Yu-Chieh (Jack) Wang, Ph.D.

Curriculum Vitae

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Ph.D Institution: Division of Medicinal Chemistry & Pharmacognosy, College of Pharmacy, Ohio State University (December, 2008)

Dissertation Title: Exploitation and mechanistic validation of drug-combination strategies to overcome EGFR-inhibitor resistance in NSCLC cells

Advisor: Ching-Shih Chen, Ph.D.

❒ Education/Academic Background

2008 Ph.D., Pharmacy Program, Division of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, Ohio State University, Columbus, Ohio.

2002 B.S., Department of Biology, National Taiwan Normal University, Taipei, Taiwan

❒ Awards/Honors/Fellowships

2007 The nominee for the Harold M. Weintraub Graduate Student Award of Fred Hutchinson Cancer Research Center

2007 The nominee for the Presidential Fellowship of The Ohio state University

2007 NIH National Graduate Student Research Festival Travel Grant, National Institutes of Health (*250 awardees selected from more than 750 nationwide applicants in the U.S.*)

2007 The top-ten abstract entitled: Combination of celecoxib derivative OSU-03012 and EGFR inhibitors enhances cell death in gefitinib/erlotinib-resistant lung cancer cells through induction of ER stress-related apoptosis and suppression of Akt signaling, which was selected for the oral presentation of 21st Annual Edward F. Hayes Graduate Research Forum in Professional Biological Science field, The Ohio State University

2004 Department Research Award of Department of Biology, National Taiwan Normal University for research article entitled: Comparison of the cytotoxicity induced by different exposure of sodium arsenite in two fish cell lines

2002 Department Research Award of Department of Biology, National Taiwan Normal University for research article entitled: Association of L-*myc* polymorphism with lung cancer susceptibility and prognosis in relation to age-selected controls and stratified cases

❒ Professional Affiliation

1. Associate member of American Association for Cancer Research

2. Graduate Student/Postdoctoral member of American Association of Pharmaceutical Scientists
3. Member of American Chemical Society
4. Associate member of International Society for Stem Cell Research

❒ Research Experience

1. Postdoctoral Research Associate, Scripps Research Institute, California (Sept 2009-present)
2. Postdoctoral Research Associate, Burnham Institute for Medical Research, California (Dec 2008-Sept 2009)
3. Graduate Research Associate in Dr. Ching-Shih Chen's laboratory at Division of Medicinal Chemistry and Pharmacognosy, Ohio State University (Jun 2004-Dec 2008)
4. Research Assistant in Dr. Yi-Ching Wang's laboratory at Department of Life Science, National Taiwan Normal University, Taiwan (Jun 2003-Jun 2004)
5. Research Assistant in Dr. Yi-Ching Wang's laboratory at Department of Biology, National Taiwan Normal University, Taiwan (Jun 2002-Jun 2003)
6. Undergraduate research in Dr. Yi-Ching Wang's laboratory at Department of Biology, National Taiwan Normal University,Taiwan (Aug 1999-Jun 2002).
7. Undergraduate research in Dr. Li-Chu Tung's laboratory at Department of Biology, National Taiwan Normal University, Taiwan (Jan 1999-Jun 2002).

❒ Publications (published/in press)

1. Sargeant, A.M., Rengel, R.C., Kulp, S.K., Klein, R.D., Clinton, S.K., **Wang, Y.C.** and Chen, C.S. (2008) OSU-HDAC42, a histone deacetylase inhibitor, blocks prostate tumor progression in the TRAMP model. *Cancer Res*., **68** (10), 3999-4009
2. **Wang, Y.C.**, Kulp, S.K., Wang, D., Yang, C.C., Sargeant, A.M., Hung, J.H., Kashida, Y., Yamaguchi, M., Chang, G.D. and Chen, C.S. (2008) Targeting endoplasmic reticulum stress and Akt with OSU-03012 and gefitinib or erlotinib to overcome resistance to epidermal growth factor receptor Inhibitors. *Cancer Res*., **68** (8), 2820-2830
3. Yang, J., Wei, S., Wang, D.S., **Wang, Y.C.**, Kulp, S.K., and Chen, C.S. (2008) Pharmacological exploitation of the proliferator-activated receptor γ agonist ciglitazone to develop a novel class of androgen receptor-ablative agents. *J. Med. Chem.*, **51**(7), 2100-2107
4. Hung, J.H., Lu, Y.S., **Wang, Y.C.**, Ma, Y.H., Wang, D., Kulp, S.K., Muthusamy, N., Byrd, J.C., Cheng, A.L. and Chen, C.S. (2008) FTY720 induces apoptosis in hepatocellular carcinoma cells in part through activation of reactive oxygen species-protein kinase C delta signaling. *Cancer Res*., **68**(4), 1204-1212
5. Shih, C.M., Chen, K., **Wang, Y.C.**, Lee, P.J. and Wang, Y.C. (2007) Elevated p53 and p21waf1 mRNA expression in blood lymphocytes from lung cancer patients with chemoresistance. *Cancer Detect Prev*., **31**(5), 366-370
6. Porchia, L.M., Guerra, M., **Wang, Y.C.**, Zhang, Y. Espinosa, A.V., Shinohara, M., Kulp, S.K., Kirschner, L.S., Saji, M., Chen, C.S. and Ringel, M.D. (2007) 2-amino-N-{4-[5-(2-phenanthrenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-phenyl} acetamide (OSU-03012), a celecoxib derivative, directly targets p21-activated kinase. *Mol Pharmacol*., **72**(5):1124-1131 (*Cover story*)
7. Lu, Y.S., Kashida, Y., Kulp, S.K., **Wang, Y.C.**, Hung, J.H., Tang, M., Lin, Z.Z., Chen, T.J., Cheng, A.L. and Chen, C.S. (2007) Efficacy of OSU-HDAC42, a novel histone deacetylase inhibitor, in murine models of hepatocellular carcinoma. *Hepatology*., **46**(4), 1119-1130

8. Wei, S., Lin, L.F., Yang, C.C., **Wang, Y.C.**, Chang, G.D., Chen, H. and Chen, C.S. (2007) Thiazolidinediones modulate the expression of beta-catenin and other cell-cycle regulatory proteins by targeting the F-box proteins of Skp1-Cul1-F-box protein E3 ubiquitin ligase independently of peroxisome proliferator-activated receptor gamma. *Mol Pharmacol.*, **72**(3), 725-733.
9. Chen, C.S., **Wang, Y.C.**, Yang, H.C., Huang, P.H., Kulp, S.K., Yang, C.C., Lu, Y.S., Matsuyama, S., Chen, C.Y. and Chen C.S. (2007) Histone deacetylase inhibitors sensitize prostate cancer cells to agents that produce DNA double-strand breaks by targeting Ku70 acetylation. *Cancer Res*., **67**(11):5318-5327
10. Yang, C.C., **Wang, Y.C.**, Shuo, Wei, Lin, L.F., Chen, C.S., Lee, C.C., Lin, C.C. and Chen, C.S. (2007) Proxisome proliferator-activated receptor γ-independent suppression of androgen receptor expression by troglitazone. Mechanism and pharmacological exploitation. *Cancer Res*., **67**(7), 3229-3238
11. Tseng, P.H., **Wang, Y.C.**, Weng, S.C., Weng, J.R., Chen, C.S., Brueggemeier, R.W., Shapiro, C.L., Chen, C.Y., Dunn, S.E., Pollak, M., Chen, C.S. (2006) Overcoming trastuzumab resistance in HER2-overexpressing breast cancer cells by using a novel celecoxib-derived phosphoinositide-dependent kinase-1 inhibitor. *Mol Pharmacol*., **70**(5), 1534-1541
12. **Wang, Y.C.**, Chuang, R.H. and Tung, L.C. (2004) Comparison of the cytotoxicity induced by different exposure of sodium arsenite in two fish cell lines. *Aquatic Toxicology*, **69**(1), 67-79
13. **Wang, Y.C.**, Lee, P.J., Shih, C.M., Chen, H.Y., Lee, C.C., Chang, Y.Y., Hsu, Y.T., Liang, Y.J., Wang, L.Y., Han, W.H. and Wang, Y.C. (2003) Damage formation and repair efficiency in the *p53* gene of cell lines and blood lymphocytes assayed by multiplex long quantitative polymerase chain reaction. *Analytical Biochemistry*, **319**(2), 206-215
14. Shih, C.M., Kuo, Y.Y., **Wang, Y.C.**, Jian, S.L., Hsu, Y.T., Wu, H.Y., Guo, M.W. and Wang, Y.C. (2002) Association of L-*myc* polymorphism with lung cancer susceptibility and prognosis in relation to age-selected controls and stratified cases. *Lung cancer*, **36**(2), 125-32

❒ Presentation/Conference Abstracts

1. **Wang, Y.C.**, Kulp, S.K., Wang, D., Sargeant, A.M. and Chen, C.S. (Mar, 2008) Combining erlotinib with vorinostat or OSU-HDAC42 to overcome EGFR inhibitor resistance in lung cancer cells in part through regulation of NR4A1-mediated apoptosis. ***6th International Symposium on Targeted Anticancer Therapies*** at Bethesda, MD
2. **Wang, Y.C**. and Chen C.S. (Nov, 2007) Exploitation and mechanistic validation of a novel celecoxib derivative, OSU-03012, as a therapeutic agent to treat cancer and neurodegenerative diseases. ***AAPS Annual Meeting and Exposition*** at San Diego, CA
3. **Wang Y.C.**, Kulp S.K., Wang D., Yang C.C., Sargeant A.M., Yang Y.T., Kashida Y., Yamaguchi M., Chang G.D. and Chen C.S. (Oct, 2007) Targeting ER-stress and Akt signaling to overcome EGFR inhibitor-resistance in NSCLC cells with activated Akt. ***2007 NIH National Graduate Student Research Festival*** at Bethesda, MD
4. Chen, C.S., **Wang, Y.C.**, Yang, H.C., Huang, P.H., Kulp, S.K., Yang, C.C., Lu, Y.S., Matsuyama, S., Chen, C.Y. and Chen C.S. (May, 2007) Histone deacetylase inhibitors sensitize prostate cancer cells to agents that produce DNA double-strand breaks by targeting Ku70 acetylation. ***9th Annual Midwest DNA Repair Symposium*** at Columbus, OH
5. **Wang Y.C.**, Kulp S.K., Wang D., Yang C.C., Sargeant A.M., Yang Y.T., Kashida Y., Yamaguchi M., Chang G.D. and Chen C.S. (April, 2007) Combination of celecoxib derivative OSU-03012 and EGFR inhibitors enhances cell death in gefitinib/erlotinib-resistant lung cancer cells through induction of ER stress-related apoptosis and suppression of Akt signaling. ***2007 AACR annual meeting*** at Los Angeles, CA

6. **Wang Y.C.**, Kulp S.K., Kashida, Y., Sargeant A.M. and Chen C.S. (July, 2006) Apoptosis of gefitinib/erlotinib-resistant lung cancer cells induced by co-treatment with EGFR inhibitors and a novel PDK1 inhibitor. ***11th SCBA International Symposium*** at San Francisco, CA