

**9<sup>th</sup> Mayo Clinic Symposium on Tumor Microenvironment  
and Immuno-Oncology Crosstalk:  
From Translational Research to Precision Therapy: Integration of Novel Technologies**

**December 9th -11th, 2022  
Omni Amelia Island Resort, Florida**

**Friday, December 9, 2022**

7:00 a.m. Continental Breakfast and Registration

**8:00 a.m. Section I: Welcome and Introduction**  
*Cheryl L. Willman, M.D., Director, Mayo Clinic Comprehensive Cancer Center*  
*Tushar Patel, M.D., Mayo Clinic Jacksonville*  
*Asher Chanan-Khan, M.D., Mayo Clinic Jacksonville*

8:10 a.m. Pre-Plenary Assessment Utilizing Audience Response  
*Dev Mukhopadhyay, Ph.D., Mayo Clinic Jacksonville*

**8:20 a.m. Section II: Tumor Microenvironment crosstalk and cancer stemness**  
*Chair: Panagiotis Z. Anastasiadis, Ph.D., Mayo Clinic Jacksonville*

8:30 a.m. Glioblastoma microenvironment and stem cells  
*Alfredo Quiñones-Hinojosa, M.D., Mayo Clinic Jacksonville*

8:50 a.m. Discussion

8:55 a.m. Title TBA  
*Stuart Grossman, M.D., Johns Hopkins Hospital*

9:15 a.m. Discussion

9:20 a.m. The critical role of m6A RNA methylation in cancer cell-brain microenvironment interaction and brain metastasis  
*Susan Huang, Ph.D., Virginia Commonwealth University*

9:40 a.m. Discussion

9:45 a.m. The Role of Brain Tumor Stem Cells in Tumor Angiogenesis  
*Jeremy Rich, Ph.D., Cleveland Clinic*

10:05 a.m. Discussion

10:10 a.m. Title TBA  
*Steven Rosenfeld, M.D., Ph.D. Mayo Clinic Jacksonville*

10:30 a.m. Discussion

**10:35 a.m. Coffee Break**

**11:05 a.m. Section III: Microenvironment and diseases**  
*Chair: Mahadev Rao, Ph.D., Manipal College of Pharmaceutical Sciences, India*

11:15 a.m. Pancreatic cancer tumor microenvironment  
*Peter Storz, Ph.D., Mayo Clinic Jacksonville*

11:35 a.m. Discussion

11:40 a.m. Targeting Cancer novel drugs  
*Jack Arbiser, M.D., Ph.D., Emory University School of Medicine*

12:00 p.m. Discussion

**12:05 p.m. Lunch**

**1:05 p.m. Section IV: Molecular basis of human diseases**  
*Chair: Prasanna Paulmurgan, Ph.D., Tata Memorial Centre, India*

1:15 p.m. Microenvironment and cell signaling and immunity  
*Dan Billadeau, Ph.D., Mayo Clinic Rochester*

1:35 p.m. Discussion

1:40 p.m. Title TBA  
*Resham Bhattacharya, Ph.D., University of Oklahoma*

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2:00 p.m.	Discussion
2:05 p.m.	Title TBA <i>Ramasamy Paulmurgan, Ph.D, Stanford University</i>
2:25 p.m.	Discussion
2:30 p.m.	Short Talk (From Abstract)
2:40p.m.	Short Talk (From Abstract)
<b>2:50 p.m.</b>	<b>Coffee Break</b>
<b>3:15 p.m.</b>	<b>Section V: Microenvironment and Cell Signaling</b> <i>Chair: Vivek Rangnekar, Ph.D.</i>
3:25 p.m.	Cilia as a biomarker of vascular health <i>Ramani Ramchandran, Ph.D., Medical College of Wisconsin</i>
3:45 p.m.	Discussion
3:50 p.m.	Tris DBA Palladium: A Mechanism Based Antiangiogenic and Antitumor Agent <i>Gangjian Qin, M.D., The University of Alabama</i>
4:10 p.m.	Discussion
4:15 p.m.	Title TBA <i>Y. Eugene Chen, M.D., Ph.D., University of Michigan</i>
4:35 p.m.	Discussion
<b>4:40 p.m.</b>	<b>Section VI: Martin and Winifred Ehlers Lectureship</b> <i>Chair: Jennifer J. Westendorf, Ph.D., Mayo Clinic Rochester</i>
4:50 p.m.	Leveraging the Natural Cellular and Biomolecular Interactions in Blood for the Design of Targeted, Anti-Inflammatory Particle Therapeutics <i>Omolola (Lola) Eniola-Adefeso, Ph.D, University of Michigan</i>
5:15 p.m.	Discussion
<b>5:25 p.m.</b>	<b>Section VII: Poster Sessions/Reception</b>

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**Saturday, December 10, 2022**

- 8:00 a.m.**      **Section VIII: Joseph Austin McCartney and Ruth McCartney Hauck Named Visiting Professorship Lecture**  
*Chair: Cheryl L. Willman, M.D., Director, MCCC*
- 8:10 a.m.      Title TBA  
*William G. Kaelin M.D., Harvard Medical School and the Dana-Farber Cancer Institute*
- 8:45 a.m.      Discussion
- 8:55 a.m.**      **Section IX: Microenvironment and growth factors**  
*Chair: Radisky, Derek C., Ph.D., Mayo Clinic Jacksonville*
- 9:15 a.m.      A dual role of lymphatic vessels in cancer progression and tumor immunity  
*Michael Detmar, M.D., Swiss Federal Institute of Technology*
- 9:35 a.m.      Discussion
- 9:40 a.m.      Forkhead (Fox) Transcription Factors in Vascular Formation  
*Tsutomu Kume, Ph.D., Northwestern University*
- 10:00 a.m.      Discussion
- 10:05 a.m.**      **Coffee Break**
- 10:35 a.m.      Liver disease and its microenvironment  
*Vijay Shah, M.D., Mayo Clinic Rochester*
- 10:55 a.m.      Discussion
- 11:00 a.m.**      **Section VIII: Vascular biology and cell signaling**  
*Chair: Al Copland, Ph.D. Mayo Clinic Jacksonville*
- 11:10 a.m.      Title TBA  
*Alan Fields, Ph.D., Mayo Clinic Jacksonville*
- 11:30 a.m.      Discussion
- 11:35 a.m.      Non-endothelial Vascular Functions of Tie2  
*Hellmut Augustin, Ph.D., German Cancer Research Center, Heidelberg*
- 11:55 a.m.      Discussion
- 12:00 p.m.      Short Talk (From Abstract)
- 12:10 p.m.**      **Lunch**
- 1:05 p.m.**      **Section IX: Mini-Symposium - Nanotechnology**  
*Chairs- Priyabrata Mukherjee, Ph.D., and Santanu Bhattacharya, Ph.D.*
- 1:15 p.m.      Dual-targeting in chemo-resistance breast cancer  
*Lily Yang, M.D., Ph.D., Emory University*
- 1:35 p.m.      Discussion
- 1:40 p.m.      Application of Carbon Nanotube Sensor Arrays for Understanding Cellular Biochemical Signaling and Angiogenesis.  
*Suwan Jayasinghe, Ph.D. University College London*
- 2:00 p.m.      Discussion
- 2:05 p.m.      Title TBA  
*Rajagopal Ramesh, Ph.D. University of Oklahoma*
- 2:25 p.m.      Discussion
- 2:30 p.m.      Probing cellular processes with engineered nanoparticles.  
*Priyabrata Mukherjee, Ph.D., University of Oklahoma*
- 2:50 p.m.      Discussion
- 2:55 p.m.**      **Coffee Break**

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3:15 p.m. Continuous low-dose cancer chemotherapy with oral nanoparticle-paclitaxel  
*Ravikumar Majeti, Ph.D., The University of Alabama in Tuscaloosa*

3:35 p.m. Discussion

3:40 p.m. Image-guided Antiangiogenic Prodrug Therapy  
*Dipankar Pan, Ph.D., University of Maryland Baltimore County*

4:00 p.m. Discussion

4:05 p.m. Discovery of small peptide-based checkpoint inhibitors for cancer immunotherapy  
*Kun Cheng, M.D., University of Missouri - Kansas City*

4:25 p.m. Discussion

4:30 p.m. Short Talk (From Abstract)

4: 40 p.m. Short Talk (From Abstract)

**4:50 p.m. Adjourn**

**5:00 p.m. Section X: Poster Session and Reception**

**6:30 p.m. Section XI: Travel Scholarships/Oral Presentations**  
*Chairs: Tushar C. Patel, M.B., Ch.B, Mayo Clinic Jacksonville*

**7:30 p.m. Dinner**

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**Sunday, December 11, 2022**

7:00 a.m. Continental Breakfast and Registration  
**8:00 a.m. Section XII: Precision therapy targeting microenvironment and Clinical Outcomes**  
*Chair: Roxana S. Dronca, M.D., Mayo Clinic Jacksonville*  
8:10 a.m. Cancer immune therapy and precision medicine  
*Sunil Krishnan, M.D. Ph.D, Mayo Clinic Jacksonville*  
8:30 a.m. Discussion  
8:35 a.m. Precision therapy: Immunity and tumor targeting  
*Lewis R. Roberts, M.B., Ch.B., Ph.D., Mayo Clinic Rochester*  
8:55 a.m. Discussion  
9:00 a.m. Title TBA  
*Kenichi Takeshita, M.D.*  
9:20 a.m. Discussion  
9:25 a.m. Future immune therapy and lymphoma  
*Owen A. O'Connor, M.D., New York University Cancer Institute*  
9:45 a.m. Discussion  
**9:55 a.m. Coffee Break**  
10:10 a.m. Immune Therapy Clinical Trials and outcomes  
*Keith L. Knutson, Ph.D., Mayo Clinic Jacksonville*  
10:30 a.m. Discussion  
10:35 a.m. Short Talk (From Abstract)  
10:45 a.m. Short Talk (From Abstract)  
**10:55 a.m. Section XIII: Folkman Lectureship Forum: New Horizon of Cancer Research and Therapy**  
*Chair: Asher Chanan-Khan, M.D., Mayo Clinic Jacksonville*  
11:05 a.m. Title TBA  
*Luisa Iruela-Arispe, Ph. D., Northwestern University*  
11:25 a.m. Discussion  
11:30 a.m. Title TBA  
*Jann Sarkaria, M.D., Mayo Clinic Jacksonville Rochester*  
11:50 a.m. Discussion  
11:55 a.m. Title TBA  
*Dev Mukhopadhyay, Ph.D., Mayo Clinic Jacksonville*  
12:15 p.m. Vote of Thanks  
*Dev Mukhopadhyay, Ph.D., Mayo Clinic Jacksonville*  
**12:20 p.m. Adjourn**