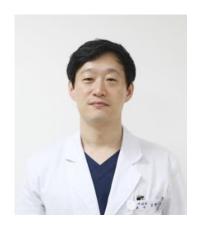
## **CURRICULUM VITE**

## **Hyun Koo Kim**

#### Education

- Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery, 2004 (Ph. D.)
- Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery, 2000 (M.S.)
- -Korea University, College of Medicine, 1996 (B. S.)



#### Professional Career

- Chair, Korea University, College of medicine, Department of Thoracic and Cardiovascular Surgery: 2016-current
- Adjunct Professor, School of Biomedical Engineering, College of Health Science, Korea University: 2016-current
- Professor, Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery: 2015- Current
- Associate Professor, Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery: 2010-2015
- Assistant Professor, Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery: 2007-2010
- Clinical Assistant Professor, Korea University, College of Medicine, Department of Thoracic and Cardiovascular Surgery: 2005-2007

### Honors

- The Korean Association for the Study of Lung Cancer, A best presentation Award: 2017
- The Korea University Seok Tap Research Award: 2016
- ESTS-GRILLO Award, European Society of Thoracic Surgeons:2015
- The Korean Bronchoesophagological Society, Dong A best presentation award: 2015
- The Korean Bronchoesophagological Society, Dong A best presentation award: 2014
- Best Surgical Movie Award: 2013

- The Korean Bronchoesophagological Society, Dong A best presentation award: 2012
- 10<sup>th</sup> International Conference of the Asian Clinical Oncology Society, Merit Award: 2012
- The Korean Cancer Association GSK Award: 2011
- The Korean Association for the Study of Lung Cancer, Dong A best presentation Award: 2010
- The Korean Bronchoesophagological Society, Dong A best presentation award: 2010
- The Korea University Medical College Alumni, The best article: 2005

# National Funding

- National Research Foundation of Korea (NRF), Ministry of Education, Science and Technology (2018)
- Korean Health Technology R&D Project, Ministry of Health & Welfare, Republic of Korea (2017)
- National Research Foundation of Korea (NRF), Ministry of Education, Science and Technology (No. 2015R1A2A2A04005760)
- Korean Health Technology R&D Project, Ministry of Health & Welfare, Republic of Korea (No. A121074)
- National Research Foundation of Korea (NRF), Ministry of Education, Science and Technology (No. 2012012166)
- Technology Innovation Program, Ministry of Trade, industry & Energy (No. 10049039)
- National Research Foundation of Korea (NRF), Ministry of Education, Science and Technology (No. 2012012166)
- Korean Health Technology R&D Project, Ministry of Health, Welfare and Family Affairs, Republic of Korea (A070001)

### Selected Publications (First or Corresponding Author)

Initial Experiences with Robotic Single-Site Thoracic Surgery for Mediastinal Masses. Park SY, Kim HK, Jang DS, Han KN, Kim DJ. Ann Thorac Surg. 2019 Jan;107(1):242-247

Self-targeted knockdown of CD44 improves cisplatin sensitivity of chemoresistant non-small cell lung cancer cells. Quan YH, Lim JY, Choi BH, Choi Y, Choi YH, Park JH, Kim HK. Cancer Chemother Pharmacol. 2018 Dec 4

Comparison of additional minocycline versus iodopovidone pleurodesis during video-assisted thoracoscopic bleb resection for primary spontaneous pneumothorax: a propensity score-matched analysis. Lee KH, Kim BT, Kim HK, Han KN, Choi YH. J Thorac Dis. 2018 Sep;10(9):5443-5448.

Fluorescent image-based evaluation of gastric conduit perfusion in a preclinical ischemia model.

Quan YH, Kim M, Kim HK, Kim BM. J Thorac Dis. 2018 Sep;10(9):5359-5367

CO2 during single incisional thoracoscopic bleb resection with two-lung ventilation. Lee DK, Kim H, Kim HK, Chung DI, Han KN, Choi YH. J Thorac Dis. 2018 Aug;10(8):5057-5065.

Application of a three-dimensional video system in the training for uniportal thoracoscopic surgery. Han KN, Kim HK, Choi YH. J Thorac Dis. 2018 Jun;10(6):3643-3650

The feasibility of electromagnetic navigational bronchoscopic localization with fluorescence and radiocontrast dyes for video-assisted thoracoscopic surgery resection. Han KN, Kim HK. J Thorac Dis. 2018 Apr;10(Suppl 6):S739-S748.

Imaging techniques for minimally invasive thoracic surgery-Korea University Guro Hospital experiences.

Han KN, Kim HK. J Thorac Dis. 2018 Apr;10(Suppl 6)

Endoscopic sentinel lymph node biopsy using indocyanine green-neomannosyl human serum albumin. Park YM, Quan YH, Kwon KH, Cho JG, Woo JS, Kim BM, Lee YS, Jeong JM, Kim HK, Song JJ. Laryngoscope. 2018 Apr;128(4):E135-E140.

Midterm outcomes of single port thoracoscopic surgery for major pulmonary resection. Han KN, Kim HK, Choi YH. PLoS One. 2017 Nov 14;12(11)

Uniportal Video-Assisted Thoracoscopic Surgery Segmentectomy. Kim HK, Han KN. Thorac Surg Clin. 2017 Nov;27(4):387-398.

Real-time computed tomography fluoroscopy-guided solitary lung tumor model in a rabbit. B.H. Choi, Y.H. Quan, H.K. Kim, J.S. Eo, H.S. Young, J.Y. Rho, K.N. Han, Y.H. Choi, PLOS ONE, 2017 Jun 13;12(6).

The predictive accuracy of sentinel nodes mapping in the setting of pulmonary metastasectomy. Kim HK, Lee K, Han KN, Eo JS, Kim S, Choi YH. Clin Exp Metastasis. 2017 Feb;34(2):125-131.

Clinical innovations in minimally invasive surgery in Korea. Han KN, Kim HK, Choi YH. J Thorac Dis. 2016 (Suppl 8):S627-30.

Effect of the Nuss Procedure on the Physical Development of Patients with Pectus Excavatum. Kim HK, Yoon JY, Han KN, Choi YH. Ann Thorac Cardiovasc Surg. 2016 Dec 20;22(6):327-332

Macrophage-Targeted Indocyanine Green-Neomannosyl Human Serum Albumin for Intraoperative Sentinel Lymph Node Mapping in Porcine Esophagus. Kim HK, Quan YH, Oh Y, Park JY, Park JH, Choi Y, Lee YS, Jeong JM, Choi YH, Kim BM. *Ann Thorac Surg.* 2016, 102(4):1149-55.

Single-port thoracoscopic surgery for pneumothorax under two-lung ventilation with carbon dioxide insufflation. Han KN, Kim HK, Lee DK, Kim H, Lim SH, Choi YH. J Thorac Dis. 2016;8(6):1080-6.

Uniportal video-assisted thoracoscopic surgical (VATS) segmentectomy with preoperative dual localization: right upper lobe wedge resection and left upper lobe upper division segmentectomy. Han KN, Kim HK, Choi YH. Ann Cardiothorac Surg. 2016 5(2):147-50.

Comparison of single port versus multiport thoracoscopic segmentectomy. Han KN, Kim HK, Choi YH. J Thorac Dis. 2016 8(Suppl 3):S279-86.

Single-port video-assisted thoracoscopic pulmonary segmentectomy: a report on 30 cases. Han KN, Kim HK, Lee HJ, Choi YH. Eur J Cardiothorac Surg. 2016 49 Suppl 1:i42-7.

Pulmonary Function Changes Over 1 Year After Lobectomy in Lung Cancer. Kim HK, Lee YJ, Han KN, Choi YH. Respir Care. 2016 61(3):376-82.

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Highly sensitive and selective anticancer effect by conjugated HA-cisplatin in non-small cell lung cancer overexpressed with CD44. Quan YH, Kim B, Park JH, Choi Y, Choi YH, Kim HK. *Exp Lung Res.* **2014.** 40.475

The effects of sonic hedgehog signaling pathway components on non-small-cell lung cancer progression and clinical outcome. Hwang J, Kang MH, Yoo YA, Quan YH, Kim HK, Oh SC, Choi YH. *World J Surg Oncol.* **2014.** 21.268

Thoracoscopic color and fluorescence imaging system for sentinel lymph node mapping in porcine lung using indocyanine green-neomannosyl human serum albumin: intraoperative image-guided sentinel nodes navigation. Oh Y, Lee YS, Quan YH, Choi Y, Jeong JM, Kim BM, Kim HK. *Ann Surg Oncol*. **2014.** 21.1182

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Predictive value of intraoperative transesophageal echocardiography in complete atrioventricular septal defect. Kim HK, Kim WH, Hwang SW, Lee JY, Song JY, Kim SJ, Jang KY. Ann Thorac Surg. 2005, 80(1):56-9.

The effects of pulsatile flow upon renal tissue perfusion during cardiopulmonary bypass: a comparative study of pulsatile and nonpulsatile flow. Kim HK, Son HS, Fang YH, Park SY, Hwang CM, Sun K. ASAIO J. 2005, 51(1):30-6.

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Dr. Hyun Koo Kim is Professor and Chief of Thoracic and Cardiovascular Surgery at the Korea University Guro Hospital in Seoul, Korea. He earned his medical degree from Korea University College of Medicine in Seoul Korea in 1996. He finished a Thoracic and Cardiovascular Surgery residency in 2001 and afterwards completed a fellowship in the Korea University Guro Hospital in 2005.

He is an expertise in single port VATS and utilizing 3D thoracoscope during VATS. In addition, he is one of the first surgeons in Asia who used robotic stapler during robotic major pulmonary resection. Furthermore, he published the world's first article about the single site robot surgery in thoracic disease in 2019.

His major research topic is the image-guided surgery, and he has been conducting several national research projects for developing various kinds of intraoperative imaging devices and contrasts through a lot of in vitro laboratory works to preclinical animal and human studies.

Since 2013, he has been a consultant of the Health and Welfare Department of Korea, a specialist in the field of medical devices in the pharmaceutical industry, and a member of the next-generation medical device project mentoring committee.