Office of Research and Economic Development

Christopher J. Molloy, PhD
Sr. Vice President
The new addition to the Rutgers family…..

Biomedical & Health Sciences

Rutgers Newark

Rutgers New Brunswick

Rutgers Camden
As an AAU member, Rutgers is among a small, elite group of the nation’s great research-intensive universities.
## BIG 10 stats by License Revenues

<table>
<thead>
<tr>
<th>University</th>
<th>License Revenues</th>
<th>Tech Disclosures</th>
<th>Research Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$Million</td>
<td></td>
<td>$ Million</td>
</tr>
<tr>
<td>Northwestern</td>
<td>122.1</td>
<td>166</td>
<td>$682</td>
</tr>
<tr>
<td>U. Minnesota</td>
<td>45.6</td>
<td>221</td>
<td>$850</td>
</tr>
<tr>
<td>U. Wisconsin (WARF)</td>
<td>41.1</td>
<td>373</td>
<td>$1,190</td>
</tr>
<tr>
<td>U. Illinois - Urbana</td>
<td>21.4</td>
<td>407</td>
<td>$972§</td>
</tr>
<tr>
<td>RUTGERS</td>
<td><strong>16.7</strong></td>
<td><strong>218</strong></td>
<td><strong>$744</strong></td>
</tr>
<tr>
<td>U. Michigan</td>
<td>13.9</td>
<td>368</td>
<td>$1,274</td>
</tr>
<tr>
<td>U. Nebraska - Lincoln</td>
<td>9.5</td>
<td>265</td>
<td>$395</td>
</tr>
<tr>
<td>U. Iowa</td>
<td>7.2</td>
<td>102</td>
<td>$446</td>
</tr>
<tr>
<td>Indiana U.</td>
<td>7.1</td>
<td>202</td>
<td>$454</td>
</tr>
<tr>
<td>Purdue</td>
<td>4.9</td>
<td>356</td>
<td>$628</td>
</tr>
<tr>
<td>Michigan State</td>
<td>3.7</td>
<td>127</td>
<td>$507</td>
</tr>
<tr>
<td>Penn State</td>
<td>3.1</td>
<td>132</td>
<td>$808</td>
</tr>
<tr>
<td>Ohio State</td>
<td>2.1</td>
<td>319</td>
<td>$934</td>
</tr>
<tr>
<td>U. Maryland -College Park</td>
<td>0.7</td>
<td>292</td>
<td>$468</td>
</tr>
<tr>
<td>RUTGERS Rank</td>
<td>5</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

*All FY 2012, except Rutgers FY 2013*

- §U. Illinois campus reporting not AUTM numbers
- All have medical schools except Purdue (has veterinary medicine program)
**Portfolio: Agriculture-related (SEBS, Waksman, other)**
~ 270 Technologies

- **Agriculture**: 138 technologies (43%)
  - Trees: 19 technologies (6%), dogwood, holly
  - Fruits, Berries: 63 technologies (20%)
  - General: 31 technologies (10%)
  - Asparagus: 11 technologies (3%)
  - Floral: 14 technologies (4%)
- **Med/Pharma Nutraceutical**: 63 technologies (20%)
- **Bio, Genetics**: 46 technologies (14%)
- **Food**: 12 technologies (4%)
- **Enviro/Energy**: 12 technologies (4%)
- **Marine Science**: 12 technologies (4%)
- **Misc**: 37 technologies (11%)
Portfolio: Physical Sciences & Engineering

460+ Technologies

Includes ~ 30 Creative Works (software copyrights, some in other portfolios)
Portfolio: Biomedical & Life Sciences
~ 1,060 Technologies

Categories

- Therapeutics & Drug Targets: 36%
- Drug Delivery: 11%
- Research Tools: 20%
- Medical Device: 12%
- Stem Cells: 3%
- Biomaterials: 6%
- Diagnostics/ Biomarkers: 11%
- Other: 1%

Therapeutic Areas

- Oncology: 32%
- Infectious Diseases: 26%
- Cardiovascular: 4%
- CNS: 8%
- Dental: 2%
- Orthopedic: 0%
- Ophthalmology: 1%
- Other: 21%
- Autoimmune/ Immunology: 6%
In the new Rutgers, the Research Functions that were a hybrid of centralized and school-based functions at legacy UMDNJ will operate through a centralized and expanded Office of Research and Economic Development.

**Integration of Functions**

<table>
<thead>
<tr>
<th>Centralized UMDNJ</th>
<th>School-based UMDNJ</th>
<th>Rutgers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Negotiations (Legal Management)</td>
<td>Research Administration Offices</td>
<td>Office of Research Administration</td>
</tr>
<tr>
<td></td>
<td>(grant submissions, contract signatures)</td>
<td>Office of Research Advancement</td>
</tr>
<tr>
<td></td>
<td>Comparative Medicine/Vivarium, Controlled</td>
<td>Office of Research Regulatory Affairs</td>
</tr>
<tr>
<td></td>
<td>substances</td>
<td>Office of Innovation &amp; Partnerships</td>
</tr>
<tr>
<td>IRB, COI, Research Misconduct Administration</td>
<td>IACUC, Export Control Administration</td>
<td></td>
</tr>
</tbody>
</table>
Office of Research Administration

Research & Sponsored Programs
Corporate Contracts
Information Technology
Research Development
Communications
Personnel & Finance
Mission of ORSP

- Facilitate the grant submission process to Federal and State programs, county and municipalities, and Not-For-Profit entities such as universities, foundations, etc.

- Act as official signatory for federal, state and other not-for-profit agreements/awards for Rutgers.

- Provide official data & reports regarding proposals and awards for the University administration and community and external stakeholders

- Although ORSP has a strong service culture, it primarily functions to ensure compliance with federal, state, and university policies and laws and Sponsor guidelines/policies.

Diane Ambrose, Sr. Associate Director
Mission of Corporate Contracts

- Provide high quality and timely service to our faculty and staff
- Foster and maintain mutually beneficial relationships with industry sponsors
- Maintain a balance between Rutgers and industry interests
- Review, draft and negotiate all contracts with industry (excluding licenses) Research (Standard, Consortium, Special, Service, Cooperative, Subcontracts (industrial primes), Master Agreements), MTSa, CDAs, Clinical trials (all sponsors), SBIR/STRR assistance
- Review and authenticate proposals

Charles Wyckoff, Director
ORSP and OCC Interact with Multiple Key Offices

- ORD: Grant facilitators
- DGCA: Post-award
- OCC: Corporate Sponsors
- Dept: PI, Finance, Dean's offices
- REHS: Radiation, Biohazards
- RU CFR: Foundations, corporations
- OTC: Patents/IP Licensing
- Procurement: Purchasing (subs)
- ORRA: IRB, COI, Expt Control, Select Agents
- OGC: Legal
- ORM: Insurance, Indemnity
Mission of Research Development

• Lead and coordinate research development activities across all Rutgers campuses
  • Research “Facilitator” meetings
  • SAKAI sites for funding and team-building
  • Team-based workshops and training for faculty
  • Liaison to faculty for Foundations

• Identify, grow and nourish large, multidisciplinary teams
  • Catalyze new research opportunities
  • Assist faculty in pursuing major multi- and interdisciplinary research initiatives and partnerships

• Coordinate limited submission opportunities

• Find and share grant opportunities
  • COS-PIVOT
  • Other
Mission of Research Communications

Research Communications works across ORED to communicate key information to all users throughout Rutgers, interface to University Relations for all research related issues, assist in all external communications from ORED and serve as a repository for research data at Rutgers.

<table>
<thead>
<tr>
<th>INTERNAL</th>
<th>EXTERNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Websites</td>
<td>Websites</td>
</tr>
<tr>
<td><em>News for All Faculty &amp; Research Staff</em></td>
<td>Working with Rutgers newsletter</td>
</tr>
<tr>
<td>newsletter</td>
<td></td>
</tr>
<tr>
<td>Digital (social) media*</td>
<td>Digital (social) media*</td>
</tr>
<tr>
<td>Bulletin for Faculty &amp; Staff</td>
<td>News Media: publicity, advertising</td>
</tr>
<tr>
<td>Collaboration with Rutgers Communications and</td>
<td>Allies communications (BioNJ, HINJ, NJ Tech</td>
</tr>
<tr>
<td>Marketing, other units’ communicators</td>
<td>Council, NJBIA, etc.)</td>
</tr>
<tr>
<td>Planning, advice and assistance to ORED</td>
<td>Planning, advice and assistance to ORED</td>
</tr>
<tr>
<td>colleagues and collaborators across Rutgers</td>
<td>colleagues and collaborators across Rutgers</td>
</tr>
</tbody>
</table>

*Rutgers Research Blog, Twitter Feed, LinkedIn Group*
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• Faizan Ahmed, Associate Director IT, Research Operations – 848-932-4343
  faizan@rutgers.edu
Office of Research Regulatory Affairs

Mission
To provide leadership and oversight for university research and research training to ensure compliance with all federal and state regulations and local policies.

Objectives
Maintain compliance with regulations, improve processes for assuring compliance, communicate regulations while reducing the burden/barriers to faculty researchers.
• Unify research compliance programs
• Enhance electronic research compliance administration (eIRB, eCOI, eIACUC)
• Ensure compliance for all research-related issues (IRB, IACUC, Conflict of Interest, Export Control, Research Integrity)
Mission: Transform research at Rutgers into products, services and partnerships for the public good, generating value for the University and enhancing economic development in the State of New Jersey.

Rutgers Translational Sciences

Assist faculty in bridging the gap between basic research and the clinic; generate competitive preliminary data for grants & collaborations.

Technology Commercialization

Manage technology lifecycle for Rutgers inventions from conception through patenting, marketing and licensing.

Corporate Engagement

Build academic and corporate relationships, collaborations and partnerships.

New Ventures & Entrepreneurship

Create a culture of entrepreneurship and establish startup companies.
Rutgers Translational Science

Mission: Assist faculty in bridging the gap between basic research and the clinic; generate competitive preliminary data for grants & collaborations.
Rutgers Translational Science

Bridging Basic and Clinical Sciences
- centrally organized
- staffed by experts from industry
- mission is to enable biomedical research

Molecular Design and Synthesis
Molecular Imaging Center
Research Pathology Services
Fragment Library FDA-approved Drugs
Technology Commercialization

Mission: Manage technology lifecycle for Rutgers inventions from conception through patenting, marketing and licensing.

High-value areas include:

- Life Science - small molecules, vaccines, biomaterials, medical devices, research tools, therapeutic targets
- Physical Science - advance materials, energy storage & alternative energy, manufacturing, synthesis & processing, devices (sensors, photonics, etc.)
- Agriculture - nutraceuticals & pharma, diagnostics, food, plants, pest control
Rutgers’ technology commercialization group serves the needs of academic researchers and companies.
Corporate Engagement

Mission: Build academic and corporate relationships, collaborations and partnerships.

• Partnering
  – Works across the University to establish and support mutually beneficial partnerships with private industry
  – Utilizes a matrix-based approach to connect expertise across ORED to support business development initiatives

• Novel Structures of Engagement
  – Explores new types of collaborative structures to better meet the needs of potential partners

• Central Point of Entry
  – Conceived as a “Central Point of Entry” (businessportal.rutgers.edu):
    • Research collaborations
    • Access to internal experts, core facilities, equipment and materials
    • “Concierge” to corporate-facing functional areas
Corporate Engagement: Rutgers Business Portal

Collaborate with Rutgers on...

Research  Licensing  Training  Recruiting

The Corporate Engagement Team created this site for businesses and others interested in Rutgers’ research capabilities, competencies, facilities and assets. Here’s where you can begin exploring the potential for industry collaboration and technology commercialization. We also recognize there’s demand for professional development programs and recruiting opportunities. Corporate Engagement is an integral function within the Office of Research and Economic Development.

Let’s get started.
frontdoor@rutgers.edu
848-932-3689
Contact Us

Rutgers team based in Newark win grant of up to $26 million for research on new antibiotics. Read More.

News & Events
- Molloy Interviewed One on One
- Pinnacle Foods Opens Pilot at Rutgers FIC North
- RU Prof Honored for Inventions
- New Opportunities for Licensing Rutgers Technologies
- Rutgers’ Focus on

Subscribe to Our Newsletter
Mission:

- Commercialize Rutgers technologies via the creation of start-up companies and other entrepreneurial initiatives;
- Promote entrepreneurship and facilitate entrepreneurship activities within the Rutgers community;
- Nurture an innovation ecosystem at Rutgers and beyond

Initiatives/ programs include:

- New ventures/ startup companies
- TechAdvance fund
- Mentoring program
- Creative works
- Events, conferences, and seminars
The Rutgers C.A.S.T.L.E.

Connecting, Advising and Serving
Tomorrow’s Leaders in Entrepreneurship

- Student-focused entrepreneurship center
- Cohesive with RU Strategic Plan (experiential learning)
- Includes programs to support faculty-driven spinouts
- Microsoft Innovation Lab
Office of Research Advancement

Mission
To support the advancement of research by providing state-of-the-art veterinary care and laboratory animal management, regulatory oversight of research involving animals, controlled substances, and specialized equipment, as well as funding opportunities to synergize collaborations, promote core facilities and initiate new strategic research directions.

Objectives
• Support research involving vertebrate animals by providing veterinary services, user training, regulatory oversight for the use and care of ~60,000* animals daily census and efficient operation of ~19 animal facilities (*fish not included)
• Establish and maintain an infrastructure for the acquisition, dispensing and disposal of controlled dangerous substances and listed chemicals
• Support early research efforts and synergize collaborative opportunities by providing competitive seed grant funding
• Provide financial, operational and regulatory oversight of University core facilities and specialized equipment to insure compliance with Federal regulations by periodic certification and audits
• Maintain existing and establish new ORED Core facilities to support the advancement of animal-related research
Office for Economic Development

**Mission**
To establish and grow the programmatic infrastructure needed to catalyze and support effective partnerships that will increase revenues to the University and the economic impact of the University on the state. To facilitate interaction and cooperation, build networks, and make it easier for ideas, talent, and capital to connect and collaborate.

**Objectives**

- **Establish advanced cyber infrastructure capabilities** that benefits research and teaching across schools, disciplines and campus’ (RDI2)

- Accurate assessment of **economic impacts of Rutgers research** and greater recognition of the tremendous economic impacts created by university activities (UMETRICS)

- More coordinated **economic development programming** and activities

- Represent Rutgers at relevant state and national Economic Development forums and our work presented as a model for high impact university-based economic development.