YALE SCHOOL OF MEDICINE
STUDENT RESEARCH DAY

Tuesday, May 7, 2024

The Anlyan Center (TAC)
300 Cedar Street
New Haven, Connecticut
SCHEDULE OF EVENTS

12:00 p.m. – 1:00 p.m.
Lunch – All Invited (Lobby)

1:00 p.m. – 1:10 p.m.
Opening Remarks by Dean Nancy Brown and Associate Deans of Student Research Sarwat Chaudhry and Erica Herzog (Auditorium, N107)

1:10 p.m. – 2:10 p.m.
36th Annual Farr Lecture delivered by Dr. Peter S. Aronson (N107)

2:10 p.m. – 2:20 p.m.
Break

2:20 p.m. – 2:30 p.m.
Remarks by Dr. Lee Goldman, YSM Class of ’73 (N107)

2:30 p.m. – 3:50 p.m.
Jill and Lee Goldman, MD ’73 Plenary Scientific Session Oral Presentations (N107)

3:50 p.m. – 4:00 p.m.
Dr. John N. Forrest, Jr., Mentorship Award presented by Dr. John K. Forrest to Dr. Shelli Farhadian (N107)

4:00 p.m. – 5:00 p.m.
Scientific Poster Session (Lobby)
36th ANNUAL LEE E. FARR, MD, LECTURESHIP
“From Sugar to Salt to Stones: Serendipitous Journey as Mentee and Mentor”
Peter S. Aronson, MD

Dr. Aronson received his undergraduate education at the University of Rochester and his medical education at New York University. He was an internal medicine resident at the University of North Carolina and a research fellow at the National Institutes of Health before coming to Yale as a nephrology fellow in 1974. He joined the Yale faculty in 1977 and was Chief of the Section of Nephrology from 1987-2002. Dr. Aronson has published articles and book chapters on the mechanisms regulating sodium, chloride, acid-base, and oxalate excretion by the kidney. He has received several awards and honors for his research work, including the Young Investigator Award of the American Society of Nephrology (ASN) and American Heart Association in 1985, the Homer W. Smith Award of the ASN in 1994, Fellow of the American Association for the Advancement of Science in 1996, Fellow of the American Academy of Arts and Sciences in 2009, the Robert W. Berliner Award of the American Physiological Society (APS) in 2016, and the Walter B. Cannon Award of the APS in 2019. He served as President of the American Society of Nephrology in 2008. Dr. Aronson actively participates in the teaching of undergraduate, graduate and medical students. He was a co-recipient of the Charles W. Bohmfalk Teaching Prize in the Basic Sciences in 2005 and received the Fund for Physician-Scientist Mentorship Award in 2023. Dr. Aronson is an Associate Director of the Yale MD-PhD Program and has made numerous contributions to the medical student research program including founding the START@Yale (Summer to Advance Research Training) program in 2012 and co-directing YSM’s NIDDK T35 training program.

Jill and Lee Goldman, MD ‘73 Plenary Scientific Session

The Jill and Lee Goldman, MD ‘73 Plenary Scientific Session is made possible by an endowment established by the Goldmans in 2019. Dr. Goldman, who is a member of the Yale College Class of 1969 and Yale School of Medicine Class of 1973, is Professor of Medicine and Epidemiology at Columbia University, where he also is Dean Emeritus of the Faculties of Health Sciences and Medicine and the former Chief Executive of Columbia University Irving Medical Center.

Dr. Goldman was previously the Julius R. Krevans Professor and Chair of the Department of Medicine at the University of California, San Francisco, and a Professor of Medicine and Epidemiology at Harvard. He serves as the lead editor of Goldman-Cecil Medicine. Jill S. Goldman, MS, MPhil (Yale 1971), is Professor of Genetic Counseling in Neurology at Columbia University Irving Medical Center and a genetic counselor at the Taub Institute in the Vagelos College of Physicians and Surgeons. Ms. Goldman also is the editor of the textbook Genetic Counseling for Adult Neurogenetic Diseases: A Casebook for Clinicians. She created “A Friend for Rachel,” a companionship program in which people with early to moderate dementia are paired with Columbia pre-medical students.

The Goldmans are delighted to support medical student research because Yale and the thesis experience fundamentally changed their lives.
PLENARY SCIENTIFIC SESSION

Jill and Lee Goldman, MD ’73  Plenary Scientific Session – Oral Presentations

Moderator: Daniel Sarpong, PhD
The Anlyan Center Auditorium (N107)

2:20 p.m. Opening Remarks
Dr. Lee Goldman, YSM Class of ’73

2:30 p.m. Victoria Marks
Association between Medical Insurance, Access to Care, and Clinical Outcomes for Patients with Uveal Melanoma in the United States

2:45 p.m. Amanda Liberman
Multilevel Barriers to Methadone for HIV Prevention Among People Who Inject Drugs in Kazakhstan

3:00 p.m. Chinye Ijeli
Medicaid Coverage for Undocumented Children in Connecticut: A Political History

3:15 p.m. Jamieson O’Marr
Ballistic and Explosive Orthopaedic Trauma Epidemiology and Outcomes in a Global Population

3:30 p.m. Kingson Lin
2024 ANNUAL SCIENTIFIC POSTER SESSION

Presenters and Sponsoring Departments

POSTER NUMBER:

MD Students
Department of Anesthesiology
1. Amanda Jankelovits, Cecilia Lee, Emily Gu, Dean MacCarter, Zyad J. Carr: *Observed Gender Differences in Gas Exchange Derived Pulmonary Capacitance in a Cohort of Functionally Independent Older Adults.*


Department of Dermatology


7. Qiwei Wilton Sun, Benjamin J. Oldfield, Howard P. Forman: *Enhancing Quality Care Delivery in Federally Qualified Health Centers Through Strategic Clinician Staffing.*

8. A. Mitchel Wride, Marina Z. Joel, Jeffrey M. Cohen: *Psoriasis Associated with Inflammatory Bowel Disease: A Cross-Sectional Analysis in the NIH All of Us Research Program.*

Department of Emergency Medicine
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<tr>
<th>Number</th>
<th>Title</th>
<th>Authors</th>
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<td>10</td>
<td>Intersectional Patterns in Rural and Urban Emergency Department Utilization: A National Study</td>
<td>Thomas Pointer, Craig Rothenberg, Ryan Koski-Vacirca, Arjun K. Venkatesh, Hazar Khidir</td>
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<td>The Role of Motivation to Excel in the Etiology of Exertional Heat Stroke</td>
<td>Kirsten Lalli, Nisha Charkoudian, Yonatan Moreh, David DeGroot</td>
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<td>Increases in Stool Peanut IgA May Contribute to Peanut Oral Immunotherapy Response</td>
<td>Kelly Butler, Elise Liu</td>
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<td>Opportunities to Address Alcohol Use with Community-Based HIV Testing: A Parallel Mixed Methods Study</td>
<td>William Allen, Mel Defilippo, Charles A. Warnock, Dini Harsono, Christopher A. Cole, E. J. Edelman</td>
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<td>14</td>
<td>Cost-Effectiveness of Artificial Intelligence (AI) in Breast Cancer Screening</td>
<td>Matthew Andersen, Natalia Kunst, Ilana Richman</td>
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<td>Nationwide Trends in Excess Cause-Specific Mortality Rates Between Black and White Individuals, 1999-2020</td>
<td>Adith S. Arun, César Caraballo, Mitsuaki Sawano, Yuan Lu, Rohan Khera, Clyde W. Yancy, Harlan M. Krumholz</td>
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<td>16</td>
<td>Healthcare Worker Perceptions of Patient Discrimination Based on Race and Ethnicity by Healthcare Worker Demographic Characteristics</td>
<td>Noah Brazer, Deron Galusha, Karen Wang, Carol Oladele</td>
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<td>Feasibility of Unconditional Cash Transfers as Health Interventions: Reducing Post-Incarceration Income Instability to Improve Chronic Health</td>
<td>Evan Cao, Benjamin A. Howell</td>
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<td>The Portrayal of Efficacy and Safety in FDA Press Releases for Novel Drug Approvals</td>
<td>Karthik Chetlapalli, Joseph Ross, Reshma Ramachandran</td>
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<td>Social Workers Collaborate with Orthopaedic Nurses to Address Social Determinants of Health to Optimize Patient Care</td>
<td>Fabrizio Darby, Albert Rancu, Tiana Clemons, John Garcia-Munoz, Chloe Dlott, Donna Kurek, Daniel Wiznia</td>
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27. Oscar Perales, Lucia Jilaveanu, Adebowale Adeniran, David G. Su, Michael Hurwitz, David Braun, Harriet Kluger, David Schoenfeld: TIGIT Expression in Renal Cell Carcinoma Infiltrating T Cells is Variable and Inversely Correlated with PD-1 and LAG3.


33. Zoe Zimmerman, Michelle Eakin, Geoffrey Chupp, Sandra Zaeh: *Utilization of Single Maintenance and Reliever Therapy (SMART) for Moderate and Severe Asthma.*

Department of Laboratory Medicine


Department of Ophthalmology & Visual Science

35. Serina Applebaum, Julia Fu, Kristen Nwanyanwu: *Duration and Quantity of Lapses in Care for Individuals with Proliferative Diabetic Retinopathy: Risk Factors and Outcomes.*


Department of Orthopaedics & Rehabilitation


Department of Pediatrics


Department of Psychiatry

42. Rebecca Marks, Anjali Sankar, Leila Colic, Jair Soares, Joaquim Radua, Eduard Vieta, Benson Mwangi, Edith Pomarol-Clotet, Erick Canales-Rodríguez, Raymond Salvador, Brian Pittman, Annemieke Dols, Martha Sajatovic, Lisa T. Eyler, Hilary Blumberg: *Cortical Thickness in Middle and Older Age Adults with Bipolar Disorder Across Six International Sites.*

Yale School of Public Health


45. Charlotte Kim, Mary Lansing, Derek AT Cummings, Byron Kennedy, Robert Richenson, Albert I. Ko, Margaret L. Lind: Mass SARS-CoV-2 Testing and Contact Tracing in a Correctional System During the Pandemic.

Department of Surgery


47. Emily Gu, Sam Boroumand, Lioba Huelsboemer, Viola A. Stoegner, Neil Parikh, Martin Kauke-Navarro, Bohdan Pomahac: To Face Transplant or Not Face Transplant? An Evaluation of ChatGPT-4’s Consideration of Ethical Themes.


Department of Therapeutic Radiology


Department of Urology


62. Vinaik M. Sundaresan, Lindsey Webb, Maximilian Rabil, Aleksandra Golos, Ryan Sutherland, Preston Sprenkle, Isaac Y. Kim, Michael S. Leapman: Risks of Grade Reclassification Among Patients with Gleason Grade Group 1 Prostate Cancer and PI-RADS 5 Findings on Prostate MRI.
MD-MHS Students

63. Anita M. Jegarl, Jaime B. Hyman: *Superficial Cervical Plexus Block and Quality of Recovery after Thyroidectomy: Study Protocol and Enrollment Update.* Anesthesiology

64. Thomas Huang, Vimig Socrates, Aidan Gilson, Conrad Safranek, Ling Chi, Emily A. Wang, Lisa B. Puglisi, Cynthia Brandt, R. Andrew Taylor, Karen Wang: *Identifying Incarceration Status in the Electronic Health Record Using Natural Language Processing in Emergency Department Settings.* Emergency Medicine

65. Rachel Levinson, Navid Rahimi Larki, Janet Tate, Melissa Skanderson, Catherine Mezzacappa, Lesley Park, Ronald Hauser, Cynthia Brandt, Kevin Schuster, Gyanprakash Ketwaroo, Yu-Xiao Yang, Amy Justice, Louise Wang: *The Association of Hepatitis C Virus with the Risk of Pancreatic Cancer.* Internal Medicine

66. Darius Mostaghimi, Sameet Mehta, Jennifer Yoon, Priya Kosana, Christina Marra, Michael Corley, Shelli F. Farhadian: *DNA Methylation Profiles of CSF and Blood Immune Cells in Neurosyphilis before and after Treatment.* Internal Medicine

67. Michael J. Gouzoulis, Anthony E. Seddio, Sahir S. Jabbouri, Jeremy Ansahtwum, Wesley Day, Daniel Rubio, Arya Varthi, Jonathan N. Grauer: *Posterior Lumbar Fusions are being Performed for Patients with Higher Revised Cardiac Risk Index (RCRI) Scores Over the Years - Adverse Events Need to be Considered.* Orthopaedics & Rehabilitation


MD-PhD Students


Yale School of Nursing


Yale School of Public Health


75. Rachel Wang, Xiaomeng Zhang, Michaela Dinan: Impact of Immune Checkpoint Inhibitors on Improving Suicide Rates Among Patients with Cancer.
Thank You

The Office of Student Research gratefully acknowledges the financial support of the following funding agencies, endowed student research fellowships, and gifts to student research.

National Institutes of Health
Stanley J. Sarnoff Endowment for Cardiovascular Research
American Society of Hematology
American Society of Nephrology
American Heart Association
Jill and Lee Goldman Resource Fund
Jane Danowski Weiss Family Foundation
Anonymous Donor Student Research Fellowship
William U. Gardner Student Research Fellowship
Richard Gershon Memorial Fellowship
James G. Hirsch Fellowship
Leon E. Rosenberg Student Research Fellowship

Joseph W. Eichenbaum Student Research Fellowship
Richard A. Hirshfield Memorial Fellowship
Edith Hsiung Student Research Fellowship
Paul H. Lavietes Student Research Fellowship
Lewis Levy, MD Student Thesis Research Fund
Vernon W. Lippard Fellowship
Robert Malison, MD '87 Student Research Fellowship
Richard Moggio Student Research Fellowship
Arons-Millard Student Research Fund
Marvin Moser Student Research Fellowship
The Herman H. and Sarah Zusman Student Research Fellowship
The Lowe Fund for Student Enrichment in the Science of Medicine

Jack and Francine Levin, The Jack and Francine Levin Yale-at-MBL Student Research Fellowship
Michael Girardi MD and Nancy Girardi MD, Gift for Student Research
Ameya Kulkarni, MD '06 and Aliya Jiwani, MPH '06, Social Justice Scholars Fund
Dr. Chinweike Ukomadu MD, PhD '93, Gift for Student Research
John N. Forrest, Jr., MD Resource Fund for Student Research

Jack and Francine Levin, The Jack and Francine Levin Yale-at-MBL Student Research Fellowship
Michael Girardi MD and Nancy Girardi MD, Gift for Student Research
Ameya Kulkarni, MD '06 and Aliya Jiwani, MPH '06, Social Justice Scholars Fund
Dr. Chinweike Ukomadu MD, PhD '93, Gift for Student Research
John N. Forrest, Jr., MD Resource Fund for Student Research
Lee E. Farr Lectureship

1988 Arnold Relman, MD  2000 Harold Varmus, MD  2012 Jeffrey S. Flier, MD
1989 Arthur E. Rubenstein, MD  2001 Richard P. Lifton, MD, PhD  2013 Elizabeth G. Nabel, MD
1990 Anthony S. Fauci, MD  2002 Paul Greengard, PhD  2014 James Rothman, PhD
1991 Sidney Altman, MD  2003 Edward Benz, MD  2015 Brian Kobilka, MD
1992 Sydney Brenner, FRS  2004 Story C. Landis, PhD  2016 Nancy C. Andrews, MD, PhD
1993 Gerard N. Burrow, MD  2005 Arthur L. Horwich, MD  2017 Eric G. Neilson, MD
1994 Joseph L. Goldstein, MD  2006 Jeffrey M. Friedman, MD, PhD  2018 Laurie H. Glimcher, MD
1995 Francis S. Collins, MD, PhD  2007 Jack Elias, MD  2019 George Q. Daley, MD, PhD
1996 Patricia K. Donahoe, MD  2008 David G. Nathan, MD  2021 Helen Hobbs, MD
1997 Judah Folkman, MD  2009 Stuart H. Orkin, MD  2022 Rexford Ahima, MD
1998 Alfred G. Gilman, MD, PhD  2010 Lewis Landsberg, MD  2023 Neil Powe, MD, MPH, MBA
1999 Robert J. Lefkowitz, MD  2011 George Lister, MD  2024 Peter Aronson, MD

The Lee E. Farr, MD Endowed Lectureship was established at Yale School of Medicine in 1988 by Dr. Lee E. Farr. The purpose of this lectureship is “to stimulate thinking and to inspire students to strive to achieve more effective leadership and educational roles in society.”

Dr. Farr, Yale College ’29, MD ’33, was a preeminent physician who was the medical director and physician-in-chief of the hospital at Brookhaven National Laboratory on Long Island, New York, where he participated in the design of the world’s first nuclear reactor built primarily for medical purposes. He was one of the original specialists in nuclear medicine and practiced and taught at various times in Delaware, New York, Texas, California, and Oregon. Dr. Farr served as a member of the Advisory Commission on Naval Medical Research and analyzed medical effects on atomic bomb victims as a member of the Advisory Commission on the Atomic Bomb, of which he was chairman from 1954 to 1968. He had received innumerable awards and honors and written many articles on nuclear medicine, nuclear reactors, protein metabolism, emergency medical services, and radioactive and chemical environmental contaminants.

The Farr Lectureship is held in memory of Lee E. Farr, MD, who died on July 16, 1997.
John N. Forrest, Jr., MD, Prize for Mentorship in Student Research

2021 Silvia Vilarinho, MD, PhD
2022 Michael Leapman, MD, MHS
2023 Cassius Iyad Ochoa Chaar, MD, MS, RPVI
2024 Shelli Farhadian, MD, PhD

The John N. Forrest, Jr., MD, Prize for Mentorship in Student Research was endowed at the Yale School of Medicine in 2020 by the Forrest family. The prize is awarded annually for exceptional mentoring by a faculty member in the area of medical student research.

John N. Forrest, Jr., MD, Emeritus Faculty, was instrumental in founding the YSM Office of Student Research in 1987 and led as its director for 33 years until his retirement in 2019. Dr. Forrest also initiated the inaugural Student Research Day in 1988, marking the beginning of a tradition that continues to thrive, now in its 36th year.

Dr. Forrest passed away on March 19, 2024, in New Haven. His efforts on behalf of medical student research and the MD thesis shaped the Yale system of general medical education as we know it today.
Yale School of Medicine Departmental Thesis Chairs

Department & Chairperson

Anesthesiology
Dr. Paul Heerdt

Biomedical Engineering
Dr. Fahmeed Hyder

Cell Biology
Dr. Peter Takizawa

Cellular & Molecular Physiology
Dr. Rachel Perry

Child Study Center
Dr. Andres Martin

Dermatology
Dr. Sean Christensen

Emergency Medicine
Dr. Fuad Abujarad

Genetics
Dr. Curt Scharfe

History of Medicine
Dr. Marco Ramos

Immunobiology
Dr. Kevan Herold

Internal Medicine
Drs. Lauren Ferrante & Shuta Ishibe

Laboratory Medicine
Dr. Alexa Siddon

Molecular Biophysics & Biochemistry
Dr. William Konigsberg

Neurology
Dr. Sourav Ghosh

Neuroscience
Dr. Michael Higley

Neurosurgery
Dr. Angeliki Louvi

Ob, Gyn & Reproductive Sciences
Drs. Seth Guller & Shannon Whirledge

Ophthalmology & Visual Science
Dr. Ninani Kombo

Orthopaedics & Rehabilitation
Dr. Jonathan Grauer

Pathology
Dr. Samuel Katz

Pediatrics
Dr. Jeffrey Gruen

Pharmacology
Dr. Daryl Klein

Psychiatry
Dr. Marc Potenza

Radiology & Biomedical Imaging
Dr. David Madoff

School of Public Health
Dr. Elizabeth Claus

Surgery
Dr. Eric Schneider

Therapeutic Radiology
Dr. Sanjay Aneja

Urology
Dr. Angela Arlen
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Erica L. Herzog, MD, PhD, Associate Dean of Student Research; John Slade Ely Professor of Medicine (Pulmonary) And Pathology

Alexandra Hajduk, PhD, MPH, Deputy Director of Scientific Affairs, Office of Student Research; Research Scientist (Geriatrics)

Sarah May, Associate Director

Donna Carranzo, Associate Director

Kelly Jo Carlson, Senior Administrative Assistant

Karen Angelicola, Project Coordinator

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Kevin Hawes, MS, Portfolio & Grant Analyst

Janiel Jones, Admissions & Pipeline Coordinator

Alexandra Mauzerall, Associate Director for Program Administration

Kayla McKay, MBA, Registrar 2