A message from the Vice President for Research

I’m very pleased to report that Rochester Institute of Technology grew research funding by nearly 18 percent in the 2015 fiscal year, with 491 new awards totaling a record $62 million. This increase was due, in large part, to continued success with peer-reviewed research awards from state and federal agencies. Funding from the National Science Foundation, for example, has doubled since 2013, totaling $12.9 million this year. Corporate research funding through grants, contracts, and gifts exceeded $20 million and constituted 32 percent of RIT’s award total.

RIT researchers continue their impressive output and submitted over 660 proposals in the 2015 fiscal year. This report contains a numeric overview of RIT’s year in research and commercialization activities. To read more about RIT’s research success stories, I invite you to go to www.rit.edu/research.

Ryne Raffaelle
Vice President for Research and Associate Provost
**Hans Schmitthenner (Chemistry)** received an award from the National Institutes of Health in the amount of $444,368 for imaging screening for prostate cancer. Schmitthenner’s research focuses on the use of photoacoustic imaging (PAI) by designing of new instrumentation and using infrared dye contrast agents that specifically target PrCa tissue. The instruments and methodology will be precise, will provide detailed images and will be accessible widely in primary care facilities.

**Mishkat Bhattacharya (Physics)** was awarded two grants designed to support the work of young investigators. From the Department of Defense, Bhattacharya received $489,729 to support the theoretical modeling of experiments on the OH molecule focusing on applications in precision measurement, quantum simulation and chemistry at low temperatures. And from the National Science Foundation, he received a $499,275 CAREER award in support of his theoretical work on the pressing demand for designing devices that can detect nanomechanical rotation with a far higher sensitivity than is currently available.

**Behnaz Ghoraani (Biomedical Engineering)** was awarded $456,064 from the National Institutes of Health for her research on a catheter guidance algorithm for the identification of atrial fibrillation ablation targets. Atrial fibrillation (AF) is the most common heart rhythm disorder and affects 2.3 million Americans, accounting for frequent hospitalizations, increased risks of stroke, heart failure and mortality.

**Gabrielle Gaustad (Golisano Institute for Sustainability)** has received the National Science Foundation Faculty Early Career Development (CAREER) award to study the implications of material scarcity and criticality on future clean energy technologies. Gaustad will use the nearly $510,000 award over the next five years to support her research aiming to more fully comprehend supply-chain risks for new clean energy technologies when it comes to material scarcity and criticality.

**RIT** received $13.5 million from New York State and an additional $17 million from corporate and private sources to construct an advanced facility for **MAGIC Spell Studios**. The facility will allow RIT to link together academic programs and high-tech experimental facilities needed for technology development and off-campus, commercially viable startup activity making the Rochester region a major center for interactive games and media, film and animation, graphic design, and imaging science.

**Bo Yuan (Computing Security)** has been awarded first year funding of $1.4 million from the NSF to establish a new CyberCorps: Scholarship for Service program to prepare highly-qualified cybersecurity professionals for entry into the federal, state, local, and tribal government workforce. Students in the program will receive an MS degree in Computing Security in addition to a BS in their respective programs upon graduation. The five year total award is expected to be $3.9 million.

RIT’s Golisano Institute for Sustainability received two notable awards. The U.S. Department of the Navy awarded $2.2 million to **Nabil Nasr**, director of the Golisano Institute for Sustainability, for “Technical Insertion for Recapitalization of Legacy Systems.” And **Mike Thurston**, research faculty and technical director of Golisano Institute for Sustainability, was awarded $1.4 million for the “New York State Center of Excellence in Sustainable Manufacturing.”
2015 Venture Creations Graduating Companies

- **Artwork Evolution** — A software development studio that builds creative apps for iPhone and iPad.

- **Freshop, Inc.** — Offers comprehensive, customizable and modern online grocery shopping technology designed to provide independent grocers with access to affordable technology that can increase their profitability.

- **IMSWorkX** — A telecommunications software company providing service layer applications and solutions for the emerging all-IP communications network.

- **Optic Sky Productions** — A concept to completion production company and feature film post house employing a collective of production professionals.

- **RadianGEN/EnergyWise** — Delivers solar asset management and field services enabling customers to generate higher return on investment on solar and wind assets.

Together, the five companies will introduce 31 new jobs into the economy.
RESEARCH AWARDS & EXPENDITURES

Federal Awards by Agency

Research Awards by Type of Sponsor

Research Expenditures by Category

Value of Research Awards

Total Research & Development Expenditures, FY11 - FY15

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