BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: **Ronald C. McGarry, MD, PhD**

eRA COMMONS USER NAME (credential, e.g., agency login): RONALD.MCGARRY

POSITION TITLE: Clinical Professor, Department of Radiation Medicine
Data and Safety Monitoring Committee Chair, Markey Cancer Center Clinical Protocol and Data Management

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Western Ontario, London, Ontario	BSc (Hon)	1971-1975	Zoology
University of Western Ontario, London, Ontario	MSc	1975-1977	Zoology
University of Western Ontario, London, Ontario	PhD	1977-1981	Microbiology/ Immunology
Queen's University, Kingston, Ontario	Postdoc	1981-1985	Immunology
University of Calgary, Calgary, Alberta	MD	1989-1992	Medicine
McMaster University, Hamilton, Ontario	Intern	1992-1993	Internal Medicine
University of Western Ontario, London	Resident	1993-1997	Radiation Oncology

A. Personal Statement

The burgeoning field of immunotherapy in the treatment of cancer is now of special interest to me. Previously, I completed an M.Sc. looking at the gut associate immune system, a Ph.D. dissertation on immunoregulatory suppressor cells in the bone marrow and a postdoctoral fellowship focusing on natural killer cells and neuroimmunology. As an Assistant Professor, my interest grew into mechanisms of differentiation of lung cancer and neuroblastoma cells including oncogene expression. Since completing training in radiation oncology, I have focused on lung cancer clinical trial work and became part of the group at Indiana University who developed Stereotactic Body Radiation Therapy (SBRT) for early stage lung cancer. I was the organizer and host of several yearly conferences on that topic in an effort to bring clinicians and researchers together to help develop this new approach to treatment of lung cancer. Since then I have written and have completed an investigator initiated trial (IIT) for a new treatment paradigm for radiation dose escalation for stage III lung cancer. I am also part of 2 new IIT's looking at SBRT doses for oligometastasis to the lung and possible immunostimulation by SBRT.

B. Positions and Honors

Positions and Employment

1985-1989 Assistant Professor, Scholar of the Alberta Heritage Medical Trust Foundation, Department of Paediatrics, University of Calgary, Calgary, Alberta
1989-1992 Adjunct Assistant Professor, Department of Paediatrics, University of Calgary, Calgary, Alberta
1997-1999 Assistant Professor, Department of Radiation Oncology, University of Nebraska Medical Center, Omaha, NE
1999-2005 Clinical Assistant Professor, Department of Radiation Oncology, Indiana University, Indianapolis, IN
2005-2006 Clinical Associate Professor, Department of Radiation Oncology, Indiana University, Indianapolis, IN
2006-present Clinical Associate Professor, Vice Chairman, Department of Radiation Medicine, University of Kentucky, Lexington, KY
2004-present Best Doctors in America
2012-present Clinical Professor, Department of Radiation Medicine, University of Kentucky, Lexington, KY

Investigator Initiated Trials

Principal Investigator, UK Investigator Initiated Trial;
Stereotactic Body Radiation therapy for Post-chemoradiation Residual Disease in Stage II/III Non-small Cell Lung Cancer
Closed to accrual

Principal Investigator, UK Investigator Initiated Trial;
Stereotactic Body Radiation Therapy for Asymptomatic Metastatic Disease to the Thoracic and Lumbar Spine
Closed to accrual

Co-Investigator, UK Investigator Initiated Trial
Priming Immunotherapy in Advanced Disease with Radiation
In process

Principal Investigator, UK Investigator Initiated Trial;
A Randomized Phase 2 Study of two Radiation Dose Schedules of Stereotactic Body Radiotherapy (SBRT) to Lung Metastases < 5cm in Dimension
In process

C. Contributions to Science

1. Publications from participation in national multi-institutional trials:

    a. Berk L, Berkey B, Rich T, Hrushesky W, Blask D, Gallagher M, Kudrimoti M, **McGarry RC**, Suh J, Mehta M. Randomized phase II trial of high-dose melatonin and radiation therapy for RPA class 2 patients with brain metastases (RTOG 0119). Int J Radiat Oncol Biol Phys 68:852-857, 2007. PMCID: PMC2709786
    b. Hanna N, Neubauer M, Yiannoutsos C, **McGarry R**, Arseneau J, Ansari R, Reynolds C, Govindan R, Melnyk A, Fisher W, Richards D, Bruetman D, Anderson T, Chowhan N, Nattam S, Mantravadi P, Johnson C, Breen T, White A, Einhorn L. Phase III study of cisplatin, etoposide, and concurrent chest radiation with or without consolidation docetaxel in patients with inoperable stage III non-small cell lung cancer: the Hoosier Oncology Group and U.S. Oncology. J Clin Oncol 26:5755-5760, 2008.
    c. Gore EM, Hu C, Sun AY, Grimm DF, Ramalingam SS, Dunlap NE, Higgins KA, Werner-Wasik M, Allen AM, Iyengar P, Videtic GMM, Hales RK, **McGarry RC**, Urbanic JJ, Pu AT, Johnstone CA, Stieber VW, Paulus R, Bradley JD. Randomized phase II study comparing prophylactic cranial irradiation alone to prophylactic cranial irradiation and consolidative extra-cranial irradiation for extensive disease small cell lung cancer (ED-SCLC): NRG Oncology RTOG 0937. J Thorac Oncol 12:1561-1570, 2017. PMCID: PMC5610652
    d. Bezjak A, Paulus R, Gaspar LE, Timmerman RD, Straube WL, Ryan WF, Garces Y, Pu AT, Singh AK, Videtic GM, **McGarry RC**, Lyengar P, Pantarotto JR, Urbanic JJ, Sun A, Daly ME, Grills IS, Normolle DP, Bradley JD, Choy H. Efficacy and toxicity analysis of NRG oncology/RTOG 0813 trial of stereotactic body radiation therapy (SBRT) for centrally located non-small cell lung cancer (NSCLC). Oral Presentation by Bezjack A, ASTRO 2016, Boston, MA.

2. Beginning in 1999/2000, I was a co-investigator in the groundbreaking phase I/II trials of stereotactic body radiation therapy (SBRT aka SaBR). These trials led to a new approach to the management of early stage lung cancer, oligometastasis and extension of the concept to other sites such as spine, liver, prostate and others. Based on this work, SBRT for early stage lung cancer is now considered standard of care for medically inoperable patients in the NCCN guidelines. Initially, I also showed that no treatment for stage I lung cancer could have poor outcome which was the first publication on the natural history of untreated lung cancer.

    a. **McGarry RC**, Song G, des Rosiers P, Timmerman R. Observation-only management of early stage, medically inoperable lung cancer: poor outcome. Chest 121:1155-1158, 2002.
    b. Timmerman R, Papiez L, **McGarry R**, Likes L, DesRosiers C, Frost S, Williams M. Extracranial stereotactic radioablation: results of a phase I study in medically inoperable stage I non-small cell lung cancer. Chest 124:1946-1955, 2003.

c. Henderson M, **McGarry R**, Yiannoutsos C, Fakiris A, Hoopes D, Williams M, Timmerman R. Baseline pulmonary function as a predictor for survival and decline in pulmonary function over time in patients undergoing stereotactic body radiotherapy for the treatment of stage I non-small-cell lung cancer. Int J Radiat Oncol Biol Phys 72:404-409, 2008.
d. Fakiris AJ, **McGarry RC**, Yiannoutsos CT, Papiez L, Williams M, Henderson MA, Timmerman R. Stereotactic body radiation therapy for early-stage non-small-cell lung carcinoma: four-year results of a prospective phase II study. Int J Radiat Oncol Biol Phys 75:677-682, 2009.

3. In 2007, I wrote and initiated an investigator initiated trial that had the goal of extending the concept of SBRT to dose escalation of radiation therapy to Stage II/III lung cancer in an effort to improve local control. We are currently planning a further collaborative multi-institutional trial in an effort to combine immunotherapy with the concept of improving local control through SBRT.

   a. Feddock J, Arnold SM, Shelton BJ, Sinha P, Conrad G, Chen L, Rinehart J, **McGarry RC**. Stereotactic body radiation therapy can be used safely to boost residual disease in locally advanced non-small cell lung cancer: a prospective study. Int J Radiat Oncol Biol Phys 85:1325-1331, 2013.
   b. Feddock J, Cleary R, Arnold SM, Shelton BJ, Sinha P, Conrad G, Chen L, Rinehart J, **McGarry RC**. Risk for fatal pulmonary hemorrhage does not appear to be increased following dose escalation using stereotactic body radiotherapy (SBRT) in locally advanced non-small cell lung cancer (NSCLC). J Radiosurg SBRT 2:235-242, 2013.
   c. Kumar SS, Feddock J, Li X, Shearer AJ, Hall L, Shelton BJ, Arnold S, **McGarry RC**. Update of a prospective study of SBRT for post-chemoradiation residual disease in stage II/III non-small cell lung cancer. Int J Radiat Oncol Biol Phys 99:652-659, 2017.
   d. Kumar SA, Higgins K, **McGarry RC**. Emerging therapies for stage III NSCLC: stereotactic body radiation therapy and immunotherapy. Front Oncol 7:197, 2017. PMCID: PMC5591326

4. I have participated in the Nanoparticle program at the University of Kentucky both as a collaborator and graduate student mentor/supervisor examining new approaches to nanoparticle applications.

   a. Meenach SA, Tsoras AN, **McGarry RC**, Mansour HM, Hilt JZ, Anderson KW. Development of three-dimensional lung multicellular spheroids in air- and liquid-interface culture for the evaluation of anticancer therapeutics. Int J Oncol 48:1701-1709, 2016. PMCID: PMC4777598
   b. Hauser AK, Mitov MI, Daley EF, **McGarry RC**, Anderson KW, Hilt JZ. Targeted iron oxide nanoparticles for the enhancement of radiation therapy. Biomaterials 105:127-135, 2016. PMCID: PMC5321199
   c. Jyoti A, Fugit KD, Sethi P, **McGarry RC**, Anderson BD, Upreti M. An in vitro assessment of liposomal topotecan simulating metronomic chemotherapy in combination with radiation in tumor-endothelial spheroids. Sci Rep 5:15236, 2015. PMCID: PMC4606561
   d. Meenach SA, Anderson KW, Hilt JZ, **McGarry RC**, Mansour HM. High-performing dry powder inhalers of paclitaxel DPPC/DPPG lung surfactant-mimic multifunctional particles in lung cancer: physicochemical characterization, in vitro aerosol dispersion, and cellular studies. AAPS PharmSciTech 15:1574-1587, 2014. PMCID: PMC4245438

D. Research Support

Ongoing

RTOG 3505 (PI: McGarry, R) 01/11/17-11/28/18
RTOG Foundation Incorporated
"RTOG-3505 Cisplatin and Etoposide + Radiation Prior to Nivolumab/Placebo for Local Advanced NSCLC"
Goals: To compare the overall snrvival (OS) for patients with Stage III nmesectable nonsmall lung cancer treated with or without nivolumab following concurrent chemoradiation.

STU022015-069 (PI: McGarry, R) 04/01/16-03/31/18
University of Texas Southwestern Medical Center
"A Randomized Phase III Study of Sublobar Resection (SR) Versus Stereotactic Ablative Radiotherapy (SAbR) In High Risk Patients With Stage I Non-Small Cell Lung Cancer (NSCLC)"
Goals: Determine if SAbR improves survival over SR in High Risk Operable Stage I NSCLC.

1301 (PI: Hildebrandt, G) 03/02/15-02/28/19
National Marrow Donor Program
“A Randomized, Multi-Center, Phase III Trial of Calcineurin Inhibitor-Free Interventions for Prevention of Graft-versus-Host Disease”
Goals: The primary objective of the randomized trial is to compare chronic GVHD/relapse-free survival [CRFS] as a time to event endpoint after hematopoietic stem cell transplant (HSCT) between each of the CNI-free interventions and a Tac/Mtx control.
Role: Co-investigator