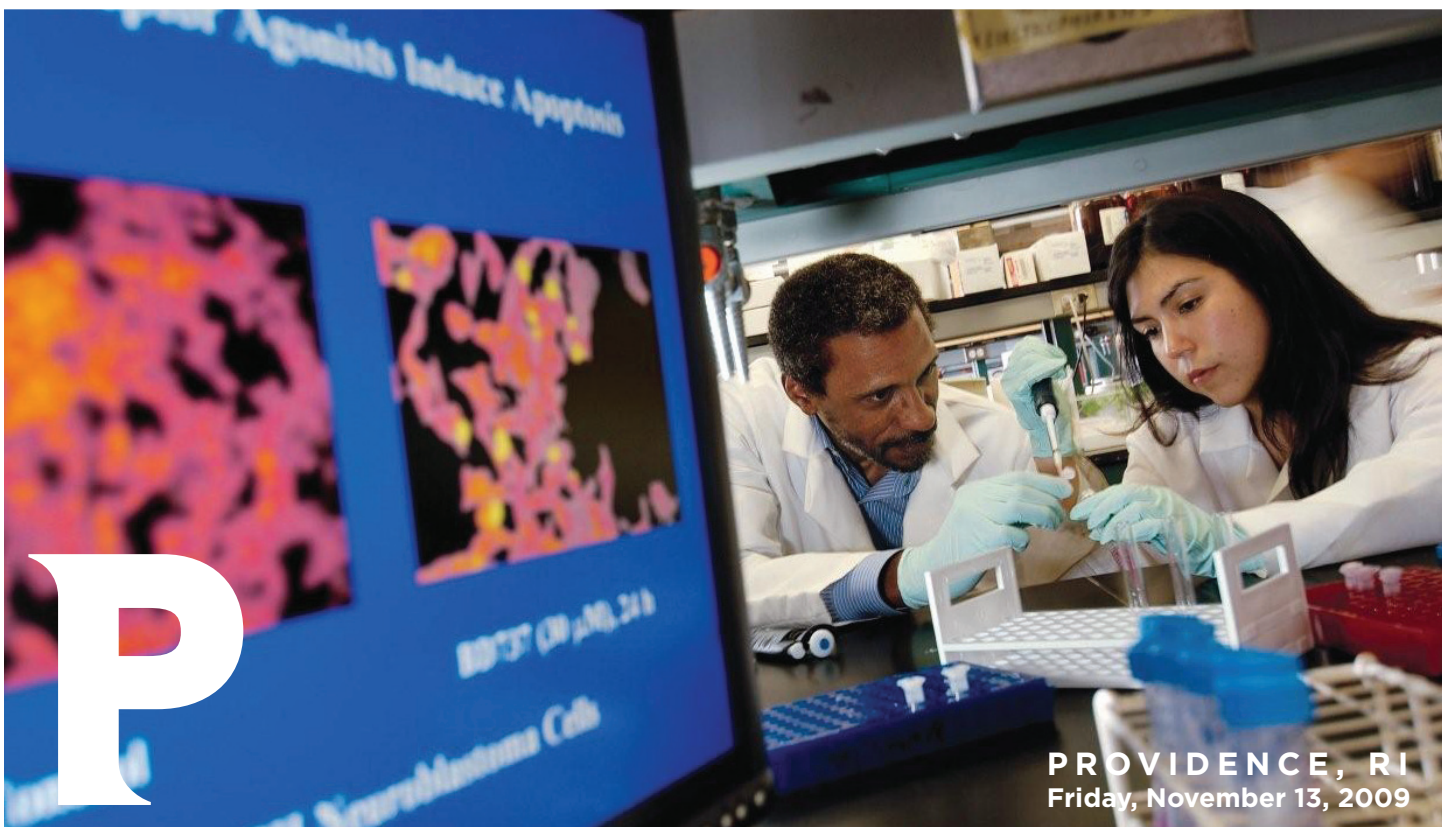


GROWING THE KNOWLEDGE ECONOMY

the power of partnership



PROVIDENCE, RI
Friday, November 13, 2009

the power of partnership...

As the effort to transform Providence's economy continues to grow and expand, so will this list of partners:



BROWN

The seventh oldest college in the United States, Brown University has a long and distinguished history. Today, the University attracts more than \$138 million in research funding annually.

Providence is the capital city of Rhode Island and is New England's second largest city. As home to seven colleges and six hospitals, Providence has 40% more knowledge workers per capita than the national average.



PROVIDENCE THE CREATIVE CAPITAL



Rhode Island's resource for business advocacy, action, progress and policies.

As the primary business organization in the city, the Greater Providence Chamber of Commerce spearheaded a study of the Knowledge Economy with the goal of unleashing and commercializing the untapped talent in the region.

A leader in the field of career education, Johnson & Wales University helps researchers make the transition from academic to entrepreneur.



JOHNSON & WALES
UNIVERSITY



Lifespan

Lifespan, Rhode Island's largest health system, includes Rhode Island Hospital and Hasbro Children's Hospital among its five partner hospitals. The Lifespan hospitals are among the top recipients of NIH research funding.

Established in 1877, Rhode Island School of Design has educated students from across the globe in art and design, creating the nexus between art and science for breakthrough technology and engineering and tomorrow's industries.



The Rhode Island Science and Technology Advisory Council was formed by the state in 2005 to assist state leadership in building innovation in our economy by developing programs and policies to increase Rhode Island's research and development capacity, encouraging entrepreneurship and enabling organizations to innovate.

Founded in 1997, the Slater Technology Fund is a seed-stage venture development organization that has invested over \$25 million dollars in Rhode Island-based ventures. That investment helped those ventures to secure over \$200 million in additional funding.



SLATER TECHNOLOGY FUND

**THE
UNIVERSITY
OF RHODE ISLAND**

The University of Rhode Island, a land-grant university, has become a leader in the research fields of oceanography, environmental and life sciences, and pharmacology, receiving over \$86 million for FY2009.

One of the nation's leading specialty hospitals for women and newborns, Women and Infants is the tenth-largest obstetrical service in the country, with more than 9,700 deliveries per year.

Women & Infants
New England's premier hospital for women and newborns

creating a national center of excellence...

Providence has long been home to great institutions, including Brown University, Rhode Island School of Design, Johnson & Wales University, University of Rhode Island and the Community College of Rhode Island. All of these institutions have facilities in the downtown area, bringing creativity, knowledge, innovation, youth and culture to the environment. Medical facilities and research form a core component of the city's economy, led by Rhode Island Hospital and Women and Infants Hospital.

The universities and hospitals are long-term stakeholders who benefit directly from the quality of the city as a place to work and live. The institutions provide an economic engine for the city, serving as some of the largest employers and creating the potential for spin-off research and production. Working together as partners, the city and institutions will increase retention of recent graduates with the prospect of good jobs, opportunities for start-up businesses, and an attractive and interesting place to live. Within the new economy, innovation technologies come out of the research culture of universities and hospitals, and the successful businesses that result in and create the need for jobs at all levels. Community colleges play a lead role in training the workforce for these jobs.

The City and institutions have come together as partners in an initiative that will serve as a foundation for transforming a struggling economy into a major engine of economic activity for both the City of Providence and the State of Rhode Island. Building on both our intellectual and physical assets, we have identified an area of the city that is becoming a center for research-driven entrepreneurial activity. This new knowledge partnership builds upon existing research infrastructure and brings together the essential elements of economic development (land, labor, capital) that spur the creation of jobs at all levels, and is transforming Providence into a national center for excellence in life science research and application.

While Providence is the location for this activity because of the intellectual and physical assets that are already in place here, the Knowledge District is poised to serve as an economic engine for the State of Rhode Island as well. In addition, development of this type will serve to strengthen the knowledge industry sector in New England and thus be incremental to the regional economy. To the extent that this effort will contribute to America's continued dominance in the intellectual property domain, it should also be additive to the national economy.

*... a foundation
for transforming
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jewelry district: providence's center for knowledge creation

The Providence Knowledge District capitalizes on the city's compact size and the close proximity of each partner's campus. The heart of the Knowledge District will be located in a downtown neighborhood, currently known as the Jewelry District. This area was once home to innovation and creativity in the jewelry industry and served as one of the centers of manufacturing in Providence. However, with the downturn of manufacturing in the United States, the Jewelry District, like so many other northern cities, changed from a dense thriving center of industry to an urban neighborhood marked by surface parking lots and disuse. Over the last 15 years, the historic Jewelry District has reinvented itself as a site of medical research and innovation, residential lofts and offices. With the relocation of Interstate 195— which currently separates the Jewelry District from the rest of downtown— and the opening up of the waterfront with a new five-acre park, new opportunities to transform the area into a dynamic urban neighborhood are on the horizon.

The Providence Knowledge District will be a national model for sustainable economic development that fosters long-term knowledge-based business, innovation and job growth in a dynamic urban location that showcases the environmental benefits inherent in city living and provides community benefits such as job and housing opportunities for people with a wide range of skills and education.



why providence?

Providence is replete with human capital and extraordinary physical resources. Seven superior colleges and universities, six hospitals, a medical school, an intellectual body of 35,000 college students, a history of innovation, and an unprecedented commitment to collaborate by public, private, labor and institutional leaders, is driving change and can transform the Jewelry District into a world-class center of excellence.

There are 99,480 employees or 65.3% of the state's knowledge economy in or near the Knowledge District. This economy pays higher wages, is more stable and represents 80% of all new job growth. We currently have 40% more knowledge workers per capita than the national average. Providence county has received \$845.6 million in R&D funding from 1997-2006, which is 2 1/2 times the national average. This economy is expected to grow twice as fast as the rest of the economy over the next five years.

Building on decades of research and development and design innovation, we have agreed on a shared vision: to grow a highly-competitive 21st century knowledge economy.



Since 1989, over \$500 million of equity capital has been invested in life science startups based in Rhode Island. Many of these ventures were founded upon research and innovation which originated in the research labs at Brown University, Lifespan, URI and other Rhode Island-based research institutions. Over \$200 million of this amount has been invested in the last ten years, for everything from genomics to molecular toxicology to breakthrough stem cell research. Our institutions have fostered eight Guggenheim Fellows, twelve MacArthur Awards, a Nobel Prize in Physics, eight Academy of Arts and Sciences awards, a Pulitzer Prize, a TR35-Innovation award and a Carnegie Foundation for the Advancement of Teaching Prize— all within the past dozen years. The Greater Providence Chamber of Commerce, City of Providence and Providence Foundation— supported by our business and institutional leaders have crafted a plan for this new economy. And we are taking the steps to seed start ups, build workforce partnerships, and foster incubation/commercialization of knowledge business.

In the Works

⇒ **Ambulatory Clinical Research Center.** A collaboration between Lifespan, Brown University, URI, Women and Infants, Bultor Hospital and local biotechnology companies.

⇒ **Brown University Alpert School of Medicine.** The new medical school will be the heart of a new Brown satellite campus in the Jewelry District.

⇒ **Rhode Island Center for Clinical and Translational Sciences.** Lifespan is developing an integrated strategic plan to transform an existing building in the Jewelry District into a multi-disciplinary research facility.

⇒ **Institute for Immunology and Informatics.** A collaborative research project between URI and EpiVax CEO Dr. Annie De Groot at the Providence Biotechnology Center.

⇒ **Ocean State Consortium for Advanced Resources (OSCAR).** Originally started as a collaboration between Brown and IBM to provide high performance computing as part of a medical research project, OSCAR has been expanded to other institutions and now includes access to a new, state-of-the-art high performance computer.

⇒ **University of Rhode Island Health Sciences Campus.** URI intends to locate a health sciences campus in Providence to house its life sciences research, nursing, and pharmacy schools in proximity to the Brown Medical School and the Lifespan campus.

⇒ **URI Biotechnology Certificate Program.** Program allowing students to earn a Certificate in Biotechnology after completing two semesters of coursework and an internship. This Certificate has been accepted by well-known industry firms such as Amgen and Alexion for positions with salaries ranging from \$30-\$50,000.








⇒ **Community College of Rhode Island.** CCRI is partnering with Lifespan to provide training for nursing and allied health personnel.



The Knowledge District is already home to numerous facilities specializing in research and development for the life sciences field including:

- ⇒ Educational facilities for Brown, Johnson and Wales, and the Community College of Rhode Island
- ⇒ Research labs for Brown, Lifespan and Women and Infants
- ⇒ Hospital campuses for Rhode Island Hospital, Hasbro Children's Hospital and Women and Infants Hospital
- ⇒ Numerous private bio-tech related businesses

Legend:

- | | |
|--|--|
|  Knowledge District Boundary |  Planned Projects |
|  Educational |  Proposed 195 Parcels |
|  Hospital |  Proposed Park |
|  Biotech | |

seizing the opportunity...

Fourteen acres of new land will be available for development in 2012.



Providence has a long history of seizing the opportunity— whether it required moving a railroad, a river, or a highway.

As the relocation of Interstate 195 (the “IWAY”) nears completion, we find ourselves on the verge of a whole new realm of possibilities. With the demolition of the highway planned for 2010, new streets and parcels will be created to seamlessly link the Jewelry District to Downtown.

Fourteen acres of new land will be available for development in 2012, allowing for the development of buildings designed to meet the needs of today, including the unique requirements of research facilities. As a fully developed city, the significance of this opportunity cannot be understated. These parcels are owned and controlled by the State who is partnering with the City to ensure that the future development of this area realizes its full potential as a job and economic development generator.

When you combine the IWAY parcels with the numerous surface parking lots in the Jewelry District and the large concentration of life science research institutions and businesses, the potential is significant. As part of Downtown, the Jewelry District is already known as a hip place to live and work. As the institutional and business presence continues to grow, the District's reputation as a dynamic neighborhood will be solidified.



Last but not least, Providence has the quality of life needed to attract businesses and workers including:

- ⇒ Diverse, walkable neighborhoods
- ⇒ Historic character
- ⇒ Outstanding restaurants
- ⇒ Award-winning cultural activities
- ⇒ Ample affordable housing
- ⇒ Ease of access to bus lines, Amtrak, Interstates 95 and 195 and TF Green Airport
- ⇒ Port and waterfront access

In the 1950's, Interstate 195 cut the Jewelry District from the downtown.

taking it to the next level...



Every day, Providence researchers are raising the bar in life science research— but more can be done.

As we continue to expand our research and technological capabilities, need for investment grows. Over the next several years, our focus will be on:

⇒ **Growing Research Enterprises**

The potential for expanding the research enterprise in the next several years is limitless, whether it be expanding the OSCAR project to a broader audience or developing additional Centers of Excellence in medical research.

⇒ **Enhancing Technology Transfer and Business Development**

For the potential of the knowledge economy to be fulfilled, we must expand efforts to translate research results into new products and services, new business and jobs. Building on the work of the Slater Technology Fund, we will continue to explore ways to help researchers commercialize their work.

⇒ **Building and Renovating Research and Educational Facilities**

As we continue to expand the research enterprise, the need for physical space will increase exponentially. Over the next three years, partner institutions are planning to invest over \$300 million in the creation of new educational and research facilities. This planned investment will meet current needs; additional investment will be needed to support the expected expansion in research and businesses related to life sciences.

⇒ **Building Community**

We also need to simultaneously expand workforce development initiatives in key fields such as nursing and laboratory technicians that are geared toward all education levels.



future investment...

In the coming weeks, the Knowledge District Partnership will prepare a detailed plan with respect to the investment requirements, both public and private, that will be necessary to implement this vision. It will outline specifically which projects are being undertaken and considered, and the level of investment needed by each organization to advance this initiative. Moreover, we will elaborate the ways in which what is being proposed will tie into the national research infrastructure so that the work we are undertaking is incremental and additive to those efforts.

transforming the economy...

Providence and southern New England have been hit hard by the lagging national economy.

While the foundation of the Knowledge District will be built on the intellectual assets of this City, its development will create employment opportunities across the income and career spectrum. Home to 35,000 students, the nation's 37th largest metro economy, and a connectivity among sectors, we can mobilize stakeholders nimbly around a common cause and develop plans that can actually be implemented and will provide a much needed boost to a region particularly hard hit by the current economic downturn.

As the birthplace of America's Industrial Revolution, our public and private sector leaders, government officials and university and institutional leaders agreed that we had to act to bring Providence back to its leading role in American business. Two years ago, led by the Greater Providence Chamber of Commerce, and with all stakeholders signed on, studies were conducted to identify our strongest assets and targets of opportunity. The Knowledge Economy strategy emerged from this work as the decisive path toward this end. We have a new generation of spirited thinkers and a strong will to work together to meet this aggressive goal.

As this region transitions to a knowledge-based, innovation-driven economy and our workforce is trained to staff those jobs, the City of Providence and the State of Rhode Island will be positioned to take its place alongside Silicon Valley, North Carolina's Research Triangle, Boston's Route 128 Corridor, and other areas leading this transformation of the technological landscape in America.

Much as the Slater Mill acted as a catalyst of the Industrial Revolution, this initiative will facilitate a knowledge-based, innovation-driven economy to take hold here that will provide Rhode Island with the opportunity to compete and prosper in the 21st century global economy.



a growing coalition of support...

In addition to the core partners, there is an ever growing and evolving list of organizations that support this effort to transform Providence's economy:

AFL-CIO

CVS Corporation

Providence Economic Development Partnership

Providence Foundation

Rhode Island Economic Development Corporation

Rhode Island General Assembly

State of Rhode Island



PROVIDENCE THE CREATIVE CAPITAL

David N. Cicilline, Mayor