## NCI CENTER FOR CANCER RESEARCH







### From the Editor's Desk

Welcome to the SPRING edition of the Fellows and Young Investigators Newsletter. In this issue, we recap the 11<sup>th</sup> Annual CCR-FYI Colloquium held in Williamsburg, VA. Also, be sure to go over the results of the 2010 CCR Trainee Survey and preview the "new and improved" 2011 survey. With the arrival of spring, research festivals are rapidly approaching, thus an overview of the upcoming Ft. Detrick and NCI-Frederick Research Festival taking place April 27-28 is featured. As a Research Highlight, we review the recent noteworthy study that questions the use of a prostate cancer screening test. We also extend congratulations to the winners of this year's NCI Director's Innovation Awards, as well as NCI for being voted one of the best workplaces for post-docs by *The Scientist*.

Editors: Miranda Hanson, Ph.D. Tim Chan, Ph.D. Geraldine O'Connor, Ph.D. Allison Bierly, Ph.D. Chhavi Chauhan, Ph.D.

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IF YOU HAVE ANY COMMENTS, SUGGESTIONS OR WOULD LIKE TO CONTRIBUTE TO FUTURE NEWSLETTERS, PLEASE EMAIL US AT <a href="mailto:nciccrfvi@mail.nih.gov">nciccrfvi@mail.nih.gov</a>, or <a href="mailto:Miranda.Hanson@nih.gov">Miranda.Hanson@nih.gov</a>

# **CCR-FYI News**

# The 11th Annual CCR-FYI Colloquium: A Retrospective

An engaging agenda full of terrific science and career-related activities, combined with an enthusiastic group of trainees, made the 11<sup>th</sup> Annual CCR-FYI Colloquium the best one yet. Held from February 23-25 in Williamsburg, VA, the Colloquium blended the best of trainee science with excellent keynote speakers, diverse workshops and a fantastic career fair. If you did not make it this year, here is an overview of what you missed.

Wednesday afternoon kicked off with several excellent presentations. Dr. Bríd Ryan, Chair of the CCR-FYI Steering Committee, deliv-

ered opening remarks, followed by remarks from Dr. Jonathan Wiest, the Associate Director of the Office of Training and Education for CCR, and Dr. Robert Wiltrout, the CCR Director. Dr. Margaret Spitz of the University of Texas MD Anderson Cancer Center delivered the first keynote address, entitled, "Lung Cancer Epidemiology: Past, Present and Future", to great interest from the attendees. The Outstanding Post-Doctoral

Fellow, Dr. Christopher Klebanoff of the Surgery Branch, then delivered his keynote address, entitled "Developing Novel Cell-Based Immunotherapies for the Treatment of Patients with Advanced Cancer". Following dinner, Dr. Kevin Camphausen of the Radiation Oncology Branch at NCI gave the third keynote address of the evening, discussing his work in preclinical models for radiation oncology, and the first poster session of the meeting closed out the first day.

Thursday opened with a keynote address from Dr. Doug Lowy, Deputy Director of the NCI, who spoke on HPV vaccination and cervical cancer prevention. Following his presentation, attendees broke off into one of two workshops. The first, "What's Happening Now: Guide to Resources Available to You at the NIH and NCI", featured four speakers who spoke on scientific

and career development resources that fellows can take advantage of during their training to advance their research and enhance their marketability for future employment. "Gene Patents: Good, Bad or 'It Depends'?" featured a stimulating debate with experts in intellectual property and science policy. Oral presentations by fellows started after lunch, and two more workshops finished off the afternoon. "Advocating to Get the Job You Want" taught fellows how to "sell" themselves and their science in various situations, while "Successfully Breaking into Academia" discussed the ins and outs of the academic transi-

tion.

Dr. Wiltrout presenting the Outstanding Post-Doctoral Fellow award to Dr. Klebanoff

The second evening of the Colloquium featured a special presentation by Matthew Zachary of the "I'm Too Young for This!" cancer foundation. Mr. Zachary explained, with humor tempering justifiable frustration, how he had developed pediatric brain cancer at age 21. losing feeling in his left hand. Not recognizing what was truly amiss, his doctor gave him Robitussin and sent him on his way. From then on, Mr. Zachary went through the lonely experience of a young adult with cancer, and realized the

lack of support for this age group. Moreover, while mortality rates have gone down in other age groups over the years, Mr. Zachary pointed out, rates for young adults have barely changed. His foundation seeks to support young adults with cancer, showing them they are neither alone nor forgotten in the gap between pediatric and older patients.

Later that evening, the career fair and second poster session took place concurrently, and both were highly successful. Posters were set up around the edges of the room, while at the tables in the middle, representatives from local employers chatted with attendees, took resumes, and handed out information. Some of the featured employers included Nature, Kelly Services, Genentech and the American Association for

(Continued on page 3)

## **CCR-FYI News**

(Continued from page 2)

Cancer Research. Several fellows opined that this was the best career fair at a Colloquium yet.

Dr. Megan Sykes of Columbia University started the final day of the Colloquium with the final keynote address, entitled, "Translational Studies of Mixed Hematopoietic Chimerism." Following her talk, there were several oral presentation sessions, as well as the final three workshops. In "Careers in Science Communication", speakers from a range of communication careers, from public affairs to consulting, offered a window into how science is conveyed in a variety of formats, and how trainees might start preparing for a career in this field. "From the PhD to Industry: Careers for Scientists" featured industry scientists detailing the various careers available in biotechnology or pharmaceutical companies, as well as how to make the transition. Finally, "Focus on Fellows: Navigating Visa Issues" discussed NIH policies and various immigration options for visiting fellows.

As everyone gathered for lunch on the third day, Colloquium Committee Chair Geraldine O'Connor took to the podium to announce the top four trainees in oral presentations and poster presentations, all of whom won a travel award for \$1000. Outstanding poster presenters were Selinda Orr, of the Cancer and Inflammation Program (CIP), Petra Tsuji of the Division of Cancer Prevention (DCP), Jennifer Dickey of the Center for Drug Evaluation and Research (CDER) at the



Dr. Jonathan Wiest presenting the Outstanding Post-Graduate Trainee Award to Mathew Angelos



2011 FYI Retreat Planning Committee, From left: Alyson Freeman, Adeola Makinde, Rafal Zielinski, Geraldine O'Connor, Nesrin Rechache, Allison Bierley, Nadia Castro, and Kristin Fabre

Food and Drug Administration, and Prashant Tembhare, from the Laboratory of Pathology. Stephanie Watkins, a CIP postdoc, took home one of the awards for oral presentations, as did Daniel W. Lee III, a clinical fellow from the Pediatric Oncology Branch. Post-bac McAnthony Tarway of the Division of Cancer Epidemiology and Genetics (DCEG) won another, and the final oral presentation winner, Mathew Angelos of the Medical Oncology Branch, also took home the award for Outstanding Post-Graduate Trainee. The award, newly introduced this year, recognizes outstanding science and service by a postbaccalaureate fellow or graduate student, and was presented to Mr. Angelos by CCR-FYI Steering Committee Chair Bríd Ryan.

Finally, everyone returned to their vehicles in the sunshine and warm breezes of Williamsburg, preparing for the long trip home to Maryland. The three days of the Colloquium may not have been a restful retreat, but the opportunities offered for scientific and career-related growth made the exhaustion satisfying. For eleven years, the CCR FYI Steering Committee has pulled off the best Colloquium for fellows by fellows, and as we look ahead to year twelve, we can be sure that it only gets better from here.

Submitted by: Allison Bierly, Ph.D. Laboratory of Experimental Immunology Cancer and Inflammation Program

## **Articles**

## Congratulations to the 2011 Director's Innovation Awardees

On January 6<sup>th</sup>, 2011, the 2011 Director's Intramural Innovation Awards were presented to this year's recipients by Dr. Harold Varmus, the Christophe Marchand, Ph.D., Laboratory of Molecular NCI Director, during the Annual Principal Investiga- Pharmacology tors Intramural Scientific Retreat. This award provides a limited budget to support novel proposals that are considered "high-risk" or projects with a potential for high scientific impact in the field, or the ability to generate new technology or intellectual property. These awards are offered at two different levels with funding up to \$50,000 for tenure-track and recently tenured PIs and up to \$10,000 for fellows, staff scientists/clinicians, as part of a Career Soumen Manna, Ph.D., Laboratory of Metabolism Development award. This year, a total of 86 submitted proposals from CCR were received of which 18 were successfully funded. Since the inception of this award in 2006, a total of 24 Principal Investigators Awards and 112 Career Development Enrique Zudaire, Ph.D., Radiation Oncology Branch Awards have been distributed. Congratulations to this year's award recipients!

### Principal Investigator:

Ji Luo, Ph.D., Medical Oncology Branch Understanding Global mRNA Splicing Changes in Ras Mutant Cancer Cells

Mitchell Ho, Ph.D., Laboratory of Molecular Biology In Vitro Spheroids to Screen Tumor-Penetrating Drugs

Terry Yamaguchi, Ph.D, Cancer and Developmental **Biology Laboratory** 

Role of the Wnt Target Gene Mesogenin 1 in EMT, Metastasis and Stem Cell Behavior

#### Career Development:

Samuel Bunting, Ph.D., Experimental Immunology Branch

Targeted Therapies to Restore DNA Repair in Brca1-Deficient Cells

Sheryl Gough, Ph.D., Genetics Branch Methylome Analysis Following 5-Aza-2-Deoxycytidine Treatment of Myelodysplastic Syn-

Izumi Horikawa, Ph.D., Laboratory of Human Carcino-

Enhanced Generation and Improved Integrity of

Human iPS Cells via a Natural p53 Isoform

High-throughput Discovery of TRAF and TNF receptor-associated protein inhibitors

Bing Yu, Ph.D., Medical Oncology Branch Profiling Protein SUMOylation Changes in Ras Mutant Cancer Cells

Top of Form Analysis of Metagenomic and Metabolomic Signatures of Colorectal Cancer Using a Mouse Model

Novel High-Content Cell-Specific Fluorescent Platform to Identify Antiangiogenic Drugs

Jodie Fleming, Ph.D., Mammary Biology and Tumorigenesis Laboratory

Estrogen Metabolizing Enzymes in Premenopausal African- and Caucasian-American Breast Tissue

Sid Kerkar, M.D., Surgery Branch Functionally Reprogramming Tumor-Infiltrating Myeloid Cells Using IL-12 Engineered T cells

Sabrina Lusvarghi, Ph.D., HIV Drug Resistance Program Incorporation of Crosslinkable Unnatural Amino Acids to Identify Binding Partners for XMRV Proteins

Masaki Terabe, Ph.D., Vaccine Branch Development of Tools & Markers for Type II NKT Regulatory Cells in Cancer

David Soto Pantoja, Ph.D., Laboratory of Pathology Validation of Novel Autophagy Genes that Radioprotect Normal Tissue and Delay Tumor Growth

Eilon Sherman, Ph.D., Laboratory of Cellular and Molecular Biology

High and Super Resolution Imaging of the Immune Synapse Between Cells in Micro-Patterned Traps

(Continued on page 5)

**Prasun Mishra, M.Sc. Ph.D.,** Laboratory of Cancer Biology and Genetics *Development of Novel Anti-Melanoma Differentiation Therapy* 

**Lars Grontved, Ph.D.,** Laboratory of Receptor Biology and Gene Expression

Genome Wide Identification of Functional Regulatory Elements in Normal and Diseased Tissue

More information about the Director's Innovation award and a list of previous award recipients can be found at <a href="http://ccrintra.cancer.gov/news/innovation-awards.asp">http://ccrintra.cancer.gov/news/innovation-awards.asp</a>.

Submitted by: Tim Chan, Ph.D. Laboratory of Experimental Immunology Cancer and Inflammation Program

# National Cancer Institute ranked one of the best workplaces for post-docs

Each year, the science news magazine, *The Scientist*, conducts a survey asking nontenured scientists to assess their working environment according to many different criteria including: quality of training/mentoring, career development

opportunities/networking, quality of communication, value of postdoc experience, quality of facilities and infrastructure, funding, equity, pay/benefits, and family/personal life. This year, NCI (Bethesda/Frederick) is ranked #14, moving up 7 spots from its #21 ranking a year ago. Respondents cited



family/personal life and career development opportunities as NCI's strengths, while equity and pay/benefits are listed as weaknesses. The survey was posted at <a href="https://www.the-scientist.com">www.the-scientist.com</a> from September 8 to November 29, 2010. The respondents all work in academia, industry, or noncommercial institutions. Of the institutions included in the rankings, 76 were US and 17 were non-US. Over 2,500 qualified responses were received. The complete results are published in *The Scientist*, March 2011 issue, and are available on *The Scientist* website.

Submitted by: Miranda Hanson, Ph.D. Laboratory of Molecular Immunoregulation Cancer and Inflammation Program

## Opportunities to Practice Talks for Conferences, Seminars & Job Interviews

The **PASS** (**Presentation and Seminar Skills**) series has teamed up with Scott Morgan to provide CCR scientists with an hour-long session of one-on-one tutoring. During this session, you will go through your presentation with Scott, where he will provide feedback on style, content, delivery of message, etc. A week or two later, you will then have the opportunity to present your talk in front of your colleagues and to receive constructive feedback. Scott will also attend and provide additional feedback following the presentation. Scott has over 15 years of valuable experience in science communication and has recently co-authored a book, 'Speaking about Science'.

We will work with you and Scott to arrange a suitable time and schedule. This is a wonderful opportunity for anyone who wishes to improve his/her presentation skills either for a meeting presentation or job talk.

If you are interested in taking advantage of this opportunity or have additional questions, please contact **Bríd Ryan** (<a href="mailto:ryanb@mail.nih.gov">ryanb@mail.nih.gov</a>). Available slots will be filled on a first come – first served basis.

# Spring Research Festival – April 27th and 28th

The 15th NCI-Frederick and Fort Detrick Spring Research Festival will be held this year on April 27<sup>th</sup> and 28<sup>th</sup>. This annual event, open to the NIH and Fort Detrick communities, as well as to the general public, aims to showcase the research activities and goals of the scientific communities based on Fort Detrick. Poster sessions will be held on both days of the festival to allow all scientific staff, including technical support, post-bacs, post-doctoral fellows, and principle investigators, to present their research to both their colleagues and to the public. Posters will be judged and the best scientific posters will receive awards sponsored by the Technical Sales Association. All fellows are strongly encouraged to participate in this event - the deadline for registration for poster presenters is April 15<sup>th</sup> with late registration until April 25<sup>th</sup> (without inclusion in program or eligibility for award). Register at http://web.ncifcrf.gov/events/springfest/2011/.

In conjunction with the festival, the 4th Annual Post-Doctoral and Post-Baccalaureate Symposium on April 26th will focus this year on Cellular Mechanisms in Cancer, Autoimmunity, and Infectious Diseases. The symposium will kick off with a presentation from Dr. Silvio Gutkind, Chief, Cell Growth Regulation Section, and Molecular Carcinogenesis Unit, OPCB, DIR titled, "A Journey from G Proteins to mTOR: Translating Signaling Circuitries into Targeted Cancer Therapies". Following this, there will be a series of oral presentations selected from abstracts submitted by post-baccalaureate and post-doctoral fellows from NCI-Frederick and Fort Detrick. The best presentations will be selected by judges and awarded with an official certificate and travel subsidy.

In addition to the scientific sessions, the festival will also host the Biomedical Research Equipment and Supplies Expo and the Health Education and Community Services Exhibition. Sponsored by the Technical Sales Association, the Commercial Science and Technology Expo brings together more than 200 exhibitors from

NCI-Frederick, Fort Detrick and local scientific communities to highlight the latest advances in



West Indian Sea Whip (image taken from <a href="http://web.ncifcrf.gov/events/springfest/2011/highlight.aspx">http://web.ncifcrf.gov/events/springfest/2011/highlight.aspx</a>)

products, technology and services available. The Health Education and Community Services Exhibition features representatives from a wide range of pro bono publico or not-for-profit national and local health-related organizations as well as safety and scientific exhibits.

Continuing the tradition of selecting a plant or animal from nature that has medicinal properties, this year the festival's theme will be *Pseudopterogorgia elisabethae* or the West Indian Sea Whip. This coral, combined with its microscopic guests, produce a novel class of anti-inflammatory agents—the pseudopterosins. Studies are underway to explore roles for these pseudopterosins as drugs to promote wound healing, as analgesics, and to fight tuberculosis and cancer.

Submitted by: Geraldine O'Connor, Ph.D. Laboratory of Experimental Immunology Cancer and Inflammation Program

### **SCHEDULE OF EVENTS:**

April 15<sup>th</sup> Registration Deadline for posters
April 25<sup>th</sup> Late Poster Registration
April 26<sup>th</sup> Post Doc/Post Bac Symposium
April 27<sup>th</sup>& 28<sup>th</sup> SPRING RESEARCH FESTIVAL:

Scientific Poster Presentations, Health Education and Community Service Exhibition, Biomedical Research Equipment and Supplies Expo

# 2010 CCR Trainee Survey Results and Pending Spring Distribution of the New and Improved 2011 Trainee Survey

In the past, the CCR-FYI (Center for Cancer Research Fellows and Young Investigators) Steering Committee has conducted an annual survey of trainees (post-bacs, post-docs, clinical fellows, and graduate students) who attend the annual CCR-FYI Colloquium. The purpose of this survey is to provide information to the CCR leadership with the goal of improving training and mentoring for CCR trainees. The most current survey was completed by attendees of the 10<sup>th</sup> Annual Colloquium in Hershey, PA in 2010. The data were informative, albeit from a select sample pool.

In order to reach a larger, more representative cross-section of CCR trainees, the 2011 survey will be conducted via an online survey portal, SurveyMonkey, this spring. We encourage all

trainees to take 10 minutes of their time to give us feedback on their trainee experience. The anonymous survey will 1) inform the CCR about the trainee population and experience, 2) identify weaknesses and impact positive change for the trainee experience and 3) enter all responders in a random drawing for a chance to win one of ten \$25 gift cards to a local restaurant. In the coming weeks, please pay special attention to your inboxes for the revamped 2011 CCR-FYI Trainee Survey. A summary of the 2010 Trainee Survey results and goals for the future, based on 2010 survey responses, are listed below and depicted in the following four figures.

Figure 1: The Training Plan and Investigator Interaction

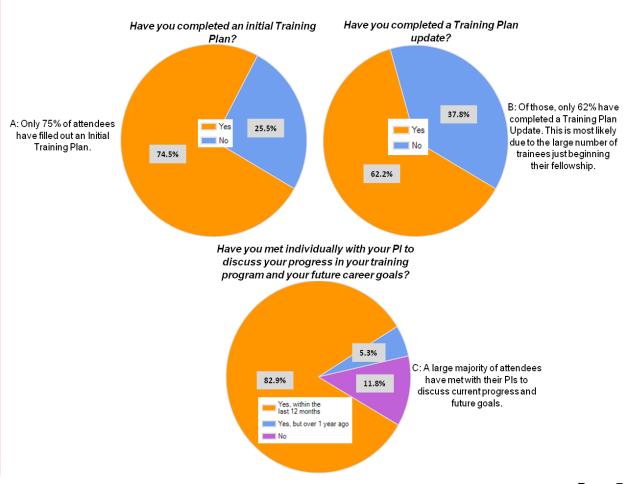
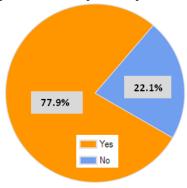


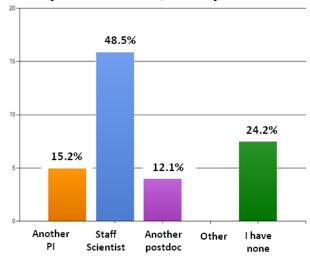
Figure 2: The Principle Investigator as Mentor

## Do you consider your PI your mentor?



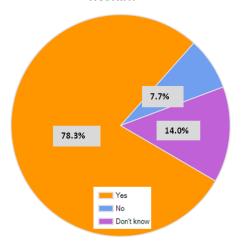
A: Most colloquium attendees consider their PI to also be their mentor.

## If you answered no, who is your mentor?



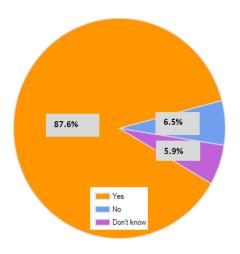
B: If their PI is not a mentor, other individuals fill that role. Unfortunately, a small portion feel they do not have a mentor.

Do you have opportunities and the support of your PI to set up collaborations with other postdocs and/or investigators, inside and outside of the NCI/NIH?



C: Most attendees feel they have PI support to form collaborations outside their labs.

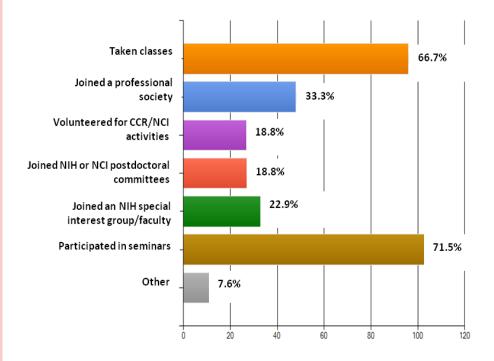
Can you count on your PI for scientific advice/help?



D: Most attendees feel they can count on their PI for scientific support.

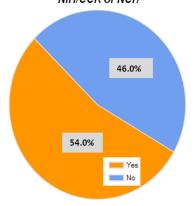
**Figure 3: Trainee Career Development** 

In addition to guidance from your PI, what actions have you taken to enhance your career?

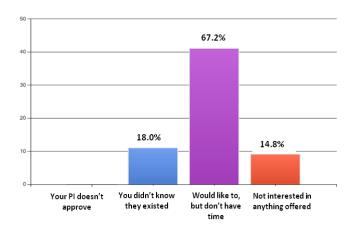


A: In addition to PI guidance, attendees usually either take a class or participate in seminars to enhance their training.

Have you taken part in other career development workshops offered at the NIH/CCR or NCI?

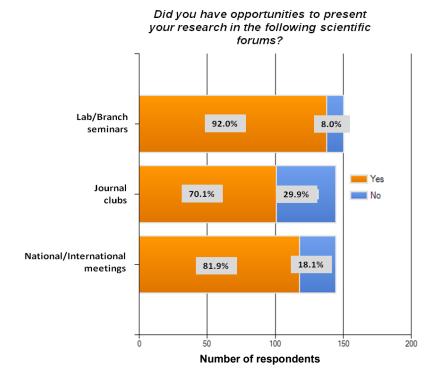


If you answered no, what was the primary reason?



B: Unfortunately only half of attendees have participated in career development opportunities provided by NIH, CCR, or NCI. This is mostly due to a lack of time.

**Figure 4: Scientific Communication** 



Although there are a variety of forums for trainees to develop their presentation skills, some have not had the opportunity to do so.

### 2010 Survey Summary

- There is still a small portion of CCR trainees that are not receiving/attending an orientation.
- Only 75% of trainees have completed an Initial Training Plan.
- The majority of trainees feel they have the support of their PI and are receiving appropriate training.
- Only 54% of attendees have sought out career development opportunities outside the lab, mostly due to time constraints.

#### 2010-11 FYI Initiatives

- Improving communication between PIs and trainees regarding mentoring and training issues
- Revision of the Trainee Survey with a renewed focus on mentoring
- Wider distribution of the 2011 Trainee Survey independent of the annual colloquium to include all young investigators in CCR
- Generation and maintenance of email listservs for CCR post-docs, clinical fellows, graduate students, and post-bacs namely to ensure comprehensive distribution of the 2011 Trainee Survey

### Submitted by:

Jim Gould, Ph.D. Metabolism & Cancer Susceptibility Section Laboratory of Comparative Carcinogenesis Marty Sklavos, Ph.D. Laboratory of Molecular Immunoregulation Cancer and Inflammation Program

# Research Highlight: Biostatistician doubts utility of certain prostate cancer screening test

Andrew Vickers, Ph.D, is an Associate Attending Research Methodologist at Sloan-Kettering Memorial Cancer Center in New York City. He is fundamentally a biostatistician that uses statistics principles to demonstrate correlations, or lack thereof, of certain biomarkers with disease state and progression. In addition to randomized trials and surgical outcome research, the study of molecular markers is one of his main research focuses. Dr. Vickers has taken an interest in identifying statistically-relevant molecular markers for the early detection and initial treatments of prostate cancer. In American men. prostate cancer is the second most commonly diagnosed cancer (next to cancers of the skin), and the second most common cause of cancerrelated death (next to lung cancer). It is estimated there will be 215,000 new cases of prostate cancer in the U.S. in 2011, resulting in approximately 32,000 deaths; thus, much work is still needed for earlier detection, diagnosis, and treatment. The risk of developing prostate cancer increases with age starting at 50 (American Cancer Society,

2010). The 5-year relative survival probability is greater than 99% if diagnosed with any stage of local or regional tumors after 1999. However, that figure drops to just 31% for metastatic cancer (National Cancer Institute, 2007).

Based on correlations between screenings and disease development, the National Comprehen-

sive Cancer Network (NCCN) suggests primary care physicians recommend men aged 50 years or older receive an annual digital rectal exam (DRE) and blood test to obtain baseline levels of prostate-specific antigen (PSA). A PSA blood concentration below 3-4 ng/mL is considered normal. Physicians can thus monitor increases in PSA levels in blood as an indication of prostate cancer. The NCCN further suggests that PSA

velocity, or change in PSA blood levels over time, should also be monitored. A PSA velocity greater than 0.35 ng/mL/year is suggested to warrant a biopsy of the prostate, even if the starting PSA blood level was at or below the normal range of 3 -4 ng/mL. This suggestion is based on a previous study (Carter et al., 2006) that demonstrated a high PSA velocity being predictive of aggressive prostate cancer 10-15 years later. It should be pointed out that two large studies, one completed at NCI and one in Europe, examined the potential mortality benefit of prostate cancer screening. The European study (using PSA testing) found a 20% reduction in mortality through screening (Schroder et al., 2009), while the NCI study (using PSA test and DRE) did not find any benefit (Andriole et al., 2009). This has lead to conflicting recommendations by different organizations (ACS, ASCO, AUA, NCCN, NCI, WHO, Prostate Cancer Foundation, US Preventative Services Task Force) over the use of PSA screening for prostate cancer.

Dr. Vickers and colleagues challenged

the use of PSA velocity as a useful biomarker in men with low initial PSA levels, as well as the need for immediate biopsy if the threat is 10-15 years away (Vickers et al., 2011). This often leads to unnecessary biopsies, which are an inconvenience and sometimes a needless health risk to the patient, most of whom are elderly men. To test this hypothesis, Dr. Vickers and his colleagues used

PSA data gathered from over 5,500 men who participated in the placebo arm (without finasteride) of the Prostate Cancer Prevention Trial (PCPT), where all men (regardless of PSA level) received a biopsy before going off-study.

According to the study, when analyzed alone (univariate), PSA velocity did demonstrate an association with positive biopsy results, corre-

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sponding with previous studies (D'Amico et al., 2004; Carter et al., 2006). However, when the authors analyzed PSA velocity in addition to PSA plasma concentration and DRE outcome, it was determined that PSA velocity does not further increase the predictive diagnostic value of biopsies. Vickers et al. asserts that the univariate analysis with PSA velocity was associated with positive biopsies most likely because PSA velocity correlates well with PSA levels, and there is sufficient evidence of PSA concentration correlating with disease diagnosis. Biopsies based on high PSA velocity (>0.35 ng/mL/year) in men with no other indications (PSA<4 ng/mL; negative DRE) identified 115 cancers, but conducted 433 unnecessary biopsies. In comparison, when conducting biopsies based only on a lower PSA level (<2.5 ng/mL), more cancers were identified (n=139) with roughly the same amount of unnecessary biopsies (n=436). Thus, the results of Vickers et al. demonstrate that greater sensitivity in identifying cancer can be achieved simply by lowering the cutoff for PSA to 2.5 ng/mL; PSA velocity does not add predictive value. It is the thinking of Vickers et al., that screenings should be based on positive evidence and not on the lack of negative evidence. Thus, Dr. Vickers concluded that suggesting biopsies based on PSA velocity in men with no other indications (PSA<4 ng/mL; negative DRE), should be removed as standard practice as they lead to unnecessary biopsies in 1 out of 7 men screened.

#### References

- Andriole GL *et al.* (2009) Mortality results from a randomized prostate-cancer screening trial. *N Engl J Med* **360**:1310-1319.
- Carter HB *et al.* (2006) Detection of life-threatening prostate cancer with prostate-specific antigen velocity during a window of curability. *J Natl Cancer Inst* **98**:1521-1527.
- D'Amico AV et al. (2004) Preoperative PSA velocity and the risk of death from prostate cancer after radical prostatectomy. N Engl J Med 351:125-135.
- National Cancer Institute (2007) Surveillance Epidemiology and End Results (SEER) 5-Year Relative Survival Probability by Stage at Diagnosis.
- Schroder FH *et al.* (2009) Screening and prostatecancer mortality in a randomized European study. *N Engl J Med* **360:**1320-1328.
- American Cancer Society (2010) Cancer Facts and Figures 2010.
- Vickers AJ et al. (2011) An Empirical Evaluation of Guidelines on Prostate-specific Antigen Velocity in Prostate Cancer Detection. J Natl Cancer Inst.

Submitted by: Cody Peer, Ph.D. Clinical Pharmacology Program Medical Oncology Branch

# To all CCR trainees

## Did you know that the CCR Office of Training & Education:

- Assists trainees and mentors with mentoring issues.
- Assists in submitting applications for various funding mechanisms.
  - Provides opportunities for expanding collaborative interactions.
    - Assists trainees in the transition to different career paths.
      - Provides numerous courses
        - And much more!

CCR Office of Training & Education
Jonathan S. Wiest, PhD
Director for Training and Education
Tel: 301.451.9638 wiestj@mail.nih.gov

## **Upcoming Events**

15th Annual Fort Detrick and NCI-Frederick Spring Research Festival, April 27 & 28, 2011 Registration deadline: April 15, 2011

http://web.ncifcrf.gov/events/springfest/2011/

- 2011 NIH Spring Research Festival (Bethesda Campus, May 18 & 19)
- **Frederick Postdoc Seminar Series** 
  - Wednesdays starting at 1:15 PM in Bldg 549 Auditorium
  - Everyone is welcome to attend
  - If you are interested in presenting as a speaker, please contact Linda Brubaker (brubakerld@mail.nih.gov)

## **Interested in joining the FYI Steering Committee?**

Check it out by attending one of our monthly video-conference meetings on

the last Thursday of each month

Where: Bethesda: Bldg 40, Rm 1201/1203

Frederick: Bldg 549, Conference Room A

Time: 11:00 AM- 12PM

# Are you LinkedIn with the CCR FYI?

Check it out at http://www.linkedin.com/groups?gid=2495548

If you are not on LinkedIn, you will have to create an account, which takes no more than five minutes

The Fellows and Young Investigators (FYI) Association was organized by non-tenured and non-tenure-track MDs, PhDs, or the equivalent, and pre-doctoral intramural scientists. It enhances the intramural training program, fosters communication among fellows and the CCR community, and serves as a liaison to administration programs that affect the training experience by:

- · Organizing and promoting educational activities such as training courses and seminars
- · Identifying potential employment opportunities in traditional and nontraditional career paths
- · Helping orient new trainees
- Facilitating communication among members

The purpose of this group is to professionally link current and previous NCI fellows.