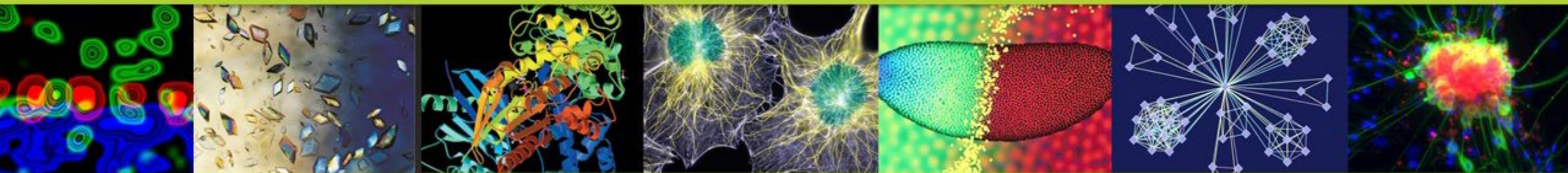


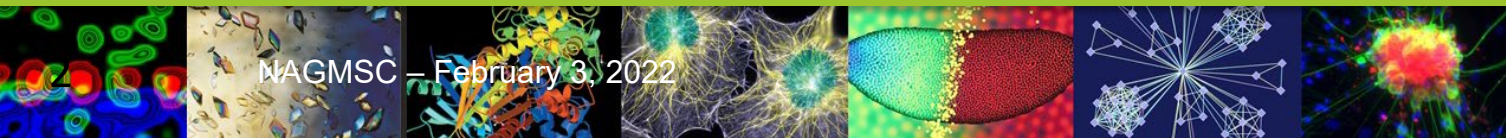
Jon R. Lorsch, Ph.D., Director
National Institute of General
Medical Sciences
February 3, 2022

National Advisory General Medical Sciences Council



New Council Members

- **Angela Byars-Winston, Ph.D.**
Professor
Department of Medicine
University of Wisconsin-Madison
- **Terri Goss Kinzy, Ph.D.**
President
Professor of Biological Sciences
Illinois State University



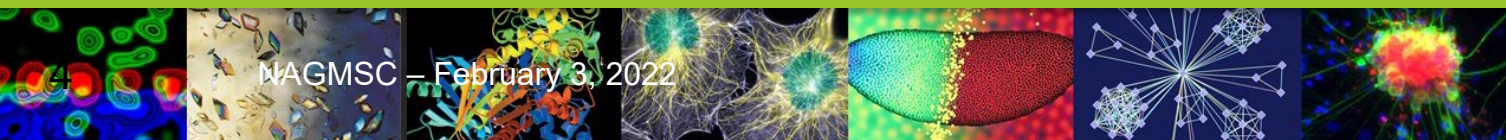
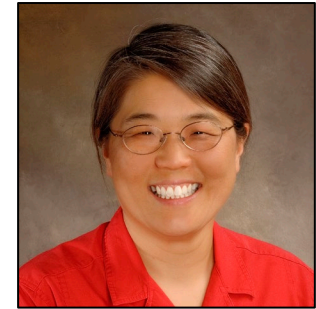
New Council Members (cont.)

- **Ron G. King, Ph.D., M.B.A.**
Adjunct Professor
Translational Genomics Department
Keck School of Medicine
University of Southern California
- **David H. Mathews, M.D., Ph.D.**
Lynne E. Maquat Distinguished Professor of RNA Biology
Department of Biochemistry and Biophysics
University of Rochester Medical Center
- **Wendy Young, Ph.D.**
Executive Partner
MPM Capital



Ad hoc Council Participants

- **Natalie Ahn, Ph.D.**
Distinguished Professor
Department of Biochemistry
University of Colorado at Boulder
- **Angela DePace, Ph.D.**
Associate Professor
Department of Systems Biology
Harvard Medical School



Ad hoc Council Participants (cont.)

- **Smita Patel, Ph.D.**
Professor
Department of Biochemistry and Molecular Biology
Rutgers University
- **Lesilee Rose, Ph.D.**
Professor
Department of Molecular and Cellular Biology
University of California, Davis



Ad hoc Council Participants (cont.)

- **Jeffrey Sun, J.D., Ph.D.**

Professor and Distinguished University Scholar
Associate Dean for Innovation and Strategic Partnerships
College of Education and Human Development
University of Louisville



- **Leyte Winfield, Ph.D.**

Professor of Organic Chemistry
Department of Chemistry and Biochemistry
Chair, Division of Natural Sciences and Mathematics
Spelman College



Early Career Investigator *Ad hoc* Council Participants

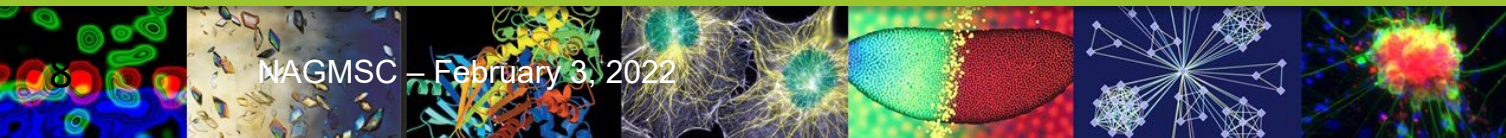
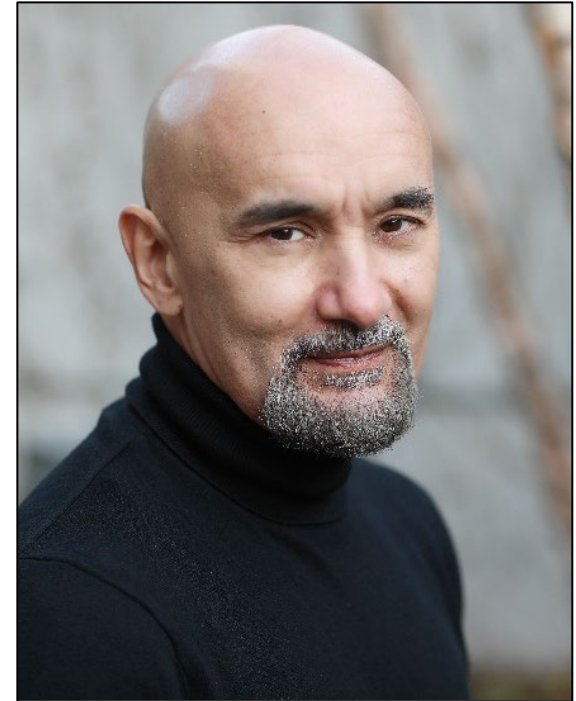
- **Oswaldo Gutierrez, Ph.D.**
Associate Professor
Department of Chemistry
Texas A&M University
- **Sonya Neal, Ph.D.**
Assistant Professor
Department of Cell and Developmental Biology
University of California, San Diego



In Memoriam

Hector Wong, M.D.

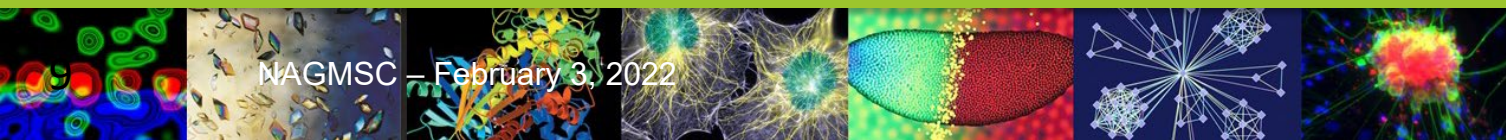
- Vice chair of the Department of Pediatrics at Cincinnati Children's Hospital Medical Center and professor at the University of Cincinnati College of Medicine
- Devoted himself to the scientific pursuit of understanding the complexity of sepsis with a focus on critically ill children
- Served NIH on study sections as a reviewer and as a designated appointee to the National Advisory General Medical Sciences Council



NIH Director Departure

Francis S. Collins, M.D., Ph.D.

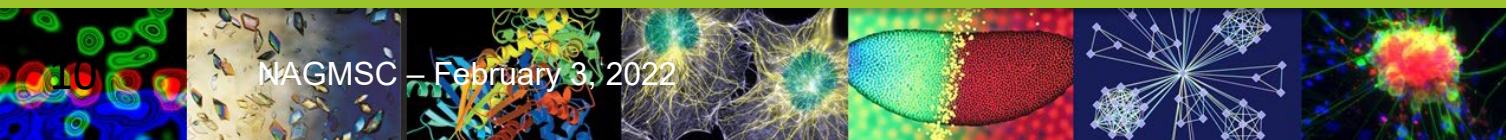
- Stepped down as NIH director in December 2021; longest serving presidentially appointed NIH director, serving three U.S. presidents over more than 12 years
- Proposed and established bold initiatives to tackle some of the most pressing health issues facing Americans, including Alzheimer's disease, cancer, opioid use disorder, rare diseases, and the COVID-19 pandemic
- Will continue to lead his research laboratory at the National Human Genome Research Institute



NIH Acting Director

Lawrence A. Tabak, D.D.S., Ph.D.

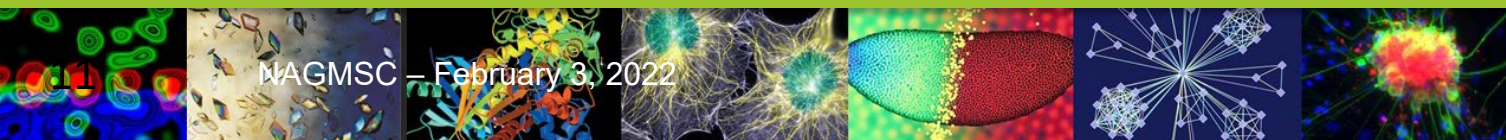
- Acting director of NIH effective December 20, 2021; has served as the principal deputy director and deputy ethics counselor of NIH since 2010
- Served as director of the National Institute of Dental and Craniofacial Research from 2000 to 2010
- His major research focus has been on the structure, biosynthesis, and function of glycoproteins; he maintains an active research laboratory within the NIH intramural program



New NIGMS Deputy Director

Dorit Zuk, Ph.D.

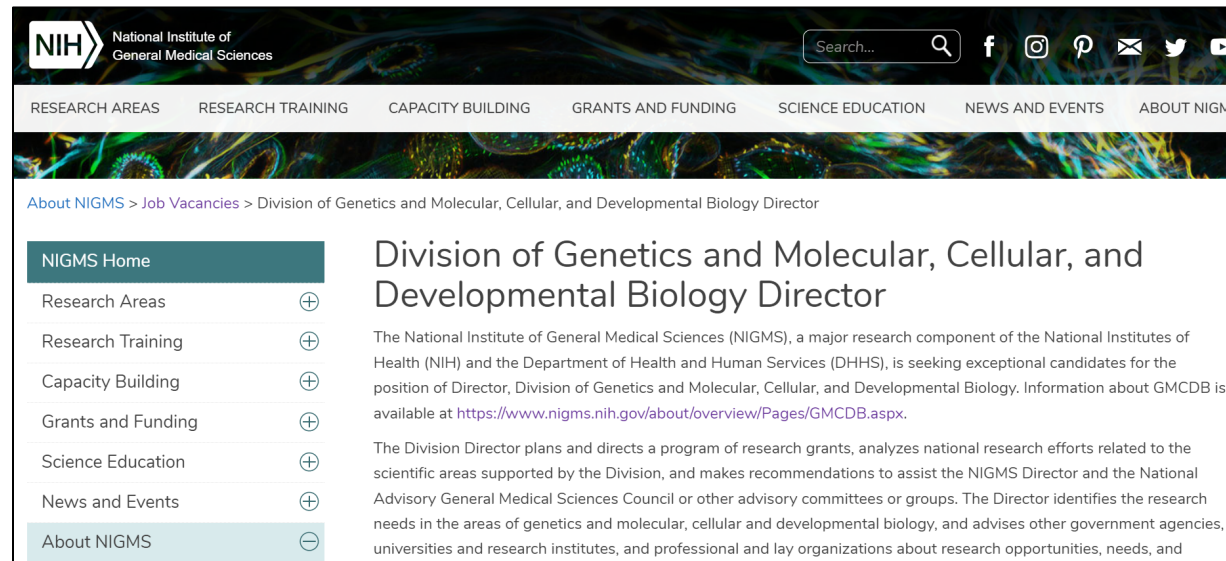
- Became NIGMS deputy director in October 2021
- Previously served as NIGMS acting deputy director and director of our Division of Genetics and Molecular, Cellular, and Developmental Biology
- Has made valuable contributions to both the NIGMS 2021–2025 strategic plan and the reorganization of NIGMS divisions in 2018; has led efforts to build a stronger, more collaborative, and more diverse workforce within NIGMS and beyond



NIGMS Job Vacancy

- **Director, Division of Genetics and Molecular, Cellular, and Developmental Biology**
- Position will be open February 1, 2022 through March 18, 2022

https://nigms.nih.gov/about/job_vacancies



The screenshot shows the NIGMS website header with the NIH logo and navigation menu. The main content area features a sidebar with a table of contents and a main text block.

NIGMS Home	
Research Areas	+
Research Training	+
Capacity Building	+
Grants and Funding	+
Science Education	+
News and Events	+
About NIGMS	-

Division of Genetics and Molecular, Cellular, and Developmental Biology Director

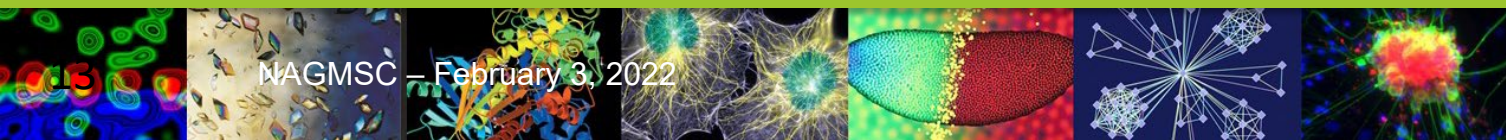
The National Institute of General Medical Sciences (NIGMS), a major research component of the National Institutes of Health (NIH) and the Department of Health and Human Services (DHHS), is seeking exceptional candidates for the position of Director, Division of Genetics and Molecular, Cellular, and Developmental Biology. Information about GMCDDB is available at <https://www.nigms.nih.gov/about/overview/Pages/GMCDDB.aspx>.

The Division Director plans and directs a program of research grants, analyzes national research efforts related to the scientific areas supported by the Division, and makes recommendations to assist the NIGMS Director and the National Advisory General Medical Sciences Council or other advisory committees or groups. The Director identifies the research needs in the areas of genetics and molecular, cellular and developmental biology, and advises other government agencies, universities and research institutes, and professional and lay organizations about research opportunities, needs, and

New NIGMS Clinical Research Strategy Coordinator

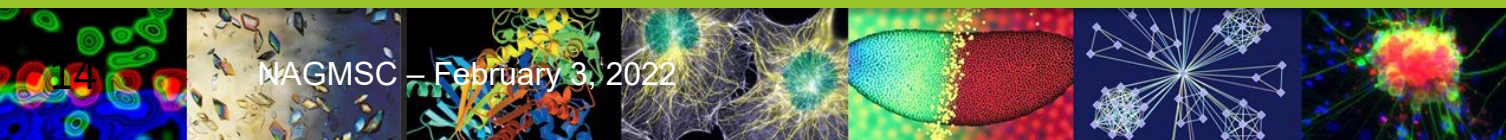
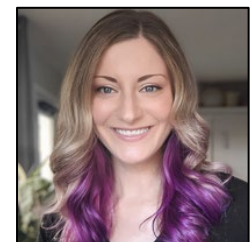
Della White, Ph.D.

- Will work with staff across NIGMS on issues related to clinical research
- Was a program director at the National Center for Complementary and Integrative Health; managed a diverse clinical research portfolio focused on health promotion and restoration, resilience, symptom management, and disease prevention
- Before that she was a program director at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development



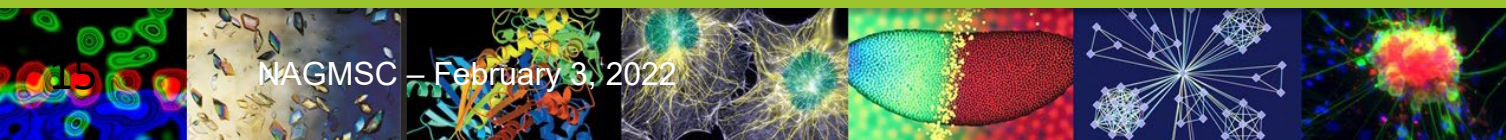
New Hires

- **Latarsha Carithers, Ph.D.**, Chief, Training, Mentored Research, and Diversity Section, Scientific Review Branch, Division of Extramural Activities
- **Anne Gershenson, Ph.D.**, Program Director, Biophysics Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences
- **Barinaadaa Kara**, Grants Management Specialist, Grants Administration Branch, Division of Extramural Activities
- **Brittany Merth**, Public Affairs Specialist, Communications and Public Liaison Branch, Division of Management



New Hires (cont.)

- **Han Nguyen, Ph.D.**, Program Director, Bioinformatics and Computational Biology Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences
- **Parvathy Panakal**, Grants Management Specialist, Grants Administration Branch, Division of Extramural Activities
- **Marc Rigas, Ph.D.**, Scientific Review Officer, Training, Mentored Research, and Diversity Section, Scientific Review Branch, Division of Extramural Activities
- **Miljan Simonovic, Ph.D.**, Program Director, Biochemistry and Bio-related Chemistry Branch, Division of Pharmacology, Physiology, and Biological Chemistry



New Hires (cont.)

- **Ayanna Vest**, Management Analyst, Management Analysis and Policy Section, Division of Management
- **Alvin Yeh, Ph.D.**, Program Director, Biomedical Technology Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences



Promotions and Reassignments

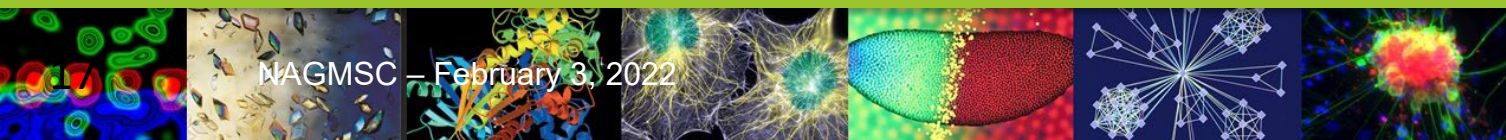
Promotions

- **Alyssa Le Vie**, Budget Analyst, Financial Management Branch, Division of Management; promotion from trainee



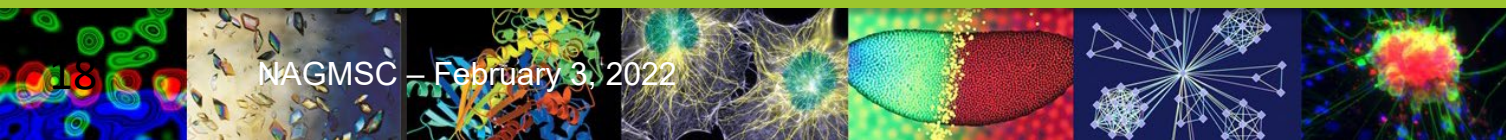
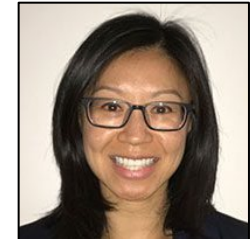
Reassignments

- **Paula Flicker, Ph.D.**, Biophysics Branch, Division of Biophysics, Biomedical Technology, and Computational Biosciences; previously in Division of Genetics and Molecular, Cellular, and Developmental Biology



Departures

- **Paul Brazhnik, Ph.D.**, Bioinformatics and Computational Biology Branch; Division of Biophysics, Biomedical Technology, and Computational Biosciences (retirement)
- **Daniel Janes, Ph.D.**, Genetic Mechanisms Branch; Division of Genetics and Molecular, Cellular, and Developmental Biology (move to the National Institute of Mental Health)
- **Emerald Nguyen, Ph.D.**, Data Modeling and Analytics Branch; Division of Data Integration, Modeling, and Analytics (move to the National Institute on Aging)
- **Janice Steele**, Scientific Review Branch; Division of Extramural Activities (move to the National Institute of Diabetes and Digestive and Kidney Diseases)



Departures

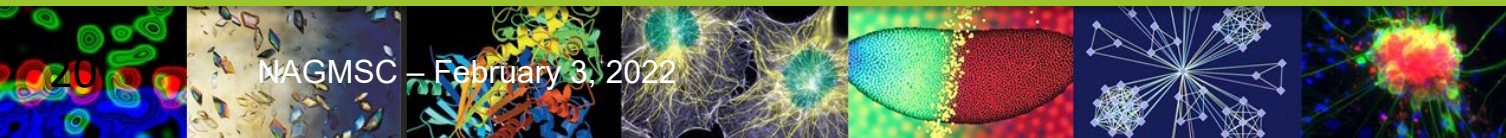
- **Desirée Salazar, Ph.D.**, Postdoctoral, Early Career, and Workforce Development Branch; Division of Training, Workforce Development, and Diversity (move to the National Heart, Lung, and Blood Institute)
- **Shiva Singh, Ph.D.**, Predoctoral Basic Biomedical and Medical Science Training Programs Branch, Division of Training, Workforce Development, and Diversity (retirement)



In Memoriam

Brian Pike, Ph.D.

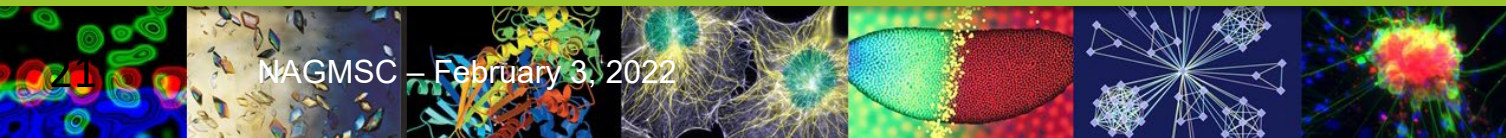
- Joined NIGMS in 2002 and was a scientific review officer in the Scientific Review Branch
- Oversaw the review of a broad range of basic and clinical research applications, research education and training programs, and various NIGMS special initiatives



NIGMS Grantees Receive Nobel Prizes

David W.C. MacMillan, Ph.D., Princeton University

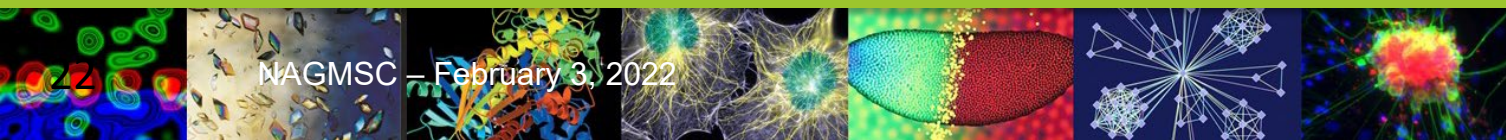
- Received the 2021 Nobel Prize in Chemistry jointly with Benjamin List “for the development of asymmetric organocatalysis”
- Organocatalysis has forever changed how chemists build molecules, creating better, more efficient methods to develop life-saving drugs
- NIGMS has funded MacMillan’s work since early in his career



NIGMS Grantees Receive Nobel Prizes (cont.)

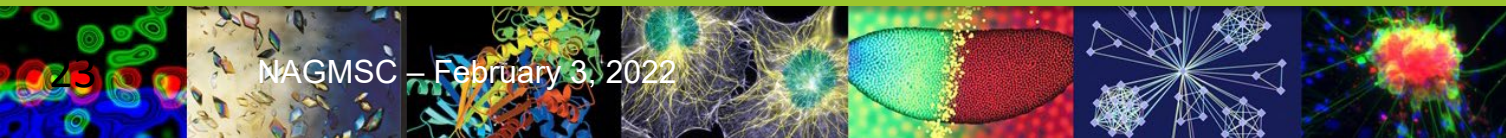
David Julius, Ph.D., University of California, San Francisco

- Received the 2021 Nobel Prize in Physiology or Medicine jointly with Ardem Patapoutian, Ph.D. “for their discoveries of receptors for temperature and touch”
- While funded by NIGMS, Julius discovered a heat-sensing receptor that is responsible for the body’s ability to perceive painful temperatures
- NIGMS began funding him at the beginning of his career, underscoring the importance of supporting the next generation of scientists



NIGMS Employee Receives AAAS Fellow Honor

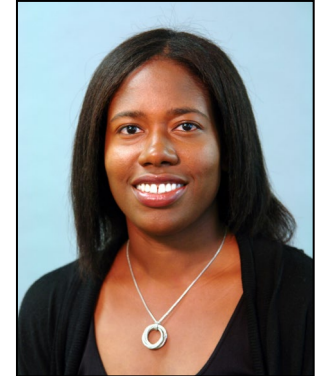
- Kenneth D. Gibbs, Jr., Ph.D., MPH, was recently selected as a 2022 American Association for the Advancement of Science (AAAS) Fellow
- Selected for “distinguished contributions to science policy and research on diversity, equity, and inclusion in the scientific workforce”



Lectures Now Available On-Demand

Judith H. Greenberg Early Career Investigator Lecture

- Elizabeth Johnson, Ph.D., Cornell University, “Looking for Lipids in All the Right Places: Host-Microbiome Interactions”
- 458 live views

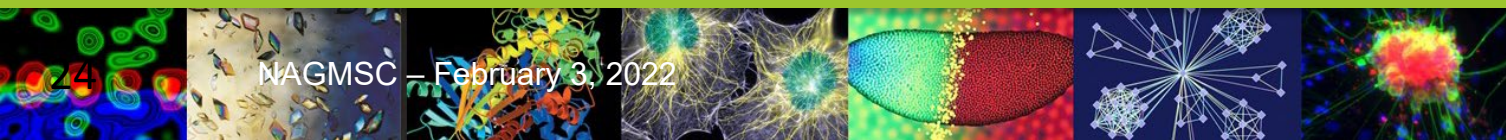


DeWitt Stetten Jr. Lecture

- Trevor Bedford, Ph.D., Fred Hutchinson Cancer Research Center, “Evolutionary Dynamics of SARS-CoV-2”
- 598 live views



<https://videocast.nih.gov>



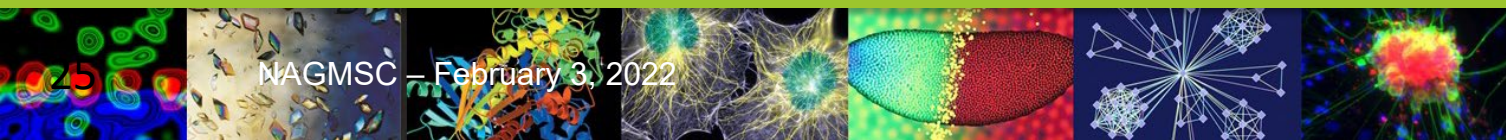
MOSAIC Scholars

- The Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) program is part of NIH's efforts to enhance diversity within the academic biomedical research workforce
- Inaugural MOSAIC meeting held in October 2021 and welcomed 32 scholars into the program
- K99 applications due three times per year (February, June, October)



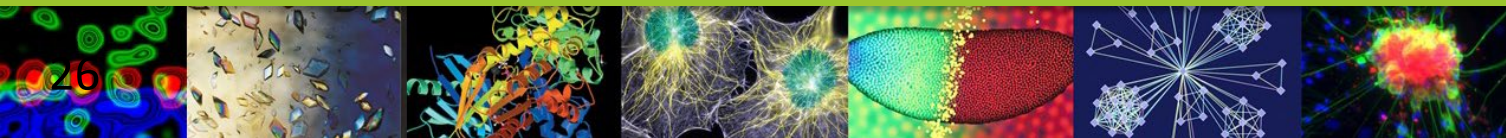
<https://videocast.nih.gov/watch=43860>

<https://videocast.nih.gov/watch=43871>



Additional Support for SARS-CoV-2 Tracking, Cloud Learning, and Collaboration

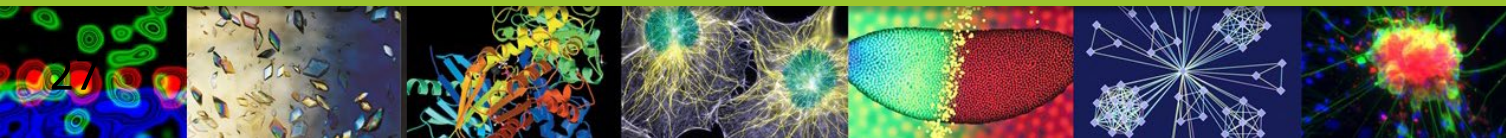
- **Notice of Special Interest ([NOT-GM-22-026](#)): Urgent Competitive Revisions to IDeA and NARCH Programs for SARS-CoV-2 Surveillance Studies**
 - Support for the second cohort of IDeA and NARCH programs to track and analyze SARS-COV-2 variants
 - Contact: Crina Frincu
 - Due date: 03/21/2020
- **Notice of Special Interest ([NOT-GM-22-004](#)): Availability of Administrative Supplements to NIGMS Funded Awards for Building Cloud-Based Learning Modules**
 - Support for the building of Cloud-based learning tools for students of under-resourced institutions
 - Contact: Lakshmi Matukumalli
- **Notice of Special Interest ([NOT-GM-22-001](#)): Availability of Administrative Supplements to INBRE Awards to Fund Research Collaborations**
 - Support for INBRE investigators/students to collaborate with their counterparts from programs such as COBREs, IDeA-CTRs, and CTSAAs
 - Contact: Yang Zhou



More NIGMS Supplement Opportunities

- Equipment
- Curriculum development:
 - Laboratory safety
 - Safe and inclusive training environments
 - Undergraduate research training
 - Program evaluation
 - Mentoring
 - Wellness and resilience
- Undergraduate summer research

More information:
<https://loop.nigms.nih.gov>



NIGMS National and Regional Resources



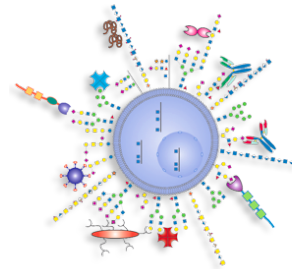
Analytical Services & Training

Complex Carbohydrate Research Center

UNIVERSITY OF GEORGIA



**NATIONAL
CRYSTALLIZATION
CENTER**



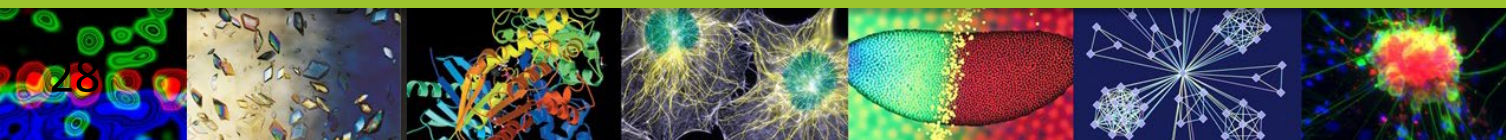
**National Center for
Functional Glycomics
NCFG**



National Magnetic Resonance Facility at Madison



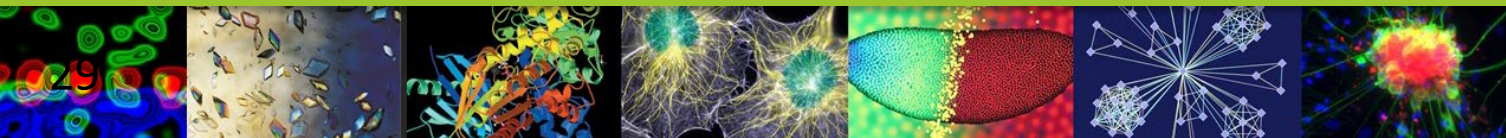
[https://www.nigms.nih.gov/Research/mechanisms/Pages/NIGMS-National-and-Regional-Resources-\(R24\).aspx](https://www.nigms.nih.gov/Research/mechanisms/Pages/NIGMS-National-and-Regional-Resources-(R24).aspx)



MIRA Versus R01 Renewals (Fiscal Year 2021)

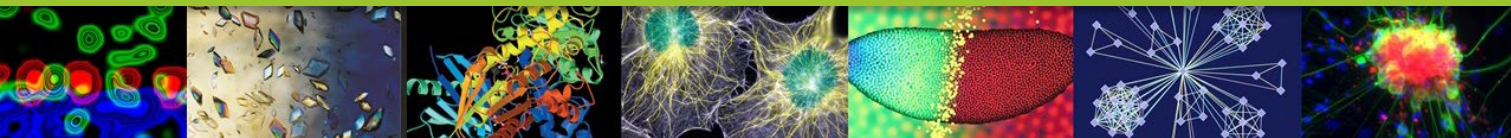
- How do the award rates compare for MIRA and R01 renewals and conversions of R01s to MIRAs?
- How do renewal and conversion award rates for ex-ESIs (first renewals) compare to those for established investigators (EIs)?
- How did grant budgets change upon MIRA and R01 renewals and conversions of R01s to MIRAs?
- <https://loop.nigms.nih.gov/?p=15274>

Jake Basson, Travis Dorsey, Andrew Miklos



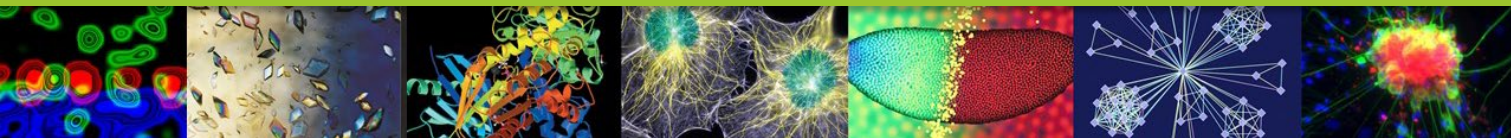
Renewal Award Rates: R01s vs. MIRAs

Cohort	Awards	Applications	Renewal Award Rate
All R01	169	373	45.3
EI R01	150	315	47.6
ex-ESI R01	19	58	32.8
All MIRA	147	171	86.0
EI MIRA	104	111	93.7
ex-ESI MIRA	43	60	71.7
All R01/MIRA Conversion	212	408	52.0
EI R01/MIRA Conversion	177	337	52.5
ex-ESI R01/MIRA Conversion	35	71	49.3



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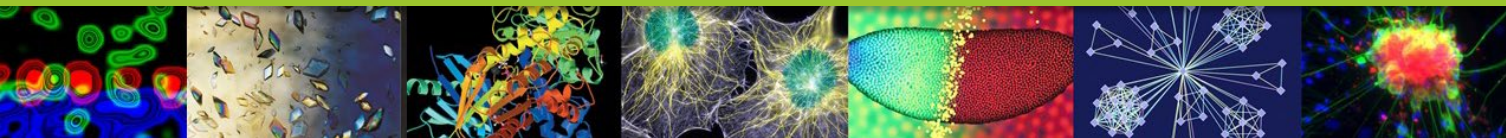
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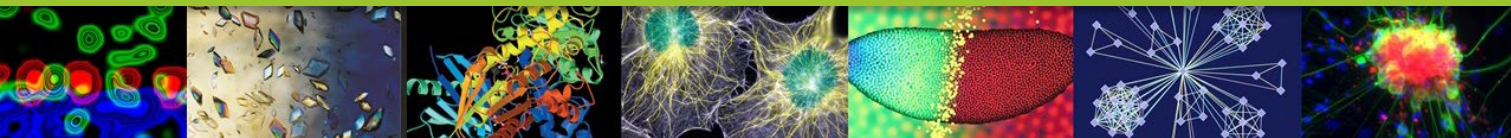
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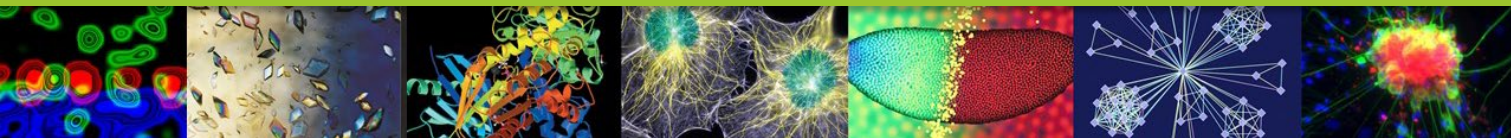
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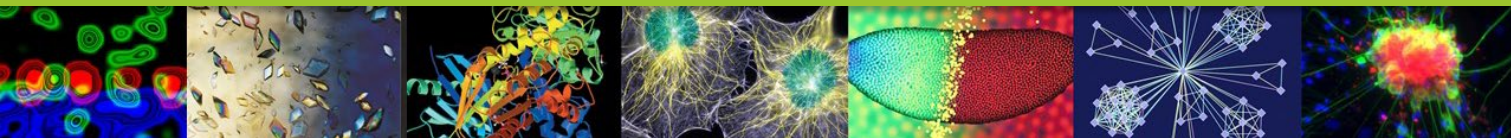
Funding Changes After Renewal: R01s vs. MIRAs

	Funding Change Median %					
	Cohort-Wide Median % (Mean %)	Career Stage		Prior Funding		
		ex-ESI	EI	<\$200k	\$200-399k	≥\$400k
R01 Renewal	3.0 (5.3)	6.5	3.0	6.5	3.0	-0.8
R35 Renewal	3.0 (5.2)	8.3	3.0	27.6	4.7	3.0
R01/R35 Conversion	14.1 (13.1)	19.3	11.1	28.2	11.1	-10.7
R01/R35 no MPI Conversion	13.8 (12.1)	20.4	11.1	28.2	11.1	-12.0



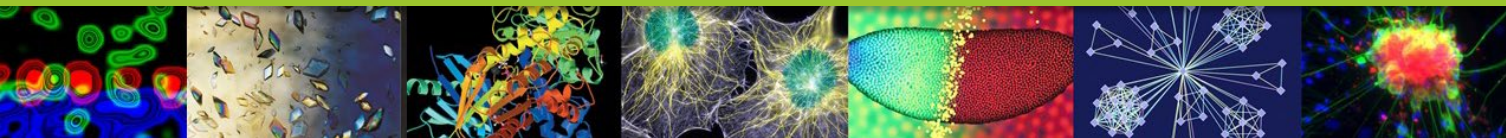
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R01/R35 Conversion	14.1 (13.1)	19.3	11.1	28.2	11.1	-10.7
R01/R35 no MPI Conversion	13.8 (12.1)	20.4	11.1	28.2	11.1	-12.0



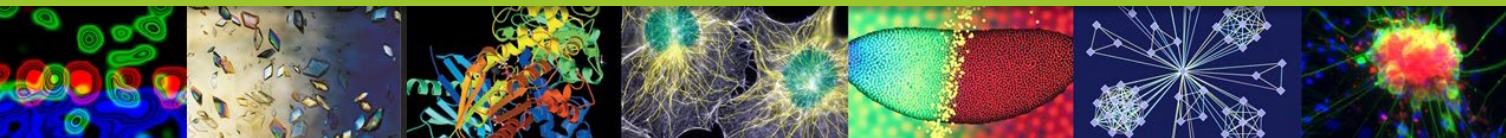
Funding Changes After Renewal: R01s vs. MIRAs

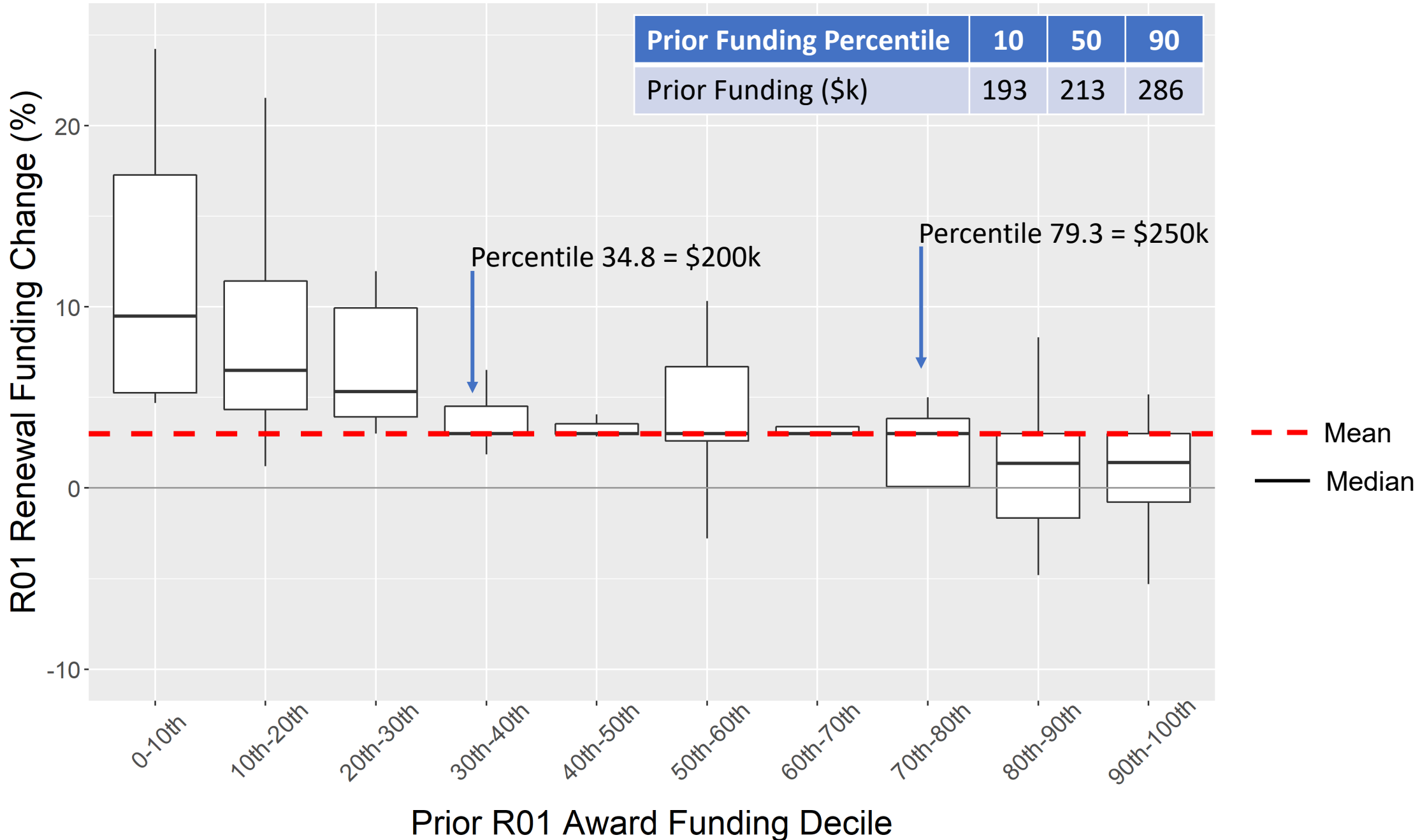
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R01 Renewal	3.0 (5.3)	6.5	3.0	6.5	3.0	-0.8
R35 Renewal	3.0 (5.2)	8.3	3.0	27.6	4.7	3.0
R01/R35 Conversion	14.1 (13.1)	19.3	11.1	28.2	11.1	-10.7
R01/R35 no MPI Conversion	13.8 (12.1)	20.4	11.1	28.2	11.1	-12.0

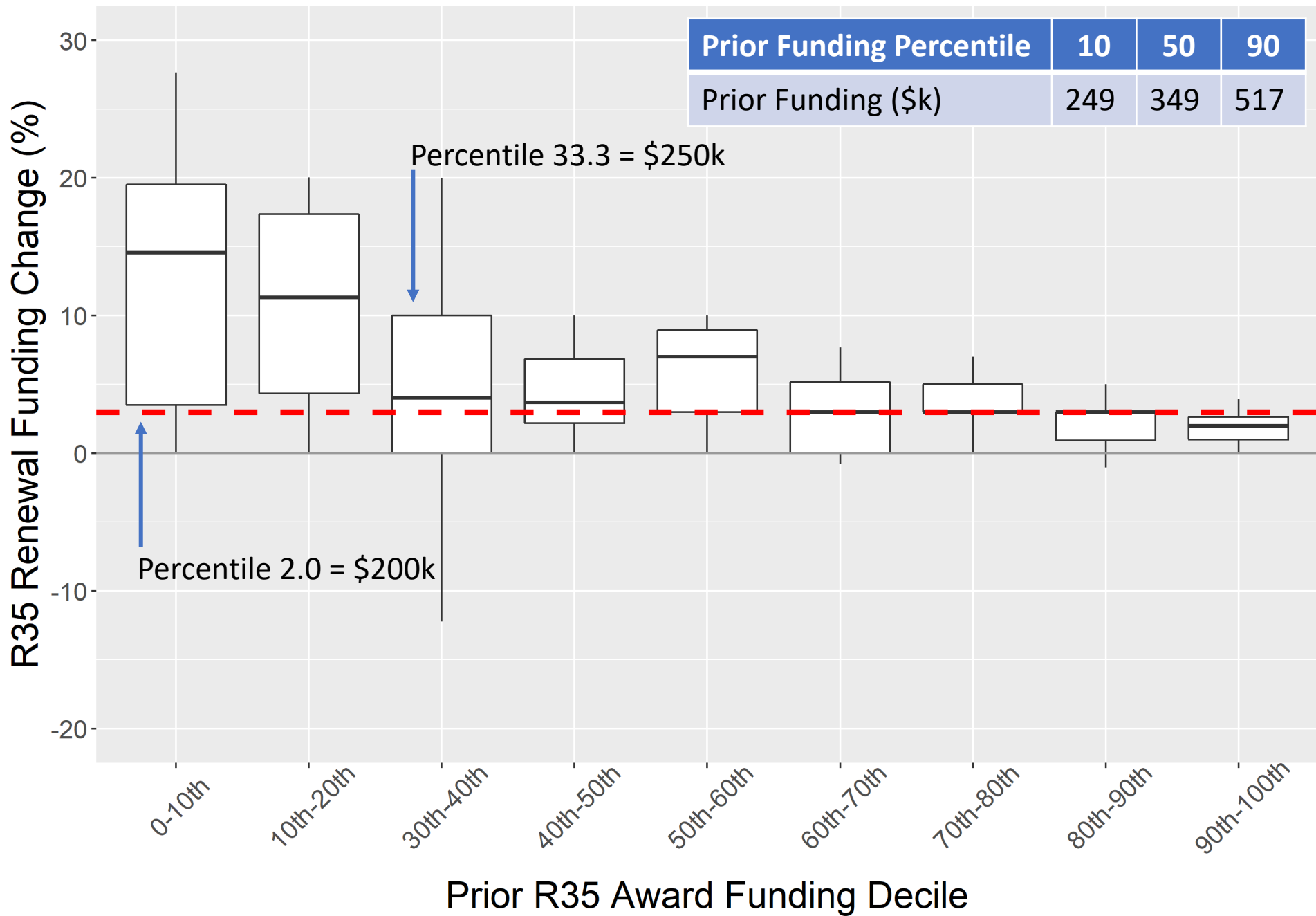


Funding Changes After Renewal: R01s vs. MIRAs

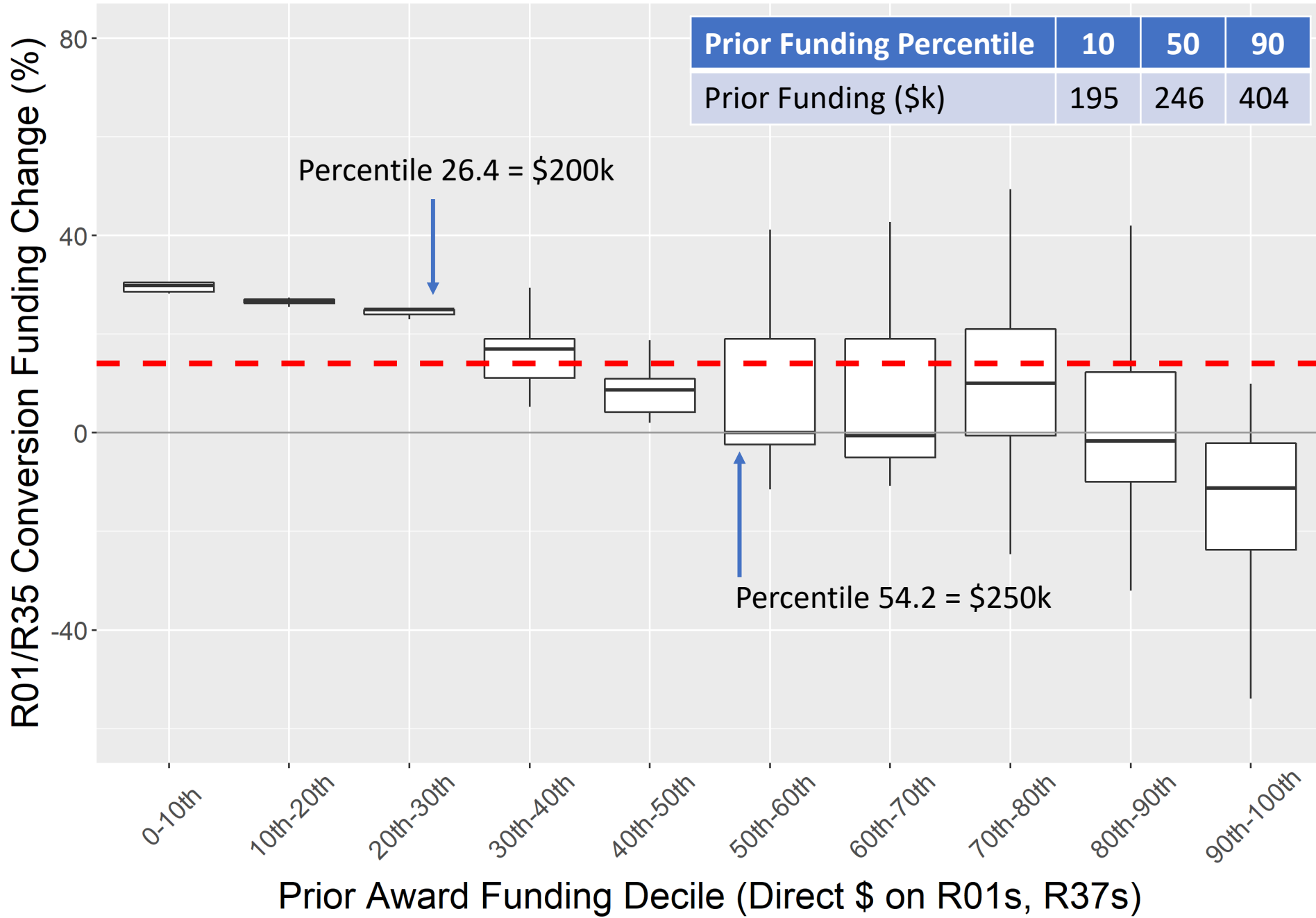
	Funding Change Median %					
	Cohort-Wide Median % (Mean %)	Career Stage		Prior Funding		
		ex-ESI	EI	<\$200k	\$200-399k	≥\$400k
R01 Renewal	3.0 (5.3)	6.5	3.0	6.5	3.0	-0.8
R35 Renewal	3.0 (5.2)	8.3	3.0	27.6	4.7	3.0
R01/R35 Conversion	14.1 (13.1)	19.3	11.1	28.2	11.1	-10.7
R01/R35 no MPI Conversion	13.8 (12.1)	20.4	11.1	28.2	11.1	-12.0







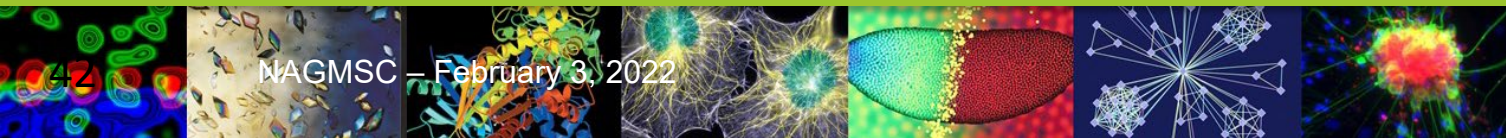
Prior R35 Award Funding Decile



--- Mean
 — Median

MIRAs vs. R01s: Take Aways

- EI and ex-ESI MIRA renewals and conversions have higher award rates than R01 renewals
- Both R01 and MIRA renewals received budget increases
 - ex-ESI and lower budget MIRA renewals received the largest increases
- R01 to MIRA conversions overall received significant budget increases
 - PIs with R01s <\$250k in direct costs were brought up to \$250k
 - PIs with large budgets (>\$400k) were generally cut by ~12%



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