JIAN-HUA, CHEN

Mail Address: Lawrence Berkeley National Laboratory

1 Cyclotron Road Mailstop 80R0114

Berkeley, CA 94720

Email: jian-hua.chen@ucsf.edu

EDUCATION

Dr.rer.nat. (09. Sep. - 13. Jul.)

Max Planck Institute for Biophysical Chemistry / University of Göttingen / GGNB program Physics of Biological and Complex Systems, GERMANY

Thesis: Spatial-temporal actin dynamics during synaptic plasticity of single dendritic spine investigated by two-photon fluorescence correlation spectroscopy

Advisor: Prof. Dr. Peter Jomo Walla

Master of Science (02. Sep. - 04. Jul.)

National Yang-Ming University / Institute of Biophotonics/ TAIWAN

Thesis: Probing interactions between the cytoskeleton and the endocytic vesicles using Total Internal Reflection Fluorescence Microscopy

Advisor: Dr. Chi-Hung Lin

Co-advisor: Dr. Din-Ping Tsai (National Taiwan University, Department of Physics)

Bachelor of Science (98. Sep. - 02. Jul.)

National Central University/Department of Electrical Engineering/ TAIWAN

WORKING EXPERIENCE

Postdoctoral Scholar (14. Feb. - present)

University of California San Francisco, Department of Anatomy/Lawrence Berkeley National Lab, National Center of X-ray Tomography

Research Assistance (05. Jan. - 09. Jul.)

National Synchrotron Radiation Research Center

Experimental facility group/ TAIWAN

AWARDS

Stipend of the Max Planck Society dedicated to Max Planck PhD students,

Max Planck Society, GERMANY (09. Sep. - 12. Aug.)

Government Scholarships to Study Abroad (GSSA),

Ministry of Education, TAIWAN (09. May.)

The Best Student Presentation Award,

4th Asia-Pacific Near-field Optics Conference, TAIWAN (03. Oct.)

MEMBERSHIP

Membership of Biophysical Society, USA (13. Feb. - present)

Membership of German Biophysical Society, GERMANY (12. Sep. - present)

Membership of Microscopy Society of Taiwan, TAIWAN (03 - 04)

RESEARCH INTERESTS

Single molecule detection

Fluorescence correlation spectroscopy, Fluorescence lifetime techniques, Fluorescence resonance energy transfer (FRET), Super-resolution techniques, Single particle tracking method

Synchrotron-based techniques

Transmission hard X-ray microscopy, 3D tomography techniques

PUBLICATIONS

Journal Papers

1. **Chen JH**, Kellner Y, Zagrebelsky M, Grunwald M, Korte M, Walla P J (2014) **Actin dynamics within single dendritic spine investigated by two photon fluorescence correlation spectroscopy during synaptic plasticity** (in preparation)
2. Hafi N, Grunwald M, van den Heuvel LS, Aspelmeier T, **Chen JH**, Zagrebelsky M, Schutte OM, Steinem C, Korte M, Munk A *et al*: **Fluorescence nanoscopy by polarization modulation and polarization angle narrowing**. *Nat Methods* 2014, **11**(5):579-584.
3. Zbik MS, Martens WN, Frost RL, Song YF, Chen YM, **Chen JH**: **Smectite flocculation structure modified by Al13 macro-molecules--as revealed by the transmission X-ray microscopy (TXM)**. *J Colloid Interface Sci* 2010, **345**(1):34-40.
4. Arhatari BD, Peele AG, Hannah K, Kappen P, Nugent KA, Williams GJ, Yin GC, Chen YM, **Chen JH**, Song YF: **A coherence approach to phase-contrast microscopy II: experiment**. *Ultramicroscopy* 2009, **109**(3):280-286.
5. Zbik MS, Martens WN, Frost RL, Song YF, Chen YM, **Chen JH**: **Transmission X-ray microscopy (TXM) reveals the nanostructure of a smectite gel**. *Langmuir* 2008, **24**(16):8954-8958.
6. Zbik MS, Frost RL, Song YF, Chen YM, **Chen JH**: **Transmission X-ray microscopy reveals the clay aggregate discrete structure in aqueous environment**. *J Colloid Interface Sci* 2008, **319**(2):457-461.

Conference Proceedings

1. **Chen JH**, Kellner Y, Zagrebelsky M, Grunwald M, Korte M, Walla PJ (2013) **Actin dynamics within single dendritic spine investigated by two photon fluorescence correlation spectroscopy during synaptic plasticity.** *Poster Presentation in "Biophysical conference 2013", Philadelphia, USA*
2. **Chen JH**, Kellner Y, Zagrebelsky M, Korte M, Walla PJ (2012) **Actin dynamics within dendritic spine investigated by two photon fluorescence correlation spectroscopy.** *Poster Presentation in "Focus on Microscopy conference 2012", SINGAPORE*
3. Tang MT, **Chen JH**, and Wang YL (2008) **Structural investigation of anodic alumina nanochannels by transmission X-ray microscopy.** *Proceeding of XRM2008,220*
4. **Chen JH**, Lee YC, Tang MT, Song YF (2007) **X-ray tomography and chemical imaging within butterfly wing scales.** *AIP Conf. Proc. 879, 1940-1943*
5. Tang MT, Yin GC, Song YF, **Chen JH**, Tseng KL, Liang KS, Chen FR, Duewer F, Yun W (2005) **Hard X-ray microscopy with sub-30 nm spatial resolution at NSRRC.** *Proc.8th Int. Conf. X-ray Microscopy, IPAP Conf. Series 7, 15-17*