Curriculum Vitae

Personal Information
Name: Menglin Cheng
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Research and Work Experience

Oct 2011-Aug 2017 Research Technologist, Russell H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins University School of Medicine, Baltimore, Maryland

Independent Projects:

1) Role of choline releasing glycerophosphodiesterase genes in cancer and their potential as therapeutic targets;

2) Alteration of choline metabolism serving as a potential non-invasive marker to monitor treatment response of chemotherapeutic drugs.

Participating projects:

1) Imaging tumor hypoxia area using mass spectroscopy imaging;

2) Monitoring cancer progression and drug treatment response with CEST-MRI;

3) Optical imaging of the tumor degradome;

4) Cellular metabolome of glioblastoma cells.

Nov 2009-Jul 2011 Research Technologist, Department of Molecular pharmacology and biological chemistry, Northwestern University School of medicine, Chicago, Illinois

Project: Protein expression and crystallization of potassium channels.

Jul 2006-Jun 2008 Post-graduate Research Assistant, Institute of Botany, The Chinese Academy of Sciences, Beijing, China

Project: Molecular characterization of GATA1, a transcription factor integrating light and brassinosteroid signaling pathway.

Education

Aug,2017- Ph.D. program in Cell Biology, neuroscience, Pharmacology/Physiology (CBNP), Rutgers School of Graduate Studies, Newark, NJ

Sep 2005-Jun 2006 Department of Biology, Graduate School of The Chinese Academy of Sciences, Beijing, China

Sep 2001-Jun 2005 Department of Horticulture, Nanjing Agricultural University, Nanjing China
Degree: Bachelor of Agriculture

Honors and Awards

Sep 2002	3rd Merit Students Scholarship
Sep 2003	3rd Merit Students Scholarship
Sep 2004	2nd National Scholarship
Jun 2005	Outstanding Graduate

Publications (* Equally contributing authors)

1. **Cheng, M.,** Rizwan, A., Bhujwalla, Z. M., Jiang, L., Glunde, K. Molecular effects of doxorubicin on choline metabolism in breast cancer. Neoplasia. (2017) 19, 617–627. DOI: 10.1016/j.neo.2017.05.004
2. **Cheng, M.,** Bhujwalla, Z. M., Glunde, K. Targeting phospholipid metabolism in cancer. Frontiers in oncology (2016) 6, 266. DOI: 10.3389/fonc.2016.00266
3. Cao, M. D.*, **Cheng, M.*,** Rizwan, A., Jiang, L., Greenwood, T. G., Krishnamachary, B., Bhujwalla, Z. M., Bathen, T. F., Glunde, K. Targeting choline phospholipid metabolism: GDPD5 and GDPD6 silencing decrease breast cancer cell proliferation, migration, and invasion. NMR in Biomedicine (2016) 29, 1098–1107. DOI: 10.1002/nbm.3573
4. Paidi, S.*, Rizwan A.*, Zheng C.*, **Cheng M.**, Glunde, K., Barman, I. Label-free Raman spectroscopy detects stromal adaptations in pre-metastatic lungs primed by breast cancer. *Cancer Research* (2016) published online first, doi: 10.1158/0008-5472.CAN-16-1862
5. Chan, K. W. Y.*, Jiang, L.*, **Cheng, M.,** Wijnen, J. P., Liu G, van Zijl, P., McMahon, M. T., Glunde, K. CEST-MRI detects metabolite levels for monitoring breast cancer cell aggressiveness and chemotherapy response. NMR in Biomedicine (2016) 29, 806–816. DOI: 10.1002/nbm.3526.
6. Mascini, N. E., **Cheng M.,** Jiang L., Rizwan, A., Podmore, H., Bhandari, D. R., Römpp, A., Glunde, K., Heeren, R.M.A. Mass spectrometry imaging of the hypoxia marker pimonidazole in a breast tumor model. Analytical Chemistry (2016) 88, 3107–3114, DOI: 10.1021/acs.analchem.5b04032.
7. Rizwan, A., **Cheng, M.**, Bhujwalla, Z. M., Krishnamachary, B., Jiang, L., Glunde, K., Breast cancer cell adhesome and degradome interact to drive metastasis. npj Breast Cancer (2015) 1, 15017; doi:10.1038/npjbcancer
8. Rizwan, A.*, Bulte, C.*, Kalaichelvan, A., **Cheng, M.,** Krishnamachary, B., Bhujwalla, Z. M., Jiang, L., Glunde, K. Metastatic breast cancer cells in lymph nodes increase nodal collagen density. Scientific Reports (2015) 5,10002. doi:10.1038/srep1000
9. Kahlert, U. D., **Cheng, M.**, Koch, K., Marchionni, L., Fan, X., Raabe, E. H., Maciaczyk, J., Glunde, K., Eberhart, C. G. Alterations in cellular metabolome after pharmacological inhibition of Notch in glioblastoma cells. International Journal of Cancer (2015) 138,1246–1255. doi:10.1002/ijc.29873
10. Kahlert, U. D., Hartmann, R., Koch, K., Natsumeda, M., **Cheng, M.**, Glunde, K., Eberhart, C. G., Willbold, D., Maciaczyk, J. The effect of neurosphere culture conditions on the cellular metabolism of glioma cells. Folia Neuropathologica (2015) 53, 219-225. PMID:26443312

11. Wijnen, J. P., Jiang, L., Greenwood, T. R., **Cheng, M.**, Döpkens, M., Cao, M. D., Bhujwalla, Z. M., Krishnamachary, B., Klomp, D. W. J., Glunde, K. Silencing of the glycerophosphocholine phosphodiesterase GDPD5 alters the phospholipid metabolite profile in a breast cancer model *in vivo* as monitored by ^{31}P MRS. NMR in Biomedicine (2014) 27, 692-699. doi:10.1002/nbm.3106

12. Luo, X., Lin, W., Zhu, S., Zhu, J., Sun, Y., Fan, X., **Cheng, M.,** Hao, Y., Oh, E., Tian, M., Liu, L., Zhang, M., Xie, Q., Chong, K., Wang, Z. Integration of light and brassinosteroid signaling pathways by a GATA transcription factor in Arabidopsis. Developmental Cell (2010) 19, 872–883. doi:10.1016/j.devcel.2010.10.023