

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, Sung	POSITION TITLE Professor of Radiation Oncology, Rutgers Rutgers Cancer Institute of New Jersey
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
US Naval Academy	B.S.	05/89	Physics
Yale School of Medicine	M.D.	05/01	Medicine
Yale Primary Care Program	Internship	06/02	Medicine (internship)
Yale Therapeutic Radiology	Residency	06/06	Radiation oncology (residency)

A. Personal Statement

As the primary head and neck radiation oncologist at Rutgers New Jersey Medical School and Robert Wood Johnson Medical School, my goal is to improve the cure rate and quality of life of head and neck patients. I have a strong interest in designing clinical trials to improve on treatment paradigms for head & neck cancer, and in educating radiation oncologists to treat head & neck cancer using advanced, up to date radiation techniques.

Research to highlight:

Jabbour (local PI) 07/01/2019 – 06/30/2020

Evaluation of Automatic Anatomy Recognition for Radiation Therapy (AAR-RT) methods and software for automated organ-at-risk (OAR) contouring in the head and neck (H&N) and thorax for RT planning/replanning

Kim (local PI) November 2009 – 2018

Duke: Multimodality Therapy for Recurrent High Risk Prostate Cancer: A Phase II Study

This is a consortium study from Duke University combining neoadjuvant Docetaxel and Sunitinib followed by prostate bed radiation therapy for salvage prostate patients.

Role: local PI

1RC1CA145722-01 Lu-Yao (PI) 2009-2012

NIH Challenge Grant

Evaluate long-term prognosis of localized prostate cancer following initial radiation therapy.

The major goal of this project is to use the SEER database to investigate the long term prognosis of elderly men with prostate cancer treated with radiation therapy as opposed to watchful waiting, using instrumental variable analysis to simulate as a randomized controlled trial

Role: Co-Investigator

Citations:

1. Udapa JK, Liu T, Kim S et al. Combining natural and artificial intelligence for robust automatic anatomy segmentation: Application in neck and thorax auto-contouring. *Med Phys* 2022 Jul 14. doi: 10.1002
2. Qing K, Nie K, Kim S et al. The Impact of Optic Nerve Movement on Intracranial Radiation Treatment. *Frontiers in Oncology*. e-published 2022 Feb.
3. Tunceroglu A, Bin G, Kim S et al. Does kV Image Guidance for Bone Metastases Improve Pain Control? *Frontiers in Oncology*, section Radiation Oncology. *Front. Oncol* 2021 June
4. Tagai EK, Miller SM Hudson SV, Kim S et al. Improved cancer coping from a web-based intervention for prostate cancer survivors: A randomized controlled trial. *Psycho-Oncology*. 2021; 1-10
5. Sozio S, Jhawar S, Kim S et al. Comparing the incidence of buccal mucosa cancer in South Asian, White and Black populations residing in the United States: A cross-sectional analysis. *Asian Pac J Cancer Prev* 2021 Jan; 22(1):195-199.

B. Positions and Employment

1989-1994 Naval Officer, US Submarine Force

2001-2002 Medical Intern, Yale Primary Care Program

2002-2006 Resident in Radiation Oncology, Yale Therapeutic Radiology, New Haven, CT

2006- present Associate Professor of Radiation Oncology, Rutgers/Cancer Institute of NJ, New Brunswick, NJ

2009- present Residency Program Director, Radiation Oncology, Rutgers/Cancer Institute of NJ, New Brunswick, NJ

2009- 2016 Medical Student Rotation Director, Radiation Oncology, Rutgers/Cancer Institute of NJ, New Brunswick, NJ

2013- 2018 Clinical Director, Radiation Oncology, Rutgers/Cancer Institute of NJ, New Brunswick, NJ

2018-present Clinical Director, Radiation Oncology, Rutgers/Cancer Institute of NJ, University Hospital, Newark NJ

Honors and Awards:

1989 Graduated from US Naval Academy with Merit

2004 Qualified Engineer Officer onboard US Nuclear Submarines

2006 Chief Resident Yale Therapeutic Radiology

2007-2009 Reviewer for Department of Defense prostate cancer research grant

2008-Present Reviewer for International Journal of Radiation Oncology Biology Physics

2011-Present Reviewer for Journal of Clinical Oncology

2017- Present Committee member for board certification examinations (head & neck section) for American Board of Radiology

- 2017 Wrote questions and helped assemble the head & neck portion of the annual ABR clinical written exam for radiation oncologists
- 2019 oral boards examiner for head & neck cancer

Professional Societies:

1. Korean American Society for Therapeutic Radiation Oncology (KASTRO)
 - a. Served as president of KASTRO 2015-2017
2. American Society for Therapeutic Radiology and Oncology (Physics core curriculum subcommittee)
3. American Society of Clinical Oncology
4. American Radium Society
5. Association for Directors of Radiation Oncology Programs (ADROP)
6. Radium Society (member of Resident and Attending Educational Committee)
7. Radiological Society of North America (RSNA)
 - a. Served as Vice Co-chair for the Oncologic Imaging and Therapies Task Force in 2018-2020
 - b. Chair of Radiation Oncology Educational Committee 2021-2022

- c. Long time member of Educational Committee and instructor for Head & Neck BOOST (bolstering oncoradiologic and oncoradiotherapeutic skills for tomorrow) educational sessions)
- RSNA 2011
 - Presented lectures: Current concepts and Controversies in Contouring and Treatment of Nasopharynx cancer & Current concepts and Controversies in Contouring perineural invasion
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for supraglottic and nasopharynx cancer
 - RSNA 2012
 - Presented lectures: Current Concepts and Controversies in Contouring and Treatment of Oral Cavity/Oropharynx Carcinoma & Current Concepts and Controversies in Contouring for Treating Laryngeal Carcinoma
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring sessions teaching how to contour oropharynx & laryngeal cancer cases for radiation therapy
 - RSNA 2013
 - Presented lectures: Current concepts and Controversies in Contouring and Treatment of the Brachial Plexus and Surrounding Structures & Current concepts and Controversies in Contouring and Treatment of Lymph nodes in Head & Neck Cancer
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for larynx and tonsil cancer
 - RSNA 2014
 - Presented lectures: Current concepts and Controversies in Contouring and Treatment of Nasopharynx cancer & Current concepts and Controversies in Contouring perineural invasion
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for nasopharynx & oropharynx cancer
 - RSNA 2015
 - Presented lecture: Current concepts and Controversies in Contouring for treating Laryngeal Carcinoma
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for larynx cancer
 - RSNA 2016
 - Presented lectures: Current concepts and Controversies in Contouring and Treatment of the Brachial Plexus & Current concepts and Controversies in Contouring and Treatment of Lymph nodes in Head & Neck Cancer
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for base of tongue cancer
 - RSNA 2017
 - Presented lecture: Current concepts and Controversies in Contouring and Treatment of Nasopharynx cancer
 - Served as radiation oncologist on panel discussion of case based review (tumor board)
 - Led hands on e-contouring session for nasopharynx cancer
 - RSNA 2018
 - Presented lecture: Current concepts and Controversies in Contouring and Treatment of Nasopharynx cancer
 - Current concepts and Controversies in Contouring and Treatment of Perineural Spread
 - Served as radiation oncologist on panel discuss of case based review (tumor board)
 - Led hands on e- contouring session for nasopharynx cancer and perineural spread cases
 - RSNA 2019
 - Presented lectures: Current concepts and Controversies in Contouring and Treatment of Larynx cancer & Current concepts and Controversies in Contouring and Treatment of Oropharynx cancer
 - Served as radiation oncologist on panel discuss of case based review (tumor board)
 - Led hands on e- contouring session for hypopharynx cancer and oropharynx cancer
 - RSNA 2020
 - Served as radiation oncologist on panel discuss of case based review (tumor board)

C. Contributions to Science

EDUCASE. <https://www.educase.com>

Have developed multiple free, online educational modules intended to help radiation oncologists anywhere in the world learn how to contour head & neck cancer for radiation therapy. These modules contain didactic lessons on anatomy and contouring, written quizzes, and an e contouring platform where students can contour test cases and their contours are checked against mine using a similarity metric.

- Palatine tonsil cancer
 - Contouring the primary site- palatine tonsil <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/6-palatine-tonsil/18-contouring-the-primary-site-palatine-tonsil-sung-kim-md-2ce>
 - Contouring the ipsilateral neck- palatine tonsil <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/6-palatine-tonsil/19-contouring-the-ipsilateral-neck-palatine-tonsil-sung-kim-md-2ce>
 - Contouring the contralateral neck- palatine tonsil <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/6-palatine-tonsil/20-contouring-the-contralateral-neck-palatine-tonsil-sung-kim-md-2ce>
 - Contouring for adjuvant radiation- palatine tonsil <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/6-palatine-tonsil/21-contouring-the-adjuvant-radiation-palatine-tonsil-sung-kim-md-2ce>
- Nasopharynx cancer
 - Nasopharynx primary site <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/7-nasopharynx/28-nasopharynx-primary-site>
 - Nasopharynx neck <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/7-nasopharynx/27-nasopharynx-neck-2ce>
- Larynx cancer
 - Larynx staging <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/9-larynx/31-larynx-staging>
 - Laryngectomy vs Preservation <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/9-larynx/32-laryngectomy-vs-preservation>
 - Larynx Contouring the Primary Site <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/9-larynx/33-larynx-contouring-primary-site>
 - Larynx Contouring the Neck <https://www.educase.com/index.php/edumods/edumod-courses/guruPrograms/9-larynx/34-larynx-contouring-neck>
- Fiberoptic Examination for the Radiation Oncologist
 - Fiberoptic Examination <https://www.educase.com/index.php/edumods/edumod-courses/guruPcategs/10-fiberoptic-examination>
- Postop Oral Cavity
 - Normal Oral Cavity Anatomy <https://www.educase.com/index.php/edumods/guruPrograms/13-post-op-oral-cavity/36-normal-oral-cavity>
 - Oral Cavity Primary Site <https://www.educase.com/index.php/edumods/guruPrograms/13-post-op-oral-cavity/37-oral-cavity-primary-site>
 - Oral Cavity Neck <https://www.educase.com/index.php/edumods/guruPrograms/13-post-op-oral-cavity/38-oral-cavity-neck>