Symposia on Cancer Research 2017

Cancer Metabolism
October 5-6, 2017

The University of Texas MD Anderson Cancer Center
R. Lee Clark Clinic
Floor 11
1515 Holcombe Boulevard
Houston, Texas

Symposia Co-Chairs:
Sharon Y. R. Dent, PhD
Giulio Draetta, MD, PhD
Gordon B. Mills, MD, PhD
David R. Piwnica-Worms, MD, PhD

For more information, please call the Department of CME/Conference Management at 713-792-2223 or visit our website at www.mdanderson.org/conferences
Metabolomic studies seek to identify the molecular and chemical footprints of cells that reflect cellular exposures and responses to changing physiological environments. Quantitative assessments of metabolic substrates and products, lipids, vitamins, and cofactors provide information about the nutritional and oxidative state of a cell. Metabolic changes are emerging as hallmarks of cancer that can be exploited as biomarkers and employed as a reporter of cancer grades and severity. The symposia will discuss molecular and cellular changes that occur in metabolism, how the microenvironment and stromal tissue can directly affect metabolism, how the metabolic environment around a lesion can directly affect treatment response, and ways metabolism can be exploited for therapy and for direct in vivo imaging in cancer systems. In addition, recent advances in understanding how metabolism can directly affect oncogenesis, such as in the context of oncometabolites and reductive carboxylation, will be discussed.

Keynote speakers are Naveep S. Chandel, PhD (Northwestern University) and Kevin F. Brindle, PhD (University of Cambridge). In addition, Craig B. Thompson, MD (Memorial Sloan Kettering Cancer Center) will receive the Ernst W. Bertner Memorial Award and Chi V. Dang, MD, PhD (University of Pennsylvania) will receive the Heath Memorial Award. There will also be a poster session for participants to represent their findings. The symposia begins Thursday morning and will end Friday afternoon.
Target Audience

The program will be of broad interest to scientists, physician-scientists, scientists-in-training, physicians, physicians-in-training, students, nurses, and fellows interested in hearing the latest methodologies to study tumor metabolism, microenvironment, and bioenergetics, and how data emerging from this research are impacting translational research, metabolic imaging, and personalized medicine.

Educational Objectives

After attending the Symposia, participants should be able to:

1. Defining metabolic changes that occur in cancer cells and in their microenvironment, as well as mechanistic interplay between cell signaling, metabolism and bioenergetics;
2. Demonstration of emerging imaging technologies that allow observation of metabolic changes in vivo and translation to the clinic;
3. Understanding how metabolic changes can directly affect cancer oncogenesis.

Educational Methods

Lectures • Question-and-Answer Sessions • Panel Discussions • Posters

Call for Abstracts

Abstracts may be submitted for the Poster Session and must be received no later than August 4, 2017. Please submit to Research2017@mdanderson.org.

Trainees (undergraduate, graduate, medical students, or postdoctoral fellows) submitting abstracts for the symposia may request to be considered for an oral presentation, Poster Award, and lunch with speakers by checking the appropriate box on the registration form. Abstracts will be judged by the organizing committee, and the 2 top abstracts will be chosen to give an 8 minute/2 minute Q & A oral presentation.
Should you have difficulty with the submission, call the Department of CME/Conference Management at 713-745-5000 for guidance. Participants will be notified of their posters’ acceptance by mail or e-mail by August 25, 2017. Please indicate the person to whom correspondence should be sent if other than the first author and include an address, telephone number, fax number, and e-mail address (if available) when submitting the abstract. Registration for the symposium must be submitted at the same time as the abstract. Please register at www.mdanderson.org/conferences.

**Young Investigator Travel Fellowship Awards**

A limited number of travel fellowships will be available to graduate and medical students, postdoctoral fellows, and physicians in training. Only those applicants who submit abstracts will be considered for an award, which is intended to offset some of the expenses incurred by the recipient in connection with attending the symposium. Anyone wishing to apply for a travel fellowship should check the appropriate box on the registration form and attach a letter of recommendation. This letter should be on official letterhead, be signed by the dean or department head, and contain the following information about the applicant (due by August 4, 2017):

1. academic status
2. research activities in the subject area of the meeting
3. citations of recent articles in this subject area published in peer-reviewed journals
Registration will open at 7:00 a.m. on Thursday, October 5, 2017.

Thursday, October 5, 2017

8:00 a.m.  
**Symposia Opening and Welcome**  
Helen Piwnica-Worms, PhD

8:15  
**Keynote Lecture**  
Introduction:  
Helen Piwnica-Worms, PhD

**Mitochondrial Regulation of Cancer and Immunity**  
Naveep S. Chandel, PhD  
Northwestern University  
Chicago, Illinois

**SESSION I: METABOLISM AND TUMOR MICROENVIRONMENT**

Session Chair: Valerie LeBleu, PhD

9:15  
**Introduction**  
Valerie LeBleu, PhD

9:20  
**Fueling T cells in Inflammation and Cancer**  
Jeffrey C. Rathmell, PhD  
Vanderbilt University Medical Center  
Nashville, Tennessee

9:50 Break

10:05  
**Identifying Metabolic Dependencies in Pancreatic Cancer**  
Alec C. Kimmelman, MD, PhD  
Perlmutter Cancer Center, NYU Langone Medical Center  
New York, New York

10:35  
**mTOR Signaling and Metabolic Control of T cell Fate Decisions**  
Hongbo Chi, PhD  
St. Jude Children’s Research Hospital  
Memphis, Tennessee
Thursday, October 5, 2017 (continued)

SESSION II: TRANSLATIONAL AND IMAGING
Session Chair: Pratip K. Bhattacharya, PhD

11:05  Introduction
Pratip K. Bhattacharya, PhD

11:10  PI3K and Cancer Metabolism
Lewis C. Cantley, PhD
Weill Cornell Medicine
New York, New York

11:40  Assessing Tumor Metabolism in vivo
Ralph J. Deberardinis, MD, PhD
University of Texas – Southwestern Medical Center
Dallas, Texas

12:10 p.m.  Imaging Cancer Heterogeneity and Therapy Failure
Erik Sahai, PhD
The Francis Crick Institute
London, United Kingdom

12:40  Lunch/Poster Session

SESSION II: BIOENERGETICS
Session Chair: Joya Chandra, PhD

2:10  Introduction
Joya Chandra, PhD

2:15  Mitochondrial Parts, Pathways, and Pathogenesis
Vamsi K. Mootha, MD
Harvard Medical School
Boston, Massachusetts

2:45  Effects of Weight Loss and Exercise on Cancer Biomarkers
Anne McTiernan, MD, PhD
Fred Hutchinson Cancer Research Center
Seattle, Washington

3:15  Preservation of Lean Mass in Cancer Patients
Cynthia A. Thomson, PhD, RD
The University of Arizona Cancer Center
Tucson, Arizona
Thursday, October 5, 2017 (continued)

3:30 Abstract Oral Presentation

3:45 Break

4:00 Ernst W. Bertner Award Lecture and Presentation
Introduction: Sharon Y. R. Dent, PhD

How Cancer Cells Decide What to Eat?
Craig B. Thompson, MD
Memorial Sloan Kettering Cancer Center
New York, New York

5:00 Adjourn

Friday, October 6, 2017

9:00 a.m.

Keynote Lecture
Introduction: David R. Piwnica-Worms, MD, PhD

Imaging Tumor Metabolism With Hyperpolarized 13C-Labeled Cell Substrates
Kevin F. Brindle, DPHIL
University of Cambridge
Cambridge, United Kingdom

SESSION IV: CANCER SIGNALING AND METABOLISM
Session Chair: Xiaobing Shi, PhD

10:00 Introduction
Xiaobing Shi, PhD

10:05 Metabolism, Epigenetics, and Tumorigenesis
Kathryn E. Wellen, PhD
The University of Pennsylvania, Perelman School of Medicine
Philadelphia, Pennsylvania

10:35 Break

10:55 AMPK Pathway: Metabolic Rewiring and Therapeutic Windows
Reuben J. Shaw, PhD
The Salk Institute for Biological Studies
Philadelphia, Pennsylvania
Friday, October 6, 2017 (continued)

11:25  Oncometabolic Outcomes and Metabolic Vulnerabilities in TCA-truncated Tumors
       Eyal Gottlieb, PhD
       Israel Institute of Technology
       Haifa, Israel

11:40  Oral Abstract Presentation

11:55  Lunch
       Trainee Luncheon (by invite only)

1:00 p.m.  Wilson Stone Award Presentation and Lecture
           Introduction: Margarida Almeida Santos, PhD

1:45  Heath Award Lecture and Presentation
       Introduction: Gordon B. Mills, MD, PhD

       MYC and Metabolic Vulnerabilities of Cancer
       Chi V. Dang, MD, PhD
       University of Pennsylvania
       Philadelphia, Pennsylvania

2:45  Closing Remarks
       Giulio Draetta, MD, PhD

3:00  Adjourn

Agendas are subject to change because we are always striving to improve the quality of your educational experience. MD Anderson may substitute faculty with comparable expertise on rare occasions necessitated by illness, scheduling conflicts, and so forth.

Photographing, audiotaping and videotaping are prohibited.
Registration Information

On-site registration opens at 7:00 a.m., Thursday, October 5, 2017. The opening session will begin at 8:00 a.m. on October 5, and the symposium will adjourn at 3:00 p.m. on Friday, October 6, 2017. Advance registration is encouraged as space and materials are limited. Please see registration form for applicable fees. The deadline for advance registration is September 22, 2017.

There are three ways to register:
1. On-line at www.mdanderson.org/conferences
2. Fax to 713-794-1724
3. Mail to: Department of CME/Conference Management – Unit 1781, The University of Texas MD Anderson Cancer Center, P. O. Box 301407, Houston, Texas 77230-1407.

We accept the following forms of payment:
1. Check (payable through U.S. banks only)
2. Money Order
3. Credit Cards (MasterCard, VISA, and American Express)
4. Cash (on-site registration)

When registering on-line a receipt/confirmation letter will be automatically e-mailed to the e-mail address you listed on the registration form. If you register by fax or mail, a receipt/confirmation letter will be sent to you within ten working days of receipt of your fee.

The full symposium registration fee includes the tuition, breaks, lunches, and reception. The student registration fee includes all of the above except lunches. Students wishing to participate in the lunches must pay an additional fee of $24.00.

Students: A reduced registration fee has been established for full-time students and physicians-in-training (interns, residents, and fellows). All students claiming this reduced fee are required to submit a letter of introduction from the chairperson of their department with their registration form.

MD Anderson Alumni: Alumni is defined as any faculty member (research or clinical) who has worked at MD Anderson and has retired or resigned, or any educational trainee who has trained at MD Anderson.

Refund /Cancellation Policy: The registration fee, minus a $50 administrative handling fee, is refundable if a written request is received on or before September 22, 2017. No refunds will be granted after that date. The request for a registration refund must include the tax identification number of the company or institution if registration was paid by a company or institution check. For additional information, contact CME/Conference Management at 713-792-2223 or toll free at 866-849-5866.

The Department of CME/Conference Management reserves the right to cancel activities prior to the scheduled date, if low enrollment or other circumstances make it necessary. Each registrant will be notified by mail, e-mail, or the contact numbers as given on the registration form. In case of activity cancellation, liability of the Department of CME/Conference Management is limited to the registration fee. CME/Conference Management will refund the full registration fee.
The Department of CME/Conference Management has the right to limit the number of participants in a program and is not responsible for any expenses incurred by an individual whose registration is not confirmed and for whom space is not available.

For additional information, contact the Office of CME/Conference Management at 713-792-2223 or 866-849-5866.

**Special Assistance**

Contact the Department of CME/Conference Management at 713-792-2223 or 866-849-5866 if you have any special dietary or ADA accommodation needs.

**Accommodations**

- A block of rooms has been reserved for symposia attendees at the Hotel ZaZa, 5701 Main Street, Houston, Texas.
- Early hotel reservation is suggested.
- The hotel phone number is 713-526-1991.
- When you make reservations be sure to mention **MD Anderson’s Research Symposia** to be assured of receiving the special meeting rate of $219.00 single or double occupancy.
- Please add 17% Texas state and local taxes.
- Reservations and deposits received after September 4, 2017, will be confirmed if space is available and at current hotel published guest room rates.

**Ground Transportation**

- Houston is served by two airports, George Bush Intercontinental (IAH) and William P. Hobby (HOU).
- Taxicabs are available at an estimated cost of $40-60, to or from William P. Hobby Airport or George Bush Intercontinental Airport.
- Super Shuttle operates a shuttle bus between George Bush Intercontinental Airport and the Hotel ZaZa for $23 one-way and $42 round-trip. For more information, call 713-523-8888 or toll-free at 800-258-3826 or on-line at www.supershuttle.com.
- Super Shuttle operates a shuttle bus between William P. Hobby Airport and the Hotel ZaZa for $18 one-way and $32 round-trip. For more information, call 713-523-8888 or toll-free at 888-258-3826 or on-line at www.supershuttle.com.

Please let us know what specific topics, issues or questions you wish to see addressed or emphasized in this activity. Fax or e-mail CME/Conference Management. All responses will be forwarded to the Program Chairs for consideration.
**Symposia on Cancer Research 2017**

**Cancer Metabolism – October 5-6, 2017**

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**THIS IS NOT A SELF-MAILER. Address to:**

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PO Box 301407, Houston, TX 77230-1407  
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Make check or money order payable to:  
The University of Texas MD Anderson Cancer Center

**Full Symposia Registration Fee**

- Before September 22, 2017: $300.00
- After September 22, 2017: $375.00

**One Day Registration Fee**

- Fri: $105.00
- Sat: $135.00

**MD Anderson Alumni**

- Before September 22, 2017: $225.00
- After September 22, 2017: $280.00

**Student Registration Fee**

- Before September 22, 2017: $100.00; Lunch Fee: $24
- After September 22, 2017: $125.00; Lunch Fee: $30

**MD Anderson Faculty, Staff, Trainees (Exempt)**

- Faculty: $0.00
- Student: $0.00
- Trainee: $0.00
- Fellow: $0.00
- Other: $0.00

- Before September 22, 2017: Lunch Fee: $24
- After September 22, 2017: Lunch Fee: $30

**Travel Fellowship Applicant**

- I wish to be considered for an oral abstract presentation.