




Edward Graves

Associate Professor of Radiation Oncology (Radiation Physics) and, by courtesy, of Radiology (Molecular Imaging Program at Stanford)

Radiation Oncology - Radiation Physics

 NIH Biosketch available Online

 Curriculum Vitae available Online

CONTACT INFORMATION

• Administrative Contact

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Tel (650)736-4757

Bio

ACADEMIC APPOINTMENTS

- Associate Professor, Radiation Oncology - Radiation Physics
- Associate Professor (By courtesy), Radiology - Rad/Molecular Imaging Program at Stanford
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

PROFESSIONAL EDUCATION

- B.S., UC Berkeley , Bioengineering (1996)
- Ph.D., UC Berkeley/UCSF , Bioengineering (2001)

LINKS

- Graves Lab: <http://graveslab.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research group is focused on applications of emerging functional and molecular imaging techniques in radiation therapy of cancer. In order to integrate these novel imaging procedures with state-of-the-art radiation therapy, a number of issues must be addressed. First, what are the molecular targets that hold the most promise for targeting and monitoring response to radiation therapy, and how can they best be visualized in vivo? Second, what are the limitations of novel imaging techniques that may bear on their application in radiation oncology? Third, how can one display, analyze, and segment multiple three-dimensional datasets to generate target volumes for radiotherapy? And finally, how will the information contained in imaging results of different modalities be integrated into the selection of a treatment course for a patient and subsequently, where appropriate, the specification of an optimized radiation target? These questions comprise my research. Projects that address these topics include the implementation and evaluation of clinical PET/CT imaging for radiation treatment planning, development and validation of novel molecular imaging methods for preclinical and clinical imaging of tumor radiosensitivity and radiation response, development of software for multimodal image analysis, and study of tumor hypoxia and radioresistance in small animal models using a multimodality molecular imaging approach.

CLINICAL TRIALS

- Imaging and Biomarkers of Hypoxia in Solid Tumors, Not Recruiting
- Metabolic Reprogramming Therapy for Treatment of Recurrent Head and Neck Cancers, Not Recruiting
- Molecular and Cellular Analysis of Breast Cancer, Not Recruiting
- Phase I Dose Escalation of Stereotactic Radiosurgical Boost for Locally Advanced Esophageal Cancer, Not Recruiting

Teaching

COURSES

2023-24

- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win)
- Radiation Biology and Protection: BMP 253, RADO 253 (Spr)

2022-23

- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win)
- Radiation Biology and Protection: BMP 253, RADO 253 (Spr)

2021-22

- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win)

2020-21

- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Jess Klockow, Jimmy Xu

Postdoctoral Research Mentor

Jess Klockow

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (Phd Program)
- Cancer Biology (Phd Program)

Publications

PUBLICATIONS

- **Radiotherapy in combination with CD47 blockade elicits a macrophage-mediated abscopal effect.** *Nature cancer*
Nishiga, Y., Drainas, A. P., Baron, M., Bhattacharya, D., Barkal, A. A., Ahrari, Y., Mancusi, R., Ross, J. B., Takahashi, N., Thomas, A., Diehn, M., Weissman, I. L., Graves, et al
2022
- **The role of granulocyte macrophage colony stimulating factor (GM-CSF) in radiation-induced tumor cell migration.** *Clinical & experimental metastasis*
Vilalta, M., Brune, J., Rafat, M., Soto, L., Graves, E. E.
2018
- **18F-EF5 PET-based Imageable Hypoxia Predicts Local Recurrence in Tumors Treated With Highly Conformal Radiation Therapy.** *International journal of radiation oncology, biology, physics*
Qian, Y. n., Von Eyben, R. n., Liu, Y. n., Chin, F. T., Miao, Z. n., Apte, S. n., Carter, J. N., Binkley, M. S., Pollom, E. L., Harris, J. P., Prionas, N. D., Kissel, M. n., Simmons, et al

2018

- **Macrophages Promote Circulating Tumor Cell-Mediated Local Recurrence Following Radiation Therapy in Immunosuppressed Patients.** *Cancer research*
Rafat, M. n., Aguilera, T. A., Vilalta, M. n., Bronsart, L. L., Soto, L. A., von Eyben, R. n., Golla, M. A., Ahrari, Y. n., Melemenidis, S. n., Afghahi, A. n., Jenkins, M. J., Kurian, A. W., Horst, et al
2018
- **Reprogramming the immunological microenvironment through radiation and targeting Axl** *NATURE COMMUNICATIONS*
Aguilera, T. A., Rafat, M., Castellini, L., Shehade, H., Kariolis, M. S., Hui, A. B., Stehr, H., von Eyben, R., Jiang, D., Ellies, L. G., Koong, A. C., Diehn, M., Rankin, et al
2016; 7
- **18F-EF5 PET Is Predictive of Response to Fractionated Radiotherapy in Preclinical Tumor Models.** *PloS one*
Ali, R., Apte, S., Vilalta, M., Subbarayan, M., Miao, Z., Chin, F. T., Graves, E. E.
2015; 10 (10)
- **Recruitment of circulating breast cancer cells is stimulated by radiotherapy.** *Cell reports*
Vilalta, M., Rafat, M., Giaccia, A. J., Graves, E. E.
2014; 8 (2): 402-409
- **Hypoxia in Models of Lung Cancer: Implications for Targeted Therapeutics** *CLINICAL CANCER RESEARCH*
Graves, E. E., Vilalta, M., Cecic, I. K., Erler, J. T., Tran, P. T., Felsher, D., Sayles, L., Sweet-Cordero, A., Le, Q., Giaccia, A. J.
2010; 16 (19): 4843-4852
- **DEVELOPMENT OF A MICRO-COMPUTED TOMOGRAPHY-BASED IMAGE-GUIDED CONFORMAL RADIOTHERAPY SYSTEM FOR SMALL ANIMALS** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Zhou, H., Rodriguez, M., van den Haak, F., Nelson, G., Jogani, R., Xu, J., Zhu, X., Xian, Y., Tran, P. T., Felsher, D. W., Keall, P. J., Graves, E. E.
2010; 78 (1): 297-305
- **RT_Image: An open-source tool for investigating PET in radiation oncology** *TECHNOLOGY IN CANCER RESEARCH & TREATMENT*
Graves, E. E., Quon, A., Loo, B. W.
2007; 6 (2): 111-121
- **Rapid recruitment and IFN-I-mediated activation of monocytes dictate focal radiotherapy efficacy.** *Science immunology*
Tadepalli, S., Clements, D. R., Saravanan, S., Arroyo Hornero, R., Lütcke, A., Blackmore, B., Paulo, J. A., Gottfried-Blackmore, A., Seong, D., Park, S., Chan, L., Kopecky, B. J., Liu, et al
2023; 8 (84): eadd7446
- **Clinical LINAC-based electron FLASH: Pathway for practical translation to FLASH clinical trials: LINAC electron FLASH.** *International journal of radiation oncology, biology, physics*
No, H. J., Wu, Y. F., Dworkin, M. L., Manjappa, R., Skinner, L., Ashraf, M. R., Lau, B., Melemenidis, S., Viswanathan, V., Yu, A. S., Surucu, M., Schüller, E., Graves, et al
2023
- **Technical Note: Non-Invasive monitoring of normal tissue radiation damage using spectral quantitative ultrasound spectroscopy.** *Medical physics*
Rafat, M., Kaffas, A. E., Swarnakar, A., Shostak, A., Graves, E. E.
2022
- **Design and validation of a dosimetric comparison scheme tailored for ultra-high dose-rate electron beams to support multicenter FLASH preclinical studies.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Gonçalves Jorge, P., Melemenidis, S., Grilj, V., Buchillier, T., Manjappa, R., Viswanathan, V., Gondré, M., Vozenin, M. C., Germond, J. F., Bochud, F., Moeckli, R., Limoli, C., Skinner, et al
2022
- **Real-time optical oximetry during FLASH radiotherapy using a phosphorescent nanoprobe.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Ha, B., Liang, K., Liu, C., Melemenidis, S., Manjappa, R., Viswanathan, V., Das, N., Ashraf, R., Lau, B., Soto, L., Graves, E. E., Rao, J., Loo, et al
2022
- **Radiotherapy alters expression of molecular targets in prostate cancer in a fractionation- and time-dependent manner.** *Scientific reports*
Eke, I., Aryankalayil, M. J., Bylicky, M. A., Makinde, A. Y., Liotta, L., Calvert, V., Petricoin, E. F., Graves, E. E., Coleman, C. N.

2022; 12 (1): 3500

- **TRACKING INNATE IMMUNE ACTIVATION IN A MOUSE MODEL OF PARKINSON'S DISEASE USING TREM1 AND TSPO PET TRACERS.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Lucot, K. L., Stevens, M. Y., Bonham, T. A., Azevedo, E. C., Chaney, A. M., Webber, E. D., Jain, P., Klockow, J. L., Jackson, I. M., Carlson, M. L., Graves, E. E., Montine, T. J., James, et al
2022
- **C3aR Signaling Inhibits NK-cell Infiltration into the Tumor Microenvironment in Mouse Models.** *Cancer immunology research*
Nandagopal, S., Li, C. G., Xu, Y., Sodji, Q. H., Graves, E. E., Giaccia, A. J.
2021
- **Long-term expression changes of immune-related genes in prostate cancer after radiotherapy.** *Cancer immunology, immunotherapy : CII*
Eke, I., Aryankalayil, M. J., Bylicky, M. A., Sandfort, V., Vanpouille-Box, C., Nandagopal, S., Graves, E. E., Giaccia, A. J., Coleman, C. N.
2021
- **The lncRNAs LINC00261 and LINC00665 are upregulated in long-term prostate cancer adaptation after radiotherapy.** *Molecular therapy. Nucleic acids*
Eke, I., Bylicky, M. A., Sandfort, V., Chopra, S., Martello, S., Graves, E. E., Coleman, C. N., Aryankalayil, M. J.
2021; 24: 175–87
- **Pharmacological Regulation of Tumor Hypoxia in Model Murine Tumors and Spontaneous Canine Tumors.** *Cancers*
Benej, M., Wu, J., Kreamer, M., Kery, M., Corrales-Guerrero, S., Papandreou, I., Williams, T. M., Li, Z., Graves, E. E., Selmic, L. E., Denko, N. C.
2021; 13 (7)
- **Pharmacological Regulation of Tumor Hypoxia in Model Murine Tumors and Spontaneous Canine Tumors** *CANCERS*
Benej, M., Wu, J., Kreamer, M., Kery, M., Corrales-Guerrero, S., Papandreou, I., Williams, T. M., Li, Z., Graves, E. E., Selmic, L. E., Denko, N. C.
2021; 13 (7)
- **Y box binding protein 1 inhibition as a targeted therapy for ovarian cancer.** *Cell chemical biology*
Tailor, D., Resendez, A., Garcia-Marques, F. J., Pandrala, M., Going, C. C., Bermudez, A., Kumar, V., Rafat, M., Nambiar, D. K., Honkala, A., Le, Q., Sledge, G. W., Graves, et al
2021
- **Effects of Focal Ionizing Radiation of the Squid Stellate Ganglion on Synaptic and Axonal Transmission in the Giant-Fiber Pathway** *CUREUS*
Gilly, W. F., Teal, P., Graves, E. E., Lo, J., Schneider, M., Zasio, R., Adler, J. R.
2021; 13 (2)
- **Effects of Focal Ionizing Radiation of the Squid Stellate Ganglion on Synaptic and Axonal Transmission in the Giant-Fiber Pathway.** *Cureus*
Gilly, W. F., Teal, P., Graves, E. E., Lo, J., Schneider, M. B., Zasio, R., Adler, J. R.
2021; 13 (2): e13110
- **The HIF target MAFF promotes tumor invasion and metastasis through IL11 and STAT3 signaling.** *Nature communications*
Moon, E. J., Mello, S. S., Li, C. G., Chi, J., Thakkar, K., Kirkland, J. G., Lagory, E. L., Lee, I. J., Diep, A. N., Miao, Y., Rafat, M., Vilalta, M., Castellini, et al
2021; 12 (1): 4308
- **FLASH irradiation enhances the therapeutic index of abdominal radiotherapy in mice**
Natarajan, S., Levy, K., Wang, J., Chow, S., Eggold, J., Loo, P., Manjappa, R., Lartey, F. M., Schuler, E., Skinner, L., Rafat, M., Ko, R., Kim, et al
AMER ASSOC CANCER RESEARCH.2020
- **Reprogramming of serine metabolism during breast cancer progression**
Li, A., Ducker, G. S., Li, Y., Seoane, J. A., Xiao, Y., Melemenidis, S., Zhou, Y., Liu, L., Vanharanta, S., Graves, E. E., Rankin, E. B., Curtis, C., Massague, et al
AMER ASSOC CANCER RESEARCH.2020
- **Visualizing innate immune activation in a mouse model of Parkinson's disease using a highly specific TREM1-PET tracer.**
Lucot, K., Stevens, M., Jain, P., Bonham, T., Webber, E., Klockow, J., Azevedo, E., Chaney, A., Graves, E., Montine, T., James, M.
SOC NUCLEAR MEDICINE INC.2020
- **An activatable NIR fluorescent rosol for selectively imaging nitroreductase activity** *SENSORS AND ACTUATORS B-CHEMICAL*
Klockow, J. L., Hettie, K. S., LaGory, E. L., Moon, E., Giaccia, A. J., Graves, E. E., Chin, F. T.
2020; 306

- **An Activatable NIR Fluorescent Rosol for Selectively Imaging Nitroreductase Activity.** *Sensors and actuators. B, Chemical*
Klockow, J. L., Hettie, K. S., LaGory, E. L., Moon, E. J., Giaccia, A. J., Graves, E. E., Chin, F. T.
2020; 306
- **Induced tumor heterogeneity reveals factors informing radiation and immunotherapy combinations.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Aguilera, T. A., Elghonaimy, E., Shehade, H., Rafat, M., Castellini, L., Jiang, D., Kariolis, M., Koong, A., Le, Q., Ellies, L. G., Rankin, E. B., Graves, E. E., Giaccia, et al
2020
- **Extracellular cGAMP is a cancer cell-produced immunotransmitter involved in radiation-induced anti-cancer immunity.** *Nature cancer*
Carozza, J. A., Böhnert, V., Nguyen, K. C., Skariah, G., Shaw, K. E., Brown, J. A., Rafat, M., von Eyben, R., Graves, E. E., Glenn, J. S., Smith, M., Li, L.
2020; 1 (2): 184-196
- **Metabolic Profiling Reveals a Dependency of Human Metastatic Breast Cancer on Mitochondrial Serine and One-Carbon Unit Metabolism.** *Molecular cancer research : MCR*
Li, A. M., Ducker, G. S., Li, Y. n., Seoane, J. A., Xiao, Y. n., Melemenidis, S. n., Zhou, Y. n., Liu, L. n., Vanharanta, S. n., Graves, E. E., Rankin, E. B., Curtis, C. n., Massague, et al
2020
- **Abdominal FLASH irradiation reduces radiation-induced gastrointestinal toxicity for the treatment of ovarian cancer in mice.** *Scientific reports*
Levy, K. n., Natarajan, S. n., Wang, J. n., Chow, S. n., Eggold, J. T., Loo, P. E., Manjappa, R. n., Melemenidis, S. n., Lartey, F. M., Schüler, E. n., Skinner, L. n., Rafat, M. n., Ko, et al
2020; 10 (1): 21600
- **FLASH Irradiation Results in Reduced Severe Skin Toxicity Compared to Conventional-Dose-Rate Irradiation.** *Radiation research*
Soto, L. A., Casey, K. M., Wang, J. n., Blaney, A. n., Manjappa, R. n., Breikreutz, D. n., Skinner, L. n., Dutt, S. n., Ko, R. B., Bush, K. n., Yu, A. S., Melemenidis, S. n., Strober, et al
2020
- **Evaluating the Reproducibility of Mouse Anatomy under Rotation in a Custom Immobilization Device for Conformal FLASH Radiotherapy.** *Radiation research*
Ko, R. B., Soto, L. A., von Eyben, R. n., Melemenidis, S. n., Rankin, E. B., Maxim, P. G., Graves, E. E., Loo, B. W.
2020
- **Intravital imaging reveals synergistic effect of CAR T-cells and radiation therapy in a preclinical immunocompetent glioblastoma model** *Oncoimmunology*
Murty, S., Haile, S. T., Beinat, C., Aalipour, A., Alam, I. S., Murty, T., Shaffer, T. M., Patel, C. B., Graves, E. E., Mackall, C. L., Gambhir, S. S.
2020; 9 (1)
- **53BP1/RIF1 signaling promotes cell survival after multifractionated radiotherapy.** *Nucleic acids research*
Eke, I., Zong, D., Aryankalayil, M. J., Sandfort, V., Bylicky, M. A., Rath, B. H., Graves, E. E., Nussenzweig, A., Coleman, C. N.
2019
- **Radiosensitization of Head and Neck Squamous Cell Carcinoma (HNSCC) by a Podophyllotoxin.** *ACS medicinal chemistry letters*
Resendez, A., Tailor, D., Graves, E., Malhotra, S. V.
2019; 10 (9): 1314-21
- **2' 3'-cGAMP is an immunotransmitter produced by cancer cells and regulated by ENPP1**
Carozza, J., Bohnert, V., Shaw, K., Khanh Nyugen, Skariah, G., Brown, J., Rafat, M., von Eyben, R., Graves, E., Glenn, J., Smith, M., Li, L.
AMER CHEMICAL SOC.2019
- **A near-infrared phosphorescent nanoprobe enables quantitative, longitudinal imaging of tumor hypoxia dynamics during radiotherapy.** *Cancer research*
Zheng, X., Cui, L., Chen, M., Soto, L. A., Graves, E. E., Rao, J.
2019
- **Papaverine and its novel derivatives radiosensitize solid tumors by inhibiting mitochondrial metabolism**
Benej, M., Hong, X., Vibhute, S., Scott, S., Wu, J., Graves, E., Quynh-Thu Le, Koong, A. C., Giaccia, A. J., Chen, C., Yu, B., Papandreou, I., Denko, N. C.
AMER ASSOC CANCER RESEARCH.2019
- **The irradiated tissue microenvironment and its role in breast cancer recurrence: Enhanced macrophage infiltration promotes tumor cell recruitment**
Hacker, B. C., Alves, S. M., Jiang, D., Koong, A. C., Giaccia, A. J., Graves, E. E., Rafat, M.

AMER ASSOC CANCER RESEARCH.2019

- **FLT-PET-CT for the Detection of Disease Recurrence After Stereotactic Ablative Radiotherapy or Hyperfractionation for Thoracic Malignancy: A Prospective Pilot Study** *FRONTIERS IN ONCOLOGY*
Hiniker, S. M., Sodji, Q., Quon, A., Gutkin, P. M., Arksey, N., Graves, E. E., Chin, F. T., Maxim, P. G., Diehn, M., Loo, B. W.
2019; 9
- **FLT-PET-CT for the Detection of Disease Recurrence After Stereotactic Ablative Radiotherapy or Hyperfractionation for Thoracic Malignancy: A Prospective Pilot Study.** *Frontiers in oncology*
Hiniker, S. M., Sodji, Q., Quon, A., Gutkin, P. M., Arksey, N., Graves, E. E., Chin, F. T., Maxim, P. G., Diehn, M., Loo, B. W.
2019; 9: 467
- **[F-18]-SuPAR: A Radiofluorinated Probe for Noninvasive Imaging of DNA Damage-Dependent Poly(ADP-ribose) Polymerase Activity** *BIOCONJUGATE CHEMISTRY*
Shuhendler, A. J., Cui, L., Chen, Z., Shen, B., Chen, M., James, M. L., Witney, T. H., Bazalova-Carter, M., Gambhir, S. S., Chin, F. T., Graves, E. E., Rao, J.
2019; 30 (5): 1331–42
- **Increases in Serial Pretreatment 18F-FDG PET-CT Metrics Predict Survival in Early Stage Non-Small Cell Lung Cancer Treated With Stereotactic Ablative Radiation Therapy.** *Advances in radiation oncology*
Prionas, N. D., von Eyben, R., Yi, E., Aggarwal, S., Shaffer, J., Bazan, J., Eastham, D., Maxim, P. G., Graves, E. E., Diehn, M., Gensheimer, M. F., Loo, B. W.
2019; 4 (2): 429–37
- **Increases in Serial Pretreatment F-18-FDG PET-CT Metrics Predict Survival in Early Stage Non-Small Cell Lung Cancer Treated With Stereotactic Ablative Radiation Therapy** *ADVANCES IN RADIATION ONCOLOGY*
Prionas, N. D., von Eyben, R., Yi, E., Aggarwal, S., Shaffer, J., Bazan, J., Eastham, D., Maxim, P. G., Graves, E. E., Diehn, M., Gensheimer, M. F., Loo, B. W.
2019; 4 (2): 429–37
- **INTRADETRUSOR IPSC-DERIVED HUMAN PROGENITOR SMOOTH MUSCLE CELLS IN A ROWETT NUDE RAT MODEL OF RADIATION CYSTITIS**
Dobberfuhr, A. D., Briggs, M. A., Wallace, S. L., Wen, Y., Zhou, Y., Graves, E. E., Diaz, E. C., Knox, S. J., Chen, B.
LIPPINCOTT WILLIAMS & WILKINS.2019: E155
- **Targeted and Selective Treatment of Pluripotent Stem Cell-derived Teratomas Using External Beam Radiation in a Small-animal Model.** *Journal of visualized experiments : JoVE*
Sallam, K., Rhee, J., Chour, T., D'addabbo, J., Lee, A. S., Graves, E., Nguyen, P. K.
2019
- **Integrating Small Animal Irradiators with Functional Imaging for Advanced Preclinical Radiotherapy Research.** *Cancers*
Ghita, M., Brown, K. H., Kelada, O. J., Graves, E. E., Butterworth, K. T.
2019; 11 (2)
- **Targeted and Selective Treatment of Pluripotent Stem Cell-derived Teratomas Using External Beam Radiation in a Small-animal Model** *JOVE-JOURNAL OF VISUALIZED EXPERIMENTS*
Sallam, K., Rhee, J., Chour, T., D'addabbo, J., Lee, A. S., Graves, E., Nguyen, P. K.
2019
- **Ambulatory and ex-vivo effect of intradetrusor ipsc-derived human progenitor smooth muscle cells in a rat model of radiation induced bladder dysfunction**
Dobberfuhr, A. D., Briggs, M. A., Wallace, S. L., Wen, Y., Zhou, Y., Graves, E. E., Diaz, E. C., Chen, B.
WILEY.2019: S27–S28
- **Reduced cognitive deficits after FLASH irradiation of whole mouse brain are associated with less hippocampal dendritic spine loss and neuroinflammation.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Simmons, D. A., Lartey, F. M., Schüler, E. n., Rafat, M. n., King, G. n., Kim, A. n., Ko, R. n., Semaan, S. n., Gonzalez, S. n., Jenkins, M. n., Pradhan, P. n., Shih, Z. n., Wang, et al
2019
- **Theranostic nanoparticles enhance the response of glioblastomas to radiation** *Nanotheranostics*
Wu, W., Klockow, J. L., Mohanty, S., Ku, K. S., Daldrup-Link, H. E.
2019; 3(4) (299-310)

- **Irradiation or temozolomide chemotherapy enhances anti-CD47 treatment of glioblastoma.** *Innate immunity*
Gholamin, S. n., Youssef, O. A., Rafat, M. n., Esparza, R. n., Kahn, S. n., Shahin, M. n., Giaccia, A. J., Graves, E. E., Weissman, I. n., Mitra, S. n., Cheshier, S. H.
2019: 1753425919876690
- **Preclinical Evaluation of Dose-Volume Effects and Lung Toxicity Occurring in- and out-of-field.** *International journal of radiation oncology, biology, physics*
Ghita, M., Dunne, V. L., McMahon, S. J., Osman, S. O., Small, D. M., Weldon, S., Taggart, C. C., McGarry, C. K., Hounsell, A. R., Graves, E. E., Prise, K. M., Hanna, G. G., Butterworth, et al
2018
- **Papaverine and its derivatives radiosensitize solid tumors by inhibiting mitochondrial metabolism** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Benej, M., Hong, X., Vibhute, S., Scott, S., Wu, J., Graves, E., Le, Q., Koong, A. C., Giaccia, A. J., Yu, B., Chen, S., Papandreou, I., Denko, et al
2018; 115 (42): 10756–61
- **A gold nanoparticle system for enhancement of radiotherapy and simultaneous monitoring of reactive-oxygen-species formation.** *Nanotechnology*
Choi, J., Jung, K., Graves, E. E., Prax, G.
2018
- **18F-EF5 Pet-Based Imageable Hypoxia Predicts for Local Control in Tumors Treated With Conformal Radiotherapy**
Qian, Y., Liu, Y., Von Eyben, R., Carter, J. N., Pollom, E. L., Harris, J. P., Prionas, N. D., Binkley, M. S., Simmons, A., Diehn, M., Chin, F. T., Shultz, D. B., Brown, et al
ELSEVIER SCIENCE INC.2018: E17–E18
- **The tumour microenvironment links complement system dysregulation and hypoxic signalling.** *The British journal of radiology*
Olcina, M. M., Kim, R. K., Melemenidis, S., Graves, E. E., Giaccia, A. J.
2018: 20180069
- **Present developments in reaching an international consensus for a model-based approach to particle beam therapy** *JOURNAL OF RADIATION RESEARCH*
Prayongrat, A., Umegaki, K., van der Schaaf, A., Koong, A. C., Lin, S. H., Whitaker, T., McNutt, T., Matsufuji, N., Graves, E., Mizuta, M., Ogawa, K., Date, H., Moriawaki, et al
2018; 59: 172–176
- **THE NATURAL HISTORY OF RADIATION CYSTITIS IN A RAT MODEL OF ACUTE AND CHRONIC LOWER URINARY TRACT DYSFUNCTION**
Dobberfuhl, A. D., Briggs, M. A., Wen, Y., Ning, S., Graves, E. E., Diaz, E. C., Chen, B.
WILEY.2018: S538
- **Mid-radiotherapy PET/CT for prognostication and detection of early progression in patients with stage III non-small cell lung cancer** *RADIOTHERAPY AND ONCOLOGY*
Gensheimer, M. F., Hong, J. C., Chang-Halpeny, C., Zhu, H., Eclov, N. W., To, J., Murphy, J. D., Wakelee, H. A., Neal, J. W., Le, Q., Hara, W. Y., Quon, A., Maxim, et al
2017; 125 (2): 338–43
- **Patterns of Vasculature in Mouse Models of Lung Cancer Are Dependent on Location** *MOLECULAR IMAGING AND BIOLOGY*
Vilalta, M., Hughes, N. P., von Eyben, R., Giaccia, A. J., Graves, E. E.
2017; 19 (2): 215-224
- **Feasibility of external beam radiation therapy to deep-seated targets with kilovoltage x-rays.** *Medical physics*
Bazalova-Carter, M., Weil, M. D., Breikreutz, D. Y., Wilfley, B. P., Graves, E. E.
2017; 44 (2): 597-607
- **Dynamic CT imaging of volumetric changes in pulmonary nodules correlates with physical measurements of stiffness.** *Radiotherapy and oncology*
Lartey, F. M., Rafat, M., Negahdar, M., Malkovskiy, A. V., Dong, X., Sun, X., Li, M., Doyle, T., Rajadas, J., Graves, E. E., Loo, B. W., Maxim, P. G.
2017; 122 (2): 313-318
- **Metabolic tumor volume predicts overall survival and local control in patients with stage III non-small cell lung cancer treated in ACRIN 6668/RTOG 0235** *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
Bazan, J. G., Duan, F., Snyder, B. S., Horng, D., Graves, E. E., Siegel, B. A., Machtay, M., Loo, B. W.
2017; 44 (1): 17-24
- **Detection of nociceptive-related metabolic activity in the spinal cord of low back pain patients using (18)F-FDG PET/CT.** *Scandinavian journal of pain*

- Zhou, X. n., Cipriano, P. n., Kim, B. n., Dhatt, H. n., Rosenberg, J. n., Mittra, E. n., Do, B. n., Graves, E. n., Biswal, S. n.
2017; 15: 53–57
- **Blimp1 induces transient metastatic heterogeneity in pancreatic cancer.** *Cancer discovery*
Chiou, S. H., Risca, V. I., Wang, G. X., Yang, D. n., Grüner, B. M., Kathiria, A. S., Ma, R. K., Vaka, D. n., Chu, P. n., Kozak, M. n., Castellini, L. n., Graves, E. E., Kim, et al
2017
 - **External Beam Radiation Therapy for the Treatment of Human Pluripotent Stem Cell-Derived Teratomas.** *Stem cells (Dayton, Ohio)*
Lee, A. S., Tang, C. n., Hong, W. X., Park, S. n., Bazalova, M. n., Nelson, G. n., Sanchez-Freire, V. n., Bakerman, I. n., Zhang, W. n., Neofytou, E. n., Connolly, A. J., Chan, C. K., Graves, et al
2017
 - **Patterns of Vasculature in Mouse Models of Lung Cancer Are Dependent on Location.** *Molecular imaging and biology*
Vilalta, M., Hughes, N. P., von Eyben, R., Giaccia, A. J., Graves, E. E.
2016: -?
 - **Metabolic tumor volume predicts overall survival and local control in patients with stage III non-small cell lung cancer treated in ACRIN 6668/RTOG 0235.** *European journal of nuclear medicine and molecular imaging*
Bazan, J. G., Duan, F., Snyder, B. S., Horng, D., Graves, E. E., Siegel, B. A., Machtay, M., Loo, B. W.
2016: -?
 - **Effects of radiation on metastasis and tumor cell migration.** *Cellular and molecular life sciences*
Vilalta, M., Rafat, M., Graves, E. E.
2016; 73 (16): 2999-3007
 - **The impact of audiovisual biofeedback on 4D functional and anatomic imaging: Results of a lung cancer pilot study.** *Radiotherapy and oncology*
Yang, J., Yamamoto, T., Pollock, S., Berger, J., Diehn, M., Graves, E. E., Loo, B. W., Keall, P. J.
2016; 120 (2): 267-272
 - **Quantitative and qualitative analysis of [(18)F]FDG and [(18)F]FAZA positron emission tomography of head and neck cancers and associations with HPV status and treatment outcome.** *European journal of nuclear medicine and molecular imaging*
Graves, E. E., Hicks, R. J., Binns, D., Bressel, M., Le, Q., Peters, L., Young, R. J., Rischin, D.
2016; 43 (4): 617-625
 - **Quantitative and qualitative analysis of [F-18]FDG and [F-18]FAZA positron emission tomography of head and neck cancers and associations with HPV status and treatment outcome** *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
Graves, E. E., Hicks, R. J., Binns, D., Bressel, M., Quynh-Thu Le, Q. T., Peters, L., Young, R. J., Rischin, D.
2016; 43 (4): 617-625
 - **Outcomes of Modestly Hypofractionated Radiation for Lung Tumors: Pre- and Mid-Treatment Positron Emission Tomography-Computed Tomography Metrics as Prognostic Factors.** *Clinical lung cancer*
Harris, J. P., Chang-Halpeny, C. N., Maxim, P. G., Quon, A., Graves, E. E., Diehn, M., Loo, B. W.
2015; 16 (6): 475-485
 - **Molecular Magnetic Resonance Imaging of Tumor Response to Therapy** *SCIENTIFIC REPORTS*
Shuhendler, A. J., Ye, D., Brewer, K. D., Bazalova-Carter, M., Lee, K., Kempen, P., Wittrup, K. D., Graves, E. E., Rutt, B., Rao, J.
2015; 5
 - **F-18-EF5 PET Is Predictive of Response to Fractionated Radiotherapy in Preclinical Tumor Models** *PLOS ONE*
Ali, R., Apte, S., Vilalta, M., Subbarayan, M., Miao, Z., Chin, F. T., Graves, E. E.
2015; 10 (10)
 - **Imaging radiation response in tumor and normal tissue.** *American journal of nuclear medicine and molecular imaging*
Rafat, M., Ali, R., Graves, E. E.
2015; 5 (4): 317-332
 - **Evaluation of tumor ischemia in response to an indole-based vascular disrupting agent using BLI and F-19 MRI** *AMERICAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
Zhou, H., Hallac, R. R., Lopez, R., Denney, R., MacDonough, M. T., Li, L., Liu, L., Graves, E. E., Trawick, M., Pinney, K. G., Mason, R. P.
2015; 5 (2): 143–53

- **The relationship between serial [(18)F]PBR06 PET imaging of microglial activation and motor function following stroke in mice.** *Molecular imaging and biology*
Lartey, F. M., Ahn, G., Ali, R., Rosenblum, S., Miao, Z., Arksey, N., Shen, B., Colomer, M. V., Rafat, M., Liu, H., Alejandre-Alcazar, M. A., Chen, J. W., Palmer, et al
2014; 16 (6): 821-829
- **The Relationship Between Serial [(18) F]PBR06 PET Imaging of Microglial Activation and Motor Function Following Stroke in Mice** *MOLECULAR IMAGING AND BIOLOGY*
Lartey, F. M., Ahn, G., Ali, R., Rosenblum, S., Miao, Z., Arksey, N., Shen, B., Colomer, M. V., Rafat, M., Liu, H., Alejandre-Alcazar, M. A., Chen, J. W., Palmer, et al
2014; 16 (6): 821-829
- **Recruitment of Circulating Breast Cancer Cells Is Stimulated by Radiotherapy** *CELL REPORTS*
Vilalta, M., Rafat, M., Giaccia, A. J., Graves, E. E.
2014; 8 (2): 401-408
- **PET Imaging of Stroke-Induced Neuroinflammation in Mice Using [F-18]PBR06** *MOLECULAR IMAGING AND BIOLOGY*
Lartey, F. M., Ahn, G., Shen, B., Cord, K., Smith, T., Chua, J. Y., Rosenblum, S., Liu, H., James, M. L., Chernikova, S., Lee, S. W., Pisani, L. J., Tirouvanziam, et al
2014; 16 (1): 109-117
- **The potential of positron emission tomography for intratreatment dynamic lung tumor tracking: A phantom study.** *Medical physics*
Yang, J., Yamamoto, T., Mazin, S. R., Graves, E. E., Keall, P. J.
2014; 41 (2): 021718-?
- **Modality comparison for small animal radiotherapy: a simulation study.** *Medical physics*
Bazalova, M., Nelson, G., Noll, J. M., Graves, E. E.
2014; 41 (1): 011710-?
- **Current status and recommendations for the future of research, teaching, and testing in the biological sciences of radiation oncology: report of the American Society for Radiation Oncology Cancer Biology/Radiation Biology Task Force, executive summary.** *International journal of radiation oncology, biology, physics*
Wallner, P. E., Anscher, M. S., Barker, C. A., Bassetti, M., Bristow, R. G., Cha, Y. I., Dicker, A. P., Formenti, S. C., Graves, E. E., Hahn, S. M., Hei, T. K., Kimmelman, A. C., Kirsch, et al
2014; 88 (1): 11-7
- **Modality comparison for small animal radiotherapy: A simulation study** *MEDICAL PHYSICS*
Bazalova, M., Nelson, G., Noll, J. M., Graves, E. E.
2014; 41 (1)
- **Semi-automatic segmentation of subcutaneous tumours from micro-computed tomography images** *PHYSICS IN MEDICINE AND BIOLOGY*
Ali, R., Gunduz-Demir, C., Szilagyi, T., Durkee, B., Graves, E. E.
2013; 58 (22): 8007-8019
- **Targeted therapies and hypoxia imaging** *QUARTERLY JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
Ali, R., Graves, E. E.
2013; 57 (3): 283-295
- **A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth.** *Clinical cancer research*
Xiao, N., Cao, H., Chen, C., Kong, C. S., Ali, R., Chan, C., Sirjani, D., Graves, E., Koong, A., Giaccia, A., Mochly-Rosen, D., Le, Q.
2013; 19 (16): 4455-4464
- **A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth** *CLINICAL CANCER RESEARCH*
Xiao, N., Cao, H., Chen, C., Kong, C. S., Ali, R., Chan, C., Sirjani, D., Graves, E., Koong, A., Giaccia, A., Mochly-Rosen, D., Quynh-Thu Le, Q. T.
2013; 19 (16): 4455-4464
- **Toward a planning scheme for emission guided radiation therapy (EGRT): FDG based tumor tracking in a metastatic breast cancer patient** *MEDICAL PHYSICS*
Fan, Q., Nanduri, A., Yang, J., Yamamoto, T., Loo, B., Graves, E., Zhu, L., Mazin, S.

2013; 40 (8)

- **Cost-effectiveness landscape analysis of treatments addressing xerostomia in patients receiving head and neck radiation therapy.** *Oral surgery, oral medicine, oral pathology and oral radiology*
Sasportas, L. S., Hosford, D. N., Sodini, M. A., Waters, D. J., Zambricki, E. A., Barral, J. K., Graves, E. E., Brinton, T. J., Yock, P. G., Le, Q., Sirjani, D.
2013; 116 (1): e37-51
- **Cost-effectiveness landscape analysis of treatments addressing xerostomia in patients receiving head and neck radiation therapy.** *Oral surgery, oral medicine, oral pathology and oral radiology*
Sasportas, L. S., Hosford, D. N., Sodini, M. A., Waters, D. J., Zambricki, E. A., Barral, J. K., Graves, E. E., Brinton, T. J., Yock, P. G., Le, Q., Sirjani, D.
2013; 116 (1): e37-51
- **Metabolic Tumor Volume Predicts Disease Progression and Survival in Patients with Squamous Cell Carcinoma of the Anal Canal** *JOURNAL OF NUCLEAR MEDICINE*
Bazan, J. G., Koong, A. C., Kapp, D. S., Quon, A., Graves, E. E., Loo, B. W., Chang, D. T.
2013; 54 (1): 27-32
- **Metabolic imaging metrics correlate with survival in early stage lung cancer treated with stereotactic ablative radiotherapy.** *Lung cancer*
Abelson, J. A., Murphy, J. D., Trakul, N., Bazan, J. G., Maxim, P. G., Graves, E. E., Quon, A., Le, Q., Diehn, M., Loo, B. W.
2012; 78 (3): 219-224
- **Metabolic imaging metrics correlate with survival in early stage lung cancer treated with stereotactic ablative radiotherapy** *LUNG CANCER*
Abelson, J. A., Murphy, J. D., Trakul, N., Bazan, J. G., Maxim, P. G., Graves, E. E., Quon, A., Quynh-Thu Le, Q. T., Diehn, M., Loo, B. W.
2012; 78 (3): 219-224
- **Monte Carlo model of the scanning beam digital x-ray (SBDX) source** *PHYSICS IN MEDICINE AND BIOLOGY*
Bazalova, M., Weil, M. D., Wilfley, B., Graves, E. E.
2012; 57 (22): 7381-7394
- **Postchemoradiotherapy Positron Emission Tomography Predicts Pathologic Response and Survival in Patients With Esophageal Cancer** *53rd Annual Meeting of the American-Society-of-Radiation-Oncology (ASTRO)*
Jayachandran, P., Pai, R. K., Quon, A., Graves, E., Krakow, T. E., La, T., Loo, B. W., Koong, A. C., Chang, D. T.
ELSEVIER SCIENCE INC.2012: 471-77
- **Positron Emission Tomography for Predicting Pathologic Response After Neoadjuvant Chemoradiotherapy for Locally Advanced Rectal Cancer** *50th Annual Meeting of the American-Society-for-Therapeutic-Radiation-Oncology (ASTRO)*
Chennupati, S. K., Quon, A., Kamaya, A., Pai, R. K., La, T., Krakow, T. E., Graves, E., Koong, A. C., Chang, D. T.
LIPPINCOTT WILLIAMS & WILKINS.2012: 334-39
- **Validation that Metabolic Tumor Volume Predicts Outcome in Head-and-Neck Cancer** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Tang, C., Murphy, J. D., Khong, B., La, T. H., Kong, C., Fischbein, N. J., Colevas, A. D., Iagaru, A. H., Graves, E. E., Loo, B. W., Quynh-Thu Le, Q. T.
2012; 83 (5): 1514-1520
- **Prognostic PET F-18-FDG Uptake Imaging Features Are Associated with Major Oncogenomic Alterations in Patients with Resected Non-Small Cell Lung Cancer** *CANCER RESEARCH*
Nair, V. S., Gevaert, O., Davidzon, G., Napel, S., Graves, E. E., Hoang, C. D., Shrager, J. B., Quon, A., Rubin, D. L., Plevritis, S. K.
2012; 72 (15): 3725-3734
- **Validation that metabolic tumor volume predicts outcome in head-and-neck cancer.** *International journal of radiation oncology, biology, physics*
Tang, C., Murphy, J. D., Khong, B., La, T. H., Kong, C., Fischbein, N. J., Colevas, A. D., Iagaru, A. H., Graves, E. E., Loo, B. W., Le, Q.
2012; 83 (5): 1514-1520
- **Prognostic Value of Metabolic Tumor Volume and Velocity in Predicting Head-and-Neck Cancer Outcomes** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Chu, K. P., Murphy, J. D., La, T. H., Krakow, T. E., Iagaru, A., Graves, E. E., Hsu, A., Maxim, P. G., Loo, B., Chang, D. T., Quynh-Thu Le, Q. T.
2012; 83 (5): 1521-1527
- **Bioluminescence Monitoring of Metastatic Breast Cancer: Quantitative Assessment of Radiation Treatment Effects and Tracking of Tumor Cells** *54th Annual Meeting and Exhibition of the American-Association-of-Physicists-in-Medicine (AAPM)*
Park, J., Schmidt, T., Graves, E., Bazalova, M., Lee, J., Contag, C., Suh, T.

AMER ASSOC PHYSICISTS MEDICINE AMER INST PHYSICS.2012: 3698-98

- **Prognostic and Predictive Significance of Plasma HGF and IL-8 in a Phase III Trial of Chemoradiation with or without Tirapazamine in Locoregionally Advanced Head and Neck Cancer** *CLINICAL CANCER RESEARCH*
Quynh-Thu Le, Q. T., Fisher, R., Oliner, K. S., Young, R. J., Cao, H., Kong, C., Graves, E., Hicks, R. J., McArthur, G. A., Peters, L., O'Sullivan, B., Giaccia, A., Rischin, et al
2012; 18 (6): 1798-1807
- **The potential for Cerenkov luminescence imaging of alpha-emitting radionuclides** *PHYSICS IN MEDICINE AND BIOLOGY*
Ackerman, N. L., Graves, E. E.
2012; 57 (3): 771-783
- **Interim-treatment quantitative PET parameters predict progression and death among patients with hodgkin's disease** *RADIATION ONCOLOGY*
Tseng, D., Rachakonda, L. P., Su, Z., Advani, R., Horning, S., Hoppe, R. T., Quon, A., Graves, E. E., Loo, B. W., Tran, P. T.
2012; 7
- **Metabolic Tumor Volume is an Independent Prognostic Factor in Patients Treated Definitively for Non-Small-Cell Lung Cancer** *CLINICAL LUNG CANCER*
Lee, P., Bazan, J. G., Lavori, P. W., Weerasuriya, D. K., Quon, A., Quynh-Thu Le, Q. T., Wakelee, H. A., Graves, E. E., Loo, B. W.
2012; 13 (1): 52-58
- **GPU-Enabled PET Motion Compensation Using Sparse and Low-Rank Decomposition** *IEEE Nuclear Science Symposium / Medical Imaging Conference Record (NSS/MIC) / 19th Room-Temperature Semiconductor X-ray and Gamma-ray Detector Workshop*
Cui, J., Yang, J., Graves, E., Levin, C. S.
IEEE.2012: 3367-3370
- **Correlation between metabolic tumor volume and pathologic tumor volume in squamous cell carcinoma of the oral cavity** *RADIOTHERAPY AND ONCOLOGY*
Murphy, J. D., Chisholm, K. M., Daly, M. E., Wiegner, E. A., Truong, D., Iagaru, A., Maxim, P. G., Loo, B. W., Graves, E. E., Kaplan, M. J., Kong, C., Le, Q.
2011; 101 (3): 356-361
- **Facilitating Multimodal Preclinical Imaging Studies in Mice by Using an Immobilization Bed** *COMPARATIVE MEDICINE*
Nelson, G. S., Perez, J., Colomer, M. V., Ali, R., Graves, E.
2011; 61 (6): 499-504
- **Targeting GLUT1 and the Warburg Effect in Renal Cell Carcinoma by Chemical Synthetic Lethality** *SCIENCE TRANSLATIONAL MEDICINE*
Chan, D. A., Sutphin, P. D., Nguyen, P., Turcotte, S., Lai, E. W., Banh, A., Reynolds, G. E., Chi, J., Wu, J., Solow-Cordero, D. E., Bonnet, M., Flanagan, J. U., Bouley, et al
2011; 3 (94)
- **Molecular Imaging of Hypoxia: Strategies for Probe Design and Application** *CURRENT ORGANIC SYNTHESIS*
Apte, S., Chin, F. T., Graves, E. E.
2011; 8 (4): 593-603
- **Molecular Imaging of Hypoxia: Strategies for Probe Design and Application.** *Current organic synthesis*
Apte, S., Chin, F. T., Graves, E. E.
2011; 8 (4): 593-603
- **POSTRADIATION METABOLIC TUMOR VOLUME PREDICTS OUTCOME IN HEAD-AND-NECK CANCER** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Murphy, J. D., La, T. H., Chu, K., Quon, A., Fischbein, N. J., Maxim, P. G., Graves, E. E., Loo, B. W., Le, Q.
2011; 80 (2): 514-521
- **The importance of tissue segmentation for dose calculations for kilovoltage radiation therapy** *MEDICAL PHYSICS*
Bazalova, M., Graves, E. E.
2011; 38 (6): 3039-3049
- **Tumor Volume as a Potential Imaging-Based Risk-Stratification Factor in Trimodality Therapy for Locally Advanced Non-small Cell Lung Cancer** *JOURNAL OF THORACIC ONCOLOGY*
Kozak, M. M., Murphy, J. D., Schipper, M. L., Donington, J. S., Zhou, L., Whyte, R. I., Shrager, J. B., Hoang, C. D., Bazan, J., Maxim, P. G., Graves, E. E., Diehn, M., Hara, et al

2011; 6 (5): 920-926

- **PET imaging of cerebral ischemia-induced neuroinflammation in mice using F-18-PBR06**
Lartey, F. M., Ahn, G., Shen, B., Cord, K., Smith, T., Chua, J. Y., Rosenblum, S., Tirouvanziam, R., Palmer, T., Guzman, R., Chin, F. T., Graves, E., Loo, et al
WILEY-BLACKWELL.2011: S319-S319
- **Changes in FDG-PET/CT Parameters on Serial Pre-radiotherapy Scans Predict Disease Progression and Survival in Patients with Non-small Cell Lung Cancer**
Bazan, J. G., Chung, M. P., Eastham, D. V., Wakelee, H., Hara, W. Y., Maxim, P. G., Graves, E., Le, Q. T., Diehn, M., Loo, B. W.
ELSEVIER SCIENCE INC.2011: S579-S580
- **(18)FLUORODEOXYGLUCOSE PET IS PROGNOSTIC OF PROGRESSION-FREE AND OVERALL SURVIVAL IN LOCALLY ADVANCED PANCREAS CANCER TREATED WITH STEREOTACTIC RADIOTHERAPY** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Schellenberg, D., Quon, A., Minn, A. Y., Graves, E. E., Kunz, P., Ford, J. M., Fisher, G. A., Goodman, K. A., Koong, A. C., Chang, D. T.
2010; 77 (5): 1420-1425
- **The Tumor Microenvironment in Non-Small-Cell Lung Cancer** *SEMINARS IN RADIATION ONCOLOGY*
Graves, E. E., Maity, A., Le, Q.
2010; 20 (3): 156-163
- **Investigation of the effects of treatment planning variables in small animal radiotherapy dose distributions** *MEDICAL PHYSICS*
Motomura, A. R., Bazalova, M., Zhou, H., Keall, P. J., Graves, E. E.
2010; 37 (2): 590-599
- **Mid-treatment Metabolic Tumor Volume Predicts Progression and Death among Patients with Hodgkin's Disease** *52nd Annual Meeting of the American-Society-for-Therapeutic-Radiation-Oncology (ASTRO)*
Tseng, D., Rachakonda, L. P., Su, Z., Advani, R., Horning, S., Rosenberg, S. A., Hoppe, R. T., Quon, A., Graves, E. E., Loo, B. W., Tran, P. T.
ELSEVIER SCIENCE INC.2010: S546-S547
- **Prognostic Value of Metabolic Tumor Volume and Velocity in Predicting Head and Neck Cancer Outcomes** *52nd Annual Meeting of the American-Society-for-Therapeutic-Radiation-Oncology (ASTRO)*
Chu, K. P., Murphy, J., La, T. H., Loo, B. W., Krakow, T. E., Hsu, A., Maxim, P. G., Graves, E., Chang, D., Le, Q.
ELSEVIER SCIENCE INC.2010: S460-S460
- **Pharmacologically Increased Tumor Hypoxia Can Be Measured by F-18-Fluoroazomycin Arabinoside Positron Emission Tomography and Enhances Tumor Response to Hypoxic Cytotoxin PR-104** *CLINICAL CANCER RESEARCH*
Cairns, R. A., Bennewith, K. L., Graves, E. E., Giaccia, A. J., Chang, D. T., Denko, N. C.
2009; 15 (23): 7170-7174
- **Kilovoltage beam Monte Carlo dose calculations in submillimeter voxels for small animal radiotherapy** *MEDICAL PHYSICS*
Bazalova, M., Zhou, H., Keall, P. J., Graves, E. E.
2009; 36 (11): 4991-4999
- **Quantification of pre-treatment metabolic tumor growth rate in lung cancer**
Eastham, D., Chapman, C. H., Rao, A. K., Balasubramanian, N., Quon, A., Vasanawala, M. S., Wakelee, H., Le, Q., Colevas, D. A., Maxim, P. A., Graves, E., Loo, B. W.
LIPPINCOTT WILLIAMS & WILKINS.2009: S733-S733
- **Mid-treatment PET predicts progression in hypofractionated accelerated radiation therapy for lung tumors**
Chang, C. N., Fillion, E., Chapman, C., Rao, A., Wakelee, H., Ganjoo, K., Le, Q., Maxim, P., Quon, A., Graves, E. E., Loo, B. W.
LIPPINCOTT WILLIAMS & WILKINS.2009: S939-S939
- **METABOLIC TUMOR VOLUME PREDICTS FOR RECURRENCE AND DEATH IN HEAD-AND-NECK CANCER** *50th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
La, T. H., Filion, E. J., Turnbull, B. B., Chu, J. N., Lee, P., Nguyen, K., Maxim, P., Quon, A., Graves, E. E., Loo, B. W., Le, Q.
ELSEVIER SCIENCE INC.2009: 1335-41
- **Pancreatic Tumor Motion on a Single Planning 4D-CT Does Not Correlate With Intrafraction Tumor Motion During Treatment** *AMERICAN JOURNAL OF CLINICAL ONCOLOGY-CANCER CLINICAL TRIALS*
Minn, A. Y., Schellenberg, D., Maxim, P., Suh, Y., McKenna, S., Cox, B., Dieterich, S., Xing, L., Graves, E., Goodman, K. A., Chang, D., Koong, A. C.

2009; 32 (4): 364-368

- **Commissioning of a novel microCT/RT system for small animal conformal radiotherapy** *PHYSICS IN MEDICINE AND BIOLOGY*
Rodriguez, M., Zhou, H., Keall, P., Graves, E.
2009; 54 (12): 3727-3740
- **A bone composition model for Monte Carlo x-ray transport simulations** *MEDICAL PHYSICS*
Zhou, H., Keall, P. J., Graves, E. E.
2009; 36 (3): 1008-1018
- **The Role of Tumor Cell-Derived Connective Tissue Growth Factor (CTGF/CCN2) in Pancreatic Tumor Growth** *CANCER RESEARCH*
Bennewith, K. L., Huang, X., Ham, C. M., Graves, E. E., Erler, J. T., Kambham, N., Feazell, J., Yang, G. P., Koong, A., Giaccia, A. J.
2009; 69 (3): 775-784
- **AUTOMATED RADIOSYNTHESIS OF [F-18]EF-5 FOR IMAGING HYPOXIA IN HUMAN**
Chin, F. T., Subbarayan, M., Sorger, J., Gambhir, S. S., Graves, E. E.
WILEY-BLACKWELL.2009: S274-S274
- **In vivo H-1 magnetic resonance spectroscopy of lactate in patients with Stage IV head and neck squamous cell carcinoma** *49th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
Le, Q., Koong, A., Lieskovsky, Y. Y., Narasimhan, B., Graves, E., Pinto, H., Brown, J. M., Spielman, D.
ELSEVIER SCIENCE INC.2008: 1151-57
- **Metabolic tumor volume predicts for recurrence and death in head and neck cancer** *50th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
La, T. H., Filion, E. J., Turnbull, B. B., CHU, J. N., Lee, P., Nguyen, K., Maxim, P., Loo, B. W., Graves, E. E., Le, Q.
ELSEVIER SCIENCE INC.2008: S159-S160
- **Design and evaluation of a variable aperture collimator for conformal radiotherapy of small animals using a microCT scanner** *MEDICAL PHYSICS*
Graves, E. E., Zhou, H., Chatterjee, R., Keall, P. J., Gambhir, S. S., Contag, C. H., Boyer, A. L.
2007; 34 (11): 4359-4367
- **Metabolic tumor burden predicts for disease progression and death in lung cancer** *47th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology*
Lee, P., Weerasuriya, D. K., Lavori, P. W., Quon, A., Hara, W., Maxim, P. G., Le, Q., Wakelee, H. A., Donington, J. S., Graves, E. E., Loo, B. W.
ELSEVIER SCIENCE INC.2007: 328-33
- **Oxygen sensitivity of reporter genes: Implications for preclinical imaging of tumor hypoxia** *MOLECULAR IMAGING*
Cecic, I., Chan, D. A., Sutphin, P. D., Ray, P., Gambhir, S. S., Giaccia, A. J., Graves, E. E.
2007; 6 (4): 219-228
- **Small-animal PET of melanocortin 1 receptor expression using a F-18-labeled alpha-melanocyte-stimulating hormone analog** *JOURNAL OF NUCLEAR MEDICINE*
Cheng, Z., Zhang, L., Graves, E., Xiong, Z., Dandekar, M., Chen, X., Gambhir, S. S.
2007; 48 (6): 987-994
- **Imaging tumoral hypoxia: Oxygen concentrations and beyond** *ONCOLOGY-NEW YORK*
Graves, E. E., Giaccia, A. J.
2007; 21 (3): 368-376
- **Lactate-base H-1 magnetic spectroscopy does not predict response and outcomes in patients with stage IV head and neck squamous cell carcinoma** *49th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
Le, Q., Koong, A., Lieskovsky, Y., Graves, E., PINTO, H., Brown, J., Spielman, D.
ELSEVIER SCIENCE INC.2007: S200-S201
- **Perfusion, diffusion and spectroscopy values in newly diagnosed cerebral gliomas** *NMR IN BIOMEDICINE*
Catalaa, I., Henry, R., Dillon, W. P., Graves, E. E., McKnight, T. R., Lu, Y., Vigneron, D. B., Nelson, S. J.
2006; 19 (4): 463-475
- **Validation of in vivo fluorochrome concentrations measured using fluorescence molecular tomography** *JOURNAL OF BIOMEDICAL OPTICS*
Graves, E. E., Yessayan, D., Turner, G., Weissleder, R., Ntziachristos, V.

2005; 10 (4)

- **Relationship of MR-derived lactate, mobile lipids, and relative blood volume for gliomas in vivo** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Li, X. J., Vigneron, D. B., Cha, S. M., Graves, E. E., Crawford, F., Chang, S. M., Nelson, S. J.
2005; 26 (4): 760-769
- **Effect of respiratory cycle irregularities on image quality in four-dimensional computed tomography** *47th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology*
Thorndyke, B., Xing, L., Graves, E., Loo, B. W.
ELSEVIER SCIENCE INC.2005: S506-S506
- **Visualization of antitumor treatment by means of fluorescence molecular tomography with an annexin V-Cy5.5 conjugate** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ntziachristos, V., Schellenberger, E. A., Ripoll, J., Yessayan, D., Graves, E., Bogdanov, A., Josephson, L., Weissleder, R.
2004; 101 (33): 12294-12299
- **Fluorescence molecular imaging of small animal tumor models** *CURRENT MOLECULAR MEDICINE*
Graves, E. E., Weissleder, R., Ntziachristos, V.
2004; 4 (4): 419-430
- **Singular-value analysis and optimization of experimental parameters in fluorescence molecular tomography** *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*
Graves, E. E., Culver, J. P., Ripoll, J., Weissleder, R., Ntziachristos, V.
2004; 21 (2): 231-241
- **A method of target definition in PET-based radiotherapy planning** *46th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology*
Loo, B. W., Quon, A., Vasanawala, M. S., Le, Q., Graves, E. E.
ELSEVIER SCIENCE INC.2004: S602-S602
- **Fluorescence Molecular Tomography: New detection schemes for acquiring high information content measurements** *2nd IEEE International Symposium on Biomedical Imaging*
Ntziachristos, V., Graves, E., SCHULTZ, R. F., Ripoll, J.
IEEE.2004: 1475-1478
- **In vivo high resolution three-dimensional imaging of antigen-specific cytotoxic T-lymphocyte trafficking to tumors** *CANCER RESEARCH*
Kircher, M. F., Allport, J. R., Graves, E. E., Love, V., Josephson, L., Lichtman, A. H., Weissleder, R.
2003; 63 (20): 6838-6846
- **A submillimeter resolution fluorescence molecular imaging system for small animal imaging** *MEDICAL PHYSICS*
Graves, E. E., Ripoll, J., Weissleder, R., Ntziachristos, V.
2003; 30 (5): 901-911
- **In vivo molecular imaging for planning radiation therapy of gliomas: an application of 1H MRSI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Nelson, S. J., Graves, E., Pirzkall, A., Li, X. J., Chan, A. A., Vigneron, D. B., McKnight, T. R.
2002; 16 (4): 464-476
- **Histopathological validation of a three-dimensional magnetic resonance spectroscopy index as a predictor of tumor presence** *JOURNAL OF NEUROSURGERY*
McKnight, T. R., von dem Bussche, M. H., Vigneron, D. B., Lu, Y., Berger, M. S., McDermott, M. W., Dillon, W. P., Graves, E. E., Pirzkall, A., Nelson, S. J.
2002; 97 (4): 794-802
- **Metabolic imaging of low-grade gliomas with three-dimensional magnetic resonance spectroscopy** *43rd Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology*
Pirzkall, A., Nelson, S. J., McKnight, T. R., Takahashi, M. M., Li, X. J., Graves, E. E., Verhey, L. J., Wara, W. W., Larson, D. A., Sneed, P. K.
ELSEVIER SCIENCE INC.2002: 1254-64
- **In vivo tomographic imaging of near-infrared fluorescent probes.** *Molecular imaging*
Ntziachristos, V., Bremer, C., Graves, E. E., Ripoll, J., Weissleder, R.
2002; 1 (2): 82-88
- **In Vivo Tomographic Imaging of Near-Infrared Fluorescent Probes** *MOLECULAR IMAGING*

Ntziachristos, V., Bremer, C., Graves, E. E., Ripoll, J., Weissleder, R.
2002; 1 (2): 82-88

- **In-vivo molecular investigations of live tissues using diffracting sources** *5th International Conference on Medical Image Computing and Computer-Assisted Intervention*
Ntziachristos, V., Ripoll, J., Graves, E., Weissleder, R.
SPRINGER-VERLAG BERLIN.2002: 739–745
- **Registration of magnetic resonance spectroscopic imaging to computed tomography for radiotherapy treatment planning** *MEDICAL PHYSICS*
Graves, E. E., Pirzkall, A., Nelson, S. J., Larson, D., Verhey, L.
2001; 28 (12): 2489-2496
- **MR-spectroscopy guided target delineation for high-grade gliomas** *42nd Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
Pirzkall, A., McKnight, T. R., Graves, E. E., Carol, M. P., Sneed, P. K., Wara, W. W., Nelson, S. J., Verhey, L. J., Larson, D. A.
ELSEVIER SCIENCE INC.2001: 915–28
- **Serial proton MR spectroscopic imaging of recurrent malignant gliomas after gamma knife radiosurgery** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Graves, E. E., Nelson, S. J., Vigneron, D. B., Verhey, L., McDermott, M., Larson, D., Chang, S., Prados, M. D., Dillon, W. P.
2001; 22 (4): 613-624
- **A preliminary study of the prognostic value of proton magnetic resonance spectroscopic imaging in gamma knife radiosurgery of recurrent malignant gliomas** *NEUROSURGERY*
Graves, E. E., Nelson, S. J., Vigneron, D. B., Chin, C., Verhey, L., McDermott, M., Larson, D., Sneed, P. K., Chang, S., Prados, M. D., Lamborn, K., Dillon, W. P.
2000; 46 (2): 319-326
- **Gamma Knife Radiosurgery for Primary Brain Tumors** *LINAC and Gamma Knife Radiosurgery (Germano, I.M., ed.)*
McDermott MW, Chang SM, Keles GE, Graves EE, Nelson SJ, Larson DA, Berger MS
2000: 189-202
- **Magnetic resonance spectroscopy guided integrated boost irradiation for high grade gliomas using IMRT** *13th International Conference on the Use of Computers in Radiation Therapy*
Pirzkall, A., Graves, E., McKnight, T., Larson, D. A., Sneed, P. K., Wara, W. M., Nelson, S. J., Verhey, L. J.
SPRINGER-VERLAG BERLIN.2000: 156–157
- **CNN-Based Models for Color Vision and Visual Illusions** *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*
Zarndy A, Orz_ L, Grawes E, Werblin F
1999; 46: 229-238