# DOMENICO LENTINI SANTO

**Scientist | Coordinator | Researcher | Structural Biologist**

*Perceptive and disciplined Medical Biotechnologist integrating empirical scientific study and analytical insight to research into and develop effective and safe medicines enabling quantum leaps in the global health-care sector, in pursuit of innovating biomedical research, conducting clinical trials to achieve ground-breaking discoveries. A continuous-learner persistent in acquiring knowledge, striving for best practices and process improvements, with self-initiative for taking on challenges. Patience and persistence to continue working in an effort to uncover significant findings. With a commitment to intellectual honesty and strict adherence to scientific protocols thus perpetuating Scientific Integrity and maintaining scientific excellence. Infusing logical decision-making, critical thinking, and ad hoc solutions with scientific research to find answers and satiate the curiosity.*

## LABORATORY EXPERIENCE and SKILLS

**Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University: Oct 2016 - PRESENT**

PhD student involved in **TASPPI-project H2020** supported by the Innovative Training Network, funded by the H2020 Marie Curie Actions of the European Commission under Grant Agreement 675179.

- Cloning of modified protein in Escherichia coli
- Protein Purification using HPLC
- Set up of fragment screening using Fluorescence Polarization Assay (FP assay) and Thermal Shift Assay (TSA) in Quantitative High throughput screening using fragment-based approach)
- Crystallization of secondary and ternary complexes with selected compounds
- Optimization of FP assay and TSA protocols concerning Kd and EC50 in order to detect differences in molecular binding potency.
- Writing scientific manuscripts of consolidated results.
- Poster and PowerPoint Presentations of updated research projects in EU meetings
- Training meetings with UCB company
- Collaborations with ASTRAZENECA, TAROS company and TU/E

**Secondment at CNRS- Centre National del la Recherche Scientifique: Jan 2019 – Feb 2019**

PhD student

- Set up fragment screening and compound selection using NMR- HSQC, WaterLOGSY

**Max Planck Institute of Molecular Plant Physiology: Feb 2016 – Aug 2016**

Traineeship

- DNA plant extraction and PCR
- Western blot
- ELISA

**Department of Biomedical and Neuromotor Sciences, University of Bologna (Traineeships): Jan 2014 – Mar 2015**

Master student

- Western blot and Sucrose gradient to study the differences between genotype/phenotype in CJD
- Cell Biology Methods: Cell Fusion
- Optical Microscopy
- SDS-Page and Immunoblotting
- Thermosubility Analysis

**Laboratory Analyst "Paolo Borsellino" Hospital in Marsala, Sicily, Italy: Mar 2014 - Aug 2014**

## EDUCATION

- **PhD: Oct 2016 – PRESENT.**
  Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University, Prague, Czech Republic

- **Master's Degree: Oct 2012 - Mar 2015**
  Medical Biotechnology at University of Bologna, Bologna, Italy [Marks: 108/110]
  Master Thesis: Genotype influence of the host on the biochemical properties of the Prionic strain V2 linked to Creutzfelt-Jacob disease.

- **Bachelor's Degree: Oct 2009 - Dec 2012**
  Biotechnology at University of L'Aquila, L'Aquila, Italy [Marks: 101/110]

## DISSERTATIONS & RESEARCH PUBLICATIONS

- Lentini Santo D., Petrvalska O., Obsilova V., Ottmann C. and Obsil T. Stabilization of protein-protein interactions between CaMKK2 and 14-3-3 by fusicoccins. *ACS Chem. Biol.* 2020 Nov 20;15(11):3060-3071. doi: 10.1021/acschembio.0c00821.

- Katarina Psenakova, Olivia Petrvalska, Salome Kylarova, Domenico Lentini Santo, Dana Kalabova, Petr Herman, Veronika Obsilova,TomasObsil, "14-3-3 protein directly interacts with the kinase domain of calcium/calmodulin-dependent protein kinase kinase (CaMKK2)".Volume 1862, Issue 7, July 2018, Pages 1612-1625.ELSEVIER Materials Today. DOI: https://doi.org/10.1016/j.bbagen.2018.04.006

- Dario Valenti, João Filipe Neves, François-Xavier Cantrelle, Stanimira Hristeva, Domenico Lentini Santo, Tomáš Obšil, Xavier Hanoulle, Laura M. Levy, Dimitrios Tzalis, Isabelle Landrieu and Christian Ottmann ORCID,". Set-up and screening of a fragment library targeting the 14-3-3 protein interface". 7 pages, 22 Jul 2019 MedChem.Commun., Citation 2019,10, 1796-1802 DOI: https://doi.org/10.1039/C9MD00215D

- M. ALBLOVA1, A. SMIDOVA1, D. KALABOVA1, D. LENTINI SANTO2, T. OBSIL1, V. OBSILOVA1, "Allosteric activation of yeast enzyme neutral trehalase by calcium and 14-3-3 protein" Physiological Research Pre-Press Article. DOI: http://www.biomed.cas.cz/physiolres/pdf/prepress/933950.pdf

- Madita Wolter, Domenico Lentini Santo, Petr Herman, Alice Ballone, Federica Centorrino, Tomas Obsil,Christian Ottmann,"Interaction of an IκBα Peptide with 14-3-3". ACS Omega, Citation 5, 10,5380–5388, March 6, 2020. DOI: https://doi.org/10.1021/acsomega.9b04413