



SUNG YOUNG KIM

ASSISTANT PROFESSOR

DEPT. OF BIOCHEMISTRY,
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Educations

2008 M.D., School of Medicine, Konkuk University

2011 Ph.D., Graduate School of Medicine, Seoul Nat. University

Professional Background

2013-Present Assistant Professor: Konkuk University, School of Medicine

2012-2013 Assistant Professor: Gachon University, School of Medicine

2011-2012 Research Associate: Seoul National University College of Medicine

2008-2010 Teaching Assistant: Seoul National University College of Medicine

Top 5 Publications

■ Lee YS, Hwang SG, Kim JK, Park TH, Kim YR, Myeong HS, Kwon K, Jang CS, Ro YT, Noh YH, **Kim SY**. Identification of novel therapeutic target genes in acquired lapatinib-resistant breast cancer by integrative meta-analysis. Tumor Biology (2015) [Epub ahead of print]

■ Lee YS, Hwang SG, Kim JK, Park TH, Kim YR, Myeong HS, Kwon K, Jang CS, Noh YH, **Kim SY**. Topological network analysis of differentially expressed genes in cancer cells with acquired gefitinib resistance. Cancer Genomics Proteomics. (2015) May-Jun;12(3):153-66

■ Lee YS, Ryu SW, Bae SJ, Park TH, Kwon K, Noh YH, **Kim SY**. Cross-platform meta-analysis of multiple gene expression profiles identifies novel expression signatures in acquired anthracycline-resistant breast cancer. Oncology Reports. (2015) 33: 1985-1993

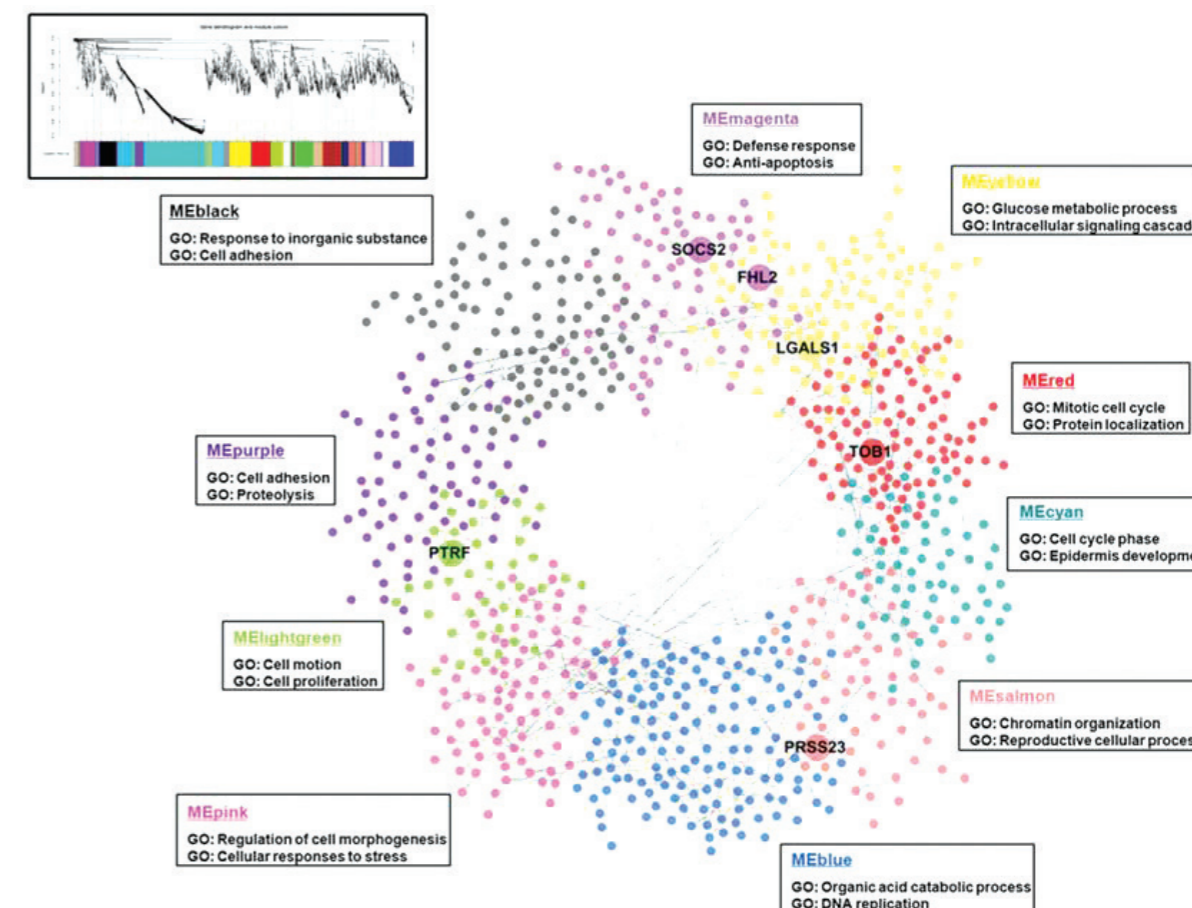
■ **Kim SY**, Lee SH, Lee B, Park YJ, Park JH, Lee YS, Rah DK, Park TH. The Protective Effects of Botulinum Toxin A Against Flap Necrosis After Perforator Twisting and Its Underlying Molecular Mechanism in a Rat Model. Ann Plast Surg. (2015) [Epub ahead of print]

■ **Kim SY**, Rah DK, Chong Y, Lee SH, Park TH. Bilirubin provides perforator flap protection from ischaemia-reperfusion injury in a rat model: a preliminary result. Int Wound J. (2015) [Epub ahead of print]

RESEARCH INTERESTS

Phenotype-centric Data Mining, Medical Predictive Analytics, Machine-learning, High-dimensional Data Analysis, and Network Analysis

- Phenotype-centric feature selection using modified genetic algorithms
- Modeling for multi-objective optimization problems
- Pattern classification using machine-learning algorithms (SVM, DT, NNs...)
- Developing and evaluating a machine-learning-based algorithms to predict cancer malignancies
- Dialectical genetics for therapeutic target mining
- Evaluation of network algorithms for biological interaction



Systematic identification of common functional modules related to acquired drug resistance using integrated network analysis