**Curriculum Vitae**

Adam C. Mueller, MD. Ph.D.

Assistant Professor, Radiation Oncology

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**Education:**

* B.S. 2002, Biological Sciences, University of Maryland Baltimore County, Cum Laude
* M.S. 2003, Applied Molecular Biology, University of Maryland Baltimore County, Cum Laude
* Ph.D. 2013, Biochemistry and Molecular Genetics, University of Virginia School of Medicine
  + PhD Advisor: Anindya Dutta. Dissertation entitled: Noncoding RNA mediated regulation of gene expression in disease and development
  + Joyce L. Hamlin Award for exceptional graduate student
* M.D. 2015, University of Virginia School of Medicine

**Internship/Residency:**

* 2015-2016 Internal Medicine, University of Colorado Denver
* 2016-2020 Radiation Oncology, University of Colorado Denver
  + Chief Resident (2019-2020)
  + Arnold P Gold Humanism Society Member (2018)
  + Postdoctoral research performed in laboratory of Sana Karam

**Employment:**

* 2020 Instructor, Department of Radiation Oncology, Sidney Kimmel Cancer Center, Thomas Jefferson University.
* 2022-2024: Assistant Professor, Department of Radiation Oncology, Sidney Kimmel Cancer Center, Thomas Jefferson University. Associate Physician Lead MRI Linac Program. Primary clinical foci: GI and GU malignancies. MRI guided SBRT. Member of Experimental Therapeutics Laboratory Group, Member Sidney Kimmel Cancer Center.
* 2024-Current: Assistant Professor, Department of Radiation Oncology, University of Pittsburgh, UPMC Hillman Cancer Center.

**Professional Certifications:**

* Medical License in PA 2020-current
* Medical License in NJ 2021-current
* Diplomate, American Board of Radiology. Board Certified in Radiation Oncology, 2021- current.

**Honors and Awards:**

* 1996 Alfred C. O’Connell Honors Scholarship
* 1999 HCC Academic Achievement Award
* 1999 Maryland Board of Regents Burgee Honors Scholarship
* 2001 UMBC Presidents Scholarship
* 2004 University of Virginia GSAS Presidential Fellowship
* 2014 Joyce Hamlin Award for Exceptional Graduate Student, UVA Department of Biochemistry and Molecular Genetics.
* 2018 Arnold P Gold Humanism Resident Award
* 2022 Certificate of Excellence for Resident Education, Thomas Jefferson Radiation Oncology Residency Program
* 2024 Hillman Early Career Fellow for Innovative Cancer Research

**Research Funding:**

Prior:

* 2008 Department of Defense Breast Cancer Research Program Pre-doctoral Traineeship: $90,000 funding over 3 years, “Investigating O-GlcNAC mis-regulation and aneuploidy in cancer”.
* 2018 Paul Sandoval Pancreatic Cancer Research Scholarship: $20,000 funding for 1 year, “Examining the role of Eph-Ephrin Signaling in mediating pancreatic cancer fibrosis”.
* 2019-2020 RSNA Resident Research Grant: $30,000 funding for 1 year, “Investigating crosstalk between ADAM10 and EphrinB2-EPHB4 in mediating radiation induced invasion and metastasis in pancreatic cancer”.
* 2019-2020 Cancer League of Colorado Research Grant: $30,000 funding for 1 year, “Investigating crosstalk between Eph-Ephrin signaling and ADAM10 in mediating radiation induced fibrosis in pancreatic cancer”.
* 2020-2021 Kim Foster Pilot Grant: $15,000 funding for 1 year, “Investigating ADAM10 regulation of Notch signaling, EMT and cytotoxic resistance in pancreatic cancer”.
* 2021-2023 RSNA Research Scholar Grant: $150,000 funding over 2 years, “Investigating ADAM10 mediated EMT and therapeutic resistance in PDAC”
* 2021-2022 ViewRay sponsored research grant: $70,000 “Enhancing the efficacy of PDAC directed SBRT by prevention of ADAM10 driven cytotoxic resistance and metastasis”
* 2021-2022 ViewRay sponsored research grant: $30,000 “The Role of Virtual Reality (VR) in Patient Experience When Used for MRgRT (Magnetic Resonance-Guided Radiation Therapy)”
* 2022-2026 NCI R01CA263506 MiR-152/PKM2/SLC7A5 axis in breast cancer development, chemo- and radiation-treatment. Co-Investigator, 5% effort
* 2023-2024 American Cancer Society Institutional Research Grant. “Examining the role of tumor-cell-driven stromal Notch signaling in orchestrating therapeutic resistance and immunosuppression in PDAC.” $40,000.
* Active:
* 2023-2027 ASTRO/American Cancer Society Clinician Scientist Development Grant CSDG-22-119-01-ET, “Investigating ADAM10 mediated radiation resistance and EMT through Notch.” $729,000

**Clinical Trials Institutional PI:**

* Viewray SMART Trial for locally advanced pancreatic cancer: Site PI Thomas Jefferson University
* NRG GU009: Site PI Thomas Jefferson University
* Galera Therapeutics GRECO-2: Site PI TJU
* Novartis AAA617C12301 PSMAddition: An International Perspective Open-label Randomized, Phase III Study comparing 177Lu-PSMA-617 in combination with Standard of Care, versus Standard of Care Alone, in Adult Male Patients with Metastatic Hormone Sensitive Prostate Cancer (mHSPC)
* Phase I Study of Hyperthermia Combined with High Dose Rate Salvage Radiotherapy for the Treatment of Radiation Recurrent Prostate Cancer(23897)

**Investigator Initiated Trial PI:**

* **Phase 2 Study of Extreme Hypofractionation Including Pelvic Nodes for High Risk Prostate Cancer**
* The Role of Virtual Reality (VR) in Patient Experience When Used for Magnetic Resonance-Guided Radiation Therapy (MRgRT)

**Leadership and Education roles:**

* 2009: UVA Medical School Student Next Generation Curriculum Retreat member
* 2016-2020: University of Colorado Housestaff Association Executive Committee
* 2019-2020: University of Colorado Department of Radiation Oncology Chief Resident
* 2020-Present: Thomas Jefferson GI Cancer multidisciplinary research group, Voting Member
* 2020-Present: Thomas Jefferson GU Cancer multidisciplinary research group, Member
* 2020-Present: Thomas Jefferson Pancreatic Cancer Multidisciplinary Group Member
* 2020-Present: Thomas Jefferson Molecular Oncology Regulation and Approaches research group, Sidney Kimmel Cancer Center, Member
* 2020-Present: Thomas Jefferson Radiation Oncology MRI Guided Radiation Therapy Clinical Operations Group.
* 2022-Present: TJU Radiation Oncology Residency Program Clinical Competency Committee
* 2022-Present: TJU JeffMD Clinical and Translational Research Scholarly Inquiry Program Mentor
* 2022-Present: Associate Physician Lead, Clinical Director, MRI Linac Program.
* 2022-Present: Director Small Animal Irradiator Shared Resource
* 2023: ASTRO Meeting Biology Track Committee Member
* 2023: TJU Surgical Oncology Chief Search Committee
* 2023- Present: TJU Radiation Oncology Radiobiology Course Director

**Memberships:**

* Member Arnold P Gold Humanism Society
* Phi Theta Kappa Honors Society
* Golden Key Honors Society
* Phi Kappa Phi honors societies
* American Medical Association
* American Physician Scientist Association
* Medical Society of Virginia
* American Board of Radiology
* American Society for Radiation Oncology
* Radiological Society of North America

**Journal Reviewer**

* Ad hoc reviewer: Oncogene, PLOSone, Cancer Biology and Therapy, JCO Clinical Cancer Informatics

**Publications:**

**1.** Mueller AC, Keaton MA, Dutta A.

[DNA replication: mammalian Treslin-TopBP1 interaction mirrors yeast Sld3-Dpb11.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/21855008) Curr Biol. 2011 Aug 23;21(16):R638-40. doi: 10.1016/j.cub.2011.07.004.

**2.** Mueller AC, Sun D, Dutta A.

[The miR-99 family regulates the DNA damage response through its target SNF2H.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/22525276)

Oncogene. 2013 Feb 28;32(9):1164-72. doi: 10.1038/onc.2012.131. Epub 2012 Apr 23.

**3.** Dey BK, Mueller AC, Dutta A.

[Non-micro-short RNAs: the new kids on the block.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/23239791)

Mol Biol Cell. 2012 Dec;23(24):4664-7. doi: 10.1091/mbc.E12-10-0716.

**4.** Abbas T, Mueller AC, Shibata E, Keaton M, Rossi M, Dutta A.

[CRL1-FBXO11 promotes Cdt2 ubiquitylation and degradation and regulates Pr-Set7/Set8-mediated cellular migration.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/23478445)

Mol Cell. 2013 Mar 28;49(6):1147-58. doi: 10.1016/j.molcel.2013.02.003. Epub 2013 Mar 7.

**5.** Sun D, Layer R, Mueller AC, Cichewicz MA, Negishi M, Paschal BM, Dutta A.

[Regulation of several androgen-induced genes through the repression of the miR-99a/let-7c/miR-125b-2 miRNA cluster in prostate cancer cells.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/23503464)

Oncogene. 2013 Mar 18. doi: 10.1038/onc.2013.77.

**6.** Zhang Y, Kim J, Mueller AC, Dey B, Yang Y, Lee DH, Hachmann J, Finderle S, Park DM, Christensen J, Schiff D, Purow B, Dutta A, Abounader R.

[Multiple receptor tyrosine kinases converge on microRNA-134 to control KRAS, STAT5B, and glioblastoma.](http://www.ncbi.nlm.nih.gov.proxy.its.virginia.edu/pubmed/24440911)

Cell Death Differ. 2014 Jan 17. doi: 10.1038/cdd.2013.196.

**7.** Mueller AC, Cichewicz MA, Dey BK, Layer R, Reon BJ, Gagan JR, Dutta A.

[MUNC, a long noncoding RNA that facilitates the function of MyoD in skeletal myogenesis.](https://www.ncbi.nlm.nih.gov/pubmed/25403490/)Mol Cell Biol. 2015 Feb;35(3):498-513. doi: 10.1128/MCB.01079-14. Epub 2014 Nov 17. PubMed PMID: 25403490; PubMed Central PMCID: PMC4285423.

**8.** Dey BK, Mueller AC, Dutta A

Long non-coding RNAs as emerging regulators of differentiation, development, and disease.

Transcription. 2014;5(4):e944014. doi: 10.4161/21541272.2014.944014. Epub 2014 Oct 30. Review. \*Co-first author.

**9.** Xu Z, Lee CC, Ramesh A, Mueller AC, Schelinger D, Cohen-Ingbar O, Shih HH, Sheehan JP.

BRAF V600E mutation and BRAF inhibitors in conjunction with stereotactic radiosurgery for intracranial melanoma metastases.

J Neurosurg. 2017 Mar;126(3):726-734. doi: 10.3171/2016.2.JNS1633. Epub 2016 May 20.

**10.** Gupta A, Stokes W, Eguchi M, Hararah M, Amini A, Mueller A, Morgan R, Bradley C, Raben D, McDermott J, Karam S.

[Statin use associated with improved overall and cancer specific survival in patients with head and neck cancer](https://www.sciencedirect.com/science/article/pii/S1368837519300302). Oral Oncology 90, 54-66

**11.** Oweida AJ, Darragh L, Phan A, Binder D, Bhatia S, Mueller A, Court BV, Milner D, Raben D, Woessner R, Heasley L, Nemenoff R, Clambey E, Karam SD.

STAT3 Modulation of Regulatory T Cells in Response to Radiation Therapy in Head and Neck Cancer. J Natl Cancer Inst. 2019 Dec 1;111(12):1339-1349. doi: 10.1093/jnci/djz036. PubMed PMID: 30863843; PubMed Central PMCID: PMC6910208.

**12.** Bhatia S, Oweida A, Lennon S, Darragh LB, Milner D, Phan AV, Mueller AC, Van Court B, Raben D, Serkova NJ, Wang XJ, Jimeno A, Clambey ET, Pasquale EB, Karam SD.

[Inhibition of EphB4-ephrin-B2 signaling reprograms the tumor immune microenvironment in head and neck cancers.](https://www.ncbi.nlm.nih.gov/pubmed/30894369/)Cancer Res. 2019 Mar 20;. doi: 10.1158/0008-5472.CAN-18-3257. [Epub ahead of print] PubMed PMID: 30894369; NIHMSID:NIHMS1525135.

**13.** Lennon S, Oweida A, Milner D, Phan AV, Bhatia S, Van Court B, Darragh L, Mueller AC, Raben D, Martínez-Torrecuadrada JL, Pitts TM, Somerset H, Jordan KR, Hansen KC, Williams J, Messersmith WA, Schulick RD, Owens P, Goodman KA, Karam SD.

[Pancreatic Tumor Microenvironment Modulation by EphB4-ephrinB2 Inhibition and Radiation Combination.](https://www.ncbi.nlm.nih.gov/pubmed/30944125/)Clin Cancer Res. 2019 Apr 3;. doi: 10.1158/1078-0432.CCR-18-2811. [Epub ahead of print] PubMed PMID: 30944125; NIHMSID:NIHMS1522505.

**14.** Morgan RL, Eguchi MM, Mueller AC, Daugherty SL, Amini A, Karam SD.

[Imaging at diagnosis impacts cancer-specific survival among patients with cancer of the oropharynx.](https://www.ncbi.nlm.nih.gov/pubmed/31042320/)Cancer. 2019 May 1;. doi: 10.1002/cncr.32148. [Epub ahead of print] PubMed PMID: 31042320.

**15.** Mueller AC, Karam SD.

SBRT for Early Stage Larynx: A Go or No Go? It's All in the Delivery. Int J Radiat Oncol Biol Phys. 2019 Sep 1;105(1):119-120. doi: 10.1016/j.ijrobp.2019.05.011. PubMed PMID: 31422804.

**16.** Piper M, Mueller AC, Karam SD. The interplay between cancer associated fibroblasts and immune cells in the context of radiation therapy. Mol Carcinog. 2020 May 4;. doi: 10.1002/mc.23205. [Epub ahead of print] PubMed PMID: 32363633.

**17.** Bhatia S, Bukkapatnam S, Van Court B, Phan AV, Oweida AJ, Gadwa J, Mueller AC, Piper M, Darragh L, Nguyen D, Gilani A, Knitz M, Bickett T, Green A, Venkataraman S, Vibhakar R, Cittelly D, Karam, SD.

The effects of ephrinB2 signaling on proliferation and invasion in Glioblastoma Multiforme. Mol Carcinog. 2020 Sep;59(9):1064-1075. doi: 10.1002/mc.23237. Epub 2020 Jun 22.

**18.** Oweida AJ, Mueller AC, Milner D, Bhatia S, Darragh L, Van Court B, Raben D, MD; Proia T, Del Chiaro M, Messersmith WA, Schulick R, Clambey E, Gough M, Williams J, Hansen K, Goodman K, Karam SD.

**Response to radiotherapy in pancreatic ductal adenocarcinoma is enhanced by inhibition of myeloid derived suppressor cells using STAT3 anti-sense oligonucleotide. Cancer Immunol Immunother. 2020 Oct 23. doi: 10.1007/s00262-020-02701-w.**

**19.** Morgan R, Eguchi M, McDermott J, Mueller AC, Amini A, Goddard J, Karam SD. Comparative effectiveness of post-treatment imaging modalities for Medicare patients with advanced head and neck cancer. Cancer, accepted. Cancer. 2020 Oct 29. doi: 10.1002/cncr.33244.

**20.** Zakem SJ, Mueller AC, Meguid C, Torphy RJ, Holt DE, Schefter T, Messersmith WA, McCarter MD, Del Chiaro M, Schulick RD, Goodman KA. Impact of neoadjuvant chemotherapy and stereotactic body radiation therapy (SBRT) on R0 resection rate for borderline resectable and locally advanced pancreatic cancer. HPB (Oxford). 2020 Dec 1;. doi: 10.1016/j.hpb.2020.11.004. [Epub ahead of print] PubMed PMID: 33277184.

**21.** Mueller AC, Piper M, Goodspeed A, Bhuvane S, Williams J, Phan A, Van Court B, Zolman K, Pena B, Oweida A, Bhatia S, Zakem S, Meguid C, Knitz M, Darragh L, Bickett T, Gadwa J, Mestroni L, Taylor MRG, Jordan KR, Dempsey P, McCarter M, Del Chiaro M, Messersmith W, Schulick RD, Goodman KA, Gough MJ, Lagares D, Hansen K, Van Bokhoven A, Karam SD. Radiation induced fibrosis through ADAM10-ephrinB2 drives fibrosis, resistance and EMT in pancreatic cancer. Cancer Res. 2021 Feb 1;canres.CAN-20-3892-A.2020. doi: 10.1158/0008-5472.CAN-20-3892.

**22.** Knitz MW, Bickett TE, Darragh LB, Oweida AJ, Bhatia S, Van Court B, Bhuvane S, Piper M, Gadwa J, Mueller AC, Nguyen D, Nangia V, Osborne DG, Bai X, Ferrara SE, Boss MK, Goodspeed A, Burchill MA, Tamburini BAJ, Chan ED, Pickering CR, Clambey ET, Karam SD. Targeting resistance to radiation-immunotherapy in cold HNSCCs by modulating the Treg-dendritic cell axis. J Immunother Cancer. 2021 Apr;9(4):e001955. doi: 10.1136/jitc-2020-001955.

PMID: 33883256

**23.** Pessoa RR, Mueller AC, Boxley P, Flaig T, Piper C, Konety B, Yu J, Gershman B, Kukreja J, Kim S. Systematic review and meta-analysis of radiation therapy for high-risk non-muscle invasive bladder cancer. Urol Oncol. 2021 Apr 10;S1078-1439(21)00118-6. doi: 10.1016/j.urolonc.2021.03.009. Online ahead of print.

**24.** Piper M, Van Court B, Mueller AC, Watanabe S, Bickett T, Bhatia S, Darragh L, Mayeda M, Nguyen D, Gadwa J, Knitz M, Corbo S, Morgain R, Lee JJ, Dent A, Goodman K, Messersmith W, Schulick R, Del Chiaro M, Zhu Y, Kedl RM, Lenz L, Karam SD. Targeting Treg-expressed STAT3 enhances NK-mediated surveillance of metastasis and improves therapeutic response in pancreatic adenocarcinoma. Clin Cancer Res. 2022 Mar 1;28(5):1013-1026. doi: 10.1158/1078-0432.CCR-21-2767.PMID: 34862244

**25.** Bashir B, Mueller AC. Pancreatic Adenocarcinoma: An Evolving Yet Unimpressive Treatment Landscape. JCO Oncol Pract. 2022 Oct 7;OP2200620. doi: 10.1200/OP.22.00620. Online ahead of print.

**26**. Hughes R, Snook A, Mueller AC. The impact of RT on the poorly immunogenic TME of pancreatic cancer. Immunotherapy. 2022 Dec;14(17):1393-1405. doi: 10.2217/imt-2022-0046. Epub 2022 Dec 5.

PMID: 36468417

**27.** Moskalenko M, Jones B, Mueller AC, Salins SL, Shiao J, Zakem S, Robin TP, Goodman KA. Fiducial Markers Allow for Accurate and Reproducible Delivery of Liver Stereotactic Body Radiation Therapy (SBRT). Curr Oncol. 2023 May 16;30(5):5054-5061. doi: 10.3390/curroncol30050382.

**28.** Parikh JP, Lee P, Low DA, Kim J, Mittauer KE, Bassetti MF, Glide-Hurst CK, Raldow AC, Yang Y, Portelance L, Padgett KR, Zaki B, Zhang R, Kim H, Henke LE, Price AT, Mancias JD, Williams CL, Ng J, Pennell R, Pfeffer MR, Levin D, Mueller AC, Mooney KE, Kelly P, Shah AP, Boldrini L, Placidi L, Fuss M, Chuong MD. Multi-Institutional Phase 2 Trial of Ablative 5-Fraction Stereotactic MR-Guided On- Table Adaptive Radiation Therapy (SMART) for Inoperable Pancreatic Cancer. Int J Radiat Oncol Biol Phys. 2023 May 18;S0360-3016(23)00499-6. doi: 10.1016/j.ijrobp.2023.05.023.

**29.** Schiao JC, Gao D, Mueller A, Holt DE, Moskalenko M, Zaccone J, Waxweiler TV, Robin TP, Nath SK. Pilot Curriculum for Continued Professional Development of Radiation Oncology Nurses. Advances in Radiation Oncology. 2023 September 4, 101372. doi: 10.1016/j.adro.2023.101372

**30.** Chuong MD, Lee P, Low DA, Kim J, Mittauer KE, Bassetti MF, Glide-Hurst CK, Raldow AC, Yang Y, Portelance L, Padgett KR, Zaki B, Zhang R, Kim H, Henke LE, Price AT, Mancias JD, Williams CL, Ng J, Pennell R, Raphael Pfeffer M, Levin D, Mueller AC, Mooney KE, Kelly P, Shah AP, Boldrini L, Placidi L, Fuss M, Jitendra Parikh P. Stereotactic MR-guided on-table adaptive radiation therapy (SMART) for borderline resectable and locally advanced pancreatic cancer: A multi-center, open-label phase 2 study. Radiother Oncol. 2024 Feb;191:110064. doi: 10.1016/j.radonc.2023.110064. Epub 2023 Dec 20. PubMed PMID: 38135187.

**31.** Poiset SJ, Shah S, Cappelli L, Anné P, Mooney KE, Werner-Wasik M, Laufer TS, Posey JA, Lin D, Basu Mallick A, Lavu H, Bashir B, Yeo CJ, Mueller AC. Early outcomes of MR-guided SBRT for patients with recurrent pancreatic adenocarcinoma. Radiat Oncol. 2024 May 29;19(1):65. doi: 10.1186/s13014-024-02457-y. PubMed PMID: 38812040; PubMed Central PMCID: PMC11138072.

**32.** Holt DE, Carr AL, Roberts S, Milgrom SA, Kolva E, Kavanagh BD, Switzer GE, Eitel C, Nelson J, Miller B, Shiao J, Mueller AC, Karam S, Clapp T. 3D Virtual Reality Volumetric Imaging Review Significantly Improves Cancer Patient Understanding and Education. Under Review.

**Book Chapters:**

1. Mueller AC, Stokes WA, Thornton D, Schefter T. Non-Colorectal Liver Metastases. Practical Guides in Radiation Oncology: Gastrointestinal Malignancies, A Practical Guide on Treatment Techniques. Russo, Hoffe, Kim. Springer 2018. Chapter 6, p145-170.
2. Mueller AC, Pugh TJ. Proton Therapy for Prostate Cancer. Practical Guides in Radiation Oncology: Genitourinary Malignancies, A Practical Guide on Treatment Techniques. Solanki, Chen. Springer, 2020, p169-187.
3. Ocuin LM, Winter JM, Brody JR, Posey JA, Mueller AC, Yeo CJ. Cancer Principles and Practice of Oncology, 12th edition. 2022. Chapter 55. Cancer of the Pancreas.

**Invited Talks:**

* The use of MRgRT in the treatment of Pancreatic Cancer. University of Colorado Radiation Oncology Residency Program. 5/7/21
* The role of RT in Pancreatic Cancer. Thomas Jefferson University Pancreas and Related Cancers Symposium, 6/11/21
* Advances in RT in treating Pancreatic Cancer. 17th Annual Pancreatic Cancer and Related Diseases Patient Symposium. Thomas Jefferson University. 11/12/21
* Recent advances in Prostate Radiation Therapy. Thomas Jefferson University Urology Grand Rounds, 12/2/21
* Use of MRgRT to increase efficacy and reduce toxicity of RT. TJU Nursing Retreat May 16, 2023.
* Updates in use of RT in pancreatic cancer. TJU Pancreas Cancer and Related Malignancies CME course. June 29, 2023.

**Selected presentations:**

* miRNAs in Breast Cancer: Regulation by the DNA damage response and p53 status. University of Virginia, MSTP retreat, August 1, 2009
* The miR99 family of microRNAs regulates the DNA damage response. CDMRP Era of Hope conference. Orlando, FL. August 4, 2011
* MUNC: A Myogenic lncRNA. University of Virginia, MSTP Retreat, August 14, 2012
* MUNC: A long non-coding RNA required for muscle differentiation. University of Virginia, GBS4 Seminar Series. February 7, 2013
* MUNC: A long non-coding RNA required for muscle differentiation. University of Virginia, BMG Symposium, Hamlin Award Research Presentation. May 5, 2014
* ADAM10 cleavage of EphrinB2 mediates RT induced fibrosis in PDAC. Oral presentation. ASTRO, 2019.
* Targeting the ADAM10-EphrinB2 pathway inhibits radiation induced tumor fibrosis and metastasis in pancreatic cancer. University of Colorado Anschutz Medical Campus Pathology Grand Rounds. March 20, 2020.
* Targeting the ADAM10-Ephrin-B2 pathway inhibits radiation induced tumor fibrosis, EMT and therapeutic resistance in pancreatic cancer. Thomas Jefferson Sidney Kimmel Cancer Center joint seminar series. October 5, 2020.
* Targeting the ADAM10-Ephrin-B2 pathway inhibits radiation induced tumor fibrosis and metastasis in pancreatic cancer. MORA Seminar Series March 25, 2021
* TME mediated mechanisms of resistance to RT in PDAC. TJU Pancreatic Cancer Research Group Meeting September 29, 2022.

**Selected abstracts:**

* miR99a, a microRNA that is repressed during prostate cancer progression, regulates Cdc25a expression and can modulate the cellular response to DNA damage. UVA MSTP Retreat August 6, 2010
* miR99a, a microRNA that is repressed during prostate cancer progression, can modulate the cellular response to DNA damage by regulating Cdc25a synthesis. Cold Spring Harbor Meeting on Mechanisms and Models of Cancer. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY. August 19, 2010
* miR99a, a microRNA that is repressed during prostate cancer progression, can modulate the cellular response to DNA damage by regulating Cdc25a synthesis. Keystone Symposia on Genomic Instability and DNA Repair. Keystone Resort, Keystone Colorado. February 2, 2011
* Downregulation of Mir-99a during progression of prostate cancer decreases checkpoint activity and makes the cancer cells resistant to DNA damage. UVA GBS Symposium. April 18, 2011 Poster Award First Place Winner
* The miR99 family of microRNAs regulates the DNA damage response. CDMRP Era of Hope conference. Orlando, FL. August 4, 2011
* Downregulation of Mir-99a during progression of prostate cancer decreases checkpoint activity and makes the cancer cells resistant to DNA damage. UVA GBS Faculty Poster Session. September 25, 2012. The role of long non-coding RNAs in skeletal muscle development
* MUNC: a Myogenic lncRNA. UVA BMG retreat, October 2012
* MUNC, a long non-coding RNA upregulated during myogenesis, is essential for skeletal muscle regeneration, altering MyoD binding to its target sites. UVA GBS Symposium, April 19, 2013
* ASTRO 2022 Parag Parikh, Percy Lee, Daniel Low, Joshua Kim, Kathryn Mittauer, Michael Bassetti, physicist TBD, Ann Raldow, Yingli Yang, Lorraine Portelance, Bassem Zaki, Hyun Kim, Joseph Mancias, John Ng, Raphael Pfeffer, Adam Mueller, Patrick Kelly, Luca Boldrini, Martin Fuss, Michael Chuong Stereotactic MR-guided on-table Adaptive Radiation Therapy (SMART) for Patients with Borderline or Locally Advanced Pancreatic Cancer: Primary Endpoint Outcomes of a Prospective Phase II Multi-Center International Trial
* AAPM 2023: K. Mooney, C. Ainsley, V. Desai, A. Kubli, H. Nourzadeh, M. Greenberg, J. DiNome, M. Werner-Wasik, A. Mueller "Treatment Planning System-Dependent Margins for MR-guided Prostate Radiotherapy"
* AAPM 2023: W. Choi, H. Nourzadeh, Y. Chen, C. Ainsley, A Kubli, Y. Vinogradskiy, K. Mooney, M. Werner-Wasik, A. Mueller "Deep Learning Segmentation for Accurate GTV and OAR Segmentation in MR-guided Adaptive Radiotherapy for Pancreatic Cancer Patients"
* AAPM 2023: C. Ainsley, V. Desai, A. Kubli, H. Nourzadeh, A. Mueller, R. Anne, K. Mooney "Improving Efficiency of on-Table Plan Re-Optimization in MR-Guided Radiotherapy for Pancreatic Cancer"
* ASTRO 2023: W. Choi, H. Nourzadeh, Y. Chen, C. Ainsley, A. Kubli, Y. Vinogradskiy, K. Mooney, M. Werner-Wasik, A. Mueller "Novel Deep Learning Segmentation Models for Accurate GTV and OAR Segmentation in MR-guided Adaptive Radiotherapy for Pancreatic Cancer Patients"
* ASTRO 2023: S. Wan, C. Anderko, Y Vinogradskiy, F. Mourtada, C. Boyle, E. Gingold, J. Berg, A. Free, G. Nguyen, E. Comber, T. DeJesse, T. Mullane, J. Riggs, V. Desai, M.J. Greenberg, A. Mueller, K. Kelly, M. Parekh, A.P. Dicker, J. DiNome. Initial Experience with Establishing a Multidisciplinary Lutetium-177-PSMA Radiopharmaceutical Therapy Program"
* ASTRO 2023: S Poiset, T Laufer, P Anne, K Mooney, M Werner-Wasik, J Posey, B Bashir, D Lin, A Basu-Mallick, H Lavu, C Yeo, A Mueller. Early Outcomes of MR-Guided SBRT for patients with recurrent pancreatic adenocarcinoma.
* ASTRO 2023: R Hughes, V Gandhi, A Snook, S Waldman, A Mueller. Gamma secretase inhibition sensitizes pancreatic adenocarcinoma tumors to RT in vivo.

**Resident Education Lectures:**

* The Role of Radiation in DCIS
* The Use of SBRT for Localized Prostate Cancer
* Management of Optic pathway Gliomas
* Management of Intracranial Germ Cell Tumors and Retinoblastoma
* Management of Stage III Lung Cancer
* Management of Hodgkin Lymphoma
* SBRT for early stage Glottic Larynx Cancer
* Ommission of RT after breast conserving therapy
* Duration of ADT for High Risk Prostate Cancer
* Use of dose escalated MRgRT in Pancreatic Cancer
* Use of EBRT in the management of primary liver malignancies
* Radiobiology: Oxygen Effect
* Radiobiology: Radioprotectors, sensitizers, chemo
* Radiobiology: Total Body Effects and Radiation Carcinogenesis

**Advisory Roles:**

* 2019-Current. Medical Advisor, Microverse Medical and Scientific Animation, Navarre FL

**Mentored trainees:**

* 2019-2020 Miles Piper, Research Associate in Karam Lab, co-mentored with Dr. Karam
* 2019-2020 Shiv Bhuvane, Research Associate in Karam Lab, co-mentored with Dr. Karam
* 2020-2023 Joseph Lombardo, Resident, Radiation Oncology, Thomas Jefferson University
* 2021- Robert Hughes, Research Associate, Thomas Jefferson University
* 2021- Talya Laufer, Resident, Radiation Oncology, Thomas Jefferson University
* 2021- Spencer Poiset, Resident, Radiation Oncology, Thomas Jefferson University
* 2022- Vishwa Gandhi, Postdoctoral Fellow, Thomas Jefferson University

**Laboratory Research Experience:**

* US Army Edgewood Research, Technology and Development Center, Aberdeen Proving Grounds, 1998-2000: Studied isolation of bacterially produced enzymes to break down organophosphate chemical warfare agents.
* UMBC Applied Molecular Biology laboratory, 2002-2003: Worked in collaboration with Ostrand-Rosenberg lab to force cell surface expression of MHCII antigen presenting proteins on cancer cell lines.
* University of Virginia, Weber Lab, 2004: Studied MAP kinase signaling in ovarian cancer cell lines.
* University of Virginia, Hussaini Lab, 2005: Studied PTEN involvement in transformation of astrocytic cell lines to a malignant phenotype.
* University of Virginia, Dutta Lab, 2005-2013: Studied non-coding RNA mediated regulation of cellular processes in a variety of contexts, including the DNA damage response in breast and prostate cancer, as well as skeletal muscle differentiation. Also pursued projects in cancer cell cycle regulation and protein ubiquitination.
* University of Colorado, Karam Lab. 2018-2020 Studied EphrinB2-EPHB4-ADAM10 mediated fibrosis in pancreatic cancer.
* PI Member, Experimental Therapeutics Group with Scott Waldman, Adam Snook Labs. 2020-current. Thomas Jefferson University. Investigating mechanisms of PDAC resistance to radiation therapy through TME mediated signaling pathways.