lausi A.*, Polentarutti M., **Onesti S.**, Plaisier J.R., Busetto E., Bais G., Barba L., Cassetta A., Campi G., Lamba D., Pifferi A., Mande S.C., Sarma D.D., Sharma S.M., Paolucci G. (2015). *Eur. Phys. J. Plus* 130: 43.
- Wiedemann C., Ohlenschläger O., Medagli B., **Onesti S.** and Görlach M. (2014). *Biomol NMR Assign.* 8, 357-360.
- Marino F., Vindigni A. and **Onesti S.*** (2013). *Biophys. Chem.* 177-178, 34-39.
- Onesti S.** and MacNeill S.A.* (2013). *Chromosoma* 122, 47-53.
- Medagli B. and **Onesti S.*** (2013). *Adv. Exp. Med. Biol.* 767, 75-95. Chapter in book: "DNA helicases", Ed. M. Spies, Springer.
- Krastanova I., Sannino V., Amenitsch H., Gileadi O., Pisani F.M. and **Onesti S.*** (2012). *J. Biol. Chem.* 287, 4121-4128.
- Costa A. and **Onesti S.*** (2009). *Crit. Rev. Biochem. Mol. Biol.* 44, 326-342.
- Bae B., Chen Y.-H., Costa A., **Onesti S.**, Brunzelle J.S., Lin Y., Cann I.K.O. and Nair S.K. (2009). *Structure* 17, 211-222.
- Jenkinson, E.R., Costa A., Leech, A.P., Patwardhan A., **Onesti S.** and Chong, J.P* (2009). *J. Biol. Chem.* 284, 5654-5661.
- Sampath V., Balakrishnan B., Verma-Gaur J., Onesti S. and Sadhale P.P.* (2008). *J. Biol. Chem.* 283, 3923-3931.
- Costa A. and **Onesti S.*** (2008). *Biochem. Soc Trans.* 36, 136-140.
- Costa A., Van Dujinen G., Medagli B., Chong J., Sakakibara N., Kelman Z., Nair S.K., Patwardhan A. and **Onesti S.*** (2008). *EMBO J.* 27, 2250-2258.
- Costa A., Pape T., van Heel M., Brick P., Patwardhan A. and **Onesti, S.*** (2006). *Nucleic Acid Res.* 34, 5829-5838.
- Costa A., Pape T., van Heel M., Brick P., Patwardhan A. and **Onesti, S.*** (2006) *J. Struct. Biol.*, 156, 210-219.
- Paraskevopoulou C., Fairhurst S.A., Lowe D.J., Brick P. and **Onesti, S.*** (2006). *Mol. Microbiol.* 59, 795-806.
- Palmieri G., Casbarra A., Fiume I., Catara G., Capasso A., Marino G., **Onesti S.** and Rossi M. (2006). *Extremophiles*, 10, 393-402.
- Meka H., Werner F., Cordell, S., **Onesti, S.*** and Brick P.* (2005). *Nucleic Acid Res.* 33, 6435-6444.
- Pucci B. De Felice M., Rossi M., **Onesti S.*** & Pisani F.* (2004). *J. Biol. Chem.* 279, 49222-49228.
- Pape T., Meka H., Chen S., Vicentini G., van Heel M. and **Onesti, S.*** (2003). *EMBO Rep.* 4, 1079-1083.
- Meka H., Daoust G., Bourke-Arnvig K., Werner F., Brick P. and **Onesti, S.*** (2003). *Nucleic Acid Res.* 31, 4391-4400.
- Todone F., Brick P., Werner, F., Weinzierl R.O.J and **Onesti, S.*** (2001). *Mol. Cell*, 8, 1137-1143.
- Todone F., Weinzierl R.O.J, Brick P. and **Onesti, S.*** (2000). *Proc. Natl. Acad. Sci. USA*, 97, 6306-6310.