



## HEE DONG HAN

ASSISTANT PROFESSOR

DEPT. OF MEDICAL SCIENCE,  
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### Educations

- 2001 B.S., Youngdong University, Seoul, Korea
- 2003 M.S., Chungnam University, Seoul, Korea
- 2008 Ph.D., Chungnam University, Seoul, Korea

### Professional Background

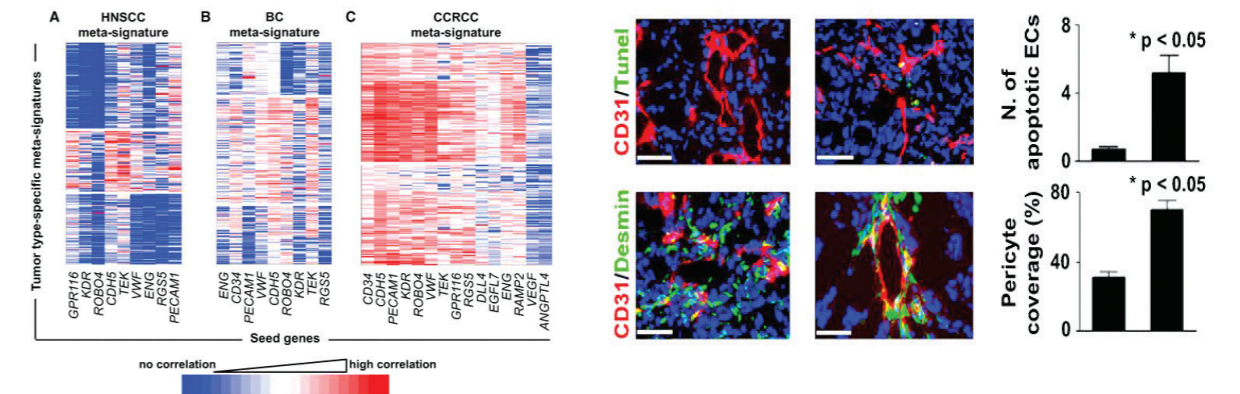
- 2014-Present Assistant Professor: Department of Immunology, School of Medicine, Konkuk University
- 2013-2014 Research Professor: Department of Immunology, School of Medicine, Konkuk University
- 2012-2013 Senior Researcher: Research Center for Medicinal Chemistry, Division of Drug Discovery Research, Korea Research Institute of Chemical Technology
- 2010-2012 Instructor: Center of RNA Interference and Non-coding RNA, The University of Texas MD Anderson Cancer Center, Houston, TX, USA
- 2010-2012 Instructor: Department of Gynecologic Oncology, The University of Texas, MD Anderson Cancer Center, Houston, TX, USA
- 2008-2010 Post-doctoral fellow: Department of Gynecologic Oncology, The University of Texas, MD Anderson Cancer Center, Houston, TX, USA

### Top 5 Publications

- Han HD, Cho YJ, Cho SK, Byeon Y, Jeon HN, Kim HS, Kim BG, Bae DS, et al. Linalool-incorporated nanoparticles as a novel anticancer agent for epithelial ovarian carcinoma. *Molecular Cancer Therapeutics* 2016 (in press)
- Pradeep S, Huang J, Mora EM, Nick AM, Cho MS, Wu SY, Noh K, Pecot CV, Han HD, et al. Erythropoietin stimulates tumor growth via EphB4. *Cancer Cell* 2015 Nov 9;28(5):610-22
- Chaluvally-Raghavan P, Zhang F, Pradeep S, Hamilton MP, Zhao X, Rupaimoole R, Han HD, et al. Copy number gain of has-miR-569 at 3q26.2 leads to loss of TP53INP1 and aggressiveness of epithelial cancers. *Cancer Cell* 2014 Dec 8;26(6):863-79
- Pradeep S, Kim SW, Wu SY, Nishimura M, Chaluvally-Raghavan P, Han HD, et al. Hematogenous metastasis of ovarian cancer: rethinking mode of spread. *Cancer Cell* 2014 Jul 14;26(1):77-91.
- Stone RL, Nick AM, McNeish IA, Balkwill F, Han HD, et al. Paraneoplastic thrombocytosis in ovarian cancer. *New England Journal of Medicine* 2012 Feb 16;366(7):610-8

## RESEARCH INTERESTS

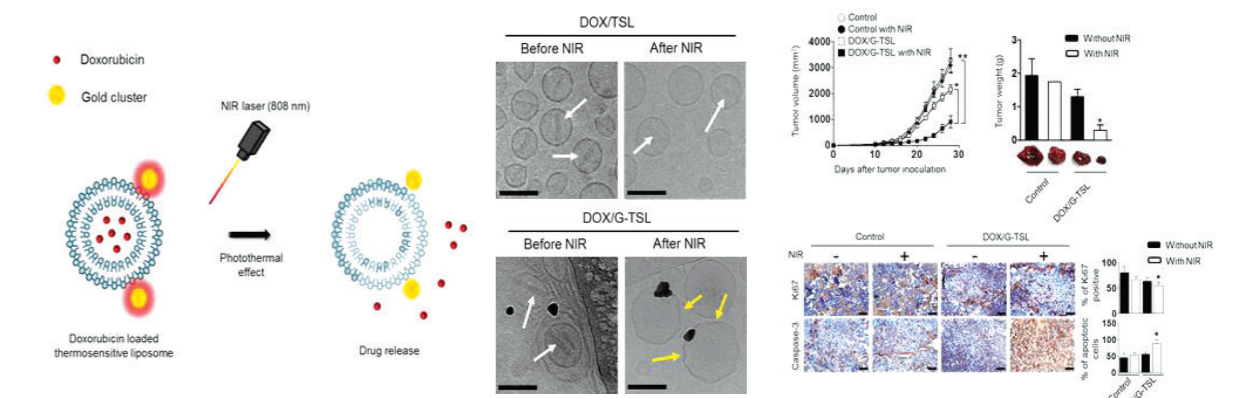
### 1. Tumor Angiogenesis Targeted Therapy



Angiogenesis is critical for solid tumor growth and represents a realistic therapeutic target. Identifying angiogenesis-related genes that are common to different cancer types has enabled us to characterize the underlying core transcriptional program and its modulation in response to antiangiogenic therapies. We demonstrated that a relatively understudied G-protein-coupled receptor, ELTD1, is regulated by key angiogenic pathways and plays an

important role in blood vessel formation. Furthermore, ELTD1 silencing markedly impaired tumor growth in vivo, despite the association between high expression in tumor-associated endothelial cells and good prognosis in multiple cancer types. Here, we demonstrate the angiogenic process and identify ELTD1 as an important candidate for targeted therapies.

### 2. Development of Novel Drug Delivery System



Liposome-based drug delivery systems hold great potential for cancer therapy and are being widely used because of their particular capacity and biocompatibility characteristics. Although PEGylated formulations increase the circulation time of liposomes, further improvement of their therapeutic efficacy is needed due to the slow and decreased

drug release from liposomes in a tumor microenvironment. Here, we demonstrate that the gold cluster-bound liposomal system (G-TSL) achieved effective drug release in the tumor microenvironment following external NIR irradiation, with synergistic therapeutic efficacy.