

Dustin Begosh-Mayne

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Education

University Of Florida, Gainesville, Florida

- **M.D. Allopathic Medicine** - August 2012 - Present
- **GPA: 4.0**

University of South Florida, Tampa, Florida

- **B.S.ChE. Chemical Engineering** - August 2009 - May 2012
- **Minor: Biomedical Engineering**
- *Magna cum laude*
- **GPA: 3.85**

Awards and Scholarships

- Eugene B. Casey Medical Student Scholarship Fund (20120 - Present)
- Medical Student Research Program: Lawrence M Goodman Scholarship (Summer 2013)

Leadership

- Undergraduate Research and Independent Study Mentor (Fall 2014 – Present)
- Treasurer Radiation Oncology Interest Group (Fall & Spring 2014)

Honor Societies:

- Tau Sigma (2010)
- Phi Theta Kappa (2008)

Research Positions

- Research Assistant

Date: March 2012 - Present

UF Department of Radiation Oncology & Biomedical Engineering

Lab: Medical Image and Computational Analysis Laboratory

PI: Dr. Walter O'Dell PhD, Assistant Professor Dept. Radiation Oncology

Projects:

- **Early Detection of Lung and Brain Metastatic Cancer using computer-aided detection (CAD) systems:** Using a novel and patented 3D template matching approach CAD to detect early lung and brain metastatic cancer. Also validating this CAD by modifying Ambrosini's 17 synthetic tumor images to reflect a more realistic shape of metastatic cancer.
- **CT Quantification of Early and Late Effects of Radiation-Induced Lung Injury:** Quantification of early and late effects of radiation-induced lung injury using treatment planning CT image data sets, pre-treatment dose distribution calculations, and follow-up CT images at regular intervals as well as the Human Lung Dose Response program.

- **Pulmonary Vascular Pruning in Response to Radiation:** Quantification of lung vessel pruning due to radiation treatment for cancer using CT image data sets, dose distributions and follow-up CT images at regular intervals. .
 - **Mechanism of Radiation Induced Lung Injury:** Correlating vessel pruning due to radiation treatment with early and late effects of radiation-induced lung injury and proposal of mechanical and biochemical mediated mechanisms for lung injury.
- Research Assistant
Date: January 2010 - August 2010
USF Department of Chemical and Biomedical Engineering
PI: **Dr. Bethanabotla PhD, Chair of the Dept. of Chemical & Biomedical Engineering**
Project: **Luminescence Enhancement/Quenching by Metallic Nanoparticles:** Investigate the effects of brass nano-particles on the emission intensity of vicinal fluorophores due to the generation of surface plasmon resonance for the use in quantitative and laboratory fluorescent spectroscopy.

Presentations

- **University of Florida Topics in Cancer series:** “CT Quantification of Early and Late Effects of Radiation-Induced Lung Injury” Begosh-Mayne D., O'Dell W. University of Florida, Gainesville FL (Sept. 2013)
- **Engineering Senior Design Project:** "Development of Novel Atherectomy Device and Drug Eluting Stent" Begosh-Mayne, D., Craig, E., University of South Florida, Tampa FL (May 2011)

Poster Presentations

- **University of Florida BME Pruitt Research Day:** “Pulmonary vascular pruning in response to radiation” Wilhelm M., Begosh-Mayne D., O'Dell W., Gainesville, FL (Nov. 2014)
- **Radiation Research Society 60th Annual Meeting:** “Pulmonary vascular pruning in response to radiation” Wilhelm M., Begosh-Mayne D., O'Dell W., Las Vegas, NV (Sept. 2014)
- **UFCOM Medical Student Research Day:** “Retrospective analysis of lung radiation toxicity following SBRT” Begosh-Mayne D., O'Dell W., University of Florida, Gainesville FL (March 2014)

Work Experience

- **Basic Science and Engineering Tutor:**
Students of University of South Florida (September 2009 – August 2012)
Students of Florida Southwestern College (August 2008 – August 2009)
- **General Nutrition Center:**
Sales Associate (2004 – 2005 & 2006 – 2009)
Store Manager (2005 – 2006)