

## **CURRICULUM VITAE**

**Name:** Lu Wang, Ph.D.

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Fox Chase Cancer Center  
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### **Education:**

1978 - 1982 B.Sc., Hubei University, Wuhan, China (Physics)  
1985 - 1988 M.Sc., Wuhan University, Wuhan, China (Condensed Matter Physics)  
1989 - 1991 M.Sc., California State University, Los Angeles (Theoretical Physics)  
1992 - 1996 Ph.D., Rush University, Chicago, Illinois (Medical Physics).  
Thesis title: Photon dose calculation based on the electron transport theory – analytic modeling of the penumbra region of photon beams. Advisor: Dr. David Jette.

### **Postgraduate Training and Fellowship Appointments**

1996 – 1998 Postdoctoral Fellow and Medical Physics Resident, Department of Medical Physics, Memorial Sloan-Kettering Cancer Center, New York.

### **Faculty Appointments:**

1982 - 1985 Instructor, Department of Physics, Hubei University, China  
1988 - 1989 Assistant Professor, Department of Physics, Hubei University, China  
1989 - 1991 Teaching Assistant, Department of Physics and Astronomy, California State University, Los Angeles, CA  
1994 - 1996 Scientific Investigator, The Lawrence Lanzl Institute of Medical Physics, Seattle, WA  
10/1998 – 1/02 Instructor, Department of Radiation Oncology, School of Medicine, University of Pennsylvania, Philadelphia, PA  
2/02 – present Associate Member (Assistant Professor), Department of Radiation Oncology  
Fox Chase Cancer Center, Philadelphia, PA

### **Hospital and Administrative Appointments:**

1998 – 1/02 Clinical Physicist, Department of Radiation Oncology, University of Pennsylvania, Philadelphia, PA

### **Specialty Certification:**

2001                    ABR (American Board of Radiology-Therapeutic Radiological Physics)  
board certified.

**Awards and Honors:**

1989 – 1990    Larry Chu Scholarship, California State University, Los Angeles, CA  
1990            Chinese American Women Scholarship for academic achievements  
1997            Finalist of AAPM Young Investigator Symposium  
2005            The LAP Award of Excellence for Best Radiation Oncology  
Article in 2004, first author for the paper entitled: Stereotactic  
IMRT for prostate cancer: Dosimetric impact of multileaf  
collimator leaf widths in the treatment of prostate cancer with  
IMRT.

**Memberships in Professional Societies:**

1992 - present Member of American Association of Physics in Medicine (AAPM)  
2005 - present Member of American College of Medical Physics (ACMP)  
1995 - present Member of American Association for the Advancement of Science

**Committee Appointments:**

Secretary: AAPM Delaware Valley Chapter (1/2007 – 12/2008)  
Associate Editor: *Journal of Applied Clinical Medical Physics*.  
(2005- present)  
Committee Member: AAPM Therapy Physics, Radiation Dosimetry  
& Treatment planning Subcommittee (2005 – present)  
Member and Author: Task Group 101 Stereotactic Body  
Radiotherapy (2005 – present)

**Referee Activities:**

Review manuscripts for  
1) *Int. J. Radio. Oncol. Bio. Phys.* Since 1999  
2) *Med. Phys.* since 1999.  
3) *J. of Clinical Applied Med. Phy.* Since 2000.  
4) *Phys. Med. Biol.*  
5) *Encyclopedia*  
Review abstracts for AAPM annual meeting.

**Major Clinical Development and Implementation:**

1. Commissioned a stereotactic intensity-modulated radiotherapy treatment planning system (XknifeRT) with its delivery system using a micro-multileaf collimator.
2. Implemented TG 51 protocol for clinical photon and electron beams
3. Commissioned stereotactic arc delivery system (cone collimators in conjunction with jaw option) for radiosurgery/radiotherapy.

4. Developed treatment planning and delivery procedures for stereotactic body radiotherapy using CT imaging based image-guidance.
5. Commissioned Varian Trilogy accelerator for clinical use
6. Commissioned Eclipse and FastPlan treatment planning systems.

#### **Major Teaching Activities:**

1. Teaching physics to residents in Radiation Oncology.
2. Mentored two research associates and a summer student for clinical research.
3. Teaching Monte Carlo and IMRT short courses
4. Participating journal club seminar presentation.

#### **Clinical Responsibilities:**

1. In charge of stereotactic radiosurgery and radiotherapy (SRS/SRT) program at FCCC.
2. Responsible for stereotactic body radiotherapy (SBRT) treatment planning, dosimetrist training, quality assurance for lung, spine and liver treatment.
3. Responsible for Eclipse and XknifeRT treatment planning system maintenance and upgrade.
4. Providing clinical physics services in Radiation Oncology, including chart checking, special physics consultation, stereotactic radiosurgery procedures, intensity modulated radiotherapy treatment planning and quality assurance, machine monthly and annual calibration and quality assurance.

#### **Bibliography**

##### **Peer-Reviewed Publications:**

1. **Wang L**, Chui CS, and M. Lovelock: A Patient-specific Monte Carlo Dose-Calculation Method for Photon Beams. *Med. Phys.* **25**(6), 867-878, 1998.
2. **Wang L**, Jette D: Photon Dose Calculation based on the Electron Multiple-Scattering Theory: Primary Dose Deposition Kernels. *Med. Phys.* **26**(8), 1454-1465, 1999.
3. **Wang L**, Lovelock M, Chui CS: Experimental verification of a CT-based Monte Carlo dose-calculation method in heterogeneous phantoms. *Med. Phys.* **26**(12), 2626-2634, 1999.
4. **Wang L**, Yorke E, Chui CS: Monte Carlo evaluation of tissue inhomogeneity effects in the treatment of the head and neck. *Int. J. Rad. Oncol. Bio, Phys.* **Vol. 50**. No. 5, pp. 1339-1349, 2001. The figures were selected as the front cover in that issue.
5. **Wang L**, Yorke E, Desobry G, Chui C-S: Dosimetrical advantage of using 6 MV over 15 MV photon beams in lung cancer treatment planning: A Monte Carlo study in patient geometries. *J. of Appl. Clinic Med. Phys.* **Vol. 3**, No. 1, p51-59, Winter 2002.
6. York E, **Wang L**, Rosenzweig KE, Mah D, Paoli J-B, Chui C-S: Evaluation of deep inspiration breath-hold lung treatment plans with Monte Carlo dose calculation. *Int. Radio. Oncol. Bio. Phys.* **Vol. 53**. No. 4, pp. 1058-1070, 2002
7. **Wang L**, Yorke E, Chui C-S: Monte Carlo evaluation of 6 MV IMRT plans for head and neck and lung treatments. *Med. Phys.* **29**(11), pp. 2705-2717. 2002.
8. Ma C-M, Price R, McNeeley S, Chen L, Li JS, **Wang L**, Ding M, Fourkal E, Qin L: Clinical implementation and quality assurance for intensity

- modulated radiation therapy. *IAEA Proceedings of an International Symposium, Vienna*, **Vol. 2**, p369-380. 2002.
9. **Wang L**, Jacob R, Chen L, Ma C, Movsas B: Stereotactic IMRT for prostate cancer: Setup accuracy of a new stereotactic body localizer system. *J. Appl. Clinic. Med Phys.*, **Vol. 5**, No. 2, p18-28, Spring 2004.
  10. **Wang L**, Movsas B, Jacob R, Fourkal E, Chen L, Price R, Feigenberg S, Konski A, Pollack A, Ma C: Stereotactic IMRT for prostate cancer: Dosimetric impact of multileaf collimator leaf widths in the treatment of prostate cancer with intensity modulated radiotherapy. *J. of Clinic Appl. Med. Phys.* **Vol. 5**, No. 2, p29-41, Spring 2004.
  11. Paskalev K, Ma C-M, Jacob R, Price R, McNeeley S, **Wang L**, Movsas B, Pollack A: Daily target localization for prostate patients based on 3D image correlation. *Phys. Med. Biol*, Vol. **49** (6), p931-939 (2004).
  12. Li JS, Freedman G, Price R, **Wang L**, Anderson P, Chen L, Xiong W, Yang J, Pollack A, and Ma C-M: Clinical Implementation of Intensity-Modulated Tangential Beam Irradiation for Breast Cancer, *Med. Phys.* Vol. **31**(5), p1023-1031. May, 2004.
  13. Ma CM, Price RA, Li JS, Chen L, **Wang L**, Fourkal E, Qin L, and Yang J: Monitor Unit Calculation for Monte Carlo Treatment Planning, *Phys. Med. Biol*, Vol. **49**, p1671-1687, 2004.
  14. Chen L, Price RA, Li JS, **Wang L**, Qin L, Ma C. Evaluation of MRI-based Treatment Planning for Prostate Cancer using the AcQPlan System. *Phys. Med. Biol*, Vol. **49**(10): 5157-5170 (2004)
  15. Chen L, Price RA, Li JS, **Wang L**, Qin L, Ma C and Pollack A. MRI-based treatment optimization for prostate IMRT. *Int. J. Rad. Oncol. Bio, Phys.* **Vol. 60**(2), pp. 636-647, 2004.
  16. **Wang L**, Paskalev K, Li J, Chen L, Xiong W, Yang J, Ma C: Dosimetric advantage and clinical implication of a micro-multileaf collimator in the treatment of prostate with intensity modulated radiotherapy. *Medical Dosimetry*, Vol **30**(2): 97-103. 2005.
  17. Yang J, Li J, Chen L, Price R, McNeeley S, Qin L, **Wang L**, Xiong W, Ma C-M. Dosimetric verification of IMRT treatment planning using Monte Carlo simulations for prostate cancer, *Phys. Med. Biol.*, **50**(5): 869-78. 2005.
  18. Paskalev K, Feigenberg S, **Wang L**, Movsas B, Laske D, and Ma C-M. A method for repositioning of stereotactic brain patients with the aid of real-time CT image guidance. *Phys. Med. Biol*, Vol. **50**, p201-207. 2005.
  19. **Wang L**, Li J, Paskalev K, Hoban P, Luo W, Chen L McNeeley S, Price R, Ma C-M: Commissioning and quality assurance of a commercial stereotactic treatment planning system for extracranial IMRT, *JACMP 2006, Vol 7, No. 1, p21-34.*
  20. Freedman G, Anderson P, Li JS, Eisenberg D, Hanlon A, **Wang L**, Nicolaou N. Intensity modulated radiation therapy (IMRT) decreases acute skin toxicity for women receiving radiation for breast cancer, *Am J Clin Oncol*. 2006 Feb; 29(1):66-70.
  21. Stathakis S, Li JS, Paskalev K, Yang J, **Wang L**, Ma C-M: Ultra-thin TLDs for skin dose determination in high energy photon beams, *Phys Med Biol*. 2006 Jul 21;**51**(14):3549-67. Epub 2006 Jul 6.

22. **Wang L**, Feigenberg S, Chen L, Paskalev K, Ma C-M: Benefit of 3D image-guided stereotactic localization in the hypofractionated treatment of lung cancer. *Int. J. Rad. Oncol. Bio. Phys.* **Vol. 66(3)**, pp. 738-747, 2006.
23. Xiong W, **Wang L**, Kramer N, Li J, Price R, Ma C-M: Comparison of tumor control probability and lung complication probability for lung cancer treatment with and without heterogeneity correction, submitted to *Med. Phys.* 2006.
24. Yang J, Li J, Chen L, **Wang L**, Ma C-M: The impact of couch bar attenuation on photon beam radiotherapy for prostate cancer, submitted to *Med Phys.* 2006.
25. Feigenberg SJ, Paskalev K, McNeeley S, Horwitz EM, Konski A, **Wang L**, Ma C, Pollack A: Comparing computed tomography localization with daily ultrasound during image-guided radiation therapy for the treatment of prostate cancer: A prospective evaluation. *JACMP 2007, Vol 8, No. 3, p99-109.*
26. Feigenberg SJ, Paskalev K, **Wang L**, Laske D, Glass J, Movsas B: CT Localization prior to Frameless Stereotactic Radiosurgery using a Relocatable Headframe: A feasibility study. *Submitted to JACMP, 2006.*
27. Chen L, Nguyen T-B, Jones E, Chen J, Luo W, **Wang L**, Price RA, Pollack A and Ma C-M: MRI-Based Treatment Planning for Prostate IMRT: Creation of Digitally Reconstructed Radiographs (DRR). *Int. J. Rad. Oncol. Bio. Phys.* **Vol. 68(3)**: 903-11. 2007.
28. Jin L-H, **Wang L**, Li J-S, Feigenberg S, Luo W, Ma C-M: Investigation of Optimal Beam Margins for Stereotactic Body Radiotherapy of Lung Cancer Using Monte Carlo Simulations. *Phys. Med. Biol.* **Vol. 52**: 3549-3561. 2007.
29. Chen L, Paskalev K, Zhu J, Xu X, **Wang L**, Price R, Horwitz E, Feigenberg S, Pollack A, Ma C-M. Image Guided Radiation Therapy for Prostate IMRT: Daily Rectal Dose Variations During the Treatment Course, Proc. of the 15th International Conference on the Use of Computer in Radiation Therapy (ICCR), Eds: Jean-Pierre Bissonnette (Novel Digital Publishing, Oakville), 2007, Volume I: 410-414
30. Steven J. Feigenberg, MD, Thomas N. Eade, MBChB FRANZCR, Michael Yu, MD, Edwina L. Berman MBBS, **Lu Wang, PhD**, Mark Buyyounouski, MD, Michael Millenson, MD, Corey Langer, MD, Earl King, MD, Walter Scott, MD and Benjamin Movsas, MD: "Fdg-PET Scans Following Stereotactic Body Radiotherapy: Initial Findings From A Prospective Study", Submitted to *Int. J. Rad. Oncol. Bio. Phys.* 1. 2007.
31. Lihui Jin, Chang-Ming Ma, James Fan, Ahmed Eldib, R A Price Jr, Lili Chen, **Lu Wang**, Z Chi, Qianyi Xu, M Sherif and J S Li: "Dosimetric verification of modulated electron radiotherapy delivered using a photon multileaf collimator for intact breasts", *Phys. Med. Biol.* 53 (Oct. 21); (2008.) 6009-6025.
32. **Wang L**, Hayes S, Paskalev K, Jin L, Buyyounouski M, Ma C-M, Feigenberg S. "Dosimetric comparison and evaluation of the impact on daily dose coverage of stereotactic body radiotherapy using 4D CT and multiphase CT images", *Radiotherapy & Oncology, in press*, 2008.

33. Fan J, Paskalev K, Li J, **Wang L**, Chen L, Price R, Jin L, EIDib A, Ma C. "Determination of Output Factors for Stereotactic Radiosurgery Beams by Monte Carlo and Measurements", Submitted to *Phys. Med. Biol.*, Jan, 2008.
34. Navesh K. Sharma, DO, PhD\*, Joshua S. Silverman, MD, PhD\*, Karen Ruth, MS<sup>†</sup>, Nicos Nicolau, MD, Brian E. Lally, MD, Andre A. Kosnki, MD, MBA, FACR, Thomas N. Eade, MBChB\*, FRANZCR, Jian Q Yu, MD<sup>^</sup>, Edwina L. Berman, MBBS\*, Mark K. Buyyounouski, MD,MS\*, **Lu Wang, PhD\***, Benjamin Movsas, MD<sup>+</sup> and Steven J. Feigenberg\*, MD:"Fdg-Pet Scans Following Stereotactic Body Radiotherapy: An Early Surrogate For Response". Submitted to *Int. J. Rad. Oncol. Bio. Phys.* 1. 2008.

### Invited Talks:

1. "Introduction of the EGS4 Monte Carlo method for radiation dose calculation". Visiting Scholar Lecture, The Institute of Nuclear and Technology, Sichuan University, China, October 1995.
2. "Stereotactic Radiosurgery and Radiotherapy". Invited speaker at **11<sup>th</sup> Annual Meeting Radiation Oncology Conference for Nurse, Therapists, and Dosimetrists**, Philadelphia, June 6-8, 2002.
3. "Intensity Modulated Stereotactic Radiotherapy for Prostate Cancer", Invited speaker (one of three) at the Radionics Annual User Meeting, Montreal, July 14, 2002.
4. "Image-guided stereotactic extracranial IMRT". Invited speaker at **13<sup>th</sup> Annual Meeting Radiation Oncology Conference for Nurse, Therapists, and Dosimetrists**, Philadelphia, May 28, 2004.
5. "Image-guided Stereotactic Irradiation for Hypofractionated Treatment of Medically Inoperable Lung Cancer". Invited speaker at the Radionics User Meeting in Seattle, 2005.
6. "Frontier in Radiotherapy in Cancer Care". Invited speaker during invited visiting Wuhan University, Department of Physics, China, 2005.
7. "On IMRT and QA Issues". Invited presentation at the Tongji Medical School, Hua-Zhong University, Wuhan, China, 2006.
8. "Advances in Stereotactic Body Radiotherapy". Invited speaker at the **Delaware Valley Chapter Spring Symposium in Philadelphia**, March 30, 2007.
9. "Stereotactic Body Radiotherapy – Fox Chase Cancer Center Experience", Invited speaker at the Radionics User Meeting in Minneapolis, 2007.
10. "Image-guided Stereotactic Body Radiotherapy – Fox Chase Cancer Center Experience", Invited speaker at **the Great Wall 2008 Congress in Medical Physics**, Beijing, Nov. 23-26, 2008.

### Oral Presentations:

1. "A patient-specific Monte Carlo dose-calculation method for photon beams". **Finalist of Young Investigator Symposium**, AAPM 39<sup>th</sup> Annual Meeting, Milwaukee, July 27, 1997.
2. "Photon dose calculation based on electron transport theory: primary dose penumbra in homogeneous medium". AAPM 38<sup>th</sup> Annual Meeting, Philadelphia, July 21, 1996.
3. "Analytic modeling of the primary x-ray dose deposition kernels". AAPM 37<sup>th</sup> Annual

- Meeting, Boston, July 25, 1995.
4. Monte Carlo evaluation of the IMRT plans for head and neck and lung treatments” **RNSA 87<sup>th</sup> Scientific Assembly and Annual Meeting**, Chicago, Nov. 25, 2001.
  5. “Dosimetric impact of multileaf collimator leaf widths in the treatment of prostate cancer with intensity modulated radiotherapy”. Presentation at the 45<sup>th</sup> Annual meeting of American Association of Physicists in Medicine, San Diego, 2003.
  6. “Dosimetric advantage and clinical implication of a micro-multileaf collimator in the treatment of prostate with intensity modulated radiotherapy”. Presentation at the meeting of **World Congress on Medical Physics and Biomedical Engineering**, Aug. 24-27, Sydney, 2003.
  7. “Feasibility study for clinical implementation of dose hypofractionation with IMRT for prostate cancer”. Presentation at the 46<sup>th</sup> Annual meeting of AAPM, Pittsburg, July 25-29, 2004.
  8. “Benefit of 3D image- guided stereotactic localization in the hypofractionated treatment of lung cancer”, invited presentation at the satellite meeting of World Congress on Medical Physics and Biomedical Engineering, Huang-Zhou, China, September, 3-6, 2006.

#### **Published Abstracts:**

1. **Wang L**, Jette D: The transport of pair-production electrons and positrons under multiple-scattering theory. *Med Phys* **21**(6), pp-966 (1994).
2. Walker S, Jette D, **Wang L**, and B. Haneman: Representation of the energy spectrum and compton electron distribution in photon beams. *Med Phys* **22**(6), pp-1008(1995).
3. **Wang L**, Jette D, Haneman B, Walker S: Photon dose calculation based on electron transport theory: primary dose penumbra in homogeneous medium. *Med Phys* **23**(6), pp-1129(1996).
4. Haneman B, Walker S, **Wang L**, Jette D: The effect of electron single scattering on calculated dose distributions in inhomogeneous media. *Med Phys* **22**(6), pp-1006(1995).
5. **Wang L**, Zhu T, Bjarngard D: Effects of beam divergence, fluence distribution, and beam quality on the phantom-scatter factor. *Med Phys*, **26** (6), pp-1169(1999).
6. Das I, Kassae A, Solin LJ, **Wang L**, Verhaegen F: Dosimetric Implications of lung in radiation treatment of breast cancer. *Radiology*, 217(p), Abs# 844, pp-406(2000).
7. **Wang L**, Kassae A, Desobry G, Solin L: Effect of the lung inhomogeneity correction in breast irradiation using various algorithms. *Med. Phys*, **28**(6), Abs# SU-FF-EXH C-25, pp-1197(2001).
8. **Wang L**, Desobry G, Kassae A, Zhu T, Jang S, Maughan R: Comparing dose distribution in lung cancer treatment planning between the collapsed-cone algorithm and a Monte Carlo method. *Med. Phys*, **28**(6), Abs# SU-FF-EXH C-26, pp-1197(2001).
9. **Wang L**, Yorke E, Chui C-S: Monte Carlo evaluation of IMRT plans for head and neck and lung treatments. *Radiology*, **221**(p), Abs#1505, 600-601(2001).
10. Jang S, **Wang L**, Das I: Virtual source distances measured with various detectors in electron beams, *Med. Phys.*, **29**(6), Abs#SU-DD-EXH-23, pp-1203 (2002).
11. Rusu I, McDonough J, **Wang L**, Chapuy S, Dimcovski Z, Dimcovski , Bloch P: Evaluation of an Amorphous Silicon portal imaging system for image quality and dosimetry. *Med. Phys.*, **29**(6), Abs#SU-DD-EXH-38, pp-1206(2002).

12. Chen L, Li J, Price R, McNeeley S, **Wang L**, Qin L, Ma C: Phase space calibration for the clinical implementation of Monte Carlo Treatment Planning. *Med. Phys.*, **29**(6), Abs#SU-FF-EXH-60, pp-1232(2002).
13. **Wang L**, Chen L, Ding M, Price R, Ma C: Reproducibility of patient position for conformal stereotactic radiotherapy using a head and neck localizer frame. *Med. Phys.*, **29**(6), Abs#SU-HH-EXH-71, pp-1253 (2002).
14. Chang J, **Wang L**, Yorke E, Ford E, Chui C: Analysis and correction of scattering for Megavoltage (MV) cone beam computed tomography (CBCT) using Monte Carlo simulation. *Med. Phys.*, **29**(6), Abs#SU-HH-EXH-01, pp-1239 (2002).
15. **Wang L**, Chen J, Yorke E, Chui C: Evaluation of scatter to primary ratio at an EPID with Monte Carlo calculation. *Med. Phys.*, **29**(6), Abs#SU-HH-EXH-32, pp-1245 (2002).
16. Ma C, Li J, Pawlicki T, Jiang S, Deng J, Chen L, **Wang L**, Price R, McNeeley S, Ding M, Fourkal E, Qin L: MCSIM: A Monte Carlo dose verification tool for radiation therapy treatment planning and beam delivery. *Med. Phys.*, **29**(6), Abs#TU-D-517A-09, pp-1316 (2002).
17. Chen L, Li J, Mah D, Ma C, **Wang L**, Ding M, Freedman G, Movsas B, Pollack A: Monte Carlo investigation of dosimetry accuracy of MR-based treatment planning. *Med. Phys.*, **29**(6), Abs#WE-C-517B-12, pp-1339 (2002).
18. Chen L, Li J, Mah D, Ma C, Price R, **Wang L**, McNeeley S, Ding M, Freedman G, Movsas B, Pollack A: Monte Carlo verification of MR-based treatment planning for intensity modulated radiation therapy. *Int. Radio. Oncol. Bio. Phys.* Vol. **54:2** (ASTRO 2002): 329.
19. **Wang L**, Jacob R, Movsas B, Chen L, Fourkal E, MA C, Pollack A: Dosimetric comparison of different multileaf collimator widths in the treatment of prostate cancer with intensity modulated radiotherapy. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# TU-E20B-05, pp1405 (2003).
20. **Wang L**, Paskalev K, Li J, Price R, Chen L, Fourkal E, Ding M, Yang J, Xiong W, Ma C: A comprehensive commissioning procedure for stereotactic extracranial IMRT using a micro multileaf collimator. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# PO-T-183, pp1499 (2003).
21. Ma C-M, Price R, Li J-S, Chen L, **Wang L**, Fourkal E, Qin L, Yang J: Monitor unit calculation for Monte Carlo treatment planning. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# PO-T-262, pp1515 (2003).
22. Chen L, Price R, Li JS, **Wang L**, Qin L, Ma C: Evaluation of MRI-based Treatment Planning for Prostate Cancer using the AcQPlan System. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# PO-T-221, pp1507 (2003).
23. Chen L, Price R, Li JS, **Wang L**, Qin L, Ma C, and Pollack A: MRI-based treatment optimization for prostate IMRT. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# SU-DD-PDS-43, pp1335 (2003).
24. Mora G, Li JS, **Wang L**, Ding M, Yang J, Ma C: Effect of CT conversion on Monte Carlo dose calculations for head and neck treatments. *Med. Phys.* **30**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs# TH-C20D-07, pp1452 (2003).
25. Fourkal E, Li J.S, Qin L, Xiong W, **Wang L**, and Ma C-M: Energy and Intensity Modulated Proton Therapy: A Monte Carlo Dosimetry Study. *Submitted to ASTRO 2003 Annual Meeting, 2003.*
26. Ding M, Li JS, McNeeley SW, Price RA, Chen L, Fourkal E, Paskalev K, **Wang L**, Qin L, Xiong W, Yang J and Ma C-M: Investigation Of Beam Delivery For Modulated Electron Radiation Therapy. *Submitted to ASTRO 2003 Annual Meeting, 2003.*

27. **Wang L**, Ma C, Paskalev K, Jacob R, Chen L, Feigenberg S, Movsas B, Pollack A: Feasibility study for clinical implementation of dose hypofractionation with IMRT for prostate cancer. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#TUD-BRA-07, pp1788 (2004).
28. Paskalev K, Feigenberg S, **Wang L**, Movsas B, Jacob R, Laske D, Ma C: Single fraction SRS treatment with a non-invasive head frame: A feasibility study. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#WE-D-BRB-11, pp1826 (2004).
29. Li JS, **Wang L**, Chen L, Yang J, Ma CM: Monte Carlo verification for IMRT plan delivered using micro-multileaf collimators. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#TH-C-BRA-06, pp1844 (2004).
30. **Wang L**, Jacob R, Paskalev K, Ma C, Feigenberg S, Movsas B, Pollack: Evaluating dosimetric benefit of image-guided stereotactic IMRT for prostate cancer through "real-time" dose reconstruction. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#PO-T-165, pp1885 (2004).
31. Chen L, Konski A, Chen Z, Price R, Li J, **Wang L**, Qin L, Ma C: MRI study of tumor motion for radiation treatment planning. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#PO-T-261, pp1904 (2004).
32. Chen L, Chen Z, Price R, Li J, **Wang L**, Qin L, Ma C, Pollack A: Treatment setup for MRI-based treatment planning for prostate IMRT. *Med. Phys.*, **31**(6), AAPM 45<sup>th</sup> Annual Meeting, Abs#PO-T-360, pp1925 (2004).
33. Chen L, Zhu J, Xu X, **Wang L**, Paskalev K, Chen Z, Movsas B, Ma C-M: Image guided radiation therapy: Investigation of interfraction setup and external contour variation for prostate IMRT using CT and MRI, *Med. Phys.* **32**(6), AAPM 46<sup>th</sup> Annual Meeting, Abs#SU-FF-J-39, pp 1928 (2005).
34. **Wang L**, Feigenberg S, Paskalev K, Konski A, Xiong W, Ma C-M: Treatment dose verification for image-guided stereotactic radiotherapy of lung cancer. *Med. Phys.* **32**(6), AAPM 46<sup>th</sup> Annual Meeting, Abs#SU-FF-J-93, pp 1941(2005).
35. Stathakis S, Li J, Paskalev K, Yang J, **Wang L**, Ma C-M: Determination of skin dose for hypo-fractionated breast treatment using mixed photon and electron beams, *Med. Phys.* **32**(6), AAPM 46<sup>th</sup> Annual Meeting, Abs#SU-FF-T-192, pp 1994(2005).
36. Xiong W, **Wang L**, Paskalev K, Feigenberg S, Ma C-M: Biological analysis for hypofractionated lung cancer radiotherapy, *Med. Phys.* **32**(6), AAPM 46<sup>th</sup> Annual Meeting, Abs#SU-FF-T-370, pp 2036(2005).
37. Paskalev K, Feigenberg S, **Wang L**, Movsas B, Laske D, Ma C-M: A method for repositioning of stereotactic brain patients with the aid of real-time CT image guidance. *Med. Phys.* **32**(6), AAPM 46<sup>th</sup> Annual Meeting, Abs#SU-FF-T-388, pp 2040(2005).
38. Xiong W, **Wang L**, Li J, Price R, Ma C-M: Comparison of tumor control probability and lung complication probability for lung cancer treatment with and without heterogeneity correction. AAPM 46<sup>th</sup> Annual Meeting, Abs#TU-FF-A1-3, pp 2113(2005).
39. Chen L, Price R.A., Li, J, **Wang L**, Qin L, Ding M, Ma C and Pollack A. Clinical implementation of MRI simulation for IMRT of prostate cancer. *Int. J. Rad. Oncol. Bio. Phys.* **Vol.** 57, Issue 2, Supplement 1, 1 October 2003, Pages S338-S339.
40. Chen L, Paskalev K, Zhu J, Xu X, **Wang L**, Price R.A, Horwit E, Feigenberg S, Ma C and Pollack A. Image Guided Radiation Therapy for Prostate IMRT: Rectum Volume Changes and Dosimetric Considerations. *Int. J. Rad. Oncol. Bio. Phys.* **Vol.** 63, Supplement 1, 1 October 2005, Pages S549-S550.
41. **Wang L**, Feigenberg S, Che L, Paskalev K, Jin L and. Ma C.C.M. On Accounting for

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42. Jin L, Ma C, Li J, **Wang L**, Determination of Beam Margins for SRT/IMRT of Small Lung Cancers Based On Monte Carlo Simulations. AAPM 48<sup>th</sup> Annual Meeting, Abstract #SU-EE-A1-5, *Med. Phys.* Vol. 33 (6), pp. 1991 (2006).
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