RUTGERS
Office for Research

HIGH FIVE!
TOP FIVE SUCCESSES FOR 2021

LEADING WITH STRIDE

Despite the challenges of 2021, our office continued to partner with the Rutgers University research community as they advanced discoveries that benefitted our local, national and global communities.

OUR BUSINESS UNITS

RESEARCH ADMINISTRATION

RESEARCH DEVELOPMENT

INNOVATION VENTURES

CORPORATE ENGAGEMENT CENTER

CORE SERVICES & STRATEGIC ALLIANCES

ANIMAL CARE

OFFICE OF ADVANCED RESEARCH COMPUTING

RESEARCH COMMUNICATIONS, MARKETING & PR

OFFICE FOR RESEARCH WELCOMED NEW SENIOR VICE PRESIDENT FOR RESEARCH IN 2021

Rutgers welcomed **Michael E. Zwick**, PhD, as the senior vice president for research on September 1, 2021.

Zwick arrived at Rutgers after serving as associate vice president for research of the Robert W. Woodruff Health Sciences Center at Emory University and the associate dean of research and professor of human genetics and pediatrics in the Emory University School of Medicine.

He succeeded former senior vice president for research S. David Kimball, PhD, who retired in March 2021, followed by the interim leadership of Kathleen W. Scotto, PhD, Vice Chancellor for Research, Rutgers Biomedical and Health Sciences, and Dean, Rutgers Graduate School of Biomedical Sciences, between April and September 2021.

Learn more about Dr. Zwick (video)

RESEARCH ADMINISTRATION

- Research and Sponsored Programs (RSP) and Research Financial Services (RFS) managed **4,221+** projects, and Research Contract Services managed **2,500+** sponsored projects and research generating contracts in 2021. RSP also assumed management of all outgoing proposals and award initiation for all sponsored programs, as well as Rutgers-Camden's research and sponsored programs office.
- Launched the Research Administration Handbook – a repository of policies, procedures, and guidelines that support faculty and administration.
- RFS reduced sponsored deficits over the last two years from **$56M to $9M**, a record low. Biannual institutional effort reporting requirements also came in at a **completion rate of 100%.**
- The HSPP/IRB office successfully **submitted a Step 1 application for AAHRPP accreditation.** And according to an FDA inspector at a routine audit close-out visit, **"Rutgers IRB meets the 'gold standard.'"**
- Research Integrity hosted the "Inclusivity and Research Integrity: Who is Responsible" conference of the **Big Ten Academic Alliance Responsible Conduct of Research Collaborative**, exploring why inclusivity matters for robust research and who is responsible for fostering and maintaining healthy research environments.
- Research Analytics and Systems team, in collaboration with Research IT, developed a **new reporting portal** which holds **20+** active and in-development dashboards and reports about Rutgers research. The team also received and managed **150+** data-related requests.

RESEARCH DEVELOPMENT

- Provided proposal management support to Robert Kopp, director of the Institute of Earth, Ocean and Atmospheric Sciences, and his interuniversity faculty team on a successful **$20M** proposal to the National Science Foundation's Coastlines and People program and to Stuart Shapiro (Edward J. Bloustein School of Planning and Public Policy) and the School of Public Affairs & Administration on a successful **$1M** pilot proposal to launch the New Jersey Policy Lab.
- Launched the Research Strategy Roundtable, led by the Executive Vice President of Academic Affairs and the Senior Vice President for Research and comprised of all Vice Chancellors for Research at Rutgers, with a mission to identify cross-unit approaches for strategic intervention and research support.
- Revitalized the Busch Biomedical Grants Program, recruiting a new faculty advisory committee and increasing the maximum award amount. This year, the program awarded **$1M** across 16 pilot projects.
- Trained more than **100** faculty and staff across Rutgers on the Pivot platform to identify funding opportunities and automate tailored searches.

INNOVATION VENTURES

- Worked with faculty on **179** new invention disclosures, filing **195** worldwide patent applications with **125** worldwide patents issued on Rutgers technologies.
- Signed **504** agreements related to Rutgers Intellectual Property, including **88** license and option agreements for a variety of technologies from software to materials to therapeutics and diagnostics. A total of **5** startups were created to bring the active number to **87**.
- Agriculture thrived in 2021, thanks to an increase in demand for Rutgers' **cranberries**. A record number of licensees coincided with a record year in cranberry revenue, as the program brought in over **$1.6M**.
- Rutgers is a partner in the newly created National Science Foundation (NSF) I-Corps™ Hub: Northeast Region, strengthening a growing regional and national technology commercialization ecosystem while connecting diverse resources and networks available within a consortium of universities.
- HealthAdvance(R) provided approximately **$850K** in direct funding to support the development of promising technologies from six innovator teams from RBHS, School of Arts and Sciences, and School of Engineering. The program also announced the launch of HealthXpress, which plans to issue four awards of up to **$50K** in direct funding each year to Rutgers innovators to conduct early-stage feasibility studies to develop product/solution technology ideas with an impact on human health. A HealthAdvance awardee was selected to participate in a national innovator showcase organized by the NIH's REACH program team.

CORPORATE ENGAGEMENT CENTER

- **Research and clinical trial collaborations** with existing and new industry partners added up to **more than $8M** in 2021.
- **Industry PhD experiential learning internship opportunities** for trainees **doubled** over the last year; the number of company partners **tripled.**
- Long-term industry relationships that grew into **strategic alliances doubled** over the previous year.
- **Rutgers entrepreneurship network and partnerships** grew dramatically in 2021. Outcomes include, but are not limited to, engagement with new alumni, capstone projects, student internships, and employment and mentorship opportunities.
- The Corporate Engagement Center developed, supported and stewarded at least **50% more proposals over the previous year for the third year in a row**.

CORE SERVICES & STRATEGIC ALLIANCES

- Coordinated **four joint symposia with Tel Aviv University (TAU)** exploring *Trends in Cyber Security*, *Ancient and Modern Identities in Yemen*, *Advances in Gene Therapy*, and *Cutting-edge Nanomaterials*, leading to new research collaborations between Rutgers and TAU. Through an MOU, Rutgers and TAU established a **two-year partnership** that will provide seed funding to support collaborative research with faculty from both institutions.
- **Implemented iLab**, an asset management software designed to support operations for centralized labs and shared resource facilities, to over a dozen core facilities across Rutgers, aiding researchers in accessing and scheduling core resources conveniently and efficiently.
- **Rutgers University Biomedical Research Innovation Cores** (RUBRIC) received a combined total of **six grants**, including an MRI instrumentation funding award, continued support from Gamow Foundation to advance research for patients with corneal damage, as a well as several NIH grants.
- Supporting RUBRIC scientists co-authored and/or provided imaging support for **14 peer-reviewed publications.**
- **Continued research collaborations** include assisting the NJ Medical Examiner's Office on homicide cases, a corporate partnership with eXion on polymer chemistry, in addition to working with an emerging West-Coast biotechnology firm as well as Integra Life Sciences.

ANIMAL CARE

- Comparative Medicine Resources training team **won the 2021 Top Training Development Award** from Laboratory Animal Training Exchange (LAWTE) and **five Animal Care staff members won awards** from the New Jersey branch of the American Association for Laboratory Animal Science for contributing to the field of laboratory animal medicine and welfare, laboratory animal management, day-to-day technical care and handling of animals, and making a positive impact to enrich, enhance and improve the lives of animals and their environment.
- **Genome Editing Shared Resource** started cell-line CRISPR-Cas9 editing services for Rutgers faculty as a fee-for-service. And **In Vivo Research Services** core increased revenue from $1.2M to $1.7M last year, upgraded infrastructure within the animal facilities, and provided a $400K subsidy to faculty research.
- At a cost of **$2.5M**, Rutgers Animal Care upgraded the animal housing within the Child Health Institute vivarium to **increase capacity by 4,000 cages** within the existing footprint, saving the University from building a new animal facility.
- Working closely with Research IT, launched RFID cage card system to improve census management and implemented iLab billing for services to reduce administrative costs and provide on-time billing services to faculty.
- Worked with Controller's Office to get **$1.24M** of COVID pandemic funding to reimburse faculty for research losses associated with shutdown.

OFFICE OF ADVANCED RESEARCH COMPUTING

- Technical Team deployed RU-NET, a 100+ Gbps fully programmable research network that allows Rutgers researchers to connect Rutgers' testbeds to national/international research testbeds. (See page 38 of *EdgeDiscovery*).
- Business Team improved internal processes with new tools for intake process and reporting, welcomed and onboarded **15** new teammates including **12** in Research IT, surpassed **135** lifetime Amarel owner transactions (28 in 2020), and collaborated on or managed upwards of **$53.9M** in active sponsored projects.
- Research Support Team has introduced new machine learning and clinical informatics workshops, expanded our range of focused expertise into new areas, and added some key professional development achievements. The team also expanded partnerships with research support teams at the state, regional, and national scales.
- Research IT implemented integration with OnCore and research compliance system for Institutional Review Boards (eIRB), and **reconfigured and updated the eIRB system** to allow for sitewide IRB compliance administration that reduces administrative burden.
- Research IT implemented **workspace enhancements** which allow compliance and grant administrators to perform a variety of tasks, such as querying, retrieving detailed record information, and increasing awareness of upcoming deadlines.

COMMUNICATIONS, MARKETING AND PUBLIC RELATIONS

- Coordinated timely Return to Research communications during phased repopulation of research labs across the university.
- Launched **_Rutgers Research News_**, a monthly e-newsletter providing the national and international research community with the latest developments from Rutgers research faculty and community supporters.
- Research and innovation stories curated by our team successfully generated earned media placements on BBC News, Good Day Philadelphia Weekend, NJ 101.5, _The New York Times_, NBC News Philadelphia, and more!
- Redeveloped and integrated the Animal Care, Research & Sponsored Programs, and Strategic Research Development websites into research.rutgers.edu, implementing best practices for contemporary, responsive design, accessibility and usability.
- Welcomed three new team members to support research and innovation communications needs. The team continues to forge relationships with communicators and researchers across schools and chancellor units to amplify the Rutgers Research brand.

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