1ST INTERNATIONAL CONFERENCE ON

Polyploid Giant Cancer Cells: Biology and Clinical Applications

Conference Chair: Jinsong Liu, MD, PhD
Co-Chair: Donna E. Hansel, MD, PhD

Friday, Feb. 16 - Saturday, Feb. 17, 2024

The University of Texas MD Anderson Cancer Center
The Duncan Building (CPB) Floor 8
1155 Pressler St.
Houston, Texas 77030

This international conference aims to gather cancer scientists, pathologists, clinicians, and experts specializing in Diagnostic Pathology and Cancer Biology in this burgeoning field to discuss current insights and disseminate innovative ideas. Together, we aspire to reinterpret this age-old phenomenon, translate groundbreaking findings into clinical practice, and ultimately, save lives from cancer.

The conference will serve as a pivotal platform to facilitate the translation of cutting-edge discoveries into effective clinical practices. This crucial step ensures that the latest scientific research is promptly and effectively applied to enable accurate diagnosis, advance personalized treatment strategies, and provide compassionate care to cancer patients. Join us as we collaborate and pave the way for advancements that revolutionize cancer management and enhance patient outcomes.

For more information, please call Continuing Professional Education (CPE) at 713-792-2223 or visit our website here.

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

Educational Objectives

After attending the conference, participants should be able to:

- Describe how PGCCs relate to both embryogenesis and cancer progression.
- Evaluate the potential of PGCCs in early cancer detection, diagnosis, and therapy resistance.
- Investigate and learn brand-new concepts about this emerging field of cancer biology.

Topics include:

- PGCCs in Two-Phased Evolution: How Transitional Supersystems Emerge from Information Self-Creation
- Using Model Organisms to Define the Effects of Unscheduled Polyploidy on Tissue and Tumor Growth
- Exploring PGCCs Emerging Role in Cytomegalovirus Infection
- Macrophage-Tumor Cell Fusion: Impact on Tumor Progression, Early Detection, and Measure of Treatment
- Historic aspects of PGCCs
- Holistic View of Human Tumor Origin and Resistance on the Organismal Level

Target Audience:

Specialties - Medical Oncology, Pathology, Pathology - Anatomic, Radiation Oncology
Professions - Other, Physician/Scientist (MD, PhD), Cancer Scientists, Student or Trainee

Accreditation Designation

In support of improving patient care, The University of Texas MD Anderson Cancer Center is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Designation

The University of Texas MD Anderson Cancer Center designates this live activity for a maximum of 11.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Evaluation:

A course evaluation tool will provide participants with the opportunity to comment on the value of the program content to their practice decisions, performance improvement activities, or possible impact on patient health status. Participants will also have the opportunity to comment on any perceived commercial bias in the presentations as well as to identify future educational topics. The survey link will be provided during the review course.

For additional information or Special Assistance, contact CPE at 713-792-2223 or toll free at 866-849-5866 or via e-mail: ContinuingEducation@mdanderson.org.

Disclosure of Financial Relationships:

The University of Texas MD Anderson Cancer Center adheres to the ACCME's Standards for Integrity and Independence in Accredited Continuing Education. Any individuals in a position to control the content of a CE activity, including faculty, planners, reviewers or others are required to disclose all financial relationships with ineligible companies (commercial interests). All relevant conflicts of interest have been mitigated prior to the commencement of the activity.

Course Directors

Jinsong Liu, MD - Conference Chair
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Department of Anatomical Pathology MD Anderson Cancer Center

Donna E. Hansel, MD, PhD - Conference Co-Chair
Professor and Division Head
Division of Pathology and Laboratory Medicine MD Anderson Cancer Center

Planning Committee Members

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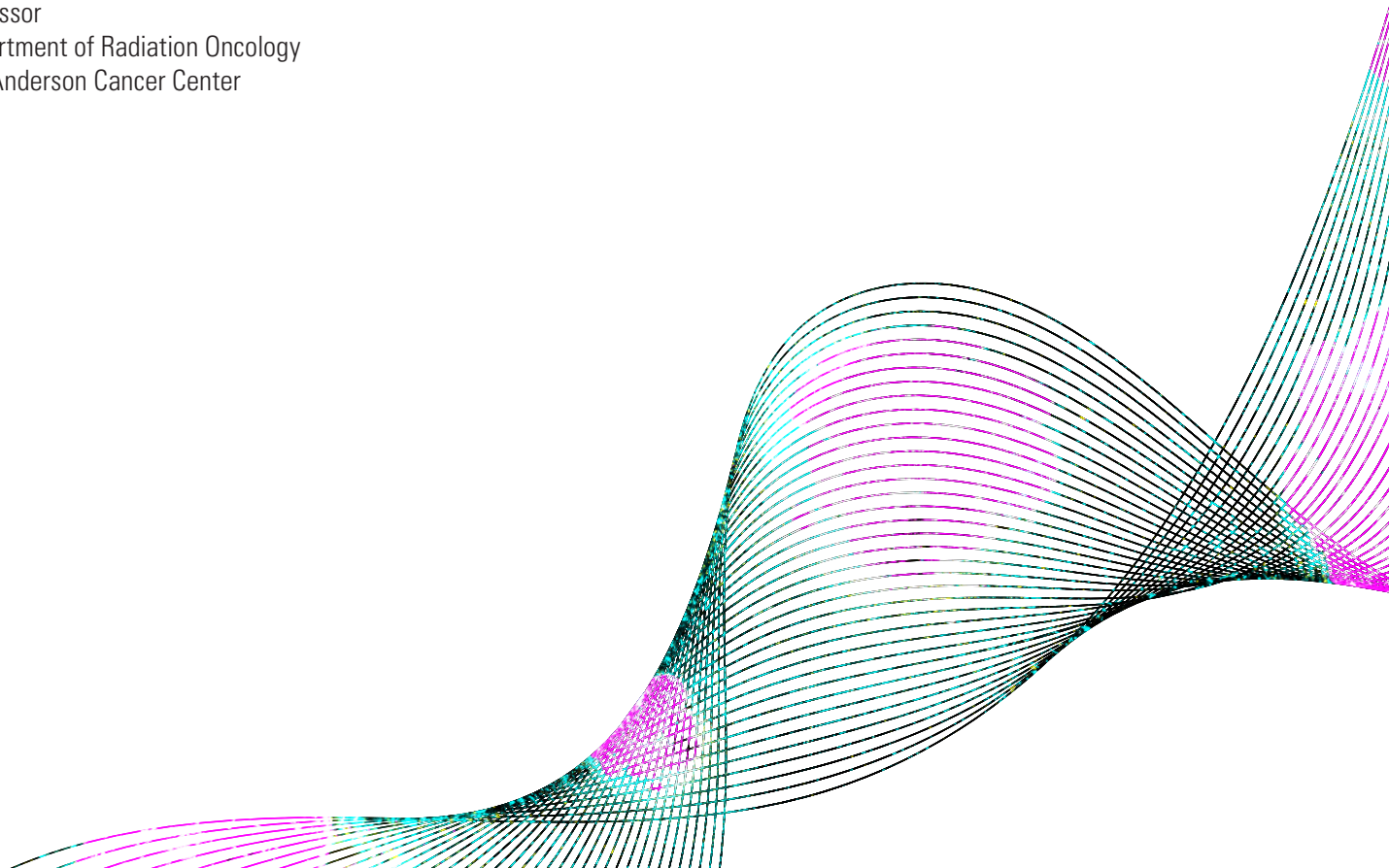

Faculty/Speakers

MD Anderson Faculty/Speakers

Giulio Draetta, MD, PhD
SrVP, Chief Scientific Officer
SVP, CSO Office

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Professor and Division Head
Division of Pathology and Laboratory Medicine

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Nick Navin, MD
Professor
Department of Genetics

Guest Faculty/Speakers

Brian Calvi, PhD
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Department of Biology
Indiana University

Michelle Dawson, PhD
Assistant Professor
Department of Molecular Biology, Cell Biology, and Biochemistry
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Tulane University

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Columbia University

Christina Voelkel-Johnson, PhD
Associate Professor
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Melissa Wong, PhD
Vice Chair & Professor
Cell, Developmental & Cancer Biology Oregon Health & Science University

Abstract Presenters

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Clinical Fellow - Student
The Francis Crick Institute

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Assistant Professor
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Mike Xu, PhD
Professor
Radiation Oncology
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Moderators

Robert Bast, BA, MD

Sujuan Ba, PhD

Donna Hansel, MD, PhD

Henry Heng, PhD

Phillip Jones, PhD

Perry Marshall, BS

Subrata Sen, BS, MS, PhD

Anil Sood, MD

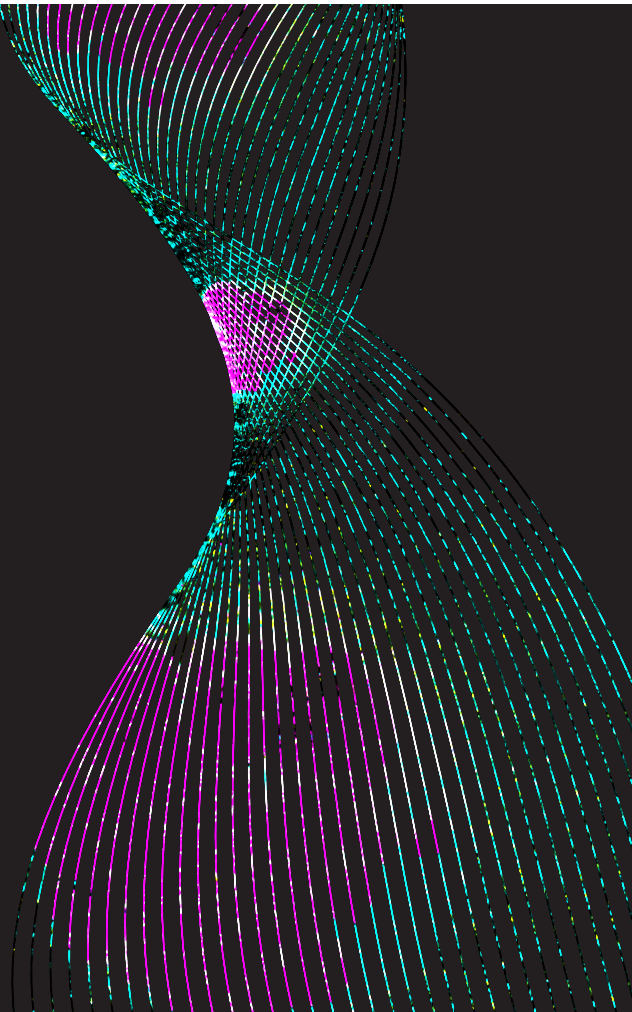
Dean Tang, MD, PhD

M. James You, MD, PhD

Dihua Yu, MD, PhD

Tao Wu, PhD

Rugang Zhang, PhD



Day 1 - Friday, February 16, 2024		
Time	**Event**	**Speaker(s)**
8:00 - 9:30 am	Registration/Breakfast	
9:30 - 9:40 am	Opening and Welcome Remarks	**Donna Hansel, MD, PhD and Giulio Draetta, MD, PhD**
9:40 - 10:00 am	**Overview of PGCC Conference: Birth of New Field of Cancer Research**	**Jinsong Liu, MD, PhD**
10:00 – 10:20 am	**PGCCs: Historic Aspects and Pathologic Observation**	**Donna Hansel, MD, PhD**
10:20 – 10:45 am	**Session 1: Cancer Evolution** Moderators: Henry Heng, PhD Perry Marshall, BS	**Henry Heng, PhD** PGCCs in Two-Phased Evolution: How Transitional Supersystems Emerge from Information Self-Creation Under Crisis
10:45 – 11:10 am		**Nick Navin, MD** Punctuated Chromosome Evolution in Breast Cancer and Beyond
11:10 – 11:35 am		**Jekaterina Erenpreisa, MD** Cancer Attractors in Evolution of Human Genome
11:35 – 11:50 am		**Amy Bowes, MD** Profiling the Genomic Landscape of Polyploid Giant Cancer Cells in Sarcomas: Hopeful Monsters or an Evolutionary Dead End?
11:50 - 12:05 pm		**Funan He, PhD** Genomic Instability Shapes Whole-Genome Doubling in Cancer Evolution
12:05 - 1:30 pm	Lunch/ Poster Session	
1:30 – 1:55 pm	**Session 2: Models for PGCCs** Moderator: Subrata Sen, PhD	**Wu-Min Deng, PhD** Polyploidy in Drosophila Tumor Models
1:55 – 2:20 pm		**Brian Calvi, PhD** Using Model Organisms to Define the Effects of Unscheduled Polyploidy on Tissue and Tumor Growth
2:20 - 2:45 pm		**Jian Hu, PhD** Defective Lipid Metabolism Drives Genomic Instability in Glioblastoma
2:45 - 3:00 pm	Break	
3:00 – 3:25 pm	**Session 3: Cell transformation** Moderators: Dihua Yu, MD, PhD Tao Wu, PhD	**George Herbein, MD** Exploring PGCCs Emerging Role in Cytomegalovirus Infection
3:25 – 3:50 pm		**Stavroula Kousteni, PhD** PGCCs in Leukemia Transformation
3:50 - 4:05 pm		**Xiaoran Li, PhD** The Fecundity Structure of Polyploid Giant Cancer Cells: The Discovery, Biological Properties, and its Implication in Disease
4:05 - 4:20 pm	Break	

Day 1 - Friday, February 16, 2024		
4:20 -5:10 pm	**Chair's Lecture** Moderator: Donna Hansel, MD, PhD Dean Tang, MD, PhD	**Jinsong Liu, MD, PhD** Life Cycle of PGCCs: Toward a Unified Understanding of Embryogenesis, Tumorigenesis, and Therapeutic Resistance on the Organismal Level
5:10 – 5:40 pm	Group Photo and break	
5:40 – 8:00 pm	Welcome Reception and Dinner	All speakers and attendees

Day 2 - Saturday, February 17, 2024		
Time	**Event**	**Speaker(s)**
7:30 - 8:30 am	Breakfast	
8:30 – 8:55 am	**Session 4:** **The Emergence of Resistance** Moderators: Anil Sood, MD M. James You, PhD	**Michelle Dawson, PhD** Physical and Metabolic Aspects of Therapy Induced Senescence and Polyploidy in an Evolving Tumor Microenvironment
8:55 – 9:20 am		**Kenneth Pienta, MD** The Endocycling Cancer Cell State Mediates Cancer Lethality
9:20 – 9:45 am		**James Jackson, PhD** The Phagocytic Phenotype of Tumor Cells Made Senescent by Chemotherapy
9:45 – 10:00 am		**Tao Wu, PhD** Retrotransposable Elements Mediate the Drug-Tolerant Persistence in Chemo-Treatment
10:00 - 10:15 am		**Bruno Sainz, Jr. PhD** Genotoxic Resistance in Pancreatic Ductal Adenocarcinoma is Driven by a Programmed Process Combining Polyploidism, Senescence and Stemness
10:20 - 10:35 am	Break	
10:35 – 11:00 am	**Session 5:** **Novel Targets for Therapy** Moderators: Rugang Zhang, PhD Azra Raza, MD, PhD	**Azra Raza, MD** Polyploid Giant Cancer Cells in Hematologic Malignancies as Potential Therapeutic Targets
11:00 – 11:25 am		**Christina Voelkel-Johnson, PhD** Potential Therapeutic Strategies to Interfere with Stress-Induced Polyploidization and Depolyploidization
11:25 – 11:40 am		**Mike Xu, PhD** Nuclear Envelope Alterations in Carcinogenesis and Chemo-Resistance
11:40 – 11:55 am		**Vural Tagal, PhD** Characterizing, Targeting and In-Silico Modeling Polyploid Giant Cancer Cells (PGCCs) in Lung and Breast Cancers
11:55 - 12:10 pm		**Yu-Chih Chen, PhD** Discovering Inhibitors of Polyploid Giant Breast Cancer Cells Using Single-Cell Morphological and Transcriptome Analysis

Day 2 - Saturday, February 17, 2024		
12:10- 1:15 pm	Lunch	
1:15 – 1:40 pm	**Session 6:** **Polyploid-Macrophage Fusion in Early Detection, Metastasis, and Prognosis** Moderators: Robert C. Bast, MD Elizabeth Hansel, MD, PhD	**Melissa Wong, PhD** Macrophage-Tumor Cell Fusion: Impact on Tumor Progression, Early Detection, and Measure of Treatment Response
1:40 – 2:05 pm		**Steven Lin, MD, PhD** Diagnostic and Prognostic Value of Circulating Cancer Associated Macrophages like Cells in Lung Cancer
2:05 – 2:30 pm		**Daniel J. Gironda** Hypertrophy of Polyploid Cancer Associated Macrophage-Like Cells in Circulation Correlates with Multi-Organ Metastatic Spread in Human Solid Tumors
2:30 – 3:30 pm	**Open Discussion and Future of PGCCs** Moderators: Sujuan Ba, PhD Philip Jones, PhD	**Panelists: Henry Heng, Brian Calvi, Georges Herbein, Azra Raza, Michelle Dawson, Melisa Wong, Jinsong Liu** 1. Conceptual Revolution in Cancer Research 2. Platform to Identify Anti-PGCCs Drugs 3. Clinical Trials with Anti-PGCCs Agents 4. Early Detection and Prognosis Other topics to be determined
3:30 - 3:35 pm	Closing Remarks	Jinsong Liu, MD, PhD and Donna Hansel, MD, PhD

Registration Category Fee:

Registration Category	Advanced Registration Fee (Before Jan. 16, 2024)	Late Registration Fee (After Jan. 16, 2024)
Physicians/Scientist (MD, PhD)	$100.00	$150.00
Students/Trainees	$25.00	$25.00
Healthcare Providers	$80.00	$99.00

We accept the following forms of payment:

- Credit Cards (MasterCard, VISA, and American Express)
- Check (Payable to The University of Texas MD Anderson Cancer Center; through U.S. banks only)

Mail checks to:

Continuing Professional Education – Unit 1781
The University of Texas MD Anderson Cancer Center
P.O. Box 301407
Houston, Texas 77230-1407

When registering online a receipt (confirmation letter) will be automatically emailed to the e-mail address you list on the registration form. Telephone registrations are not accepted.

Special Assistance:

Contact Continuing Professional Education / Activity Management at 713-792-2223 or 866-849-5866.
You may also email CPE at register@mdanderson.org.

Refund/Cancellation Policy:

The registration fee, minus a $25 administration-handling fee, is refundable if a written request is received on or before February 2, 2024. No refunds will be granted after these dates. 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.

Continuing Professional Education (CPE), 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 at the phone or fax numbers given on the registration form. In case of activity cancellation, the liability of the CPE is limited to the registration fee. CPE will refund the full registration fee.

CPE reserves the right to limit the number of participants in an activity and is not responsible for any expenses incurred by an individual whose registration is not confirmed and for whom space is not available.

Ground Transportation:

Houston is served by two airports, George Bush Intercontinental (IAH) and William P. Hobby (HOU). The following ground transportations are available to and from the airports to the Medical Center.

- Uber and Lyft
- Taxicabs: Yellow Cab 713-236-1111; Fiesta Cab 713-225-2666.
- Super Shuttle: For more information, call toll free at 800-258-3826, or online at www.supershuttle.com.