

**“THINK TANK”:  
MOLECULAR IMAGING OF PROSTATE CANCER:**

**Organized by AdMeTech,  
A Nonprofit Corporation for the Advancement of Medical Technologies**

***Sponsored by:  
Prostate Cancer Foundation and Cytogen***

**Chair:**  
Faina Shtern, MD, AdMeTech

**Steering Committee:**  
Howard Soule, Ph.D., Prostate Cancer Foundation  
William Goeckeler, Cytogen

***February 1-2, 2004***

**Sunday**  
**February 1, 2004**

8:00-8:10 am	<b>Introduction &amp; Statement of Purpose:</b> Faina Shtern, M.D., Chair Howard Soule, Ph.D., Co-Chair
8:10-8:30 am	<b>Keynote Address:</b> Prostate Cancer as a Systemic Disease William Nelson, M.D., John Hopkins University
8:30-8:50 am	<b>Molecular Imaging: Overview</b> Faina Shtern, M.D., Chair
8:50-9:10 am	<b>Molecular Imaging in Oncology:</b> Juri Gelovani, M.D., Ph.D., MD Anderson Cancer Center
9:10-9:25 am	<b>Confocal Microscopy as a Case Study</b> Charles Lin, Ph.D., Massachusetts General Hospital, Harvard Medical School
9:25-9:45 am	<b>Discussion</b>
9:45-10 am	<b>Coffee Break</b>

10 am	<b>MOLECULAR IMAGING</b> (Moderators: Alex Margulis, MD & Faina Shtern, MD)
<b><i>10 am – 11:20 am</i></b>	<b><u>PET &amp; NUCLEAR MEDICINE</u></b>
10:00-10:20 am	<b>PET and Nuclear Medicine -Emerging Technologies: Imaging the Phenotype of Human Prostate Cancer</b> Steven Larson, M.D., Memorial Sloan-Kettering Cancer Center
10:20-10:35 am	<b>Molecular Imaging with PET: Current &amp; Potential Research</b> Martin Pomper, M.D., Ph.D., John Hopkins University
10:35-10:50 am	<b>Molecular Imaging with Nuclear Medicine: Histological Confirmation of SPECT Images Fused with CT/MRI</b> Bruce Sodee, M.D., MetroHealth Medical Center
10:50 – 11:20 am:	<b>Discussion: Molecular Imaging with Nuclear Medicine/PET</b> (Speakers and Juri Gelovani)
11:20 am – 12:35 pm	<b><u>MRI/MRS</u></b>
11:20-11:35 am	<b>Current and Emerging Technologies in MRI:</b> Mitchell Schnall, M.D., Ph.D. University of Pennsylvania
11:35-11:50 am	<b>Magnetic Resonance Spectroscopy</b> Hedi Hricak, M.D., Ph.D., Memorial Sloan-Kettering Cancer Center
11:50-12:05 pm	<b>MRI with USPIO particles:</b> Mukesh Harisinghani, M.D., Massachusetts General Hospital, Harvard Medical School
12:05-12:35 pm	<b>Discussion: Molecular Imaging with MRI/MRS</b> (Speakers)
12:35-1:35 pm	<b>Working Lunch/General Discussion</b>
1:35 pm – 3:00 pm	<b><u>OPTICAL IMAGING:</u></b>
1:35-1:55 pm	<b>Overview: Current and Emerging Technologies</b> Rox Anderson, M.D. Massachusetts General Hospital Harvard Medical School
1:55-2:15 pm	<b>Potential Applications of Optical Technologies for management of Prostate Cancer</b> Irving Bigio, Ph.D. Boston University

- 2:15-2:30 pm **Optical Imaging of AR and MAPK Genetic Pathways in Prostate Cancer Xenografts**  
Michael Carey, Ph.D., University of California, Los Angeles
- 2:30-3:00 pm **Discussion: Molecular Imaging with Optical Technologies**
- 3:00-3:20 pm **COFFEE BREAK**
- 3:20 pm – 4:40 pm **ULTRASOUND& IMAGE-GUIDED INTERVENTIONS**
- 3:20-3:40 pm **Molecular Imaging of Prostate Cancer:  
Ultrasound Imaging**  
Barry Goldberg, M.D., Thomas Jefferson University
- 3:40-4:00 pm **Image-Guided Interventions in Oncology:  
The Prostate Perspective**  
Clare Tempany, MD, Brigham and Women's Hospital,  
Harvard Medical School
- 4:00-4:15 **Image-Guided Brachytherapy::  
Evaluating the Role of ProstaScint Monoclonal Antibody in  
Patient Selection and Treatment Planning**  
Rod Ellis, MD, Case Western
- 4:15-4:40 pm **Discussion**
- 4:40 pm** **MEDICAL ONCOLOGY PERSPECTIVE**  
Moderator: William Sellers
- 4:40-5:00 pm **Overview:**  
William R. Sellers, M.D., Dana Farber Cancer Institute
- 5:00-5:15 pm Andrew Kung, M.D., Dana Farber Cancer Institute
- 5:15-5:35 pm Eric Holland, Memorial Sloan Kettering Cancer Center
- 5:35-6:15 pm **Medical Oncology Panel Discussion  
(Speakers & William Nelson)**  
Each Speaker will Present His/Her Perspective on the Current  
Critical Clinical Needs and Potential Role of/Research  
Directions for Molecular Imaging
- 6:15–7:15 pm: **Molecular Imaging Panel Discussion  
(Molecular Imaging and Medical Oncology Speakers):**  
Each Speaker will Present His/Her Perspective on Potential Role  
of/Research Directions for Molecular Imaging
- 7:30 pm **Dinner**

**Monday**  
**February 2, 2004**

8:00-9:00 am

**PATHOLOGY PERSPECTIVE**

Moderators: Angelo DeMarzo, M.D. & Mark Rubin, M.D.

8:00- 8:20 am

**Overview:**

Angelo DeMarzo, M.D., Johns Hopkins University

8:20-8:40 am

Mark Rubin, M.D., Brigham & Women's Hospital, Harvard Medical School

8:40-9:00 am

**Pathology Panel Discussion:**

Each Speaker will Present His/Her Perspective on the Current Critical Clinical Needs and Potential Role of /Research Directions for Molecular Imaging

9:00 am-10:20 am

**UROLOGY PERSPECTIVE**

Moderators: Martin Sanda & Robert Uzzo

**9:00-9:20 am**

**Overview of the Local Disease Problem of Prostate Cancer:  
Avenues for Molecular Imaging to Advance Prostate Cancer  
Diagnosis and Watchful Waiting Management**

Martin Sanda, M.D., Beth Israel Deaconess Medical Center,  
Harvard Medical School

9:20-9:35 am

Robert Uzzo, M.D., Fox Chase Cancer Center

9:35-9:50 am

**Patients at Risk for Treatment Failure:  
Potential Role of Molecular Imaging in Treatment Planning  
and Customization**

James Brooks, Ph.D., Stanford University

9:50-10:20 am

**Urology Panel Discussion:**

Each Speaker will Present His/Her Perspective on the Current Critical Clinical Needs and Potential Role of/ Research Directions for Molecular Imaging

10:20-10:40 am

**Coffee Break**

10:40 AM

**RADIATION ONCOLOGY PERSPECTIVE**

10:40-11:00 am

**Overview:**

**Radiation Oncology Perspective on the Current Critical  
Clinical Needs and Related Potential Research Directions for  
Molecular Imaging**

Ted DeWeese, M.D., Johns Hopkins University

11:15-11:25 am:

**Discussion**

11:25 am –12:05 pm

**Industry Leadership Panel**

Moderators:

Howard Soule & Fay Shtern

Sudeep Chandra

Director, Imaging Sciences, Millenium

Richard Frank

Chief Clinical Scientist, GE Global Research Center

Ray Gibson

Imaging Department, Merck Research Laboratories

Peter Luyten

General Manager, Molecular Imaging, Philips

Mohammad Naraghi

Senior VP, Business Development, Siemens

12:05-12:30 pm

**COMMENTARY/HIGHLIGHTS:**

Don Coffey, Ph.D. John Hopkins University

12:30-3:00 pm

**Working Lunch/Development of the Recommendations for:**

**Future Research Agenda, Specific Projects, Structure and Function of the “Think Tank”; &**

**Topics and Speakers for the Public Conference**

- I. *Prostate Cancer Detection & Molecular Imaging Working Group\**:
  - A. Tissue Sampling
  - B. Biologic Aggressiveness:
    - Identification of Clinically Insignificant Disease?
    - Identification of Clinically Lethal Disease?
  - C. Local Staging
- II. *Local Treatment & Molecular Imaging Working Group\**:
  - A. Targeting of Localized Cancer:
    - Minimally Invasive Approaches with Minimal Side Effects
  - B. Local Outcome Assessment after Treatment
- III. *Systemic Therapy & Molecular Imaging Working Group\*<sup>1</sup>*:
  - A. Markers to Predict Drug Efficacy?

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\*Please see composition of each working group at the attachment Working Groups

B. Pharmacodynamic Markers to Measure  
Drug Effect In Vivo?  
C. Outcome Assessment

3:00-4:30 pm

**Presentations of the Recommendations for the Future  
Research Agenda & Potential Topics/Speakers for the Public  
Conference**

**Chairs:**

Faina Shtern, M.D.  
Howard Soule, Ph.D.

3:00-3:30 pm

**Prostate Cancer Detection & Molecular Imaging:**

Presentation: 3:10-3:20 pm  
Discussion: 3:20-3:30 pm

3:30-4:00 pm –

**Local Prostate Cancer Treatment & Molecular Imaging:**

Presentation: 3:30-3:40 pm  
Discussion: 3:40-4:00 pm

4:00-4:30 pm -

**Systemic Therapy & Molecular Imaging:**

Presentation: 4:00-4:10 pm  
Discussion: 4:10-4:30 pm

4:30 pm

**MEETING SUMMARY**

**Chairs:**

Faina Shtern  
Howard Soule

5:00 pm

**Adjourn**

12:15–3:00 pm

**WORKING GROUPS**

***PROSTATE CANCER DETECTION & MOLECULAR IMAGING***

**Leaders:** Martin Sanda, Angelo DeMarzo & Irv Bigio

Angelo DeMarzo  
Martin Sanda  
Steven Larson  
Barry Goldberg  
Irving Bigio  
Mitchell Schnall  
Don Coffey  
Eric Holland  
William Nelson  
Peter Luyten

***LOCAL PROSTATE CANCER TREATMENT & MOLECULAR IMAGING:***

**Leaders:** Ted DeWeese & Robert Uzzo

Ted DeWeese  
Charles Lin  
Jim Brooks  
Robert Uzzo  
Michael Carey  
Bruce Sodee  
Eric Holland  
Rod Ellis  
Hedi Hricak  
Richard Frank  
Arne Hernenger

***SYSTEMIC THERAPY & MOLECULAR IMAGING:***

**Leaders:** Martin Pomper, Juri Gelovani & William Sellers

William Sellers  
Mark Rubin, M.D.  
Martin Pomper, M.D.  
Juri Gelovani, M.D., Ph.D.  
Sudeep.Chandra  
Andrew Kung