

Carryn M. Anderson, M.D.

May 2, 2011

I. EDUCATIONAL AND PROFESSIONAL HISTORY

A. List of institutions attended

Higher Education

B.A., Luther College, Major: Biology, Minor: Spanish, (05/1999)

M.D., University of Texas Medical Branch, (05/2003)

Postgraduate Medical Education

Internship, Cleveland Clinic, Cleveland, OH, (06/2004)

Residency, Department of Radiation Oncology, Cleveland Clinic, Cleveland, OH, (06/2008)

Certification

American Board of Radiology

Radiation Biology and Physics Examinations (07/2007)

Written examination (07/2008)

Oral exam (6/2009)

B. Professional and academic positions held

Assistant Professor, University of Iowa Hospitals and Clinics, Department of Radiation Oncology (06/30/2008-present)

Assistant Residency Director, University of Iowa Hospitals and Clinics, Department of Radiation Oncology (02/4/2011-present)

Clinical Consultant, Cleveland Clinic, Department of Radiation Oncology (07/01/08-11/30/08)

C. Honors, Awards, Recognitions, Outstanding Achievements

- Soroptimist International of the Americas (Past Governor's Award), (1999)
- Evangelical Lutheran Church of America Torrison Scholarship, (1999)

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- Regent Scholar, Evangelical Lutheran church of America Torrison Scholarship, (1999)
- Phi Beta Kappa, Luther College, (1999)
- Graduated magna cum laude, Luther College, (1999)
- Exemplary Student Award, University of Texas Medical Branch, (2000)
- Bayou City Medical Center Auxiliary Award Scholarship, (2000)
- Nominations Committee Member, AMSA National Convention, (2001)
- Vice President, American Medical Student Association, Galveston Chapter, (2000-2001)
- Alpha Omega Alpha, University of Texas Medical Branch, (2002)
- Completion of Gamma Knife® Perfexion™ Training Course, (2008)
- American College of Radiation Oncology Annual Meeting Travel Award (2008)
- Larry W. Oberley Award for Research in the Discipline of Radiation Oncology given to my Summer Research Fellow, Sven Steen (2010)

II. TEACHING

A. Teaching assignments on semester by semester basis

“Basic principles of radiation biology.” Lecture series for Introduction to Medical Physics course (Physics 430/530). Cleveland State University, (Fall 2007 - 6 hours lecturing, 15 hrs prep).

“Specialty topics in radiation biology.” Lecture series for Introduction to Medical Physics course (Physics 535). Cleveland State University, (Spring 2008 – 4 hours lecturing, 10 hrs prep).

“Radiation Biology” Lecture series for Radiation Oncology Residents. Cleveland Clinic (Fall 2008 – 2 hours lecturing scheduled).

“Basic principles of radiation biology.” Lecture series for Introduction to Medical Physics course (Physics 430/530). Cleveland State University, (Fall 2008 - 6 hours lecturing, 9 hrs prep).

PPD facilitator: “Foundations of Clinical Practice I.” Fall 2009. 3 hrs weekly (1 hr prep, 2 hrs in class) August 27 thru December 2, 2009.

Small group facilitator: “Case-based Learning II.” Spring 2011. 3 hrs weekly (1 hr prep, 2 hrs in class).

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B. Students supervised

Anna Olson, MD – PGY4 resident in radiation oncology, (Jan.-Mar. 2009)
Wenqing Sun, MD-PGY3 resident in radiation oncology, (May-June 2009)
Joni Buechler-Price, MD-PGY3 resident in radiation oncology, (Aug.-Sept. 2009)
Charles Murphy, MD-PGY3 resident in radiation oncology, (Oct-Dec 2009)
Wenqing Sun, MD – PGY4 resident in radiation oncology, (Jan and March 2010)
Anna Olson, MD – PGY5 resident in radiation oncology, (April-June 2010)
Sven Steen – MS1, summer research fellow, (June 2010-present)
Charles Murphy, MD – PGY4 resident in radiation oncology, (July-August 2010, November-December 2010)
Arshin Sheybani, MD – PGY2 resident in radiation oncology (January-March 2011)
Ann Morris, MD – PGY2 resident in radiation oncology (April-June 2011)

C. Other contributions to institutional programs

“Hall Chapter 2: DNA Strand Breaks and Chromosomal Aberrations.”
Lecture to Cleveland Clinic residents as part of Rad Bio curriculum,
Tuesday, August 19, 2008. 1 hour lecture, 5 hrs prep.

“Oral Care – Pediatric and Adult Oncology Patients.” Contributed and
edited institutional nursing policy for oral care in head and neck cancer
patients. 1 hr. January 15, 2009.

“Head and Neck FAQ.” Contributed and edited departmental patient
education materials for head and neck cancer patients. 1 hr. March 3,
2009.

Staffed resident conferences and one journal club 2009

Morbidity and Mortality presentation “Introduction of systematic error by
using daily image guidance to line up to tumor with less regard for spinal
position when there is table sag on the treatment machine.” April 2009.

Member of Carver College of Medicine Learning Communities Mentorship
Database – available for medical student or PA mentorship (2009-present)

Mentor to female physicians via the AMWA Mentoring Program (2009-
present)

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Mentor in the McCowen Learning Community Mentorship Program for M1s (2009).

Mentee 2009/10: Kaleigh Lindholm

Mentees 2010/11: Kaleigh Lindholm and Sven Steen

Established Head and Neck Rotation Goals and Objectives for Radiation Oncology residents, including scheduled 1:1 teaching on academic day

Morbidity and Mortality presentation 2/12/10: "Code Blue and Death of My Patient in the Department of Radiation Oncology: Sequence of Events, Autopsy Results, and Lessons Learned"

Implemented mock oral opportunity for residents each rotation on my service

Medical Student Summer Research Fellowship Mentor

Mentee 2010: Sven Steen

Morbidity and Mortality presentation 12/17/10: "Radiation-induced brachial plexopathy"

Staffed resident conferences throughout 2010

Resident Teaching conference presentation 8/5/10: "Thyroid cancer"

Morbidity and Mortality presentation 1/21/11: "Local Failure in the Parotid due to Inappropriately Designed Adjuvant Radiation Fields"

Journal Club 1/26/11: Amifostine and its Role in Radiation-Induced Xerostomia

Morbidity and Mortality presentation 4/15/11: "Acute parotiditis versus lymphedema hours after SBRT to the Retropharynx"

(See Oral and Poster Presentations)

III. SCHOLARSHIP/PROFESSIONAL PRODUCTIVITY

A. Publications or creative works

Peer-reviewed publications

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Zwischenberger J., **Anderson C.**, Cook K., Lick S., Mockros L., and Bartlett R., (2001). Development of an implantable artificial lung: Challenges and progress. American Society for Artificial Internal Organs, 47:316-320.

Zwischenberger J., Savage C., Alpard S., **Anderson C.**, Marroquin S., and Goodacre B., (2002). Mediastinal transthoracic needle and core lymph node biopsy: Should it replace mediastinoscopy? Chest, 121:1165-1170.

Anderson C., Woodside K., Spencer T., and Hunter G. (2004). Methemoglobinemia: An Unusual Cause of Cyanosis Following Aortic Reconstructive Surgery. Journal of Vascular Surgery, 39:686-690.

Grant, L., **Anderson, C.**, Macklis, R., Singh, A. (2008). Low dose irradiation for diffuse choroidal hemangioma. Ophthalmic Genetics, 29(4):186-8.

Anderson C., Kim, R. (2009). Adjuvant Therapy for Resected Extrahepatic Cholangiocarcinoma: A review of the literature and future directions. Cancer Treatment Reviews, 35(4):322-7.

Menda Y, Ponto LL, Dornfeld KJ, Tewson TJ, Watkins GL, Gupta AK, **Anderson C**, et al. (2010). Investigation of Pharmacokinetics of 3'-Deoxy-3'-[18F] Fluorothymidine (FLT) Uptake in the Bone Marrow Before and Early After Initiation of Chemoradiation Therapy in Head and Neck Cancer. Nuclear Medicine and Biology, 37(4):433-8.

Breitback EK, Maltz JS, Gangadharan B, Bani-Hashemi A, **Anderson CM**, et al. (2011). Image quality improvement in megavoltage cone beam CT using a sintered pixilated array system. Medical Physics, submitted 3/25/11.

De la Garza GO, Ismail AF, **Anderson CM**, Milhem MM, Hoffman HT, Buatti JB. (2011) Nelfinavir Treatment of Adenoid Cystic Carcinoma: A Case Report. Laryngoscope, submitted 3/2011.

Anderson C., Bhatia, S. (2011). "An unusual case of heterotopic ossification", cover art. Practical Radiation Oncology, accepted 3/17/11. Potential for extension to a case report.

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Anderson C, Jacobson G, Bhatia S, Buatti JM. Book Review: Atlas of Diagnostic Oncology (4th edition) Edited: Arthur T. Skarin. Accepted April 2011. *International Journal of Radiation Oncology, Biology, Physics*.

Book Chapters

Anderson C., Fleming P., Wilkinson D.A., and Singh A.D. (2007). Chapter 8: Principles of Radiation Therapy. Clinical Ophthalmic Oncology with CD-ROM, Singh, Damato, Pe'er, Murphee and Perry, eds. Saunders: Philadelphia.

Anderson, C., Singh, A. (2008). "Retinoblastoma: Brachytherapy" for the Encyclopedia of Ophthalmology (Springer Verlag), Ophthalmic Pathology and Ocular tumors. Editor: Hans Grossniklaus, MD, submitted 4/30/08

Anderson, C., Singh, A. (2008). "Retinoblastoma: Teletherapy" for the Encyclopedia of Ophthalmology (Springer Verlag), Ophthalmic Pathology and Ocular tumors. Schmidt-Erfruth, Ursula; Williams, George A.; Mieler, William (Eds.), accepted 10/8/08, Springer: in press, projected online publication 2011.

Anderson C., Fleming P., Wilkinson D.A., and Singh A.D. (2009). Chapter 8: Principles of Radiation Therapy. Essentials of Ophthalmic Oncology, Singh, Damato, Pe'er, Murphee and Perry, eds. SLACK Inc: Thorofare, NJ.

Anderson C., Bayouth J, and Buatti J (2009). Principles of Radiation Therapy. Youmans Neurological Surgery, 6th Edition. Winn H.R., Editor-in-Chief. Accepted July 2009. Elsevier, Inc: In press.

B. Areas of Research Interest and Current Projects

Areas of Interest

Head and neck, melanoma, ophthalmic, CNS and palliative oncology.

Research

"Potassium Transport Proteins in mutant *Saccharomyces cerevisiae*." Dr. Stan Grove, Pew Scholar Summer Research Program, Goshen College, Goshen, IN (Summer 1996).

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“Development of an implantable artificial lung.” Dr. Joseph Zwischenberger, Cardiothoracic Surgery Department, University of Texas Medical Branch (May 2000-May 2001).

“A retrospective study of IMRT vs. conventional 3-D conformal radiation therapy in the treatment of prostate cancer: Late toxicity and dose-volume relationships.” Dr. Ivan Kessel, Radiation Oncology Department, University of Texas Medical Branch (Summer 2002).

Current Projects

“Interobserver and intermodality variability in GTV delineation on simulation CT, FDG-PET, and MR Images of Head and Neck Cancer.” Abstract presented in poster form at ASTRO Head and Neck Symposium, February 2010, manuscript in progress.

“Increased acute radiation effects in a patient with porphyria cutanea tarda.” Case report in progress with MS-2 Kaleigh Lindholm.

“Retrospective review of PET-CT accuracy in post-RT patients.” Summer Research Fellowship project with Sven Steen, MS-1, in collaboration with Dr. Menda. Evaluation in the PET-CT era, definitive patients versus post-op patients, and alternative quantitative analysis, 256 patients reviewed

“Prospective proposal to evaluate accuracy of a 3-month post-RT PET-CT using serial scanning at 60-90-120 min.” Under IRB review. Has been submitted as a grant proposal on 3 occasions in 2009.

“3D-MR Spectroscopic Imaging Assessment of Metabolic Status of Malignant Gliomas During External Beam Radiation Therapy”. Presented as a poster at ASTRO 2009. Clinical update and manuscript in progress.

Anderson C., Bhatia, S. (2011). An unusual case of heterotopic ossification, submitted to PRO in 2/2011. Potential for extension to a case report.

“Image Guided Targeted Radionuclide Therapy of Metastatic Melanoma” (2011). Collaboration with Michael Schultz in Free Radical and Radiation Biology Program.

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C. Published reviews of scholarship

N/A

D. Grants received

DAISY grant. \$5,000 grant from the DAISY foundation for our study entitled "Oral Care for Prevention and Treatment of Oral Mucositis". Collaboration and project organized by Sharon Baumler, MSN, RN

E. Invited lectures, Conference presentations, Visiting Professorships

"Ocular Radiotherapy." Multi-institutional Ophthalmology Grand Rounds, Cole Eye Institute, Cleveland, OH, (February 2005 -1 hour).

"Ocular Brachytherapy." Ophthalmic Oncology Update. Cole Eye Institute, Cleveland, OH, (February 9, 2008)

"ASTRO 2008: Head and Neck" ASTRO 2008 Review Course, sponsored by Cleveland Clinic, Independence, OH (October 22, 2008)

"Non-surgical treatment of laryngeal and hypopharyngeal cancer." 2009 Iowa Head & Neck Cancer and Reconstructive Surgery Course. (June 10, 2009)

"Management of Xerostomia." 2009 Iowa Head & Neck Cancer and Reconstructive Surgery Course. (June 11, 2009)

"Post-radiotherapy PET scans in the management of head and neck cancer." 2009 Iowa Society of Therapeutic Radiation and Oncology Meeting. Des Moines. (September 12, 2009)

"New York Times Series on Radiation Mistakes: Implications for Patient Relations." Missouri River Valley AAPM Spring 2010 Meeting, Lake of the Ozarks, MO. (May 1, 2010)

"Adjuvant radiation for Oral Cavity Cancer." 2010 Iowa Head & Neck Cancer and Reconstructive Surgery Course. (May 23, 2010)

"Introduction to Radiation and Head and Neck Cancer Management" lecture to prosthodontic and oral surgery residents (March 31, 2011)

Oral and Poster Presentations

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“Decreased Right Heart Failure with a Compliant Inflow Artificial Lung in Series with the Pulmonary Circulation.” Medical Student Summer Research Forum, July 2000 and at University of Texas Medical Branch, Student Research Poster Session (July 2000).

“Decreased Right Heart Failure with a Compliant Inflow Artificial Lung in Series with the Pulmonary Circulation.” Houston Conference on Biomedical Engineering Research, Houston, TX (February 2001).

“Decreased Right Heart Failure with a Compliant Inflow Artificial Lung in Series with the Pulmonary Circulation.” National Student Research Forum, Galveston, TX (April 2001).

“External Beam Radiation Dose Response and Toxicity in Low-Risk Prostate Cancer.” American Society of Therapeutic Radiology and Oncology National Conference, Denver, CO (October 16-20, 2005).

“Urinary and Bowel Toxicity after External Beam Radiotherapy for Localized Prostate Cancer: Correlation of Acute Versus Late Toxicities.” American Society of Therapeutic Radiology and Oncology National Conference, Philadelphia, PA (November 4-9, 2006).

“Urinary and Bowel Toxicity after External Beam Radiotherapy for Localized Prostate Cancer: Correlation of Acute Versus Late Toxicities.” Cleveland Clinic Research Day (November 30, 2006).

“Dosimetric Comparison of Gamma Knife Radiosurgery versus Ru-106 Plaque Brachytherapy in a Cohort of 22 Patients with Choroidal Melanomas.” International Society of Ocular Oncology, Siena, Italy (June 27-30, 2007).

“Dosimetric Comparison of Gamma Knife Radiosurgery versus Simulated Plaque Brachytherapy in a Cohort of Posterior Choroidal Melanomas.” Regional meeting of the American Association of Physicists in Medicine, (October 5, 2007).

“Dosimetric Comparison of Gamma Knife Radiosurgery versus I-125 Plaque Brachytherapy in a Cohort of Posterior Choroidal Melanomas.” Cleveland Clinic Research Day (October 16, 2007).

“Magnetic Resonance Imaging in Predicting Pathologic Residual Disease after Primary Induction Chemotherapy.” Cleveland Clinic Research Day

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(October 16, 2007).

“Improved Biochemical Relapse-free Survival with Early Salvage Radiation Therapy After Prostatectomy.” Cleveland Clinic Research Day (October 16, 2007).

“Dosimetric Comparison of Gamma Knife Radiosurgery versus I-125 Plaque Brachytherapy in a Cohort of Poster Choroidal Melanomas.” American Society of Therapeutic Radiology and Oncology National Conference, Los Angeles, CA (October 27-November 1, 2007).

“Improved Biochemical Relapse-free Survival with Early Salvage Radiation Therapy After Prostatectomy.” American Society of Therapeutic Radiology and Oncology National Conference, Los Angeles, CA (October 27-November 1, 2007).

“Magnetic Resonance Imaging in Predicting Pathologic Residual Disease after Primary Induction Chemotherapy.” San Antonio Breast Cancer Symposium, San Antonio, TX (December 13-16, 2007).

“3D-MR Spectroscopic Imaging Assessment of Metabolic Status of Malignant Gliomas During External Beam Radiation Therapy - Preliminary Results.” American Society of Therapeutic Radiology and Oncology National Conference, Chicago, IL (November 1-November 5, 2009).

“Interobserver and intermodality variability in GTV delineation on simulation CT, FDG-PET, and MR Images of Head and Neck Cancer.” Sun W, Bayouth JE, Buatti JM, Maley JE, Policeni B, Anderson CM. Multidisciplinary Head and Neck Cancer Symposium, Chandler, AZ (February 25-27, 2010).

“Effectiveness of PET-CT in Assessing Radiation Therapy Response in Head and Neck Cancer.” Presented by Sven Steen, MS-1, at Medical Student Summer Research Day, September 2010.

F. Pending decisions (grant proposals, book contracts)

N/A

IV. SERVICE

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A. Memberships in Professional Organizations

American Society of Therapeutic Radiology and Oncology (2004-present)
Association of Residents in Radiation Oncology (2004-2008)
American Society of Clinical Oncology (2005-present)
American Brachytherapy Society (2005-2008)
Radiological Society of North America (2005-2008)
American College of Radiation Oncology (2007-2008)
American Association of Women Radiologists (2009-present)

Departmental, collegiate, university and national committees

Radiation Oncology Department Representative, House Staff Association,
(July 2005-June 2008)

House Staff Representative, Graduate Medical Education Council,
(January 2007-June 2008)

ACGME Site Visit Resident Representative, (January 29, 2008)

Internal Review of the Department of Anesthesiology Residency Program
for the Graduate Medical Education Council, (March 31, 2008)

Interview panel for Department of Otolaryngology, surgical faculty
candidates. (February 2009-present)

Health Information Management Subcommittee, (July 2009-present)

Staff Physician Representative, MRI Tech Selection Committee (Fall
2009)

Staff Physician Representative, Kaizen Committee, (January 19, 2010-
July 2010)

Head and Neck Multidisciplinary Oncology Group, (Fall 2009-present),
have played an active role in bringing new research protocols to the group
and have facilitated patient enrollment on the FLT protocol

Radiation Oncology Education Committee, (2010), have played an active
role in re-designing case conference format and curriculum with Mark
Smith, MD, and Michelle Krupp

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“The Iowa Experience: Excellence Every Time” departmental representative, Disney Institute presentation, February 15, 2011

Relevant Community Involvement

“Early salvage radiation therapy after prostatectomy improves PSA control.” Lecture for Prostate Partners, a prostate cancer community support group (January 3, 2008)

“Yule Brenner Head and Neck Cancer Screening Clinic.” Volunteered to screen public for signs of head and neck cancer. (April 28, 2009)

Attended Cancer Survivorship Day in 2010

B. Clinical assignments since last promotion (if applicable)

Head and Neck, melanoma, CNS, sarcoma, palliative patients

Performed first Single-fraction Stereotactic Radiosurgery to the Spleen in February 2010.

Performed Single-fraction Stereotactic Radiosurgery to Parapharyngeal space for salvage in head and neck cancer in 2 patients in 2010, 1 patient in 2011

Performed first Single-fraction Stereotactic Radiosurgery to Spine in December 2010

Performed Stereotactic Radiosurgery as definitive management for T2N0 cholangiocarcinoma January 2011.

C. Editorial Activities

Co-reviewer with John Buatti, M.D. Manuscript number NEON2224 for the Journal of Neuro-Oncology, 2/2009, 4 hrs.

“Oral Care Policy.” Contributed and edited departmental policy for oral care in head and neck cancer patients. 1 hr. January 15, 2009.

“Head and Neck FAQ.” Contributed and edited departmental patient education materials for head and neck cancer patients. 1 hr. March 3, 2009.

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“Discharge Instructions for Eye Plaque Patients.” Edited departmental patient discharge instructions. 30 min. December 31, 2009.

Reviewer for Head & Neck, December 2010.

Date: 14-Dec-2010

Ref: HED-10-0953

Reviewer for Annals of Otolaryngology, February 2011.

MS# 11-4946

Co-reviewer of textbook Atlas of Diagnostic Oncology, 4th ed. for IJORBP, March 2011.