

SHU-CHIN JENNY YIP

Employment:

2006- present

Fox Chase Cancer Center

Postdoctoral Associate, Tumor Cell Biology Department

- FPLC purified recombinant proteins for *in Situ* and *in vitro* studies.
- Generated knock-in gene targeting construct for *in vivo* animal modeling.
- Evaluated metabolic disorder and genotypic analysis of the transgenic mice.
- Quantitative analysis of protein interaction using western blottings.
- Examined SUMO conjugation sites using Mass spectrometry.

1998- 2000

Albert Einstein College of Medicine

Research Technician, Department of Molecular Pharmacology

- Performed lipid kinase assays using radioactive thin lay chromatography.
- Investigated protein-protein interaction using yeast two-hybrid system.
- Maintained and optimized baculovirus protein production.
- Microinjected protein or DNA for analysis of cellular signal transduction.
- Isotopic labeled cells for studies in vesicular trafficking,
- Laboratory managements.

Education:

2000- 2005

Albert Einstein College of Medicine PhD biomedical science NY

Department of Molecular Pharmacology, advisor: Jonathan Backer, MD

Department of Anatomy and Structural Biology, advisor: John Condeelis, PhD

Thesis: The role of PI3K and Rho GTPase in EGF stimulated cell motility.

- Expert in mammalian tissue culturing techniques and cell biology.
- Performed extensive *in vivo* and *in vitro* biological assays.
- Microscopy of immunohistochemical stained cells.
- Utilized molecular biology techniques for cloning and expression.
- Purified and characterized protein for biochemical assays.
- Overexpressed siRNA oligos to knockdown protein expression.
- Experienced in adenoviral expression and viral titration.
- Proficient in Words, Photoshop, Excel and Power point presentation.

1995- 1998

SUNY Binghamton University, Bachelor of Science

Department of Biochemistry, undergraduate

Award and Honor:

2008 – 2010

National Institute of Health Research Fellowship

National Research Service Award (NRSA) postdoctoral fellowship

2005

Keystone Symposia

Cell Migration and Adhesion Scholarship

1995

Howard Hughes Medical Institute

Undergraduate summer research

Invited Seminar:

2003

43rd Annual American Society for Cell Biology Meeting

Cell Motility Mini-symposium

References:

Furnished upon request.

Publications:

- 1) El-Sibai, M., Pertz, O., Pang, H., **Yip, S.C.**, Lorenz, M., Symons, M., Condeelis, J.S., Hahn, K.M., and Backer, J.M. (2008). RhoA/ROCK-mediated switching between Cdc42- and Rac1-dependent protrusion in MTLn3 carcinoma cells. *Exp Cell Res* 314, 1540-1552.

- 2) **Yip, S.C.**, Eddy, R.J., Branch, A.M., Pang, H., Wu, H., Yan, Y., Drees, B.E., Neilsen, P.O., Condeelis, J., and Backer, J.M. (2008). Quantification of PtdIns(3,4,5)P(3) dynamics in EGF-stimulated carcinoma cells: a comparison of PH-domain-mediated methods with immunological methods. *Biochem J* 411, 441-448.
- 3) van Rheenen, J., Song, X., van Roosmalen, W., Cammer, M., Chen, X., Desmarais, V., **Yip, S.C.**, Backer, J.M., Eddy, R.J., and Condeelis, J.S. (2007). EGF-induced PIP2 hydrolysis releases and activates cofilin locally in carcinoma cells. *J Cell Biol* 179, 1247-1259.
- 4) **Yip, S.C.**, El-Sibai, M., Coniglio, S.J., Mouneimne, G., Eddy, R.J., Drees, B.E., Neilsen, P.O., Goswami, S., Symons, M., Condeelis, J.S., and Backer, J.M. (2007). The distinct roles of Ras and Rac in PI 3-kinase-dependent protrusion during EGF-stimulated cell migration. *J Cell Sci* 120, 3138-3146.
- 5) Dadke, S., Cotteret, S., **Yip, S.C.**, Jaffer, Z.M., Haj, F., Ivanov, A., Rauscher III, F., Shuai, K., Ng, T., Neel, B.G., and Chernoff, J. (2007). Regulation of Protein Tyrosine Phosphatase (PTP) 1B by sumoylation. *Nat Cell Biol.* 9: 80-85. *Featured article of the month.*
- 6) Shekar, S.C., H. Wu, Z. Fu, **S.C. Yip**, Nagajyothi, S.M. Cahill, M.E. Girvin, and J.M. Backer. 2005. Mechanism of Constitutive Phosphoinositide 3-Kinase Activation by Oncogenic Mutants of the p85 Regulatory Subunit. *J Biol Chem.* 280:27850-5.
- 7) **Yip, S.C.**, M. El-Sibai, K.M. Hill, H. Wu, Z. Fu, J. Condeelis, and J.M. Backer. 2004. Over-Expression of the P110 β But Not P110 α Isoform of PI 3-Kinase Inhibits Motility in Breast Cancer Cells. *Cell Motility and the Cytoskeleton.* 59: 180-188.
- 8) Kempniak, S.J., **S.C. Yip**, J.M. Backer, and J.E. Segall. 2003. Local signaling by the EGF receptor. *J Cell Biol.* 162:781-7.
- 9) Hill, K.M., Y. Huang, **S.C. Yip**, J. Yu, J.E. Segall, and J.M. Backer. 2001. N-terminal domains of the class Ia phosphoinositide 3-kinase regulatory subunit play a role in cytoskeletal but not mitogenic signaling. *J Biol Chem.* 276:16374-8.
- 10) Hill, K., S. Welti, J. Yu, J.T. Murray, **S.C. Yip**, J.S. Condeelis, J.E. Segall, and J.M. Backer. 2000. Specific requirement for the p85-p110 α phosphatidylinositol 3-kinase during epidermal growth factor-stimulated actin nucleation in breast cancer cells. *J Biol Chem.* 275:3741-4.
- 11) Christoforidis, S., M. Miaczynska, K. Ashman, M. Wilm, L. Zhao, **S.C. Yip**, M.D. Waterfield, J.M. Backer, and M. Zerial. 1999. Phosphatidylinositol-3-OH kinases are Rab5 effectors. *Nat Cell Biol.* 1:249-52.