

SHIAN-HUEY CHIANG

Life Sciences Institute
University of Michigan
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POSITION TITLE

Assistant Research Scientist

EDUCATION

University of Michigan; Ph.D., 2001; major: Cellular and Molecular Biology

University of Michigan; MS, 1998; field of study: Human Genetics

National Yang-Ming Medical College; MS, 1994; field of study: Biochemistry

National Taiwan University; BS; 1991; field of study: Agricultural Chemistry

RESEARCH EXPERIENCE

- Nov., 2005-now Assistant Research Scientist (non-tenure track faculty), Life Sciences Institute, University of Michigan, Ann Arbor
Study signaling mechanism of insulin-stimulated glut4 translocation
- Jan., 2003-Oct., 2004 Research Fellow, Department of Physiology, Supervisor, Ormond MacDougald, University of Michigan, Ann Arbor
Study the role of wnt signaling on cell fate determination with transgenic animal models
- Aug., 2001-Jan., 2003 Research Fellow, Department of Internal Medicine, Supervisor, Dr. Alan Saltiel, University of Michigan, Ann Arbor
Study a novel rhoGAP protein and its function on insulin-stimulated glucose transport
- Jan., 1999-July, 2001 Graduate Student Research Assistant, Advisor: Dr. Alan Saltiel, CMB Graduate Program, University of Michigan, Ann Arbor

- Study the PI3-kinase-independent pathway (rhoGTPase TC10) involved in insulin-stimulated glucose transport*
- March, 1998-Dec., 1998 Senior Research Assistant under the supervision of Dr. Alan Saltiel, Department of Cell Biology, Warner-Lambert Pharmaceutical Company, Ann Arbor
- Study the caveolin expression and Synip expression system*
- July, 1996-March, 1998 Graduate Student Research Assistant, Advisor: Dr. Tom Glaser, HHMI, Department of Human Genetics, University of Michigan, Ann Arbor
- Study the gene structure and function of mouse eyes-absent gene family*
- Jan., 1996-Jun. 1996 Teaching Assistant, Department of Biology, University of Michigan, Ann Arbor
Laboratory instructor in "Introduction to Biology"
- Sep., 1994-Dec., 1995 Graduate Student, Department of Human Genetics, University of Michigan, Ann Arbor
Courses taken include Cell Biology, Human Genetics, Virology, Signal transduction, etc.
- Sep., 1992-Jul., 1994 Graduate Student Research Assistant, Department of Biochemistry, National Yang-Ming Medical College, Taipei, Taiwan; Advisors: Drs. Hwang, J and Ng, S.Y.
Study the Cell Cycle regulation of PCNA and topoisomerase 1 genes
- Jul., 1991-Aug., 1992 Research Assistant, Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan; Supervisor: Dr. Ng, S.Y.
Study the gene regulation of serum-response factor (SRF)

PUBLICATIONS

1. Louise Chang, Shian-Huey Chiang and Alan Saltiel (2006). TC10 α is Required for Insulin-Stimulated Glucose Uptake in Adipocytes. *Endocrinology* (In press).

2. Mayumi Inoue, **Shian-Huey Chiang**, Louise Chang, Xiao-Wei Chen and Alan Saltiel (2006). Compartmentalization of Exocyst in Lipid Rafts controls Glut4 Vesicle Tethering. *Molecular Biology of the Cell* 17:2303-2311.
3. **Shian-Huey Chiang**, Louise Chang and Alan Saltiel (2006). *Methods in Enzymology* 406:701-714.
4. Louise Chang, **Shian-Huey Chiang** and Alan Saltiel (2005). Insulin Signaling and the Regulation of Glucose Transport. *Molecular Medicine* 10:65-71 (invited review)
5. Isabelle Gerin, Vernon Dolinsky, Jonathan Shackman, Robert Kennedy, **Shian-Huey Chiang**, Charles Burant, Knut R. Steffensen, Jan-Åke Gustafsson, and Ormond A. MacDougald (2005). LXR β Is Required for Adipocyte Growth, Glucose Homeostasis, and β Cell Function. *Journal of Biological Chemistry* 280-23024-23031.
6. Kenneth Longo, Wendy Wright, Sona Kang, Isabelle Gerin, **Shian-Huey Chiang**, Peter Lucas, Mark Opp, and Ormond MacDougald (2004). Wnt10b Inhibits Development of White and Brown Adipose Tissues. *Journal of Biological Chemistry* 279:35503-35509.
7. **Shian-Huey Chiang** and Ormond A. MacDougald (2003). Does worm help human cure obesity? *Trends in Genetics* 19:523-525. (invited review)
8. **Shian-Huey Chiang**, Joseph Hwang, Marie Legendre, Mei Zhang, Akiko Kimura and Alan R. Saltiel (2003). TCGAP, A Multidomain Rho GTPase Activating Protein that Regulates Insulin-Stimulated Glucose Transport. *EMBO J.* 22:2679-2691
9. Mayumi Inoue, Louise Chang, Joseph Hwang, **Shian-Huey Chiang**, and Alan Saltiel (2003). The Exocyst Complex is required for the Targeting of Glut4 to the Plasma Membrane by Insulin. *Nature* 422:629-633.
10. Robert T. Watson, Megumi Furukawa, **Shian-Huey Chiang**, Diana Boeglin, Makoto Kanzaki, Alan R. Saltiel, and Jeffrey E. Pessin (2003). The exocytotic trafficking of TC10 occurs through both classical and nonclassical secretory transport pathways in 3T3L1 adipocytes. *Molecular and Cellular Biology.* 23(3):961-74.
11. **Shian-Huey Chiang**, June Chunqiu Hou, Joseph Hwang, Jeffrey E. Pessin and Alan R. Saltiel (2002). Cloning and functional characterization of related TC10 isoforms, a

subfamily of Rho proteins involved in insulin-stimulated glucose transpor. *Journal of Biological Chemistry* 277:13067-73.

12. **Shian-Huey Chiang**, Christian A. Baumann, Makoto Kanzaki, Debbie C. Thurmond, Robert T. Watson, Cheryl L. Neudauer, Ian G. Macara, Jeffrey E. Pessin and Alan R. Saltiel (2001). Insulin-Stimulated GLUT4 Translocation Requires the CAP-Dependent Activation of TC10. *Nature* 410:944-948.
13. Robert T. Watson, Satoshi Shigematsu, **Shian-Huey Chiang**, Silvia Mora, Makoto Kanzaki, Alan R. Saltiel and Jeffrey E. Pessin (2001). Plasma Membrane Compartmentalization of TC10 is required for Insulin Signaling and GLUT4 Translocation. *Journal of Cell Biology* 154 (4):829-840.
14. Akiko Kimura, Christian Baumann, **Shian-Huey Chiang** and Alan Saltiel (2001). The sorbin homology domain; a motif for the targeting of proteins to lipid rafts. *Proc. Natl. Acad. Sci.* 98(6):9098-9103.
15. Hu-Hui Lee, Wen-shu Chiang, **Shian-Huey Chiang**, Y.C. Liu, Julang Hwang, and Sun-Yu Ng (1995). Regulation of Cyclin D1, DNA topoisomerase 1 and PCNA promoters during the cell cycle. *Gene Expression* 4(3) 95-109.

HONORS

1. FASEB Summer Research Conference (Skeletal Muscle Satellite Cells)-Minority Access to Research Careers (MARC) travel award. July, 2003
2. American Diabetes Association (ADA) International Symposium Chair in a session of "Hard Core Insulin Signaling". June, 2003
3. Tissue Engineering and Regeneration Training Grant, University of Michigan. Mar., 2003-Aug., 2004
4. University of Michigan Graduate Student Travel Grant. June, 2001.
5. American Diabetes Association (ADA) International Symposium Travel Grant. June, 2001
6. Distinguished Master Thesis & Presentation Award held in Yang-Ming Medical College. First Place. Regulation of DNA topoisomerase 1 and PCNA promoters during the cell cycle. 1994.

PRESENTATIONS

1. American Diabetes Association (ADA) International Symposium. June, 2002. San Francisco, CA. Poster presentation: *TCGAP, A Multidomain Rho GTPase Activating Protein that Regulates Insulin-Stimulated Glucose Transport.*
2. American Diabetes Association (ADA) International Symposium. June, 2001. Philadelphia, PA. Poster presentation: *Insulin-Stimulated GLUT4 Translocation Requires the CAP-Dependent Activation of TC10.*
3. International Symposium of Cell Biology. December, 2000 San Francisco, CA. Poster presentation: *Insulin-Stimulated GLUT4 Translocation Requires the CAP-Dependent Activation of TC10.*