Hong Zhang, Ph.D.
Assistant Professor, Department of Radiation Oncology, University of Maryland Medical Center
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EDUCATION

04/2009 Ph.D. Biomedical Engineering, Rutgers University New Brunswick-UMDNJ, Piscataway, NJ, USA
04/2006 M.S. Statistics, Rutgers University New Brunswick, New Brunswick, NJ, USA
05/2002 M.S. Biomedical Engineering, Shanghai Jiao Tong University (SJTU), Shanghai, China
05/1999 B.S. Biomedical Engineering, Shanghai Jiao Tong University (SJTU), Shanghai, China
05/1999 Second Degree Computer Science, Shanghai Jiao Tong University (SJTU), Shanghai, China

BOARD CERTIFICATION

Certification eligibility and passed part 2 of American Board of Radiology certification, Therapeutic Medical Physics

CLINICAL EXPERIENCE

09/2020-present **Assistant Professor,** Department of Radiation Oncology, University of Maryland Medical Center, Baltimore 21201, MD , USA

05/2019-08/2020 **Medical Physicist,** Department of Radiation Oncology, Reading Hospital, West Reading, PA 19611, USA

- *Clinical procedure*

  Initial and weekly plan check on Aria. 3D, IMRT, VMAT, SRS and SBRT planning on lung, prostate, H&N, brain, abdomen and spine tumors with Eclipse. SRS and SBRT treatment delivery. Varian C-series LINAC monthly and annual QA. Varisource monthly QA.HDR cylinder planning with Eclipse. Commission of integral quality monitor (IQM) and landauer® nanoDot™.

- *Clinical software and hardware equipments*
  HDR afterloaders: Varisource
  SRS exactrac system: Brainlab
  Software: Doselab, Mobius3D, EZfluence

09/2016-04/2019 **Campep Accredited Therapeutic Medical Physics Resident,** Department of Radiation Oncology, Indiana University, Indianapolis, IN 46202, USA

- *Clinical procedure*

  Assure the safe and effective delivery of radiation in the treatment of a patient, as prescribed by a radiation oncologist such as: 3D, IMRT, VMAT, SBRT, SRS, HDR, LDR, total skin irradiation and total body irradiation.

  Beam measurements and quality assurance: calibrating the radiation therapy equipment and ensuring the equipment functions correctly and safely including LINAC, Gamma knife and CT monthly and annual QA.

  Treatment Planning: calculating the doses and dose distribution in the patient's body, using sophisticated treatment planning systems.

- *Clinical software and hardware equipments*

  Treatment planning systems: Varian Eclipse
  Gamma knife: Leksell Gamma Knife Perfexion
  Information systems: Varian AIRA Oncology Information System
  Linear accelerators: Varian 2100, IX, Trilogy, TrueBeam and Edge
  HDR afterloaders: Oncentra Flexitron
  LDR: Varian Variseed
  CT simulators: PHILIPS Brilliance 16 Big Bore CT Scanner

Water tank system: IBA Blue Phantom 2, Sun Nuclear Cylindrical 3D Scanner Water Phantom and Sun Nuclear 1D SCANNER.
Breathing monitoring systems: Varian RPM system
QA devices: Sun Nuclear ArcCheck, Mapcheck2, IC profiler
In vivo dosimetry: Sun Nuclear diodes and Best MobileMOSFET
Software: Sun Nuclear SNC Patient, and Varian Velocity, MIM software, RadCal,RIT Software
Languages: C/C++/C#, Cuda GPU programming, Python, R, MATLAB

RESEARCH EXPERIENCE

09/2016-04/2019 **Therapeutic Medical Physics Resident,** Department of Radiation Oncology, Indiana University, Indianapolis, IN 46202, USA

- *Propose a novel robust high-order shape feature called median geodesic distance (MGD) as a new radiomics feature for prediction of survival in NSCLC patients*

02/2016-09/2016 **Assistant Research Professor,** Department of Radiation Oncology, Indiana University, Indianapolis, IN 46202, USA

- *A predictive model for non-small cell lung cancer (NSCLC) patients based on radiomics and genomics*

07/2015-01/2016 **Research Scientist,** Department of Radiation Oncology, Georgia Regent University (now called Augusta University), Augusta, GA 30909, USA
10/2013-06/2015 **Postdoctoral Fellowship,** Department of Radiation Oncology, Georgia Regent University, Augusta, GA 30909, USA

- *An inter-projection sensor fusion (IPSF) approach to estimate blocked projection signal in synchronized moving grid (SMOG)-based CBCT system*
- *Use a survival model to correlate single-nucleotide polymorphisms of DNA repair genes with radiation dose-response in patients with non-small cell lung cancer*

10/2011-09/2013 **Postdoctoral Fellowship,** Department of Mechanical Engineering, Carnegie Mellon University, Pittsburgh, PA 15213, USA

- *Modeling anisotropic material property of cerebral aneurysms for FSI simulation by ANSYS®*
- *Automated isolation of aneurysm by mesh learning based on gentleadaboost and conditional random field*
- *Semi-automatic prostate segmentation and GPU based cryosurgery simulation*

10/2009-09/2011 **Postdoctoral Fellowship,** Institute for Complex Engineered Systems, Carnegie Mellon University, Pittsburgh, PA 15213, USA

- *Tracking the centerline of abdominal aortic aneurysm (AAA) and predicting rupture risk from the tortuosity*
- *Predicting AAA rupture risk based on 3D shape*

08/2002-04/2009 **Research Assistant,** the Center for Biomedicine, Imaging and Informatics (CBII), Rutgers University, Piscataway, NJ 08854, USA

- *Developing a semi-automated system for medical objects segmentation*
- *Developing an algorithm for liver segmentation*

PROFESSIONAL MEMBERSHIPS

- Membership of American Association of Physicists in Medicine (AAPM)

FUNDING SUPPORT

- NIH 1R01CA166948 (PI: Prof. Jian-Yue Jin)($1,585,090) 10/2013-06/2018
  A synchronized moving grid (SMOG) system to improve CBCT for IGRT and ART
  Role: Co-Investigator

HONORS AND AWARDS

- 08/2015 The best paper for the second Gaheon Academic Award for Journal of Computational Design and Engineering (₩10,000,000 Korean Won)
- 08/2002-08/2004 Rutgers-UMDNJ fellowship

REVIEWER RESPONSIBILITIES

- Reviewers of 'Medical Physics', 'Computer-Aided Design', 'Computers in Biology and Medicine', 'Biomechanics and Modeling in Mechanobiology', 'Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization', 'International Journal for Numerical Methods in Biomedical Engineering','Frontiers in Neurorobotics'

TEACHING EXPERIENCE

- **Guest lecturer** of Radiation Therapy Physics, Indiana University, 2019
- **Guest lecturer** of 24-681:Computer-Aided Design,Carnegie Mellon University,Spring, 2013
- **Guest lecturer** of 24-718:Computational Fluid Dynamics,Carnegie Mellon University,Spring,2013
- **Guest lecturer** of 24-658:Computational Bio-Modeling and Visualization ,Carnegie Mellon University,Spring,2013

PUBLICATIONS

PEER-VIEWED JOURNALS:

1. Anirudh Yalamanchali, **Hong Zhang**, Ke Colin Huang, Radhe Mohan, Steven H. Lin, Cong Zhu, Stuart A. Grossman, Jian-Yue Jin, Susannah Ellsworth "Patient-Specific Lymphocyte Loss Kinetics as Biomarker of Spleen Dose in Patients Undergoing Radiation Therapy for Upper Abdominal Malignancies",*Advances in radiation oncology, In Press, 2020*
2. Susannah G. Ellsworth, Anirudh Yalamanchali, **Hong Zhang**, Stuart A. Grossman, Robert Hobbs, Jian-Yue Jin "Comprehensive Analysis of the Kinetics of Radiation-Induced Lymphocyte Loss in Patients Treated with External Beam Radiation Therapy",*Radiation Research, 193(1), 73-81, 2020*
3. Zongyuan Zhang, Zhijin Guan, **Hong Zhang**, Haiying Ma, Weiping Ding, "A method for synthesis and optimization for linear nearest neighbor quantum circuits by parallel processing",*Quantum Information & Computation, 18(13&14),1095-1114, 2018*
4. Hoda Sharifi, **Hong Zhang**, Hassan Bagher Ebadian, Wei Lu, Munther Ajlouni, Jian-Yue Jin, Feng-Ming (Spring) Kong, Indrin Chetty, Hualiang Zhong, "Utilization of a hybrid finite-element based registration method to quantify heterogeneous tumor response for adaptive treatment for lung cancer patients",*Physics in Medicine and Biology, 63(6):065017, 2018*
5. Gregory J Bootsma, Lei Ren, **Hong Zhang**, Jian-Yue Jin, David A Jaffray, "Monte Carlo Analysis of Beam Blocking Grid Design Parameters: Scatter Estimation and the Importance of Electron Backscatter",*Medical Physics, 45(3), 1059-1070, 2018*
6. **Hong Zhang**, Vic Kong, Ke Huang and Jian-Yue Jin, "Correction of bowtie-filter normalization and crescent artifacts for a clinical CBCT system",*Technology in cancer research & treatment, 16(1): 81–91, 2017*
7. **Hong Zhang**, Lei Ren, Vic Kong, William Giles, You Zhang and Jian-Yue Jin, "An interprojection sensor fusion approach to estimate blocked projection signal in synchronized moving grid-based CBCT system",*Medical Physics 43(1): 268-278, 2016*
8. Jian-Yue Jin, Weili Wang, Randall K Ten Haken, Jie Chen, Nan Bi, Ramses Sadek, **Hong Zhang**, Theodore S Lawrence and Feng-Ming (Spring) Kong, "Use a survival model to correlate single-nucleotide polymorphisms of DNA repair genes with radiation dose–response in patients with non-small cell lung cancer",*Radiotherapy and Oncology 117(1):77–82, 2015*
9. Robert Keelan, **Hong Zhang**, Kenji Shimada and Yoed Rabin, "Graphics Processing Unit-Based Bioheat Simulation to Facilitate Rapid Decision Making Associated with Cryosurgery Training",*Technology in cancer research & treatment, 15(2): 377-386, 2015*

10. Tomotake Furuhata, Inho Song, **Hong Zhang**, Yoed Rabin and Kenji Shimada, "Interactive Prostate Shape Reconstruction from 3D TRUS Images",*Journal of Computational Design and Engineering 1(4):272–288, 2014*
11. **Hong Zhang**, Vitaly Kheyfets and Ender Finol, "Robust Infrarenal Aortic Aneurysm Lumen Centerline Detection for Rupture Status Classification", *Medical Engineering and Physics 35(9):1358–1367, 2013*
12. **Hong Zhang**, Yuanfeng Jiao, Erick Johnson, Ling Zhan, Yongjie Zhang and Kenji Shimada, "Modeling Anisotropic Material Property of Cerebral Aneurysms for Fluid-Structure Interaction Simulation", *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization 1(3):164-174, 2013*
13. **Hong Zhang**, and Tiange Zhuang, "A 3D-Rendering System for Medical Images Based on COM", *Chinese Journal of Medical Instrumentation 26(4):250-252, 2002 (in Chinese)*
14. **Hong Zhang**, and Tiange Zhuang, "Improving Fuzzy Image Enhancement Method Based on Chest CT", *Journal of Shanghai Jiaotong University 35(7):1026-1028, 2001 (in Chinese)*

PEER-VIEWED BOOK SERIES:

15. **Hong Zhang**,Fengchong Kong, Lei Ren, Jian-Yue Jin, "An Inter-Projection Interpolation (IPI) Approach with Geometric Model Restriction to Reduce Image Dose in Cone Beam CT (CBCT)", *Lecture Notes in Computer Science, 8641:12-23, 2014*
16. **Hong Zhang**, Yuanfeng Jiao, Yongjie Zhang and Kenji Shimada, "Automated Segmentation of Cerebral Aneurysms Based on Conditional Random Field and Gentle Adaboost", *Lecture Notes in Computer Science, 7599:59-69, 2012*
17. **Hong Zhang**, Yuanfeng Jiao, Erick Johnson, Yongjie Zhang and Kenji Shimada, "Modeling Anisotropic Material Property of Cerebral Aneurysms for Fluid-Structure Interaction Computational Simulation", *Computational Modelling of Objects Represented in Images III: Fundamentals, Methods and Applications (ISBN 9780415621342):261-266, 2012*

CONFERENCES (PEER-VIEWED FULL PAPER):

18. **Hong Zhang** and Ender Finol, "A Content Based 3D Shape Retrieval System for Abdominal Aortic Aneurysm Rupture Risk Prediction", *post presentation at IEEE International Symposium on Biomedical Imaging (ISBI), 2011*
19. **Hong Zhang** and Ender Finol, "Robust and Fast Abdominal Aortic Aneurysm Centerline Detection for Rupture Risk Prediction", **oral presentation** *at Medical Imaging 2011: Visualization, Image-Guided Procedures, and Display. Proceedings of the SPIE,2011*
20. Lin Yang, Leiguang Gong, **Hong Zhang**, John L. Nosher and David J. Foran, "A Multicore Based Parallel Image Registration Method", **oral presentation** *IEEE Engineering in Medicine and Biology Society (EMBC), 2009*
21. **Hong Zhang**, Lin Yang, David J. Foran, John L. Nosher and Peter J. Yim,"3D Segmentation of The Liver Using Free-form Deformation Based on Boosting and Deformation Gradients", *post presentation at IEEE International Symposium on Biomedical Imaging (ISBI), 2009*
22. Lin Yang, Leiguang Gong, **Hong Zhang**, John L. Nosher and David J. Foran, "A Parallel Point Matching Algorithm for Landmark Based Image Registration Using Multicore Platform", *post presentation at European Conference on Parallel Computing (Euro-par), 2009*
23. **Hong Zhang**, John L. Nosher and Peter J. Yim, "Surface reconstruction from orthogonal contours", **oral presentation** *at Medical Imaging 2006: Visualization, Image-Guided Procedures, and Display. Proceedings of the SPIE, Volume 6141, pp. 98-104, 2006*
24. Shunshan Li, Tiange Zhuang and **Hong Zhang**,"Medical image retrieval based on mutual information", *post presentation at Image Matching and Analysis, Proceedings of the SPIE, Volume 4549, pp. 119-125, 2001*
25. **Hong Zhang**, Tiange Zhuang and Shunshan Li,"Image processing method based on fuzzy assemble theory", *post presentation at Image Matching and Analysis, Proceedings of the SPIE, Volume 4552, pp. 325-329, 2001*

CONFERENCES (PEER-VIEWED ABSTRACT):

26. Irene Zawisza, Chris Zatwarnicki, **Hong Zhang**, Michael Haas, Colin Murphy, Adam Smith and Chandra Kota, "Reducing Breast Treatment Planning Process Time with Automated Script-Based 3D Planning." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2020*
27. Chandra Kota,Michael Haas, Colin Murphy, Adam Smith, and **Hong Zhang** "Clinical Validation of an AI software to autosegment normal organs on CT datasets for Radiation Oncology." *post presentation at European Society for Radiotherapy & Oncology (ESTRO) Annual Meeting, 2020*
28. Chris Zatwarnicki, Irene Zawisza, **Hong Zhang** and Chandra Kota, "A Feasibility Study to Standardize Prostate Planning Using An MR-Guided Radiotherapy Platform." *post presentation at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2020*
29. Jian-yue Jin, Todd Mereniuk, Anirudh Yalamanchali, Weili Wang, **Hong Zhang**, Huan Yao, Mitchell Machtay, Feng-ming Kong and Susannah G. Ellsworth, "An Immune Organ-At-Risk Model for Prediction of Radiation Induced Lymphopenia During Radiotherapy." **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2019*
30. **Hong Zhang**, Vic Kong, Feng-ming Kong and Jian-yue Jin, "Median Geodesic Distance (MGD) as a High-Order Shape Feature for Prediction of Survival in NSCLC Patients", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2018*
31. FM Kong, **H Zhang**, Y Liu, H Yao, A Cerra-Franco, K Shiue, D Vile, W Wang, MP Langer, G Watson, G Bartlett, K Diab, T Birdas, RD Timmerman, T Lautenschlaeger and JY Jin "Radiation to the Immune System May be an Important Risk Factor for Long-term Survival after SBRT in Early Stage Non-small Cell Lung Cancer: A Role of RT Plan Optimization." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2018*
32. **Hong Zhang**, Weili Wang, Ray Lu, Jessica Smith, Feng-Ming (Spring) Kong, Patrick J Loehrer "Factors Associated with Survival in Patients with Thymoma: A Study of 523 Cases from One Single Institution." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2018*
33. Susannah G. Ellsworth, Todd Mereniuk, Robert F Hobbs, **Hong Zhang**, Joseph M. Herman, Stuart A. Grossman, Bert H. O'Neil, Safi Shahda, Radhe Mohan, Feng-Ming (Spring) Kong and Jianyue Jin "Kinetics and dosimetric predictors of acute radiation-induced lymphopenia in pancreatic cancer." *post presentation at American Society of Clinical Oncology (ASCO) Gastrointestinal Cancers Symposium, 2018*
34. **Hong Zhang**, Weili Wang, Greg Durm, Kenneth Kesler and Feng-Ming (Spring) Kong "Factors Associated With Survival in Patients With Non–small Cell Lung Cancer from a Single Institution Study of 3569 Patients." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2017*
35. W Wang, MM Matuszak, **H Zhang**, D Arenberg, JL Curtis, S Jolly, JY Jin, RK Ten Haken and FM Kong "Clinical Dose-Volume Histogram Analysis for Radiation-Induced Proximal Bronchial Tree Toxicity in Patients With Non–small Cell Lung Cancer." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2017*
36. JY Jin, C Hu, W Wang, **H Zhang**, J Yu, SM Bentzen, JO Deasy, Y Xiao, SE Schild, JA Bogart, MC Dobelbower, J Michalski, VS Kavadi, S Narayan, P Iyengar, CG Robinson, M Deutsch, FM Kong, H Choy and JD Bradley "Effect of PTV and Collimator Margins on Tumor Control for Patients with Stage III Non-small Cell Lung Cancer in NRG Oncology RTOG-0617." *epost presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2017*
37. Wenhu Pi, **Hong Zhang**, Yao Huang, Yong Zang, Susannah Ellsworth, David Long, Weili Wang, Richard Zellars, JianYue Jin, Mary Maluccio and FengMing (Spring) Kong "Factors associated with overall survival after radiation therapy in patients with hepatocellular carcinoma." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2017*
38. W Wang, MM Matuszak, **H Zhang**, D Arenberg, JL Curtis, S Jolly, JY Jin, RK Ten Haken and FM Kong "Clinical Dose-Volume Histogram Analysis for Radiation-Induced Proximal

Bronchial Tree Toxicity in Patients With Non–small Cell Lung Cancer." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2017*

39. Weili Wang, **Hong Zhang**, Ray Lu, Jessica Smith, Louise Conces, Sunil S. Badve, Kenneth Kesler, Robert P Nelson, Feng-Ming (Spring) Kong and Patrick J. Loehrer "Paraneoplastic syndrome and survival in thymic epithelial tumors (TET): The Indiana University experience." *post presentation at American Society of Clinical Oncology (ASCO) Annual Meeting, 2017*
40. Feng-Ming Spring Kong, **Hong Zhang**, Weili Wang, Kenneth Kesler, Maitri Kalra and Patrick J Loehrer "Factors associated with survival in patients with thymoma: study of 523 cases from one institution." *post presentation at American Society of Clinical Oncology (ASCO) Annual Meeting, 2017*
41. Feng Ming Kong, Yong Zang, Weili Wang, **Hong Zhang**, Jessica Smith, Sunil S. Badve, Kenneth Kesler, Patrick J. Loehrer "Postoperative radiation for tumor control and overall survival in thymic epithelial tumors (TET): A matched-pair analysis." *post presentation at American Society of Clinical Oncology (ASCO) Annual Meeting, 2017*
42. Weili Wang, Yong Zang, **Hong Zhang**, Jessica Smith, Sunil Badve, Kenneth Kesler, Robert P Nelson and Patrick J Loehrer "Post op radiation may be detrimental in thymoma but not in thymic carcinoma tumors." *post presentation at American Society of Clinical Oncology (ASCO) Annual Meeting, 2017*
43. Jason Hinton, Weili Wang, **Hong Zhang**, Nabin Khanal, Maitri Kalra, Kenneth Kesler, Feng-Ming Spring Kong and Patrick J Loehrer "Myasthenia gravis in thymic epithelial tumors incidence and prognosis." *post presentation at American Society of Clinical Oncology (ASCO) Annual Meeting, 2017*
44. F Kong, Y Liu, **H Zhang**, H Yao, A Cerra-Franco, K Shiue, D Vile, W Wang, M Langer, G Watson, G Bartlett, K Diab, T Birdas, T Lautenschlaeger and J Jin "New Risk Factors for Overall Survival After SBRT in Early Stage NSCLC: A Role of RT Plan Optimization." **oral presentation** *at 18th World Conference on Lung Cancer (WCLC) Annual Meeting, 2017*
45. Jian-yue Jin,Vic Kong and **Hong Zhang**, "A Collimator-Based 3-Dimensional Grid Therapy Technique in a Small Animal Radiation Research Platform", *post presentation at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2016*
46. Hoda Sharifi, **Hong Zhang**, Jian-Yue Jin, Feng-Ming (Spring) Kong, Indrin Chetty and Hualiang Zhong, "A Novel Method for Registration of Mid-Treatment PET/CT Images Under Conditions of Tumor Regression for Patients with Locally Advanced Lung Cancers", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2016*
47. **Hong Zhang**, Li Yan, Ke Huang, Feng-Ming (Spring) Kong, and Jian-yue Jin, "Use Local Shape Descriptor Based On Geodesic Distance to Predict Survival in Non-Small Cell Lung Cancer After Radiotherapy", *post presentation at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2016*
48. **Hong Zhang**, Jian-Yue Jin, Weili Wang, Jeff Campbell, Wenhu Pi and Feng-Ming (Spring) Kong "A prognostic model combining genetic variations in the transforming growth factor-beta1 pathway and clinical factors for non-small cell lung cancer after radiotherapy." *post presentation at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2016*
49. **Hong Zhang**, Lei Ren, Vic Kong, You Zhang, William Giles and Jian-yue Jin, "An Inter-Projection Sensor Fusion (IPSF) Approach to Estimate Missing Projection Signal in Synchronized Moving Grid (SMOG) System", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2015*
50. **Hong Zhang**, Lei Ren, Vic Kong, Yao Zhang, William Giles and Jian-yue Jin, "Improve Cone Beam CT Using a Synchronized Moving Grid, An Inter-Projection Sensor Fusion and a Probability Total Variation Reconstruction", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2015*
51. **Hong Zhang**, Lei Ren, Vic Kong and Jian-yue Jin, "An Inter-Projection Interpolation (IPI) Approach for the Synchronized Moving Grid (SMOG) to Reduce Dose in Cone Beam CT", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2014*

52. Vic Kong, **Hong Zhang**, Lei Ren and Jian-yue Jin, "An Inpaint-Based Interpolation Technique to Recover Blocked Information for Cone Beam CT with a Synchronized Moving Grid (SMOG)", **oral presentation** *at American Association of Physicists in Medicine (AAPM) Annual Meeting, 2014*
53. Jian-Yue Jin, Weili Wang, Nan Bi, Randall K Ten Haken, Ramses Sadek, **Hong Zhang**, Theodore S Lawrence, Feng-Ming (Spring) Kong, "A Blood Biomarker Dependent Survival Model for NSCLC Patients Treated With Radiotherapy ", **oral presentation** *at American Society for Radiation Oncology (ASTRO) Annual Meeting, 2014*
54. Yoed Rabin, Kenji Shimada, Robert Keelan, Anjali Sehrawat, and **Hong Zhang**, "Computerized tools for cryosurgery training: Computerized training objectives and prototyping", **oral presentation** *at Society for Cryobiology Annual Meeting (Cryo2014), 2014*
55. Robert Keelan,**Hong Zhang**, Kenji Shimada and Yoed Rabin "Imaging artifacts, training interface and computational challenges", **oral presentation** *at Society for Cryobiology Annual Meeting (Cryo2014), 2014*
56. **Hong Zhang** and Ender Finol, "Strong Features Built From Haar Like Features for Abdominal Aortic Aneurysm Centerline Detection", *post presentation at the Biomedical Engineering Society (BMES) Annual Fall Meeting, 2011*
57. **Hong Zhang**, John L. Nosher and Peter J. Yim, "Segmentation of abdominal aortic aneurysms using orthogonal contouring", **oral presentation** *at the Biomedical Engineering Society (BMES) Annual Fall Meeting, 2004*