Father’s Day Means Prostate Cancer Awareness
Gary Papa Father’s Day Run

The annual Father’s Day Run 4 Your Life, now named after local channel 6 Action News Reporter Gary Papa, who died in 2009 after a prolonged battle with prostate cancer, is set for Sunday, June 20th. The event features numerous opportunities for participation including a 5K run/walk, a 1 mile fun walk and an aerobic workout, all starting at Eakins Oval at the Philadelphia Art Museum. The Prostate Cancer Working Group is sponsoring a team in conjunction with Thomas Jefferson University’s Kimmel Cancer Center and the department of Urology. If you are interested in joining our team or just donating to the cause, please visit garypaparun4yourlife.kintera.org and search for the KCC Jefferson Team Page. Shirts are available for $5 and proceeds benefit the TJU Quality of Life Fund, which helps support Jefferson patients.

GU ASCO 2011 Featuring Our Own
Dr. Leonard Gomella

The Prostate Cancer Working Group’s own Dr. Leonard G. Gomella has been appointed Chair-Elect for the American Society of Clinical Oncology (ASCO) 2011 Genitourinary Cancers Symposium in Orlando, Florida. Dr. Gomella’s commitment to the advancement of prostate cancer research has been an invaluable asset not only to the PCWG, but to the field of prostate cancer at large. We congratulate Dr. Gomella for this prestigious and well-earned appointment and look forward to joining him next year in Orlando for this high-profile Symposium. The Genitourinary Cancer Symposium is always a big attraction for prostate cancer researchers and is a breeding ground for the kind of collaborations the Prostate Cancer Working Group thrives on.

The American Society of Clinical Oncology is a nationally recognized non-profit organization founded in 1964 with the overarching goals of improving cancer care and prevention. More than 27,000 oncology practitioners belong to ASCO, representing all oncology disciplines and subspecialties. Members include physicians and health-care professionals in all levels of the practice of oncology.

SCHEDULE OF EVENTS

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<th>Event</th>
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<tr>
<td>Registration</td>
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<td>Opening Ceremony</td>
<td>8am</td>
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<td>Aerobic Workout</td>
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<td>5K Run</td>
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<td>5K Walk</td>
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<td>1 Mile Fun Run</td>
<td>8:45am</td>
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<td>Award Ceremony</td>
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PCWG Leadership

Adam Dicker, MD
Chair, Department of Radiation Oncology
Congratulations to Dr. Dicker for finalizing his appointment as the chair of Thomas Jefferson University’s Radiation Oncology Department! We here at the PCWG and TJU look forward to a long and fruitful collaboration with Dr. Dicker.

Vincent Njar, PhD
NIH Drug Discovery and Molecular Pharmacology Study Section Appointment
Congratulations to Dr. Njar for his new study section appointment. Joining a study section represents a major commitment of professional time and is vital to the development of new research.

Erik Knudsen, PhD
NIH Tumor Cell Biology Study Section Chair
Congratulations to Dr. Knudsen for this prestigious appointment. Chairing a study section represents a unique opportunity to contribute to the national biomedical research effort and we applaud Dr. Knudsen for his contribution.

Marja Nevalainen, MD PhD
New Stat5 Patents
Congratulations to Dr. Nevalainen for her two newly submitted patents for Stat5 small molecule inhibitors for prostate cancer therapy.
Endocrine Society Meeting Moderator
Dr. Nevalainen has been asked to moderate the Novel Aspects of Growth Hormone/Prolactin Biology session on June 19th from 9:30am-11am at the ENDO meeting in San Diego.

Karen Knudsen, PhD
Full Professor, Secondary in Radiation Oncology
Congratulations to Dr. Knudsen for her recent promotion to Professor and the addition of a secondary in Radiation Oncology.

Welcome New Members

Wm. Kevin Kelly, DO
Professor
Department of Medical Oncology
Director, Solid Tumor Board
Thomas Jefferson University

Isabelle Mercier, PhD
Instructor
Department of Cancer Biology
Thomas Jefferson University

Andrew Aplin, PhD
Associate Professor
Department of Cancer Biology
Thomas Jefferson University

Erik Knudsen, PhD
Professor
Department of Cancer Biology
Deputy Director of Basic Research
Thomas Jefferson University
What drove you to a career in Radiation Oncology?
I loved the idea that we treat every cancer from the scalp to the toes. There are numerous treatment modalities and options and it’s a very high-tech, cutting edge field.

What are the current major challenges in Radiation Oncology for prostate cancer treatment?
Like other local modalities for the treatment of prostate cancer the general issues apply, “who requires treatment, who will benefit from treatment, etc. The radiation specific issues become: Mechanisms behind the radio/hormonal resistance of tumors, optimal treatment of subclinical (oligometastatic) disease, issues surrounding different domains of quality of life and reduction of normal tissue toxicity.

What is your vision for the future of Radiation Oncology and prostate cancer care in Philadelphia?
I think the Prostate Cancer Working Group is fantastic! We now have representation from every discipline involved in the treatment of prostate cancer. We have also engaged the “next generation” which is critical to our success. I look forward to the continued growth and sustained track record of the group. We need to offer our patients and investigators, options and opportunities that don’t exist elsewhere.

What are the current barriers in increasing translational research and taking discoveries from the bench to the bedside?
The process is far more complex and regulated than a decade ago. The training of clinical trialists takes a great deal of time. Funding also is an issue for clinical trials and translational research.

I grew up in Wilmette Illinois and then moved to Great Neck, NY. I attended Columbia College in NY (where I met my wife Carolyn, this August it will be 25 years). I had the great fortune of doing a MD, PhD at Cornell University Medical School and Memorial Sloan-Kettering Cancer Center, under Dr. Joseph Bettino studying methotrexate resistance. I then became interested in radiation oncology and did an internship in Surgery and then a residency in radiation oncology at Memorial Sloan-Kettering Cancer Center. Jefferson was my first job in 1996 and I have been here since. I have 3 children, ages 9, 13 and 19.
How do you envision the balance between research and clinical care in Radiation Oncology within your new department at TJUH?

The primary goals of the TJU Department of Radiation Oncology will be to:
1. Deliver the best clinical care possible.
2. Advance the frontiers of Radiation Oncology with regards to the clinical, translational, and basic sciences and, additionally, in the areas of medical physics, radiation therapy, and nursing.
3. Achieve unprecedented therapeutic drug development breakthroughs.

**Jefferson’s Opportunity to Achieve “Best Care” and Academics**

The broad strategies for elevating the Department to the level of this vision include;
- Enhancing Departmental Faculty, Visibility, and Reputation;
- Formalizing Departmental Clinical, Business, and Strategic Planning;
- Enhancing Departmental Research Activities;
- Modernizing Physical Plant and Equipment;
- Enhance Trainee Experience;
- Developing Nursing-Led Patient Centric Clinical Programs;
- and Develop Departmental Philanthropic Resources

Nationwide the cancer-research community has been criticized for the discrepancy between tremendous progress made in molecular biology and the small number of new drugs entering clinical use. The benefits of introducing even a few agents into clinical cancer treatment are potentially very large for patient care.

Unfortunately, there has been a wide gulf between the academic cancer-research community and clinicians. Few research institutions also have well developed clinical care facilities, vice versa.

The current NIH paradigm acknowledges both the weak scientific basis for much clinical practice and the limitations of traditional in-vitro assays.

Luckily, KCC/TJU/PCWG with its large number of clinical resources is uniquely positioned to address this imbalance. The Department of Radiation Oncology can move aggressively to change the standard of clinical care within the next 10 years.

Our solution is to integrate basic science into clinical trials (translational science), enabling both the development and testing of biological hypotheses in humans; and the bringing this new knowledge back into the laboratory for further refinement.

Two new initiatives, the Division of Molecular Radiobiology and a new program aimed to reduce normal tissue toxicity of cancer therapies lead by Dr. Ulrich Rodeck (Dermatology & Cutaneous Biology/Radiation Oncology), will have as their ultimate goal development of rational, hypothesis-driven clinical trials with a strong interdisciplinary translational program.
Why did you choose to focus on prostate cancer?
I chose to focus on this cancer due to the highly bone metastatic nature of prostate adenocarcinoma in patients suffering from advanced disease. Although the majority of primary prostate tumors can be detected early and are responsive to hormonal, radiation and surgical treatments, associated skeletal metastases correlate with a poor patient prognosis and lack any effective therapy.

What do you hope to achieve with your research project?
It is my hope that my project will provide insight into the molecular mediators responsible for the bone-metastatic nature of prostate cancer. By identifying differences in gene expression between bone-metastatic and non-metastatic prostate cancer, novel therapeutic targets may be uncovered. In addition, extraction and molecular analysis of microscopic lesions directly from within the bone microenvironment may allow us to discover genes important for the survival of these tumors, providing additional therapeutic targets.

How will this DOD award help your career?
Receipt of this award may help further my career in several ways. For a young scientist, initiating a funding history is an important step in establishing a career in research. In addition, results from the research plan submitted for this DOD award will provide the opportunity to publish potentially high-impact scientific papers in the field of prostate cancer research.

What are your long-term career goals?
My long-term career goal is to become an independent investigator at an academic institution.

Tell us about your interactions with the greater prostate cancer community and how they have affected your work.
Interaction with various scientists within, and external to, our institution have proved important for expanding my knowledge and redirecting my perspective towards a more comprehensive view of the disease. In particular, Dr. Mark Stearns here at DUCOM has been instrumental in providing me with information concerning the initiation and progression of primary prostate cancer. In addition, interactions with invited seminar speakers, such as Dr. Bal Lokeshwar (University of Miami) have provided me with insight on how research is conducted at other institutions - a unique opportunity for a young investigator. Lastly, attendance at meetings such as the Prostate Symposium at The Kimmel Cancer Center at Jefferson and the Prostate Cancer Initiative Network here at DUCOM have provided me with the opportunity to both absorb and disseminate novel research developments within the prostate cancer community.

Mike is originally from New Castle, Delaware and attended University of Delaware, where he obtained a B.S. in neuroscience. He is currently working in Dr. Alessandro Fatatis’ lab on a DOD Predoctoral Scholarship.

MIKE RUSSELL’S DOD GRANT:
We have established a mouse model of skeletal metastases using human prostate cancer cells. Our work has implicated the alpha-receptor for Platelet Derived Growth Factor (alpha-PDGFR) as a major player in the growth of disseminated prostate cancer into macroscopic secondary skeletal lesions. Bone-metastatic prostate cancer cells express alpha-PDGFR, and overexpression of this receptor in non-metastatic cells enhances pro-survival signaling in response to human bone marrow, although only selected phenotypes also form skeletal metastases in our model. We hypothesize that expression of alpha-PDGFR induces the expression of a bone-metastatic gene signature in susceptible prostate cancer phenotypes and a main goal of my project is the identification of these genes. To this end, single-cell progenies of different prostate cancer cell types will be collected from metastatic lesions by Laser Capture Microdissection to conduct gene expression comparative analyses based on metastatic potential and organ tropism.
Recent PCWG Research Advances


Gravina GL, Marampon F, Di Staso M, Bonfili P, Vitturini A, Jannini EA, Pestell RG, Tambolini V, Festuccia C. 5-azacitidine restores and amplifies the bicalutamide response on preclinical models of androgen receptor expressing or deficient prostate tumors. Prostate. 2010 Mar 23. [Epub ahead of print]


Adesse D, Lisanti MP, Spray DC, Machado FS, Meirelles MD, Tannowitz HB, Garzoni LR. Trypanosoma cruzi infection results in the reduced expression of caveolin-3 in the heart. Cell Cycle. 2010 Apr 10;9(8). [Epub ahead of print]

More PCWG Research Advances


Opitz AW, Wickstrom E, Thakur ML, Wagner NJ. Physiologically Based Pharmacokinetics of Molecular Imaging Nanoparticles for mRNA Detection Determined in Tumor-Bearing Mice. Oligonucleotides. 2010 Apr 21. [Epub ahead of print]


