



# INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

## The Role of Obesity in Cancer Survival and Recurrence: A Workshop Hosted by the National Cancer Policy Forum

**October 31 – November 1, 2011**

The Keck Center of the National Academies - Room 100  
500 Fifth Street, NW, Washington, DC 20001

7:45 am	<b>Hot American Breakfast</b>
8:15 am	<b>Welcome from the IOM National Cancer Policy Forum</b> Patricia Ganz, UCLA, National Cancer Policy Forum Vice Chair
8:20 am	<b>Workshop Introduction and Overview</b> Wendy Demark-Wahnefried, University of Alabama-Birmingham, Workshop Planning Committee Chair
8:30 am	<b>Session 1: Role of Obesity and Weight Gain in the Promotion of Various Cancers</b> <b>Moderator:</b> Rachel Ballard-Barbash, NCI  (25 min) Overview of the role of obesity in cancer risk and progression - Susan Gapstur, American Cancer Society (25 min) Evidence for the role of obesity in breast cancer progression - Pamela Goodwin, Mount Sinai Hospital University of Toronto (15 min) Evidence for the role of obesity in prostate cancer progression - Elizabeth A. Platz, Johns Hopkins Bloomberg School of Public Health (15 min) Evidence for the role of obesity in colon cancer progression - Jeffrey Meyerhardt, Dana-Farber Cancer Institute (10 min) The impact of weight loss on cancer incidence and mortality - Bruce M. Wolfe, Oregon Health & Science University (30 min) Correlations of Obesity, Comorbidity and Treatment: Implications for Survival Analysis and Interpretation - Rachel Ballard-Barbash, NCI  10:30 am     (45 min) Panel Discussion <b>Questions:</b> What is the current state of the evidence? What are the evidence gaps? Is the evidence strong enough to recommend weight loss for individuals who are overweight or obese and who are either newly diagnosed with cancer or long-term cancer survivors? Would such an approach be recommended for all survivors or a subset of individuals diagnosed with specific cancers? If the latter, which cancers are those? What is the downside of recommending weight loss to cancer survivors who are overweight or obese given the high incidence of co-morbidity in this population? What are the methodological issues for closing the evidence gaps? How do we adjust data on obesity for other factors such as physical activity and diet?

11:15 am	<b>Lunch break</b>
12:15 pm	<p><b>Session 2: Mechanisms by which Obesity may influence Cancer Progression</b></p> <p><b>Moderator:</b> Stephen Hursting, University of Texas at Austin</p> <p>Overview of Mechanisms</p> <ul style="list-style-type: none"> <li>- Nathan Berger, Case Western Reserve University School of Medicine</li> </ul> <p>Insulin signaling (insulin, IGF, PI3K, mTOR, etc.)</p> <ul style="list-style-type: none"> <li>- Derek LeRoith, Mount Sinai School of Medicine</li> </ul> <p>Growth Factor and Energy Sensing Pathways</p> <ul style="list-style-type: none"> <li>- John Digiovanni, The University of Texas at Austin</li> </ul> <p>Hormonal Factors (sex steroids and binding proteins) and Growth Factors (VEGF, etc)</p> <ul style="list-style-type: none"> <li>- Angela Brodie, University of Maryland</li> </ul> <p>Obesity and Breast Inflammation: Implications for Carcinogenesis</p> <ul style="list-style-type: none"> <li>- Andrew Dannenberg, Weill Medical College of Cornell University</li> </ul> <p>Emerging Preclinical Mechanisms: Stem Cells, Adipokines</p> <ul style="list-style-type: none"> <li>- Madhuri Kakarala, University of Michigan</li> </ul> <p>Signaling Pathway Crosstalk/Systems Biology</p> <ul style="list-style-type: none"> <li>- Nathan Berger, Case Western Reserve University School of Medicine</li> </ul>
2:30 pm	<p>Panel Discussion</p> <p><b>Questions:</b></p> <p>What is the evidence to support a role for the various potential mechanisms underpinning the obesity/cancer link?</p> <p>What are the most pressing unanswered questions about mechanistic pathways?</p> <p>What mechanisms are the most viable targets for pharmacologic or other interventions?</p> <p>Are multi-pronged approaches feasible? Should the focus be on combination therapies and interventions?</p> <p>How easy is it to measure the intermediate biomarkers that have been suggested?</p> <ul style="list-style-type: none"> <li>- For which of these biomarkers are there reliable assays?</li> <li>- For which are there limited means to assess specific levels?</li> <li>- What barriers exist in determining levels in humans? (i.e., is fresh frozen tissue necessary for assessment?)</li> </ul>
3:30 pm	<b>Break</b>
3:45 pm	<p><b>Session 3: Dissecting the Obesity-Cancer Link - Is it obesity? Energy Balance? Physical Activity?</b></p> <p><b>Moderator:</b> Wendy Demark-Wahnefried, University of Alabama at Birmingham</p> <p>Overview</p> <ul style="list-style-type: none"> <li>- Wendy Demark-Wahnefried</li> </ul> <p>Preclinical Evidence</p> <ul style="list-style-type: none"> <li>- Stephen Hursting, University of Texas at Austin</li> </ul> <p>Clinical Evidence</p> <ul style="list-style-type: none"> <li>- Jennifer Ligibel, Dana Farber Cancer Center</li> </ul>

4:45 pm	<p>Panel Discussion</p> <p><b>Questions:</b></p> <p>What is the ultimate driver of the cancer-obesity link?</p> <p>Are the relationships between physical activity and energy restriction in cancer similar to those in other diseases such as cardiovascular disease, or does cancer represent a different model?</p> <p>What model systems and research methodologies could help us sort out the various contributions to the obesity-cancer link?</p> <p>What is needed for effective clinical studies?</p> <p>If we are able to discern the factors most influential in cancer promotion, would that necessarily change medical practice?</p> <p>How might we best break the cancer-obesity link?</p>
5:15 pm	<b>Wrap up, Day 1</b>
5:30 pm	<b>Adjourn Day 1</b>
<b>DAY 2</b>	
8:00 am	<b>Hot American Breakfast</b>
8:30 am	<p><b>Session 4: Tying it all together</b></p> <p><b>Moderator:</b> Pamela Goodwin</p> <p>Overview of Weight Loss Interventions for Obese Adults</p> <ul style="list-style-type: none"> <li>- Thomas Wadden, University of Pennsylvania</li> </ul> <p>Physical activity interventions in Cancer Survivors: What Works?</p> <ul style="list-style-type: none"> <li>- Kerry Courneya, University of Alberta</li> </ul> <p>Evidence from Diet and Weight Loss Studies for Cancer Survivors: What Works?</p> <ul style="list-style-type: none"> <li>- Cheryl Rock, UCSD</li> </ul> <p>Interventions in cancer survivors; issues and challenges in this population</p> <ul style="list-style-type: none"> <li>- Anne McTiernan, University of Washington</li> </ul> <p>When do we have enough evidence to intervene in cancer patients?</p> <ul style="list-style-type: none"> <li>- Patricia Ganz, UCLA</li> </ul> <p>10:30 am</p> <p>Panel Discussion</p> <p>Opening statements by:</p> <p>Kate Murphy, Fight Colorectal Cancer</p> <p>Diana Dyer, CancerRD.com</p> <p><b>Questions:</b></p> <p>When is there enough evidence to warrant intervention?</p> <p>What interventions are effective? What is the evidence?</p> <p>When is the teachable moment?</p> <p>What are the mechanics of intervention: Who, When, Where, How, and What</p> <p>Which interventions are likely to be the most cost-effective?</p> <p>What barriers stand in the way of broad dissemination on interventions?</p>
11:30 am	<b>Break - Get Lunch</b>

12:00 pm	<p><b>Session 5: Reactions and Panel Discussion</b>—What are the policy and research implications?</p> <p><b>Moderators:</b> Martin Murphy, CEO Roundtable on Cancer and Patricia Ganz, UCLA</p> <p>Lori Minasian, Division of Cancer Prevention, NCI  Linda Nebeling, Division of Cancer Control and Population Sciences, NCI  Jo Anne Zujewski, Division of Cancer Treatment and Diagnosis, NCI</p> <p>Ed Partridge, American Cancer Society and University of Alabama at Birmingham  Dean Brenner, American Society of Clinical Oncology and University of Michigan</p> <p><b>Questions:</b></p> <p>What are the research needs and goals to advance understanding of this topic?  What resources and infrastructures are needed to accomplish the research goals?  What is needed for effective interdisciplinary research in this area?  What policy changes do you suggest to reduce obesity-related cancer incidence and mortality?  What are the obstacles to implementing such policy changes? How could those obstacles be overcome?  How can we work with other medical fields to accomplish common goals?</p>
~1:00 pm	<p><b>Closing Remarks – Wendy Demark-Wahnefried</b></p> <p><b>Adjourn</b></p>