CURRICULUM VITAE ET STUDIORUM

PERSONAL DATA

Name:	Graziano Lolli
Date and place of birth:	[redacted]
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EDUCATION

Oct 2002-Sept 2005

Ph.D. student in Biochemistry (supervisor Prof. Dame Louise Johnson)
Laboratory of Molecular Biophysics, University of Oxford
BBSRC-CASE (Biotechnology and Biological Sciences Research Council - Collaborative Award in Science and Engineering) studentship. PhD thesis "Cdks at the interface of cell cycle and transcription regulation" examined by Prof. Martin Noble (University of Oxford) and Prof. David Barford (Institute for Cancer Research - London).

Sept 1994-Jun 2000

Degree in *Chemistry* at University of Naples "Federico II". Graduated summa cum laude.

PROFESSIONAL EXPERIENCE

From Sept 2016

Associate Professor from Oct 2021
Assistant Professor to Sept 2021
Department of Cellular, Computational and Integrative Biology – University of Trento
PI Laboratory of Protein Crystallography and Structure-Based Drug Design
(http://www.cibio.unitn.it/504/protein-crystallography-and-structure-based-drug-design)

From Oct 2017

Founder and member of the Scientific Advisory Board – Sibylla Biotech, spin-off of the University of Trento, University of Perugia and INFN (National Institute of Nuclear Physics)

Jan 2015-Aug 2016

Oberassistent (Lecturer) from Aug 2015
Wissenschaftlicher Mitarbeiter (postdoctoral fellow) to Jul 2015
Biochemisches Institut – Universitat Zurich – Structure-based development of bromodomain inhibitors

Nov 2009-Feb 2015

Postdoctoral Fellow – Department of Chemical Sciences, University of Padua
In 2010 the FEBS Distinguished Young Investigator Award was used for the implementation of the project "Fragment-based drug discovery for bromodomains".

From March 2011 responsible for the project "Structural and functional investigation of the regulatory mechanisms of oncogenic protein kinase CK2" through the grants "Progetto Giovani" (Young Investigator Program) and "Assegno di Ricerca Senior" of the University of Padua.

Oct 2006–Oct 2009

FEBS (Federation of the European Biochemical Societies) Long-term Fellowship – IRBM-MERCK, Pomezia (Rome)

Responsible for the project "CDKs and HDACs in transcription".

Oct 2005-Sept 2006

Postdoctoral Fellow - Laboratory of Molecular Biophysics, University of Oxford

Jul 2000 – Sept 2002

Research Fellow at Pharmacia Corp. in Milan, "Adriano Buzzati-Traverso Studentship"

TEACHING ACTIVITY

- "Biochemistry II" course, 45 hours, 6CFU, from 2019, University of Trento
- "Chimica e Propedeutica Biochimica" course, 48 hours, 6 CFU, from 2020, University of Trento
- "Chemistry and Biochemistry" course, 48 hours, 6 CFU, 2017-2019, University of Trento
- Member of evaluation committees for bachelor, master and PhD student, 2017-2019, University of Trento
- Laboratory Assistant for "Chemical Biotechnologies" from 2013-2016, University of Padua
- Laboratory Assistant for "Analyses of Macromolecules" 2012-2016, University of Padua
- Supervisor of undergraduate and PhD students and junior postdoctoral fellows from 2009
- Tutor for Biophysical Chemistry 2004/05, University of Oxford

RECOGNITIONS AND AWARDS

- Alzheimer Association NTF Grant 2022-2024 (125000 USD)
- Starting Grant 2020 – University of Trento (10000 €)
- AIRC MFAG grant 2018-2022 (443000 €) – "Drugging BAZ2A, a newly identified target in aggressive and recurrent prostate cancer"
- MIUR FFABR 2017 (3000 €)
- Progetto Giovani 2010 and Assegno di Ricerca Senior 2012 - University of Padua (120000 €)
- FEBS Distinguished Young Investigator Award (10000 €)
- FEBS Long-Term Fellowship
- BBSRC-CASE (Biotechnology and Biological Sciences Research Council – Collaborative Awards in Science and Engineering) Studentship
- Fondazione Adriano Buzzati-Traverso Studentship
- Invited reviewer for Nucleic Acids Res., J. Med. Chem., Biochemistry, Eur. J. Cancer, Bioorg. Med. Chem. Lett., Biochimie, Journal of Neurochemistry, ChemMedChem, Cancers.
- Invited speaker at international conferences and for academic seminars.

PUBLICATIONS

1. 38 publications in international peer-reviewed journals, 1400 citations and h-index = 20. More than 125 protein structures determined by X-ray crystallography have been deposited in the PDB.
2. Semrau MS, Giachin G, Covaceuszach S, Cassetta A, Demitri N, Storici P, **Lolli G.** (2022) Molecular

architecture of the glycogen-committed PP1/PTG holoenzyme. *Nat. Commun.* 13, 6199.

3. Micaelli M, Dalle Vedove A, Cerofolini L, Vigna J, Sighel D, Zaccara S, Bonomo I, Poulentzas G, Rosatti EF, Cazzanelli G, Alunno L, Belli R, Peroni D, Dassi E, Murakami S, Jaffrey SR, Fragai M, Mancini I, **Lolli G**, Quattrone A, Provenzani A. (2022) Small-Molecule Ebselen Binds to YTHDF Proteins Interfering with the Recognition of *N* ^{6}-Methyladenosine-Modified RNAs. *ACS Pharmacol. Transl. Sci.* 5, 872-91.
4. Dalle Vedove A., Cazzanelli G., Batiste L., Marchand J-R., Spiliotopoulos D., Corsi J., D'Agostino V.G., Caflisch A. & **Lolli G.** (2021) Identification of a BAZ2A-bromodomain hit compound by fragment growing. *ACS Med Chem Lett* epub ahead of print, DOI: 10.1021/acsmedchemlett.2c00173, **co-corresponding author.**
5. Dalle Vedove A., Cazzanelli G., Corsi J., Sedykh M., D'Agostino V.G., Caflisch A. & **Lolli G.** (2021) Identification of a BAZ2A-bromodomain hit compound by fragment-joining. *ACS Bio & Med Chem Au* 1, 5-10, **co-corresponding author.**
6. Spagnolli G., Massignan T., Astolfi A., Biggi S., Rigoli M., Brunelli P., Libergoli M., Ianeselli A., Orioli S., Boldrini A., Terruzzi L., Bonaldo V., Maietta G., Lorenzo N.L., Fernandez L.C., Codeseira Y.B., Tosatto L., Linsenmeier L., Vignoli B., Petris G., Gasparotto D., Pennuto M., Guella G., Canossa M., Altmeppen H.C., **Lolli G.**, Biressi S., Pastor M.M., Requena J.R., Mancini I., Barreca M.L., Faccioli P., and Biasini E. (2021) Pharmacological inactivation of the prion protein by targeting a folding intermediate. *Commun. Biol.* 4, 62.
7. Dalle Vedove A., Zonta F., Zanforlin E., Demitri N., Ribaudo G., Cazzanelli G., Ongaro A., Sarno S., Zagotto G., Battistutta R., Ruzzene M. and **Lolli G.** (2020) A novel class of selective CK2 inhibitors targeting its open hinge conformation. *Eur. J. Med. Chem.* 195, 112267. **Co-corresponding author.**
8. Cozza G., Zonta F., Dalle Vedove A., Venerando A., Dall'Acqua S., Battistutta R., Ruzzene M. and **Lolli G.** (2020) Biochemical and cellular mechanism of protein kinase CK2 inhibition by deceptive curcumin. *FEBS J.* 287, 1850-64. **Co-corresponding author.**
9. Biggi S., Pancher M., Stincardini C., Luotti S., Massignan T., Dalle Vedove A., Astolfi A., Gatto P., **Lolli G.**, Barreca M.L., Bonetto V., Adami V. and Biasini E. (2020) Identification of compounds inhibiting prion replication and toxicity by removing PrP_C from the cell surface. *J. Neurochem.* 152, 136-50.
10. Battistutta R. and **Lolli G.** (2019) Inhibitory Properties of ATP-Competitive Coumestrol and Boldine Are Correlated to Different Modulations of CK2 Flexibility. *J. Nat. Prod.* 82, 1014-18. **Co-corresponding author.**
11. D'Agostino V.G., Sighel D., Zucal C., Bonomo I., Micaelli M., **Lolli G.**, Provenzani A., Quattrone A. and Adami V. (2019) Screening Approaches for Targeting Ribonucleoprotein Complexes: A New Dimension for Drug Discovery. *SLAS Discov.* 24, 314-31.
12. **Lolli G.**, Raboni S., Pasqualetto E., Benoni R., Campanini B., Ronda L., Mozzarelli A., Bettati S. and Battistutta R. (2018) Insight into GFPmut2 pH Dependence by Single Crystal Microspectrophotometry and X-ray Crystallography. *J. Phys. Chem. B.* 122, 11326-37. **Shared first authorship.**
13. Dalle Vedove A., Spiliotopoulos D., D'Agostino V.G., Marchand J.R., Unzue A., Nevado C., **Lolli G.** and Caflisch A. (2018) Structural Analysis of Small-Molecule Binding to the BAZ2A and BAZ2B Bromodomains. *ChemMedChem* 13, 1479-87. **Co-corresponding author.**
14. Marchand J.R., Dalle Vedove A., **Lolli G.** and Caflisch A. (2017) Discovery of Inhibitors of Four Bromodomains by Fragment-Anchored Ligand Docking. *J. Chem. Inf. Model.* 57, 2584-97.
15. Spiliotopoulos D., Wamhoff E.C., **Lolli G.**, Rademacher C. and Caflisch A. (2017) Discovery of BAZ2A bromodomain ligands. *Eur. J. Med. Chem.* 139, 564-72. **Co-corresponding author.**
16. **Lolli G.**, Naressi D., Sarno S. and Battistutta R. (2017) Characterization of the oligomeric states of the CK2

$\alpha_2\beta_2$ holoenzyme in solution. *Biochem. J.* 474, 2405-16. **Co-corresponding author.**

17. Marchand J.R., **Lolli G.** and Caflisch A. (2016) Derivatives of 3-amino-2-methylpyridine as BAZ2B Bromodomain Ligands: in silico Discovery and in crystallo Validation. *J. Med. Chem.* 59, 9919-27. **Co-corresponding author.**
18. Unzue A., Zhao H., **Lolli G.**, Dong J., Zhu J., Zechner M., Dolbois A., Caflisch A. and Nevado C. (2016) The "gatekeeper" residue modulates the binding mode of acetyl indoles to bromodomains. *J. Med. Chem.* 59, 3087-97.
19. **Lolli G.** and Caflisch A. (2016) High-throughput fragment docking into the BAZ2B bromodomain: Efficient in silico screening for X-ray crystallography. *ACS Chem. Biol.* 11, 800-7. **Co-corresponding author.**
20. **Lolli G.**, Pasqualetto E., Costanzi E., Bonetto G. and Battistutta R. (2016) The STAS domain of mammalian SLC26A5 prestin harbors an anion-binding site. *Biochem. J.* 473, 365-70. **Shared first authorship and co-corresponding author.**
21. Echalier A., Hole A.J., **Lolli G.**, Endicott J.A. and Noble M.E.M. (2014) An inhibitor's-eye view of the ATP-binding site of CDKs in different regulatory states. *ACS Chem. Biol.* 9, 1251-6.
22. Costa R., Arrigoni G., Cozza G., **Lolli G.**, Battistutta R., Izpisua Belmonte J.C., Pinna L.A. and Sarno S. (2014) The lysine-specific demethylase 1 is a novel substrate of protein kinase CK2. *Biochim. Biophys. Acta* 1844, 722-9.
23. Cozza G., Girardi C., Ranchio A., **Lolli G.**, Sarno S., Orzeszko A., Kazimierczuk Z., Battistutta R., Ruzzene M. and Pinna L.A. (2014) Cell-permeable dual inhibitors of protein kinases CK2 and PIM-1: structural features and pharmacological potential. *Cell. Mol. Life Sci.* 71(16), 3173-85.
24. **Lolli G.**, Ranchio A. and Battistutta R. (2014) Active Form of the Protein Kinase CK2 α2β2 Holoenzyme Is a Strong Complex with Symmetric Architecture. *ACS Chem. Biol.* 9, 366-71. **Co-corresponding author.**
25. **Lolli G.** and Battistutta R. (2013) Different orientations of low-molecular-weight fragments in the binding pocket of a BRD4 bromodomain. *Acta Cryst.* D69, 2161-64. **Corresponding author.**
26. **Lolli G.**, Cozza G., Mazzorana M., Tibaldi E., Cesaro L., Donella-Deana A., Meggio F., Venerando A., Franchin C., Sarno S., Battistutta R. and Pinna L.A. (2012) Inhibition of Protein Kinase CK2 by flavonoids and Tyrphostins. A structural insight. *Biochemistry* 51, 6097-107. **Shared first authorship.**
27. **Lolli G.**, Pinna L.A., Battistutta R. (2012) Structural determinants of protein kinase CK2 regulation by auto-inhibitory polymerization. *ACS Chem. Biol.* 7, 1158-63. **Co-corresponding author.**
28. Papinutto E., Ranchio A., **Lolli G.**, Pinna L.A., Battistutta R. (2012) Structural and functional analysis of the flexible regions of the catalytic α-subunit of protein kinase CK2. *J. Struct. Biol.* 177, 382-91.
29. Battistutta R., Cozza G., Pierre F., Papinutto E., **Lolli G.**, Sarno S., O'Brien S.E., Siddiqui-Jain A., Haddach M., Anderes K., Ryckman D.M., Meggio F. and Pinna L.A. (2011) Unprecedented selectivity and structural determinants of a new class of protein kinase CK2 inhibitors in clinical trials for the treatment of cancer. *Biochemistry* 50, 8478-88.
30. Battistutta R. and **Lolli G.** (2011) Structural and functional determinants of protein kinase CK2α: facts and open questions. *Mol. Cell. Biochem.* 356, 67-73.
31. Bettati S., Pasqualetto E., **Lolli G.**, Campanini B. and Battistutta R. (2011) Structure and single crystal spectroscopy of Green Fluorescent Proteins. *Biochim. Biophys. Acta* 1814, 824-33.
32. **Lolli G.** (2010) Structural dissection of Cyclin-Dependent Kinases regulation and protein recognition properties. *Cell Cycle* 9, 1551-61. **Single author.**
33. **Lolli G.** (2009) Binding to DNA of the RNA-polymerase II C-Terminal Domain allows discrimination between Cdk7 and Cdk9 phosphorylation. *Nucleic Acids Res.* 37, 1260-68. **Single author.**
34. Baumli S., **Lolli G.**, Lowe E.D., Troiani S., Rusconi L., Bullock A.N., Debreczeni J.E., Knapp S. and Johnson

L.N. (2008) The structure f P-TEFb (CDK9/cyclin T1), its complex with flavopiridol and regulation by phosphorylation. *EMBO J.* 27, 1907-18. **Shared first authorship.**

35. **Lolli G.** and Johnson L.N. (2007) The recognition of Cdk2 by Cdk7. *Proteins* 67, 1048-59.
36. **Lolli G.** and Johnson L.N. (2005) CAK – Cyclin-dependent Activating Kinase – a key kinase in cell cycle control and a target for drugs? *Cell Cycle* 4, 572-7. **Co-corresponding author.**
37. **Lolli G.,** Lowe E.D., Brown N.R. and Johnson L.N. (2004) The crystal structure of human CDK7 and its protein recognition properties. *Structure* 12, 2067-79.
38. **Lolli G.**, Thaler F., Valsasina B., Roletto F., Knapp S., Uggeri M., Bachi A., Matafora V., Storici P., Stewart A., Kalisz H.M. and Isacchi A. (2003) Inhibitor Affinity Chromatography: profiling the specific reactivity of the proteome with immobilized molecules. *Proteomics* 3, 1287-98.
39. Tosco A., Birolo L., Madonna S., **Lolli G.**, Sannia G. and Marino G. (2003) GroEL from the psychrophilic bacterium *Pseudoalteromonas haloplanktis TAC 125*: molecular characterization and gene cloning. *Extremophiles* 7, 17-28.

BOOK CHAPTERS

- **Lolli G.** and Battistutta R. (2015) Structural Basis of CK2 Regulation by Autoinhibitory Oligomerization. “Protein Kinase CK2 Cellular Function in Normal and Disease States”. *Springer*. **ISBN:** 978-3-319-14543-3.
- **Lolli G.** and Di Marco S. (2008) New directions for CDKs and HDACs inhibition in cancer therapy. "Progress in Cell Cycle Control Research". *Nova Science Publishers.* **ISBN:** 978-1-60456-797-7.