

# Jeffrey M. Ryckman, M.D., M.S.M.P.

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## **EDUCATION**

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- 2004 - 2008      **Furman University**, Greenville, SC  
B.S. in Physics, May 2008  
*Member of the Dean's List, 2006-2008*
- 2008 - 2011      **Georgia Institute of Technology**, Atlanta, GA  
M.S. in Medical Physics, May 2011
- 2011 - 2015      **Medical College of Georgia** at Augusta University, Augusta, GA  
M.D., May 2015
- 2015 - 2016      **Medical College of Georgia** at Augusta University, Augusta, GA  
Internship in Internal Medicine
- July 1, 2016 –  
June 30, 2020      **University of Nebraska Medical Center**, Omaha, NE  
Radiation Oncology Residency

## **MANUSCRIPTS IN PREPARATION**

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Ryckman JM, Baine M, Zhen W, Lin C, Zhang C. Correlation of Dosimetric Factors with Development of Symptomatic Radiation Pneumonitis in Stereotactic Body Radiotherapy. *Submitted to ASTRO 2019.*

Ryckman JM, Baine M, Sampson K, Zhang C. Timing of Adjuvant Radiation Therapy in Glioblastoma Patients: A National Cancer Database Report.

## **ABSTRACTS AND PRESENTATIONS**

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**Ryckman JM** (2009) Contributions of Neutrons to Dose of Varying Energy Proton Beams. *American Nuclear Society Student Conference*, April 4<sup>th</sup>, 2009

**Ryckman JM** (2009) Improving Efficiency of Monte Carlo Modeling in Proton Therapy. *Nuclear and Radiological Engineering and Medical Physics Annual Research Fair at Georgia Tech*, August 27<sup>th</sup>, 2009

**Ryckman JM** and Petrovic B (2010) Using MCNPX to Calculate Primary and Secondary Dose in Proton Therapy. *Inaugural Georgia Tech Research and Innovation Conference*, February 8<sup>th</sup>, 2010

**Ryckman JM** (2013): Oral Presentation. Anatomic Deformable Image Registration in Radiotherapy for Cervical Cancer Including HDR Brachytherapy Implants. *2013 American Brachytherapy Society Annual Meeting*, April 19<sup>th</sup>, 2013

## **PUBLICATIONS**

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**Ryckman JM**, Shelton J, Hall WA, Waller AF, Schreibmann E, Latifi K and Diaz R (2016). Anatomic structure-based deformable image registration of brachytherapy implants in the treatment of locally advanced cervix cancer. Brachytherapy. 2016 Jun 1.

Verma V, **Ryckman JM**, Simone CB, Lin C. Patterns of care and outcomes with the addition of chemotherapy to radiation therapy for stage I nasopharyngeal cancer. *Acta Oncologica*. 2017 Jul 18:1-5.

**Ryckman JM**, Kusi Appiah A, Simone, II CB, Verma V. Treatment approaches for nasopharyngeal adenoid cystic carcinoma. *Acta Oncologica*. 2018 Jan 16:1-7.

**Ryckman JM**, Lin, Chi, Simone CB, Verma V. Patterns of Care for Stage IA Cervical Cancer: Utilization of Definitive Radiation Therapy versus Hysterectomy. *International Journal of Gynecological Cancer*. 2018 May; 18(4):773-781.

Verma V, Sleightholm R, Fang P, **Ryckman JM**, Lin C. National Cancer Database Report of Nonmetastatic Esophageal Small Cell Carcinoma. *Cancer Medicine*. 2018. Dec;7(12):6465-6373.

**Ryckman JM**, Ganesan V, Adams K, Zhang C, Verma V. National Practice Patterns of Proton versus Photon Therapy in the Treatment of Adult Patients with Primary Brain Tumors in the United States. *Acta Oncologica*. 2018. 57(7):995-1001

**Ryckman JM**, Surkar S, Haque W, Butler EB, Teh BS, Verma V. Sequencing of Chemotherapy and Radiotherapy for Newly Diagnosed Anaplastic Oligodendroglioma and Oligoastrocytoma. *American Journal of Clinical Oncology*. 2018.

**Ryckman JM**, Kusi Appiah A, Lyden E, Verma V, Zhang C. Concurrent versus Sequential Chemoradiation for Low-Grade Gliomas Meeting RTOG 9802 Criteria. *American Journal of Clinical Oncology*. 2018. Accepted.

## **AWARDS**

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2012                      Emory Medical Scholars Student Award  
May 2016                Runner up Internal Medicine Resident of the Year  
May 2017                UNMC Fellow Research Night: Best Poster Finalist

## **RESEARCH/MENTORING EXPERIENCE**

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2008 - 2011            **Graduate Research Assistant**  
*Designed a sample proton therapy facility and performed calculations of radiation dose distributions within a sample patient and treatment room.*  
Preceptor: Bojan Petrovic, Ph.D.  
Department of Medical Physics, Georgia Institute of Technology

2011 – 2014            **Clinical Research in Radiation Oncology**  
Principal Investigator  
*Performed Deformable Image Registration in the Evaluation of 3-D Planned High-Dose-Rate Brachytherapy Treatments of Cervical Cancer*  
Preceptor: Roberto Diaz, M.D., Ph.D.  
Department of Radiation Oncology, Emory University School of Medicine

2017 –                    **Clinical Research Mentor**  
*Designed projects and statistical analytic design for various research projects while aiding medical and MD/PhD students in understanding of clinically relevant research questions. Studies primarily consisted of retrospective single institution data as well as NCDB analysis including CNS and lung malignancies.*  
Department of Radiation Oncology, University of Nebraska Medical Center

## **CLINICAL EXPERIENCE**

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Intensity Modulated Radiation Therapy  
Stereotactic Body Radiation Therapy  
    Intracranial and Extracranial Stereotactic Radiosurgery  
    Brainlab and Eclipse Stereotactic Radiation Treatment Planning  
Conformal External Beam Radiation Therapy  
Radionuclide Treatment  
    I-131, Ra-223  
Pinnacle, iPlan, and Eclipse Treatment Planning Software  
Velocity Image Registration and Plan Evaluation  
4D CT Simulation and Deep-Inspiration Breath Hold Techniques  
Image Guided Radiotherapy  
    True Beam  
    Calypso  
    Exact-Trac  
    Varian OSMS Image Guidance  
Interstitial and Extracranial Stereotactic Radiosurgery  
    Balloon-based accelerated partial breast irradiation  
    HDR Cervix/Vaginal cuff Brachytherapy

## **WORK EXPERIENCE**

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- 2003 - 2012      **Remtech Engineers, Inc.**, Marietta, GA  
Environmental Technician  
[www.remtech-eng.com](http://www.remtech-eng.com)  
*Responded to over 200 chemical releases including major highway incidents*  
*Managed over 20 personnel in time-sensitive, high pressure situations*
- May - Oct 2010      **Radiation Safety Office**, Georgia Tech, Atlanta, Georgia  
Radiation Safety Worker  
*Maintained and monitored radiation detection equipment and radioactive sources*

## **TEACHING EXPERIENCE**

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- 2018 –              **Rad Onc Questions Ad Hoc Resident Editor**
- 2014 - 2015        **Kaplan Class Representative**
- 2010 - 2013        **ExamCrackers** Atlanta, GA  
MCAT Comprehensive Review Course Instructor  
*Taught over 150 students in classes held at Georgia Tech and Emory*  
*Trained new instructors for courses in the Atlanta area*
- 2006 - 2008        **Furman University** Greenville, SC  
Physics Laboratory Assistant

## **PROFESSIONAL MEMBERSHIPS**

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- 2008 –              Alpha Epsilon Delta, The Health Pre Professional Honors Society
- 2008 –              Sigma Pi Sigma, The National Physics Honor Society
- 2009 – 2011        American Association of Physicists in Medicine (AAPM)
- 2012 –              Radiological Society of North America (RSNA)
- 2013 –              American Brachytherapy Society (ABS)
- 2015 –              American Society for Radiation Oncology (ASTRO)
- 2016 –              Association of Residents in Radiation Oncology (ARRO)

## **EXTRACURRICULAR ACTIVITIES**

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- 2004 – 2008        Club Rugby, Furman University
- 2004 – 2005        Rugby Division III National Champions
- 2005 – 2008        Member, Sigma Chi
- 2006 – 2008        Social Chairman, Sigma Chi
- 2007 – 2008        Rugby Division III National Finalists
- May – Oct 2010    STAMPS Health Center, Volunteer, Georgia Tech
- March 2011        Medical Mission Trip to Tela, Honduras, Christian Medical and Dental Association
- June 2011        Medical Mission Trip to Port-Au-Prince, Haiti, CMDA
- 2011 – 2015        Social Vice President, Medical College of Georgia Class of 2015
- June 2012        Medical Mission Trip to Port-Au-Prince, Haiti, CMDA
- June 2013        Medical Mission Trip to Port-Au-Prince, Haiti, CMDA

## **HOBBIES**

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Dogs, travel, biking, cooking (instant pot, sous vide), ethnic food, Crossfit.

## **REFERENCES**

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Available upon request.