# AMERICAN SOCIETY
# of
# PREVENTIVE ONCOLOGY


## 1976-2008

## 32nd ANNUAL MEETING

## PROGRAM & ABSTRACTS

## March 16-18, 2008

**The Hyatt Regency Hotel – Bethesda, Maryland**

# *American Society of Preventive Oncology*
# 32nd Annual Meeting

## Program Co-Chairs:


## Shine Chang, PhD
University of Texas M.D. Anderson Cancer Center

## Peter Shields, MD
Georgetown University Lombardi Comprehensive Cancer Center


The **American Society of Preventive Oncology** is an active and growing organization that is striving to: 1) promote the exchange and dissemination of information and ideas relating to cancer prevention and control; 2) identify and stimulate research areas in cancer prevention and control; and 3) foster the implementation of programs in cancer prevention and control.

Meetings of the **American Society of Preventive Oncology** are organized for professionals in clinical, educational or research disciplines who appreciate the challenges of a multidisciplinary scientific forum and who are committed to a comprehensive approach to cancer prevention and control.

# Special Acknowledgements

The ASPO Executive Committee offers special thanks to Program Co-Chairs, **Drs. Shine Chang** and **Peter Shields**, for their extraordinary commitment in facilitating the development of the program for this meeting, and to the entire 2008 ASPO Program Committee for their hard work on the program.

## 2008 Program Committee



## NEXT YEAR . . .

The 33rd Annual Meeting of the American Society of Preventive Oncology will be held:

**March 8-10, 2009 at the Renaissance Tampa Hotel International Plaza**
**Tampa, Florida**

# Support Acknowledgements

The conference organizing committee wishes to express appreciation to the following organizations and companies for their commitment to continuing medical education by providing educational grants in support of this conference:

**National Cancer Institute (conference grant R13 CA094927)**
**Merck and Co.**
**Prevent Cancer Foundation**
**American Cancer Society**
**American Association for Cancer Research**

## Exhibitors

The conference organizing committee wishes to express appreciation to the following organizations:

### Epidemiology and Genetics Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute

The National Cancer Institute's Epidemiology and Genetics Research Program (EGRP) exhibit summarizes the research areas covered by the Program as well as its resources and services. The exhibit also highlights some of the recent major research advances of its grantees.

### Division of Cancer Epidemiology and Genetics, National Cancer Institute

The Division of Cancer Epidemiology and Genetics (DCEG) is an intramural research unit at the National Cancer Institute. DCEG carries out a national and international program of population- and family-based studies to elucidate the environmental and genetic determinants of cancer.

### Office of Preventive Oncology/CPFP/National Cancer Institute

**NCI Cancer Prevention Fellowship Program**

The Cancer Prevention Fellowship Program at the National Cancer Institute is an excellent postdoctoral training opportunity that provides funding for training in public health (MPH) and mentored research with world-renown investigators at the NCI. Opportunities for research cut across a wide range of methodologies: basic science laboratory studies, clinical studies, epidemiologic studies, community intervention trials, studies of the biological and social aspects of behavior, policy studies, and research on the ethics of prevention. To learn more about our multidisciplinary program in cancer prevention, please visit our website http://cancer.gov/prevention/pob or contact our office at: 301-496-8640 or cpfpcoordinator@mail.nih.gov.



American Association for Cancer Research


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## Columbia University's
## Herbert Irving Cancer Comprehensive Cancer Center and
## Mailman School of Public Health

The Herbert Irving Comprehensive Cancer Center at Columbia University seeks four new faculty members at the level of Assistant and/or Associate Professor and/or Professor level. Incumbents will work with a multidisciplinary team of researchers led by Alfred I. Neugut, MD, PhD, engaging in clinical and epidemiologic research in conjunction with other faculty at the Cancer Center, the Mailman School of Public Health, and at Columbia University Medical Center. Incumbents will be expected to develop and conduct independent research in the field of cancer epidemiology or molecular cancer epidemiology; addressing causes, natural history and treatment of cancer. Expertise in prostate cancer etiology, social disparities and/or behavioral research, or laboratory methods is preferred. They will also participate in teaching and mentoring masters and or doctoral students in the Mailman School of Public Health.

Minimum Qualifications:
A doctoral degree (MD or PhD or equivalent). Demonstrated success in working with multidisciplinary, multi-institutional teams. Strong publication record. Demonstrated success in obtaining funding for independent research, particularly for Associate Professor or Professor rank.

Please send CV and cover letter to: cv@icg.cpmc.columbia.edu

Columbia University is an Affirmative Action/Equal Opportunity Employer

# CANCER PREVENTION

## AT LOMBARDI COMPREHENSIVE CANCER CENTER

- Identifying new biomarkers for cancer risk locally and internationally.
- Understanding cultural barriers to cancer screening.
- Evaluating alternative tobacco products for the NCI.
- Defining molecular pathways in cancer affected by diet.
- Developing personalized risk reduction plans for those with a history of familial cancer.

http://lombardi.georgetown.edu/research

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# WASHINGTON, DC

HAS THE HIGHEST DEATH RATE FROM BREAST CANCER IN THE NATION

ONE VISIT A YEAR FOR A HEALTHY LIFETIME

The Lombardi Comprehensive Cancer Center at Georgetown University teamed up with the Avon Foundation and MedStar Health to open the Capital Breast Care Center. We've made mammograms accessible to the medically underserved women in this area. In our four years of operation, we've screened over 4000 women. More importantly, we're making mammograms an annual event for women here in Washington, DC.

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AT GEORGETOWN UNIVERSITY

www.capitalbreastcare.org

Capital Breast
Care Center

# Dr. David Abrams,
## we applaud you.

**IN THE U.S. ALONE, SMOKING KILLS AT A RATE OF 1 PERSON EVERY 72 SECONDS, 50 EVERY HOUR, 1200 EVERY DAY, 36,500 EVERY MONTH AND 438,000 EVERY YEAR.**


**DEATHS IN THOUSANDS FOR THE YEAR 2000**

The American Legacy Foundation congratulates Dr. David Abrams on receiving the 2008 Joseph W. Cullen Memorial Award for his tireless efforts and continuing contributions to the field of tobacco control research. Dr. Abrams's research has helped in the fight against tobacco and tobacco-related disease, reducing the number of lives lost due to smoking. We would also like to express our excitement that Dr. Abrams will be the Executive Director of Legacy's new Schroeder Institute for Tobacco Research and Policy Studies. Legacy thanks Dr. David Abrams for all of his hard work and for helping further our mission to build a world where young people reject tobacco and anyone can quit.

PLEASE VISIT **AMERICANLEGACY.ORG** FOR MORE INFORMATION ON LEGACY'S LIFE-SAVING WORK.

Legacy
American Legacy Foundation

# Department Chair
# Clinical Cancer Prevention

**Now Recruiting!**

The University of Texas M. D. Anderson Cancer Center seeks qualified applicants for the role of department chair, Clinical Cancer Prevention. The chair will be responsible for developing and supporting a highly innovative and collaborative program encompassing clinical genetics, early detection, interventional cancer prevention including nutritional and chemoprevention approaches, and survivorship.

M. D. Anderson Cancer Center offers a highly attractive recruitment package, active graduate and post-doctoral training programs, and the unrivalled scientific environment of the Texas Medical Center. Please forward letter of intent, including discipline of interest, research goals, CV and complete contact information of three references to:

**Alice Burnett**
Office of the Provost and EVP – Box 0118
The University of Texas M. D. Anderson Cancer Center
1515 Holcombe Boulevard
Houston, TX 77030
*aburnett@mdanderson.org*

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# Congratulations to Ellen R. Gritz, Ph.D.

*The University of Texas M. D. Anderson Cancer Center Division of Cancer Prevention and Population Sciences congratulates Ellen R. Gritz, Ph.D., chair of the Department of Behavioral Science and Olla S. Stribling Distinguished Chair for Cancer Research on her October 8, 2007, election to the Institute of Medicine.*

**Ellen R. Gritz, Ph.D.**
*Chair, Department of Behavioral Science*
*Former ASPO president*

INSTITUTE OF MEDICINE
*OF THE NATIONAL ACADEMIES*

ASPO
*American Society of Preventive Oncology*

# The Cancer Prevention Research Training Program

*Preparing scientists to achieve leadership in the field of cancer prevention and control through mentored research experience and career development training.*

- Multidisciplinary educational and research training in all aspects of cancer prevention and population science (e.g., biomedical sciences, public health, behavioral sciences, health disparities research epidemiology, clinical cancer prevention) with a broad spectrum of faculty mentors with externally funded research
- Three-year fellowships for predoctoral students
- Two-year fellowships for postdoctoral fellows
- Short-term research training with stipend for graduate students
- Over 15 years of training experience and support from the National Cancer Institute and donor funds

## Contacts:

**Shine Chang, Ph.D., Associate Professor**
*shinechang@mdanderson.org*

**Robert M. Chamberlain, Ph.D., Professor**
*rchamber@manderson.org*

**Dee Tello, Academic Coordinator**
*dtello@mdanderson.org*

**www.cancerpreventiontraining.org**

Cancer Prevention Reseach Training Programs - Unit 1365
The University of Texas M. D. Anderson Cancer Center
1155 Herman P. Presssler, PO Box 301439
Houston, TX 77230-1439
713-745-2495 (telephone) • 713-745-1996 (fax)

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## Visit cancercontrol.cancer.gov

### Cancer Control and Population Sciences

NCI's bridge to public health research, practice, and policy

### Your SOURCE for

- Cancer control research funding announcements and opportunities
- Information about NCI and NIH research policies, such as data sharing and human subjects reporting
- Survey instruments and public use data for many topic areas, such as cancer information seeking, diet, physical activity, tobacco use, health services, and cancer outcomes and survivorship
- Cancer statistics from the SEER and State Cancer Profiles Web sites, among others
- Reports, including the *Cancer Trends Progress Report* and the *Annual Report to the Nation on the Status of Cancer*
- Monographs about tobacco control, diet and physical activity, cancer incidence, mortality, and survival
- Intervention products for health communication, nutrition, cancer screening, and smoking prevention and cessation
- Information concerning current NCI-funded research initiatives
- Cancer control tools and resources such as geographic information systems and cancer risk prediction models

### What's NEW

- "Colorectal Cancer Mortality Projections" Web site
- "Cancer Risk Prediction Resources" Web site
- *Cancer Trends Progress Report – 2007 Update*
- "Celebrating 10 Years of Research in DCCPS" Web site, highlighting DCCPS-funded investigators and their accomplishments
- *Cells to Society: Overcoming Health Disparities* – Report from the Centers for Population Health and Heath Disparities
- *Patient-Centered Communication in Cancer Care: Promoting Healing and Reducing Suffering* Monograph
- *Cancer Communication Health Information National Trends Survey, 2003 and 2005* Report
- Information and links for Biennial Cancer Survivorship Research Conference "Cancer Survivorship Research: Mapping the New Challenges"

# BCSC Breast Cancer Surveillance Consortium

*Working together to advance breast cancer research*

- A research resource for breast cancer screening and outcomes studies
- A collaborative network of seven mammography registries linked to tumor and pathology registries
- A central Statistical Coordinating Center for analytic support
- Available to investigators for research


The Consortium's database contains information on over 6 million mammographic examinations, 2 million women, and 74,000 breast cancer cases.

***Come and see what you can do!***

**Work with us - http://breastscreening.cancer.gov/**


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# STRIKE OUT CANCER THROUGH PREVENTION

# Faculty and Postdoctoral Fellows

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N.C. CANCER HOSPITAL

***The UNC Lineberger Comprehensive Cancer Center and its Population Sciences programs proudly support ASPO.***

## Faculty Positions Available

The UNC Lineberger, in collaboration with University departments and the University Cancer Fund, seeks candidates for tenure-track faculty positions at all levels in cancer population sciences research.

## Fellow Positions Available

UNC Chapel Hill training programs seek candidates for postdoctoral fellowships in three training programs -- cancer prevention and control, cancer epidemiology, and quality and patient safety in cancer care.

## Information about Positions

For information about faculty openings, contact Michael O'Malley, PhD (**clover@med.unc.edu**). To learn about the training programs, visit: **http://cancer.unc.edu/training/ccep/postdocs.asp.** For information on the University Cancer Research Fund, visit: **http://cancer.med.unc.edu/ucrf/ .**

**The University of North Carolina at Chapel Hill is an equal opportunity/ADA employer. Women and minorities are encouraged to apply.**

# CAREER OPPORTUNITY

## Associate Director for Cancer Prevention and Control

UNIVERSITY OF COLORADO CANCER CENTER

NCI CCC
A Comprehensive Cancer Center Designated by the National Cancer Institute

The **University of Colorado Cancer Center**—the Rocky Mountain region's NCI-designated comprehensive cancer center—is seeking an Associate Director for Cancer Prevention and Control.

The AD for Cancer Prevention and Control coordinates cancer prevention and control activities within UCCC's eight programs. Our goal is to firmly establish UCCC as a national leader in this area. Excellent collaborative opportunities exist within UCCC, with the Colorado Department of Public Health and Environment, Kaiser Permanente Colorado and many Colorado community-based programs.

- The AMC Prevention and Control Program, led by Al Marcus, PhD, has 38 full and 18 associate members who published 117 papers in 2006-2007.
- We are one of seven LIVE**STRONG**™ Survivorship Centers of Excellence.
- We have model programs for colorectal cancer screening, post-cancer exercise and nutrition, tobacco-related research and more. Our nationwide Cancer Information and Counseling Line, 1-800-525-3777, offers cancer patients free psychosocial help from masters-trained counselors.

We are looking for an accomplished researcher and leader to build upon our current prevention and control activities. The successful applicant could have training in a wide range of disciplines related to cancer prevention and control. Academic appointment could be in one of several departments within the University of Colorado Denver School of Medicine or the developing Colorado School of Public Health.

UCCC's vibrant research programs include 400+ active members who received $110 million in grants in 2007. UCCC is located on the new Anschutz Medical Campus, home to UC Denver's research, clinical care and education facilities.

**LEARN MORE:** Tim Byers, Deputy Director and acting AD for Prevention & Control, University of Colorado Cancer Center
tim.byers@uchsc.edu, 303-724-1283 **www.uccc.info**

## Interdisciplinary Post-Doctoral Fellowships

# CANCER EDUCATION *and* CAREER DEVELOPMENT PROGRAM

**Post-Doctoral Fellowships**

- Annual salary $50,000 and up, for 2-3 years
- Excellent benefits, tuition, books, software, travel, and statistical and writing consultation
- For U.S. citizens and permanent residents

**A Quality Program in its 14th Year of NCI Funding**

- A thriving interdisciplinary research environment
- Portfolio of funded projects addressing diverse risk factors and orientated to underserved populations
- Located in the world's largest medical center
- Outstanding mentoring and training opportunities that advance fellows' skills, networks, and productivity
- Over 30 faculty investigators and 150 research staff

**Application Deadlines**

May 15, 2008; September 15, 2008; January 15, 2009

**For More Information**

http://www.sph.uth.tmc.edu/ncifellowships

Patricia Dolan Mullen, DrPH
Professor & Training Director
Division of Health Promotion & Behavioral Sciences

ncifellowships@uth.tmc.edu

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# Post Doctoral Fellowship in Cancer Prevention and Control

**(Funded by the National Cancer Institute Grant # 5 R25 CA057699)**

The University of Illinois at Chicago Cancer Education and Career Development Program (CECDP) is seeking candidates for a two- to three-year postdoctoral fellowship in cancer prevention and control research. Qualified individuals must have completed a PhD or MD and must be a US citizen or have permanent resident status. The position will be available beginning July 1, 2008. Applications are being accepted until the position is filled.

For further information on the program and the application process, please visit our Web site at **http://cecdp.hrpc.uic.edu** or contact

Clara Manfredi, PhD
University of Illinois at Chicago
Cancer Education and Career Development Program
1747 West Roosevelt Rd, M/C 275
Chicago, Illinois 60608
Telephone: 312-996- 2428 or e-mail: clara@uic.edu

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# *ASPO – 2008*

# Executive Committee

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## GENERAL INFORMATION

### Assistance to Participants

The American Society of Preventive Oncology meeting staff is available to provide assistance or information at any time during the meeting. Questions should be addressed to the staff members and volunteers at the Registration Desk located on the ballroom level.

### Tickets to the Bowling Gala, Sunday, March 16, 2008 at 6pm, at Strike Bethesda

Tickets are still available for purchase at the Registration table. They are $40 each ($25 reduced rate for students) and include food, drinks, bowling, and prizes. Shuttle buses to ***Strike Bethesda*** will leave the Hyatt Regency- Bethesda at 6pm and run back and forth until 9:00 pm.

### Poster Session

This year about 80 posters will be on display beginning at 5pm on Monday, March 17, on the ballroom level. Posters can be displayed beginning at noon on Monday (and must be taken down immediately after the poster reception). There will be a Poster Session and Reception on Monday evening from 6pm – 8pm. Distinguished panels of senior faculty will select an outstanding poster at this session. Awards will be announced and presented at the close of each session, along with a brief discussion of the winners' merits. *Presenters should be positioned near their posters during the poster session for discussion and judging. All posters not taken down by 8:30pm Monday evening will be taken down and put in the registration area.*

### PLEASE HELP US PLAN FOR THE FUTURE. . .

At the close of the meeting please take a few minutes to complete the questionnaire at the back of this program. This will help future Program Committees and conference staff to better meet your professional and logistical needs.

# ASPO Condensed Meeting Program

**(more meeting details on following pages)**

## Sunday, March 16

| | |
|---|---|
| 8am-5pm | Registration |
| 8-noon | NCI R25/K07 meeting |
| Noon - 2pm | 5th Annual NCI meeting for R25T Investigators |
| 10am – 2pm | New Investigators Workshop (open to selected applicants) |
| 11am-2pm | Working Lunch meeting of the ASPO Executive Committee |
| Noon - 2pm | Career Development for Junior Faculty, Junior Researchers & Trainees<br>Chair: Suzanne O'Neill, PhD, NIH – NHGRI<br>"Developing a Successful Program of Research: A Guide for Early Career Scientists"<br>A panel of junior, mid-career and senior scientists will discuss topics related to developing a successful research program. Topics will include: 1) turning start-up funds into successful grant funding; 2) setting and maintaining long-term goals; 3) seeking appropriate mentorship. |
| 2pm | Welcoming Remarks by ASPO President and Program Co-Chairs |
| 2:15pm - 2:45pm | Distinguished Achievement Awardee Address - Malcolm C. Pike, PhD, "Estrogen/Progestin Dose & Cancers of the Endometrium, Breast & Ovary: Implications for Prevention". |
| 2:45pm - 3pm | Prevent Cancer Foundation Fellowship Awardee Address<br>Dejana Braithwaite, PhD, UC – San Francisco |
| 3:00- 4:30pm | **Symposium 1:**<br>"Shots in the Dark? Aspects of the HPV Vaccine Beyond Cervical Cancer"<br>Chair: Michael Scheurer, PhD<br>Anna Giuliano, PhD, H. Lee Moffitt Cancer Ctr,<br>HPV: Association with Cancer and Possibilities for Prevention"<br>Mona Saraiya, MD, MPH, CDC, "Assessing the Burden of HPV-Associated Cancers in the U.S. (ABHACUS): Methods Overview and Background"<br>Djenaba Joseph, MD, MPH, CDC,<br>"Burden of Anal and Penile Cancers in the United States: 1998-2003"<br>Maura Gillison, MD, PhD, Johns Hopkins University,<br>"HPV-Associated Oral Cancers and Implications for Prevention" |
| 4:30- 5:30pm | Special Session: "Integrating Cancer Prevention Discovery Into Practice"<br>Co-chairs: Jon Kerner, PhD, NCI and Shine Chang, PhD, UT MDACC<br>Jessica Kahn, MD, MPH, Cincinnati Children's Hospital Medical Center, "Research on HPV Vaccination in Practice: Patient, Parent, and Provider Perspectives"<br>Matthew Kreuter, PhD, MPH, St. Louis University, "Population and Community Strategies to Disseminate HPV Vaccination"<br>Jennifer Allen, ScD, MPH, RN, Harvard University, "Integrating Clinical, Community, and Policy Perspectives on HPV Vaccination" |
| 6pm | Bowling Gala at Strike Bethesda (tickets available at registration desk) |

## Monday - March 17

7am - 5pm Registration

7-8:30am **Breakfast Session I:** Behavioral Oncology and Cancer Communication Special Interest Group, Chair: Suzanne Miller, PhD, Fox Chase Cancer Center
"Acceptance and Screening Impact of the HPV Vaccine: Behavior to Prevention…and Back"

**Breakfast Session II:** Survivorship Special Interest Group
Chair: Diana Buist, PhD
"Tactics for Strengthening Your Survivorship Proposals: An Interactive Discussion"
Ann M. Geiger, PhD, Wake Forest University School of Medicine
Sara Strom, PhD, UT M.D. Anderson Cancer Center

8:30-10am Concurrent Symposia

**Symposium 2:** "You Snus, You Lose? Or Not? Recent Controversy about Smokeless Tobacco"
Chair: Alexander Prokhorov, MD, PhD, UT M.D. Anderson Cancer Center
Jonathan Foulds, PhD, UMDNJ School of Public Health, "The Role of Snus in Reducing Tobacco-Caused Cancers"
Jonathan Samet, MD, MS, Johns Hopkins School of Public Health "Snus Not! No Harm is Better than Some Harm"
Discussant: Robert Croyle, PhD, National Cancer Institute

**Symposium 3:** "Cancer Health Disparities: Moving Research Beyond Description Towards Intervention"
Chair: Michael Thun, MD, MS, American Cancer Society
Otis Brawley, MD, American Cancer Society,
"Addressing Disparities Beyond Access to Care"
Elizabeth Ward, PhD, American Cancer Society,
"The Role of Health Insurance and Unequal Access to Care"
Vickie Shavers, PhD, National Cancer Institute,
"Should Race/Ethnicity Be Considered in Cancer Screening Recommendations?"

10am Break

10:15-10:45am Joe Cullen Award Lecture- David Abrams, PhD
Prevent Cancer Foundation Awardee Address

10:45am Amy Lazev, PhD, Fox Chase Cancer Center

11am-noon NCI Listens Session

noon-1:30pm Lunch on your own/poster-set up

noon-1:30pm Lunch: Career Development for Junior Faculty, Junior Researchers and Trainees (open to all registrants)
Co-chairs: Mira Katz, PhD, MPH, The Ohio State University and
Deborah Glueck, PhD, University of Colorado Health Sciences Center
"It's All About Grants"

1. Top 10 tips for writing a successful grant proposal
2. Writing successful career awards (with examples)
3. Interdisciplinary collaboration: opportunities and challenges

## Monday, March 17 (cont.)

1:30 - 3pm Concurrent Symposia

**Symposium 4:**

"Outrunning Cancer: Understanding the Role of Physical Activity in Cancer Survivorship"

Chair: Karen Basen-Engquist, PhD, UT M.D. Anderson Cancer Center

Melinda Irwin, PhD, MPH, Yale University, "RCT of Exercise on Biological Markers Associated with Prognosis in Breast Cancer Survivors: The Yale Exercise and Survivorship Study"

Lee W. Jones, PhD, Duke University Medical Center, "Operable Breast Cancer and Cardiovascular Injury: The Potential Role for Aerobic Exercise Training"

Karen Mustian, PhD, University of Rochester Medical Center, "Exercise for Cancer-Related Fatigue and Other Symptoms Among Survivors"

Karen Basen-Engquist, PhD, UT M.D. Anderson Cancer Center, "Cancer Survivors and Exercise: Increasing Adherence Using Behavioral Theory"

Discussant: Noreen Aziz, MD, PhD, National Cancer Institute

**Symposium 5**:

1:30-3pm "Lessons from Three Diseases: What Evidence is Needed for Guidelines?"

Co-Chairs: Deborah Glueck, PhD, University of Colorado Health Sciences Center and Mary Reid, PhD, Roswell Park Cancer Institute

Debbie Saslow, PhD, American Cancer Society, "Breast MRI: Screening Women at High Risk"

Tim Byers, PhD, University of Colorado Health Sciences Center, "Screening for Lung Cancer: How Much Do We Need to Know and When Do We Need to Know It?"

Claudia Henschke, MD, New York-Cornell Radiology Diagnostic Imaging Center, "Lung Cancer: Learning from the Past".

Peter Lance, MD, University of Arizona Cancer Center, "Screening for Colorectal Cancer: Who, When and How?"

3pm Break

3:30-5pm **Paper Session 1**

5:00pm ASPO Business Meeting (open to all attendees)

6pm-8pm Poster Session & Reception (dinner on your own)

7:45pm Presentation of Prevent Cancer Foundation/ASPO Fellowship

Presentation of Best Poster(s)

## Tuesday - March 18

| | |
|---|---|
| 7am– 2pm | Registration |
| 7-8:30am | **Breakfast Session I:** Chemoprevention Special Interest Group<br>Chair: Powel Brown, MD, PhD, Baylor College of Medicine<br>Frank L. Meyskens, MD, UC – Irvine<br>"Double-blind, placebo-controlled, randomized trial of Sulindac plus difluoromethylornithine (DFMO) in reducing recurrent colorectal adenomas " |
| 8:30-10am | **Breakfast Session II**: Screening Special Interest Group, Chair: Mary Beth Terry, PhD<br>"Interpreting Cancer Screening Data: What You Need Know.",<br>Barry Kramer, MD, National Cancer Institute, and Stuart Baker, ScD,<br>National Cancer Institute<br>**Symposium 6:**<br>"Predicting Personal Cancer Risk: Do We Have the Technology? 30 Years Later, Steve Austin Wants to Know"<br>Chair: James, Marshall, PhD, Roswell Park Cancer Institute<br>Arthur Schatzkin, MD, DrPH, "Moving Phenotypic Markers to the Clinic: Nutritional Biomarkers -- How Do We Use Them?"<br>Peter Shields, MD, Georgetown University, "Moving Genotyping to the Clinic - Are We Ready for Prime Time - How do We Replicate?"<br>Wei Zheng, MD, PhD, MPH, Vanderbilt University, "How Do You Use Risk Markers to Guide Research and Clinical Decisions on Exposure" |
| 10am | Break |
| 10:30am – noon | Associate Directors for Cancer Prev & Control Meeting<br>Co-chairs: Jim Marshall, PhD, and Peter Shields, MD |
| 10:30 – noon | **Concurrent Paper Sessions –**<br>**Paper Session 2**<br>**Paper Session 3** |
| Noon | Conclusion of ASPO Meeting |
| noon-2pm | **ASPO Educational Sessions** (pre-registration required)<br>1) Gene-Gene and Gene-Environment Interactions<br>Ellen L. Goode, PhD, Mayo Clinic<br><br>2) Incorporating Biological Markers into Epidemiologic Studies<br>Nathaniel Rothman, MD, MPH, MHS, National Cancer Institute |

# *ASPO 2008 - Program Details*

**Sunday, March 16, 2008**

8:00 am -- 5:00 pm **Registration**

8:00 am – 12:00 pm **18th Annual National Cancer Institute Special Meeting** of Grantees, Trainees, and Fellows in Cancer Prevention, Control, Behavioral and Population Sciences (by invitation only)

11:00 am – 2:00 pm **ASPO Executive Committee Working Lunch**
**Embassy/ Patuxent** (Executive Committee members only)

10:00 am - 2:00 pm **New Investigators Workshop** -- (Open only to accepted applicants)
**Congressional Room**

Organizers:
**Alfred I. Neugut, MD, PhD**
Columbia University Mailman School of Public Health &
**Judith Jacobson, DrPH**
Columbia University Mailman School of Public Health

Workshop Faculty:
**Peter Kanetsky, PhD, PhD**
University of Pennsylvania
**Douglas Weed, PhD**
National Cancer Institute
**Lawrence Kushi, ScD**
Kaiser Permanente

**NIW Workshop Participants**:

**Danielle Rose Ash, PhD**
UC – Los Angeles
**Jennifer Wright Bea, PhD**
University of Arizona
**Yira Bermudez, PhD**
University of Arizona
**Kristen Carpenter, PhD**
UC – Los Angeles
**Shehnaz Hussain, PhD**
UC- Los Angeles
**Corinne Leach, MS**
University of Kentucky
**Brian Sprague, MS**
University of Wisconsin
**Katherine Sterba PhD**
University of Texas

12:00 pm – 2:00 pm **NCI Meeting for R25T Investigators**

*(Sunday cont.)*

12:00 pm – 2:00 pm
**Old Georgetown**

## Career Development for Junior Faculty, Junior Researcher & Trainees

*"Developing a Successful Program of Research: A Guide for Early Career Scientists"*

Chair: Suzanne O'Neill, PhD, NIH – NHGRI

A panel of junior, mid-career and senior scientists will discuss topics related to developing a successful research program. Topics will include: 1) turning start-up funds into successful grant funding; 2) setting and maintaining long-term goals; 3) seeking appropriate mentorship. Panelists are:
**Deborah Bowen, PhD**, Boston University School of Public Health
**Wendy Demark-Wahnefried, PhD,** U.T. M.D. Anderson Cancer Center
**Christopher Loffredo, PhD,** Lombardi Cancer Ctr, Georgetown University

2:00 pm
**Haverford/ Baccarat**

## Welcoming Remarks

ASPO President, **James Marshall, PhD,** Roswell Park Cancer Institute
Program Co-Chair: **Shine Chang, PhD,** UT M.D. Anderson Cancer Center &
Program Co-Chair: **Peter Shields, MD,** Georgetown University

2:15pm

## Distinguished Achievement Awardee Address

**Malcolm C. Pike, PhD,** USC/Norris Comprehensive Cancer Center
"Estrogen/Progestin Dose and Cancers of the Endometrium, Breast and Ovary: Implications for Prevention"

***The Distinguished Achievement Award is sponsored by the American Cancer Society***

2:45 pm

## Prevent Cancer Foundation Fellowship Awardee Address

**Dejana Braithwaite, PhD**, UC – San Francisco
"Exposures in Early Life and Breast Cancer Risk"

3:00 – 4:30 pm
**Haverford/ Baccarat**

## Symposium I: Shots in the Dark? Aspects of the HPV Vaccine Beyond Cervical Cancer

| | |
|---|---|
| Chair: | **Michael Scheurer, PhD**, Baylor College of Medicine |
| Speaker: | **Anna Giuliano, PhD,** H. Lee Moffitt Cancer Center |
| Topic: | HPV: Association with Cancer and Possibilities for Prevention |
| Speaker: | **Mona Saraiya, MD, MPH,** Centers for Disease Control & Prevention |
| Topic: | Assessing the Burden of HPV-Associated Cancers in the U.S. (ABHACUS): Methods, Overview and Background |
| Speaker: | **Djenaba Joseph, MD, MPH,** Centers for Disease Control & Prevention |
| Topic: | Burden of Anal and Penile Cancers in the U.S.: 1998-2003 |
| Speaker: | **Maura Gillison, MD, PhD,** Johns Hopkins University |
| Topic: | HPV-Associated Oral Cancers and Implications for Prevention |

*(Sunday cont.)*

4:30 – 5:30 pm
**Haverford/Baccarat**

## Special Session: Integrating Cancer Prevention Discovery Into Practice

CoChairs: **Jon Kerner, PhD,** National Cancer Institute and
**Shine Chang, PhD,** U.T. M.D. Anderson Cancer Center

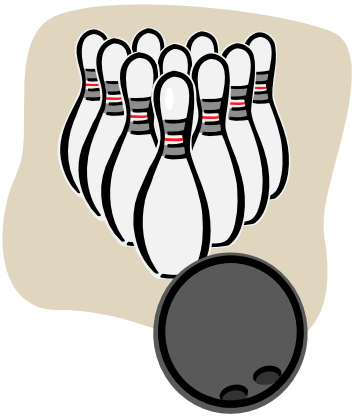
Speaker: **Jessica Kahn, MD, MPH,** Cincinnati Children's Hospital Medical Center
Topic: Research on HPV Vaccination in Practice: Patient, Parent, and Provider Perspectives

Speaker: **Matthew Kreuter, PhD, MPH,** St. Louis University
Topic: Population and Community Strategies to Disseminate HPV Vaccination

Speaker: **Jennifer Allen, ScD, MPH, RN,** Harvard University
Topic: Integrating Clinical, Community, and Policy Perspectives on HPV Vaccination

6:00pm – 9:00pm

*ASPO Bowling Gala* – **Striking Out Cancer Through Prevention!**
Venue: Strike Bethesda
Bowling, Food, Drinks, Fun and Prizes!
Mini-buses will leave the Hyatt beginning at 6pm and ending at 9pm
(tickets available for purchase – see the registration table)



# *ASPO 2008 – Monday, March 17, 2008*

7:00 am – 5:00 pm **Registration**

7:00 – 8:30 am **Hot Topics Breakfast Sessions** (two sessions)

7:00 – 8:30 am ***I. Breakfast Session: Behavioral Oncology and Cancer***
**Embassy/Patuxent** ***Communication Special Interest Group***

Chairs: ***Suzanne Miller, PhD,*** Fox Chase Cancer Center; **Michael Scheurer, PhD**, Baylor College of Medicine; **Deborah Bowen, PhD**, Boston University; **Isaac Lipkus, PhD**, Duke University

Topic: Acceptance and Screening Impact of the HPV Vaccine: Behavior to Prevention …. And Back

Moderator: **Michael Scheurer, PhD**, Baylor College of Medicine

This breakfast session will springboard from the Sunday symposium on: HPV infection and the vaccine. The focus of the session will be to delve in a more in-depth forum into issues surrounding acceptance and utilization of the HPV vaccine. In particular, the speakers will discuss the behavioral and dissemination aspects of the vaccine**,** and how the vaccine might impact screening behaviors. The session will serve as a model for issues surrounding transdisciplinary science in the context of the development and implementation of novel prevention strategies and how new interventions could affect those currently in place. There will be two speakers who are at the forefront of these research, practice, and policy efforts, and who will present their data and perspectives on issues relating innovative technology to behavior in the context of cancer screening, and the implications for disease prevention and public health interventions. The presentations will be followed by an interactive panel and audience discussion.

Speakers: Jasmin Tiro, PhD, MPH, Cancer Prevention Fellow, Applied Cancer Screening Research Branch, Behavioral Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute: Behavioral and social science issues regarding uptake of the HPV vaccine.

Debbie Saslow, Ph.D., Director of Breast and Gynecologic Cancer, American Cancer Society: Screening issues that result from the HPV vaccine

7:00 – 8:30 am ***II. Survivorship Special Interest Group Breakfast:***
**Lalique** Chairs: **Diana Buist, PhD**, Group Health Center for Health Studies

Topic: Tactics for Strengthening Your Survivorship Proposals:
An Interactive Discussion
Speakers**:** **Ann M. Geiger, PhD,** Wake Forest University
**Sara Strom, PhD,** UT M.D. Anderson Cancer Center

Survivorship proposals face unique hurdles in competing for funding against other cancer proposals. The goal of this session is to increase the competitiveness of survivorship proposals. The first portion of the session will feature an interactive discussion about common reviewer criticisms of survivorship proposals and strategies to overcome those criticisms. The second portion of the session will feature a presentation about how to develop survivorship proposals that will appeal to reviewers who are cancer survivors. In addition to strategies for individual proposals, we hope the session results in some ideas about how the interest group can advocate for survivorship research, perhaps including ideas about how to educate peer and survivor reviewers.

*(Monday cont.)*

8:30- 10:00 am
**Embassy/Patuxent**

## CONCURRENT SYMPOSIA

### Symposium 2: You Snus, You Lose? Or Not? Recent Controversy About Smokeless Tobacco

Chair: **Alexander Prokhorov, MD, PhD,** UT M.D. Anderson Cancer Center

Speaker: **Jonathan Foulds, PhD,** UMDNJ School of Public Health
Topic: The Role of Snus in Reducing Tobacco-Caused Cancers

Speaker: **Jonathan Samet, MD, MS,** Johns Hopkins School of Public Health
Topic: Snus Not! No Harm is Better than Some Harm

Discussant: **Robert Croyle, PhD,** National Cancer Institute

8:30 – 10:00 am
**Haverford/ Baccarat**

### Symposium 3: Cancer Health Disparities: Moving Research Beyond Description Towards Intervention

Chair: **Michael Thun, MD, MS,** American Cancer Society

Speaker: **Otis Brawley, MD,** American Cancer Society
Topic: Addressing Disparities Beyond Access to Care

Speaker: **Elizabeth Ward, PhD,** American Cancer Society
Topic: The Role of Health Insurance and Unequal Access to Care

Speaker: **Vickie Shavers, PhD**, National Cancer Institute
Topic: Should Race/Ethnicity Be Considered in Cancer Screening Recommendations?

10:00 am Break

10:15 – 10:45am
**Haverford/ Baccarat**

### Joseph W. Cullen Memorial Award Lecture

**David B. Abrams, PhD**
Director, Office of Behavioral and Social Sciences Research (OBSSR), National Institutes of Health
(Following a national search, David B. Abrams, PhD was recently named the founding Executive Director of the American Legacy Foundation's newly formed Schroeder Institute for Tobacco Research and Policy Studies. He will begin in this role in April 2008).

Topic: Systems Integration: Understanding and Reducing Tobacco Prevalence at the Population Level

*The Joseph W. Cullen Award is given annually to memorialize the many contributions of Joe Cullen. Dr. Cullen was an active ASPO member and Program Coordinator for the NCI's Smoking Tobacco and Cancer Pro*

*(Monday cont.)*

10:45 am
**Haverford/ Baccarat**

**Prevent Cancer Foundation Fellowship Awardee Address**
**Amy Lazev, PhD**, Fox Chase Cancer Center
"Smoking 101: Learning from College Students"

11:00 – 12:00 pm
**Haverford/Baccarat**

**NCI Listens**

Noon – 1:30pm
**Lalique**

**Lunch on your Own/Poster Set-up**

Noon-1:30 pm
**Cartier/Tiffany**

**Poetry Reading**
*"Aching for Tomorrow"*
A collection of original poetry by Frank L. Meyskens

12:00 – 1:30 pm
**Embassy/ Potomac/ Patuxent**

**Career Development for Junior Faculty, Junior Researchers and Trainees** (open to all meeting attendees)

*"It's All About Grants"*
Co-Chairs: **Mira Katz, PhD**, The Ohio State University &
**Deborah Glueck, PhD**, University of Colorado Health Sciences Center

Speaker: **John Pierce, PhD,** UC – San Diego,
Topic: Top 10 Tips for Writing a Successful Grant Proposal

Speaker: **Lester Gorelic, PhD**, National Cancer Institute
Topic: Writing Successful Career Awards

Speaker: **Robert Hiatt, MD, PhD,** UC-San Francisco
Topic: Interdisciplinary Collaboration: Opportunities and Challenges

Discussant: **Wendy Demark-Wahnefried, PhD,** UT M.D. Anderson Cancer Center

**Sponsored by the Prevent Cancer Foundation**
(Box lunches will be available)

*(Monday cont.)*

## CONCURRENT SYMPOSIA

1:30 – 3:00 pm
**Haverford/ Baccarat**

### Symposium 4: Outrunning Cancer: Understanding the Role of Physical Activity in Cancer Survivorship

Chair: **Karen Basen-Engquist, PhD,** UT M.D. Anderson Cancer Center

Speaker: **Melinda Irwin, PhD, MPH,** Yale University
Topic: RCT of Exercise on Biological Markers Associated with Prognosis in Breast Cancer Survivors: The Yale Exercise and Survivorship Study

Speaker: **Lee W. Jones, PhD,** Duke University Medical Center
Topic: Operable Breast Cancer and Cardiovascular Injury: The Potential Role for Aerobic Exercise Training

Speaker: **Karen Mustian, PhD,** University of Rochester Medical Center
Topic: Exercise for Cancer-Related Fatigue and Other Symptoms Among Survivors

Speaker: **Karen Basen-Engquist, PhD**, UT M.D. Anderson Cancer Center
Topic: Cancer Survivors and Exercise: Increasing Adherence Using Behavioral Theory

Discussant: **Noreen Aziz, MD, PhD,** National Cancer Institute

1:30 – 3:00 pm
**Diplomat/ Ambassador**

### Symposium 5: Lessons from Three Diseases: What Evidence is Needed for Guidelines

Co-Chairs: **Deborah Glueck, PhD,** University of Colorado Health Sciences Center & **Mary Reid, PhD**, Roswell Park Cancer Institute

Speaker: **Debbie Saslow, PhD,** American Cancer Society
Topic: Breast MRI: Screening Women at High Risk

Speaker: **Tim Byers, PhD,** University of Colorado Health Sciences Center
Topic: Screening for Lung Cancer: How Much Do We Need to Know and When Do We Need to Know It?

Speaker: **Claudia Henschke, MD,** New York-Cornell Radiology Diagnostic Imaging Center
Topic: Lung Cancer: Learning from the Past

Speaker: **Peter Lance, MD**, University of Arizona Cancer Center
Topic: Screening for Colorectal Cancer: Who, When and How?

3:00 pm **Break**

*(Monday cont.)*

3:30 – 5:00 pm **Haverford/ Baccarat**

## Paper Session 1: Screening & Risk Factors

Chair: Mary Beth Terry, **PhD,** Columbia University

3:30 pm **Amy Spelman, PhD, MPH,** UT M.D. Anderson Cancer Center
Smoking Susceptibility Predicts Experimentation Among Mexican-American Girls and Boys

3:45 pm **Brian Sprague, MS, BS,** University of Wisconsin-Madison
Physical Activity, White Blood Cell Count, and Lung Cancer Risk in a Prospective Cohort Study

4:00 pm **Sara Strom, PhD,** UT M.D. Anderson Cancer Center
Obesity, Weight Gain, and CML Risk

4:15 pm **Aditya Bardia, MBBS, MPH,** Mayo Clinic
Do Aspirin and Other NSAIDs Lower Risk of Breast Cancer?

4:30 pm **Sherri Sheinfeld-Gorin, PhD,** Columbia University
Physician Recommendation is Key to Colorectal Cancer Screening Uptake

4:45 pm **Diana Redwood, MS, MPH,** Alaska Native Tribal Health Consortium
Innovation in Colorectal Cancer Screening among Alaska Native (AN) People

(See abstracts on following pages)

5:00 pm **ASPO Business Meeting**
All registered meeting attendees are encouraged to attend.

6:00 pm – 8:00 pm **Waterford/Lalique** **Poster Session & Reception** (dinner on your own)

7:45 pm **Presentation of "Best Poster" Awards**
**Presentation of ASPO/Prevent Cancer Foundation Fellowship**
**Carolyn Aldige,** President, Prevent Cancer Foundation

**This Fellowship is sponsored by the Prevent Cancer Foundation and the American Society of Preventive Oncology, and is funded by the Prevent Cancer Foundation**.

| **Amy Spelman, PhD, MPH**<br>**3:30 pm** | **Brian Sprague, MS, BS**<br>**3:45 pm** |
|---|---|
| Smoking Susceptibility Predicts Experimentation Among Mexican-American Girls and Boys. Spelman A, Spitz M, Kelder S, Frankowski R, Wilkinson A.<br>Susceptibility to smoking is defined as the lack of a firm commitment not to smoke in the future or if offered a cigarette by a friend. Few studies have examined the risk factors of susceptibility and experimentation among Hispanic adolescents, although they are twice as likely to be susceptible compared to other racial/ethnic groups. This study examined susceptibility at baseline as a predictor of experimentation after one year of follow-up, along with several psychosocial variables, among 1,035 Mexican-American (MA) adolescents age 11-13 who had never smoked. The overall susceptibility and experimentation rates at follow-up were 28% and 9%, respectively. Girls and boys who were susceptible at baseline were 4.2 and 3.1 times more likely to experiment after one year compared to their non-susceptible peers. Girls were more likely to experiment if they lived with someone (other than a parent or sibling) who currently smokes. Boys were more likely to experiment if they had a high level of acculturation, had a father who currently smokes, endorsed "kids think smoking is cool" and had received at least one detention in school. Based on these data, susceptibility is the best marker for experimentation for MA adolescents. Identifying risk factors associated with susceptibility will aid in the development of more effective and targeted smoking prevention programs in this population. NCI, R01CA105203, M Spitz, PI | Physical activity, white blood cell count, and lung cancer risk in a prospective cohort study.<br>BL Sprague, A Trentham-Dietz, BEK Klein, R Klein, KJ Cruickshanks, K Lee, J Hampton.<br>Studies have suggested that physical activity may lower lung cancer risk. The association of physical activity with reduced chronic inflammation provides a potential mechanism. We evaluated the relation between physical activity, inflammation, and lung cancer risk in a prospective cohort of 4,831 subjects, 43-86 years of age, in Beaver Dam, Wisconsin. A total physical activity index was created by summing episodes of sweat-inducing physical activity per week, city blocks walked per day, and flights of stairs climbed per day, as ascertained by interview. Two inflammatory markers, white blood cell count and serum albumin, were measured at the baseline examination. During an average of 12.8 years of follow-up, 134 cases of lung cancer were diagnosed. Risk of lung cancer was reduced by over 40% among participants with a total activity index greater than 13 (OR=0.56, 95% CI: 0.35-0.90) compared to inactive participants. Participants with white blood cell counts in the upper tertile (≥8000/uL) were 2.81 (95% CI: 1.58-5.01) times as likely to develop lung cancer as those with counts in the lowest tertile (<6400/uL). Serum albumin was not related to lung cancer risk. There was no evidence that inflammation mediated the association between physical activity and lung cancer risk, as the physical activity risk estimates were essentially unchanged after adjustment for white blood cell count. These data suggest that physical activity and white blood cell count are independent risk factors for lung cancer. |

| Sara Strom, PhD<br>4:00 pm | Aditya Bardia, MBBS, MPH<br>4:15 pm |
|---|---|
| Obesity, weight gain, and CML risk. Strom SS, Gruschkus SK, Rivas SD, Cortes JE<br>Little is known regarding the etiology of chronic myelegenous leukemia (CML). Some evidence suggests that obesity influences risk of other myeloid malignancies. We conducted a hospital-based case control study of 253 cases and 270 controls to determine the impact of obesity and weight gain on CML risk. Cases were diagnosed at MD Anderson Cancer Center from 1999-2006. Controls matched on age, sex, and ethnicity were recruited among individuals accompanying patients to outpatient clinics (excluding leukemia/lymphoma clinics). The mean age of cases was 48 years (range 16-83); 52% were male. The ethnic distribution was 82% white, 10% Hispanic, 7% African American, and 1% Asian. A multiple logistic regression analysis adjusting for family history and ionizing radiation/agrichemical exposure demonstrated an independent dose-response effect for mild (BMI 30-35 kg/m2) and moderate/severe obesity (BMI>35 kg/m2)(OR 2.05; 95%CI 1.20-3.50 and OR 3.24; 95%CI 1.64-6.37, respectively, p-trend<0.001). In a separate model evaluating weight gain, gaining >=1 kg/year from age 25-40 was associated with increased risk (OR 3.63; 95% CI 1.46-9.04) after adjusting for weight at age 25 and other confounders. Results from this study suggest that obesity and weight gain during early adulthood may modulate CML risk. | Do Aspirin and Other NSAIDs Lower Risk of Breast Cancer? Bardia A, Ebbert JO, Vierkant RA, Wang AH, Olson JE, Limburg P, Anderson K, Cerhan, JR<br>Purpose: To examine the association of aspirin and other NSAID use with breast cancer incidence and its ER and PR subtypes. Methods: Iowa Women's Health Study is a prospective cohort study of postmenopausal women. Aspirin, and other NSAID use was reported on a self-administered questionnaire (1992; N=26,577). Breast cancer incidence (including ER/PR status) through 12 years of follow-up was ascertained by annual linkage to the Iowa SEER Cancer Registry. Cox proportional hazards models were used to estimate multivariate relative risks (RRs) and 95% confidence intervals (CIs) of breast cancer incidence, adjusting for other breast cancer risk factors. Results: During 288,864 person-years of follow-up, 1492 incident cases of breast cancer were observed. Compared to aspirin never users, women who regularly consumed aspirin had a lower risk of breast cancer (RR=0.80, 95% CI: 0.71-0.91). Higher frequency of use was associated with lower risk (RR=0.73, 95% CI: 0.62-0.86, for aspirin use 6 or more times/week versus never use; p trend=0.0007). The inverse association was virtually identical across all subtypes defined by ER or PR status. In contrast, use of other NSAIDs was not associated with breast cancer incidence (RR=1.00, 95% CI: 0.89-1.12), irrespective of frequency of use or ER or PR status of the tumor. Conclusions: Aspirin, but not other NSAID use, was associated with a lower risk of breast cancer, irrespective of it's ER/PR sub-type, suggesting that the protective effects of aspirin are not directly related to estrogen or progesterone signaling pathways. |

| **Sherri Sheinfeld Gorin, PhD**<br>**4:30 pm** | **Diana Redwood, MS, MPH**<br>**4:45 pm** |
|---|---|
| Physician recommendation is key to colorectal cancer screening uptake.<br>Sheinfeld Gorin S, Scoppettone M, Lantigua R, Ashford A, Frucht H, Franco R, Hajiani F, New York Physicians against Cancer study team<br>The objective of this study is to: assess the efficacy of academic detailing on increasing recommendations for colorectal cancer screening by comparison to a service-as-usual control. We conducted a randomized clinical trial of primary care physicians, stratified by distinct urban communities that vary by socioeconomic status, who were randomized to an academic detailing intervention or to a service-as-usual control arm. The primary outcome was colorectal cancer screening via medical audit at 12-month followup (N=1290 patients' charts). One hundred sixty four primary care physicians who were practicing in 2 urban communities distinct in socioeconomic status participated at the 12-month followup. All intervention physicians received four face-to-face academic detailing visits with self-learning packets alongside a digital detailing CD_ROM. The findings revealed that Academic detailing significantly increased recommendations for colonoscopy at the outcome of the study across both sets of communities (via generalized linear mixed models; (OR=2.01; 95% CI, 1.24-3.27). The intervention did not influence other testing outcomes. Academic detailing increased screening uptake via colonoscopy in low income urban populations, potentially saving lives through earlier detection, and addressing health disparities. | Innovation in Colorectal Cancer Screening among Alaska Native (AN) People.<br>Redwood D, Provost E, Christensen C, Espey D, Haverkamp D, Sacco F.<br>Colorectal cancer (CRC) incidence and mortality among Alaska Native people is twice the US White rate (102.9 vs. 51.7 and 39.4 vs. 20.2 per 100,000). We describe innovative strategies and lessons learned by the Alaska Tribal Health System to increase CRC screening statewide. For 3 years this project has focused on training providers to perform flexible sigmoidoscopy in- and sending tinerant endoscopists to- rural centers. A comprehensive CRC screening program training manual and curriculum was developed. Five providers from regional tribal health organizations were trained to perform flexible sigmoidoscopy. However, multiple factors have hampered effectiveness. Itinerant endoscopists held five CRC screening clinics. Eight sites have installed an electronic CRC screening tracking package to identify patients for screening. We have used a first-degree relative database of AN patients with CRC to identify high priority individuals for screening. We plan to continue itinerant endoscopy services, including specially trained mid-level providers, and use electronic medical systems to identify patients eligible for screening. Increasing CRC screening rates among this high-risk population particularly in rural/remote regions continues to be a challenge. Innovative strategies for improving CRC screening in this unique health care environment are crucial for achieving CRC screening goals. |

# *ASPO 2008 – Tuesday, March 18, 2008*

7:00 – 8:30 am **Hot Topics Breakfast Sessions** (two sessions)

7:00 – 8:30 am
**Lalique**

## *I. Chemoprevention Special Interest Group*

Chair: **Powel Brown, MD, PhD,** UT M.D. Anderson Cancer Center

Presenter: **Frank L. Meyskens, MD.** UC – Irvine

Double-blind, placebo-controlled, randomized trial of Sulindac (S) plus difluoromethylornithine (DFMO) in reducing recurrent colorectal adenomas (CRA). FL Meyskens, EW Gerner, CE McLaren for UC Irvine (Chao Family Comprehensive Cancer Center) Prevention Consortium. Purpose: To determine the efficacy/toxicity of low doses of DFMO plus S in reducing recurrence of CRA. Methods: Double-blind, placebo-controlled trial with randomization of 375 patients stratified by pre-trial baby aspirin use and clinical site. Results: The trial was stopped after the second interim analysis as efficacy goals were achieved and further follow-up was unlikely to be informative. A highly significant reduction (67%) of all CRA ($p<0.0001$) and advanced CRA (93% reduction, $p=0.0005$) occurred. Polyamines (putrescine levels and spermidine/spermine ratios) in flat colorectal mucosa were markedly reduced in the active intervention arm; PGE2 levels were not affected. Audiologic (self-reported), gastrointestinal, cardiovascular and other toxicities were low. Conclusion: These results confirm the value of dose de-escalation studies prior to launching a phase III trial in identifying a dose and regimen that is both efficacious and of low toxicity. The final study results, including off-study colonoscopies of those on study at the time of the second interim analysis, and complete adverse event comparisons will be presented.

7:00- 8:30 am
**Embassy/ Potomac/Patuxent**

## *II. Screening Special Interest Group*

Chair: **Mary Beth Terry, PhD**, Columbia University

Topic: Interpreting Cancer Screening Data: What You Need Know
Speakers: **Barry Kramer, MD**, National Cancer Institute &
**Stuart G. Baker, ScD,** National Cancer Institute

The session covers two main areas relevant to cancer screening trials. The first will be the difficulty in interpreting observational cancer screening studies and the importance of randomized trials. The second will be major elements in the design and analysis of randomized screening trials, including: outcome measures, adjustments for staggered entry, adjustments for noncompliance and contamination soon after randomization, and adjustments for post screening noise.

(Tuesday cont.)

8:30 - 10:00 am
**Haverford/ Baccarat**

## Symposium 6: Predicting Personal Cancer Risk: Do We Have the Technology? 30 Years Later, Steve Austin Wants to Know

Chair: **James Marshall, PhD,** Roswell Park Cancer Institute

Speaker: **Arthur Schatzkin, MD, DrPHe,** National Cancer Institute
Topic: Moving Phenotypic Markers to the Clinic: Nutritional Biomarkers – How Do We Use Them?

Speaker: **Peter Shields, MD,** Georgetown University
Topic: Moving Genotyping to the Clinic – Are WE Ready for Prime Time – How Do We Replicate?

Speaker: **Wei Zheng, MD, PhD, MPH,** Vanderbilt University
Topic: How Do You Use Risk Markers to Guide Research and Clinical Decisions on Exposure?

10:00 am Break

10:30 am – 12:00 pm
**Lalique**

## Associate Directors for Cancer Prevention & Control Meeting

Chair: **James Marshall, PhD,** Roswell Park Cancer Institute

Topic: Health Disparities Research and Service Concepts for Comprehensive Cancer Centers
**Linda Weiss, PhD,** National Cancer Institute,
What Cancers Can and Should Be Doing in the Health Disparities Arena
**Deb Erwin, PhD,** Roswell Park Cancer Institute Program in Health Disparities
**Wornie Reed, PhD,** University of Tennessee
Cultural Competency Partnerships
**Robert T. Croyle, PhD**, National Cancer Institute
Fostering Program Projects for Population Sciences

*(Tuesday cont.)*

10:30 am – 12:00pm **Concurrent Paper Sessions**

10:30 – 12:00 pm **Paper Session 2: Survivorship & Treatment**

**Haverford/Baccarat** Chair: **Shine Chang, PhD,** U.T. M.D. Anderson Cancer Center

10:30 am **Amy Trentham-Dietz, PhD,** University of Wisconsin-Madison
Risk of Second Breast Cancer According to Hormone Therapy Use Among Women with carcinoma in situ of the Breast

10:45 am **Cielito Reyes-Gibby, DrPH,** UT M.D. Anderson Cancer Center
The influence of polymorphisms in cytokine genes on response to analgesia in lung cancer patients referred for Palliative Treatment: TNF- -308 G/A, IL-6 -174 G/C, and IL-8 -251T/A.

11:00 am **Ann Geiger, MPH, PhD,** Wake Forest University School of Medicine
Is Stroke a Late Effect of Chemotherapy?

11:15 am **Lisa Madlensky, PhD,** UC – San Diego
The Importance of Updating the Family History of Cancer Survivors

11:30 am **Michael Green, MD, MS,** Penn State College of Medicine
Promoting Accurate Advance Care Planning in Cancer Survivors without Diminishing Hope or Raising Anxiety: an Interactive Computer-Based Decision Aid

11:45 pm **Pascal Jean-Pierre, PhD,** University of Rochester Medical Center
Effects of Psychosocial Distress and Socio-Demographics on the Development of Cancer-Related Fatigue: A URCC CCOP Study

(See abstracts on following pages)

| Amy Trentham-Dietz, PhD<br>10:30 am | Cielito Reyes-Gibby, DrPH<br>10:45 am |
|---|---|
| Risk of Second Breast Cancer According to Hormone Therapy Use Among Women with carcinoma in situ of the Breast. Trentham-Dietz A, Newcomb PA, Nichols HB, and Hampton JM<br>Women diagnosed with breast carcinoma in situ (BCIS) often face difficult decisions regarding use of postmenopausal hormone replacement therapy (HRT) and anti-estrogen therapy. Although relative survival after a diagnosis of BCIS is nearly 100%, BCIS is a strong risk factor for a subsequent invasive breast cancer. We examined HRT and tamoxifen use in a cohort of women diagnosed with BCIS during 1997-2004. All women (N=1,293) were interviewed by telephone after diagnosis and also every 2 years during 2003-2006. Interviews collected risk factor, breast diagnosis, and treatment information. Pathology reports were obtained to confirm subsequent in situ and invasive breast cancer diagnoses. The median age at the initial diagnosis of BCIS was 56.0 years (range 26-74). Risk of a subsequent breast cancer diagnosis was evaluated by hazard ratios (HR) and 95% confidence intervals (CI) from proportional hazards models adjusted for age, education, mammography use prior to diagnosis, family history of breast cancer, and type of surgery at the initial diagnosis. After an average follow-up of 5.8 years, 94 (7%) second breast cancer diagnoses were confirmed including 52 (55%) BCIS and 42 (45%) invasive breast cancers. Compared to women that used neither HRT nor tamoxifen, use of both pre-diagnosis HRT and post-diagnosis tamoxifen was associated with a reduced risk of subsequent breast cancer (HR=0.24, 95% CI 0.10-0.58). Other combinations of use (HRT prior to the initial diagnosis without tamoxifen after diagnosis; tamoxifen use without pre-diagnosis HRT use; HRT both before and after the initial diagnosis) were not strongly associated with risk of subsequent breast cancer (HR=0.63, 95% CI 0.35-1.13; HR=0.72, 95% CI 0.33-1.54; and HR=0.78, 95% CI 0.27-2.22, respectively). Although HRT use increases risk of a first BCIS diagnosis, these results suggest that pre-diagnosis use of HRT followed by tamoxifen use after diagnosis is strongly associated with disease-free survival. | The influence of polymorphisms in cytokine genes on response to analgesia in lung cancer patients referred for Palliative Treatment: TNF- -308 G/A, IL-6 -174 G/C, and IL-8 -251T/A.<br>Reyes-Gibby CC, El Osta B, Spitz M, Parsons H, Kurzrock R, Shete S, Bruera E.<br>We previously reported the importance of polymorphisms in cytokine genes in the epidemiology of cancer-related pain. We now explore the extent to which functional variations in cytokine genes, e.g.,tumor necrosis factor-alpha (TNF á-308 G/A), interleukin (IL) -6 -174G/C, and IL-8 -251T/A, could explain variability in analgesic response in patients referred to palliative care specialists for pain treatment and control. Pain severity (0=no pain; 10-worst pain) was assessed at initial consultation and at first follow-up visit in 140 white patients with non-small cell lung cancer of all stages and histologies. Total dose of opioids taken over the past 24 hours at the time of first-follow up visit was converted to an equivalent dose of parenteral morphine. We genotyped TNF á-308 G/A, IL 6 -174G/C, and IL-8 -251T/A and determined their associations with opioid consumption. Results showed 41% (57/140) reported severe pain (score >7/10) at initial consultation (mean=5.5; median=6; mode=7), which significantly decreased to 25% (mean= 4; median=4; mode=2) at first follow-up visit (McNemar tests=P<0.01). Univariate analyses showed IL6 was significantly associated with high Morphine Equivalent Daily Dose (75th percentile >120 mg/24H; p<0.004). Controlling for demographic and clinical variables, logistic regression analyses showed that carriers of the IL6-174C/C [Odds Ratio=4.7 95%CI=1.2; 15.0] received higher doses of morphine. We found preliminary evidence of the influence of cytokine genes on response to analgesia in lung cancer patients. Our findings need to be validated in large prospectively accrued populations with incorporation of additional genetic markers in the cytokine pathway. |

| **Ann Geiger, MPH, PhD**<br>**11:00 am** | **Lisa Madlensky, PhD**<br>**11:15 am** |
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| Is Stroke a Late Effect of Chemotherapy?<br>Geiger AM, Camacho F, Krajenta R, Buist DSM, Bernstein L, for the Cancer Research Network Chemo-Stroke Study Team. PURPOSE:<br>To examine the association of chemotherapy with stroke one year or more after cancer diagnosis. BACKGROUND: Chemotherapy is a critically important, life-saving cancer treatment, yet has been associated with adverse effects, such as stroke, long after treatment ends. However, available data are inadequate to support adjustments to treatment or risk reduction efforts in cancer survivors. METHODS: We used the Cancer Research Network's Virtual Data Registry to gather cancer registry, utilization, pharmacy and enrollment data at four integrated healthcare delivery systems for adults diagnosed with hematopoietic or invasive solid cancer (bladder, female breast, colorectal or ovary). Cox proportional hazards models were used to explore the association of chemotherapy with stroke one year or more after the cancer diagnosis, adjusting for demographic characteristics and delivery system; cancer type and treatment; and history of thromboembolic disease, hypertension and diabetes. RESULTS: Of 37,355 eligible patients, 44.1% were aged 65 years or older, 74.5% were female and 23.5% were non-white. The overall multivariable adjusted hazard ratio (HR) for the association between chemotherapy and stroke was 0.89 (95% confidence interval [CI]=0.77-1.04). The association differed for hematopoietic (HR=1.38, CI=1.05-1.81) and solid tumors (HR=0.76, CI=0.63-0.90). Specifically, chemotherapy for non-Hodgkin's lymphoma appeared to increase stroke risk (HR=1.5, CI=1.05-2.39), while chemotherapy appeared to be unassociated with or decrease stroke risk when given for colorectal (HR=0.78, CI=0.60-1.01), ovarian (HR=0.51, CI=0.24-1.10), or breast cancer (HR=0.67, IC=0.51-0.89). CONCLUSIONS: These results suggest that the association between chemotherapy and stroke is complicated and likely varies by chemotherapeutic agent. Healthier individuals may be more likely to receive chemotherapy for some conditions, and this may explain the associations that appear protective. | THE IMPORTANCE OF UPDATING THE FAMILY HISTORY OF CANCER SURVIVORS<br>Madlensky, L.; Wasserman, L.; Parker, B.; Pierce, JP. for the WHEL study group.<br>PURPOSE: To determine how the prevalence of "high risk" cancer family histories changes over time in cancer patients. METHODS: Breast cancer survivors in the WHEL study provided detailed family history data at baseline and again at study closure. The Myriad prevalence tables were used to categorize survivors as "high risk" or "not high risk". RESULTS: At baseline, 8.2% of 2508 survivors were classified as high risk. At follow-up (avg. 7.5 years later), an additional 5.8% of women became high risk due to new cancers in their families. Among high-risk survivors, 15% reported that they had never heard of BRCA testing. Of the 85% who had heard of testing, 23% reported that they had been tested. CONCLUSIONS: The prevalence of "high risk" cancer family histories increased by 70% in a cohort of breast cancer survivors over 7.5 years. It is important for clinicians to identify high-risk families not only at initial diagnosis, but to update the family history periodically. A substantial proportion of high-risk women had never heard of BRCA testing, and could benefit from genetic counseling to discuss the cancer risk in their families. |
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| Michael Green, MD, MS<br>11:30 am | Pascal Jean-Pierre, PhD<br>11:45 am |
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| Promoting accurate advance care planning in cancer survivors without diminishing hope or raising anxiety: an interactive computer-based decision aid.<br>Green MJ, Levi BH, Farace E.<br>Purpose: Despite agreement that patients with cancer ought to prepare for the future, most do not complete advance directives. Reasons for oncologists' resistance to discussing end-of-life treatment preferences with patients include: 1) advance directives don't accurately represent patients' wishes, and 2) such discussions would diminish patients' hope and raise their anxiety. We developed an interactive computer-based decision aid to help people clarify and articulate their medical treatment preferences in the event they were unable to speak for themselves. The purpose of this study was to assess the program's accuracy and evaluate its impact on hope and anxiety among cancer survivors. Methods: A convenience sample of 34 cancer survivors completed an advance directive using our program, "Making Your Wishes Known: Planning Your Medical Future." Users were asked to rate how accurately the computer-generated advance directive expressed their wishes for medical care, both before and after they edited the final document. Participants' hopefulness, hopelessness, and anxiety were assessed using three validated measures (Herth, Beck, and STAI respectively), and compared pre- and post-intervention. Results: 34 individuals were enrolled (mean age 57 years, 71% female, 53% with breast or lung cancer), and spent an average of 106 minutes using the program. Satisfaction was very high (mean=8.5, where 1=not at all satisfied, and 10=extremely satisfied). Prior to making edits to the computer-generated advance directive, mean accuracy was 5.5 (1=not at all accurate, 7=very accurate), which increased to 6.5 post-editing ($p<0.001$). As hypothesized, hopefulness, hopelessness, and anxiety did not significantly change following the intervention. Conclusions: Our decision-aid for advance care planning: 1) was well-accepted by cancer survivors, 2) was able to generate an advance directive that individuals rated as highly accurate at representing their wishes, and 3) did not diminish hopefulness, increase hopelessness, or raise anxiety. These findings counter concerns raised by some oncologists about advance care planning. Studies with a larger sample using a randomized comparison with standard advance care planning methods are currently underway. | Effects of Psychosocial Distress and Socio-Demographics on the Development of Cancer-Related Fatigue: A URCC CCOP Study.<br>Jean-Pierre P, Morrow G, Fiscella K, Heckler C, Roscoe J,Carroll J, Schwartzenberger P, Giguere J, Dakhil S.<br>Introduction: Cancer-related fatigue (CRF) is a debilitating symptom that impacts patients' psychosocial functioning and quality of life. Incidence rates of CRF vary from 70 to 100% as a result of cancer and its treatment. Potential causes of CRF have been attributed to a combination of biopsychosocial factors including physiologic changes related to the malignant tumor, actual physical side effects of cancer treatment, and psychological correlates of the cancer diagnosis and its associated treatment. The present study examines the contributions of psychosocial distress and patients' demographics to cancer-related fatigue.<br>Methods: A total of 854 cancer patients beginning chemotherapy at 20 geographically different URCC CCOP affiliates were assessed for fatigue. Fatigue levels and psychological distress were assessed at Cycles 2 and 4 using psychometrically valid measures. An unbiased conditional tree analysis was conducted to examine the effects of psychosocial distress and socio-demographics on CRF. A total of 642 cancer patients (202 males and 440 females) between 18 to 90 years-old provided complete data.<br>Results: Baseline tension/anxiety, reported cognitive difficulties, gender and education contributed significantly to fatigue at cycle 4 among patients with low to moderate baseline fatigue (all $ps \leq .01$).<br>Conclusion: Psychological distress and socio-demographics influence the development of CRF. Efforts to control CRF should consider and integrate information about patients' psychological states and socio-demographic backgrounds. |

*(Tuesday cont.)*

10:30 – 12:00 pm **Paper Session 3: Genes & Biomarkers**

**Embassy/Patuxent** Chair: **Ernest T. Hawk, MD, MPH**, UT M.D. Anderson Cancer Center

10:30 am **Ramona Dumitrescu, PhD,** Georgetown University
DNA hypermethylation phenotypes and one carbon metabolism genetic variants in breast tissues from normal healthy women

10:45 am **Kristi Graves, PhD,** Georgetown University
African American and Caucasian Women's Knowledge and Attitudes toward BRCA1/2 Genetic Counseling and Testing.

11:00 am **Srinivas Papaiahgari, PhD,** Johns Hopkins School of Public Health
Promoter Methylation of Prostate Cancer Specific Genes in low-income African American Adults.

11:15 am **Duanjun Tan, PhD,** Georgetown University
Mitochondrial DNA somatic mutations and content change in buccal cells of smokers.

(See abstracts on following pages)

**Conclusion of Meeting Program**

Noon- 2:00 pm **ASPO Educational Workshops (Concurrent Sessions)**
(separate registration necessary)

Noon – 2:00 pm **Course A1**

**Congressional** **Gene-Gene and Gene-Environment Interactions**

Instructor: **Ellen L. Goode, PhD**

- When and when not to assess
- Current statistical approaches
- Multiplicative versus additive effects
- A priori versus agnostic searches
- Replication and heterogeneity

Noon – 2:00 pm **Course A2**

**Embassy/ Patuxent/Potomac** **Incorporating Biological Markers into Epidemiologic Studies**

Instructor: **Nathaniel Rothman, MD, MPH, MHS**

- Conceptual issues
- Issues in biomarkers of exposure, intermediate effects, and genetic susceptibility
- Biological sample collection, processing, and storage

| Ramona Dumitrescu, PhD<br>10:30 am | Kristi Graves, PhD<br>10:45 am |
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| DNA hypermethylation phenotypes and one carbon metabolism genetic variants in breast tissues from normal healthy women. Dumitrescu RG, Marian C, Krishnan SS, Spear SL, Kallakury BVS, SeillierMoiseiwitsch F, Ressom H, Freudenheim J, Shields PG. One common alteration in breast tumors is hypermethylation of tumor suppressor gene promoters. In this study, we examined potential determinants of DNA hypermethylation in normal breast tissue, including genetic variants for genes important to one-carbon metabolism in relation to hypermethylation. We recruited 141 women without a history of breast or other cancers, who were undergoing reduction mammoplasty. Hypermethylation phenotypes for p16 INK4, BRCA1, ERα and RAR-β in normal breast tissues were determined by MSP and Pyrosequencing assays. Genetic variants of MTHFR and MTR genes were determined by TaqMan assays. Chi-square, t tests and logistic regression model were used to determine the association between promoter hypermethylation of these genes and genotypes and other characteristics of these women. The mean age of women was 35+/-12 years. p16 INK4, BRCA1 and ERα promoter hypermethylation was identified in 31%, 16% and 9% of women respectively. Hypermethylation of the RAR-β gene was not detected for any of the women. The mean age for women with p16 INK4 hypermethylation was 37.3+/-15 and those without was 33.8+/-11. p16 INK4 hypermethylation was significantly associated with race (p-value=0.02), alcohol consumption during lifetime (p-value=0.05) and marginally associated with the number of children (p-value=0.07). Family history of cancer was associated with p16 INK4 and BRCA1 hypermethylation (p-value=0.03 and p-value=0.009 respectively). Furthermore, family history of breast cancer was associated with BRCA1 and ERα hypermethylation (p-value=0.09 and p-value=0.01). There was a weak association of MTR 2756G allele with p16 INK4 hypermethylation status (p-value=0.08). The presence of hypermethylation of important tumor suppressor genes was a common finding in healthy women without history of breast cancer. Several known risk factors for breast cancer increase the risk of hypermethylation, as do genetic variants for MTR gene. Understanding the determinants of hypermethylation in normal breast tissues can provide insight into a potentially significant mechanism for breast carcinogenesis. | African American and Caucasian Women's Knowledge and Attitudes toward BRCA1/2 Genetic Counseling and Testing.<br>Graves KD, Sheppard VB, Denis-Cooper LC, Montalvo BK, Boisvert ME, & Schwartz MD We evaluated the impact of individual, socio-cultural, and systemic variables on knowledge and attitudes about BRCA1/2 counseling/testing to explore factors related to BRCA1/2 testing disparities between African Americans and Caucasians. We conducted telephone interviews with 105 women with a negative breast biopsy history and 1 or more relatives with breast/ovarian cancer (n=75 Caucasian,n=30 African American). We assessed demographics, cancer history, perceived risk, worry, medical mistrust, cancer fatalism, family/physician communication, race- and SES-based experiences, and knowledge and attitudes toward BRCA1/2 testing. We examined predictors of knowledge and attitudes with backward linear regressions, entering variables associated at the bivariate level with each outcome. The initial model for knowledge included: education, income, perceived risk, medical mistrust, cancer fatalism, family communication, and race. Final predictors of knowledge were higher: education (β=.21,p=.03), perceived risk(β=.24,p=.02) and family communication (β=.23,p=.02). Race did not predict knowledge. The initial model for attitudes included: family communication, perceived risk, income, and race. Final predictors of a more positive attitude toward BRCA1/2 testing were lower perceived risk (β= -.26,p=.02) and higher family communication (β=.20,p=.05). Race did not predict attitudes. Relationships among knowledge, attitudes, and BRCA1/2 testing uptake have been explored in prior research, and disparities exist between African Americans and Caucasians in testing uptake. Present results indicate knowledge and attitudes did not differ between African American and Caucasian women after controlling for demographic and socio-cultural variables. Family communication and perceived risk were predictive of both knowledge and attitudes. Continued exploration of the impact of individual, socio-cultural, and systemic variables on actual BRCA1/2 counseling/testing uptake will further elucidate reasons for testing disparities between African Americans and Caucasians. |

| Srinivas Papaiahgari, PhD<br>11:00 am | Duanjun Tan, PhD<br>11:15 am |
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| Promoter Methylation of Prostate Cancer Specific Genes in low-income African American Adults. Papaiahgari S, Ford JG, Lee M, Brait M Loyo, Begum S and Hoque MO.<br>PURPOSE: Aberrant promoter hypermethylation of several known or putative tumor suppressor genes (TSGs) occurs frequently in the pathogenesis of several cancers, including prostate cancer. African Americans and individuals of low socioeconomic status (SES) are at increased risk of developing prostate cancer. Promoter methylation in GSTP1, APC, CCND2, MGMT, p16 and RARβ has been associated with an increased probability of developing prostate cancer. We conducted a pilot study to determine the prevalence of promoter hypermethylation in these genes in a sample low SES African Americans. EXPERIMENTAL DESIGN: The promoter methylation status of the above genes was examined by high throughput quantitative fluorogenic real-time polymerase chain reaction (PCR) using serum DNA from a convenience sample of 98 African Americans from Baltimore City (32 current smokers; 30 former smokers and 36 lifetime nonsmokers; 50% of participants reported < 16,000 family income for the past 12 months).<br>RESULTS: The promoter methylation frequency of these genes was GSTPi 2 (2%) APC 8 (8.2%), CCND2 25 (25.5%), MGMT 10 (10.2%), P16 9 (9.2%) RARb 33 (33.7%). Methylation of at least one gene was detected in 46/98 (47%), two genes 15/98 (15%), three genes 7/98 (7.4%) and four 4/98 (4%). Our initial analysis identified the gene P16 has 12% of methylation in smokers compared to 3% of methylation in non-smokers. CONCLUSION: The high prevalence of promoter hypermethylation in the above TSGs in a high-risk study population raises the question about the potential utility of this panel of methylation markers in prostate cancer detection. | Mitochondrial DNA somatic mutations and content change in buccal cells of smokers.<br>Tan DJ, Chen JG, Goerlitz DS, Dumitreascu R, Orden RA, Goldman R and Shields PG, Lombardi Comprehensive Cancer Center, Washington DC. mtDNA is particularly susceptible to damage by mutagens. mtDNA alterations are believed to play a role in carcinogenesis, and are found in smoking-related cancers. Thus, we hypothesize that mtDNA damage would be a good biomarker of tobacco smoke exposure. We sought to replicate earlier findings for the association of smoking with increased mtDNA content in buccal cells, and further hypothesized that there would be an increased number of somatic mtDNA mutations in smokers. Buccal cells and blood lymphocytes were studied from 42 healthy smokers and 30 non-smokers. temporal temperature gradient electrophoresis screening and sequencing was used to identify mtDNA mutations. The relative mtDNA content was determined by real-time PCR. Assuming that mtDNA in lymphocytes represent the inherited sequence, it was found that 31% of smokers harbored at least one somatic mtDNA mutation in buccal cells with a total of 39 point mutations and 8 short deletions/insertions. In contrast, only 23% of nonsmokers possessed mutations with a total of 10 point mutations and no insertions/deletions detected. MtDNA somatic mutation density was higher in smokers (0.68/10,000 bp/person) than in nonsmokers (0.2/10,000 bp/person). There was a statistically significant difference in the pattern of homoplasmy and heteroplasmy mutation changes between smokers and non-smokers. While nonsmokers had the most mutations in D-loop region (70%), smokers had mutations in both mRNA encoding gene (36%) and D-loop region (49%). The mean ratio of buccal cells to lymphocytes of mitochondrial DNA content in smokers was increased (2.81□ when compared with nonsmokers (0.46). In addition, a low positive correlation between ratio of buccal cells/lymphocytes mtDNA content and smoking status has been observed. These results suggest that cigarette smoke plays an important role in the increase in mtDNA mutation in the buccal cells of smokers. The estimation of an individual's risk could be perhaps improved by coupling of mitochondrial mutations to other markers for tobacco smoke associated disease risk. [Supported by NCI contract HHSN261200644002 and in part by FAMRI Clinical Innovator Award 052444 to RG] |

# Poster Directory

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| Unprotected Sun Exposure to Increase Endogenous Vitamin D Production.<br>Hoffman SC,Burke A,Hoffman-Bolton J,Alani R, Liegeois NJ, Jorgensen T, Strickland P, Ruczinski I, Helzlsouer KJ, Alberg AJ. Johns Hopkins Univ., Medical University of South Carolina.<br>The public has long been encouraged to minimize exposure to solar ultraviolet radiation, the major cause of skin cancer. More recently,some have advocated unprotected sun exposure to increase endogenous vitamin D production to promote health. The net result of these conflicting messages is not known. We carried out a survey to address this information gap. METHODS: During summer,2007 self-administered questionnaires were mailed to participants of the CLUE II cohort in Washington Cty, MD. The questionnaire assessed awareness of this issue and the extent that awareness translated into more risky sun-seeking behavior. RESULTS: Preliminary results showed 30% of n=7,131 respondents knew unprotected sun exposure increased endogenous vitamin D. Among those who were aware of this, 42% reported going out into the sun with the goal of increasing vitamin D production. CONCLUSIONS:Almost one-third of the population knew unprotected sun exposure increases endogenous vitamin D production, and a large proportion of these reported sun-seeking behavior for this purpose. | Factors Associated with Selection of a Physical Activity Program for Cancer Survivors. Carter CL, Cartmell K, Garrett-Mayer E, Tomsic J, Taylor CA, Nonemaker J, Hannah S, Fox T, Alberg A OBJECTIVES:In a nonrandomized trial to determine whether participation in a dragon boat paddling team compared to an organized walking program, we report preliminary findings concerning participant characteristics and reasons for selecting between the two programs. METHODS:After joining the study, 41 survivors chose which program they wanted to participate in. Predisposing demographic characteristics and reasons for selecting paddling or walking were collected prior to program activity. RESULTS: Among the 41 participants, 46% chose dragon boating and 54% chose the walking program. Individual characteristics of gender, age, race and type of cancer were not significant factors associated with program selection. Most commonly reported reasons for selecting the paddling program included being on a team, the uniqueness of dragon boating, enjoyment of the water, and learning new skills. Reasons for selecting the walking program included enjoyment/familiarity with walking, confidence in ability, desire to increase fitness, and social interaction. CONCLUSIONS: Each physical activity program had different characteristics that appealed to cancer survivors, but our preliminary findings suggest that characteristics of the participants in the two physical activity programs were roughly comparable. |
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| Patterns of use of smoking cessation pharmacotherapy among current smokers. Alberg AJ, Carpenter MJ, Burke AE, Hoffman-Bolton J, Hoffman SC. Medical University of South Carolina; Johns Hopkins University The menu of efficacious pharmacotherapies available to cigarette smokers to enhance the likelihood of successful quit attempts has expanded during the past decade. In this study, we report the patterns of pharmacotherapy use among current smokers. METHODS: As part of a 2007 follow-up survey of the CLUE II cohort in Washington County, MD, we asked about the use of cessation products. RESULTS: Of the 458 current smokers, 43% reported ever use of some form of pharmacotherapy. The distribution of the types of pharmacotherapies ever used was: 38% one nicotine replacement therapy (NRT), 21% >1 NRT, 9% non-nicotine medications (NNM)only, and 32% NRT+NNM. The distribution of months of use for each pharmacotherapy ever used was 52% <1 m, 42% 1-6 mos., and 5% >6 mos.CONCLUSIONS: More than two-fifths of current smokers had ever used some form of pharmacotherapy and more than one-half of these had tried more than one type. However, few used the pharmacotherapies for the suggested amount of time. The fact that these were persistent smokers whose pharmacotherapy usage did not result in successful quitting suggests a need to better understand the underlying reasons for the tendency to use these products for short time periods. | Culturally Responsive Cancer Education 'Path to Understanding Cancer,' a week-long cancer education course with manual was developed in response to Alaska's village-based healthcare providers growing concerns over the increasing number of Alaska Native people experiencing cancer. Interactive, culturally respectful activities were developed to facilitate learning. Between 2001 to 2005, the course was provided 21 times throughout Alaska for 168 healthcare providers from 94 different Alaska communities. Written evaluations were completed by 93% (157/168) of course participants, with 100% recommending the course. In addition to an increase in cancer knowledge and understanding, course participants identified positive ways the course would impact their behavior; 89% (139/157) wrote about healthy ways they intended to take better care of themselves; 90% (142/157) wrote about ways they now felt different about cancer, and 97% (153/157) wrote about how this course would help them improve care of their patients. Additionally, six month post-course telephone outreach efforts were initiated for a total of 144 participants with 103 (71.5%) completing a telephone interview. All respondents reported feeling more comfortable with their knowledge of cancer, 68% (70/103) stated they improved their patient care and 67% (69/103) reported making healthy lifestyle changes as a result of course participation. As expressed by course participants, culturally responsive cancer education supports shifts in knowledge , attitudes and behavior. |

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| Theatre as Cancer Education Understanding, a cancer education play was developed to enter the silence surrounding cancer among Alaska Native peoples. Theatre integrates culture and language honoring Alaska Native people's rich oral tradition of storytelling as a way of sharing knowledge and wisdom. Peoples' experiences, questions, and concerns related to cancer are woven into the script. The charcters explore many challenging and sensitive themes including a cancer diagnosis, treatment, pain, end of life and loss and grief. Healthy lifestyle choices and recommended cancer screening exams are voiced.Between March 2002 and November 2005, 'Understanding' was performed and evaluated 25 times both as a staged performance and a Readers' Theatre. Approximately 82% (606/738) of people, including both audience and readers, completed a written evaluation. Of those people who completed an evaluation, 95% of people felt more comfortable talking about cancer, 72% of people shared a variety of information about what they learned, and 71% of American Indian and Alaska Native people wrote ways they intended to take better care of their health after seeing the play. The strength of theatre, both as a live performance and Readers' Theatre, lies in the transformational journey of each participant, as they engage in conversation, reflection, and action. healthy lifestyle changes as a result of course participation. As expressed by course participants, culturally responsive cancer education supports shifts in knowledge , attitudes and behavior. | Prevalence and Predictors of Cancer Screening Among American Indian and Alaska Native People in Alaska. D Redwood, MC Schumacher, A Lanier, Ferucci E. The purpose of this study was to examine prevalence rates for cervical, breast, and colorectal cancer screening among American Indian and Alaska Native (AIAN) people living in Alaska, and to investigate predictive factors associated with recommended screening tests. We used self-reported cancer screening data from 3,832 Alaska participants enrolled between 2004-2006 in the EARTH (Education and Research Towards Health) Study. The following percent of participants reported: Pap test in the past 3 years (75.1% of women); mammography in the past 2 years (64.6% of women aged 40 years and older); colonoscopy or sigmoidoscopy in the past 5 years (41.1% of those aged 50 years and older). Multivariate analysis found that higher educational status, income and history of one or more chronic medical conditions predicted each of the three screening tests. Residency was a predictor for both mammography and colonoscopy/sigmoidoscopy (rural residents less likely to be screened). Language spoken at home was a predictor for Pap test and colonoscopy/sigmoidoscopy (speakers of Alaska Native language less likely to be screened). Programs to improve screening among AIAN people should provide needed services to those who live in rural areas and include efforts to reach individuals of lower socioeconomic status and who do not have regular contact with the medical care system. |
| **7 - T** | **8** |
| Correlates of Awareness of Cancer Resources. Davis K, Rutten L, SquiersL. Background: Little is known about awareness of cancer information resources. Purpose: To examine sociodemographic, geographic and information-seeking predictors of awareness of cancer information resources. Methods: Health Information National Trends Survey (HINTS 2005) data were analyzed to assess awareness of the National Cancer Institute (NCI), Cancer Information Service (CIS), 1-800-4CANCER, and American Cancer Society hotline 1-800-ACS-2345. Results: High school graduates and those with some college (OR=1.32) and respondents who looked for cancer information (OR=1.26) demonstrated greater awareness of NCI. Respondents who read the health section of a newspaper/magazine (OR=1.33), and those who preferred books/brochures (OR=2.82) demonstrated greater awareness of NCI. Hispanics who completed the survey in Spanish (OR=0.52) were less likely to have heard of NCI than Hispanics who completed the survey in English. Respondents aged 65-74 (OR=1.51), those with less than a high school education (OR =2.14), those with a high school degree/some college (OR =1.45), and Hispanics who completed the survey in Spanish (OR=3.44) demonstrated greater awareness of CIS. Respondents with a cancer history (OR=1.57) demonstrated greater awareness of CIS. Respondents with less than a high school education (OR=2.82) and those who watched local news health segments (OR=2.17) demonstrated greater awareness of 1-800-4-CANCER. Hispanics who completed the survey in Spanish (OR=4.42) and those who watched local health segments (OR=1.78) demonstrated greater awareness of 1-800-ACS-2345. Awareness of NCI was relatively higher in New England, the Mid-Atlantic, and Pacific regions. Awareness of CIS was higher in the South Atlantic, Midwestern, and Northern regions. Awareness of 1-800-4CANCER was higher in the Middle to South Atlantic and Pacific Northwest regions. Little geographic variance in awareness of 1-800-ACS-2345 was observed. Conclusions: Results may guide promotion of information resources. | Agreement between Self-Report and Medical Records for Ovarian Cancer Symptom Clusters. Lawhorn N, Schreiber J, Dignan M, Shelton B, Waterbor J, Fouad M, Green P, Raczynski J Late stage diagnosis of ovarian cancer is associated with high mortality and low five-year survival rates. The lack of effective screening tests and clearly recognized early symptoms contribute to late stage diagnosis. Identifying symptom clusters linked to ovarian cancer may lead to earlier diagnosis. However, symptoms reported by patients often differ from those noted by providers. The purpose of this study was to explore the degree of agreement between provider and patient reported symptoms. Women, ≥18 years, referred for suspected ovarian cancer from 2000 to 2002 were asked to participate. Data (n=202) were collected in patient interviews and review of hospital and referring physician medical records. Interviews occurred at the initial hospital visit identifying demographics, health-related behaviors, medical history, co-morbidities, and symptoms. Medical record review included referring diagnosis, chief complaint, patient reported symptoms, physical examination findings, and diagnostic and pathology test results associated with the diagnosis of ovarian cancer. Symptom clusters based on current literature were created in all three data sources. The mean age of patients was 59.9 years (SD=11.7). 66.3% (n=134) of the women were Stage 3/4 at diagnosis. Across all three data sources, the most commonly reported symptoms were abdominal pain, abdominal swelling, bloating, fatigue/weakness, and early satiety; and the most commonly reported symptom cluster included bloating or swelling combined with pelvic or abdominal pain. Pair-wise comparisons of symptoms and symptom clusters reported in the patient interview and in medical records showed fair agreement for abdominal swelling, abdominal pain, and weight loss (kappa = .18 to .45; $p < 0.5$). Agreement was generally higher between face-to-face interviews and the hospital medical record and for individuals with early stage versus late stage diagnosis particularly for abdominal pain and weight loss. Project results may lead to improved identification of ovarian cancer symptoms. Increased recognition of symptoms and symptom clusters could improve earlier diagnostic workups and closer attention to women's reports of "vague" symptoms |

| 9 | 10 |
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| Creating culturally appropriate materials to increase calls to the Cancer Information Service (CIS) among Hispanics - M.E. Fernandez, D. Morales-Campos, D. LaRue, A. Gonzalez, G. Thompson The purpose of the Vivir Sin Cancer study is to develop and test materials to increase calls to the Cancer Information Service (CIS) about the HPV vaccine and cervical cancer among Hispanics. During the formative phase, focus groups were conducted with Hispanic parents and young women 18-26. The interview instruments included questions concerning awareness and knowledge about HPV, the vaccine, cervical cancer, and health information seeking. Findings for parents and young women showed a lack of knowledge of HPV, the HPV vaccine and cervical cancer, negative attitudes about HPV vaccine, low perceived risk for cervical cancer and HPV and perceived barriers to the HPV vaccine including a concern about vaccine affecting future fertility. In general both parents and young women were not familiar with the CIS. Findings from the formative phase were used to develop the program materials. Using Intervention Mapping, a theory and evidence based approach to health promotion program planning, findings from the formative phase were used to develop the program materials. These include (1) PowerPoint fotonovela (photo stills and video embedded), (2) fotonovela booklet, (3) questions cards and (4) a video for Hispanic parents and young women. The presentation will highlight findings from the formative work, pilot testing and describe program materials. | Development of a computer-based tool for increasing use of evidence-based approaches (EBAs) for cancer control Fernandez ME, Kreuter M, Kegler M, and the Cancer Prevention and Control Research Network (CPCRN) Workgroup on EBAs. Purpose: The poster will describe the development of a computer-based tool designed to facilitate the use of EBAs for cancer control. Methods: CPCRN investigators and staff worked with community partners to determine 1) the tacit rules guiding current practices in using EBAs for cancer control, 2) gaps in existing resources and training, and 3) challenges to using EBAs in community settings. We conducted reviews of existing resources, surveys with community cancer control planners in the eight CPCRN network sites, and expert review and consensus. Results: Based on the formative work, the CPCRN designed a prototype of the tool. The poster includes a schematic which illustrates key decisions and tasks necessary for finding, using, and adapting EBAs. When fully developed, the program will support community planners through the process of choosing and adapting EBAs by providing decision support, linking them to systematic reviews, existing evidence-based programs and other existing resources, and by providing tailored feedback and recommendations. Conclusions: Delineating processes by which community planners find, adapt and use EBAs and providing applied training and decision-support for them to do so, is critical if we are to accelerate the adoption of evidence based cancer prevention and control in communities. |
| **11** | **12** |
| DEFENSIVE PROCESSING AND PERCEIVED RISK FOLLOWING COMPARATIVE TEST INFORMATION Kiviniemi MT<br>PURPOSE: Comparative messages about genetic tests may threaten one's sense of being healthy. Threat from such comparisons can minimized by altering the perceived similarity of the self and the comparison target. This study examined how engaging in such alterations of similarity influenced perceived risk for a health problem following comparative information about future risk. METHODS: Participants were told that they were at higher or lower risk than another person for a fictitious health problem. Changes in perceived similarity to the other person were assessed, as was perceived risk for the health problem. RESULTS: Perceived risk was influenced by changes in perceived similarity. For those learning that the other person was at higher risk, higher perceived risk was associated with less distancing (i.e., seeing the other person as more similar); the opposite was true if the other person was at lower risk. DISCUSSION: Defensive processing reduces the degree of perceived risk and therefore potentially blunts the impact of genetic testing information. | Alaska Native Parental Attitudes on Cervical Cancer, HPV, and the HPV Vaccine. Toffolon-Weiss M, Hagan K, Leston J, Peterson L, Provost E, Hennessey T. Objectives: This qualitative study describes Alaska Native parents' knowledge and attitudes about cervical cancer, the Human Papillomavirus (HPV), and the HPV vaccine. Methods: A convenience sample of Alaska Native parents/guardians was recruited for twelve (12) focus groups and 2 in-depth interviews (n=84) that were held in a small village, two towns, and a large urban center. Results: While many parents have heard about HPV, most were unaware of the link between HPV and cervical cancer. Parental knowledge levels were lowest in the smallest communities and highest in mid-size communities. The majority of parents want to vaccinate their daughter due to: health and safety concerns; a positive belief that vaccines work; personal experience with the disease; or a belief their daughter is susceptible to HPV. Reasons parents would refuse vaccination include general concerns about vaccines, need for more information, fear of side effects, wanting more research studies, wanting to wait to see if problems develop, and fear of being in an experimental trial. Conclusions: Results from this study demonstrate that the majority of Alaska Native parents who participated in the study were interested in having their daughter vaccinated. Acceptance of the vaccine was primarily based on a desire to protect their child from cancer; while reasons to refuse the vaccine revolved around trust issues and fear of unknown negative consequences. |

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| Cancer Control Planners' Views of Evidence-based Approaches (EBAs).<br>Mullen PD, Fernandez ME, Kreuter M, Kegler M, Tyson S, Williams R, Ribisl K & the CPCRN EBA Workgroup.<br>Purpose: Cancer control planners face funders' expectations to use EBPs. NCI and CDC have put up on-line resources--Cancer Control PLANET, Using What Works, Research-Tested Intervention Programs (R-TIPS), The Community Guide. The audience at our Aug 07 CDC Cancer Conf session on EBAs gave opinions about EBAs and resources.<br>Methods: We used Powerpoint to present the questions and individual handheld devices for responses (n=63). Data were discussed and reasons probed.<br>Results. Audience-planned/implemented programs >50% time=66%; Federal=19%, State=57%, local=25%; health dept=36%, Federal agency=21%,college=18%, voluntary agency or CBOs=12%. Resource Use-Google Scholar=17%, Cochrane=21%, R-TIPS=35% was low. More used Community Guide=59%, Cancer Control PLANET=72%. Opinions-Agreement with statements about EBAs showed gaps: "don't come with much information about how to implement them"=55%, "are easy to get or find"=32%, "are easy to adapt"=24%. Others got less agreement than expected: "keep us from getting the credit we could get for developing a new program" (16%), "...lack real world evidence" (17%), "...require more resources than other programs" (22%). Half agreed that "people in our community have more confidence in a program that has worked somewhere else." Conclusions. This preliminary attempt to categorize views about and barriers to using EBAs suggests the importance of more work to understand how to further support practitioners in finding, implementing, and adapting EBPs. | Defining and Implementing Informed Decision Making (IDM) for Prostate Cancer Screening for the Primary Care Physician - Mullen PD, Volk RJ, Kneuper S, Chan E, Wuelling S, Spann SJ<br>Purpose: Despite guidelines for informing patients about the pro's and con's of prostate cancer screening, tests of patient decision aids, and conceptualization of IDM (as opposed to shared decision making), implementation guides are needed. In the context of developing and testing a 50-minute continuing medical education program on IDM, we developed an algorithm for physician action linking a pre-visit decision aid and (if needed) community resources for supplemental information. Methods: To identify and map key behaviors physicians need to promote IDM for prostate cancer screening on an algorithm that they can use, we drew on conceptual and empiric sources: the major prostate cancer screening guidelines, the reports of the U.S. Preventive Services Task Force and Community Preventive Services Task Force on shared and IDM, respectively; tenets of informed consent, an Australian CME trial, constructs measured in cancer screening decision aid trials, consultation with practicing physicians and medical decision-making experts, and the "5 A's" [Ask, Advise, Assess, Assist, Arrange Follow-up] used to structure tobacco cessation counseling. Results: The algorithm identifies the key behaviors of the CME program. It links a plain language print and audio decision aid available in English and Spanish, with Cancer Information Service and American Cancer Society telephone resources with office-based brief information and discussion tailored by patient preferences and need. Because physicians report most difficulty managing undecided patients, this group is steered to the community information sources as well as the option of having the physician decide—after confirmation that basic information has been understood. Conclusions: CME with clear options for action and methods for securing support by others, including the community are optimal for achieving physician behavior change. We are evaluating the use of the algorithm in a randomized cluster trial of low and middle income clinics. It can be used by others interested in testing it. |

| 15 - T | 16 - T |
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| Intentions to Maintain Mammography Adherence<br>SC O'Neill, JM Bowling, NT Brewer, IM Lipkus, CS Skinner, TS Strigo, & BK Rimer<br>We examined behavioral intentions to maintain mammography adherence as well as implementation intentions-specific plans for when, where and how to have a mammogram (i.e., having thought about where to have the next mammogram and about making an appointment). Cross-sectional predictors were Theory of Planned Behavior constructs, previous barriers (0/1/2+), previous mammography maintenance and age. Respondents were 2062 currently adherent women who were members of a large, defined health plan and due for mammograms in 3-4 months. Older age, stronger perceived control, previous mammography maintenance, and no barriers (vs. 2+) predicted stronger behavioral intentions. Stronger perceived control, previous maintenance, and one barrier (vs. 0) predicted being more likely to have thought about where to get the next mammogram. Previous maintenance and no barriers (vs. 2+) predicted being more likely to have thought about making appointments. Our findings suggest that volitional factors, such as barriers, may be better predictors of implementation intentions to maintain adherence than motivational factors, such as those in TPB. | Relationships Among Psychosocial Variables in Wives and the Number of Symptoms Experienced by Men in the Postoperative Adjuvant Androgen Deprivation (PAAD) Trial. Sterba K, Swartz R, Black P, Pettaway C, and Basen-Engquist K Purpose: We explored relationships among men's symptom burden and their wives' mood, health ratings, marital adjustment, and sexual function after radical prostatectomy. Methods: Men at high risk of prostate cancer recurrence after prostatectomy who were participating in the PAAD trial were randomized to receive 12 months of androgen deprivation (AD) or observation. Participants and their wives (n = 43 couples) completed telephone interviews every 6 months for 24 months. We used multiple regression to explore associations between the number of concurrent urinary, bowel, and other symptoms and wives' mood disturbance, mental and physical health, dyadic adjustment, and sexual function. Results: At baseline and 24 months (recovery phase for treatment group), men's total number of symptoms did not differ by treatment group, but at 12 months, men in the treatment group had significantly more concurrent symptoms than men in the observation group (mean = 3.0 versus 1.4, $t = -3.1$, $p = .004$). Total number of symptoms at 12 months was associated with greater mood disturbance ($B = 3.9$, $p = .01$) and worse mental health ($B = -2.8$, $p = .03$) in wives, controlling for baseline measures, treatment group, and education; these observations were not replicated at 24 months. Further analyses at 12 months showed a treatment group by symptoms interaction, with a significant relationship between symptoms and wives' mood disturbance and mental health for couples in the observation ($p = .01$) but not the AD group. Women's physical health, dyadic adjustment, and sexual function were not associated with number of symptoms in men. Conclusion: These results suggest that the total number of symptoms experienced by men in a high risk sample receiving AD or observation after prostatectomy may be an important factor related to wives' distress. The results found in this exploratory sample highlight the potential importance of examining mechanisms underlying wives' expectations about recovery after prostatectomy in larger studies. |

| 17 - T | 18 |
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| Steroid Metabolism Gene CYP17, CYP1A1*2B, CYP1A1*2C and Risk of Breast Cancer in Mexican Women. Moreno-Galván M, Sarti E, Herrera N, Ramírez J and Tapia-Conyer R. Breast cancer is the 2nd cause of women mortality in Mexico, increasing this rate over the past ten years. In order to determine the impact of CYP17 and CYP1A1 genotypes on the risk to develop breast cancer, we realized a case-control study of 90 breast cancer patients and 87 healthy controls among women invited to participate in this study from a Public Hospital in Mexico City. Epidemiological questionnaire and genotyping data were obtained. CYP17 and CYP1A1 were genotyped using PCR/restriction fragment lenght polymorphism. For CYP17 a single nucleotide polymorphism at the 5`untraslated region of the CYP 17 was done (MspA1 restriction sitie). Two polymorphism for CYP1A1 were analized: 2455 A>G (CYP1A1*2B) and 4889 A >G (CYP1A1 *2C). We found an increased risk of breast cancer in women carrying the allele CYP1A1*2B. The odds ratio was 2.6 (CI95%= 1.08-6.4; p <0.032). In the stratified analysis, this risk was increased when CYP1A1*2B and CYP1A1*2C were presented together. The odds ratio was 3.4 (CI95%= 1.2-9.3; p<0.017). Regarding the CYP17 genotype, it was not preliminary associated with breast cancer risk. These results suggest that CYP1A1*2B and CYP1A1*2C genotype may be a biomarker for breast cancer risk in our general Mexican population. | Blood Selenium and Glutathione Status in Blacks and in White. Muscat J, Calcagnotto A, Kleinman W, Colosimo S, El-Bayoumy K, Richie, J. We examined the relationship between blood selenium levels and glutathione (GSH) in a community-based study, and in a randomized trial of supplemental selenium-enriched yeast. The first study included 336 adults 161 Blacks, 175 Whites; 168 females, 168 males). Blood selenium levels, measured by inductively coupled plasma mass spectroscopy, were 9% greater in Whites than in Blacks (P<0.01) in both men and women. No differences in mean selenium levels were observed by sex. The racial difference in blood selenium was not accounted for by differences in dietary selenium intake, which was assessed by food frequency questionnaire. Blood GSH levels were 13% higher in whites than in blacks (P<0.02), and were correlated with selenium levels(r=0.2, P<0.02). The RCT included 17 adult men who were followed for 9 months. Increases in blood selenium levels from baseline were observed at 9 months in all subjects, but was higher for white subjects (140%) than for blacks subjects (50%) (P<0.05). Blood GSH levels were increased 35% in whites after selenium supplementation (P<0.05) but were unchanged in blacks. These findings indicate that the dose of selenium-containing compounds needed for chemoprevention should be based in part by racial status. (Supported by NIH grant CA68384.) |
| **19** | **20** |
| Human Papillomavirus (HPV) Vaccine Knowledge and Attitudes among Women in Appalachia Ohio.<br>MT Ruffin, C DeGraffinreid, M Hicks, ML Katz, EM Hade, ED Paskett<br>Objective: To examine the knowledge and attitudes of Appalachian women about the HPV vaccine. Methods: Women 18 years and older presenting for a Pap smear in Appalachian Ohio. All women with an abnormal Pap smear and a randomly selected women with a normal Pap smear completed a telephone interview. Results: Of the 170 women who have completed the interview 94% were white and the mean age was 35 years (range: 18-66 years). 47% of the women had heard about a vaccine to prevent cancer with 96% of those women identifying cervical cancer as the related cancer. Only 35% wanted the vaccine for themselves. Among participant not wanting the HPV vaccine for themselves, the most common reason cited was they were older than the recommended age. If a doctor recommended the HPV vaccine to them, 88% said they would get it. All participants were asked if they would want the HPV for a daughter 9-12 years old if they had such a daughter. Slightly over half (58%) responded yes. If a doctor recommended it for their daughter, 85% said they would get the HPV vaccine for a daughter. The most common reason for not wanting the vaccine for a daughter was that they saw an advertisement in the media. Conclusion: Knowledge and attitudes among women in this study suggest various barriers to diffusion of the HPV vaccine in Appalachian Ohio. | Stage-related differences in incidence and survival for individuals with primary invasive small cell lung cancer. N. Schimmoeller, J.S. Barnholtz-Sloan PURPOSE: The purpose of this study was to examine patterns of incidence and survival by stage of disease in individuals diagnosed with primary invasive small cell lung cancer (SCLC). METHODS: Subjects identified through the population-based SEER Program were 35,509 adult individuals newly diagnosed between 1983 and 2003 with primary invasive SCLC, with follow-up through the end of 2004. Age-adjusted incidence rates were calculated by variables of interest and stage. Kaplan-Meier and Cox proportion hazards models were used to assess overall and stage-related differences in survival (Cox models were also adjusted for other variables of interest). RESULTS: Overall incidence of SCLC decreased over the last 25 years (APC value = -1.9, 95% CI (-2.3, -1.5); p-value <0.05) and by stage of disease. Overall incidence of SCLC was highest for distant stage disease (incidence rate (IR) = 6.7, 95% CI (6.6, 6.8)), followed by regional (IR=3.7, 95% CI (3.7, 3.8)), localized (IR=0.8, 95% CI (0.8, 0.9)) and unstaged (IR=0.9, 95% CI (0.8,0.9)). Individuals aged 65-74 at diagnosis and males had the highest incidence at all stages; while incidence was similar by race and stage. Treatment patterns varied significantly by stage; individuals with localized disease received some type of treatment most often. Median survival was poor overall and differed by stage of disease (localized: 15 months, 95% CI (14,15); regional: 11 months, 95% CI (11,12); distant: 7 months, 95% CI (6,7) and unstaged: 11 months, 95% CI (10,11) – log rank p-value <0.0001); period of diagnosis did not significantly affect these results. Multivariable models of survival by stage consistently showed that females and those who received any type of treatment had a survival advantage while risk of death increased with increasing age at diagnosis and being unmarried. CONCLUSION: While the incidence of SCLC is rare compared to non-small cell lung cancer, incidence increased with increasing severity of stage of disease and survival was poor at all stages of disease and has not improved over time. |

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| Plasma folate, vitamin B12, and homocysteine and the risk of esophagus, stomach, and liver cancers in a Chinese population. Chang SC, Lu QY, Cai L, Jiang QW, Wei GR, Chen CW, Zhou XF, Ding BG, Chang J, Yu SZ, Heber D, Zhang ZF<br>The unbalance in the folate metabolism may induce abnormal DNA synthesis and aberrent DNA methylation and lead to carcinogenesis. A population-based case-control study, consisting of 218, 206, and 204 newly diagnosed esophageal, stomach, and live cancer cases and 415 healthy population controls, was conducted in Taixing, China to investigate this association. Higher plasma folate was observed to be associated with decreased liver cancer risk (p trend = 0.01), but not for esophagus and stomach cancers. The association was more evident among individuals carrying MTHFR 677CT/TT genotypes. Dose-response relationships were observed between higher plasma vitamin B12 and the risk of all three cancers(p trends < 0.01). Higher tHcy was found to be associated with esophagus cancer risk only among individuals carrying MTHFR 677CT/TT genotypes (p trend = 0.01). Less than multiplicative interactions were suggested between plasma folate and vitamin B12 on the risk of these three cancers (OR interaction = 0.37 for esophagus, 0.48 for stomach, and 0.38 for liver cancer). Our results suggested an association between micronutrients in the folate metabolic pathway and the risks of esophagus, stomach, and liver cancer. The risks may be modifiable by other nutrients or polymorphic genes in the pathway. | Cervical Cancer Incidence in the U.S.-Mexico Border Region, 1998-2003. Coughlin SS,* Richards TB, Nasseri K, Weiss NS, Wiggins C, Saraiya M. Stinchcomb DG, Vensor V, Nielson C. *Division of Cancer Prevention and Control, CDC, Atlanta, GA.<br>Limited information is available about cervical cancer incidence in the U.S.-Mexico border region where some of the poorest U.S. counties are located. This study was undertaken to help clarify cervical cancer incidence among women in the region. Age-adjusted cervical cancer rates for border counties in the states bordering Mexico (California, Arizona, New Mexico, Texas) for the years 1998-2003 were compared to non-border regions of the border states and to non-border states. Differences were examined by age, race/ethnicity, rural residence, educational attainment, poverty, migration, stage of disease, and histology. Overall, Hispanic women had almost twice the cervical cancer incidence of non-Hispanic women in border counties, and Hispanic women in the border states had higher rates compared to those in non-border states. In contrast, cervical cancer incidence rates among black women in the border region were lower than among black women in the non-border states, but the opposite was true among white women. Differences in the cervical cancer incidence for the comparison areas also were evident by age, rural residence, migration from outside the U.S., and stage of disease. Of particular concern were the higher rates of regional/late stage cervical cancer diagnosed among the border states especially since these are preventable through screening. |
| **23 - T** | **24** |
| Self-Report Versus Medical Records for Assessing Preventive Services Delivery Ferrante J, Ohman-Strickland P, Hahn K, Hudson S, Shaw E, Crosson J, Crabtree B Purpose: To evaluate agreement between patient self-report and medical record on cancer risk factors, screening, and behavioral counseling. Methods: Patient surveys and medical records were compared from 770 patients in 25 NJ primary care practices. Sensitivity, specificity, rates of agreement, and Cohen's kappa describe concordance between self-report and medical records for risk factors (personal or family history of cancer, smoking), cancer screening (breast, cervical, colorectal, prostate), and counseling (cancer screening, diet or weight loss, exercise,smoking cessation). Results: Agreement ranged from 40% (smoking cessation counseling) to 96% (personal history of cancer). Cancer screening agreement ranged from 58% (cervical) to 69% (colorectal), with self-report rates greater than medical record rates. Counseling was reported more frequently by self-report (83% by patient self-report vs. 33% by medical record for smoking cessation counseling). Conclusions: Agreement is high for risk factors, moderate for cancer screening, lowest for behavioral counseling. Implications of choosing self-report vs. medical records should be carefully considered when assessing quality of care. | Cancer is a Disease that not only Affects the Individual but also the Family as a Whole. Hayran M.<br>The quality of life of the primary caregiver and of the close family members is significantly impaired following a cancer diagnosis. The cumulative prevalence of cancer is within a couple of hundred cases per 100,000 in any given population, but the presence of cancer within the first-degree family members is much more common. Our study aimed to determine the exposure to "cancer of a first-degree relative" among the students parents Hacettepe University, Ankara, Turkey. Two-hundred families will be selected. The study performed in 168 randomly selected student families screened 2841 family members, 1428 males and 1413 females, with a median age of 47 (IQR: 24) and found 62 families (34.5%) with cancer. A total of 116 cancers were identified (4.1% of all screened individuals). Cancer types identified were lung (12.1%), breast (9,5%), leukemia (%8.7), stomach (7.8%), liver (7.8%), uterus (6.0%) and prostate (6.0%). Cancer in the family is quite frequent and comprises an important part of the cancer burden in a community. Psychosocial support activities should be adequately planned to accommodate support to the first-degree relatives of cancer families as well. |

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| Racial Differences in Pancreatic Cancer<br>Sood P(1), Henson DE(2), Schwartz AM(3), Grimley PM(4), Patierno S(5) Department of Epidemiology and Biostatistics1, Cancer Insitute(2,5), and Department of Pathology(3), The George Washington University, Washington DC, and Department of Pathology(4), Uniformed Services University of the Health Sciences, Bethesda MD<br>Purpose: To describe the epidemiology of racial differences in pancreatic cancer. Methods: Data were obtained from NCI's SEER Program for the years 1973-2004. There were 8,245 cases of pancreatic cancer in Blacks and 63,903 in Whites. Cases were compared by linear and by log-log plots of the age specific incidence rates versus the age of diagnosis. The two main histological tumor types of the pancreas, ductal epithelial carcinomas and neuroendocrine (NE) tumors, were considered. Summary: Of the two main pancreatic tumor types, ductal epithelial carcinomas comprise >97% and NE tumors <3%. The rate of ductal epithelial carcinoma was significantly higher in Black men (19.1) than in White men (13.2) and significantly higher in Black women (14.8) than in White women (9.7). These higher rates have been consistent for 30 years. The median age of diagnosis was 68 for Blacks and 72 for Whites. In every age group, the age specific rate was higher in Blacks than in Whites. Log-log plots revealed parallel linear rate patterns for both racial groups. The rate of NE tumors, which have a different etiology than ductal carcinomas, was also higher in Blacks (0.30) than in Whites (0.23). Conclusions: Blacks are more susceptible to pancreatic ductal epithelial carcinomas and to NE tumors than are Whites. Cancers of the same histological pattern and cell of origin having similar log-log graphical patterns among Blacks and Whites suggest a similar age related carcinogenesis. | An Evaluation of Cigarette Smoking as a Cause of Cancers Other Than Lung Cancer Using the SEER Program Ray G(1), Henson DE(2), Schwartz AM(3) Department of Epidemiology and Biostatistics(1), Cancer Institute(2), and Department of Pathology(3), The George Washington University, Washington DC. Purpose: To investigate cigarette smoking as an etiologic agent for non-lung cancers by correlating them with the regional incidence rates for lung cancer, which was used as a proxy for cigarette smoking. Methods: Based on the assumption that regions with a high rate of lung cancer also have a high rate of cigarette smoking, our hypothesis is that regions with a high rate of lung cancer will also have high rates of other cancers if they are associated with cigarette smoking. Regional incidence rates for lung cancer, obtained from the SEER Program, were plotted with incidence rates of other cancers from the same regions. Linear regression and correlation analysis were performed to determine the association between lung cancer and the other 20 cancers. Summary: Cancers that have shown a strong correlation with cigarette smoking in the literature produced a strong correlation with lung cancer in our results. These cancers included urinary bladder, laryngeal, esophageal, colorectal, and kidney cancer. A number of cancers showed a weak association with cigarette smoking, such as pancreatic and liver cancer. Other cancers showed no correlation, such as ovarian and prostate cancer. Extrapolation of linear regression gave estimates on the relative incidence of cancer in a totally smoke free environment. Conclusions: Cancers that showed a strong correlation with lung cancer in SEER were strongly correlated with cigarette smoking in the literature. Cancers with either a weak or no correlation with lung cancer were either weakly or not correlated with cigarette smoking in the literature. The incidence of cancers that are strongly associated with smoking diminish markedly in non-smoking populations, but may fractionally persist if other environmental factors are etiologic. |

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| Carcinomas of the Female Breast Pre- and Post-Mammography Nsouli H(1), Grimley PM(2), Schwartz AM(3), Anderson WF(4), Henson DE(5) School of Public Health and Health Services(1), Department of Pathology(3), and Cancer Institute(5), George Washington University, Washington DC, Department of Pathology(2), F. Edward Hebert Medical School, Bethesda, MD, Division of Cancer Epidemiology and Genetics(4), NCI, Bethesda, MD<br>Purpose: To evaluate the population patterns of mammary carcinomas in women before and after screening by mammography. Methods: Data were obtained from the SEER Program. All racial groups were included. Data subsets of 1973-1982 and 1990-2003 represented pre- and post- mammography study populations. Rates were expressed as cases per 100,000 women per year. Summary: SEER yielded 565,945 breast cancer cases (in-situ & invasive) from 1973-2003. These included 47,523 (8.3%) listed as DCIS and 13,229 (2.3%) as LCIS. incidence rates for DCIS were greater than LCIS, both during the pre-mammography study period: 1973-1982 (2.59 vs. 1.52), as well as the screening period: 1990-2003 (13.28 vs. 3.46). Premenopausal age specific incidence rates for DCIS and LCIS were similar in 1973-1982; but were greater for DCIS than LCIS in 1990-2003. Postmenopause, the age-specific rates for LCIS progressively decreased during both study periods. Age-specific rates for invasive ductal and lobular carcinoma, which also did not increase postmenopause in 1973-1982, continuously increased in 1990-2003. Conclusions: Premenopausal age-specific rate patterns in situ and invasive ductal and lobular carcinoma were similar before but not after large-scale screening. Presuming consistency in diagnosis, population screening, or an unknown environmental change has modified the natural history of breast cancer. | Cancer Patients' Race, Illness knowledge, Sources of Medical Information, and Perception of Cancer Treatment: A URCC CCOP Study. Jean-Pierre P,Fiscella K, Morrow G,Carroll J, Peppone L, Purnell J, Figueroa-Moseley C, Lord R,Gross H, Rothe EK. Backgrounds: Illness knowledge and sources used for cancer information can influence patients' health behaviors. Despite their importance, however, few studies have examined the effects of these variables on perception of cancer treatment, especially across divergent ethno-cultural groups. Methods: The present sample included 973 cancer patients (904 whites, 69 non-whites) undergoing treatment at 20 geographically separate Community Clinical Oncology Program sites. Participants provided information about their perception of cancer and its treatment, and the sources used for cancer information: medical/professional, community, and media. Results: The analyses showed significant relationships between patients' race and utilization of medical/professional sources for cancer information and perception of cancer and its treatment (p-values $< 0.01$). Specifically, nonwhites reported greater desire for information ($p < .0001$), and were less likely to rely on medical/professional sources for cancer-related information. However, the results showed no significant differences in education and occupation between whites and non-whites. A multiple regression analysis revealed a significant model ($p < 0.0001$) that explains 82% of the variance in patients' perception of cancer treatment (Adj. $R2 = .823$). Illness knowledge and use of medical/professional sources for cancer information were strongly predicted patients' perception of cancer treatment (p-values $< 0.01$). Conclusion: There are important differences by race in unmet need for cancer information and for the sources used for this information. These findings indicate the need for clinicians working with patients from diverse backgrounds to assess patients understanding of cancer information and desire for more information. Perhaps programs designed to enhance cancer and cancer treatment knowledge are not reaching nonwhite individuals as well as whites.<br>Supported by NCI-PHS grant U10-CA37420. |

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| MC1R Genotype and Metastatic Outcome Among Melanoma Patients. PA Kanetsky1,2, S Panossian1, KL Nathanson2, TR Rebbeck1,2. 1Center for Clinical Epidemiology and Biostatistics and 2Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA. Purpose: Genetic variation in the melanocortin-1 receptor (MC1R) gene increases risk of melanoma; however its impact upon tumor progression is unknown. We explored the association of MC1R variants and metastasis among melanoma patients previously enrolled in a case-control study investigating low penetrance genetic susceptibility. Methods: Melanoma patients had newly diagnosed first invasive primary melanoma and were seen at the University of Pennsylvania's Pigmented Lesion Clinic. Study participants gave a buccal swab and answered a brief questionnaire. The complete coding region for MC1R was genotyped by direct sequencing. Associations between MC1R variants and progression to metastasis (yes/no) and time-to-event (metastasis or date of last follow-up) were determined using logistic regression and Cox proportional hazards models after adjusting for age of diagnosis, sex, and tumor thickness. Results: Among 955 melanoma patients, 49 (5.1%) had a metastatic event. Average time-to-event was 3.9 (±2.4) years. MC1R genotyping was completed on a total of 706 patients, 39 (5.5%) of whom had a metastatic event. Carriage of one (aOR=0.62, 95% CI 0.27, 1.4) or two (aOR=0.53, 95% CI 0.21, 1.4) MC1R nonsynonymous variants was inversely associated with having a metastatic event, although associations were not statistically significant. Similar results were seen in time-to-event analyses (aHR= 0.83, 95% CI 0.40, 1.7 for one variant; aHR= 0.67, 95% CI 0.28, 1.6 for two variants). Associations were stronger (aOR=0.41, 95% CI 0.15, 1.2 and aHR=0.59, 95% 0.22, 1.6 for carriage of two MC1R variants) after excluding patients who contributed less than six months of observation (n=5 with and n=32 without metastatic events), but still lacked statistical significance. Conclusion: Our data suggest that inherited MC1R variants may be a genetic marker for modest protection against melanoma progression, although limited numbers of metastatic events in our patient cohort precludes drawing a more definitive conclusion. We are continuing to follow cohort members for future outcomes. | Change in age distribution was associated with lack of downward shift in Gleason's score and stage with time in Hispanic population – SEER-Medicare population based study, 1992 – 2002.<br>Kou TD, Fu P, Cooper GS, Raghavan D, Koroukian S, Li L. Background: There has been a downward shift in prostate cancer grade and stage with time. We examined potential factors associated with the temporal shift in the linked SEER-Medicare database from 1992 to 2002. Methods: Prostate cancer patients (≥ 66 yrs) in the SEER-Medicare linked database, diagnosed between 1992 and 2002 were included for the study. Age at diagnosis and race were evaluated for association with the downward shift. Trend analysis was used to evaluate any significant change. Results: 145,186 elderly prostate cancer patients (≥ 66 yrs) were included in the study. From 1992 to 2002, the proportion of patients with distant tumor decreased significantly from 8.1% to 4.7% ($p < 0.0001$). The proportion of patients with Gleason's score < 8 increased from 67.1% in 1992 to 70.6% in 2002 ($p < 0.0001$). The downward shift was associated with a significant increase in screening rate prior to cancer diagnosis with time ($p < 0.0001$) in Caucasian, African American, and Asian patients. In Hispanic patients, there was no significant change in stage and Gleason's score with time ($p = 0.08$), despite significant increase in screening rate. There was a significant increase in proportions of older old patients (≥ 75) in Hispanic patients from 36.5% in 1992 to 54.8% in 2002 ($p < 0.0001$). The increase in proportion of elder elderly patients was not observed in other racial groups. Conclusion: From 1992 to 2002, there were significant downward shifts in tumor stage and Gleason's score at the time of diagnosis in most racial groups. In Hispanic prostate cancer patients, there was no significant change in stage and Gleason's score over the study period, despite a significant increase in screening rate. Instead, the lack of temporal change in tumor characteristics was associated with increase in age at time of diagnosis in Hispanic patients, representing a topic of disparity research. |

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| Survival with Watchful Waiting versus Aggressive Treatments among Elderly Patients with Low-Intermediate Grade Prostate Cancer: SEER- Medicare linked Cohort 1992-2002<br>Kou TD, Fu P, Cooper GS, Raghavan D, Koroukian S, Li L.<br>Background: Definitive data from randomized controlled trial of the optimal treatment for localized/low grade prostate cancers, especially in elderly men, are still lacking. Whether watchful waiting (WW) offers survival advantage (both total and disease specific mortalities) as compared with aggressive treatments (AT) is still a matter of ongoing debate. Method: The study cohort consisted of prostate cancer patients ≥ 66 yrs in the SEER-Medicare linked database, diagnosed between 1992 and 2002 with follow up through 12/30/2003 (median 3.9 years). Men with low-intermediate grade prostate cancers (Gleason's score < 8) and local/regional tumor were included in this study. Watchful waiting was defined as having annual prostate specific antigen test or digital rectal exam after primary cancer diagnosis and not receiving radical prostatectomy or radiation treatments during the follow up period. Radical prostatectomy and radiation treatment were considered aggressive treatment (AT). Multivariate Cox regression models adjusting for demographic and clinical attributes for were used to evaluate the hazards of prostate cancer specific mortality and overall mortality. Results: 66,614 men met the inclusion criteria. The mean age at diagnosis was 73.6 years (± 5.0). Compared to those received aggressive treatments, patients younger than 75 years and managed with WW had a slightly elevated risk of total mortality (HR = 1.07, 95% CI = 1.03-1.11); among men ≥ 75 years, WW was comparable to AT (HR = 0.98, 95% CI = 0.95-1.01). In contrast, WW was associated with improved prostate cancer specific survival in both men younger than 75 (HR = 0.76, 95% CI = 0.69 – 0.83) and ≥ 75 years (HR = 0.66, 95% CI = 0.62 – 0.70). Conclusion: Patients over the age of 75 and with low-intermediate grade prostate cancer have comparable risk of overall death and significantly lowered risk of prostate cancer specific mortality. These results support watchful waiting as an acceptable treatment option for optimal management of low-intermediate prostate cancer among elderly men. | Global DNA methylation level in normal breast tissue: Associations with demographics, lifestyle exposures and one carbon metabolism genes SNPs. Marian C*, Dumitrescu RG*, Seillier-Moiseiwitsc F, Millen A, Nie J, Freudenheim J, Shields PG.<br>Global DNA hypomethylation is thought to be a common and early epigenetic event in breast carcinogenesis. There are few data regarding global DNA methylation in normal breast tissue and what factors are associated with it. We investigated the association with demographic factors, smoking and alcohol drinking and polymorphisms in two genes of the one carbon metabolism pathway. Tissue was collected from 57 Caucasian and 53 African American women without history of breast cancer, undergoing reduction mammoplasty surgery. Data on demographics (age, race, BMI, menopausal status, age at first birth, number of children, number of pregnancies, income, and family history of cancer) and life style exposures (smoking and alcohol drinking) were collected. SNPs genotyping for MTHFR C677T and A1298C, and MS A2756G was done by real time PCR allelic discrimination. Global DNA methylation was assessed by LINE-1 pyrosequencing. Comparisons were made with non-parametric one-way analyses of variance by ranks. Global methylation level range was 65.34-82.78%, mean 73.87%, median 73.30% and SD 4.60%. Global methylation was positively associated with current smoking status, a history of drinking, family history of cancer, income level, and the presence of the variant allele of the MS (A2756G) genotype and marginally associated with race and being ever pregnant. When stratified by race, the associations were not significant for African-Americans. For Caucasians there were significant associations with family history of cancer, income and with variant alleles in MS (A2756G) and MTHFR (A1298C), and a marginal association with current smoking status. Our study suggests that lifestyle factors may influence the level of DNA methylation especially in Caucasian women. Further, genetic variation in one-carbon metabolism may also have an influence on DNA methylation in Caucasians. The association with family history of cancer could possibly be an indicator of a heritable epigenetic trait. Understanding factors related to DNA methylation may provide insight into the prevention and etiology of breast cancer. * both should be cited as first authors |

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| Prevalence of Insomnia, Fatigue and Mood Disturbances in 823 Cancer Patients Undergoing Chemotherapy: A URCC CCOP Study. Palesh O, Roscoe J, Mustian K, Morrow G, Perlis M, Purnell J, Schwartzenberger P, Nier N, Colman L. Insomnia following the first two cycles of chemotherapy was assessed in 823 patients with a variety of cancer diagnoses. Median age was 58 (range 22 to 93) and 73% (N=597) were female. During cycle 1 of chemotherapy, 80% (N=661) reported insomnia problems and nearly half (N=374) met diagnostic criteria for clinical insomnia. No significant differences were noted in rates of insomnia in male vs. female cancer patients (chi squared =5.63, p=.06), although there was a trend for a higher proportion of women to report symptoms of insomnia. Younger patients (>58) were significantly more likely to experience insomnia (chi squared =12.25, p=.002). Significant differences were found in prevalence of insomnia by diagnosis, with colon cancer patients reporting the lowest number of insomnia complaints. There was a significant positive association between insomnia complaints at cycle 1 and cycle 2 of chemotherapy (r=.55, p<.000) with an average 60% of patients reporting that their sleep complaints remained unchanged from cycle 1 to cycle 2. Patients meeting criteria for clinical insomnia had significantly more mood disturbance (POMS), depression (CES-D), and fatigue (FSCL, MAF) than other patients (all, p<.001). Compared with rates of insomnia found in the general population, the rates of insomnia in patients receiving chemotherapy are nearly three times higher. For the majority of patients, insomnia complaints persist through their second chemotherapy cycle. Patients with insomnia meeting clinical criteria have significantly more mood and fatigue symptoms than other patients. Younger patients appear to have more insomnia complaints. Insomnia is prevalent and understudied in cancer patients undergoing chemotherapy. Supported in part by (U10-CA37420 and R25-CA102618) | Polymorphisms on the 8q24 Chromosome and Prostate Cancer. Park SL, Reuter VE, Cordon-Cardo C, Dalbagni G, Scher HI, Rao JY, deKernion JB, Zhang ZF<br>Purpose: Recent whole genome association studies have identified key polymorphisms on the 8q24 locus to be associated with prostate cancer risk. We explored possible associations between three of these polymorphisms: rs16901979, rs1447295, and rs6983267, and prostate cancer in a hospital-based case-control study. Methods: Data was obtained using a hospital-based case-control study conducted at Memorial Sloan Kettering Cancer Center (MSKCC). Participants were newly diagnosed prostate cancer patients seen at MSKCC from April 1 1994- June 30 1997. A total of 103 prostate cancer cases and 108 controls (non-prostate cancer cases) with DNA were available for genotyping. DNA was extracted from prostate tissue acquired by prostatectomies from participants recruited to our study. Polymorphisms were identified using TaqMan allelic discrimination from Applied Biosystems. We used unconditional logistic regression to analyze the odds ratios (OR) and 95% confidence intervals (CI) and adjusted for the following confounders: age, smoking, and race. Results: We observed a positive association in the minor allele variant and prostate cancer for the following SNPs: rs16901979 and rs1447295, OR=2.22 95% CI=0.83, 5.97 and OR=2.40 95% CI=0.90, 6.37, respectively. A weaker positive trend was also observed between the homozygous recessive allele variant and prostate cancer for rs6983267, OR=1.56, 95% CI=0.77, 3.17. Conclusion: As expected, our data shows similar trends seen in the recently published whole genome association studies; confirming that polymorphisms along the 8q24 locus are likely to have a positive association with prostate cancer. |
| **35** | **36 - T** |
| Accounting for Second-hand Smoke Exposure Increases Colorectal Cancer Risk Among Active Smokers. LJ Peppone, A Hyland, KB Moysich, ME Reid, JA Roscoe OBJECTIVE: To examine the association between cigarette smoking, second-hand smoke (SHS) exposure, and colorectal cancer risk. METHODS: Patients who visited RPCI between 1982-1997 and completed a questionnaire were eligible for this hospital-based case-control analysis. Approximately 1,203 colorectal cancer cases were frequency matched to 2,406 malignancy-free controls on age, gender, and year of questionnaire completion. Multivariate ogistic regression was used to calculate risk by various smoking exposures. RESULTS: Overall, those who had more that 40 pack-years of exposure had a small, statistically significant increase in colorectal cancer risk (ORadj = 1.23; 95%CI = 1.02-1.48). The risk for those with more than 40 pack-years rose when individuals with current SHS exposure were removed from the analysis (ORadj = 2.12; 95%CI = 1.42-3.15). Never smoking males exposed to 7 or more hours a day of SHS had an increased colorectal cancer risk that was not statistically significant (ORadj = 1.58; 95%CI = 0.93-2.69). CONCLUSIONS: Long-term, heavy smokers had a slight, statistically significant increase in colorectal cancer risk. Current SHS exposure may be an independent risk factor for colorectal cancer and failure to account for this exposure may result in exposure misclassification. This project was funded by 1R25-CA102618 | Polymorphisms of ERCC6 gene, smoking and lung cancer: a population-based case–control study<br>Y. Wang, H. Morgenstern, S. Greenland, D. Tashkin, Y. Lee, W. Cozen, T. Mack, J. Papp, J. Mao, Z. Zhang.<br>Abstract: We conducted a population-based case-control study involving 611 lung cancer patients and 1040 cancer-free controls, trying to reveal the association of two ERCC6 SNPs (ERCC6 Q1413R and ERCC6 R1230P) with the risk of lung cancer. We also investigated their possible effect modification by tobacco smoking. Our study found that ERCC6 Q1413R R/R genotype is likely to be associated with an increase in lung cancer risk (OR = 1.94, 95% CL = 1.02, 3.68). This association appears to be strongly modified by tobacco smoking (OR interaction = 5.82, 95% CL = 1.08, 31.38). ERCC6 R1230P R/R genotype appears to be inversely associated with lung cancer risk in non-smoking population (OR = 0.35, 95% CL = 0.16, 0.78), but this protective effect is not found in the smoking population. |

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Breast Cancer Risk Associated with Hysterectomy Status: The Multiethnic Cohort Woolcott CG, Maskarinec G, Pike MC, Henderson BE, Kolonel LN. Purpose: Retrospective cohort and case-control studies have not shown a consistent association between simple hysterectomy (without bilateral oophorectomy) and breast cancer risk although they may share a hormonal etiology and hysterectomy decreases menopausal age. Methods: We investigated this association in the prospective Multiethnic Cohort that was assembled in 1993-6 and included 80,039 women aged 45-75 years without missing information. Hysterectomy and oophorectomy status was self-reported at baseline and after the cohort was followed for a median of 7.7 years, 2,160 cases of invasive cancer were identified. Cox proportional hazards models were used to estimate relative risks (RR) while controlling for known risk factors. Results: The prevalence of simple hysterectomy was 16% and varied from 10% to 24% among the ethnicities. Simple hysterectomy was not associated with breast cancer risk (RR=1.03). In White women, the RR was nonsignificantly elevated by 20% and in Latinas of non-US origin, it was nonsignificantly reduced by 20%; the RRs, however, did not vary significantly across the ethnic groups. Hysterectomy also was not associated with tumor subtypes as defined by ER status, PR status, stage, or histology. Conclusions: Overall, this study and others suggest that hysterectomy status does not predict breast cancer risk.

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Family history (FH) of colorectal cancer (CRC) predicts differential effects of NSAIDs on CRC risk. JA Zell, A Ziogas, L Bernstein, CA Clarke, E Chang, PL Horn-Ross, SL Neuhausen, G Ursin, H Anton-Culver. We investigated associations of NSAID use and CRC FH with stage-specific CRC risk and overall survival (OS) among women in the California Teachers Study (CTS) cohort. 114,232 CTS participants, age 22-85 years without CRC at baseline interview (1995-1996), were followed for incident CRC through 2004. FH and NSAID data (aspirin, ibuprofen) were collected at baseline. Cox proportional hazards regression models were used to estimate relative risks (RR). OS among familial (n=121) and sporadic (n=426) CRC cases was evaluated using Kaplan-Meier estimates with log-rank tests, and hazards ratios (HRs). 39,068 subjects (34%) reported regular NSAID use (>1-3 days/week), including 20,245 (18%) at >4 days/week. Regular NSAID use was associated with decreased risk of advanced-stage CRC for familial (RR=.24, 95% CI .07-.79), but not sporadic cases (RR=1.07, 95% CI .69-1.65). Among familial cases only, regular NSAID use was associated with earlier stage (P=.039), improved 5-year OS (86% vs 70%; P=.005), and improved survival after adjustment for age, stage, surgery, and radiation therapy (HR=.20, 95% CI .07-.60). NSAIDs selectively modify the risk of advanced CRC among women with FH of CRC. Among familial CRC cases, regular NSAID use is associated with improved survival.

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Genotypes and Haplotypes of the ERCC1 and ERCC2/XPD Genes Predict Levels of In Vitro Benzo[a]pyrene Diol Epoxide–Induced DNA Adducts in Cultured Primary Lymphocytes from Healthy Controls: A Genotype-Phenotype Correlation Analysis H. Zhao, L.-E. Wang, D. Li, R. M. Chamberlain, E. M. Sturgis, and Q. Wei. Purpose: Benzo[a]pyrene diol epoxide (BPDE)–induced DNA adducts from peripheral lymphocytes in vitro are biomarkers reflecting DNA repair capacity. ERCC1 and ERCC2 are key repair proteins in the nucleotide excision repair pathway, but the association between their genetic variants and formation of DNA adducts has been controversial. Methods: For 707 healthy non-Hispanic white cancer controls, we obtained the data on both in vitro BPDE-induced DNA adducts and genotypes of the single nucleotide polymorphisms (SNPs) for ERCC2 exons 23, 10, and 6 and ERCC1 3'UTR and ERCC1 exon4 to determine their associations. The Wilcoxon test, $\chi 2$ test, and logistic regression were used in the association analysis. The genetic effects on the DNA adducts were adjusted by age, sex, family history of cancer, and smoking and alcohol use in the logistic regression model. False-positive report probability was also calculated for significant associations. Results: Mean DNA adducts were significantly higher in current (odds ratio (OR) = 1.53 and 95% confidence interval [CI] = 1.13–2.19) and former (OR = 1.58 and 95% CI = 1.00–2.32) smokers than in never smokers. After adjustment for covariates, adduct values greater than the median were also significantly associated with genotypes TT of ERCC1 3'UTR (OR = 1.89 and 95% CI = 1.03–3.48), AA (OR = 0.64 and 95% CI = 0.41–0.99) and CA (OR= 0.63 and 95% CI = 0.45–0.89) of ERCC2 exon6, compared with their corresponding wild-type homozygous genotypes. Haplotype analysis of these two genes on chromosome 19 further suggested that haplotypes CAC, CGA of ERCC2 and TC of ERCC1 and CACTC of ERCC2 and ERCC1were significantly associated with high DNA adducts compared with their most common haplotypes. Conclusion: Our findings suggest that genotypes and haplotypes of ERCC1 and ERCC2 determined the DNA repair phenotype as measured by the levels of in vitro BPDE-induced DNA adducts.

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Vitamin D Receptor Polymorphisms and Prostate Cancer Risk in a Prospectively Screened Population of High-Risk Men
Williams, K., Ruth, K., Raysor, S., Spittle, C., and Giri, V.
Purpose: To characterize single nucleotide polymorphisms (SNPs) in the Vitamin D receptor (VDR) by ethnicity and prostate cancer (PCA) status in men enrolled in the Prostate Cancer Risk Assessment Program (PRAP). Methods: SNPs in the VDR (2 within the gene and 1 in the promoter region) were genotyped using genomic DNA from 552 PRAP participants. TaqI and CDX-2 were genotyped using TaqMan® SNP Genotyping Assays (Applied Biosystems) and the ABI 7900 Sequence Detection System (Applied Biosystems). BSMI was genotyped using pyrosequencing and the PSQ 96 SNP Software (Pyrosequencing AB). All statistical analyses were by SAS (version 9.1). Results: The distribution of all 3 SNPs differed significantly by ethnicity (TaqI $p<0.001$, CDX-2 $p<0.001$, BSMI $p=0.011$). Fifty-six/552 (10.1%) PRAP men developed PCA. No differences in VDR genotypes were seen with respect to PCA diagnosis, although the sample size is small. In comparison to a national reference database (http://snp500cancer.nci.nih.gov), the distributions of all 3 SNPs differ significantly by race except for BSMI in Caucasian men. Conclusions: High-risk men harbor unique profiles of VDR SNP genotypes. Prospective follow-up for PCA development will be essential to discern which SNP profiles are involved in PCA risk.

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| Predictors of Knowledge about Genetic Risk in Newly Diagnosed Breast Cancer Patients. Kelleher, S, Nusbaum R, Peshkin B, Graves K, Vegella P, Kelly S, Willey S, Pennanen M, Cocilovo C, Evangelista R, Rowse J, Valdimarsdottir H, Isaacs C, Schwartz M. Within the context of a randomized clinical trial examining utilization of pre-surgical genetic counseling and testing for BRCA1 and BRCA2 (BRCA1/2) mutations in newly diagnosed breast cancer patients, we examined demographic and psychosocial predictors of knowledge related to breast cancer and genetic risk. Participants (n=118) were women within six weeks of their breast cancer diagnosis and were <50 years of age or ≥50 years of age with a family history of breast and/or ovarian cancer. Prior to genetic counseling, women completed a baseline telephone interview assessing demographics, personal and family cancer history, knowledge of breast cancer and genetic risk for breast and ovarian cancer, distress, and perceived risk of developing a second primary breast cancer. Knowledge was measured with a 12-item scale with scores ranging from 0 to 12. At baseline (i.e., prior to genetic counseling), the mean score on the knowledge scale was 5.9 (SD = 2.5). Participants who reported higher perceived risk for developing a contralateral cancer exhibited greater knowledge (Mean knowledge = 6.85) than women reporting lower perceived risk [Mean knowledge = 5.33; t (117) = 2.79, β = 0.35, p = .006]. Younger women also had higher knowledge scores (Mean knowledge for women < 50 years = 6.10) than older women [Mean knowledge for women > 50 years = 5.53; (t (117) = -1.96, β = -0.18, p = .05]. Family cancer history and distress at baseline were not related to knowledge. Younger women and those with higher perceived risk may enter the genetic counseling process with greater knowledge of genetic risk for breast cancer. Higher knowledge in younger women may reflect their increased risk for carrying a BRCA1/2 mutation. The results of a pre-counseling knowledge assessment could help clinicians better tailor the educational session to address gaps in knowledge. Evaluation of knowledge before and after genetic counseling can help assess the effectiveness of genetic counseling. | Dietary antioxidant load and pancreatic cancer risk.<br><br>Day RS1, Koers E1, Hassan M2, Li D2. University of Texas 1School of Public Heath & 2M.D. Anderson Cancer Center; Houston, TX.<br>Purpose: To test the hypothesis that antioxidants are one of the mechanisms through which fruits and vegetables (F&V) exert a protective effect against PC, the association between an index of dietary antioxidant load (AL) with risk of PC was examined. Methods: Data is from an on-going hospital-based case control study at MD Anderson Cancer Center of 645 cases of pancreatic adenocarcinoma and 643 healthy controls. Participants completed an interviewer-administered risk factor questionnaire and a self-administered, semi-quantitative FFQ. An AL index was created by scoring the intake of vitamin C, E and carotenoids without supplements and summing the scores. Results: A 9% reduction in PC risk with each point increase on the AL index of vitamins C and E was seen after adjusting for age, race and gender (odds ratio: 0.91; 95% confidence interval: 0.842-0.985). Carotenoids were not associated with PC. A borderline significant interaction between AL and diabetes or heavy alcohol intake was seen {P value (likelihood ratio test) of 0.0654 and 0.0657, respectively}. Conclusions: The AL index is a summary dietary measure reducing issues of multicolinearity when modeling nutrients from the same foods. The protective role of F&V in PC risk may be attributed to lower intake of antioxidants. (Supported by NCI grant RO1 CA98380) |
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| Comparing three dietary patterns methods with colorectal cancer risk in the NIH-AARP Diet and Health Study. Reedy J, Wirfalt E, Flood A, Mitrou P, Krebs-Smith S, Kipnis V, Leitzmann M, Hollenbeck A, Schatzkin A, Subar A. We compared how dietary patterns derived from cluster analysis (CA), factor analysis (FA), and index-based analysis (IA) are associated with colorectal cancer in the NIH-AARP Diet and Health Study (n=492,306). To determine clusters, factors, and index scores, we used data from a 124-item food-frequency questionnaire (1995-96). We examined the relative risks and 95% confidence intervals, stratifying by sex and adjusting for covariates, and compared demographics and nutrients. During 5 years of follow-up, 3,110 newly incident colorectal cancer cases were ascertained. Wirfalt identified 5 clusters for men and 9 clusters for women, Flood identified 3 factors, and Reedy scored 4 indexes, including the Healthy Eating Index-2005 (HEI-2005). In men, the Vegetables & Fruits Cluster, Fruit & Vegetables Factor, Fat-Reduced/Diet Foods Factor, and all indexes were associated with reduced risk. In women, reduced risk was found with the HEI-2005, and increased risk with the Meat & Potatoes Factor. About half the persons in the Vegetables & Fruits Cluster were classified in the highest quintiles of the Fruits & Vegetables Factor and the HEI-2005. The similarities between CA, FA, and IA provide confirmatory evidence for these patterns and the findings for colorectal cancer risk, while the differences give context for these complementary approaches. | Generalizability of Two Commonly Used Fruit and Vegetable Screeners.<br>Wright, J.A, Campbell, M.K., Turner-McGrievy, B., & Friedman, R.H<br>The purpose of this study was to evaluate the generalizability of two commonly used brief fruit and vegetable measures (F&V) across demographic groups. Participants were recruited using Boston voter registration lists. Participants completed two F&V measures: 1) NCI All-day Fruit and Vegetable Screener minus beans and fried potatoes (7-item), and 2) an open-ended 2-item measure that assessed usual servings of fruit and vegetables separately (2-item). Of the 2493 individuals screened, 2440 completed both measures (72% white, 53% female, 20% <HS degree, 29% <$40K/yr HH income, age 41.9 +12.1 yrs). The average F&V servings/day was 6.33 + 4.99 (7-item) and 3.54 + 2.06 (2-item). Paired t-tests showed that the 7-item was significantly higher than 2-item; mean difference of 2.79 servings (95% CI 2.62-2.96), p<.001. No significant differences were found between genders, income groups, education (college educated/less than college), white/non-white for the 7-item (p>.20). In contrast, the 2-item measure resulted in significant differences for each of these demographic variables (p<.001). The results suggest that the All-day screener may be more generalizable across demographic groups yet the average servings/day on the 2-item is more similar to previous studies (e.g., 3 - 4.0 servings/day). |

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| Effect of Language on Colorectal Cancer Screening. Diaz, JA, Roberts MB, Goldman RE, Eaton CB. Purpose: To examine the relationship between language and receipt of CRC screening tests among Latinos and non-Latinos using a geographically diverse, population based sample of adults. Methods: Cross-sectional analysis of the CDC's Behavioral Risk Factor Surveillance System (BRFSS) 2006 survey. Study included adults > 50 years of age, who completed the survey in a state that administered and recorded data from English and Spanish-speaking participants. Estimated crude and adjusted odds ratios of respondents' reported test receipt stratified by self-reported Latino/non-Latino ethnicity and language. Results: Of the 99,895 respondents, 33% of Latinos responding in Spanish reported having had CRC testing, while 51% of Latinos responding in English and 62% of English-speaking non-Latinos reported test receipt. In multivariable analysis, compared to non-Latinos, Latinos responding in English had 0.84 times the odds (OR=0.84, CI, 0.73-0.98), and Latinos responding in Spanish had 0.57 times the odds of having received CRC testing (OR=0.57, 95% CI, 0.44-0.74). Compared to Latinos responding in Spanish, those responding in English had higher odds of having received CRC testing (OR=1.47; CI, 1.14-1.97). Conclusion: Spanish language use is negatively associated with CRC screening and may contribute to disparities of CRC tests receipt that exists between non-Latinos and Latinos in the US. | Prostate Cancer Screening of Elderly in Community-Based Family Medicine Practices<br>Hudson S, Ohman-Strickland P, Ferrante J, Lu-Yao G, Crabtree B PURPOSE: To examine if patient age results in differential use of prostate-specific antigen (PSA) testing and if organizational attributes predict PSA testing among men 75 and older. METHODS: Chart audits of 1149 men aged 50+ within 46 family medicine practices examined. Practice information forms and clinician/staff surveys provide practice data. A stratified Cochran-Mantel-Haenszel (CMH) test applied to examine if PSA testing decreased with age. Hierarchical logistic regression analyses performed to determine correlates of screening men 75+. RESULTS: Comparable screening rates of 77% for men aged 50-74 and 75% for men 75+ reported. CMH indicated no significant change in trend by age. Hierarchical models demonstrated receipt of cholesterol screening was associated with screening within the past year (OR=2.42, p=0.012) for men 75+. After controlling for practice/patient covariates, practice communication was found to influence PSA testing for men 75+ (OR=5.04, p=0.022). CONCLUSIONS: Though no major clinical guidelines recommend PSA testing for men 75+, this group is screened at rates comparable to their younger counterparts. Practice interventions that target screening to the most appropriate populations and address practice communication are needed. |
| **47** | **48** |
| Cognitive Interviews On Cancer Screening Measures. A James, T Holtkamp, T Tolliver, A Greiner. Washington University; University of Kansas Medical Center Purpose: We used cognitive interviews to assess safety-net patients' comprehension and confidence with common colorectal cancer screening questions. Methods: A trained interviewer asked survey questions and used structured and spontaneous probes. Interviews (N=24) were audio-recorded, transcribed, and analyzed with qualitative text analysis. Results: Most participants were African-American, male, and had at least a high school education. Many were unemployed, poor, and uninsured. Most expressed confidence answering CRC screening questions. Confusion came from having stool tests for non-screening purposes and the use of the initials "FOBT". Many participants expressed a low confidence when asked where the colon was or what it did, though they could usually identify it as part of the digestive system. Conclusions: Although participants generally expressed comprehension and confidence in answering our CRC questions, we identified clear areas where we could improve our measures. This includes describing the colon and being explicit when discussing FOBT. We are using these findings to revise our survey for this population and improve the validity of our measures. | PHYSICIAN RECOMMENDATION FOR EARLY MAMMOGRAPHY FOR AVERAGE RISK WOMEN PRIOR TO AGE 40.<br>Kapp JM<br>PURPOSE: To estimate physician recommendation for a mammogram for average risk women between the ages of 35 and 39. METHODS: The 2005 National Health Interview Survey was used to examine responses from 1,379 women. Women at increased risk for breast cancer were defined as those self-reporting a family history of breast or ovarian cancer, ever having an abnormal mammogram, reporting a reason other than routine for their most recent mammogram, or advised to have a genetic test for cancer. RESULTS: 15.4% of the sample was categorized as increased risk. Overall, 26.6% of women reported a physician recommendation for a mammogram in the past year. Among women at average risk, nearly one in four (21.7%) reported a physician recommendation, representing an estimated 1.6 million women. CONCLUSIONS: Findings suggest potentially inappropriate mammography recommendations from physicians for average risk women prior to age 40. |

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| Human Papillomavirus (HPV) Vaccine Acceptance Among Residents Of Ohio Appalachia<br>ML Katz, M Ruffin, D Post, ED Paskett<br>Purpose:To gain an understanding of the beliefs, attitudes, and acceptability of the HPV vaccine at the individual and community level among residents of Ohio Appalachia.<br>Methods: Focus groups were conducted of women (18-26 years old), parents of young girls, healthcare providers, and community leaders. The focus groups lasted approximately 60 minutes and were audio taped.<br>Results: Twenty-three focus groups were conducted in 8 different Ohio Appalachia counties. Participants (n=114) were from 14 different counties and represented the 4 geographic regions of Ohio Appalachia. Key findings were: 1) lack of knowledge about the purpose of Pap tests, HPV, and the vaccine, 2) most learned about the vaccine from the television commercial, 3) nearly all knew HPV is associated with sexual behavior, 4) many women reported a history of having multiple sexual partners, a history of smoking, and being stressed, 5) women aware of their HPV status admitted to having previous abnormal Pap tests and wanted information about the vaccine, and 6) there was mixed acceptance of the vaccine within and between the different focus groups.<br>Conclusion: The issues raised by participants provided valuable information that will be used in the development of educational programs focused on HPV and the HPV vaccine to women and parents of young girls living in Ohio Appalachia. | Development of an educational video to improve patient knowledge and communication with their healthcare providers about colorectal cancer (CRC) screening. ML Katz, S Stargel, P Reiter, J van Putten, L Murray, L McDougle, D Cegala, D Post, P David, M Slater, ED Paskett Objective: Low rates of CRC screening persist in the U.S., to some extent because of the lack of discussion about screening between patients and providers. Methods: Patients from an urban neighborhood health center that serves a minority and low socioeconomic population participated in focus groups held prior to and after the development of a CRC screening educational video. In-depth interviews of medical personnel were also conducted after review of the video. Results: Participants provided important information about screening test barriers and communication issues associated with CRC screening. Many suggestions made by the participants were foreseen; however, three ideas offered by the participants were not anticipated and were included in the video. Participants suggested that the video: 1) include footage showing how to complete the fecal occult blood test to increase self-efficacy, 2) incorporate a physician providing an authoritative voice regarding the importance of CRC screening, and 3) should include both men and women and individuals of different races. Focus groups conducted to review the developed educational video documented that the three suggestions were portrayed correctly, that the video was culturally appropriate, and the CRC screening information and communication skills training messages were recognized and understood. Medical personnel reviewed the video and determined it medically accurate. Conclusion: The issues raised by participants provided valuable information in the development of an educational video to improve patient knowledge and patient-provider communication about CRC screening. Information about CRC screening and communication skills training can be provided to patients in a short educational video to promote CRC screening, and the video is currently being tested to determine if it increases CRC screening. |

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| A Survey of Physicians' Key Behaviors for Promoting Informed Decision Making about Prostate Cancer Screening.<br>Volk RJ, Mullen PD, Kneuper S, Wuelling S, Chan E, Spann SJ, Galliher JM, Pace WD<br>Purpose: To describe primary care physicians' reported use of key behaviors for promoting informed decision making about prostate cancer screening by their patients. Methods: Survey of clinician members of the National Research Network, a primary care research network of clinicians administered by the American Academy of Family Physicians. Data were collected via online and mailed surveys between July and November, 2007. Nine key behaviors were identified during development of a provider-based intervention to encourage informed prostate cancer screening decisions. Clinicians reported on how often they engaged in each behavior, using 5-point Likert scales ranging from 1 "never" to 5 "always." Results: Preliminary results from the initial 79 respondents are reported here. Over half of the respondents practiced in an academic setting and trained residents. Behaviors endorsed as occurring most frequently were "Invite men to ask questions?" (mean 4.42), "Let men know there is a decision to be made?" (mean 4.19), "Document in medical chart that there was a discussion about screening?" (mean 4.05), and "Make sure men have information on benefits and risks?" (mean 4.00). Behaviors endorsed as occurring least frequently included "Refer undecided men to other sources of information?" (mean 2.65), and "Make plans for follow-up discussions for undecided men?" (mean 2.91). Conclusions: Primary care clinicians use a variety of behaviors with their patients to promote informed decision making about prostate cancer screening. Strategies for managing undecided patients appear problematic for clinicians. Future research should address clinician skills and supportive options, including patient decision aids, for managing uncertainty in patients about cancer screening. | A Community-Based Intervention to Increase Colorectal Cancer Screening in Chinese American Women. Liang W, PhD; Wang JH, PhD; Chen MY, MS; Mandelblatt JS, MD, MPH. Purpose: To examine whether a culturally tailored brochures and telephone counseling improved colorectal cancer (CRC) screening among Chinese American women. Methods: Chinese American women aged 50 and older recruited from Chinese communities in the Washington DC area were randomly assigned to control, brochure, or brochure and telephone counseling based on CRC screening stage at baseline. The mailed Chinese brochures were culturally sensitive and consisted of information about CRC risks, pros and cons of screening options, and local screening services. Telephone counseling was tailored to individuals' cultural and other screening barriers. Women in the control group received a one-page fact sheet about CRC and CRC screening. The study outcome was self-reported CRC screening during the 18-month follow-up period. Results: Of the 343 participants completing the final survey, 194 were due for a CRC screening test at the time of assessment. The interventions failed to improve CRC screening uptake compared to the use of a simple fact sheet (screening rates: 35.0% and 40.6%, vs. 36.9%, p=0.8). Although insignificant, brochures plus telephone counseling tended to benefit those never had CRC screening at baseline (36% vs. 20% and 25% in other two groups) and the fact sheet tended to encourage repeat screening among those not overdue for screening (80%, vs. 73.3% and 63.6%). Lack of physician recommendation or symptoms were the main reasons for not having CRC screening. Conclusions: Community-based culturally tailored interventions do not improve CRC screening in Chinese Americans. Interpersonal discussion (e.g., telephone counseling) along with culturally tailored brochures has the potential to increase CRC screening. Future studies are needed to test whether similar interventions are effective if delivered by health care professionals. |

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| Effectiveness of a Culture- and Stage-Tailored Intervention to Increase Mammography Use in Chinese American Women. Liang W, PhD; Wang JH, PhD; Chen MY, MS; Mandelblatt JS, MD, MPH Purpose: To examine whether a community-based educational intervention using culture- and stage-tailored brochures and telephone counseling improved mammography use among immigrant Chinese American women. Methods: We recruited Chinese American women aged 50 and older residing in the Washington DC area from Chinese community organizations. After completing a baseline survey, women were randomly assigned to the control, brochure, or brochure and telephone counseling group based on baseline screening stage. Women in the control group received a one-page fact sheet about breast cancer and screening. Three sets of culturally tailored Chinese language brochures were developed and sent to participants based on their screening stage (never, ever, or regular). Telephone counseling focused on individuals' cultural and other screening barriers obtained. Chi-square tests were used to compare self-reported mammography use at 18 months post-intervention. Results: Of the 466 asymptomatic participants, 389 (83.8%) completed the follow-up survey. Participants remaining in the three study groups did not differ in sociodemographic background, baseline breast cancer screening rates, and other screening barriers. Being in the brochure or brochure plus telephone counseling groups did not result in a significant increase of mammography use at 18 months post-intervention. Among women who never had a mammogram, a plain fact sheet was the most effective way in increasing mammography use (screening rate of 36.4%, vs. 28.0% and 5.3% of the intervention groups, p=0.05). Conclusions: Community-based mailing of culturally tailored brochures and telephone counseling is not effective in increasing Chinese American women's breast cancer screening rates. Future studies are needed to explore other means of delivering culturally appropriate interventions and how those interventions benefit women with different screening stages. | The Association of Neighborhood Socioeconomic Status and Colorectal Cancer Screening: A Multilevel Analysis. Pruitt SL, Amick BC, Harrist R, Vernon SW, Mullen PD. Purpose: The goal of this research is to elucidate the relationship between neighborhood socioeconomic status (SES), neighborhood SES change, and colorectal cancer screening (CRCS) and to highlight areas needing further research. We hypothesize that: 1) Neighborhood SES will be associated with adherence to CRCS after controlling for individual SES; and 2) Gender will moderate the relationship between neighborhood SES and adherence to CRCS. To our knowledge, this will be the first study of the association of CRCS with neighborhood SES using multiple measures of neighborhood SES at the census tract level, testing for differential neighborhood SES effects by gender, and examining the influence of local area change and gentrification. Methods: We will analyze data on a multiethnic sample of adults aged ≥50 years using a pooled sample of respondents to the 2003 and 2005 California Health Interview Surveys linked with a comprehensive set of census-tract level SES indicators from the 1990 and 2000 U.S. Census. The two dichotomous dependent variables of interest include: 1) Adherence to guidelines for sigmoidoscopy or colonoscopy and 2) Adherence to guidelines for home blood stool exam. Analyses will be conducted using two-level random intercept multilevel logistic models. Results: We expect that adherence to CRCS will be independently associated with neighborhood SES after controlling for individual-level SES, demographic, and cancer screening covariates. Secondly, we expect that gender will moderate the relationship between adherence and neighborhood SES. Finally, we will explore the association between neighborhood-level SES change and cancer screening. Conclusions: This research will inform programs and policy-makers seeking to identify priority populations for cancer screening interventions as well as future researchers who plan to analyze the complex interrelationships of neighborhood and individual SES, neighborhood SES change, gender, race, and cancer screening behaviors. |

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| Sociocultural models of colonoscopy screening intention in African Americans<br>Purnell, J.Q., Andersen, B.L., Katz, M.L.<br>Purpose: The purpose of this study was to test models in which sociocultural, socioeconomic, and health background variables were associated with the intention to complete colonoscopy. Perceived benefits and perceived barriers to colonoscopy were modeled as mediators in separate analyses.<br>Methods: Participants (N = 198 African Americans; Age: M = 59.7, SD = 9.9; 65% female) completed questionnaires assessing socio-cultural, socioeconomic, and health background factors. Structural equation modeling was used to test the models. Results: Models exhibited acceptable fit (RMSEA < .07) but different patterns of association. Social and cultural factors were associated with screening intention in models that also accounted for socioeconomic and health background factors and included perceived barriers and benefits as mediators.<br>Conclusions: Social and cultural factors are related to screening intention and should be included in behavioral interventions aimed at increasing colorectal cancer screening among African Americans. | Predictors of Prostate and Colorectal Cancer Screening Adherence Among Men Registered for Prostate Cancer Screening.<br>Red S, Davis KM, Schwartz MD, Williams RM, Ahaghotu C, TaylorKL. Colorectal cancer screening (CRCS) is recommended for those > 50, while prostate cancer screening (PCS) remains controversial. However, national surveys have shown that men are more likely to undergo PCS than CRCS, and that this difference is associated with demographics, history of cancer, and health behaviors. We assessed whether this differential screening rate existed among men registered for free PCS, and whether the predictors of adherence were similar to national samples. We included baseline variables from a trial of a PCS decision aid: demographics, health behaviors, psychological factors (e.g., perceived risk, QOL, knowledge). Participants included men over 50 registered for PCS at Georgetown University (GU; N=259) and Howard University (HU; N=114). Across both samples, average age was 59.3 (SD=5.4), 55% were African American, 51.7% had > a college degree, and 67.8% had a regular doctor. PCS adherence was defined as having a PSA/DRE in the past 13 months and CRCS adherence was defined as having had one of four screening exams within the recommended timeframe. More men were adherent for CRCS (50.4%) than PCS (44.5%; $p<0.001$); however, more men reported ever having PCS (82%) than CRCS (55.5%; $p<0.001$). Significant bivariates were included in logistic regression analyses. PCS adherence was greater among men who: were adherent for CRCS (OR=2.3, CI 1.4, 3.8), had a regular doctor (OR=1.9, CI 1.1, 3.5), were from GU (OR=2.7, CI 1.5, 4.8), and had never smoked (OR=2.1, CI 1.02, 4.3). CRCS adherence was greater among men who: were adherent for PCS (OR=2.5, CI 1.5, 4.1), had a regular doctor (OR=3.6, CI 2.0, 6.4), had health insurance (OR=2.0, CI 1.04, 3.9), and had a previous cancer diagnosis (OR=4.2, CI 1.02, 17.5). Compared to several national samples, we found slightly lower PCS adherence and higher CRCS adherence. However, predictors of both PCS and CRCS adherence were consistent with previous studies. We did not find evidence that psychological factors played a role in adherence among this group of men seeking PCS in a mass screening setting. |

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| Associations between Lifestyle Factors & Health-Related Quality of Life (QoL) in Longterm Elderly Cancer Survivors.<br>W.Demark-Wahnefried, M.Morey, R.Sloane, D.Snyder, P.Miller & H. Cohen. MD Anderson Cancer Ctr, Penn. State Univ., & Duke Univ. Med. Ctr.<br>Purpose: Longterm cancer survivors age 65+ are a fast-growing segment of the survivorship population, yet little is known about their health behaviors.<br>Methods: A cross-sectional analysis was undertaken on data from 753 older, long-term survivors who underwent baseline interviews and screening for the Reach-Out to ENhancE Wellness (RENEW) trial; data included: Min./week moderate-to-vigorous physical activity (PA) from selected items of the Community Healthy Activities Models Program for Seniors (CHAMPS); Healthy Eating Indexes (HEI) from random 2-day dietary recalls (using new guidelines); and QoL (SF-36).<br>Results: The sample averaged 8.5 years post-dx and was comprised of breast (n=321), prostate (n=319) and colorectal (n=113) cancer survivors. Mean min./week of PA was 62.1+106.7 and the mean HEI index was 59.9+13.7. Significantly positive associations were found between PA and overall physical QoL and all associated subscales, as well as HEI and physical function and vitality subscales (p-values<.05).<br>Conclusions: Increased PA and diet quality are associated behaviors among elderly long-term cancer survivors and may exert a positive influence on physical functioning and QoL. | Functional status and return to full-time work for adult hematopoetic cell transplantation survivors; Kirchhoff, AC; Syrjala, KL; Purpose: We investigated the relationship between 6 month post-transplant functional status on return to full-time work in adult myeloablative hematopoietic cell transplantation (HCT) recipients. Methods: A prospective cohort was followed for 5 years at a medical center specializing in HCT. We enrolled 198 adults with leukemia or lymphoma before their transplant-related treatment; assessments asked about treatment and demographic factors, including date of return to full-time work. Survivors completed the Short Form 36 Health Survey (SF-36) at 6 months. A binary variable (>40; ≤40) was created from the SF-36 physical function component score (PCS) to indicate patients with t-scores 1 SD below the US population norm. We performed multivariable Cox proportional hazards models to calculate the hazard ratios [HR] and 95% confidence intervals [95% CI] for PCS on return to work. Results: Of the 131 patients working full-time before transplant, 14(11%) had died and 19(15%) did not respond to enough questions for PCS calculation at 6 months, leaving 98 patients for the analysis. The mean PCS score at 6 months was 38.5 (SD=10.2). In multivariate analyses, the frequency of return to full-time work was higher in patients with PCS t-scores >40 (HR 2.18; 95% CI 1.14, 4.15; p<0.02). By 5 years, 61(62%) had returned to full-time and 18(18%) to part-time work. Conclusions: Better physical functioning in the first 6 months after HCT increases the likelihood of return to full-time work. |
| **59 - T** | **60 - T** |
| Falls and Physical Performance Deficits in Older Prostate Cancer (PCa) Patients Undergoing Androgen Deprivation Therapy (ADT). S. Mohile, K. Bylow, K. Mustian, G. Morrow, W. Hall, M. Lachs, W. Dale Objective: To estimate the prevalence of older PCa pts on ADT with functional and physical impairment using a comprehensive battery of geriatric assessment measures and to better describe fall risk in this population. Methods: Fifty men aged >70 (median 78, range 70-92) on ADT (median 36 mths) for asymptomatic recurrent PCa underwent assessments of function (I/ADLs: Instrumental/Activities of Daily Living), cognition (SPMSQ: Short Portable Mental Status Questionnaire), physical performance (SPPB:Short Physical Performance Battery), and self-perceived ability (VES-13:Vulnerable Elder's Survey-13). Fall history was obtained. Forty pts underwent a 3 mth follow-up. Results: Pts had a high prevalence of impairment: 24% had ADL deficit, 42% had IADL impairment, 50% had abnormal SPPB, 24% had abnormal SPMSQ, 52% reported physical disability, and 22% reported falls. At follow-up, 20% had worsening of SPPB scores, and 56% of those who previously fell experienced new falls. Age, ADL deficits, IADL deficits, abnormal cognitive and VES-13 scores were associated with an increased risk of abnormal SPPB. ADL deficit, use of an assistive device and abnormal VES-13 were associated with falling. Conclusion: Older men with PCa on long term ADT exhibit significant impairment and are at risk for falling. | Ovarian as a Subsequent Primary Cancer Among Women Cancer Survivors, 1973-2004. Rim S; Berkowitz B; Peipins L Background: Ovarian cancer is the leading cause of mortality among gynecological malignancies. Identifying persons at increased risk of ovarian cancer can be important for early detection and better chances of survival. Studies have shown certain cancer survivors may be at increased risk of developing a subsequent primary ovarian cancer. We examined the risk of ovarian cancer as a second primary diagnosis among women cancer survivors using data from the Surveillance, Epidemiology and End Result (SEER) program. Methods: Cancer incidence data from 9 SEER registries were used to identify women diagnosed with a first primary invasive cancer from 1973 to 2004. We calculated the relative risk [observed (O)/expected (E)] of a second primary ovarian cancer by first cancer site, age at first cancer diagnosis (<50, 50+), and latency (0 to <5, 5 to <10, 10 to <20, 20+ years) since the first primary cancer. Results: Among 3,341 cancer survivors, more than 40% were diagnosed with a subsequent primary ovarian cancer within the first 5 years since their first primary cancer diagnosis. Women <50 years of age at first primary diagnosis had significantly (p<0.05) increased risk of ovarian cancer 0 to <5 years after initial diagnosis with cancers of the breast (O/E=2.5, 95% CI: 2.1-3.0), corpus uteri (O/E=6.8, 95% CI: 5.1-9); colon (O/E=5.9, 95% CI: 3.7-8.9); and cervix uteri (O/E=3.4, 95% CI: 2.2-5.1). Breast cancer survivors had continuously higher than expected risk of ovarian cancer beyond 5 years (O/E ≥ 2.0). For women diagnosed with breast cancer, increased risk was also observed among those age ≥ 50 years within 5 years after diagnosis (O/E=1.1, 95% CI: 1-1.2). However, older women (age ≥ 50) were at a significantly decreased risk following cancers of the corpus uteri (O/E=0.2, 95% CI: 0.1-0.3) and colon (O/E=0.7, 95% |

## 61

A Web-Based System for Patient Self-Reporting of Chemotherapy Symptoms.
J.R. Schubart, E. Farace, G.L. Kreps
PURPOSE: This program guides development of a web-based system, enabling cancer patients to self-report chemotherapy symptoms in real-time to clinicians from home. When patients experience serious symptoms that are not reported in a timely manner it results in decreased treatment efficacy due to interrupted and reduced doses of chemotherapy, as well as increased ER visits and hospitalizations. METHOD: A formative evaluation was conducted with 5 instructional designers and 10 cancer patients to guide system improvements. This evaluation focused on usability and satisfaction and involved 4 distinct methods: Heuristic Evaluation, Think-Aloud Protocol, Questionnaire, and a Pre-implementation Trial. Patients used the system for six months. RESULTS: Patients reported the user interface was intuitive and easy to master quickly without training and the system provided meaningful information. They made recommendations to guide development,including suggestions to encourage utilization. CONCLUSIONS: The goal of this program is to expand the use of web-based reporting to break down system barriers to effective patient-physician communication. The system is being developed to increase patient reporting and physician response to symptoms and to improve patients' quality of life. The system has the potential to improve symptom management by identifying clinically significant problems before they are detected in routine care.

## 62

Neighborhood Effect on Women Smoking.
Authors: Lian M, Schootman M, Jeffe DB.
Purposes: To examine neighborhood effect on smoking behavior among women age 40+ and possible mechanism in St. Louis City. Methods: A random-digit dialing survey was performed to investigate smoking behavior as well as four groups of explanatory variables among 998 women age 40+ nested within 113 census tracts. GIS was used to geocode self-reported addresses. Census-tract-level poverty rate was obtained from 2000 Census. Statistical analysis was conducted using multilevel logistic models.
Results: The overall smoking prevalence was 51.9%. Women residing within neighborhoods with >30% poverty rate were more likely to be smokers, and the odds ratios varied, ranging from 2.17 (1.35-3.51) to 1.73 (1.00-3.01) in five models. Association was no longer significant when regular religious participation was introduced. Under a contextual environment, regular religious participation was negatively associated with smoking (0.46,0.34-0.62).
Conclusions: Low neighborhood SES increased likelihood of smoking among women age 40+. Regular religious participation may mediate the effect of adverse neighborhood SES on smoking behavior potentially through its effect on psychological distress.

## 63

Quality of Care for Smokers with Chronic Conditions: NHANES III, 1988-1994. Rose Ash D and Ettner SL. Given that smoking is well known to be a risk factor for coronary heart disease and stroke, we hypothesize that smoking would signal physicians of smokers' greater need for appropriate care (Balsa and McGuire, 2001). Cross-sectional analysis of NHANES III data, 1988-1994. We performed logistic regression using Stata 9.0 to estimate how often patients reported receiving recommended care for their high blood cholesterol or hypertension. We tested for multivariate associations with patient's reported smoking status, patient age, gender, race/ethnicity, language of interview, household income, insurance coverage, body mass index (BMI) and self-report access to health care in the last 12 months. To test overweight and obesity, we dropped BMI, and included an indicator of overweight (BMI>25) or obesity (BMI>30). Standard errors were computed using the first-order Taylor series linear approximation. From NHANES III, we subset the adult population (n=20,030) by affirmative responses to questions regarding health status, e.g., self-report of being told they have high blood cholesterol (n=3,243) or hypertension (n=4,313). There were no statistically significant differences in care among those with high blood cholesterol. Among hypertensives, smokers were more likely to report receiving taking medication for their hypertension ($p<0.05$), and physician advice to reduce tension ($p<0.05$). Smokers were less likely to report receiving physician advice to exercise more ($p<0.01$). We found that having high blood cholesterol, diabetes, heart disease symptoms, or being overweight or obese increased likelihood of appropriate care. None of these risk factors decreased the likelihood of receiving appropriate care. Among those with chronic conditions such as high blood cholesterol or hypertension, smokers do not appear more likely to receive appropriate care compared with non-smokers as expected. We explore why, and find evidence of potential bias towards smokers, but also evidence that given time constraints, physicians may "triage," and focus on smoking cessation advice rather than other measures that may improve health.

## 64 - T

Auto IgG Response in Hepatocellular Carcinoma (HCC). Gebreselassie,D., Loffredo, C.A., Abdel-Hamid, M., Bascug, G., Goldman, R.
Patients with cancer produce auto IgG that could serve as biomarkers for detection and classification of the disease. We applied a protein array of 5,000 human proteins to the comparative analysis of sera of ten cancer free controls and ten patients with HCC in order to identify auto IgG associated with HCC. Auto IgG to thirty eight proteins were significantly associated with HCC ($p<0.05$). The frequency of the auto IgG response in a follow up custom array experiment using 20 cancer free controls and 20 HCC sera ranged from 16 to 45 %. To validate the observed auto IgG response, we fused cDNA of selected antigenic proteins with N-terminal FLAG tag and an enzyme reporter gene, humanized Renilla luciferase (hRluc). The construct was expressed in the COS-1 mammalian cell line and crude lysates were used for quantification of auto IgG in serum by immunoprecipitation using protein G beads. We have shown in experiments with antibodies to the FLAG tag and the antigens of interest that quantification of the hRluc luminescence is a sensitive assay with a broad linear dynamic range. A validation study in a larger population is under way.

# Notes

## ASPO 2008

**Attendee Questionnaire for Feedback**

**We are eager to get your feedback regarding this program so we may continue to make the Annual ASPO Meeting suit your professional needs. Please take a moment to fill out this questionnaire and leave it at the registration table, or mail it to the ASPO National Office, 330 WARF Building, 610 Walnut Street, Madison, WI 53726.**

What were the most interesting parts of the meeting?

What were the weak points?

What subjects would you like to have covered in future meetings?

What should be covered in greater detail?

Do you have any suggestions for format changes?

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| Were you able to see and hear adequately? | | YES | NO |
| Should ASPO have more/fewer presented papers? | MORE | FEWER | AS IS |
| Should ASPO continue providing concurrent sessions? | | YES | NO |

General suggestions (format, speakers, food, etc…)

Thank you for your time!
James Marshall, President