

# Po-Lin Chiu

Postdoctoral Fellow  
Department of Cell Biology  
Harvard Medical School  
240 Longwood Avenue  
Boston, MA 02115, USA  
Citizenship: Taiwan

Office: +1 (617) 432 2848  
Mobile: +1 (510) 219 2743  
Po-Lin\_ChIU@hms.harvard.edu;  
holmeschiu@gmail.com

## Experiences

Postdoctoral Fellow 2010-now.  
Department of Cell Biology, Harvard Medical School, Boston, MA.  
Laboratory of Thomas Walz

Postdoctoral Researcher 2009-2010.  
Section of Molecular and Cellular Biology, University of California, Davis, CA.  
Laboratory of Hennig Stahlberg

## Education

Doctorate in Biophysics (Ph.D.)  
Biophysics Graduate Group, University of California, Davis, CA, 2009.  
- *Dissertation title: "Structural Studies of a Prokaryotic Cyclic Nucleotide-Modulated Channel, MloK1, by Transmission Electron Microscopy"*

Master of Electrical Engineering (M.EE.)  
Institute of Electrical Engineering, National Taiwan University, Taipei, Taiwan, 2001.  
- *Thesis title: "Drug delivery by ultrasound-controlled liposome cavitation: System and technical requirements"*

Bachelor of Science, Pharmacy (B.S.)  
School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan, 1999.

## Professional Activities

### Publications

**Chiu, P.-L.\***, Walz, T. (2015). The structural studies of raft lipids and aquaporin-o using electron crystallography. (in preparation).

**Chiu, P.-L.\***, Li, X.\*, Li, Z., Beckett, B., Brilot, A.F., Grigorieff, N., Agard, D., Cheng, Y., and Walz, T. (2015). Studies of direct electron counting by using electron crystallography. (*\*equal contributions*) (in preparation).

**Chiu, P.-L.\***, Bou-Assaf, G.\*, Chhabra, E.S., Chambers, M.G., Liu, L., Peters, R., Kulman, J.D., and Walz, T. (2015). Mapping the interaction between factor VIII and von Willebrand factor by electron microscopy and mass spectrometry. (*\*equal contributions*) (submitted).

Hite, R.K.\*, **Chiu, P.-L.\***, Schuller, J., and Walz, T. (2015). Effect of lipid head groups on double-layered two-dimensional crystals formed by aquaporin-o. *PLoS ONE* 10, e0117371. (*\*equal contributions*).

Kowal, J., Chami, M., Baumgartner, P., Arheit, M., **Chiu, P.-L.**, Schroder, G.F., Nimigean, C.M., and Stahlberg, H. (2014). Ligand-induced structural changes in the cyclic nucleotide-modulated potassium channel MloK1. *Nat Comm* 5, 3106-3115.

Hopkins, L.E., Shin, E., **Chiu, P.-L.**, Brandenberger, C., Smiley-Jewell, S., and Pinkerton, K.E. (2013). Nose-to-brain transport of aerosolized quantum dots following acute exposure. *Nanotoxicol* 8, 885-893.

Evans, J.E., Jungjohann, K.L., Wong, P.C.K., **Chiu, P.-L.**, Dutrow, G.H., Arslan, I., and Browning, N.D. (2013). Visualizing macromolecular complexes with *in situ* liquid scanning transmission electron microscopy. *Micron* 43, 1085-1090.

**Chiu, P.-L.**, Kelly, D.F., and Walz, T. (2011). The use of trehalose in the preparation of specimens for electron microscopy. *Micron* 42, 762-772.

Paoli, E.-E., Kruse, D., Seo, J., Zhang, H., Kherolomoom, A., Watson, K., Lindfors, H., **Chiu, P.-L.**, Stahlberg, H., and Ferrara, K. (2010). An optical and microPET assessment of thermally-sensitive liposome biodistribution in the Met-1 tumor model: importance of formulation. *J Control Release* 143, 13-22.

**Chiu, P.-L.**, M.D. Pagel, J. Evans, H.-T. Chou, X. Zeng, B. Gipson, H. Stahlberg, and C.M. Nimigean. (2007). The structure of the prokaryotic cyclic nucleotide-modulated potassium channel MloK1 at 16 Å resolution. *Structure* 15, 1053-1064. **F1000 recommended.**

*Featured in Structure: Taraska, J.W. and Zagotta, W. (2007). Cyclic nucleotide-regulated ion channel: Spotlight on symmetry. Structure* 15, 1023-1024.

Renault, L., Chou, H.-T., **Chiu, P.-L.**, Hill, R.M., Zeng, X., Gipson, B., Zhang, Z.Y., Cheng, A., Unger, V., and Stahlberg, H. (2006). Milestones in electron crystallography. *J Comput Aided Mol Des* 20, 519-527.

**Chiu, P.-L.**, Wu, C.-Y., Tsao, J.-H., and Chang, F.-H. (2001). Drug delivery through liposome by ultrasonic cavitation. *Biomed Eng-App, Basis, & Comm* 13, 47-52.

#### *Medical Publications*

Armed Forces Beitou Hospital Formula.

#### *Memberships and Affiliations*

AAAS/Science Program for Excellence in Science - 2014-now.

Biophysical Society - 2009-2011.

### Awards

Graduate Researcher Fellowship from University of California, Davis, 2005-2009.

Taiwan National Science Foundation Scholarship, 1999-2001.

Taiwan Nan-Ya Incorporation Scholarship, 1995-1999.

### Special Skills

#### *Pharmacy Clinics and Certifications*

Pharmacy administrator of the Ming-Ching Clinics, Taipei, Taiwan, 2003-2004.

Pharmacy administrator of the Armed Forces Beitou Psychiatric Medical Center, Taipei, Taiwan, 2001-2003.

Certified by National Qualification Examination for Medical Professionals - Pharmacy, 1999.

Internship in the National Taiwan University Hospital, Taipei, Taiwan, 1998-1999.

## References

**Prof. Thomas Walz**

Department of Cell Biology  
Harvard Medical School  
240 Longwood Avenue  
Boston, MA 02115, USA  
+1 617 432 2848  
Thomas\_Walz@hms.harvard.edu

**Prof. Henning Stahlberg**

The Center for Cellular Imaging and Nano  
Analytics (C-CINA)  
Biozentrum, University Basel, Switzerland  
WRO-1058  
Mattenstrasse 26  
CH-4058, Basel, Switzerland  
+41 61 387 32 62  
Henning.Stahlberg@unibas.ch

**Prof. Jenho Tsao**

Institute of Electrical Engineering  
National Taiwan University, Taipei, Taiwan  
EE Building 2 R215  
No. 1, Sec 4, Roosevelt Rd  
Taipei, Taiwan 106, Taiwan R.O.C.  
+886 2 3366 3580  
tsaor215@cc.ee.ntu.edu.tw

**Scientist James E. Evans**

EMSL  
3335 Innovation Boulevard  
Richland, WA 95616, USA  
+1 509 371 6003  
james.evans@pnnl.gov

**Prof. Enoch P. Baldwin**

Section of Molecular and Cellular Biology  
University of California, Davis  
48 Briggs Hall  
1 Shields Ave  
Davis, CA 95616, USA  
+1 530 752 1108  
epbaldwin@ucdavis.edu

**Prof. Shwu-Huey Liaw**

Department of Life Sciences  
National Yang-Ming University, Taipei, Tai-  
wan  
No. 15, Sec 2, Linong St  
Taipei, Taiwan 112, Taiwan R.O.C.  
+886 2 2826 7278  
shliaw@ym.edu.tw

**Associate Prof. Xiangyan Zeng**

Department of Mathematics and Computer  
Science  
Fort Valley State University, GA  
1005 State University Drive  
Fort Valley, GA 31030, USA  
+1 478 825 6528  
zengx@fvsu.edu