Robert Lee Hong, M.D.

PROFESSIONAL VIRGINIA HOSPITAL CENTER

07/2008-Present Radiation Oncologist, Medical Director

Founder and President, Arlington Radiation Oncology, PLLC

07/2010-Present Assistant Clinical Professor in Radiation Medicine

Georgetown University School of Medicine

05/2013-Present Assistant Clinical Professor of Radiology

George Washington University School of Medicine

EDUCATION LOYOLA UNIVERSITY MEDICAL CENTER

07/2004-06/2008 Resident Physician in Radiation Oncology; Chief Resident

Program Director: Richard Garza, MD Chairman: Bahman Emami, MD

JOHNS HOPKINS UNIVERSITY/SINAI HOSPITAL

06/2003-06/2004 Intern in Internal Medicine

Program Director: Steven Gambert, MD

MEDICAL COLLEGE OF GEORGIA SCHOOL OF MEDICINE

08/1998-05/2003 Doctor of Medicine

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

08/1994-05/1998 B.A. Chemistry, Honors Program, Phi Beta Kappa

RESEARCH LOYOLA UNIVERSITY MEDICAL CENTER

07/2004-07/2008 Resident Physician

• Mentor: Bahman Emami, M.D.

• Research Focus: Novel integration of Positron Emission Tomography (PET) in radiation therapy treatment planning.

HARVARD MEDICAL SCHOOL/BRIGHAM & WOMEN'S HOSPITAL

06/1999-12/2001 Medical Student Research Fellow

• Mentor: Steven Gullans, Ph.D.

• Research Focus: Functional genomic analyses of human tissues using DNA microarrays (Affymetrix GeneChips), and bioinformatics including database development, cluster analysis, and internet integration.

CERTIFICATIONS Licensed Physician in the State of Illinois, 036-114682

Licensed Physician in the State of Virginia, 0101242910 Licensed Physician in the State of Maryland, D73281 United States Medical Licensing Examinations Step I-III Board Certified in Radiation Oncology (The American Board of Radiology) thru 6/3/2019

PUBLICATIONS

Articles:

- **R. Hong**, et al. Robotic Stereotactic Body Radiation Therapy for Edlerly Medically Inoperable Early-Stage Non Small Cell Lung Cancer. Lung Cancer: Targets and Therapy. Manuscript accepted for publication.
- S. Karam, Z Horne, **R. Hong**, D. McRae, D. Duhamel, N. Nasr. Dose Escalation with Stereotactic Body Radiation Therapy Boost for Locally Advanced Non Small Cell Lung Cancer. Radiation Oncology. Manuscript accepted for publication.

Robert Hong and Joel Goldwein. Image Guided Radiotherapy in Practice. Wavelength: News and advances in the management and treatment of serious disease. Accepted for Publication.

Hong RL, Halama J, Bova D, Sethi A, Emami B. Correlation of PET Standard Uptake Value and CT Window-Level Thresholds for Target Delineation in CT-based Radiation Treatment Planning. International Journal of Radiation Oncology, Biology and Physics. March 1, 2007; Volume 67, Issue No. 3

Reddy S, **Hong RL**, Nagda S, Emami B. A 30-Year Experience on the Effect of Tumor Bulk on Local Control and Survival in T1 Glottic Cancer. International Journal of Radiation Oncology, Biology and Physics. December 1, 2007. Vol 69, No 5, 1389-1394.

Sadlier D, Papallo A, Zhang Ji-Liang, **Hong RL**, Best N, Jensen KE, Gullans SR, Jensen RV, Hsiao LL. Rethinking House Keeping genes: Expression Patterns of "House-Keeping Genes" alone can fingerprint human diseases. In preparation.

Papalla A, Sadlier D, Teng I, **Hong RL**, Gullans SR, Jensen RV, Hsiao LL. Identifications and Applications of Organ-Specific Constant and Variant House Keeping Genes. In preparation.

Li-Li Hsiao, Takumi Yoshida, **Robert Hong**, Steven Gullans, et al. A Compendium of Gene Expression in Normal Human Tissues Reveals Distinct Expression patterns of Housekeeping Genes. *Physiological Genomics*. 2001 Dec 21; 7(2): 97-104. PubMed ID: 11773596

Markert JM, Fuller CM, Gillespie GY, Bubien JK, McLean LA, **Hong RL**, Lee K, Gullans SR, Mapstone TB, Benos DJ. Differential Gene Expression Profiling in Human Brain Tumors. *Physiological Genomics*. 2001 February 5:21-33. PubMed ID: 11161003

L.L. Hsiao, R.S. Stears, **R.L. Hong**, S.R. Gullans. The prospective use of cDNA arrays for evaluating gene regulation-expression in kidney disease. *Current Opinions in Nephrology and Hypertension*. 2000 May; 9(3):253-8.

PubMed ID: 10847326

Hong R.L., Dix, D.J. Protective mechanisms in germ cells: stress proteins in spermatogenesis. *Advances in Experimental Medical Biology*. 1998; 444:137-43; discussion 143-4. Review.

PubMed ID: 10026943

Hong R.L., J.B. Garges, Dix, D.J. Inhibition of hsp70-1 and hsp70-3 expression disrupts preimplantation embryogenesis and heightens embryo sensitivity to arsenic. *Molecular Reproduction and Development.* 51:373-380 (1998).

PubMed ID: 9820195

Book Chapters:

Hong, R.L., Petruzzelli, G. Cervical Neck Metastasis from Unknown Head and Neck Primary; Awaiting publication.

Hong R.L., Dix, D.J. <u>Reproductive Toxicology: In Vitro Germ Cell Developmental Toxicology, from Science to Social and Industrial Demand</u>. Edited by J. del Mazo. Plenum Press, New York, 1998. pp137-144.

Abstracts:

- **R. L. Hong**, S. E. Finkelstein, B. Han, L. T. Komarnicky, R. R. Kuske, S. Mahalingam, C. A. Mantz, N. Nasr, J. F. Strasser, C. Yashar. Outcomes for APBI with the Strut-Based Brachytherapy Applicator in 430 Patients. 55th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), September 2013, Atlanta, GA
- **R. Hong**, N. Gholesorki N. Nasr, H. Ji, V. Lorio, M. Sebastian, S. Akbari. Variables Correlating with Excellent and Good Cosmetic Outcomes using APBI with a Strut-Based Breast Brachytherapy Applicator: The Virginia Hospital Center Experience. 14th Annual Meeting of American Society of Breast Surgeons (ASBS), May 2013, Chicago, IL
- **R. L. Hong**, R. Patel, B. Han, R. Kuske, J. Strasser, L. Kormanicky, S. Mahalingam, N. Mohideen, M. Lyden, C. Yashar. Results of the SAVI Research Collaborative Group Registry: Correlating Clinical Toxicity with Dosimetric Parameters in Patients Treated with APBI using Strut-Based Brachytherapy. 54th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), October 2012, Boston, MA
- S. E. Finkelstein, **R. L. Hong**, L. Komarnicky-Kocher, R. R. Kuske, L. Liu, M. Lyden, R. R. Patel, C. A. Mantz, K. J. McClain, C. Yashar. Dosimetric Variables Correlating with Excellent and Good Cosmetic Outcomes in a Large, Retrospective Study of APBI with a Strut-Based Breast Brachytherapy Applicator. 54th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), October 2012, Boston, MA
- Z. D. Horne, S. D. Karam, **R. L. Hong**, D. Duhamel, D. McRae, G. Gagnon, N. M. Nasr "Survival Outcomes of Stereotactic Body Radiation Therapy in Locally Advanced NSCLC" 2012 Multidisciplinary Symposium in Thoracic Oncology. Chicago, IL. Sept. 6-8, 2012.
- S. D. Karam, Z. D. Horne, **R. L. Hong**, D. Duhamel, D. Mcrae, G. Gagnon, N. Nasr "Stereotactic Radiosurgery for Stage I Non Small Cell Lung Cancer: A Multi Institutional Experience" 2012 Multidisciplinary Symposium in Thoracic Oncology Journal of Thoracic Oncology Supp. Chicago, IL. Sept. 6-8, 2012.

- John P. Einck MD, Daniel Scanderbeg PhD, Robert R. Kuske MD, **Robert L.Hong MD**, Ben Han MD, Kerri L. Perry MD, Jay E Reiff MD, Sudha B. Mahalingam MD, Michael Farmer MD, Stephen S. Nigh MD, Jon F. Strasser MD, Constantine A. Mantz MD, Jondavid Pollock MD PhD and Catheryn Yashar MD (Strut-Based Brachytherapy Research Group). Accelerated partial breast irradiation using a strut-based brachytherapy device for the treatment of ductal carcinoma in situ of the breast. American Society of Breast Surgeons (ASBS) Annual Meeting. May 2-6, 2012. Phoenix, AZ.
- **R. L. Hong**, R. Mordkin, A. Joel, N. Nasr, H. Ji, D. McRae. Virginia Hospital Center, Arlington, VA Cyberknife Stereotactic Body Radiotherapy for Prostate Cancer: The Virginia Hospital Center Experience. 53rd Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), October 2011, Miami, FL.
- N. Denduluri, H. Rugo, S. Davis, A. Favret, **R. Hong**, A. Au, D. Moore, L. Esserman Concordance between the 21-gene recurrence score (RS) and the 70-gene profile (MP) in breast cancer (BC) patients (pts). American Society of Clinical Oncology, 2011 Breast Cancer Symposium. September 8-10, 2011 San Francisco, CA.
- C Yashar, M Graf, K Dass, J Pollock, E Butler, **R Hong**, H Ji, V Lorio, D McRae, C Quiet, R Kuske, D Scanderbeg. Comparison of Target Breast Volume Treated for Accelerated Partial Breast Irradiation (APBI) Devices. American Brachytherapy Society (ABS) Annual Meeting. April 14-16, 2011. San Diego, CA.
- **Hong R,** Akbari S, Weintritt D, Sebastian M, Martin M, Lorio V, Ji H, McRae D. Accelerated Partial Breast Irradiation at Virginia Hospital Center: Post Hoc Analysis of Dosimetry Comparing Mammosite, Contura, and SAVI devices. American Society of Radiation Oncology 2010 Annual Meeting. October-November 2010, San Diego, CA.
- **Hong R,** Akbari S, Sebastian M, Denduluri N, Weintritt D, Martin M, and Jamieson T. Accelerated Partial Breast Irradiation at Virginia Hospital Center: Analysis of Dosimetric Outcomes and Predictors of Acute Toxicity. Radiologic Society of North America 95th Annual Meeting. December 2009. Chicago, IL.
- Vali F, Hall W, Gao M, Chi A, **Hong R**, Sinacore S, and Albuquerque K. Interfractional Overlap of Bladder and Rectal Hotspots During 3D Image-Based HDR Brachytherapy of the Cervix. 50th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), September 2008, Boston, MA
- **Hong R**, Siddiqui M, Emami B. Reducing Dose to Pharyngeal Constrictor Muscles in Head and Neck Cancer Patients using IMRT. CMS National Conference. April 26-29, 2008; St Louis, MO.
- F. Vali, S. Nagda, **R. Hong**, M. Gao, W. Hall, J. Sinacore, S. Lee, M. Shoup, E. Melian. Comparison of SUV-based PET and CT target volumes in esophageal cancer patients undergoing radiation therapy. American Society of Clinical Oncology 2008 Gastrointestinal Cancers Symposium. January 25-27, 2008; Orlando, Fl.
- F. Vali and **R. Hong**. A Web based *Radiation Oncology Dose Manager* with a Rich User Interface developed using AJAX, Ruby, Dynamic XHTML and the new Yahoo/EXT User

Interface Library. American Medical Informatics Association Annual Meeting, November 10-14, 2007, Chicago, IL.

B. Emami, R. **Hong**, J. Dombrowski, A. Sethi. Value of Interim CT-PET Imaging in Improving Therapeutic Ratio in Treatment of Advanced Non-Small-Cell Cancer: Novel Adaptive IGRT. 49th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), November 2007, Los Angeles, CA

A Sethi, J. Dombrowski, **R. Hong**, Y. Soni, and B. Emami. PET/CT Guided Adaptive Radiotherapy of Locally Advanced Non-small Cell Lung Cancer. 49th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), November 2007, Los Angeles, CA

Hong RL, Halama J, Bova D, Sethi A, Emami B. Correlation of PET Standard Uptake Value and CT Window-Level Thresholds for Target Delineation in CT-based Radiation Treatment Planning. 48th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), November 2006, Philadelphia, PA.

Sethi A, Dombrowski J, **Hong RL**, Gao M, Emami B. Skin Toxicity in IMRT of Head and Neck Cancer Patients. 48th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), November 2006, Philadelphia, PA.

Dombrowski J, Emami B, **Hong RL**, Halama J, Cabrera J, Baila H, Sherman N, Cziperle D. Preliminary Outcome of Intra-treatment PET and CT Scans for Targeted Boost in Non Small Cell Lung Cancer. ASTRO Translational Research in Radiation Oncology, Physics and Biology. Sept. 8-10, 2006. Boston, MA.

Hong R.L., Nagda S., Timpone V., Emami, B., Reddy, S. A 30-Year Experience on the Effect of Tumor Bulk on Local Control and Survival in T1 Glottic Cancer. American Radium Society. *Oncology*. April 2006, Volume 20, No. 5 (Supplement No 3). Maui, HI, May 2006.

Carcamo, A.S., Fuhlbrigge RC, **Hong R**, Gullans SR, Kupper TS. Comparative Analysis of the Global Transcriptional Profile of Human Skin-Homing Memory T Lymphocytes vs. Non-Skin Homing Memory and Naïve T Lymphocytes. *Journal of Investigative Dermatology* 2000 Aug; 115(2):332.

PubMed ID: 10951262

Presentations:

Hong R, Nasr N. Prostate Cancer Update: Calypso GPS for the Body. Virginia Hospital Center Physician Lecture Series. Oral Presentation. Ruth Chris Steak House, Tyson's Corner Virginia. 5/16/2012.

Hong R. Breast Cancer Update: 5 Days of Radiation. Virginia Hospital Center Northern Virginia Community Lecture. Oral Presentation. The Palm-Tyson's Corner. March 23, 2011.

Hong R. Accelerated Partial Breast Irradiation at Virginia Hospital Center: Analysis of Dosimetric Outcomes and Predictors of Acute Toxicity. Radiologic Society of North America 95th Annual Meeting. Oral Presentation. December 2009. Chicago, IL.

- **Hong R**, Jamieson T. Cyberknife Stereotactic Radiosurgery and Radiotherapy. Mount Vernon Hospital Grand Rounds. November 11, 2008.
- **Hong R**, Jamieson T. Ladies for Life Physician Panel. Virginia Hospital Center Auditorium. October 4, 2008.
- **Hong R**, Jamieson T. Radiation Oncology at Virginia Hospital Center: Cyberknife for Prostate Cancer. Us Too Prostate Cancer Biannual Lecture. Hazel Auditorium, Virginia Hospital Center. September 23, 2008.
- **Hong R**, Siddiqui M, Emami B. Reducing Dose to Pharyngeal Constrictor Muscles in Head and Neck Cancer Patients using IMRT. CMS National Users Conference. April 26-29, 2008; Saint Louis, MO.
- **Hong RL**, Pediatric Medulloblastoma. Loyola University Radiation Oncology Grand Rounds. December 2007.
- **Hong RL.** Correlation of PET Standard Uptake Value and CT Window-Level Thresholds for Target Delineation in CT-based Radiation Treatment Planning. Illinois Radiological Society Annual Meeting. March 16-17, 2007; Feinberg Pavillion Conference Center Northwestern Memorial Hospital; Chicago, IL.
- **Hong RL**, Halama J, Bova D, Sethi A, Emami B. Correlation of PET Standard Uptake Value and CT Window-Level Thresholds for Target Delineation in CT-based Radiation Treatment Planning. Poster Presentation at the 48th Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), November 2006, Philidelphia, PA.
- **Hong RL**, Halama J, Bova D, Sethi A, Emami B. Correlation of PET Standard Uptake Value and CT Window-Level Thresholds for Target Delineation in CT-based Radiation Treatment Planning. Oral Presentation at the Korean Society for Therapeutic Radiation Oncology (KOSTRO), October 13, 2006, Seoul, South Korea.
- **Hong RL,** Combined Modality therapy for Unresectable Non-Small Cell Lung Cancer. Loyola University Radiation Oncology Grand Rounds. October 2006
- **Hong RL**, A 30-Year Experience on the Effect of Tumor Bulk on Local Control and Survival in T1 Glottic Cancer. Oral Presentation at the 88th Annual Meeting of the American Radium Society in Maui, HI May 6-10, 2006.
- **Hong RL**, Bladder Preservation in Muscle Invasive Transitional Cell Carcinoma. Loyola University Radiation Oncology Grand Rounds. February 2006.
- **Hong RL,** Cervical Neck Metastasis of Unknown Head and Neck Primary. Loyola University Radiation Oncology Grand Rounds. June 2005.
- **Hong RL,** Morbidity and Mortality: Radiation Enteritis. Loyola University Radiation Oncology "M&M" Conference. May 2005.

Hong RL, C.P. Donahue, K.S. Kosik, S.R. Gullans. Applications of DNA microarray technology. National Student Research Forum, Galveston, TX, April 2000

Hong RL, Garges, J.B., E.S. Hunter III, D.J. Dix. Hsp70 expression and function during embryogenesis. Triangle Conference on Reproductive Biology, Chapel Hill, NC, 1998.

MEMBERSHIP

American Society of Therapeutic Radiation Oncology (ASTRO), since July 2004 American Society of Clinical Oncology (ASCO), since September 2008 American College of Radiation Oncology (ACRO), Since July 2007 Arlington County Medical Society, since October 2008

RECOGNITION

Washingtonian Magazine "Top Doctors": 2010, 2012 Northern Virginia Magaizne "Top Doctors": 2012, 2013

Radiological Society of North America (RSNA) Research and Education Foundation 2008 Roentgen Resident/Fellow Research Award

American Brachytherapy Society Prostate Brachytherapy Fellowship. One of ten residents selected nationwide for a brachytherapy fellowship at the Seattle Prostate Institute. 2007-2008.

American College of Radiation Oncology Medical Informatics Scholarship. One scholarship awarded to a radiation oncology resident per year. November 2007. Mountain View, CA.

American College of Radiation Oncology 2008 18th Annual Meeting Radiation Oncology Resident Travel Award. Miami, FL; February 21-23, 2008.

National Comprehensive Cancer Network (NCCN) Oncology Fellow Recognition Award, Hollywood, FL. March 2006, March 2008.

American Brachytherapy Society Gynecologic Brachytherapy Resident Travel Award, Chicago, IL, 7/21/07-7/22/07

International Korean Society of Therapeutic Radiation Oncology (KOSTRO) Young Researcher Award, October 13, 2006; Seoul, South Korea

REFERENCES

John Garrett, MD Cardiothoracic Surgeon Virginia Hospital Center Chairman of the Board 1701 N. George Mason Dr. Arlington, VA 22201

Bahman Emami, MD Chairman, Dept. of Radiation Oncology Loyola University Medical Center 2160 S. 1st Ave; Maguire Building Ste 2944 Maywood, IL 60153 708-216-2555