

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Kim, Anthony

eRA COMMONS USER NAME (credential, e.g., agency login): anthonywkim

POSITION TITLE: Chief and Clinical Professor of Surgery

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Columbia University, New York, NY	BS	05/1991	Mechanical Engineering
Northwestern University, Evanston, IL	MS	12/1993	Mechanical Engineering
Rush Medical College, Chicago, IL	MD	06/1998	Medicine
Rush Presbyterian-St. Luke's Medical Center and Cook County Hospital Integrated Training Program, Chicago, IL	Resident	06/2004	Resident in General Surgery Chief
Rush University Medical Center & Cook County Hospital Training Program, Chicago, IL	Fellow	06/2006	Resident in Cardiothoracic Surgery Advanced
The New York-Presbyterian Hospital, Weill Medical College of Cornell University, New York, NY	Fellow	12/2006	Clinical Fellow in Thoracic Surgery

A. Personal Statement

I am a general thoracic surgeon with a clinical practice that is dedicated to the surgical therapy of lung and esophageal malignancies. Among the routine and complex thoracic operations I perform, I have maintained a practice that focuses on minimally invasive approaches including robotic thoracic surgery. My clinical research interests include studying in studying thoracic oncology at the population level, using large datasets such as the SEER-Medicare database, Healthcare Utilization Project Nationwide Inpatient Sample, and the National Cancer Database. Other ongoing areas of interest include clinical research that pertains to outcomes associated with surgical therapy for lung cancer. My goal is to help provide evidence through outcomes research that may affect the clinical practice of thoracic surgery in a positive manner. As a faculty mentor to many trainees in medicine and surgery, I have served as a principal investigator to several large database projects and have been a part of several projects as the primary author as well as the senior author. In addition to these efforts, I have and continue to collaborate with basic scientists on a wide range of projects in the hopes of translating the findings from the bench research into meaningful clinical utility. The citations highlighted in this personal statement reflect my research groups recent experience with the National Cancer Database.

1. Thomas DC, Arnold BN, Rosen JE, Salazar MC, Blasberg JD, Detterbeck FC, Boffa DJ, Kim AW. Defining outcomes of patients with clinical stage I small cell lung cancer upstaged at surgery. Lung Cancer. 2017 Jan;103:75-81. PubMed PMID: [28024700](#).
2. Gao SJ, Corso CD, Blasberg JD, Detterbeck FC, Boffa DJ, Decker RH, Kim AW. Role of Adjuvant Therapy for Node-Negative Lung Cancer Invading the Chest Wall. Clin Lung Cancer. 2016 Oct

17;PubMed PMID: [27890561](#).

3. Arnold BN, Thomas DC, Rosen JE, Salazar MC, Blasberg JD, Boffa DJ, Detterbeck FC, Kim AW. Lung Cancer in the Very Young: Treatment and Survival in the National Cancer Data Base. J Thorac Oncol. 2016 Jul;11(7):1121-31. PubMed PMID: [27103511](#).
4. Moreno AC, Morgensztern D, Boffa DJ, Decker RH, Yu JB, Detterbeck FC, Wang Z, Rose MG, Kim AW. Treating locally advanced disease: an analysis of very large, hilar lymph node positive non-small cell lung cancer using the National Cancer Data Base. Ann Thorac Surg. 2014 Apr;97(4):1149-55. PubMed PMID: [24582051](#).

B. Positions and Honors

Positions and Employment

1991 - 1992	Graduate Student Teaching Assistant, Northwestern University, McCormick School of Engineering, Department of Mechanical Engineering, Evanston, IL
1992 - 1993	Graduate Research Assistant, Northwestern University, Rehabilitation Institute of Chicago, Sensory Motor Performance Program, Chicago, IL
1998 - 2003	Assistant In General Surgery, Rush Medical College, Chicago, IL
2003 - 2004	Clinical Instructor, Rush University Medical Center, Department of General Surgery, Chicago, IL
2004 - 2006	Clinical Instructor, Rush University Medical Center, Department of Cardiothoracic Vascular Surgery, Chicago, IL
2005 - 2006	Adjunct Attending, Rush University Medical Center, Department of Cardiothoracic Vascular Surgery, Chicago, IL
2007 - 2009	Assistant Professor & Attending Thoracic Surgeon, Rush University Medical Center, Department of Cardiothoracic Vascular Surgery, Chicago, IL
2009 - 2013	Assistant Professor & Attending Thoracic Surgeon, Yale School of Medicine & Yale New Haven Hospital, Section of Thoracic Surgery, Department of Surgery, New Haven, CT
2009 - 2016	Attending Thoracic Surgeon, VA Connecticut Healthcare System - West Haven Campus, Department of Surgery, West Haven, CT
2013 - 2016	Associate Clinical Professor, Yale School of Nursing, New Haven, CT
2013 - 2016	Associate Professor & Attending Thoracic Surgeon, Yale School of Medicine & Yale New Haven Hospital, Section of Thoracic Surgery, Department of Surgery, New Haven, CT
2016 -	Chief and Clinical Professor of Surgery, University of Southern California, Division of Thoracic Surgery, Los Angeles, CA

Other Experience and Professional Memberships

2000 -	Fellow & Member, American College of Surgeons
2001 -	Member, Association for Surgical Education
2001 -	Member, Association for Academic Surgery
2001 -	Member, Society of American Gastrointestinal Endoscopic Surgeons
2002 -	Member, Society for Surgery of the Alimentary Tract
2005 -	Member, Society of Thoracic Surgeons
2005 -	Fellow & Member, American College of Chest Physicians
2007 -	Member, International Association for the Study of Lung Cancer
2007 -	Member, American Society of Clinical Oncology
2008 -	Member, General Thoracic Surgical Club
2008 -	Member, Midwest Surgical Association
2008 -	Member, Society for Surgical Oncology
2010 -	Member, European Society of Thoracic Surgeons
2012 -	Member, Association of VA Surgeons
2012 -	Member, Central Surgical Association

- 2013 - Member, Society of University Surgeon
- 2014 - Member, American Association for Thoracic Surgery
- 2016 - Member, New England Surgical Society

Honors

- 1991 The Edward A. Darling Prize in Mechanical Engineering, Department of Mechanical Engineering, Columbia University
- 1997 Alpha Omega Alpha Honor Society, Rush Medical College
- 1998 The Arthur Dean Bevan Award in General Surgery, Department of General Surgery, Rush Medical College
- 2003 Resident Award for Exemplary Teaching, American College of Surgeons
- 2003 Aesculapius Award, Outstanding Resident Teacher, Rush University Medical Center
- 2004 Senior Resident Teacher of the Year, Rush University Medical Center & Cook County Hospital Integrated Training Program in General Surgery
- 2004 Chief Resident of the Year, Rush University Medical Center & Cook County Hospital Integrated Training Program in General Surgery
- 2005 Aesculapius Award, Outstanding Resident Teacher, Rush University Medical Center
- 2012 Edward H. Storer Award for Excellence in Surgical Education, Department of Surgery, Yale School of Medicine
- 2012 C. Elton Cahow Award for Outstanding Faculty Teaching, Department of Surgery, Yale School of Medicine
- 2013 Cardiothoracic Surgery Resident Faculty Teaching Award, Cardiothoracic Surgery Fellowship, Yale New Haven Hospital
- 2014 C. Elton Cahow Award for Outstanding Faculty Teaching, Department of Surgery, Yale School of Medicine
- 2016 Francis Gilman Blake Award for Outstanding Teaching of The Medical Sciences, Yale School of Medicine, Class of 2016

C. Contribution to Science

1. A majority of my current clinical research efforts focus on the study of health services related outcomes research using large databases. My research group has been evaluating thoracic surgery outcomes associated with specific provider-based characteristics as well as practice patterns associated with lung cancer. As an extension of this focus, we have now started evaluating outcomes associated with the selection of certain surgical procedures and the impact of surgical complications.
 - a. Tchouta LN, Park HS, Boffa DJ, Blasberg JD, Detterbeck FC, Kim AW. Hospital Volume and Outcomes of Robot-Assisted Lobectomies. Chest. 2017 Feb;151(2):329-339. PubMed PMID: [27687847](#).
 - b. Jean RA, DeLuzio MR, Kraev AI, Wang G, Boffa DJ, Detterbeck FC, Wang Z, Kim AW. Analyzing Risk Factors for Morbidity and Mortality after Lung Resection for Lung Cancer Using the NSQIP Database. J Am Coll Surg. 2016 Jun;222(6):992-1000.e1. PubMed PMID: [27118714](#).
 - c. Kim AW, Detterbeck FC, Boffa DJ, Decker RH, Soulos PR, Cramer LD, Gross CP. Characteristics associated with the use of nonanatomic resections among Medicare patients undergoing resections of early-stage lung cancer. Ann Thorac Surg. 2012 Sep;94(3):895-901. PubMed PMID: [22835558](#); PubMed Central PMCID: [PMC3501201](#).
 - d. Park HS, Detterbeck FC, Boffa DJ, Kim AW. Impact of hospital volume of thoracoscopic lobectomy on primary lung cancer outcomes. Ann Thorac Surg. 2012 Feb;93(2):372-9. PubMed PMID: [21945225](#).
2. Paralleling the large database work from our research program and at a more local level, our group has evaluated institutional practice patterns and evaluated their impact on patient outcomes. This

research has included critical assessments of surgical strategies associated with the treatment of various thoracic malignancies as well as the downstream effect of these strategies.

- a. DeLuzio MR, Keshava HB, Wang Z, Boffa DJ, Detterbeck FC, Kim AW. A model for predicting prolonged length of stay in patients undergoing anatomical lung resection: a National Surgical Quality Improvement Program (NSQIP) database study. *Interact Cardiovasc Thorac Surg*. 2016 Aug;23(2):208-15. PubMed PMID: [27073262](#).
 - b. Assi R, Wong DJ, Boffa DJ, Detterbeck FC, Wang Z, Chupp GL, Kim AW. Hospital readmission after pulmonary lobectomy is not affected by surgical approach. *Ann Thorac Surg*. 2015 Feb;99(2):393-8. PubMed PMID: [25497070](#).
 - c. Kim AW, Faber LP, Warren WH, Shah ND, Basu S, Liptay MJ. Bilobectomy for non-small cell lung cancer: a search for clinical factors that may affect perioperative morbidity and long-term survival. *J Thorac Cardiovasc Surg*. 2010 Mar;139(3):606-11. PubMed PMID: [19709677](#).
 - d. Kim AW, Faber LP, Warren WH, Saclarides TJ, Carhill AA, Basu S, Choh MS, Liptay MJ. Repeat pulmonary resection for metachronous colorectal carcinoma is beneficial. *Surgery*. 2008 Oct;144(4):712-7; discussion 717-8. PubMed PMID: [18847658](#).
3. From the beginning of my thoracic surgery career, I have had a particular interest in the use of multimodality therapy to treat thoracic malignancies. In particular, I have had a specific focus of evaluating outcomes associated with extended pulmonary resections in the context of multimodality therapy. In keeping with the other goals of our research group, we will be evaluating the impact of multimodality therapy on a greater scale with large registry and claims databases
- a. Gao SJ, Corso CD, Wang EH, Blasberg JD, Detterbeck FC, Boffa DJ, Decker RH, Kim AW. Timing of Surgery after Neoadjuvant Chemoradiation in Locally Advanced Non-Small Cell Lung Cancer. *J Thorac Oncol*. 2017 Feb;12(2):314-322. PubMed PMID: [27720827](#).
 - b. Sandler BJ, Wang Z, Hancock JG, Boffa DJ, Detterbeck FC, Kim AW. Gender, Age, and Comorbidity Status Predict Improved Survival with Adjuvant Chemotherapy Following Lobectomy for Non-small Cell Lung Cancers Larger than 4 cm. *Ann Surg Oncol*. 2016 Feb;23(2):638-45. PubMed PMID: [26474557](#).
 - c. Kim AW, Liptay MJ, Bonomi P, Warren WH, Basu S, Farlow EC, Faber LP. Neoadjuvant chemoradiation for clinically advanced non-small cell lung cancer: an analysis of 233 patients. *Ann Thorac Surg*. 2011 Jul;92(1):233-41; discussion 241-3. PubMed PMID: [21620372](#).
 - d. Kim AW, Faber LP, Warren WH, Basu S, Wightman SC, Weber JA, Bonomi P, Liptay MJ. Pneumonectomy after chemoradiation therapy for non-small cell lung cancer: does "side" really matter?. *Ann Thorac Surg*. 2009 Sep;88(3):937-43; discussion 944. PubMed PMID: [19699924](#).
4. As a leaping-off point for several primary projects, I also have tried to be well-versed in the existing scientific data regarding surgical therapy for lung cancer. This goal has been achieved through analyzing the existing scientific data in the form of reviews and meta-analyses that have been published. Additionally, I have had the privilege of participating in the development of lung cancer treatment guidelines as another outlet for this desire to be learned in the subject matter of lung cancer.
- a. DeLuzio MR, Moores C, Dhamija A, Wang Z, Cha C, Boffa DJ, Detterbeck FC, Kim AW. Resection of oligometastatic lung cancer to the pancreas may yield a survival benefit in select patients--a systematic review. *Pancreatology*. 2015 Sep-Oct;15(5):456-62. PubMed PMID: [25900320](#).
 - b. Brunelli A, Kim AW, Berger KI, Addrizzo-Harris DJ. Physiologic evaluation of the patient with lung cancer being considered for resectional surgery: Diagnosis and management of lung cancer, 3rd ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*. 2013 May;143(5 Suppl):e166S-90S. PubMed PMID: [23649437](#).
 - c. Kim AW, Boffa DJ, Wang Z, Detterbeck FC. An analysis, systematic review, and meta-analysis of the perioperative mortality after neoadjuvant therapy and pneumonectomy for non-small cell lung

cancer. J Thorac Cardiovasc Surg. 2012 Jan;143(1):55-63. PubMed PMID: [22056364](#).

- d. Muralidaran A, Detterbeck FC, Boffa DJ, Wang Z, Kim AW. Long-term survival after lung resection for non-small cell lung cancer with circulatory bypass: a systematic review. J Thorac Cardiovasc Surg. 2011 Nov;142(5):1137-42. PubMed PMID: [21864854](#).

5. I have taken great pride in being recognized as surgical educator. In addition to the daily teaching in which I participate, I have tried to play greater roles in the education of our surgical trainees through publishing material that document strategies and prior efforts to optimize efficacy in teaching. I have also participated in several activities that have resulted in meaningful teaching tools. Translating this effort into scholarship and publications in the science of surgical education has become another primary focus.

- a. Liu GZ, Jawitz OK, Zheng D, Gusberg RJ, Kim AW. Reflective Writing for Medical Students on the Surgical Clerkship: Oxymoron or Antidote?. J Surg Educ. 2016 Mar-Apr;73(2):296-304. PubMed PMID: [26794901](#).
- b. Garner MS, Gusberg RJ, Kim AW. The positive effect of immediate feedback on medical student education during the surgical clerkship. J Surg Educ. 2014 May-Jun;71(3):391-7. PubMed PMID: [24797856](#).
- c. Kim AW, Johnson KM, Detterbeck FC. The lung cancer stage page: there when you need it--staginglungcancer.org. Chest. 2012 Mar;141(3):581-6. PubMed PMID: [22396557](#).
- d. Kim AW, Reddy RM, Higgins RS. "Back to the future": recruiting the best and brightest into cardiothoracic surgery. J Thorac Cardiovasc Surg. 2010 Sep;140(3):503-4. PubMed PMID: [20723720](#).

D. Additional Information: Research Support and/or Scholastic Performance

Completed Research Support

Ohse Research Grant, Yale School of Medicine Anthony W. Kim (PI) 04/01/14-06/30/16
Evaluation of Subxiphoid and Transcervical Approaches to Thoracoscopic Pulmonary Wedge Resection:
The STATS Prospective Cohort Study
Evaluation of complications associated with different thoracic surgical approaches
Role: PI

Ohse Research Grant, Yale School of Medicine, Department of Surgery Kim, Anthony (PI)
01/01/11-12/31/12
Factors affecting treatment selection in stage I non-small cell lung cancer
An analysis of the Surveillance, Epidemiology, and End-Results Program linked to Medicare (SEER-Medicare) database to evaluate the use of sublobar resections in the treatment of early stage lung cancer.
Role: PI