Gang DONG

PhD, MS, BA

Group Leader & Associate Professor
Email: gang.dong@meduniwien.ac.at
Phone: +43-1-4277-61625
Fax: +43-1-4277-9616

Max F. Perutz Laboratories (MFPL) GmbH
Department of Medical Biochemistry
Medical University of Vienna
Dr. Bohr-Gasse 9, 1030 Vienna, Austria

Research Experience

Medical University of Vienna, Austria	Associate Professor w/ tenure	Mar 2016 - present
Medical University of Vienna, Austria	Assistant Professor	Apr 2008 - Feb 2016
Max F. Perutz Laboratories, Austria	Group Leader	Apr 2008 - present
Yale University, New Haven, CT, USA	Associate Research Scientist	2006 - 2008
Yale University, New Haven, CT, USA	Postdoctoral Fellow	2002 - 2006
University of Texas at Austin, TX, USA	PhD Student	1998 - 2002
Peking University, Beijing, China	Master Student	1995 - 1998

Education

Ph.D.	Biochemistry & Molecular Biology, University of Texas at Austin, USA	2002
M.S.	Biophysics, Peking University, Beijing, China	1998
B.A.	Plant Pathology, China Agricultural University, Beijing, China	1993

Selected Honors and Awards

Postdoctoral Fellowship, American Heart Association, USA	2004-2006
Brown-Coxe Fellowship, Yale School of Medicine, CT, USA	2004
Graduate School Summer Fellowship, University of Texas at Austin, TX, USA	1999
Most Persuasive Speaker Award, University of Texas at Austin, TX, USA	1998
Excellent Graduate Student (Guanghua) Award, Peking University, Beijing, China	1997
Elected Delegation Member to Japan, China Agricultural University, Beijing	1992

Selected Publications

1. Yue P, Zhang Y, Zhu Y, Lessigang J, Dong G*, and Guo W* (2017) “Sec3 promotes the initial binary t-SNARE complex assembly and membrane fusion” ***Nat. Commun***. 8:14236. DOI: 10.1038/ncomms14236 *(*co-corresponding authors).*
2. Lesigang J and Dong G (2016) “Analysis of the three-dimensional structures of exocyst components” ***Meth. Mol. Biol.*** 1369:191-204. DOI: 10.1007/978-1-4939-3145-3_14.
3. Dong G (2015) “Building a nine-fold symmetrical barrel: structural dissections of centriole assembly” (Review) ***Open Biol.*** DOI: 10.1098/rsob.150082.

4. Florimond C, Sahin A, Byard EH, Vidilaseris K, Dong G, Albisetti A, Landrein N, Dacheux D, Bonhivers M and Robinson DR (2015) "BILBO1 is a scaffold protein of the flagellar pocket in the pathogen *Trypanosoma brucei*" ***PloS Pathog.*** 11(3):e1004654.
5. Shimanovskaya E, Viscardi V, Lesigang J, Lettman MM, Qiao R, Svergun DI, Round A, Oegema K, and Dong G (2014) "Structure of the *C. elegans* ZYG-1 cryptic polo box suggests a conserved mechanism for centriolar docking of Plk4 kinases" ***Structure*** 22(8):1090-104. [Featured article of the Journal]
6. Vidilaseris K, Shimanovskaya E, Esson HJ, Morriswood B, and Dong G (2014) "Assembly mechanism of *Trypanosoma brucei* BILBO1, a multidomain cytoskeletal protein" ***J. Biol. Chem****.* 289(34): 23870-81.
7. Vidilaseris K, Morriswood B, Kontaxis G, and Dong G (2014) "Structure of the TbBILBO1 N-terminal domain from *Trypanosoma brucei* reveals an essential requirement for a conserved surface patch" ***J. Biol. Chem****.* 289(6): 3724-35.
8. Sealey-Cardona M, Schmidt K, Demmel L, Hirschmugl T, Gesell T, Dong G, and Warren G (2014) "Sec16 determines the size and functioning of the Golgi in the protist parasite *Trypanosoma brucei*" ***Traffic*** PMID: 24612401
9. Shimanovskaya E, Qiao R, Lesigang J, and Dong G (2013) "The SAS-5 N-terminal domain is a tetramer, with implications for centriole assembly in *C. elegans*" ***Worm*** Volume 2, Issue 3, eLocation ID: e25214. PMID: 24778935.
10. Qiao R, Cabral G, Lettman MM, Dammermann A, and Dong G (2012) "SAS-6 coiled coil structure and interaction with SAS-5 suggest a regulatory mechanism in *C. elegans* centriole assembly" ***EMBO J****.* 31: 4334-4347.
11. Dong G, Wearsch PA, Peaper DR, Cresswell P, and Reinisch KM (2009) "Insights into MHC class I peptide loading from the structure of the tapasin/ERp57 heterodimer" ***Immunity***, 30: 21-32. [Featured article of the Journal, F1000 selection]
12. Dong G, Medkova M, Novick P, and Reinisch KM (2007) "A catalytic coiled-coil: structural insights into the activation of the Rab GTPase Sec4p by Sec2p" ***Mol. Cell***, 25, 455-462.
13. Dong G, Hutagalung AH, Fu C, Novick PJ, and Reinisch KM (2005) "Structures of Exo70p and the Exo84p C-terminal domains reveal a common motif" ***Nat. Struct. Mol. Biol.*** 12, 1094-1100.
14. Dong G, Chakshusmathi G, Wolin SL, and Reinisch KM (2004) "Structure of the La motif: a winged helix domain mediates RNA binding via a conserved aromatic patch" ***EMBO J.*** 23, 1000-1007.
15. Dong G, Noakowski J, and Hoffman DW (2002) "Structure of small protein B: the protein component of the tmRNA-SmpB system for ribosome rescue" ***EMBO J.*** 21, 1845-1854.
16. Zhou ZH, Baker ML, Jiang W, Dougherty M, Jakana J, Dong G, Lu GY, and Chiu W (2001) "Electron cryomicroscopy and bioinformatics suggest protein fold models for rice dwarf virus" ***Nat. Struct. Mol. Biol.*** 8: 868-873.

External Funding (last 5 years)

1. P28231-B28: FWF Stand-alone Project "Structural Characterization of ZYG-1 in Centriole Assembly" Sum: **€450,513.00**. Supporting period: 2015-2018. Role: PI

2. W 1258 Doktoratskollegs (DKs): FWF International PhD Program "Integrative Structural Biology" Sum: **€250,000.00** (totally 1.9 million EUR shared by 7 groups). Supporting period: 2016-2019. Role: co-PI
3. P24383-B21: FWF Stand-alone Project "Structural studies of the *Trypanosoma brucei* protein TbBILBO1" Sum: **€335,550.00**. Supporting period: 2012-2016. Role: PI
4. P23440-B20: FWF Stand-alone Project "Structural Studies of the Intraflagellar Transport Complexes" Sum: **€379,570.00**. Supporting period: 2011-2015. Role: PI
5. ASEA-UNINET Graduate Scholarship. Funding agent - Austrian Federal Ministry of Education, Science and Culture. Sum: **€50,000.00**. Supporting period: 2009-2012. Role: Graduate Student Supervisor

Teaching Activities

1. 2015-2017: Lectured "Introduction to Crystallography, SAXS, and SLS/DLS" in the graduate course "Biochemical and Biophysical Validation and Characterization Approaches" (University of Vienna, Austria)
2. 2010-2017: Lectured "Introduction to X-ray Crystallography, NMR, and EM" in the graduate course "Advanced Methods in Cell Biology" (Medical University of Vienna, Austria)
3. 2016: Taught "Theory and Application of Small Angle X-ray Scattering in Protein Characterization" in the PhD course "Theoretical Background of Integrative Structural Biology" (University of Vienna, Austria)
4. 2015-2016: Lectured "Protein-DNA Interactions" in the graduate course "Methods in Molecular Biology & Biochemistry" (Medical University of Vienna, Austria)
5. 2012-2016: Taught the two-week practical course "Protein Biochemistry" (University of Vienna, Austria)
6. 2012: Organized and taught lectures in "Structure and Function of Biological Macromolecules" (Vienna Biocenter PhD Program Lecture Series, Vienna, Austria)
7. 2008-present: Supervised 6 PhD students (4 graduated), 2 technicians, and 2 Post-docs; hosted and supervised 15 visiting students and scholars
8. 2006-2007: Coordinated discussions in the graduate course "Biochemical & Biophysical Approaches in Molecular & Cellular Biology" (Yale University, New Haven, CT, USA)
9. 2001-2002: Lectured the graduate course *"Biochemistry Laboratory Techniques*" (University of Texas at Austin, USA)
10. 2000-2001: Taught the undergraduate practical course *"Techniques in Molecular Biology*" (University of Texas at Austin, USA)
11. 1999-2000: Assisted in teaching the undergraduate course *"Evolution and Ecology*" (University of Texas at Austin, USA)
12. 1996-1997: Taught undergraduate laboratories of *"Molecular & Biochemical Techniques*" (Peking University, Beijing, China)

Invited Talks (last 4 years)

1. *Memorial Sloan Kettering Cancer Center,* New York, USA. Sept 16, 2016.
2. *Texas A&M University,* College Station, Texas, USA. Sept 8, 2016.
3. *Capital Medical University,* Beijing, China. July 11, 2016.
4. *University of Osnabrück,* Osnabrück, Germany. May 19th, 2015.

5. *CNRS, University of Bordeaux.* Bordeaux, France. Oct 29th, 2014.
6. *EMBO Conference - Centrosomes and Spindle Pole Bodies.* Lisbon, Portugal. Sept 30th - Oct 3rd, 2014.
7. *6th ÖGMBT (Austrian Biophysics Society) Annual Meeting*. Vienna, Austria. Sept 14-16th, 2014.
8. *Crossing Frontiers in Life Sciences*. University of Vienna, Austria. Sept 11-12th, 2014.
9. *Iowa State University.* Ames, IA, USA. June 17th, 2014.
10. *Yale University, School of Medicine.* New Haven, CT, USA. June 13th, 2014.
11. *Gordon Research Conference - Biology of Host-Parasite Interactions.* Newport, RI, USA. June 8-13th, 2014.
12. *2013 Cilia, Flagella and Centrosome Meeting*. Carry-le-Rouet, France. Oct 7-9th, 2013.
13. *The University of Hong Kong*. Hong Kong, China. June 8th, 2013.
14. *2012 Cilia, Flagella and Centrosome Meeting*. Carry-le-Rouet, France. Oct 22-24th, 2012.
15. *3rd International Conference on Cellular Dynamics and Chemical Biology*. Hefei, China. Nov 16-18th, 2012.
16. *4th ÖGMBT (Austrian Biophysics Society) Annual Meeting*. Salzburg, Austria. Sept 17-19th, 2012.
17. *Wuhan University.* Wuhan, China. May 11th, 2012.
18. *Institute of Hydrobiology, Chinese Academy of Science.* Wuhan, China. May 12th, 2012.

Extracurricular Activities

1. Serving on the Steering Committee of the “Integrative Structural Biology” PhD program founded by the Austrian Science Fund (2016-2019).
2. Coordinator of the Austrian Block Allocation Group (BAG) Proposal at the European Synchrotron Radiation Facility (2016-2018).
3. Served on the Vienna Bio-center (VBC) “Best PhD Thesis” Evaluation Panel (2016).
4. Invited Guest Editor for the special issue “Cilia and Flagella: Biogenesis and Function” published in *Cells* (2015).
5. Membership of the Austrian Biophysical Society (2010 – present).
6. Hosted ~20 national/international speakers at the Vienna Biocenter (2009 – present).
7. Membership of the American Society for Cell Biology (2004 – 2010).
8. Editorial or Review board member of *(1) Cells, (2) Frontiers in Cell Growth and Division, (3) Journal of Syndromes, (4) Journal of Molecular Biology and Molecular Imaging, and (5) Aperito Journal of Bacteriology, Virology & Parasitology.*
9. Invited reviewer for scientific journals including *eLife, Nature Structure & Molecular Biology, Nature Cell Biology, Nature Chemical Biology, EMBO Journal, Journal of Cell Biology, Structure, etc.*
10. Invited reviewer for national & international grant applications.

(Updated: Feb 2017)