THE Visionary

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ROI RADIATION ONCOLOGY INSTITUTE

ROI funds research on the comparative value of radiation therapy

The Radiation Oncology Institute's (ROI) Board of Trustees and Research Committee recently selected two projects to fund on the comparative value of radiation therapy (RT). ROI issued a Request for Proposals (RFP) on the topic in keeping with the Institute's National Research Agenda, which identified the comparative value of RT as one of six strategic research areas.

David Sher, MD, MPH, an associate professor at the University of Texas – Southwestern Medical Center, will lead the project titled "Comparative value of transoral surgery and radiation for oropharynx cancer." Dr. Sher and his team are comparing survival, toxicity and accrued costs of surgery versus RT and chemoradiotherapy for patients with oropharyngeal cancer (OPC) using data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER)-Medicare database and the HealthCore Integrated Research Database. "We are very pleased that ROI selected our proposal because the rising prevalence of OPC and advances in surgical technology that preserve function call for intensive comparative effectiveness and cost comparisons between RT and CRT," said Dr. Sher. ROI funded the one-year project with a $200,000 grant, scheduled to conclude in 2016.

Anand Shah, MD, MPH, chief resident in the Department of Radiation Oncology at Columbia University, was awarded $41,000 to undertake a one-year project titled "Economic evaluation of SBRT versus surgery for stage I non-small cell lung cancer." Dr. Shah and colleagues will develop novel episode-based Medicare payment definitions for SBRT. Dr. Shah will include in his study an exploration of whether academic versus nonacademic setting has an impact on the relative value of SBRT compared with surgery. "Achieving high-value care has been particularly elusive for radiation oncology, and I am excited to lead a study that will contribute to the national conversation on novel payment and service delivery models for our specialty," said Dr. Shah.

Join the 2015 5K Run for the Future in San Antonio

Help support the critical research that ROI funds by participating in the 6th annual Running Strong 5K Run for the Future. The race will be held on Monday, October 19, at 6:30 a.m. CST in downtown San Antonio, starting just blocks from the Henry B. González Convention Center. Radiation Business Solutions has generously hosted the event since 2010, and 100 percent of the net proceeds go directly to ROI.

Visit www.roi5k.com or www.facebook.com/ROI5k for more information and to register for the race. Those not able to participate in the 5K have the option to make a donation to ROI.

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ROI Mission Statement
To enhance and promote the critical role of radiation therapy in the treatment of cancer by supporting research and education that demonstrates the life-saving and quality-of-life benefits of radiation therapy.

Visit us
on the Web at
www.roinstitute.org
or call
1-800-962-7876

Letter from the president

This issue of the *Visionary* will be my last as ROI President. As I reflect on my tenure, I am proud of the many accomplishments that have been achieved by the ROI's dedicated Board, committees and staff. Our fundraising efforts have resulted in a portfolio worth nearly $11 million and we have funded over $2 million in research to enhance the field of radiation oncology.

I have been involved with the ROI since 2006 when I chaired a Working Group of the ASTRO Board of Directors that was charged with determining the exact purpose of the Institute, the programs and program benefits, processes and governance issues. We determined that an Institute was essential to raising the profile of radiation oncology by supporting research to document the value, safety, efficacy and cost effectiveness of radiation therapy.

To make the biggest impact, we needed to know where the research gaps existed in radiation oncology, and the ROI's Research Committee commissioned a first of its kind study to conduct the National Radiation Oncology Research Needs Assessment. The six topic areas identified in this assessment form the National Research Agenda and continue to drive the initiatives of the ROI. The Research Committee regularly issues RFPs in these critical areas of research.

Some of our most recent achievements include the publication in the Red Journal of the results of a study led by Peter Greer, PhD, the recipient of our first research award for Safety and Quality, and the upcoming release of a new RadOnc Toolbox app and website to help manage radiation toxicity, which was developed by Malolan S. Rajagopalan, MD, MBA. We are looking forward to learning the outcomes of several studies on the Value of Radiation Therapy: "Radiation Therapy and Patient-Centered Outcomes among Lung Cancer Patients" led by Christopher Slatore, MD, MS; "Comparative Value of Transoral Surgery and Radiation for Oropharynx Cancer" led by David Sher, MD, MPH; and "Economic Evaluation of SBRT versus Surgery for Stage I NSCLC" led by Anand Shah, MD, MPH. (Read more about these projects on page 1 and 3.)

I remain committed to ensuring the success of the ROI and will continue to serve on the Board of Trustees as immediate past president. Deborah A. Kuban, MD, FASTRO, who has served as vice-president of the ROI since 2012, will be the next president. Colleen A.F. Lawton, MD, FASTRO will return to the position she originated, ROI vice president. Please join me in congratulating Dr. Kuban and Dr. Lawton and wishing them the best as they lead the ROI into the future.

Ted

THEODORE S. LAWRENCE, MD, PHD, FASTRO

Meet the Researcher at ROI Booth

Visit the ROI booth at the ASTRO Annual Meeting to learn about the latest research projects supported by the foundation and how to become a donor. You can "Meet the Researcher" when several of the current grantees will be at the booth to discuss their ROI-funded projects. A schedule of the featured researchers and times will be available at the booth. We hope to see you in San Antonio!

RadOnc Toolbox gets an upgrade

The RadOnc Toolbox app and website will soon have eight symptom pathways that highlight different treatment strategies for managing and preventing radiation toxicities: oral mucositis, dermatitis, xerostomia, nausea/vomiting, esophagitis, pain, diarrhea and proctitis. Users will have at their fingertips a wealth of information about each of the eight symptoms and management strategies based on the guidelines published by the MASCC.

The RadOnc Toolbox was developed by Malolan S. Rajagopalan, MD, MBA, a radiation oncologist practicing in Columbus, Ohio. ROI initially awarded Dr. Rajagopalan $20,000 over one year for his project titled "RadOnc Toolbox: Website and Mobile App to Revolutionize Symptom Management," which supported the development of the application and website framework for the first two toxicities: oral mucositis and dermatitis. After a promising beta test, ROI has continued to fund the development of the RadOnc Toolbox, including the expansion to the six additional symptom pathways. The app and new content for the website are in the final stages of testing and will be available in the near future.

ROI-funded Safety and Quality Project Published in Red Journal

Peter Greer, PhD, MSc, a medical physicist and conjoint associate professor in the school of mathematical and physical sciences at the University of Newcastle in Newcastle, Australia, and his team have published the results of the first clinical demonstration of a new system that determines treatment delivery accuracy for radiation therapy patients in real-time in the *International Journal of Radiation Oncology • Biology • Physics.* ROI selected Dr. Greer and his team as the recipient of its first Research Award for Safety and Quality in 2013.

Dr. Greer and his team developed the WatchDog system, which uses images captured during treatment by devices that are found on all linear accelerators, to monitor treatment delivery in real-time and prevent mistreatments. The $200,000 grant from ROI allowed Dr. Greer and his team to implement and test the system, perform real-time patient treatment verification and optimize the system for error detection and classification.

The manuscript in the November 1, 2015 issue of Red Journal is titled "First experience with real-time EPID based delivery verification during IMRT and VMAT treatments" and is currently available online. In the publication, Dr. Greer and his team describe how the WatchDog system works and its successful implementation in a clinical setting in a cohort of 28 patients. The authors also identify challenges of clinical adoption. Dr. Greer and his team continue to conduct trials of the WatchDog system, expanding the number of centers using the system, including sites in North America. This publication shows the impact that the ROI can have by supporting the development of this potentially important tool for improving safety and quality in radiation therapy.

Are you an ROI Investor?

As an ASTRO member, you may have already made an investment in radiation oncology through committee service, leadership, faculty or in other capacities. If you have not yet done so, why not join your fellow colleagues who are investing in the future of radiation oncology through research by becoming an ROI Founder?

Did you know there is approximately $350,000 remaining from the generous $3 million in ASTRO matching funds? Don't miss this opportunity to take the ASTRO Challenge. As an ASTRO member, you qualify for a dollar-for-dollar match when you pledge $12,500 or more. Your pledge can be fulfilled over multiple years, and you will be permanently recognized in the ROI Founder's Circle for double your pledge amount. The Challenge will conclude once the matching funds are depleted, so you must act now to become one of ROI's distinguished investors.

Here are some ways you can make your investment in the ROI through the Founder's Circle:

- Apply your 2015 Annual Giving donation toward your pledge.
- Donating your honoraria is another way to kick off your pledge.
- If you have already fulfilled a pledge to the Founder's Circle, consider another pledge and you will be recognized at the level of your combined pledges.

To donate visit: www.roinstitute.org/Become-a-Donor/Index.aspx

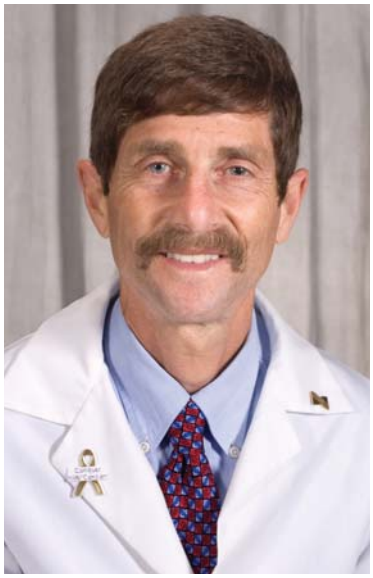
Donor Spotlight

Louis S. Constine, MD, FASTRO

University of Rochester Medical Center

Why did you choose to support ROI?

ROI's mission instantly resonated with me. As radiation oncologists, we are fortunate to spend our lives striving to help patients with cancer, curing them when possible, improving their quality of life when cure is beyond reach. Marie Curie said: "Nothing in life is to be feared. It is only to be understood." I think that she was alluding to the historic fears engendered by this mysterious force, radiation. Our professional ancestors have fought a battle for us…establishing the role that radiation serves in treating patients. Now we have an institute specifically dedicated to promoting research that enhances our critical role in fighting cancer, and informing others about this…and demystifying it. ROI pursues this with a multifaceted approach to funding promising scientific and educational initiatives that can translate into a benefit for patients.



Why should others donate to ROI?

To have an organization that we can trust is a gift, and we should respond by doing what we can personally do to strengthen its effectiveness. Jonas Salk said *"The greatest reward for doing, is the opportunity to do more."* We all "do" and ROI provides us with the opportunity to "do more."

What are some of the rewards and challenges you've faced in your career related to working with cancer patients, and specifically children?

We dedicate ourselves to caring for individuals who are forced to touch the edge of life, and thereby understand its significance in a manner not possible by most others. I am startled by how children, presumably too young to understand life's preciousness, declare their presence in this privileged world of courageous and appreciative people. My patients have taught me to appreciate my own life… to not take it for granted. Children, in particular, touch me because they face their futures with an innocence and openness that we must try to preserve. Of course, they are also so vulnerable. The field of pediatric oncology is complex due to the many types of cancers, and the sensitivity of developing tissues to injury by cytotoxic therapy. And, of course, children have just begun their lives…which also means that they have many years ahead to both enjoy life but also to experience the adverse effects of what we do to them. It is our responsibility to devise strategies to maximize the therapeutic ratio. One can never become bored in this pursuit. Ralph Waldo Emerson said: *"Our strength grows out of our weakness."* I would modify this to say: *"Our strength grows out of our vulnerabilities."*

How do you envision the future of the field of radiation oncology?

I am absolutely clear that I cannot know what our future holds. I certainly do not have prescience, and have been repetitively surprised (and delighted) by the evolution of our field…though also depressed by our inability to do more than we have. I entered radiation oncology in the late seventies, already trained in pediatrics and pediatric oncology. I could not envision the advances that we would make in understanding and treating cancer, but I also recall having optimism that we would cure some cancers that continue to thwart our best efforts. So, what is also clear to me, is that we need to keep pushing forward with all of our ingenuity and dedication. We strive to unravel the complexity that is cancer, and to develop new biologic and technologic approaches to foiling its adaptability to escaping our weapons. Radiation oncologists are a resourceful group, and we devote our lives to eliminating the reason we work…but I doubt that we will ever be out of business.

What do you want people to know about you?

For the survivor of cancer, the world is full and each day is a celebration
For the physician, each patient is an inspiration
For the person with cancer, each day is precious and must be faced with courage

I wrote these words many years ago, and continue to reflect on the many sources of inspiration that grace my life. I feel tremendous gratitude for my good fortune to work in a field and live a life that refreshes my spirit on a daily basis. I am surrounded by individuals who have helped me understand the wonder of my life, and afforded me the opportunity to contribute what I can. I am blessed to have a wife, Sally, who greets each day with enthusiasm, has endured me for 44 years, completes me and makes me a better person. Conversely, I greet each day recalling something said by James Dean: *"I just wish I could wake up one morning and not be all confused."* I have two remarkable children, Aly and Josh, who hold those traits that I most treasure: curiosity, tolerance, and altruism. Personally, I think that our greatest gift is the experience of living, of being alive.

Dr. Constine is the Philip Rubin Professor of Radiation Oncology and Pediatrics and Vice Chair of the Department of Radiation Oncology at the James P. Wilmot Cancer Institute at the University of Rochester Medical Center in Rochester, New York. He is an active ASTRO member, and he and his wife Sally are Mentors in the ROI Founder's Circle of Investors.