

BIOGRAPHICAL SKETCH

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NAME Xiaofeng Fu	POSITION TITLE Facility manager
eRA COMMONS USER NAME	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Wuhan University, P.R. China	B.S.	2001-2003	Physics
Wuhan University, P.R. China	Ph.D.	2003-2008	Physics
University of Texas Houston Medical School, Houston, TX, USA	Postdoc.	2009	Structural Biology
Brandeis University, Waltham, MA, USA	Postdoc.	2010-2013	Structural Biology
University of Pittsburgh, PA, USA	Postdoc.	2014-2018	Structural Biology

A. Personal Statement

Dr. Xiaofeng Fu has ten years of experience in electron microscopy. He was first trained in electron microscopy (EM) during his Ph.D. studying nano-material. In 2009 he transitioned into the field of structural biology and has expanded his skill set to cryo-EM and cryo-electron tomography, briefly at UT Houston and then for 4 years at Brandeis University in the Nicastro and Grigorieff laboratory. Afterwards he moved to University of Pittsburgh in Peijun Zhang's laboratory to continue to his research in HIV-1 capsid protein using cryoET and correlative light and electron microscopy method. Dr. Fu masters independently all steps involved in cryo-EM and three-dimensional reconstructions of macromolecules, including cryo-sample preparation, data acquisition and image processing. His skills include computer programming and method development. One of the methods he developed is to combine single particle and cryoET methods together to push resolution for macromolecular complexes *in situ*. Another is to automate the current correlative light and electron microscopy (CLEM) workflow to dramatically increase the efficiency and successful ratio.

B. Positions and Honors

Research and Employment

2009 Postdoctoral researcher in Dr. Jun Liu's lab, University of Texas Houston Medical School, TX, USA
2010-2013 Postdoctoral researcher in Drs. Daniela Nicastro's and Nikolaus Grigorieff's lab, Brandeis University, MA, USA
2014-2018 Postdoctoral researcher in Dr. Peijun Zhang's lab, University of Pittsburgh, PA, USA
2018 cryoEM managre in Florida State University, FL, USA

C. Peer-reviewed Publications

Fu X, Ning J, Zhong Z, Ambrose Z, Watkins S, Zhang P, AutoCLEM: an automated correlation workflow from live-cell imaging to cryo-electron microscopy/tomography, (in preparation)

Fu X, Song K, Grigorieff N, Nicastro D, Tomography-Guided 3D Reconstruction of Subcellular Structures, (in preparation)

Fu X, Himes B, Ke D, Rice W, Ning J, Zhang P, Controlled Bacterial Lysis for Electron Tomography of Native Cell Membranes, *Structure* 22(12), 2014

Nicastro D, Fu X, Heuser T, Tso A, Porter ME, Linck RW, Cryo-electron tomography reveals conserved features of doublet microtubules in flagella, *Proc Natl Acad Sci U S A.*, 108(42):E845-53, 2011

Fu X., Zou H., Zhou L. (2010) A Novel Synthesis Route of Ag₂S Nanotubes by Sulfidizing Silver Nanowires in Ambient Atmosphere. *Journal of Nanoscience and Nanotechnology*, 10:5851-5856.

Fu X., Zou H., Zhou L., Zhou Z., Yu. X., Hao Z. (2008) Growth Mechanism of Cyclic Penta-twinned Ag Nanowires Synthesized by Polyol Process. *Acta Phys.-Chim. Sin.*, 24:781-787.

Fu X., Zou H., Han J. (2007) Photo oxidation of Ag/titanium oxidenanoparticle film induced by ultrafast laser. *Acta Phys.-Chim. Sin.*, 23:940-944.

D. Research Support

None