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Department of Radiation Oncology
University of Michigan
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Education and Training

9/03-5/07 The Johns Hopkins University, Baltimore, MD
B.A. in Biomedical Engineering

8/07-5/12 Perelman School of Medicine, University of Pennsylvania, Philadelphia,
PA
M.D.

6/12-6/13 Mercy Medical Center, Baltimore, MD
Preliminary Internal Medicine Resident Physician

7/13-6/17 University of Michigan, Ann Arbor, MI
Radiation Oncology Resident Physician

5/15-8/16 University of Michigan, Ann Arbor, MI
M.S. in Health and Healthcare Research

Certification and Licensure

5/13-6/16 M.I. Medical Doctor-Educational Limited #4301103091

5/2013-6/16 M.I. Controlled Substance - 1 #5315060438

4/16-1/20 M.I. Medical Doctor #4301103091

4/16-1/20 M.I. Controlled Substance - 3 #5315075335

7/16 American Board of Radiology Radiation Oncology Physics and Biology
Combined Examination

7/17 American Board of Radiology Radiation Oncology Written Clinical
Examination

Academic, Administrative, and Clinical Appointments

4/16-3/17 University of Michigan Department of Radiation
Oncology: Chief Resident

7/17-8-17 University of Michigan: Visiting Assistant Professor of
Radiation Oncology

9/17-Present University of Michigan: Assistant Professor,
Instructional Track, Department of Radiation Oncology

9/17-Present Veterans Affairs Ann Arbor Healthcare System:
Affiliate Investigator, Center for Clinical Management
Research, Health Services Research and Development
Center of Innovation
9/17-Present Veterans Affairs Ann Arbor Healthcare System: Staff
Physician, Radiation Oncology

Research Interests

- 1) **Health Equity:** Research focuses on the understanding and optimizing utilization of cancer technologies in underserved populations, including screening, staging, treatment and surveillance modalities. Areas of specific interest include optimization of cancer screening guidelines for racial/ethnic minorities and improvement of cancer treatment for United States veteran populations. Research also focuses on diversification of the physician workforce as a means of reducing health disparities. Particular attention is given toward evaluating representation of various demographic groups across medical specialties throughout the medical pipeline (population, medical school, graduate medical education, practicing physicians, academic faculty) and elucidating reasons for underrepresentation of various groups with the ultimate goal of eliminating barriers to diversification.
- 2) **Advancing technical aspects of radiotherapy delivery:** Research focuses on using advances in imaging modalities and treatment planning software to increase tumor control and decrease treatment toxicity. Specific interests include the use of MRI to improve delineation cancer treatment volumes and normal tissues at risk for toxicity. Research includes the evaluation of deformable image registration algorithms to increase the efficiency of radiation treatment planning.

Grants

Previous Grants

7/10-6/11
5T32CA009677-19
National Cancer Institute (Ann Kennedy, PI)
Radiation Biology Training Grant
Role: Trainee
Total Grant Funding Amount: \$431,681

Present and Active

3/18-2/20
U01CA199218-02
National Cancer Institute (Jeanne Mandelblatt, PI)
Comparative Modeling: Informing Breast Cancer Control Practice and Policy
Research Supplements to Promote Diversity in Health-Related Research (Admin Supp)
Modeling the Mortality Benefit of Screening Mammography in Black Women
Role: Supplement Awardee

Total Grant Funding Amount: \$231,108

Honors and Awards

- 2007 The Martin Luther King Jr. Courage and Service Award, The Johns Hopkins University
- 2007 Dean of Student Life Achievement Award, The Johns Hopkins University
- 2010 Best Presentation in Biology, University of Pennsylvania Radiation Oncology Departmental Research Retreat
- 2011 Best Presentation, University of Pennsylvania Radiation Oncology Departmental Research Retreat
- 2011 American Association for Cancer Research Minority Scholar in Cancer Research Award
- 2011 American Society of Clinical Oncology Medical Student Rotation Award
- 2012 Helen O. Dickens Prize, University of Pennsylvania Perelman School of Medicine
- 2015 American Brachytherapy Society Resident Travel Award, American Brachytherapy Society
- 2016 Eleanor Montague Distinguished Resident Award in Radiation Oncology, American Society for Women Radiologists

Membership in Professional Societies

- 2007-2012 The American College of Physicians (ACP)
- 2007-2012 Student National Medical Association (SNMA)
- 2011-2012 Radiation Research Society (RRS)
- 2011-2012 American Association for Cancer Research (AACR)
- 2012- National Medical Association (NMA)
- 2012- American Society for Clinical Oncology (ASCO)
- 2013- American Society for Radiation Oncology (ASTRO)
- 2014-2017 American Brachytherapy Society (ABS)
- 2014- Radiological Society of North America (RSNA)
- 2015- American Association for Women Radiologists (AAWR)
- 2016-2017 Society of Gynecologic Oncology (SGO)

Editorial Positions, Boards, and Peer-Review Service

Editorial Positions

2017-Present Associate Editor: *Advances in Radiation Oncology*

Peer Review Service:

- 2016 *International Journal of Radiation Oncology, Biology, and Physics*: ad hoc peer reviewer
- 2017 *Breast Cancer Research and Treatment*: ad hoc peer reviewer
- 2017 *Cancer Epidemiology*: ad hoc peer reviewer
- 2017-2018 *PLOS ONE*: ad hoc peer reviewer

2017 *Jama Oncology*: ad hoc peer reviewer
2018 *Advances in Radiation Oncology*: ad hoc peer reviewer

Teaching

1/04-5/06 Classroom Assistant, The Village Learning Place, Baltimore, MD
6/04-8/04 Summer School Teacher, The Johns Hopkins Center for Summer Learning, Teach Baltimore Kindergarten Camp, Baltimore, MD
6/05-8/05 Summer School Teacher, The Johns Hopkins Center for Summer Learning, Teach Baltimore Kindergarten Camp, Baltimore, MD
6/06-5/07 GED Tutor, Historic East Baltimore Community Action Coalition, Baltimore, MD
1/08-12/08 Medical Student Instructor, The Cardiology Pipeline Program, Perelman School of Medicine, University of Pennsylvania and Sayre High School
8/11-10/11 Teaching Assistant, Cell and Tissue Biology Lab for First Year Medical Students, Perelman School of Medicine, University of Pennsylvania
12/14-12/15 University of Michigan Health System, Office of Health Equity and Inclusion, Health Equity Journal Clubs, organized, led, and facilitated quarterly journal clubs for medical students, house staff, and faculty throughout the health system
7/15-12/16 Gerard Heath, B.S., Second Year University of Michigan Medical Student, Sexual Dysfunction in Patients with Gynecologic Malignancies
7/15 University of Michigan Department of Radiation Oncology, Treatment Planning Conference Lecture: Commissioning of a Custom Lead Fetal Shield for Radiotherapy
9/15-4/16 University of Michigan School of Dentistry, Radiation Oncology Lectures for Third Year Dental Students, quarterly one hour lectures
11/15 University of Michigan Medical School Sujal Symposium, Ann Arbor, MI: Invited Moderator, Achieving Health Equity Through Healthcare Reform with speaker John Ayanian, M.D., M.P.P.
8/16 University of Michigan Department of Radiation Oncology, Lecture: Engineering the Way to Equity: Addressing Health Disparities in the Technological Age.
4/16-3/17 Chief Resident, Medical Student Education, Department of Radiation Oncology, University of Michigan
3/17 University of Michigan Undergraduate Women's Reproductive Health Course: one hour lecture on women in medicine
9/17- University of Michigan Radiation Oncology Residency: Supervision of radiation oncology residents on clinical rotations (10-15hrs per week in one-on-one apprenticeship style teaching of residents)
9/17- University of Michigan Radiation Oncology Journal Club: participate in monthly journal club and lead one session per year

Committee, Organizational, and Volunteer Service

Institutional

2005-2006 Admissions Interviewer, The Johns Hopkins University
2006-2007 Dean's Advisory Committee, The Johns Hopkins University
2006-2007 President, The Black Student Union, The Johns Hopkins University
2006-2007 Senior Leadership Consultant, The Johns Hopkins University

2007-2008 Recruitment Chair, Student National Medical Association
 2008-2012 Medical Student Diversity Committee, Perelman School of Medicine, University of Pennsylvania
 2010-2011 Graduate Associate (Residential Advisor), W. E. B. Du Bois College House of the University of Pennsylvania, Philadelphia, P.A.
 2011-2012 Medical Student Government Class Representative, Perelman School of Medicine, University of Pennsylvania, 2011-2012
 2011-2012 Radiation Oncology Interest Group Leader, Perelman School of Medicine, University of Pennsylvania
 2013-2016 University of Michigan Health System House Officer Diversity Network and Health Equity Journal Club, Founder
 2015-2016 University of Michigan Diversity Strategic Planning Committee
 2017- University of Michigan Office of Health Equity and Inclusion Faculty Inclusion Network

Regional

2008 Regional Academic Affairs Chair, Region VIII, The Student National Medical Association

National

2016- National Medical Association, Vice Chair for Membership, Post Graduate Section

Volunteer Service (Community and Humanitarian)

2005 President, Cheerleading, The Johns Hopkins University: served as president of undergraduate cheerleading team with coaching and administrative responsibilities
 2008-2012 Pre-Health Mentor, Perelman School of Medicine, University of Pennsylvania: mentored undergraduate pre-medical students
 2008-2016 Sigma Gamma Rho Sorority, Incorporated: Member of a community service based sorority participating in various community service functions in Southern Maryland, Philadelphia, and Detroit

Visiting Professorships, Seminars, and Extramural Invited Presentations

Invited Presentations

12/15 University of Michigan Comprehensive Cancer Center Get Healthy Together Community Outreach Event, Washtenaw Community College, Ann Arbor, MI: Invited Speaker, Breast Cancer Screening Issues.
 8/17 National Medical Association, Radiation Oncology Symposium, Philadelphia, PA: Invited Speaker, Discoveries and Disparities in Endometrial and Cervical Cancer Treatment.
 10/17 National Cancer Institute (NCI) Cancer Intervention and Surveillance Modeling Network (CISNET) Annual Meeting, NCI, Rockville, MD, Invited Speaker, Optimizing Mammography Guidelines for African American Women.

Bibliography

Peer-Reviewed Journals and Publications

- 1) Alonso-Basanta M, **Chapman C**, Dorsey JF, Rengan R, Hahn S. A glimpse of the future: where will new combinations of diagnostics and therapies take us? *Cancer J*. 2011 May-Jun;17(3):190-4. PMID: 21610473 Review
- 2) **Chapman CH**, Hwang WT, Deville C. Diversity Based on Race, Ethnicity, and Sex, of the US Radiation Oncology Physician Workforce. *Int J Radiat Oncol Biol Phys*. 2013 Mar 15;85(4):912-8. PMID 23122983
- 3) Baumann BC, Kao GD, Mahmud A, Harada T, Swift J, **Chapman C**, Xu X, Discher DE, Dorsey JF. Enhancing the Efficacy of Drug-loaded Nanocarriers against Brain Tumors by Targeted Radiation Therapy. *Oncotarget*. 2012 Dec 23. PMID: 23296073
- 4) **Chapman CH**, Hwang WT, Both S, Thomas CR Jr, Deville C. Current status of diversity by race, Hispanic ethnicity, and sex in diagnostic radiology. *Radiology*. 2014 Jan;270(1):232-40. PMID: 23901125
- 5) Macarthur KM, Kao GD, Chandrasekaran S, Alonso-Basanta M, **Chapman C**, Lustig RA, Wileyto PE, Hahn SM, Dorsey JF. Detection of Brain Tumor Cells in the Peripheral Blood by a Telomerase Promoter-Based Assay. *Cancer Res*. 2014 Apr 15;74(8):2152-9. PMID:24525740
- 6) Deville C, **Chapman CH**, Burgos R, Hwang WT, Both S, Thomas CR Jr. Diversity by race, Hispanic ethnicity, and sex of the United States medical oncology physician workforce over the past quarter century. *J Oncol Pract*. 2014 Sep;10(5):e328-34. PMID: 25052501
- 7) Deville C, **Chapman CH**. Response. *Radiology*. 2014 Jul;272(1):302. PMID: 25093218 Letter
- 8) Deville C, Hwang WT, Burgos R, **Chapman CH**, Both S, Thomas CR Jr. Diversity in Graduate Medical Education in the United States by Race, Ethnicity, and Sex, 2012. *JAMA Intern Med*. 2015 Aug 24. PMID 26301524
- 9) **Chapman CH**, Jagsi R. Postmastectomy Radiotherapy After Neoadjuvant Chemotherapy: A Review of the Evidence. *Oncology (Williston Park)*. 2015 Sep;29(9):657-66. PMID: 26384802 Review
- 10) **Chapman CH**, Prisciandaro JP, Maturen KE, Cao Y, Balter JM, McLean K, Jolly S. MRI-Based Evaluation of the Vaginal Cuff in Brachytherapy Planning: Are We Missing the Target? *Int J Radiat Oncol Biol Phys*. 2016 Jan;95(2):743-50. PMID: 27020110
- 11) **Chapman CH**, Jolly S. In Reply to Roviroso and Herreros. *Int J Radiat Oncol Biol Phys*. 2016 July;95(4):1318. PMID: 27354139 Letter
- 12) Higgins M, Hwang W, Richards C, **Chapman CH**, Laporte A, Both S, Thomas, Jr. CR, Deville, C. Underrepresentation of Women and Minorities in the United States Vascular and Interventional Radiology Academic Physician Workforce. *J Vasc Interv Radiol*. 2016 Dec;27(12):1837-1844. PMID: 27569677
- 13) Ajayi A, Hwang W-T, Vapiwala N, Rosen M, **Chapman CH**, Both S, Shah M, Wang Xingmei, Agawu A, Gabriel P, Christodouleas J, Tochner Z, Deville D. Disparities in staging prostate magnetic resonance imaging utilization for nonmetastatic prostate cancer patients undergoing definitive radiation therapy. *Advances in Radiation Oncology*. 2016;1(4):325-32. PMID: 28740904.
- 14) Uppal S, **Chapman C**, Spencer RJ, Jolly S, Maturen K, Rauh-Hain JA, et al. Association of Hospital Volume With Racial and Ethnic Disparities in Locally Advanced Cervical Cancer Treatment. *Obstetrics and gynecology*. 2017;129(2):295-304. PMID: 28079775
- 15) Ahmed AA, Hwang W, Holliday EB, **Chapman CH**, Jagsi R, Thomas CR Jr., Deville C. Female Representation in the Academic Oncology Physician Workforce: Radiation Oncology Losing Ground to Hematology-Oncology. *Int J Radiat Oncol Biol Phys*.

- 2017 May 1;98(1):31-33. PMID: 28587049.
- 16) **Chapman CH**, Jagsi R. The Ethical Imperative and Evidence-Based Strategies to Ensure Equity and Diversity in Radiation Oncology. *Int J Radiat Oncol Biol Phys*. 2017 Oct 1;99(2):269-274. PMID: 28871969. [Letter](#)
 - 17) McClelland S 3rd, Page BR, Jaboin JJ, **Chapman CH**, Deville C Jr, Thomas CR Jr. The pervasive crisis of diminishing radiation therapy access for vulnerable populations in the United States, part 1: African-American patients. *Adv Radiat Oncol*. 2017 Aug 3;2(4):523-531. PMID: 29204518 [Review](#)
 - 18) **Chapman CH**, Jagsi R. In Reply to Thomas. *Int J Radiat Oncol Biol Phys*. 2018 Jan 1;100(1):278-279. doi: 10.1016/j.ijrobp.2017.10.018. PMID: 29254778. [Letter](#)
 - 19) **Chapman CH**, Polan D, Vineberg K, Jolly S, Maturen KE, Brock KK, Prisciandaro JI. Deformable image registration-based contour propagation yields clinically acceptable plans for MRI-based cervical cancer brachytherapy planning. *Brachytherapy*. 2018 Jan 10. PMID: 29331573
 - 20) Jones RD*, **Chapman CH***, Holliday EB*, Lalani N*, et al. and Jagsi R, for the Society of Chairs of Academic Radiation Oncology Programs (SCAROP). A Qualitative Assessment of Academic Radiation Oncology Department Chairs' Insights on Equity, Diversity, and Inclusion: Progress, Challenges, and Future Aspirations. Accepted January 2, 2018 to the *International Journal of Radiation Oncology, Biology, and Physics*.

* Denotes co-first authorship

Non-Peer Reviewed Publications

- 1) **Chapman CH**, Jagsi R. Disparities in the Use of Breast-Conserving Therapy Among Patients with Early-Stage Breast Cancer. *Breast Diseases: a YB Quarterly*; 2016; 27(2):146-9. [Letter](#)

Book Chapters

- 1) **Chapman CH**, Deville C. *Radiotherapy for Genitourinary Malignancies*. In: Abutablilb S and Markman M. *Cancer Consult: Expertise for Clinical Practice*, John Wiley & Sons, Ltd. 2014: 789-792.
- 2) **Chapman CH**, Jolly S, Maturen K. Radiotherapy Planning for Gynecologic Malignancies: What a Radiologist Needs to Know. In: Sandrasegaran K, et. al. *Oncologic Imaging: From Diagnosis to Cure*. American Roentgen Ray Society, 2016.
- 3) **Chapman CH**, Cao Y, Matuszak M, Schipper M, Lawrence TS. Adapting Therapy Based on Tumor Response. In: Anscher MS, Valerie K, editors. *Strategies to Enhance the Therapeutic Ratio of Radiation as a Cancer Treatment*. Cham: Springer International Publishing; 2016: 195-224.

Abstracts

- 1) **Chapman C**, Chandrasekaran S, Benci J, Xu X, Baumann B, Davis S, Hollander A, Dorsey JF, Kao GD. Phospho-Histone H3: A Novel Cancer Biomarker. Oral presentation at the University of Pennsylvania Radiation Oncology Departmental Research Retreat,

- December 7, 2010.
- 2) **Chapman C**, Deville C. An analysis of diversity based on race and ethnicity in the radiation oncology workforce. Poster presentation at the American Association for Cancer Research Fourth Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medical Underserved, Washington, D.C., September 18-21, 2011. *Cancer Epidemiology Biomarkers & Prevention*. 2011;20(10 Supplement): A97-A.
 - 3) Baumann BC, Dorsey JF, Xu X, Harada T, **Chapman C**, Benci J, Jaiswal S, Mahmud A, Discher DE, Kao GD. 'Breaking through the Tumor BBB': Enhancing the Efficacy of Nanobiopolymer Therapeutics against Intracranial Tumors with Targeted Radiation Therapy. *Int J Radiat Oncol Biol Phys*. 2011;81(2): S145-S6.
 - 4) **Chapman C**, MacArthur KM, Kao JD, Dorsey JF. Circulating Tumor Cells: Development, Validation, and Pilot Results of a Telomerase-Based Assay in Radiation Therapy Patients. Oral presentation at the University of Pennsylvania Radiation Oncology Departmental Research Retreat, October 29, 2011.
 - 5) MacArthur K, Dorsey JF, **Chapman CH**, Hahn SM, Kao GD. A Telomerase-based Assay Tracks Changes in Circulating Tumor Cells in Patients Undergoing Radiation Therapy. *IJROBP* 2012;84(3), S24.
 - 6) **Chapman CH**, Hwang WT, Both S, Thomas CR Jr, Deville C. The Current Status of Diversity in Diagnostic Radiology: A Missed, Available Pipeline. AAMC Physician Workforce Research Conference, Alexandria, VA, May 2, 2013.
 - 7) **Chapman CH**, Jolly S, Young L, Maturen K, Balter J, Owrangi A, Prisciandaro J. Assessing the Need for Dose Calculations to Organs at Risk Using MRI Planning in Vaginal Brachytherapy. Oral presentation at the American Brachytherapy Society Gyn School, Chicago, IL, July 13, 2014. *Brachytherapy* 2015;14(1):100.
 - 8) **Chapman CH**, Jolly S, Young L, Maturen K, Balter J, Owrangi A, Prisciandaro J. Assessing the Need for Dose Calculations to Organs at Risk Using MRI Planning in Vaginal Brachytherapy. Poster presentation at the ASTRO Annual Meeting. *IJROBP* 2014;90(1), S496-497.
 - 9) **Chapman CH**, Prisciandaro JP, Maturen KE, Balter JM, Cao Y, Young L, Jolly S. MRI-Based Evaluation of the Vaginal Cuff in Brachytherapy Planning: Are We Missing the Target? Oral presentation at the 2015 American Brachytherapy Society Meeting. *Brachytherapy* 2015;14:S17.
 - 10) **Chapman CH**, Prisciandaro JI, Maturen KE, Balter J, Cao Y, McLean K, Jolly S. Vaginal Cuff Underdosing Persists Despite Maximal Insertion Using MRI Guidance. American Society for Radiation Oncology Annual Meeting, San Antonio, TX, October 19, 2015. *Int J Radiat Oncol Biol Phys*. 2015;93(3):E260.
 - 11) Ahmed AA, Holliday E, **Chapman CH**, Thomas CR Jr., Jagsi R, Deville C Jr. Diversity in the Oncological Workforce: Losing Ground and Narrowing the Gap Comparison of Radiation Oncology (RO) and Hematology Oncology (HO). *Int J Radiat Oncol Biol Phys*. 2015;93(3):E375.
 - 12) Ajayi A, **Chapman C**, Both S, Deville C. Racial and socioeconomic disparities in staging magnetic resonance imaging (MRI) utilization for prostate cancer (PCa) patients undergoing radiotherapy. American Association for Cancer Research Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved, Atlanta, GA, November 15, 2015. *Cancer Epidemiology Biomarkers & Prevention*. 2016;25(3 Supplement):C71-C.
 - 13) **Chapman CH**, Uppal S, Prisciandaro J, Maturen K, Jolly S. Vaginal cuff underdosing is

observed across different surgical approaches. Poster presentation at the Society of Gynecologic Oncology Annual Meeting on Women's Cancer, San Diego, CA, March 20, 2016.

- 14) Heath G, **Chapman CH**, Fairchild P, Berger MB, Tolpadi A, Jolly S. Comparing sexual health history collection preferences among gynecologic oncology patients and OB/Gyn patients. Poster presentation at the Society of Gynecologic Oncology Annual Meeting on Women's Cancer, San Diego, CA, March 20, 2016.
- 15) **Chapman CH**, Polan D, Jolly S, Prisciandaro JP, Brock KK. Deformable Image Registration Improves Contouring Accuracy in Magnetic Resonance Imaging–Based Cervical Brachytherapy. *Int J Radiat Oncol Biol Phys*. 2016;96(2):E669.