

# Yohan Walter, MS, DABR®

Medical Physicist, Chief of Radiation Physics Research  
Willis Knighton Cancer Center

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## Education & training

PhD: University of Jamestown, Fargo, ND, USA	2024-Pres.
Residency: Willis Knighton Cancer Center, Shreveport, LA, USA	2022-2024
MS: Creighton University, Omaha, NE, USA	2020-2022
BS: University of Oregon, Eugene, OR, USA	2015-2019

## Employment

### Willis Knighton Cancer Center, Shreveport, LA, USA

Chief of Radiation Physics Research	2025-Pres.
❖ Leads interdisciplinary single-and multi-institutional clinical research initiatives.	
Staff Medical Physicist	2024-pres
❖ Provides physics support in Radiation Oncology, Proton Therapy, & Nuclear Oncology departments.	
Medical Physics Resident (Therapeutic Physics, CAMPEP-accredited)	2022-2024
❖ Provided physics support for radiation oncology procedures in a formal clinical training environment.	

### CQ Medical, Avondale, PA, USA

Key Opinion Leader - Radiation Oncology	2024-pres.
❖ Provides consulting support for CQ Medical clinical applications, R&D, and education teams.	

### Creighton University, Omaha, NE, USA

Graduate research assistant (Translational Biomedical Physics research group; PI: Dr. Andrew Ekpenyong)	2020-2022
Graduate teaching fellow: physics	

## Board certifications

- American Board of Radiology, Therapeutic Medical Physics (DABR, 2025)

## Journal Peer Reviews

- *BMC Neurology* (4.1.2025)
- *BMC Cancer* (2.10.2025, 5.22.2025)
- *Discover Oncology* (2.3.2025, 2.12.2025)
- *Scientific Reports* (12.26.2024, 1.8.2025, 1.24.2025, 3.13.2025)
- *Journal of Applied Clinical Medical Physics* (11.6.2024, 2.3.2025, 2.18.2025, 4.21.2025, 5.22.2025)
- *Journal of the Egyptian National Cancer Institute* (5.27.2025)

## **Peer-reviewed publications** \*corresponding author

- **Walter Y.\***, Hubbard A., Durham P.F., Burrell W., Wang C.J., Wu H.T. (2025). Commissioning of a reference beam model-based Monte Carlo dose calculation algorithm for cranial stereotactic radiosurgery. *Physica Medica*, 133, 104976. <https://doi.org/10.1016/j.ejmp.2025.104976>
- **Walter Y.\***, Durham P., Hubbard A., Burrell W., Wu H.T. (2025). Improving dose delivery in non-coplanar cranial SRS: Stereoscopic x-ray-guided mitigation of table walkout errors. *J Appl Clin Med Phys*. 2025;e70099. <https://doi.org/10.1002/acm2.70099>
- **Walter Y.\***, Wang C.J., Speir D., Burrell W., Palomeque C., Henry J.C., Rodrigues M., Jacobs T., Broekhoven B., Dugas J., Hubbard A., Durham P.F., Wu H.T. (2025). Patient Positional Uncertainty and Margin Reduction in Lung Stereotactic Ablative Radiotherapy using Pneumatic Abdominal Compression. *Prac Radiat Oncol.*; <https://doi.org/10.1016/j.prro.2024.12.001>
- **Walter Y.\***, Hubbard A., Durham P.F., Wu H.T. (2024). Five-year evaluation of linear accelerator-based SRS platform isocentricity. *J Appl Clin Med Phys.*; e14597. <https://doi.org/10.1002/acm2.14597>
- **Walter Y.\***, Speir D., Burrell W., Wang C.J., Wu H.T. (2024). Efficacy of a thermoplastic mask and pneumatic abdominal compression device for immobilization in stereotactic ablative radiotherapy of spine metastases. *J Appl Clin Med Phys.*; e14577. <https://doi.org/10.1002/acm2.14577>
- **Walter Y.\***, Dugas J., Broekhoven B., Jacobs T., Han M., Wang C.J., Wu H.T. (2024). Effect of Prescription Isodose Line on Tissue Sparing in Linear Accelerator-Based Stereotactic Radiosurgery Treating Multiple Brain Metastases Using Dynamic Conformal Arcs. *J Appl Clin Med Phys.*; 25:e14278. <https://doi.org/10.1002/acm2.14278>
- McKinley S., Taylor A., Peeples C., Jacob M., Khaparde G., **Walter Y.**, Ekpenyong A.\* (2023). Microgravity-Induced Changes to Drug Response in Cancer Cells Quantified Using Fluorescence Morphometry. *Life*; 13(8):1683. <https://doi.org/10.3390/life13081683>
- **Walter Y.**, Hubbard A., Benoit A., Jank E., Salas O., Jordan D., Ekpenyong A.\* (2022). Development of In Vitro Assays for Advancing Radioimmunotherapy against Brain Tumors. *Biomedicines*; 10(8):1796. <https://doi.org/10.3390/biomedicines10081796>

## **Invited Presentations**

- **Walter Y.**, Speir D., “Abdominal Compression in SBRT: A Pressing Issue”. CE-granting webinar hosted by CQ Medical. Invited speaker. June 16, 2025.
- **Walter Y.** “Patient specific dosimetry in radioligand therapy: Current workflows, status, and prospects”. Willis Knighton Nuclear Oncology Physics / Dosimetry Workshop. Invited by Willis Knighton Cancer Center. April 26, 2025.
- **Walter Y.**, Speir D., “Abdominal Compression in SBRT: A Pressing Issue”. CE-granting webinar hosted by CQ Medical. Invited speaker. April 16, 2025.
- **Walter Y.** “LINAC-based SRS: General Considerations”, “LINAC-Based SRS: Commissioning”, “LINAC-based SRS: QA”, “LINAC-based SRS: Treatment Planning”. Presented in Stereotactic Radiosurgery (Gamma Knife) Workshop, Mary Bird Perkins Physics Residency Consortium. January 31, 2025.
- **Walter Y.**, Speir D. “Compassionate Compression in Action: The WKCC Experience”. Presented in CQ Medical booth at American Society for Radiation Oncology (ASTRO) Annual Meeting 2024. Invited by CQ Medical. October 2024.
- **Walter Y.**, Speir D. “Compassionate Compression in Action: The WKCC Experience”. American Society of Radiologic Technologists (ASRT) Radiation Therapy Conference 2024. Invited by CQ Medical. October 2, 2024.
- **Walter Y.** “Patient-Specific QA for Proton Therapy”, “Daily QA in Proton Therapy”, and “Spectral CT: Overview and Applications to Proton Therapy”. Presented in Proton Therapy Workshop, Mary Bird Perkins Residency Consortium. April 2024.

## Conference Presentations

- **Walter Y.**, Wang C.J., Speir D., Broekhoven B., Jacobs T., Hubbard A., Dugas J., Wu H.T., “Impact of Intrafraction Patient Motion on Plan Dosimetry and Local Control for Lung SBRT.” American Society for Radiation Oncology (ASTRO) 2024 Annual Meeting. October 1, 2024. <https://doi.org/10.1016/j.ijrobp.2024.07.439>
- Dugas J., **Walter Y.**, Broekhoven B., Jacobs T., Han M., Wu H. “Quality Assurance Validation of Exactrac-Guided Brainlab Cone-Based Functional and Multileaf Collimator-Based Multimet Elements Stereotactic Radiosurgery on an Elekta Versa HD Platform.” American Assoc. Physicists in Medicine 65<sup>th</sup> Annual Meeting. July 27, 2023.
- **Walter Y.**, Salas O., Benoit A., Jordan D., Jank E., Hubbard A., Ekpenyong A. “Advancing Radioimmunotherapy for Brain Tumors Using *In Vitro* Assays.” American Assoc. Physicists in Medicine 64<sup>th</sup> Annual Meeting. July 25, 2022.
- Benoit A., Hubbard A., **Walter Y.**, Salas O., Jank E., Ekpenyong A. “Fluorescence-Guided Morphometry in Chemo-Radiotherapy against Brain Cancer”. American Assoc. Physicists in Medicine 64<sup>th</sup> Annual Meeting, July 25, 2022.
- **Walter Y.**, Salas O., Benoit A., Jordan D., Jank E., Hubbard A., Ekpenyong A. “Advancing Radioimmunotherapy for Brain Tumors Using *In Vitro* Assays.” Nebraska Academy of Sciences Annual Meeting. March 3, 2022.
- Thiëgs C., Djam K., Kramer H., **Walter Y.**, Hubbard A., Benoit A., Jank E., Salas O., Schwengler M., Lewison J., McKinley S., Ekpenyong A. “Simultaneous Assessment of ROS and Radiosensitization of Brain Cancer Cells for Improved Radiotherapy Outcomes,” American Assoc. Physicists in Medicine 63<sup>rd</sup> (Virtual) Annual Meeting. July 26, 2021.

## Posters

- **Walter Y.**, Durham P.F., Hubbard A., Burell W., Wu H.T. “Image Guidance for Mitigating the Impact of Table Walkout on Delivered Dose in Non-Coplanar Stereotactic Radiotherapy”. AAPM 67<sup>th</sup> Annual Meeting, 2025.
- **Walter Y.**, Broekhoven B., Dugas J., Han M., Wang C.J., Wu H.T. “Comparison of Tissue Sparing and Monitor Units for Multimet SRS Plans Using 70-90% Prescription Isodose Lines in Brainlab Elements 3.0”. Brainlab Novalis Circle 9<sup>th</sup> International Conference, Munich, Germany, 2023.
- **Walter Y.**, Broekhoven B., Dugas J., Han M., Wang C.J., Wu H.T. “Effect of Prescription Isodose Line On Tissue Sparing In Linac-Based Cranial SRS Targeting Multiple Metastases”. AAPM 65<sup>th</sup> Annual Meeting, 2023.
- Broekhoven B., Dugas J., Han M., **Walter Y.**, Wang C.J., Wu H.T. “A Clinical Study of Functional Cone-Based SRS on an Elekta Versa HD Linear Accelerator”. AAPM 65<sup>th</sup> Annual Meeting, 2023.
- Broekhoven B., Dugas J., Han M., **Walter Y.**, Wang C.J., Wu H.T. “Optimization and Validation of Small Field Multi-Leaf Collimator Output Factors on an Elekta Versa HD for SRS Planning and Treatments”. AAPM 65<sup>th</sup> Annual Meeting, 2023.
- Jank E., Benoit A., **Walter Y.**, Hubbard A., Hughes J., Nishida K., Bui D., Ekpenyong A. “Fluorescence-Guided Cell Morphometry for Advancing Nanoparticle-Mediated Radiotherapy Against Glioblastoma”. AAPM 65<sup>th</sup> Annual Meeting, 2023.
- Salas O., **Walter Y.**, Hubbard A., Benoit A., Jank E., Ekpenyong A. “Fluorescence-Guided Morphometry in Radioimmunotherapy for Brain Tumors”. AAPM 64<sup>th</sup> Annual Meeting, 2022.
- Hubbard A., Jank E., Benoit A., Salas O., Jordan D., **Walter Y.**, Ekpenyong A. “Concurrent Radiosensitization and Chemoradiotherapy for Brain Tumors”. AAPM 64<sup>th</sup> Annual Meeting, 2022.
- **Walter Y.**, Hubbard A., Thiëgs C., Djam K., Benoit A., Jank E., Salas O., Schwengler M., McKinley S., Lewison J., Ekpenyong A. “Development of Radioimmunotherapy for Brain Tumors Using *In Vitro* Assays”. AAPM, 63<sup>rd</sup> (Virtual) Annual Meeting, 2021.

## Patents

- Ekpenyong A., Thiëgs C., Hubbard A., **Walter Y.**, Kramer H., Djam H. “Cancer Radiation Therapy with Biocompatible Quantum Dots for Simultaneous Dose Enhancement and Counter-Metastasis”, USPTO 17/970,720 filed 04/17/2023.
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