Yu-Wen Chang, Ph.D., DABR

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CAREER GOAL

Always strive for excellence in sustaining the highest level of standard in the field as a well respected certified medical physicist

CERTIFICATION

American Board of Radiology in Therapeutic Medical Physics in November 2014.

EDUCATION

Ph.D. in Medical Physics, *University of Missouri-Columbia* (Jun 2006 – Dec 2009)
Dissertation: Development and Evaluation of a Novel Ge-68/Ga-68 Generator
Location: Columbia, MO, USA
Dissertation supervisor: Cathy S. Cutler, Ph.D.

M.S. in Medical Physics, *University of Missouri-Columbia* (Sep 2004 – May 2006)
Project Paper: Statistical Analysis of a Radioactive Marker System to Reduce Positioning Errors for External Beam Radiation Treatment
Location: Columbia, MO, USA
Project supervisor: William H. Miller, Ph.D.

B.S. in Radiological Technology, *Chang Gung University* (Sep 1998 – Jun 2002)
Location: Taoyuan County, Taiwan (R.O.C.)
Mentor: Chung-Chi Lee, Ph.D.

POSITIONS AND PROFESSIONAL EXPERIENCE

Chief Physicist Varian Advanced Oncology Solutions (Dec 2023 – Present)
Sr. Medical Physicist Varian Advanced Oncology Solutions (Jun 2022 – Dec 2023)
Medical Physicist Radiation Oncology/ThedaCare Regional Cancer Center (Jun 2020 – Present)
Medical Physicist Radiation Oncology at Cancer Team/Bellin Health (Sep 2015 – Jun 2020)
Medical Physicist and Radiation Safety Officer
Radiation Oncology/Meadville Medical Center (Jun 2014 – Sep 2015)
Medical Physicist Radiation Oncology/UMC Health System SWCC (Sep 2012 – Jun 2014)
Medical Physicist Radiation Oncology/Cancer Treatment Institute (Feb 2012 – Sep 2012)
Post-doctoral Fellowship
Radiation Oncology/Medical College of Wisconsin (May 2010 – Feb 2012)
Medical Physicist Internship
Radiation Oncology/Medical College of Wisconsin (Feb 2008 – Oct 2008)
Research Assistant University of Missouri Research Reactor Center (Mar 2006 – Dec 2007)
Research Assistant NSEI/University of Missouri-Columbia (Sep 2004 – Feb 2006)
Medical Physicist Internship
Radiation Oncology/Saint Louis University Hospital (Dec 2005 – Jan 2006)
Research Assistant Nuclear Medicine/Chang Gung Memorial Hospital (Apr 2003 – Jul 2004)

CLINICAL EXPERIENCE

Quality Assurance:	Linac (Daily, Monthly, Annual): Varian TrueBeam, Varian Trilogy, Varian 21iX, Varian 23EX, Varian 21EX, Varian 600C, Accuray TomoTherapy, Accuray CyberKnife, Siemens Artiste, Siemens Oncor, Siemens Primus
	Imaging System: Varian On-Board Imaging (MV, kV, CBCT), Siemens CT-on-Rail
	CT Simulator: GE Lightspeed, Philip, Canon Aquilion
	IMRT & RapidArc (Film, portal dosimetry, diode/chamber arrays [MapCheck, ArcCheck, Delta4, MatriXX], ion chamber)
	HDR: Nucletron microSelectron HDR-V3 afterloader, VariSource iX HDR afterloader, Bravos HDR afterloader
Acceptance & Commissioning:	AAA and electron Monte Carlo algorithms (Eclipse)
	IMRT and RapidArc
	Secondary MU Check: IMSure, RadCalc, MuCheck
	Vision RT (OSMS)
	Velocity
Treatment Planning & Dosimetry:	Varian Eclipse TPS (3D, IMRT, RapidArc, Cone Planning) CyberKnife Precision
	Elekta XiO TPS (3D, IMRT)
	PROWESS Panther TPS (IMRT)
	Varian BrachyVision Treatment Planning System: GYN cases
	Oncentra Brachy Treatment Planning: GYN cases (Multichannel Cylinder, T&R, T&O), SAVI, MammoSite, Prostate
	Deformable Image Registration: MIM software, Velocity
Special Procedures:	Radiosurgery: Linac Cone-based, CyberKnife
	Stereotactic Radiotherapy: Linac-based with image guidance
	HDR Brachytherapy
	Total Body Irradiation & Total Skin Irradiation
	Gamma Knife
Other:	RSO duties: execute all the duties associated with radiation safety at the facility including annual radiation safety training, HDR emergency training, maintain the calibration of devices, receive and return Ir-192 source, etc.
	Paperless charting in ARIA environments
	In-vivo Dosimetry Program: TLD calibration, IVD diode system
	Prepare documentation for renewing American College of Radiology (ACR) accreditation, applying American College of Radiation Oncology (ACRO) accreditation and Commission on Cancer (CoC) accreditation
	Trained to be a radiation technician in department of Radiation Oncology, Diagnostic Radiology, and Nuclear Medicine.

AWARDS

Certificate of Achievement Rank of 34 out of 238 and a Score of 143.06 out of 150
2017 QADS TG244 H&N Plan Study (Dec 2016)

Certificate of Achievement Rank of 66 out of 421 and a Score of 144.2 out of 150
2016 AAMD/RSS SBRT Prostate Plan Study (Jun 2016)

Research Assistantship *University of Missouri Research Reactor* (Apr 2006 – Dec 2007)
Curator's Grant-In-Aid Scholarship *University of Missouri-Columbia* (Jan 2006 – May 2006)
Research Assistantship *NSEI/University of Missouri-Columbia* (Sep 2004 – Mar 2006)

PROFESSIONAL ORGANIZATIONS

American Association of Physicists in Medicine, *full physicist member* (Oct 2013 – present)
American Brachytherapy Society, full physicist member (Oct 2014 – Dec 2015)
American Association of Physicists in Medicine, *junior physicist* (May 2010 – Oct 2013)
American Association of Physicists in Medicine, *student member* (Jun 2005 – Apr 2010)

SKILLS

Computer and Software: Windows, Linux, Apple PC, MS Word, MS Excel, MS PowerPoint, MS Access, C, Matlab, SPM, ImageJ
Language: Proficient with English and Chinese (Mandarin, Taiwanese and other dialects)

PERSONALITY

Willing and eager to learn; hard worker and fast learner; easy to adapt to any environment, excellent team player and independent thinker; exceptional problem solving, communication, technical and interpersonal skills

PRESENTATIONS

Yu-Wen Chang, William H. Miller, Jatinder R. Palta (2005). *A Radioactive Marker System to Reduce Positioning Errors in Radiotherapy*. International American Nuclear Society Annual Meeting. June 2005

CONFERENCE ABSTRACT AND POSTER PRESENTATIONS

C Yang, F Liu, **Y Chang**, C Lawton, D Wang, C Schultz, S Frat, B Erickson, X Li, "Using an online adaptive replanning tool for offline adaptive radiotherapy," 2011 ASTRO Annual meeting
K Kainz, G Chen, **Y Chang**, D Prah, and X Li, "A Planning and Delivery Study of a Rotational IMRT Technique with Burst Delivery," 2011 Joint AAPM/COMP annual meeting

C.S. Cutler, G.J. Ehrhardt, H.P. Engelbrecht, **Y.W. Chang**, S. Kelley, S. Wilder, and A.R. Ketring. *A Comparison of the Performance of Multi-Millicurie Ge-68/Ga-68 Generators Based on Titanium Dioxide and Fajan's Adsorption*. Seventh International Symposium on Technetium in Chemistry and Nuclear Medicine. September 2006

G.J. Ehrhardt, C.S. Cutler, H.P. Engelbrecht, S. Kelley, **Y.W. Cheng**, L.J. Forbis, S.L. Wilder, and A.R. Ketring. *Progress Toward a Ge-68/Ga-68 Generator Suitable for Labeling Receptor Agent-DOTA Bioconjugates*. Seventh International Symposium on Technetium in Chemistry and Nuclear Medicine. September 2006

Yu-Wen Chang, William H. Miller, Jatinder R. Palta. *A Radioactive Marker System to Reduce Positioning Errors in Radiation Treatment*. American Nuclear Society Student Conference. April 2005

PUBLICATIONS

Kristofer Kainz, Guang-Pei Chen, **Yu-Wen Chang**, Douglas Prah, and X. Allen Li. “A planning and delivery study of a rotational IMRT technique with burst delivery,” Med. Phys. Vol. 38 (9), pp. 5104-18 (2011)

Cathy Cutler, Hendrik Engelbrecht, Melchor Cantorias, **Yu-Wen Chang**, Charles Roberts, James Guthrie, Tom Quinn, Leanne Forbis, Stacy Wilder, Gary Ehrhardt. “Development and Evaluation of a Novel Ga-68 generator”, Submitted.

William H. Miller, Amenyedu Adovor, Andrew Andreassen, **Yu-Wen Chang**, Nithin Polasani. “Evaluation of a Simple System for Radiation Treatment Positioning,” *Trans. Am. Nucl. Soc.*, Vol. 94, pp. 395-398 (2006)

Yu-Wen Chang, William H. Miller, Jatinder R. Palta. “Statistical Analysis of a System for Radiation Treatment Positioning Accuracy,” Trans. Am. Nucl. Soc., Vol. 92, pp. 777-779 (2005)

Ing-Tsung Hsiao, **Yu-Wen Chang**, Kun-Ju Lin, Wen-Jen Huang. “Fast Statistical Image Reconstruction for Emission Tomography: Application to SPECT.” Journal of Medical and Biological Engineering, Vol. 24 (2), pp. 93-98 (2004)