

Curriculum Vitae

Daniel Robert Simpson, M.D.
Department of Radiation Medicine and Applied Sciences
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EDUCATION

University of California, San Diego: B.S. Major: Animal Physiology and Neuroscience; Minor: Psychology	2005
University of California, San Diego School of Medicine: MD	2010
University of California, San Diego School of Graduate Studies: M.A.S. Masters of advanced studies in Clinical Research	2010

POST-GRADUATE TRAINING

Huntington Memorial Hospital Internship, Department of Internal Medicine	2010-2011
University of California, San Diego Residency, Department of Radiation Medicine and Applied Sciences	2011-2015

LICENSURE/CERTIFICATION

Licensed, Physician and Surgeon, State of California

ACADEMIC POSITIONS

University of California, San Diego Assistant Professor, Department of Radiation Medicine and Applied Sciences	2015-present
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GRANTS

National Institute of Health Research Training Grant	2006
National Institute of Health T32 Research Fellowship Grant	2009-2010
Particle Therapy Cooperative Group Travel Fellowship	2014
UCSD Institutional Faculty Start-up Grant	2015

HONORS/AWARDS

UCSD Provost's Honors	2002-05
Phi Beta Kappa Society	2005
UCSD Biological Sciences Outstanding Achievement Award	2005
Best of ASTRO Spanish Session for abstract " <i>CT and MRI-based Image-guided Brachytherapy For Cervical Cancer: A Multi-Institutional Report</i> "	2012
Chief Resident, Department of Radiation Oncology, University of California, San Diego	2013-2014
RSNA Roentgen Resident Research Award	2015

RESEARCH EXPERIENCE

VA hospital, UCSD, Dept. of Neuroscience, Mentor: Leon Thal MD <i>The effects of Nerve Growth Factor on hippocampal neurogenesis in adult rodents</i> <ul style="list-style-type: none">Examined the effects of intraventricular nerve growth factor infusion on hippocampal neurogenesis in adult rats	2003-05
UCSD, Department of Neurobiology, Mentor: Anirvan Ghosh PhD <i>Role of DLG-3 overexpression on dendrite formation in rodents</i> <ul style="list-style-type: none">Examined the effects of DLG3 overexpression on dendrite density and size in mouse cortical neurons in vitro	2006
UCSD, Department of Radiation Oncology, Mentors: Arno J. Mundt MD and Loren K. Mell MD <i>Adaptive Radiotherapy using cone-beam CT in cervical cancer</i> <ul style="list-style-type: none">Evaluated the use of cone-beam CT for adaptive radiotherapy in the treatment of cervical cancer.	2008-2010
UCSD, Department of Radiation Oncology, Mentors: Loren K. Mell and David Vera PhD <i>⁶⁸Ga-Tilmanocept PET for assessment of bone marrow response to irradiation</i> <ul style="list-style-type: none">Evaluated the use of ⁶⁸Ga-Tilmanocept as a novel positron emission tomography agent for imaging bone marrow response to whole body irradiation in rodents.	2014

PUBLICATIONS

- 1) Frielingsdorf H, **Simpson DR**, Thal LJ, Pizzo DP. Nerve growth factor promotes survival of new neurons in the adult hippocampus. *Neurobiology of Disease* 2007; 26:47-55. PMID: 17270453
- 2) Rose BS, **Simpson DR**, Nath SK, Mundt AJ. Hypofractionated radiotherapy in the elderly: sometimes less is more. *Aging Health* 2009; 5:359-67.
- 3) Yashar CM, **Simpson DR**, Scanderbeg D. Strut-Adjusted Volume Implant: multichannel, single-entry brachytherapy for accelerated partial breast irradiation. *Expert Review of Obstetrics & Gynecology* 2009; 4:593-600.
- 4) Nath SK, **Simpson DR**, Rose BS, Sandhu AP. Recent advances in image-guided radiotherapy for head and neck carcinoma. *Journal of Oncology* 2009; 2009:752135. PMID: 19644564
- 5) **Simpson DR**, Lawson JD, Nath SK, Rose BS, Mundt AJ, Mell LK. Utilization of advanced imaging technologies for target delineation in radiation oncology. *Journal of the American College of Radiology: JACR* 2009;6:876-83. PMID: 19945044
- 6) Nath SK, Lawson JD, Wang JZ, **Simpson DR**, Newman CB, Alksne JF, Mundt AJ, Murphy KT. Optically-guided frameless linac-based radiosurgery for brain metastases: clinical experience. *Journal of Neuro-Oncology* 2010; 97:67-72. PMID: 19701719
- 7) Nath SK, Sandhu AP, Rose BS, **Simpson DR**, Nobiensky PD, Wang JZ, Millard F, Kane CJ, Parsons JK, Mundt AJ. Toxicity analysis of postoperative image-guided intensity-modulated radiotherapy for prostate cancer. *International Journal of Radiation Oncology, Biology, Physics* 2010; 78:435-41. PMID: 19939580
- 8) Nath SK, Lawson JD, **Simpson DR**, Vanderspek L, Wang JZ, Alksne JF, Ciacci J, Mundt AJ, Murphy KT. Single-isocenter frameless intensity-modulated stereotactic radiosurgery for simultaneous treatment of multiple brain metastases: clinical experience. *International Journal of Radiation Oncology, Biology, Physics* 2010; 78:91-7. PMID: 20096509
- 9) **Simpson DR**, Lawson JD, Nath SK, Rose BS, Mundt AJ, Mell LK. A survey of image-guided radiation therapy use in the United States. *Cancer* 2010; 116:3953-60. PMID: 20564090
- 10) Nath SK, Carmona R, Rose BS, **Simpson DR**, Russell M, Lawson JD, Mundt AJ, Murphy KT. Observed magnetic resonance imaging changes in pediatric patients treated with stereotactic radiosurgery for intracranial tumors. *Child's nervous system: ChNS : Official Journal of the International Society for Pediatric Neurosurgery* 2011;27:399-406. PMID: 20927529
- 11) Pan H, **Simpson DR**, Mell LK, Mundt AJ, Lawson JD. A survey of stereotactic body radiotherapy use in the United States. *Cancer* 2011; 117:4566-72. PMID: 21412761
- 12) **Simpson DR**, Einck JP, Nath SK, Sethi, RA, Wang JZ, Mundt AJ, Sandhu AP. Comparison of daily cone-beam computed tomography and kilovoltage planar imaging for target localization in prostate cancer patients following radical prostatectomy. *Practical Radiation Oncology* 2011;1:156-62. PMID: 24673945
- 13) **Simpson DR**, Song WY, Moiseenko V, Rose BS, Yashar CM, Mundt AJ, Mell LK. Normal tissue complication probability analysis of acute gastrointestinal toxicity in cervical cancer patients undergoing intensity modulated radiation therapy and concurrent cisplatin. *International Journal of Radiation Oncology, Biology, Physics* 2012; 83:e81-6. PMID: 22516388
- 14) Pan H, Rose BS, **Simpson DR**, Mell LK, Mundt AJ, Lawson JD. Clinical practice patterns of lung stereotactic body radiation therapy in the United States: a secondary analysis. *American Journal of Clinical Oncology* 2013; 36:269-72. PMID: 22495454
- 15) **Simpson DR**, Martínez ME, Gupta S, Hattangadi-Gluth J, Mell LK, Heestand G, Fanta P, Ramamoorthy S, Le QT, Murphy JD. Racial disparity in consultation, treatment, and the impact on survival in metastatic colorectal cancer. *Journal of the National Cancer Institute* 2013; 105:1814-20. PMID: 24231453
- 16) **Simpson DR**, Sanghvi PS, Sandhu AP. Lung SBRT for Early Stage Non-small Cell Lung Cancer in Patients with Prior Pneumonectomy: A Case Report. *Journal of the National Comprehensive Cancer Network* 2014; 12:1513-6. PMID: 25361797

- 17) Lau SK, Zhao X, Carmona R, Knipprath E, **Simpson DR**, Nath SK, Kim GY, Hattangadi JA, Chen CC, Murphy KT. Frameless single-isocenter intensity modulated stereotactic radiosurgery for simultaneous treatment of multiple intracranial metastases. *Transl Cancer Res* 2014; 3(4):383-390.
- 18) **Simpson DR**, Mell LK, Cohen EE. Targeting the PI3K/AKT/mTOR pathway in squamous cell carcinoma of the head and neck. *Oral Oncol* 2015; 51(4):291-298. PMID: 25532816
- 19) Lau SK, Zhao X, Carmona R, Knipprath E, **Simpson DR**, Nath SK, Kim GY, Hattangadi JA, Chen CC, Murphy KT. Single-isocenter frameless volumetric modulated arc radiosurgery for multiple intracranial metastases. *Neurosurgery* 2015. PMID: 25856109.
- 20) **Simpson DR**, Scanderbeg DJ, Carmona R, McMurtrie RM, Einck J, Mell LK, McHale MT, Saenz CC, Plaxe SC, Harrison T, Koonings PP, Mundt AJ, Yashar CM. Clinical Outcomes of Computed Tomography-Based Volumetric Brachytherapy Planning for Cervical Cancer. *International Journal of Radiation Oncology, Biology, Physics* 2015; 15:00465-4. PMID: 26130230.

PRESENTATIONS/ABSTRACTS

- 1) **Simpson DR**, Lawson JD, Rose BS, Nath SK, Mundt AJ. *Adaptive Radiotherapy in Cervical Cancer Using Daily Cone-beam CT*. Poster presentation at the 1st annual National Predoctoral Clinical Research Training Meeting. Washington University, St. Louis, 2009.
- 2) **Simpson DR**, Lawson JD, Rose BS, Nath SK, Mundt AJ, Mell LK. *Survey of Image-Guided Radiation Therapy Use in the United States*. Poster Presentation at the 51st annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Chicago, 2009.
- 3) Lawson JD, **Simpson DR**, Rose BS, Nath SK, Mundt AJ. *Adaptive Radiotherapy for Cervical Carcinoma*. Oral presentation at the 51st annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Chicago, 2009.
- 4) Mundt AJ, **Simpson DR**. *Image-guided Radiation Therapy in Gynecologic Cancer*. Oral presentation at IGRT and SBRT Symposium of the American Society for Therapeutic Radiology and Oncology (ASTRO), Miami, 2009.
- 5) Nath SK, Lawson JD, **Simpson DR**, Newman B, Alksne J, Mundt AJ, Murphy K. *Frameless Stereotactic Radiosurgery for the Treatment of Brain Metastases*. Oral presentation at the 1st annual National Predoctoral Clinical Research Training Meeting. Washington University, St. Louis, 2009.
- 6) Nath SK, Lawson JD, **Simpson DR**, Newman B, Alksne J, Mundt AJ, Murphy K. *Optically-Guided Frameless Stereotactic Radiosurgery for Brain Metastases*. Poster presentation at the 51st annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Chicago, 2009.
- 7) Sandhu AP, Nath SK, Rose BS, **Simpson DR**, Nobiensky PD, Wang JZ, Millard F, Kane CJ, Parsons JK, Mundt AJ. *Imaged-Guided Intensity-Modulated Radiotherapy for Adjuvant and Salvage Prostate Cancer: Acute and Late Gastrointestinal and Genitourinary Toxicity*. Poster presentation at the 51st annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Chicago, 2009.
- 8) Murphy K, Nath SK, Lawson JD, **Simpson DR**, VanderSpek L, Alksne J, Mundt AJ. *A Single-Isocenter Technique for Frameless Intensity-Modulated Stereotactic Radiosurgery for Multiple Brain Metastases*. Submitted to the 51st annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Chicago, 2009.
- 9) **Simpson DR**, Song WY, Rose BS, Yashar CM, Nath SK, Mundt AJ, Mell LK. *Normal Tissue Complication Probability Analysis of Acute Gastrointestinal Toxicity in Cervical Cancer Patients Undergoing Intensity Modulated Radiation Therapy and Concurrent Cisplatin*. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.

- 10) Mundt AJ, **Simpson DR**, Nath SK, Rose BS, Mell LK. *Portrayal of Radiation Therapy in the Press: A Survey of American Newspapers*. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.
- 11) Nath SK, Rose BS, **Simpson DR**, Russell ML, Lawson JD, Mundt AJ, Murphy KT. *Observed Radiographic Changes in Pediatric Patients Treated with Frameless Stereotactic Radiosurgery for Intracranial Tumors*. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.
- 12) Rose BS, Nath SK, Manoj S, **Simpson DR**, Yashar CM, Mundt AJ, Mell LK. Normal Tissue Complication Probability Analysis of Acute Gastrointestinal Toxicity in Cervical Cancer Patients Undergoing Intensity Modulated Radiation Therapy and Concurrent Cisplatin. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.
- 13) Graf MT, Scanderbeg DJ, **Simpson DR**, Yashar CM. *Comparison of Target Breast Volume Treated for Accelerated Partial Breast Irradiation (APBI) Devices*. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.
- 14) **Simpson DR**, Einck JP, Nath SK, Sethi RA, Wang JZ, Mundt AJ, Sandhu AP. *Initial Clinical Experience with Daily Cone Beam CT for Target Localization in Prostate Cancer Patients following Robotic Prostatectomy*. Poster presentation at the 52nd annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Diego, 2010.
- 15) **Simpson DR**, Yashar CM, Kannan N, Zakeri K, McMurtrie J, Mell LK, Kim H, Scanderbeg DJ, Beriwal S. *CT and MRI-based Image Guided Brachytherapy for Cervical Cancer: A Multi-institutional Report*. Oral presentation at the 54th annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Boston, 2012.
- 16) **Simpson DR**, Martinez E, Gupta S, Hattangadi-Gluth J, Mell LK, Heestand G, Fanta P, Ramamoorthy S, Le Q, Murphy JD. *Racial disparity in consultation, treatment, and the impact on survival in metastatic colorectal cancer*. Poster presentation at the 55th annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), Atlanta, 2013.
- 17) **Simpson DR**, Ambite JL, Kosztyla R, Kumaraguruparan M, Liu M, Moore KL, Murphy JD, Wu J, Moiseenko V. *A Novel Multiinstitutional Database for Tracking and Reporting Dose Volume Data and Normal Tissue Effects*. Poster presentation at the 56th annual meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO), San Francisco, 2014.
- 18) **Simpson DR**, Scanderbeg DJ, Carmona R, McMurtrie RM, Einck J, Mell LK, McHale MT, Saenz CC, Plaxe SC, Harrison T, Koonings PP, Mundt AJ, Yashar CM. Clinical Outcomes of Computed Tomography-Based Volumetric Brachytherapy Planning for Cervical Cancer. Oral presentation at the American Brachytherapy Society (ABS) annual meeting, Orlando, 2015.

BOOK CHAPTERS

- 1) **Simpson DR**, Nath SK, Rose BS, Mundt AJ. (2011) Adaptive Radiotherapy: Physician's Perspective. In: Roeske J. *Image Guided Radiotherapy: A Clinical Perspective* (pp. 570-594). Shelton, CT. PMPH USA.
- 2) **Simpson DR**, Yashar CM, Mell LK, Mundt AJ. (2013) Principles of Radiation Therapy for Cervical Cancer. In: Odunsi, K. *Gynecologic Cancers: A Multidisciplinary Approach to Diagnosis and Management* (pp. 43-52). New York, NY. Demos Medical Publishing.
- 3) Seibert TM, **Simpson DR**, Yashar CM, Mell LK, Mundt AJ. (2013) Innovations in Radiotherapy of Gynecologic Cancers. In: Odunsi K. *Gynecologic Cancers: A Multidisciplinary Approach to Diagnosis and Management* (pp. 43-52). New York, NY. Demos Medical Publishing.
- 4) **Simpson DR**, Paravati AJ, Yashar CM, Mell LK, Mundt AJ. (2014) Gynecologic Malignancies. In: Nishimura, Y. *Intensity Modulated Radiation Therapy: Clinical Evidence and Techniques*. Osaka, Japan. Springer Japan.

- 5) **Simpson DR**, Paravati AJ, Yashar CM, Mell LK, Mundt AJ. (2014) Cervical Cancer. In: Lee N.Y. *Target Volume Delineation and Field Setup*. New York, NY. Springer.
- 6) Paravati AJ, **Simpson DR**, Yashar CM, Mell LK, Mundt AJ. (2014) Endometrial Cancer. In: Lee N.Y. *Target Volume Delineation and Field Setup*. New York, NY. Springer.

PROFESSIONAL ACTIVITIES

Ad Hoc Reviewer, International Journal of Radiation Oncology Biology Physics	2012-present
Ad Hoc Reviewer, Oncology	2012-present
Ad Hoc Reviewer, Technology in Cancer Research and Treatment	2012-present
Ad Hoc Reviewer, <i>ecancermedicalsciences</i>	2014-present
Undergraduate Teaching assistant, UCSD Department of Biology	2004-06
Manager, UCSD Student-Run Free Clinic Manager	2005-07