

Arnold and Madaleine Penner

14th Annual Musculoskeletal Repair and Regeneration Symposium

Wednesday, October 22, 2025

Presented by: Musculoskeletal and Orthopaedic Research Laboratories and

Department of Orthopaedic Surgery at Montefiore Einstein

Program Director: Mia M. Thi, PhD

University Chairman: Neil J. Cobelli, MD



Price Center/Block Research Pavilion Albert Einstein College of Medicine 1301 Morris Park Avenue Bronx, NY 10461



Dear colleagues and friends,

It is our great pleasure to welcome you to the 14th Annual Arnold and Madaleine Penner Musculoskeletal Repair and Regeneration Symposium. We are truly thankful to the distinguished faculty and dedicated participants whose continued involvement has ensured the ongoing success of this event.

This symposium serves as a vital forum for exchanging ideas, inspiring collaborations, and promoting groundbreaking research in musculoskeletal repair and regeneration. We hope that the discussions and insights shared today will spark new directions in discovery and innovation.

Our deepest appreciation goes to the Steering Committee Chairs for their leadership in assembling an outstanding program highlighting the latest advances in translational research. We are also grateful to the Poster Session and Young Investigator Award Committee Chairs for their thoughtful evaluation of abstracts, and to all poster presenters and co-authors for contributing their valuable work.

We extend sincere thanks to the Department of Orthopaedic Surgery staff at Einstein and Montefiore, whose dedication and attention to detail have made this event possible. The guidance of our Program Overseers and faculty members continues to enrich the symposium's quality and impact.

We remain profoundly indebted to our generous sponsors, especially the late Mr. Arnold Penner and Mrs. Madaleine Penner, whose constant support and vision have sustained this symposium over the years.

Finally, we thank each of you for being part of this vibrant research community. Your participation, curiosity, and commitment to excellence are what drive the field forward. We wish you an engaging, inspiring, and productive day.

With warm regards,

Mia M. Thi, Ph.D.

Program Director of the Symposium

Neil J. Cobelli, M.D.

Professor and University Chairman
Department of Orthopaedic Surgery



Montefiore

Acknowledgements

We are deeply grateful to the late Mr. Arnold Penner and Mrs. Madaleine Penner for their lasting generosity and support, without which this symposium would not have flourished.



Arnold and Madaleine Penner

Arnold and Madaleine Penner

14th Annual Musculoskeletal Repair and Regeneration Symposium

Wednesday, October 22, 2025

SYMPOSIUM MISSION

The Albert Einstein College of Medicine and Montefiore Medical Center's Musculoskeletal Repair and Regeneration Symposium is an annual forum dedicated to advancing knowledge, driving innovation, and fostering collaboration among researchers in the field. This year's program will showcase the latest breakthroughs in translational research, with a spotlight on:

- Emerging Technologies and Therapies in Musculoskeletal Care
- Regenerative Strategies for Spinal and Musculoskeletal Disorders
- Next-Generation Musculoskeletal Biology: Leveraging Spatial and Single-Cell Technologies for Regenerative and Degenerative Musculoskeletal Conditions

GOALS AND FEATURES

This year's symposium dives deep into the frontiers of musculoskeletal repair, regeneration, and disease treatment, bringing together science, innovation, and clinical vision. Dynamic presentations and thought-provoking discussions will showcase the latest breakthroughs—and explore how they can transform patient care.

Highlights include:

- Six distinguished speakers representing top institutions from across the region and the nation
- Engaging poster sessions spotlighting innovative research
- The Young Investigator Award Session, celebrating emerging leaders in the field

REGISTRATION

Deadline: October 20, 2025

Please register online at: <u>14th Annual Musculoskeletal Repair and Regeneration Symposium Registration</u> Form

Registration is free. Early registration is highly recommended.

CALL FOR ABSTRACTS FOR POSTER SESSION AND YOUNG INVESTIGATOR AND CLINICAL YOUNG INVESTIGATOR AWARDS

We invite investigators to submit abstracts for the poster session, which is an important component

of this conference.

Abstracts from graduate and medical students, residents and postdoctoral fellows will be considered for basic science and clinical Young Investigator Awards. Four winners, three from Young Investigator and one from Clinical Young Investigator categories will be announced and each will be presented with a prize and a plaque. To qualify, you must register and submit an abstract to Dr. Zeynep Seref-Ferlengez, the chair of the Poster Session and Young Investigator Award committee, by **September 26, 2025** via email to: msk.einstein.symposium@gmail.com.

The abstract is limited to 1 page. Include in your abstract the study's objective, a brief statement of methods, a summary of the results obtained, conclusions, and significance. Please see abstract template on the website. If you have multiple posters, please assign one of your co-authors for presentation. As the Symposium aims to promote communication within our region, we encourage you to submit your recent work (within 2025) to this Symposium, including work that may have been submitted to other meetings.

PROGRAM DIRECTOR

Mia M. Thi, PhD

STEERING COMMITTEE CHAIRS

PROGRAM OVERSEERS

- Frances Cuomo, MD
- Eva Gonzalez Diaz, PhD
- Michael Detamore, PhD
- Susannah Fritton, PhD
- Mary Goldring, PhD
- Steven Goldring, MD
- Ed Guo, PhD
- John Hardin, MD
- David Hirsh, MD
- James latridis, PhD

Lionel Ivashkiv, MD

Nilsson Holguin, PhD

• Benjamin Levy, MD

- Thorsten Kirsch, PhD
- Catherine Kuo, PhD
- Chuanju Liu, PhD
- Helen Lu, PhD
- Jeremy Mao, DDS, PhD
- Steven Nicoll, PhD
- Maurizio Pacifici, PhD

- Karl Lewis, PhD
- Nicola Patridge, PhD
- Clinton Rubin, PhD
- Yi-Xian Qin, PhD
- Mitchell Schaffler, PhD
- David Spray, PhD
- Stavros Thomopoulos, PhD

POSTER SESSION AND YOUNG INVESTIGATOR AWARD COMMITTEE

Chair: Zeynep Seref-Ferlengez, PhD

Co-chairs

- Leila Alvandi, PhD
- Ugur Ayturk, PhD
- Alessandra Carriero, PhD
- David Corr, PhD
- Woojin Han, PhD
- David Hirsh, MD
- Robert Majeska, PhD
- Sylvia Suadicani, PhD

AGENDA

7:15 – 8:00 am	Check-in and Continental Breakfast
8:00 – 8:10 am	Introduction and acknowledgements
	Mia M. Thi, PhD
	Opening remarks
	Neil J. Cobelli, MD

Session 1 - Emerging Technologies and Therapies in Musculoskeletal Care

Steering chairs: Frances Cuomo, MD and Benjamin Levy, MD

8:10 – 8:15 am	Introduction Frances Cuomo, MD and Benjamin Levy, MD Montefiore Einstein
8:15 – 8:45 am	The Science and Voodoo of Orthobiologics in relation to Rotator Cuff Repairs Augustus D Mazzocca, MS, MD FAAOS, FAOA Mass General Brigham, Harvard Medical School
8:45 – 9:15 am	Basic Science Rationale for Rotator Cuff Augmentation Scott A. Rodeo, MD Hospital for Special Surgery, Weill Medical College, Cornell University
9:15 – 9:30 am	Discussion / Conclusions

9:30 - 9:40 am BREAK

Session 2 – Regenerative Strategies for Spinal and Musculoskeletal Disorders

Steering chairs: Eva Gonzalez Diaz, PhD and Nilsson Holguin, PhD

9:40 – 9:45 am	Introduction Eva Gonzalez Diaz, PhD and Nilsson Holguin, PhD Icahn School of Medicine at Mount Sinai
9:45 – 10:15 am	Intervertebral disc regeneration strategies across the degenerative spectrum Sarah E. Gullbrand, PhD University of Pennsylvania
10:15 – 10:45 am	Regulating DNA Damage and Senescence to Regenerate Musculoskeletal Tissue Robert D. Bowles, PhD University of Utah
10:45 – 11:00 am	Discussion / Conclusions

11:00 - 11:10 am BREAK

Session 3 – Next-Generation Musculoskeletal Biology: Leveraging Spatial and Single-Cell Technologies for Regenerative and Degenerative Musculoskeletal Conditions

Steering chair: Karl Lewis, PhD

11:10 – 11:15 am	Introduction Karl Lewis, PhD Cornell University	
11:15 – 11:45 am	Unveiling the senescent cell phenotypes that regulate musculoskeletal fibrosis Alexandra N. Rindone, PhD Johns Hopkins University	
11:45 – 12:15 pm	TrkA+ sensory nerve signaling promotes digit regeneration Robert Tower, PhD The University of Texas Southwestern Medical Center	
12:15 – 12:30 pm	Discussion / Conclusions	
12:45 – 1:30 pm LUNCH BREAK		
1:30 pm – 2:45 pm	Poster session	
2:45 – 3:00 pm	Young Investigator Awards Hosted by: Young Investigator Award Committee	
Closing Remarks		

Closing remarks Neil J. Cobelli, MD

3:00 pm

Arnold and Madaleine Penner 14th Annual Musculoskeletal Repair and Regeneration Symposium

Wednesday, October 22, 2025 Chairs, Co-Chairs, and Speakers

Leila Alvandi, PhD

Department of Orthopaedic Surgery Montefiore Einstein Bronx, NY

Ugur Ayturk, PhD

Musculoskeletal Integrity Program
Hospital for Special Surgery
New York, NY

Robert D. Bowles, PhD

Department of Biomedical Engineering
University of Utah
Salt Lake City, UT

Alessandra Carriero, PhD

Department of Biomedical Engineering The City College of New York New York, NY

Neil J. Cobelli, MD

Department of Orthopaedic Surgery Montefiore Einstein Bronx, NY

David T. Corr, PhD

Department of Biomedical Engineering Rensselaer Polytechnic Institute Troy, NY

Frances Cuomo, MD

Department of Orthopaedic Surgery Montefiore Einstein Bronx, NY

Eva Gonzalez Diaz, PhD

Department of Immunology & Immunotherapy Icahn School of Medicine at Mount Sinai New York, NY

Sarah E. Gullbrand, PhD

McKay Orthopaedic Research Laboratory Translational Musculoskeletal Research Center University of Pennsylvania Philadelphia, PA

Woojin Han, PhD

Department of Orthopaedics and Black Family Stem Cell Institute Icahn School of Medicine at Mount Sinai New York, NY

David M. Hirsh, MD

Department of Orthopaedic Surgery Montefiore Einstein Bronx, NY

Nilsson Holguin, PhD

Department of Orthopedics
Icahn School of Medicine at Mount Sinai
New York, NY

Benjamin Levy, MD

Department of Orthopaedic Surgery Assistant Director of Research Montefiore Einstein Bronx, NY

Karl Lewis, PhD

Department of Biomedical Engineering Cornell University Ithaca, NY

Robert J. Majeska, PhD

Department of Biomedical Engineering
The City College of New York
New York, NY

Augustus D Mazzocca MS, MD FAAOS, FAOA

Department of Orthopaedic Surgery Massachusetts
General Hospital
Shoulder and Elbow Surgery
Harvard Medical School
Boston, MA

Alexandra N. Rindone, PhD

Department of Biomedical Engineering
Johns Hopkins University
Baltimore, MD

Scott A. Rodeo, MD

Department of Orthopaedic Surgery Orthopaedic Soft Tissue Research Program Hospital for Special Surgery Weill Medical College Cornell University New York, NY

Zeynep Seref-Ferlengez, PhD

Department of Orthopaedic Surgery Montefiore Einstein Bronx, NY

Sylvia O. Suadicani, PhD

Departments of Urology and Molecular Pharmacology Montefiore Einstein Bronx, NY

Mia M. Thi, PhD

Departments of Orthopaedic Surgery and Molecular Pharmacology Montefiore Einstein Bronx, NY

Robert Tower, PhD

Department of Surgery
The University of Texas Southwestern Medical Center
Dallas, TX

CONTACT INFORMATION

Mia M. Thi, PhD

Program Director Email: mia.thi@einsteinmed.edu

P: 718-430-3460

Zeynep Seref-Ferlengez, PhD

Chair, Poster Session and Young Investigator Award Committee Email: sereffer@montefiore.org

P: 929-246-6352

LaTarsha Arthur

Symposium Coordinator Email:

latarsha.arthur@einsteinmed.edu P: 718-430-2911

SYMPOSIUM LOCATION

Albert Einstein College of Medicine Michael F. Price Center and Harold and Muriel Block Research Pavilion 1301 Morris Park Avenue Bronx, NY 10461 Directions: http://www.einsteinmed.edu/visitors/

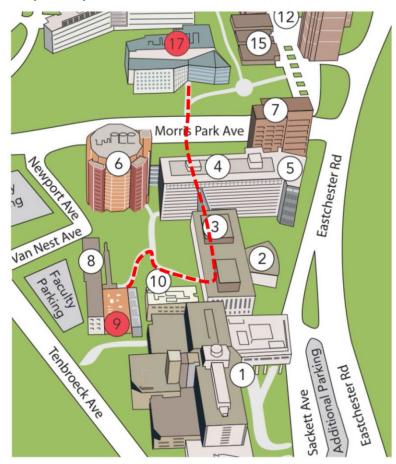
HOTEL INFORMATION

Residence Inn by Marriott New York The Bronx at Metro Center Atrium 1776 Eastchester Road Bronx, NY 10461 The hotel is a 10-minute walk from the Symposium. www.marriot.com/nycbx P: 718-239-3939

PARKING INFORMATION

The Quik Park Parking Lot 1975 Eastchester Road Bronx, NY 10461

Campus Map



- 17 Price Center
- 9 Lubin Hall
- Red line Path from Price Center to Lubin Hall