The University of Rochester is one of America’s leading private research universities and consistently ranks among the top in federally financed science, engineering, medical, and other research. In 2018, the University received nearly $438 million in sponsored research funding across 1,891 awards. We are proud of our increasingly diverse student body, which in 2018-2019 represents 45 states and more than 140 countries around the world. Our clinical care enterprise, UR Medicine, now includes six hospitals across the Finger Lakes and Southern Tier.

The University has added 9,000 employees over the last decade, making it the 5th largest private sector employer in New York State, and largest upstate-based employer. In that time, capital investments of more than $2.7 billion have been made, including major projects such as the Saunders Research Building, Golisano Children’s Hospital, Wegmans Hall/Goergen Institute for Data Science, UR Medicine’s Imaging & Autism Care Center, and the NextCorps high tech business incubator in the Sibley Building in downtown Rochester.

**ECONOMIC IMPACT**

- **5th** LARGEST PRIVATE EMPLOYER IN NEW YORK STATE
- **$198.6 M** ECONOMIC IMPACT GENERATED BY INTERNATIONAL STUDENTS
- **73** PATENTS AND 107 INVENTION DISCLOSURES IN 2017
- **$290M** IN ANNUAL CAPITAL INVESTMENT
- **$438M** IN SPONSORED RESEARCH FUNDING IN 2018
- LARGEST UPSTATE-BASED EMPLOYER IN NEW YORK
- SUPPORTS 2,773 JOBS
- 35 START UP COMPANIES CREATED SINCE 2008
- $2.7 BILLION IN TOTAL CAPITAL INVESTMENT SINCE 2008
- $380M FEDERALLY SPONSORED
- $17M STATE AND LOCAL GOVERNMENT SPONSORED

**STUDENT ENROLLMENT**

<table>
<thead>
<tr>
<th>UNIVERSITY-WIDE</th>
<th>11,817</th>
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<tbody>
<tr>
<td>FULL TIME</td>
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<tr>
<td>Undergraduate</td>
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<tr>
<td>Graduate</td>
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<tr>
<td>Professional</td>
<td>423</td>
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<tr>
<td>PART TIME</td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>242</td>
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<tr>
<td>Graduate</td>
<td>1,638</td>
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**EMPLOYMENT**

<table>
<thead>
<tr>
<th>TOTAL ACROSS THE UNIVERSITY AND AFFILIATES</th>
<th>32,627</th>
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</thead>
<tbody>
<tr>
<td>Full-Time Equivalent (FTEs)</td>
<td>28,093</td>
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<tr>
<td>Total Direct and Indirect Jobs</td>
<td>59,700</td>
</tr>
<tr>
<td>Faculty and Instructional Staff</td>
<td>2,907</td>
</tr>
<tr>
<td>Total new jobs added in 2018</td>
<td>1,812</td>
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</table>

**STUDENT AID AND OUTCOMES**

- **$258M** IN INSTITUTIONAL SCHOLARSHIPS PROVIDED THIS YEAR
- **$28,746** AVERAGE GRANT AID PROVIDED PER STUDENT
- **86%** 6-YEAR GRADUATION RATE (Class of 2016)
- **$23,615** AVERAGE LOAN DEBT AT GRADUATION
- **<2%** LOAN DEFAULT RATE (Compared to 11.5% national average)
UNIVERSITY OF ROCHESTER HOSPITALS AND SELECT AFFILIATES

- Strong Memorial Hospital
- Highland Hospital
- Golisano Children’s Hospital at Strong
- The Highlands (Living Center, at Brighton, at Pittsford)
- Thompson Health
- UR Medicine Home Care
- Noyes Health
- Jones Memorial Hospital
- St. James Hospital
- Strong West
- Nextcorps
- Excell Partners, Inc.

FINANCIAL AID

The University of Rochester is committed to meeting the full demonstrated need of all students who earn admission to the College.

FINANCIAL FACTS

First-year students receiving any financial aid: 74%

Students receiving non-need based scholarships exceeding their calculated financial need:
- First years: 20%
- Transfers: 7%

For the 2017 graduating class:
- Borrowed federal student loans: 48%
- Average federal loan debt at graduation: $23,398

Cost of attendance for 2018-19:
- Tuition and fees: $53,926
- Room and board: $15,938

STATE AND FEDERAL AID

- Students receiving NYS TAP: 834
- Students receiving NYS Bundy Aid: 854
- Students receiving Federal Pell Grants: 1,142
- Students receiving Federal SEOG: 967
- Students participating in NYS HEO P: 105
- Students participating in Federal Work-Study: 1,000

VETERANS AND MILITARY FAMILIES

The University of Rochester values and appreciates the sacrifice military service members and their families make and encourages and supports them as they work toward their higher education goals. The University is annually recognized as a “Best College for Veterans” for its efforts to ensure service members face minimal barriers in attaining higher education. Since 2009, Rochester has participated in the VA’s Yellow Ribbon Program, which, in combination with the Rochester Pledge Scholarship and other aid programs, provides full tuition and fees to admitted Veterans, their spouses, and dependents.

PURCHASING

The University and its affiliates purchased almost $1 billion of goods and services in 2017. Of this total, $182 million or 18 percent was spent in New York state, touching all but six counties.

CAPITAL INVESTMENTS

The University’s annual capital investments support around 3,500 jobs and bring in about $180 million of labor income to the state economy.
2019-20 Budget Request: $1,000,000
Agency: New York State Energy Research Development Authority (NYSERDA)
2018-19 Enacted Budget: $825,000

Thanks to strong and consistent investment from New York State since 1983, the Laboratory for Laser Energetics (LLE) is one of the leading research facilities in the world, a vital component of our national scientific capital and technological competitiveness, a significant source of innovation and talent, a centerpiece of the Finger Lakes’ photonics cluster, foundational component to strategic work on an independent energy future, and one of the key economic drivers for upstate New York.

The LLE is currently the U.S. Department of Energy’s (DOE) largest university-based program in the nation and one of the only New York-based programs annually line-itemed in the federal budget. It is also home to the 2018 Nobel Prize in Physics. The proposed increase in state funding will leverage significant additional federal support and ensure the LLE’s status as the nation’s leading university-based research center in inertial fusion, lasers, and high-energyl-density physics research.

A Global Leader
The LLE is a unique national resource not found at any other university in the nation and is one of the crown jewels of New York State technology and innovation. It is critical to strategic work on an independent energy future and an invaluable source of scientific leadership. The LLE is home to the largest, most powerful and capable energy lasers (OMEGA and OMEGA EP) at any academic institution in the world and is the only fusion research program jointly supported by the Federal Government, the State of New York, industry, utilities, and a research university. The LLE is the lead laboratory for the Direct Drive approach to fusion ignition, recognized by the National Nuclear Security Administration (NNSA) as one of the three viable approaches to this important goal for science-based stewardship. As home to some of the most advanced experimental and computational capabilities in the world, LLE is known nationally and internationally for its contributions to the DOE science-based Stockpile Stewardship Programs (SSP) in partnership with three NNSA labs (Los Alamos, Sandia, and Lawrence Livermore).

State and Federal Funding
The support the University receives annually through NYSERDA has leveraged substantial federal government and industry support, and has proven extremely valuable in demonstrating the state’s commitment to the DOE and the U.S. Congress, helping the University secure, on average, $65-$70 million per year in federal support. Thanks to the $825,000 appropriation included in the 2018-19 Enacted State Budget, the U.S. Congress provided $80 million in fiscal year (FY) 2019 funding for the LLE, a $5 million increase over last year and the highest funding level in its history. The LLE has received a $12 million increase in federal funding over the last two years alone. Support from NYSERDA has also been critical to leveraging support from other federal agencies, including DOE’s Office of Fusion Energy Sciences, Advanced Research Projects Agency-Energy (ARPA-E), and the Defense Advanced Research Projects Agency (DARPA). Increased funding from NYSERDA will affirm New York’s commitment to growing LLE and assist in the request for $82.4 million in FY20 fed-
eral funding. Increased state support will also assist in our negotiations with the DOE over the renewal of our $345 million, five-year Cooperative Agreement.

**Jobs, Investments, and Private Sector Growth**

As a result of state support, the LLE has had a profound economic impact on the Rochester area and the Finger Lakes region. It is an engine of regional innovation and growth for the Finger Lakes’ optics, imaging, and photonics sector and one of the highlighted priorities in the Finger Lakes Regional Economic Development Council’s Upstate Revitalization Initiative plan. The LLE is currently home to more than 350 scientists, engineers, staff, and 100 students. As a result of federal and state support, the LLE has attracted more than $2.3 billion to the state since its inception to support cutting-edge research, jobs for the region’s optics, photonics, and imaging industry, and the creation of new companies. Since 2015 alone, the LLE has made more than $15.6 million in local purchases from over 50 companies across New York State. As estimated by the Center for Governmental Research, the spending of the LLE and its employees contributes to an additional 500 spillover jobs for a total impact of about 850 jobs across upstate New York, over $56 million in income to workers, and $3.7 million in revenue to state and local governments. Besides payroll and local purchases, LLE’s ground-breaking research helps attract and develop new companies and investors to New York State’s high-technology sector. QED Technologies, Inc., Sydor Technologies, and Lucid, Inc. are just a few of the local companies that were created – and continue to benefit us – as a result of LLE’s technology and research.

**Education and Growing the STEM Pipeline**

Education is an important component of the LLE’s mission. As the NNSA’s largest university program, the LLE is the only facility that trains graduate students, not just from Rochester but other leading institutions, in the Inertial Confinement Fusion (ICF) field providing an invaluable national security workforce pipeline. The LLE has provided an academic home to more than 500 PhD candidates, including more than 200 from outside the University, and has offered research opportunities to generations of undergraduates and many high school students. Currently, more than 100 students are conducting their research and education at the LLE, one-third of whom go on to work in the national laboratories in support of national security and a third are employed in the Rochester region after graduation.
The DOE has also designated the LLE as the National Laser User’s Facility which allows the LLE to host more than 400 scientists from 55 universities, over 35 centers and national laboratories in 21 different countries on 4 continents to carry out fundamental research, training and education. The LLE also provides research opportunities for undergraduates, including students at nearby SUNY Geneseo, with many choosing to pursue additional STEM education. The LLE has partnered with SUNY Geneseo for more than 25 years and we annually provide around $400,000 in support for research and equipment as well as support for 26 undergraduate students and 6 faculty.

Additionally, the LLE sponsors an annual High School Summer Student Program, which has hosted over 360 students, producing 38 semi-finalists, and 4 finalists in the Regeneron Science Talent Search, the nation’s most-prestigious science competition.

Innovation
As one of the preeminent research facilities, the LLE serves a critical national security function and is also at the forefront of efforts to demonstrate the viability of nuclear fusion as an inexhaustible, clean, and affordable source of energy. The pursuit of fusion yield in the laboratory is critical for the long-term health of the SSP, and the University of Rochester and the LLE are proud to be part of the United States’ efforts to tackle this grand challenge and avoid technological surprises by another country such as Russia or China. Once realized, nuclear fusion will not only diversify the state’s energy portfolio, but will advance the state’s energy and economic well-being. While many challenges need to be overcome before fusion is an economically viable energy source, demonstrating the feasibility of inertial fusion energy as an inexhaustible, safe, and efficient source of energy would ensure that New York is the leader in reaping the incredible benefits of this technology.

LLE also has a long tradition of innovating and advancing laser and optical technologies. It is widely recognized as one of the only centers nationally for high-power lasers which have broad implications for national security, medical, scientific, and advanced manufacturing applications. The pioneering, world-class quality research performed at the LLE was recently recognized with the 2018 Nobel Prize in Physics, which was awarded to University of Rochester graduate Donna Strickland and a former faculty member for work they undertook at the LLE. Professor Strickland is only the third woman to receive the prize in physics, joining Marie Curie (1903) and Maria Goeppert-Mayer (1963). The research has had a wide range of real-world applications, enabling the manufacturing of glass for smartphone screens, cancer treatments, Lasik eye surgery, and ultrafast imaging.
The Need for State Support

The DOE has identified LLE’s approach to fusion as one of the three viable means to this national goal. To perform the research required to advance fusion, the LLE must add new laser capabilities and diagnostics at OMEGA. These new capabilities will also enable new research in high energy density physics. In addition, a recent National Academy of Sciences’ report highlighted that the United States is losing its leadership position in high intensity science and related technologies to Europe and Asia and a more coordinated national strategy is needed to stay ahead of international competition. Ultra-fast lasers have a broad range of uses and are opening up new applications for industry, health, and national security. As a leader in this field, the LLE will have a critical role to play in U.S. leadership. NYSERDA funds will help the LLE respond to report recommendations that include the development of next generation laser technology and facilities at the LLE.

The LLE is also leveraging its deep expertise in lasers to develop new partnerships and federal opportunities. For example, the University is partnering with MIT and Lawrence Berkeley National Laboratory to develop the world’s highest average power laser, as well as with DARPA and ARPA-E to use lasers in material processing to modify surfaces to be hydrophobic or hydrophilic and for defense applications.

NYSERDA funding would increase the prospects for additional federal funding by demonstrating strong state support and strengthening the LLE’s and New York’s global leadership in fusion and high-energy-density physics research.
The University of Rochester Medical Center (URMC) is one of the leading academic medical centers in the nation and our hospitals consistently rank among the best in the country. URMC is the largest health care provider in the region and the leading source of new physicians for the area. Funding from New York State has a profound effect on our patient care and community health missions, impacting our ability to serve as the safety-net for our most vulnerable citizens while also serving as a hub for health care innovation and collaboration.

**Protect New York’s Hospitals, Nursing Homes, and Home Care Agencies**

New York’s health care providers continue to reshape our health care delivery system in order to improve quality, access, and outcomes. The significant reforms required to improve delivery system performance, including investing in information technology, care coordination, integration of care, and other critical projects, require significant investments that are often difficult to shoulder with low operating margins.

- We urge New York to retain and expand critical health care investments - including new capital and other funding that recognizes the needs of urban and rural providers.

- We urge New York to oppose harmful nurse staffing ratio proposals – which would impose arbitrary staffing levels and take away flexibility to adapt to the specific needs of the patient population at any moment.

- We urge the Legislature to restore graduate medical education funding to five academic medical centers which is vital to the training of the next generation of physicians in our state and ensuring continued access to services for the most vulnerable citizens

**Support for New York’s Academic Dental Centers**

The six academic dental centers in New York State, including the Eastman Institute for Oral Health, serve as the largest providers of comprehensive, preventive, primary, and specialty oral health care to Medicaid recipients, the uninsured, and the state’s most vulnerable groups.

- We are pleased New York State recognizes the importance of continuing adult Medicaid coverage for dentistry, since prevention and early detection of disease are the cornerstones of decreasing Medicaid costs.

- We support permanent extension of the restricted dental faculty license, which is critical to attracting the best talent to New York’s dental schools.

- We urge the state to improve access to care to those with Intellectual and Development Disabilities by supporting the designation of these individuals as a Medically Underserved Population (MUP) in order to make available additional resources to provide direct care and improve workforce training.

**Support Telemedicine Services**

Widespread development and use of telemedicine programs, such as URMC’s Health-E-Access Telemedicine Program, will improve access to high-quality care in both urban and rural communities and reduce health care costs by reducing emergency room visits. We are grateful that
New York State has recognized the importance of telemedicine through recently expanded commercial and Medicaid coverage for these services.

• We urge New York to require payment parity for telemedicine services to the same service provided by traditional means.

Improve NYS Professional Licensing Process

The length of time to complete the New York State process for licensure as a physician or dentist in New York State can take over six months, and is generally longer for internationally trained individuals. This process must be streamlined and improved in order to ensure patients in New York State are able to receive the care they need without having to travel out of the region or state and for New York to remain competitive with other states for the recruitment and retention of providers, particularly for specialists.

• Often recruited through national searches to fill a specialty or subspecialty that is not currently served in our region, licensing of internationally trained individuals can be particularly troublesome. Despite the exemplary training and skill sets of internationally trained providers, it often takes more than a year to license these individuals in New York State, even if they are currently licensed and practicing in other U.S. states.

• New York State places the decision of applying for license type on the applicant. If an applicant does not qualify for the type of license selected, there is currently no mechanism to automatically consider any other type of license, stalling the process.

• As multiple offices review licensing applications, they are currently unable to share supporting documentation from the applicant, leading to multiple requests for the same properly certified information, causing further delays. One set of official documents should be sufficient for the process.

Support A Strong Clinical Laboratory Workforce

Institutions across New York State are facing an overwhelming shortage of clinical laboratory technologists. At Strong Memorial Hospital, we face a 10% vacancy rate compounded by the growing concern that 50% of our current licensed clinical laboratory technology staff are eligible for retirement in the next 5 years. At the same time, the education pipeline isn’t large enough to backfill the vacancies.

• We urge New York to support additional educational programs in becoming licensure qualifying, reduce delays in licensure applications for techs, and support an alternative method for nationally certified candidates with substantial training to become licensed.
State support for public health and social service programs is critical to ensuring the development and expansion of academic-community health partnerships that improve the health of our citizens and provide important care to the underserved in our state.

**Support for School Based Health Centers**
The University of Rochester sponsors the School Based Health Centers (SBHCs) at East High School and at the Frederick Douglass Campus, which are two of the more than 250 SBHCs statewide. Services to students include complete physical exams, health screenings, care for acute and chronic illnesses, mental health counseling, laboratory services, sexually transmitted disease and pregnancy testing and prevention, health education, and immunizations. Students receive services without regard to insurance status and are not charged any fees. State budget cuts to the SBHCs coupled with new distribution formulas have left the Centers in financial crisis.

- We urge New York State to support $5 million in new funding for School Based Health Centers statewide.

**Support for Cancer Services Program**
The statewide Cancer Services Program is a preventive service that pays for breast, cervical and colorectal cancer screenings for uninsured or underinsured adults. The University of Rochester Medical Center provides these potentially life-saving cancer screening services to six counties through the Cancer Services Program of the Finger Lakes Region.

- We support $25 million in funding for the Cancer Services Program statewide to make it possible for thousands of residents to receive lifesaving cancer screenings and treatments without having finances be a barrier to their care.

**Support for Treatment and Prevention of Eating Disorders**
The University of Rochester Medical Center is host to the Western New York Comprehensive Care Center for Eating Disorders, one of three Comprehensive Care Centers statewide. These Centers provide an unparalleled, comprehensive range of specialized clinical services for patients with eating disorders and ensure individuals receive timely, appropriate care. In addition to medical and psychological services, the Centers conduct community outreach and prevention.

- We urge New York State to support $1.18 million in continued funding for the Centers in the 2019-20 Budget.

**Support Children’s Environmental Health Centers**
The statewide, regional network of Children’s Environmental Health Centers is an efficient and cost-effective approach to the diagnosis, treatment, and prevention of children’s diseases caused by environmental factors and expands educational programs in children’s environmental health for professionals at all levels. These centers are addressing the major diseases confronting children today, including asthma, autism, allergies, attention deficit/hyperactivity disorder, leukemia, obesity, diabetes, and others. Thanks to state funding, the Finger Lakes Regional Children’s Environmental Health Center has created an infrastructure for education and outreach concerning environmental exposures in children and mothers.

- We urge continued investment of $2 million in Environmental Protection Fund support for the Children’s Environmental Health Centers.
Support for Occupational Health Clinic Network
The Finger Lakes Occupational Health Services (FLOHS), part of UR Medicine, serves a nine county region in the Finger Lakes and Western New York by focusing on diagnosis, treatment and prevention of work-related illnesses and injuries. FLOHS’ multidisciplinary team of professionals have been working with businesses and workers to prevent injuries and illnesses by providing preventive programs, medical screenings, and educational services regarding worker health and safety while on the job, with many services targeted to underserved populations.

- We urge the state to provide level funding for the Occupational Health Clinics.

Support for Diversity in Medicine
With state support, the Associated Medical Schools of New York (AMSNY) have offered an array of programs across the state with the intent of expanding the pool of students choosing careers in health and medicine, including the AMSNY Post Baccalaureate Program which provides academic enrichment and support to students from educationally or economically underserved backgrounds. AMSNY now also offers a Diversity in Medicine Scholarship program to support underrepresented medical students who agree to practice full time in a health care shortage area in NY after graduation.

- We urge the state to designate $1.8 million for the AMSNY Diversity in Medicine Program and $1 million for the Diversity in Medicine Scholarship.

Support the Community Optional Preventive Services (COPS) Program
The COPS program provides funding to prevent the need for foster care placement and to support preventive services for vulnerable families and children. Building Healthy Children (BHC), a collaborative effort between Mt. Hope Family Center, Monroe County, the Society for the Protection and Care of Children, and the University of Rochester has long benefited from COPS support to address the causes of child abuse and neglect by utilizing evidence-based practices and home visitation to provide parenting education, positive parent-child relationship development, treatment for maternal depression, and vital support services to low income teen families.

- We urge New York State to maintain $12 million in funding for the COPS program.

Support for Clinical Preceptor Tax Credit
Securing required clinical placements for students to receive intense first-hand clinical training in the health professions has become increasingly challenging in recent years. Unless we encourage new clinicians to serve as preceptors, New York State is at risk of not having an adequate health care workforce to meet future demands for care. We believe a financial incentive for clinicians who provide instruction as part of a clinical preceptorship will help address this issue.

- We support a clinical preceptor tax credit of $1,000 for each 100 hours of instruction, up to a credit of $3,000 during a taxable year, to help address the shortage of clinical preceptors in a number of health professions.

Support for Early Intervention Services
Every year, 135,000 children statewide receive early childhood developmental services. Timely access to these services helps children achieve their optimal developmental potential resulting in better educational and health outcomes and, as adults, allowing them to contribute meaningfully to our community. However, low reimbursement rates for services have led to uncompetitive salaries and the closure of more than 60 non-profit preschools providing early childhood services across the state.

- We urge New York State to increase reimbursement rates for Early Intervention and Preschool Special Education Services and to change state law to prohibit private health insurance companies from denying coverage for Early Intervention Services.

FAST FACTS
- Our School Based Health Center at East High School has more than **4,500 patient visits annually**.
- Due to early detection and treatment, the Cancer Services Program has resulted in nearly **$46 million** in annual savings to the State.
- Diseases of environmental origin cost families and taxpayers **$4.35 billion** per year in New York State alone.
- Over the past 5 years, the 3 Comprehensive Care Centers have treated in excess of **10,000 patients** with eating disorders.
- After completing the one-year AMSNY Post Baccalaureate Program, **93% of students** matriculate in a New York State medical school.
Scientific advances in life sciences research hold the potential for new ways to understand, prevent, and treat diseases, as well as the ability to gauge the effectiveness of various medical interventions to improve the quality and delivery of health care. New York State possesses a significant academic infrastructure of skilled researchers who are not only in position to make significant strides in health discoveries, but grow and reshape the entire field of life sciences and inevitably drive our regional economies.

The University of Rochester is Upstate New York’s premier life science research institution and receives more funding from the National Institutes for Health (NIH) than any other institution outside New York City, making the Finger Lakes region home to Upstate’s largest and most active concentration of biomedical research and life sciences business activity. The University is home to the NIH’s National Center for Advancing Translational Sciences (NCATS), which coordinates a network of more than 50 institutions across the country, and research at the University of Rochester Medical Center has led to numerous transformational discoveries that have saved and improved thousands of lives, including a surfactant to boost lung development in premature infants; the Haemophilus influenzae type B (Hib) vaccine preventing meningitis in children; and the world’s first cancer vaccine – the Human Papillomavirus (HPV) vaccine protecting against cervical cancer. The region’s institutions, businesses, and infrastructure encompass the full spectrum of activity necessary to harness biomedical innovation and transform it into new commercial opportunities, jobs, and economic growth.

Support Life Sciences as an Economic Driver
The 2017-18 New York State Budget included Governor Cuomo’s $620 million life sciences initiative.

By strengthening incentives, investing in research facilities, and improving access to talent and expertise, New York will significantly increase its share of industry-funded research and development, support the commercialization of existing academic research, and usher in the next generation of advanced technologies.

Life sciences researchers and companies are developing new medical and pharmaceutical breakthroughs with the potential to save lives, whether through new therapies or the early detection of diseases like autism and cancer. Beyond the advancements in science, life sciences has the ability to position New York as a magnet for emerging manufacturing based enterprises, bolstering regional economies and creating thousands of jobs.

- We thank Governor Cuomo and the Legislature for funding the $620 million life sciences initiative to fuel discovery and innovation that will expand New York’s ability to commercialize research and grow the economy. As part of this initiative, the University of Rochester, the University at Buffalo, and Roswell Park Cancer Institute collaborated to form the Empire Discovery Institute, a $47 million drug discovery partnership to translate $1 billion of life science research at the institutions into a robust pipeline of commercially viable therapeutics.

New York Fund for Innovation in Research & Scientific Talent (NY FIRST)
Ongoing reductions in federal investment in research and higher education have diminished opportunities for discovery and innovation and threaten the future of America’s next generation of scientists and researchers. Responding to these cuts, states across the nation are increasing their
spending on biomedical research. Massachusetts, Texas, California, Connecticut, and other states have instituted multi-million dollar programs to fund biomedical translational research. Researchers who cannot secure competitive funding in New York State will undoubtedly look to these states as funding from the federal government is reduced.

It is critical that New York State enhance its research faculty recruitment and retention efforts to ensure long-term sustainability and competitiveness in biomedicine. By facilitating the recruitment and retention of established investigators with significant existing research grants, the return on investment in research jobs and matching funds brought into the state will be almost immediate. From 2002 to 2009, the state dedicated $36 million to recruit and retain star scientists from around the world, which leveraged more than $250 million in additional grants—a return of nearly $7 for every dollar invested.

- **We urge New York State to dedicate $20 million and reappropriate unspent funds from SFY2018-2019 to further transform New York State’s economy into one based on innovation, research and scientific talent. The state’s investment will be matched 2:1 by New York State’s 16 medical schools, resulting in an overall investment of $60 million each year.**

### Support Stem Cell Research

The Empire State Stem Cell Program (NYSTEM) has strengthened the University of Rochester’s groundbreaking research programs and our scientists are recognized as pioneers in the field. Research projects that have been funded through NYSTEM have been critical to the expansion of stem cell research infrastructure, advanced the understanding of the potential of stem cells to treat a long list of diseases, and have made New York State researchers more competitive for millions in additional federal funding opportunities. The economic impact of this program in New York State has been significant, including 750 full time jobs supported statewide and seven new biotechnology startup companies launched. New York’s continued commitment to stem cell science will ensure it remains a world-class leader in biomedical research.

- **We urge New York State to provide $44.8 million for NYSTEM in the 2019-2020 State Budget.**

### Support Spinal Cord Injury Research

The New York State Spinal Cord Injury Research Program (SCIRP) has provided more than $70 million in research funding toward treatments for spinal cord injury since its inception in 1998. Funded by a surcharge on traffic ticket moving violations, this program has produced tangible clinical and scientific advances from robotics-based therapies to highly effective cellular replacement therapies that have been transformative for patients with these injuries while reducing their health care costs and ensuring their ability to maintain active working lives. Research projects funded through this program have attracted significant federal and private research support, industry partnerships, and the development of multiple patents. Given the advances in spinal cord injury research, we also support the creation of a Neurorestoration Clinical Trial Network focused on novel treatments to maintain health, wellness and cure neurological disability.

- **We urge New York State to fully fund the Spinal Cord Injury Research Program at $8.5 million and also invest in a Neurorestoration Clinical Trial Network.**

### Support the Empire Clinical Research Investigator Program (ECRIP)

The ECRIP program supports training for clinical investigators in order to support strategically important areas of research for New York’s teaching hospitals and to assist in the recruitment and retention of these researchers. At the University of Rochester Medical Center, ECRIP grants have helped to accelerate clinical research trials related to improving outcomes with chemotherapy, improving ADHD care, and treating tumor-related epilepsy, among others.

- **We urge New York State to provide level funding of $3.4 million in the 2019-2020 State Budget.**

### FAST FACTS

- The University of Rochester has been identified by the journal Nature Biotechnology as one of the **top 10 universities** in the nation for the impact of its life sciences research.
- The National Institutes of Health (NIH) award **more funding to Rochester** than any other region in New York State outside of New York City ($159M in FY17)
- The Finger Lakes region ranks **9th in Life Sciences Degrees and 3rd in Biomedical Sciences Degrees**
- In addition, Rochester has **more STEM graduates** per capita than any other U.S. metro area (larger than 1 million)—including Boston, Raleigh, NYC, etc.
Thanks to state support, the University of Rochester is the 5th largest private sector employer in the state and the largest private employer in Upstate New York. The University is responsible for generating an estimated 59,700 jobs and $3.5 billion in total wages across New York State.

The University of Rochester is a national leader in translating discoveries into new technologies and applications that treat and cure disease, improve national security, and help our nation move toward a sustainable clean energy future. Since 1996, the UR has launched 62 high-technology startup firms and our research has fostered pioneering work in optics and lasers, cardiac arrhythmias, medical imaging, LASIK surgery, and vaccine development. Our innovation ecosystem, which includes state programs such as the Centers of Excellence and Centers for Advanced Technology, STARTUP-NY, and a Regional Technology Development Center, has been cited as a national model and is home to the 2018 Nobel Prize in Physics. With the state’s continued support and partnership, we can do more to harness innovation and discoveries into commercially viable technologies and companies.

Support the Centers of Excellence (COEs)
New York State’s 13 Centers of Excellence are partnering with industry to transform research and technology capabilities into commercial applications. The University is grateful for the $1 million included in the 2018-19 state budget for the Rochester Center of Excellence in Data Science. Thanks to previous support from the state, the University of Rochester is already among the most powerful university-based supercomputing sites in North America.

With IBM estimating that we now gather 2.5 quintillion bytes daily, the demand for turning data into actionable information has tremendous economic potential for New York and the Finger Lakes region. New York State has an opportunity to build on this investment and establish the state as one of the world’s leaders in this new, defining discipline.

- We urge the state to include $1.5 million for the Rochester Center of Excellence in Data Science in the 2019-20 Budget.

Support the Centers for Advanced Technology (CATs)
The University’s Center for Emerging & Innovative Sciences (CEIS) has been a catalyst for growth in optics, photonics, and imaging through industry-university collaboration and technology transfer for more than 20 years. As one of only 15 CATs statewide, CEIS applies world-class research at the University of Rochester, Rochester Institute of Technology (RIT), and Cornell University toward the commercialization of technologies and products to help meet industry needs. CEIS has led or supported efforts to secure all four of the federal government’s advanced manufacturing programs focused on optics, photonics, and imaging for the Finger Lakes, including AIM Photonics. In the last five years, CEIS has generated $316.5 million in direct economic impact, and created or retained at least 333 jobs.

- We urge the state to include $1.5 million for the Center for Emerging & Innovative Sciences in the 2019-20 Budget.
Support Business Incubation and NY’s Manufacturing Extension Partnership (MEP)

NextCorps, formerly High Tech Rochester (HTR), is an affiliate of the University of Rochester and the region’s only state- and federally-designated business incubator. NextCorps’s programs and services support innovation and growth across all stages of the company life cycle. NextCorps is part of NY’s MEP program, a designated Innovation Hot Spot, a STARTUP-NY location, and also manages and coordinates NYSERDA’s statewide effort to place experienced business executives known as “entrepreneurs-in-residence.” NextCorps was a Regional Economic Development Council (REDC) priority project and represents the cornerstone component of the City of Rochester’s newly designated Downtown Innovation Zone. CGR estimates that the NextCorps incubator and accelerator will create at least 1,000 direct and “spillover” jobs from new start-ups and business expansion over a five-year period. Since 2008, the University of Rochester has been responsible for starting up 35 local companies.

- We thank the state for awarding $10 million to NextCorps for the Luminate NY Photonics Venture Challenge and urge New York State to maintain $1.47 million in funding for the NY MEP program.

Support Venture Capital Funding

An identified lack of seed and venture capital funding challenges New York’s innovation ecosystem. While New York universities rank second nationally in total research spending, New York attracts only 4% of the nation’s venture capital investment while California attracts 47%. Excell Partners, Inc., an affiliate of the University of Rochester, manages a state-supported fund which provides pre-seed and seed stage financing to high-tech start-up companies in upstate New York and Empire State Development’s statewide Minority- and Women-Owned Business Enterprises (MWBE) Investment Fund. Due to the high risks inherent in very early stage investing, few venture funds make seed investments, particularly in this region, yet a tremendous research base exists to generate commercially viable technologies, particularly in the life sciences. Due to its strong track record and large geographic impact, Excell was one of the first to receive funding through the State’s Innovate NY program. Excell is positioned to identify promising technologies and accelerate the creation of new businesses.

- We thank Governor Cuomo for his support of the new $25 million Finger Lakes Forward Venture Capital Fund that will provide early stage capital investments for startup companies. The fund will be managed by Excell Technology Ventures, an offshoot of Excell Partners. This was a priority project identified by the Finger Lakes Regional Economic Development Council’s Finger Lakes Forward Upstate Revitalization Initiative Strategic Plan.

Support for the Regional Economic Development Councils and Upstate Revitalization Initiative

Thanks to support for projects such as the Goergen Institute for Data Science, College Town, and NextCorps, the region’s transformation is well under way. More than $400 million in state support has helped the region to diversify our economy, seize new opportunities, grow confidence, create jobs, and begin to overcome barriers to growth. Support from the Upstate Revitalization Initiative (URI), which includes a $500 million commitment to the Finger Lakes Region, is critical to take recent progress to the next level and create a stronger and more prosperous community. We are grateful for the Governor’s and Legislature’s steadfast dedication to growing the state’s economy and look forward to the opportunity to partner once again with New York State to continue the Finger Lakes region’s transformation.

- We thank Governor Cuomo and the Legislature and urge their continued support for the REDC process.
Higher education provides immeasurable value to New York’s students and is one of the best investments a society can make. Support for strategic investments in research capacity and activities, as well as funding for student financial aid, fosters the type of innovative programs that have long distinguished the University of Rochester and benefited the entire state. In order for our state to remain a global leader in technological and scientific innovation, we must ensure our students – from all socioeconomic backgrounds – have the opportunity to pursue high-quality, higher education through access to student aid. The University of Rochester believes that a high-quality post-secondary education must be accessible, affordable, provide students with a world-class experience and create a pathway to a successful career.

**Support the Tuition Assistant Program (TAP)**

TAP is a critical resource that has helped 5 million New Yorkers since 1974 access higher education at public and private colleges and universities of their choice.

- **Reinstate Graduate TAP and fully fund TAP for undergraduates without restrictions that would make it more difficult for students to qualify.**

**Support the Higher Education Opportunity Program (HEOP)**

HEOP, sponsored jointly by the University of Rochester and the New York State Department of Education, provides economically and educationally disadvantaged students access to support services and financial aid to help them succeed. HEOP students graduate at rates above the national average.

- **We encourage New York State to provide sustained increases in base funding to double HEOP by 2021 in order to help meet demand for the program.**

**Support Bundy Aid**

Direct Institutional “Bundy” Aid is distributed to independent colleges and universities in New York State based on degrees conferred. At the University of Rochester, these funds provide scholarship assistance for New York families who have exhausted other forms of financial aid. The approximately $1 million we receive in Bundy Aid annually is vitally important to the $258 million in overall institutional tuition assistance we are able to provide our students.

- **We urge New York State to maintain $35.1 million in funding for Direct Institutional “Bundy” Aid.**
Support Nursing Education
The University of Rochester urges continued support for the Senator Pat McGee Scholarship Program and Nursing Faculty Loan Forgiveness Program, as well as the High Needs Nursing Program, in order to continue to address nursing shortages in upstate New York. Many outstanding nursing students have been able to attend the University of Rochester’s School of Nursing thanks to the scholarship support available through these valuable programs.

- We support level funding of $3,933,000 for the McGee Scholarship Program and $941,000 for High Needs Nursing.

Support the Science and Technology Entry Program (STEP)
Since 1985, STEP at the University of Rochester has introduced 7th through 12th graders from underrepresented and economically disadvantaged backgrounds to problem-based learning, conceptual thinking, and the skills needed to enter and succeed in careers in scientific, technical, and health-related fields, or the licensed professions. This year, the University has 57 students participating in our education pipeline, which includes one 6-week summer program, two 4-week programs, and a 12-week academic program.

- To meet the growth in demand for health professionals and to increase the number of underrepresented minorities in these fields, we support sustained increases in base funding to double STEP by 2021.

Support the Higher Education Capital Matching (HECap) Grant Program
HECap allocations spur economic development, foster urban renewal, create thousands of jobs across the state, and leverage the state’s higher education institutions to sustain economic growth and expansion.

- We urge the State to invest in another round of the HECap Grant Program and to help meet critical infrastructure needs and leverage higher education for economic growth and job creation.

FAST FACTS
- Ranked #23 nationally as a 2019 Best Value School by U.S. News & World Report
- 854 students received Bundy Aid scholarships at the University of Rochester in the 2017-2018 academic year, totaling just over $1 million.
- 834 undergraduates at the University of Rochester are relying on TAP this academic year.
- University of Rochester provided $258 million in institutional scholarships to students this year.
- 104 students participate in HEOP at the University of Rochester.
The **Memorial Art Gallery (MAG)** is one of the few university-affiliated art museums in the country that also serves as a community art museum. The MAG’s permanent collection of more than 12,000 works has been called the best balanced in the state outside of metropolitan New York City. In addition to its collection, the Gallery offers a year-round schedule of temporary exhibitions, lectures, concerts, tours, family activities, and educational programs. The Gallery’s Centennial Sculpture Park was also the centerpiece of the $19 million ARTWalk extension, a redevelopment of the city’s Neighborhood of the Arts.

Education and engagement of students is an important part of the MAG’s mission. As a cultural partner with the Rochester City School District (RCSD), the MAG offers in-gallery and hands-on learning experiences to students at Schools #23, #29, and #45. Through this program, students in grades 1–6 visit the Gallery every Friday for 10 consecutive weeks, where they spend time in the galleries with a museum director and then create artwork of their own in the MAG’s Creative Workshop, connecting art with the school curriculum. In the 2017-18 academic year, the MAG provided tours to 11,878 K–12 students from urban, suburban, and rural districts. Of these visits, 445 were by elementary students from RCSD Schools #23, #29, and #45.

Now, more than ever, Rochester is focuses on revitalizing our city. The MAG sees itself as a vital component to that urban regeneration.

- We urge the Governor and Legislature to support the New York State Council on the Arts, which provides important grants to the museum in support of exhibits and programming and facilities improvements.
- We are thankful for the recent $600,000 award to the MAG from the Finger Lakes Regional Economic Development Council. This will be used for the final phase of the Centennial Sculpture Park and we will be seeking additional funds for this $5 million project to transform ten acres into a showcase of public art and urban outdoor space.
- Further, we urge additional funding for grant programs for NYS museums chartered by the Board of Regents to help fund curriculum-based Pre-K-12 and adult education opportunities.
FAST FACTS

- The MAG welcomed more than 238,000 visitors in FY18.

- Through its cultural partnership with the Rochester City School District, the MAG provides a 10-week program to 445 students in grades 1-6 at RCSD Schools #23, #29, and #45 through a multi-tiered approach that connects art to the classroom curriculum.

- The MAG’s Centennial Sculpture Park, opened in 2013, has recast 10 acres of the Gallery’s grounds into a showcase of public art and urban space in the heart of the Neighborhood of the Arts.

- The MAG provided professional development workshops for 290 area teachers last year.

- 233 low-income residents received free transportation, free museum admission and free family memberships through MAGconnect.