Open to illumination

James Turrell's "Twilight Epiphany" Skyspace at the Suzanne Deal Booth Centennial Pavilion was commissioned as a public art installation for Rice's Centennial Celebration. Located next to the Shepherd School of Music and built of glass, concrete, granite, plaster, grass and composite steel, this pyramid-like structure projects an LED light sequence onto the ceiling and through an opening in the 72-foot square knife-edge roof just before sunrise and sunset. Created to both admit and reveal illumination, with lines that reflect modernity and stability, Turrell's "Twilight Epiphany" reflects the core values of Rice's credo — Unconventional Wisdom.

RICE

To learn more about Rice's Office of Corporate and Foundation Relations:

email: corporate@rice.edu

website: corporate.rice.edu

phone: 713-348-4637

RICE *UNCONVENTIONAL WISDOM*

Unconventional

Rice University has partnered with business and government for more than a century to develop solutions to critical challenges and find answers to puzzles unsolved. We combine pure research with creative problem solving and a keen awareness of social and political dynamics to develop solutions that are both technically innovative and socially responsible. Learn more about Unconventional Wisdom — the unique quality that makes partnering with Rice a strategic investment for an innovation-rich future.

Unconventional Wisdom, Prime Location

Unconventional Wisdom is more than just a tagline. Rice University is known for innovative research and creative entrepreneurship that look beyond conventional solutions. We continually challenge ourselves by innovating in ways that contribute to a better world. And while we're at it, we develop future leaders whose expertise and vision will help solve problems and meet challenges for the next generation. We think of Unconventional Wisdom as the core of our institutional DNA.

Located adjacent to the Texas Medical Center in Houston's vibrant Museum District, Rice thrives in a fertile cross-current of the sciences, cultural vibrancy, economic distinction and energy leadership. The nation's fourth-largest and most culturally diverse city is home to 24 Fortune 500 companies (second only to New York) and is the de facto world energy capital. For 100 years, Rice has accelerated Houston's rise to global prominence through innovative research, community and business partnerships and from the talents of our graduates who become leaders in local, national and international business and public service.

Rice Impact

Rice's faculty, students and alumni are recognized leaders in disciplines ranging from the sciences and engineering to the humanities and public policy. We boast Nobel and Pulitzer Prize winners and have multiple members of the American Academy of Arts and Sciences, the National Academy of Engineering and the National Academy of Sciences. Recipients of Guggenheim Fellowships, National Medal of Science awards, Fulbright Grants, Marshall Scholarships, Mellon Fellowships, Rhodes Scholarships, Goldwater Scholarships, Truman Scholarships, Watson Fellowships, Udall Scholarships and MacArthur Fellowships walk our campus.

#1

Patent Portfolio
Named the Most Impactful Patent Portfolio among American research universities on The Patent Board's first published Patent Scorecard.

#1

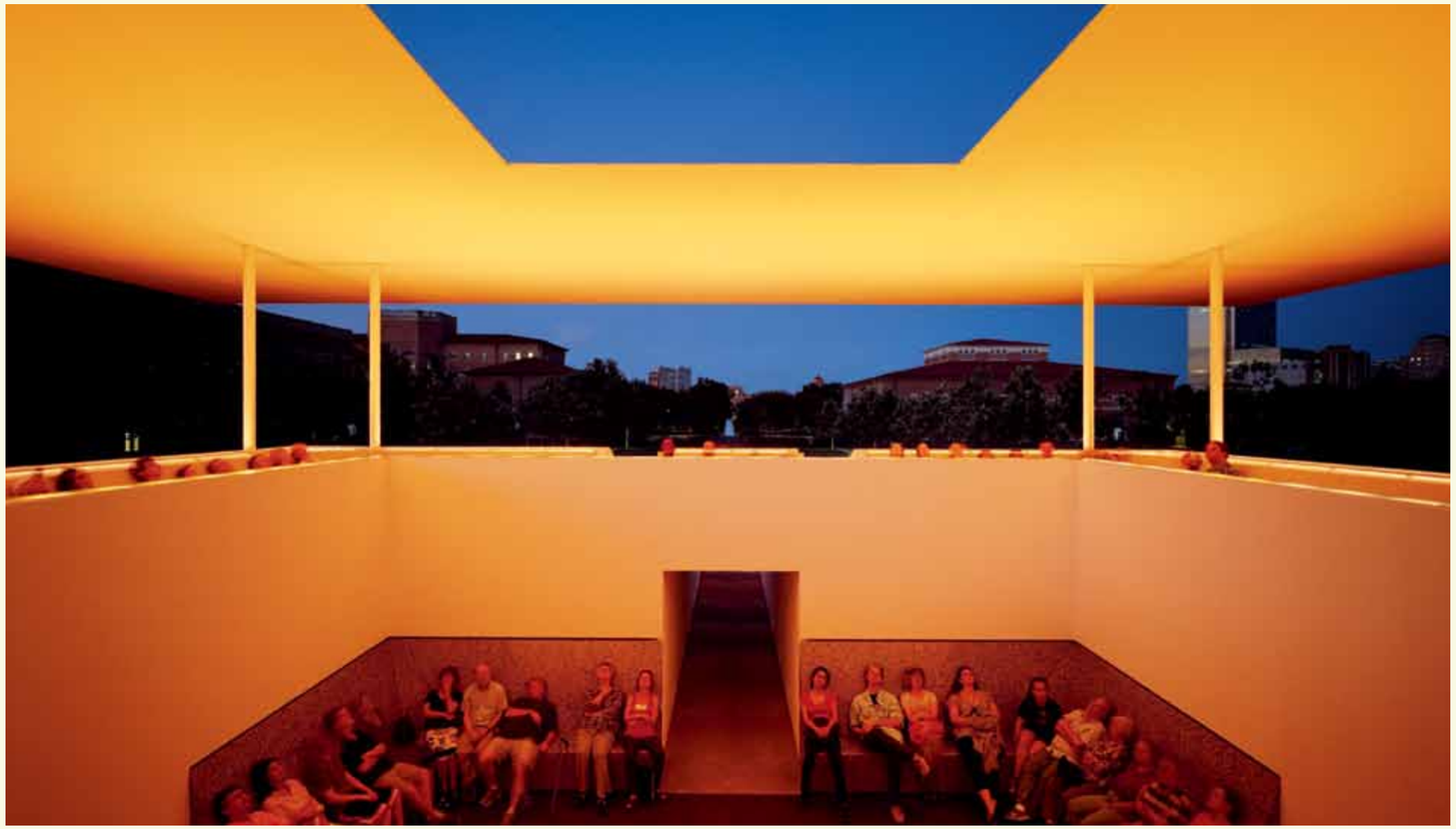
MBA Program
The Economist ranks the Jones Graduate School of Business MBA Program best in Texas and the Southwest U.S.

#1

Chemistry and Materials Science
Top worldwide rankings in a new study from the Max Planck Society in Germany, based on citations of research papers.

#1

Materials Science
Ranked the world's No. 1 by Times Higher Education's analysis of research impact, 1999–2009.



#1

Natural Sciences & Engineering
In 2013, Rice jumped from 17th to a global No. 1 ranking on the Leiden University survey for quality and impact of research.

#1

Business Plan Competition
Hosted by the Rice Alliance for Technology and Entrepreneurship, the Rice Business Plan Competition is the world's richest and largest graduate-level business plan competition.

#1

Research Productivity in Texas
The Faculty Scholarly Productivity Index ranks Rice the most productive research university in Texas, and in the top 10 in the nation.

#1

Quality of Life
No. 1 on the Princeton Review's "Best Quality of Life" list four times since 2010, based on a survey of 126,000 students nationwide.

Honors like these are one measure of success. But what matters to us is real-world impact. Rice people are problem solvers, and they understand not only the satisfaction of personal accomplishment, but also honor the ideals of teamwork and community. That's why Rice people have been at the heart of great ventures, like putting the first men on the moon, designing and building one of the first computational research computers and giving birth to the science of nanotechnology.

Entrepreneurial Ambition

What makes the difference between a good idea and real-world impact? The ambition to turn an idea into something tangible that presents itself to the world and wins or loses based on merit and hard work and the boldness necessary to face the risks of failure to achieve the rewards of success. Rice's culture encourages strategic risk-taking, investing time and talent wisely to yield long-term, measurable results.

(pictured) James Turrell's "Twilight Epiphany" Skyspace at the Suzanne Deal Booth Centennial Pavilion, Rice University

Ideas to Impact

Rice University's perennial spot in the Leiden Ranking of scientific impact and our global leadership in nanotechnology, materials science, high performance computing and policy analysis are not accidents. At Rice, ideas that begin with a simple "How?" or "What if?" transform into practical solutions. In our century-plus history, Rice's distinguished community of scholars has emphasized cross-disciplinary collaboration and the willingness to question orthodoxy — essential ingredients for developing novel ideas into workable solutions.

Science and technology must serve human needs and balance prevailing social, economic and political factors. At Rice, we couple our science and technology innovations with insightful policy and business analyses to ensure that we implement ideas that are not simply the "best" technology, but also positive choices for an increasingly interconnected and complex global community.

Bet Early, Bet Smart, Bet Big

Recognizing emerging challenges early and finding hidden opportunities — that's Unconventional Wisdom. Here are a few examples of how Rice sees — and seizes — opportunities:

In 1985, researchers at Rice uncovered the building block of nanotechnology — the buckyball. This Nobel Prize-winning discovery launched the Richard E. Smalley Institute for Nanoscale Science and Technology at Rice, the world's first nanotechnology center. From targeted medical treatments to development of a highly conductive and super strong fiber that is hair-thin and bends like thread, the early bet on nanotech has paid off in a big way.

In 1986, a team at Rice envisioned a multidisciplinary approach to computational engineering that would stretch the limits of high performance computing (HPC). Now the Ken Kennedy Institute for Information Technology is a collaboration hub for more than140 faculty and researchers from all across campus, applying the power of HPC to energy research, engineering, natural sciences, humanities, social sciences, business, architecture and music.

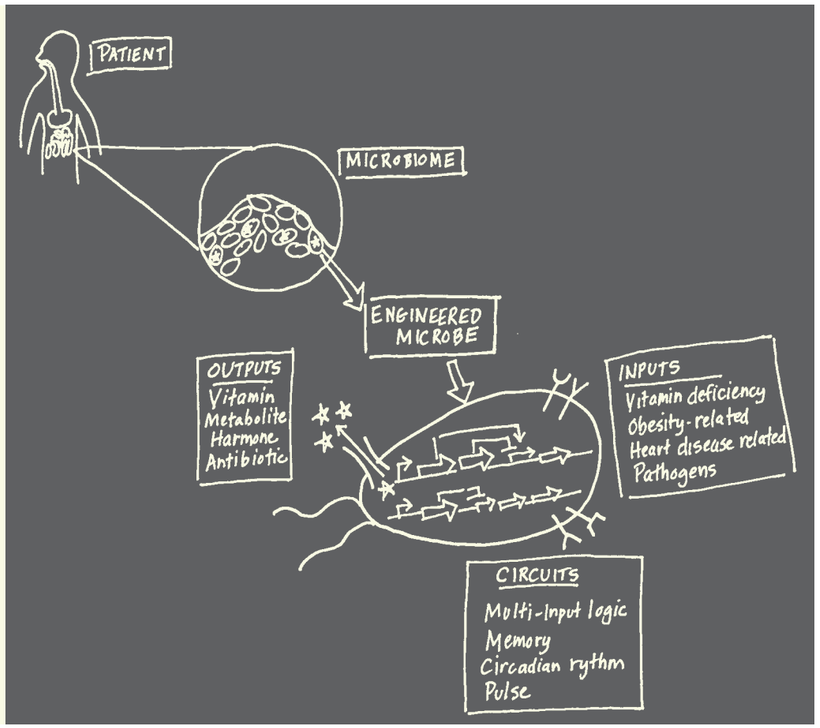
A little more than 20 years ago, Rice identified a need for data-driven policy analysis focused on the intersection of technology, economics and sociopolitical forces. Since 1993, the James A. Baker III Institute for Public Policy has been one of the world's premier nonpartisan public policy think tanks, with expertise in energy, health, conflict resolution, science and technology, fiscal policies and Latin American and Asian studies.

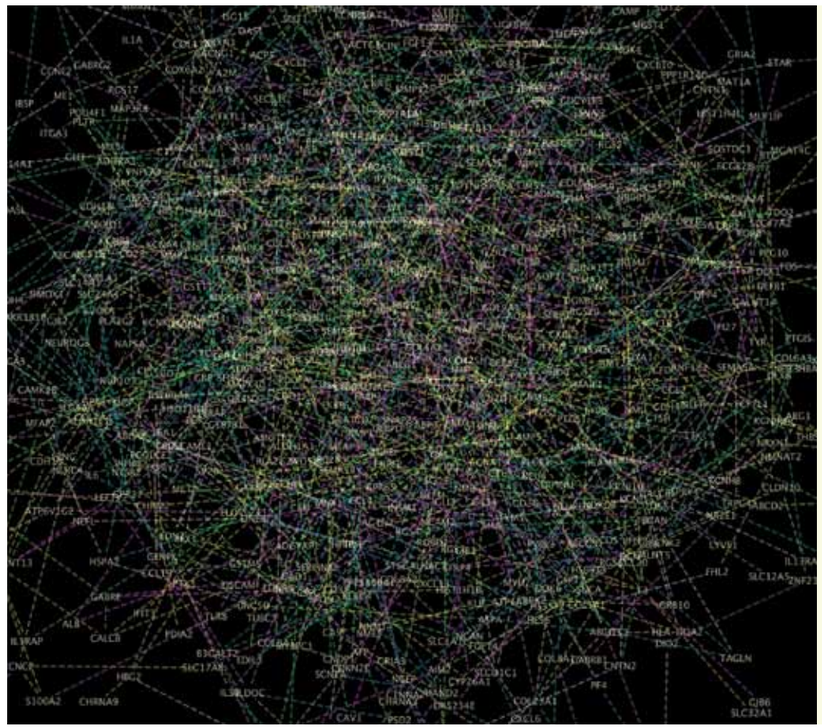
In 2012, Rice again stepped into the breach to address the clear reality that hydrocarbon fuels will continue to be the world's primary energy resource for at least the next half-century. The new Energy and Environment Initiative (e2i) was launched to develop greener hydrocarbon technologies and to support sustainable solutions to growing demand by considering the impacts on science, policy and culture.

New Century, New Challenges

"At Rice, we seize upon those truly important endeavors that require us to bring together participants from across our campus to work together, to understand our world more deeply and to help us solve its problems of today and in the future."
— Rice University President David W. Leebron
Rice Centennial Address, 2012

Systems and Synthetic Biology combines disciplines to gain better understanding of the cause and progression of human diseases. Rice researchers hope to develop new biological systems with targeted functional properties, such as "sentinel" organisms capable of maintaining a healthy human microbiome. An array of cell-based sensors detect microbiome imbalances, while synthetic gene circuits direct the sentinel organisms to secrete specific molecular outputs to adjust the microbiome back to a healthy state.





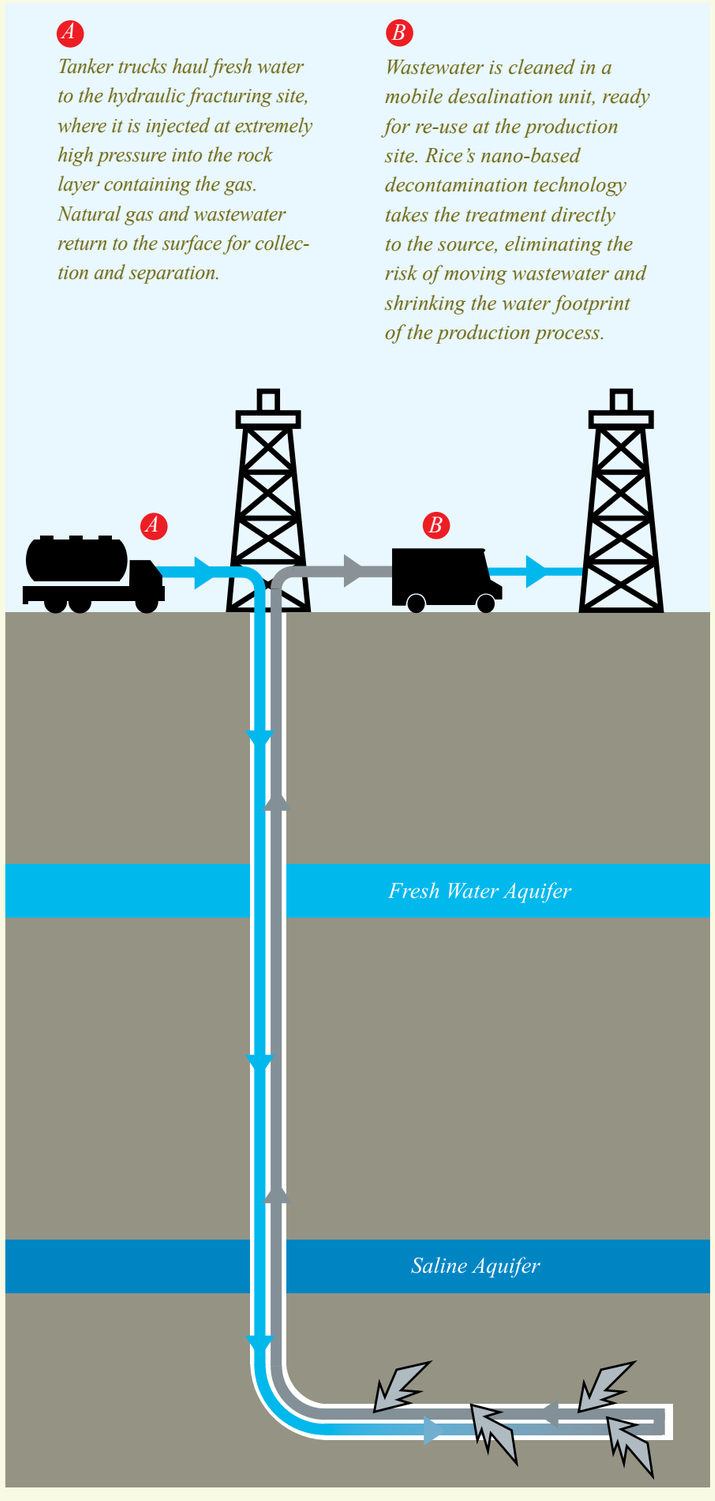
Rice is an expert in "big data," a collection of data too large and complex for traditional data-processing applications. High-information biomedical technologies can measure and record millions of biomarkers (genes, point mutations, proteins, metabolites) in biological samples. Efficiently mining this "big data" is the key to developing therapies for personalized medicine. This visualized network depicts genomic interactions in glioblastoma tumor samples.

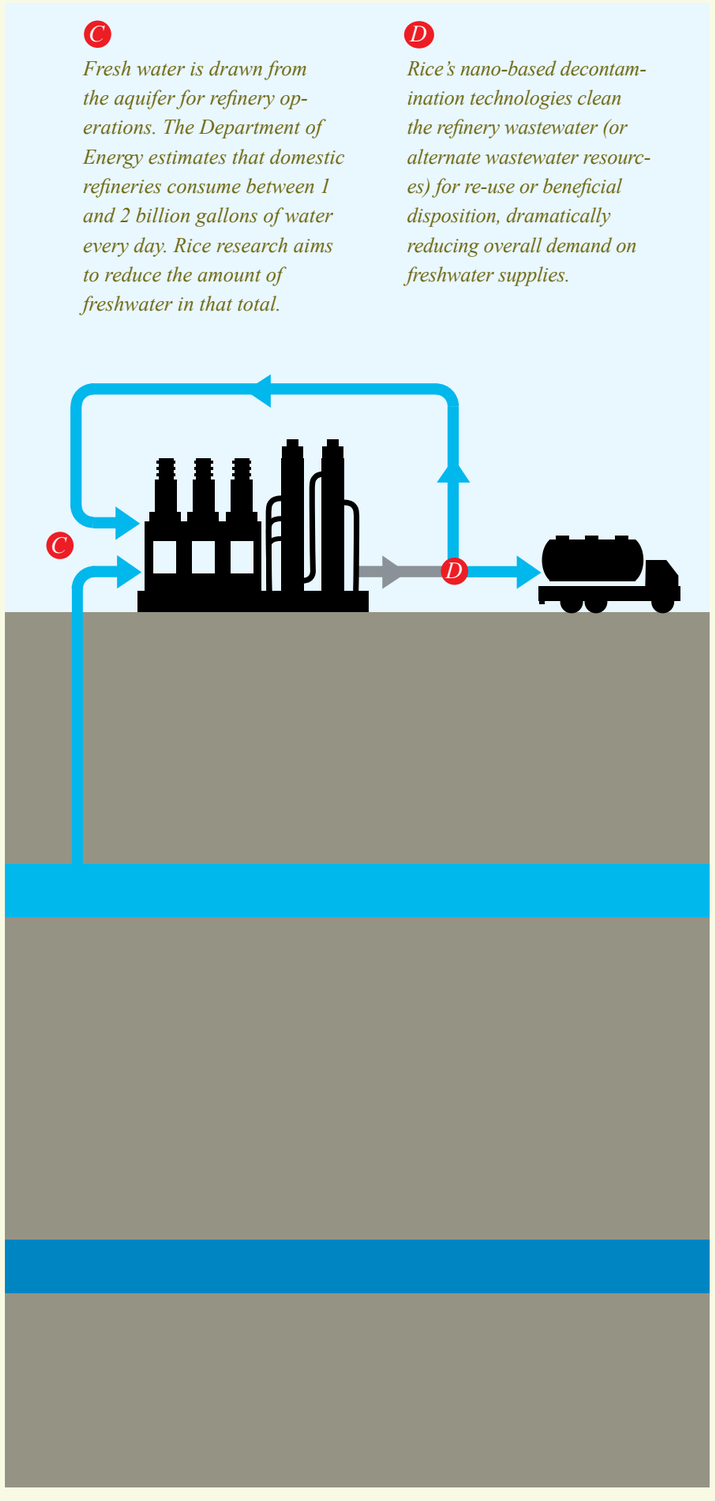
The Gordian Knot of Water and Energy

Is the relationship between the world's two most important resources — energy and water — destined for unsustainable conflict? Energy production uses a vast amount of fresh water, which requires significant energy to transport from source to need. In many urban areas, up to 30 percent of energy usage is dedicated to moving water. Add the fact that agriculture also requires enormous quantities of both energy and water. Reducing the impact of energy production on our freshwater supply is not only economically prudent, it is imperative in supporting a sustainable world. Today, the mission of Rice's Energy and Environment Initiative (e2i) is tackling the toughest questions at the intersection of energy development and sustainable freshwater resources.

Shrinking the Footprint

Nanotechnology, biotechnology and advanced materials research have converged to create nano-enabled water treatments — new ways to clean and re-use wastewater generated during energy production. Benefits include a reduced demand for freshwater resources, decreased volume of waste stream for disposal and lower water transport costs. Rice researchers have discovered how to use graphene oxide to extract radioactive isotopes from wastewater and condense them into easily handled solids. One project leverages the unique electrical properties of nanomaterials to remove salt ions and other charged chemical contaminants from water. Another approach applies a bacteriophage-nanoparticle complex to infiltrate and destroy bacteria for souring control. Other researchers at Rice have revealed ways to simultaneously inhibit fouling in filtration membranes and kill viral elements. And the ability to fit these technologies into a small package has led to development of a fully mobile, solar-powered wastewater treatment vehicle that takes the treatment directly to the wastewater, eliminating the costs and risks associated with transporting hazardous material.





Embracing Challenges

Rice's panoramic view of the energy-water nexus can lead to meaningful reduction of energy's water footprint — and water's energy footprint — and enable sustainable development and use of these critical resources. We envision an innovation ecosystem that facilitates productive exchanges among academics, industrial research partners, venture capitalists, manufacturers, marketing groups and industrial users, dedicated to energy security and sustainability.

From the Lab to the Marketplace

Like our hometown of Houston, Rice welcomes people with good ideas and the passion to bring them to life. This entrepreneurial impulse drives innovations across campus — whether it's students who create solutions to global health challenges or faculty members whose research vaults them to "most productive in Texas" and among the top 10 in the country. At Rice, we take seriously our mission to further economic development in Houston, in Texas, in the nation and across the globe.

The ability to identify needs and create new ideas and technologies depends upon fruitful basic research and its practical application. Rice has demonstrated strength in both those arenas. But real impact comes when research culminates in new products and processes that change the game. So we have also developed a suite of strategies to bring a great new idea to the marketplace.

From launching brand-new ventures to making sure that companies have access to existing ideas, Rice helps companies from all over the world realize their vision and add value to society.

An Entrepreneurial University

Rice understands that speed to market can mean the difference between emerging as an industry leader or an also-ran. This knowledge drives us to take on seemingly impossible challenges that can accelerate the movement from research concept to marketplace success.

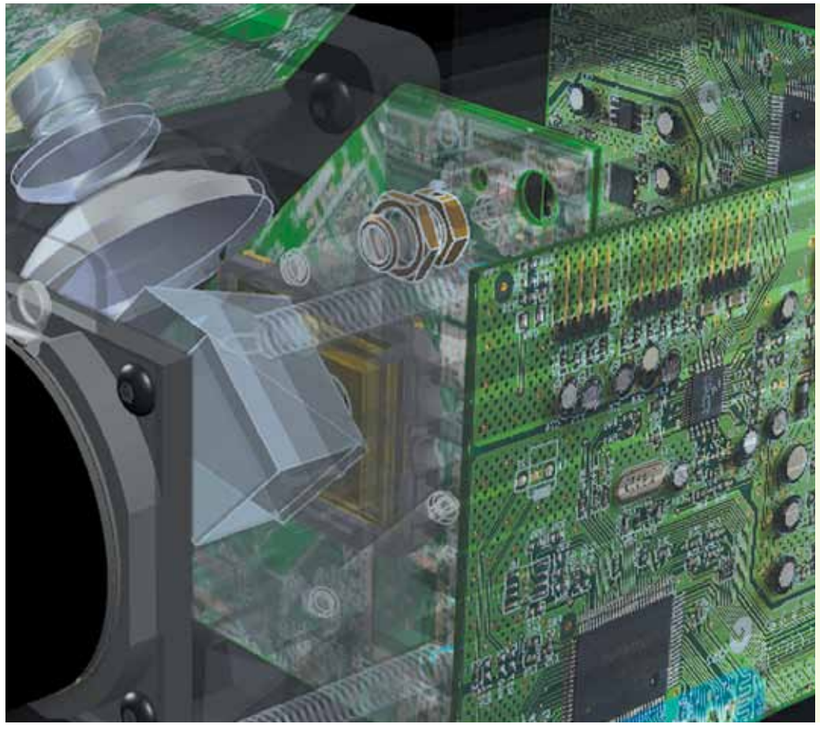
Rice's patent portfolio recently ranked as the most impactful among American universities. But a successful new product needs more than just a great idea. It requires a seasoned, committed team to navigate the administrative, legal and financing obstacles that face any new venture. Rice experts understand how to clear hurdles that stand between a good idea and a viable commercial venture. But perhaps most critically, Rice teams know how to match investors with developed ideas that are market-prime.

In 2000, Rice's Schools of Natural Sciences, Engineering and Business collaborated to launch the Rice Alliance for Technology and Entrepreneurship, now ranked as the top global university business incubator, tallying more than 250 start-ups. In 2012, Rice University took a lead role in establishing the Houston Area Translational Research Consortium to bridge the gap between basic research and the health care marketplace, speeding the delivery of research generated by Rice and other Texas Medical Center institutions, NASA and numerous university and corporate partners.

Partners in Ambition

Rice and Houston have grown together to become engines of international impact. Houston is home to two dozen Fortune 500 companies, the world's largest medical center, space exploration and a vibrant cultural heritage that mirrors the city's ethnic diversity. Rice is enriched by the role we play in the intellectual, cultural and economic energy of Houston and by our close relationships with the world's largest corporations. And we are proud of how our alumni network contributes to Rice's entrepreneurial ambition. In addition to holding corner-office jobs in hundreds of successful businesses, many of our alumni hold elected and appointed political positions locally, nationally and globally — and they are as proud of Rice as we are of them.

"Rice University's path to success lies in our ability to collaborate and thereby leverage our potential. We must find new ways to build deeper and broader relationships with the remarkable institutions that surround us — the museums, the medical institutions and the great enterprises of Houston. We must also reach out across the world and build not merely bridges, but strong and deep bonds." — Rice University President David W. Leebron



Leveraging 10 Rice patents, the InView Technology Corporation has slashed costs for shortwave infrared (SWIR) cameras for fields as diverse as military and surveillance, microscopy and life sciences and maritime and air traffic control. InView's innovative vision for Rice's breakthrough single-pixel camera technology exemplifies how Rice research fuels robust business partnerships and marketplace-ready commercial applications.

World On a String

When Rice professors Richard Smalley and Robert Curl discovered how to create a 60-atom carbon molecule — the famous buckyball — nanotechnology catapulted from obscurity to one of the world's hottest scientific disciplines. The Smalley Institute for Nanoscale Science and Technology at Rice, the world's first nanotechnology research center, emerged from their Nobel Prize-winning research.

Since then, advances have emerged in many areas of nanotechnology. But the promise of fibers made of carbon nanotubes (CNTs) remained elusive. Pure tube manufacture produced small quantities, while mass production resulted in low-quality CNTs. Carbon nanotube fiber technology seemed like a tough-to-achieve dream.

The Critical Solution

In 2000, Smalley joined forces with Rice's Matteo Pasquali to find a way to produce CNT fibers. Although Smalley could produce "pure" CNTs in good quantities, these CNTs formed unusable clumps. The big break came with the discovery that chlorosulfonic acid could liquify the CNTs, rendering them suitable for a wet spinning manufacture process. Pasquali and Smalley pioneered this process and were joined at Rice by Teijin Aramid, a global leader in synthesized high-performance fibers.

THE POTENTIAL APPLICATIONS OF CARBON NANOTUBES

The Buckyball
The discovery of the buckminsterfullerene — a spherical molecule with the formula C60 — got the buckyball rolling across a broad range of disciplines.

Heat Management
CNTs' heat conductivity will lead to more effective and energy-efficient heat dispersion in applications from micro-electronics to large computer installations and other high-heat conditions.

Audio
In addition to allowing higher audio accuracy and miniaturization in audio cabling, speakers made from CNTs can provide maximum-fidelity reproduction with no cabling required.

Neuroscience
CNTs' variable conductivity and tensile strength creates the perfect material for substrates for neuronal growth, electrical interfaces with neurons and even neuroprostheses for repairing nerve injuries.

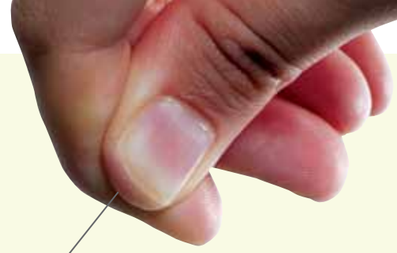
Microelectronics
The combination of minimal size, high conductivity and flexible strength will allow manufacture of circuit boards, memory media, transistors and miniaturized wiring systems that will transform the micro-electronics industry.

Pacemakers
By enabling greater miniaturization of wiring and other key circuitry, CNTs will make pacemakers smaller and easier to implant and maintain.

Pollution Control
Filtration technology using CNT-based membranes can help reduce the amount of carbon dioxide and other pollutants from power plant emissions.

Aerospace
CNTs' high-conductivity and microscale properties will revolutionize our approach to aerospace wiring systems, as well as provide lightweight, high-tensile strength materials for airplane construction

Marine Applications
CNT-based paints — an environmentally safe alternative to existing materials — provide highly effective anticorrosion protections and can discourage algae and barnacle accumulation on ship hulls.



Smart Clothing
Conductive material that behaves like a high-quality textile points the way to smart clothing that does much more than make a fashion statement.

Sporting Goods
From tennis rackets to bicycles to golf clubs and beyond, the extreme tensile integrity combined with lightweight flexibility makes CNTs a perfect foundation for the next generation of high-performance equipment.

Electrical Transmission
Metallic nanotubes are lighter than copper, conduct electricity better and fail less often. And the advanced materials based on CNTs will enable sturdier, less obtrusive tower construction.

Water Treatment
CNTs promise more efficient and effective water purification methods, with treatments for water desalination and electro-chemical oxidation of organic contaminants, bacteria and viruses.

The next step was to incorporate long-strand CNTs into the process. The longer strands packed tightly and aligned perfectly to endow the produced fibers with greater electrical conductivity than the best graphite fibers and with a tensile strength more than 20 times that of copper. The elusive grail — a mass-producible CNT fiber — was in hand.

A New Foundation

The new CNT fiber — thin as a human hair with the conductivity of metal and tensile strength close to carbon fiber — can revolutionize how we design planes, cars and marine vessels; large structures like transmission towers; medicine and bioscience; electrical transmission and grid technology; and microelectronics and "smart" clothing.

For instance, the flexibility, tensile and conductivity characteristics could change our approach to data transfer. Because thin metal wire breaks easily, cables are generally thicker than necessary, leading to higher power demands and weight. CNT fiber can deliver equal or better performance while eliminating the drawbacks of traditional metal wires.

A fiber that looks like cotton thread but behaves like metal wires and strong carbon fibers — a powerful set of assets that opens new possibilities for countless applications.

Leading to the Future

At Rice, we are privileged to attract strong students from around the country and across the world. We educate undergraduate and graduate students to grow, adapt and improvise. They leave Rice prepared to make real contributions to their employers and their communities.

Rice challenges every student to develop excellent communication and interpersonal skills and to assume leadership roles in student clubs and research projects. The residential college system, student government and our 200-plus campus organizations offer leadership opportunities in governance, management, problem solving, team building and entrepreneurship.

Rice's undergraduate student-faculty ratio of 6:1 gives students individualized attention, so they develop into thoughtful, curious, lifelong learners. And since most of our students complete at least one professional internship, Rice graduates develop the practical experience that prepares them to thrive and add value, wherever their careers take them.

Critical Thinkers and Global Citizens

Rigorous education succeeds when it begins with the strength of the incoming class each year. At Rice, more than 75 percent of our freshmen graduated in the top 5 percent of their high school class. A quarter of our undergraduates earn degrees in two or more disciplines — nearly half with at least one STEM major — so Rice graduates understand the importance of cross-disciplinary collaboration and innovation.

Our graduate programs in the sciences, business, engineering and the humanities consistently place high in the national and global rankings. At the Jones Graduate School of Business, our MBA graduates are ready to move directly from the classroom into leadership careers, many of them with combined MBA/STEM degrees. Our programs in entrepreneurship and finance consistently garner top-five rankings.

Commitment to global vision has made Rice the choice of thousands of students from around the world, with hundreds more scholars choosing to pursue their research careers on our campus. Twenty percent of our total student population hail from outside the U.S. This blend of customs, languages and cultural perspectives helps our entire campus community develop an encompassing global perspective — a quality that makes our graduates especially qualified for successful careers in an increasingly global economy.

Internship, Leadership, Entrepreneurship

Because we urge our students to complete at least one professional internship before graduation, Rice is a great resource for internship programs seeking high-quality applicants. Our focus on developing leadership qualities produces graduates who understand both how to lead and how to cultivate strengths in others. And a steady emphasis on helping visionaries realize their own entrepreneurial dreams creates a campus culture where innovation and creative risk taking are the norm.

Internship, Leadership, Entrepreneurship — all three inform the scope and promise of our students.

Rice's graduate programs provide science, engineering and business students the opportunity to excel in both the classroom and lab, as well as through real-world research collaborations with local and international companies. This graduate engineering student is participating in a research project in Alabama that studies samples of atmospheric particles collected in water.

In a medical emergency a few minutes can mean life or death as the student volunteers of the Rice Emergency Medical Services (REMS) proved when runner Robert Botto's heart stopped beating at an on-campus race. Within minutes, REMS was at Botto's side, restoring his pulse and preparing him for transport to the hospital.

The Oshman Engineering Design Kitchen

The Oshman Engineering Design Kitchen (OEDK) gives students majoring in bioengineering, computational and applied mathematics, civil and environmental engineering, chemical and biomolecular engineering, computer science, mechanical engineering, materials science and nanoengineering, electrical and computer engineering and statistics a space to design, prototype and deploy solutions to real-world engineering challenges. Professional mentors and equipment provide Rice undergraduates with practical experience that many early-career professionals only dream about.

Dreaming is critical to the Design Kitchen mission. Tackling seemingly insoluble challenges — and sometimes solving them with a deceptively simple idea — gives future leaders the opportunity to practice asking "What if?" and "Why not?" And then cook up an answer.

Real Challenges, Real Solutions

The OEDK is an 18,000-square-foot space with a central work area with more than 60 work tables, conference rooms, a classroom, a wet lab, rapid prototyping equipment, large-format printers, a designated woodworking area, a machine shop and a welding shop. Kitchen activities are guided and monitored by faculty and professional staff, but the main drivers of the work at OEDK are the 800-plus undergraduates who use the facility every year.

Some of the challenges presented to the students, like the Day One Project — dedicated to improving newborn health care in Africa — are conceived by faculty. Others, like the Beyond Traditional Borders initiative, tackle global health challenges submitted by clinicians working in the developing world. Sometimes one of our corporate partners presents a challenge. And sometimes the challenges come from the students themselves.

In 2012–13, more than 100 teams devised solutions in fields ranging from energy to health and medicine, to computer science, to environment, to transportation, to sporting goods and musical gadgetry. These multidisciplinary teams, with students from all realms of engineering, used their ingenuity and the OEDK's professional-grade facility to create new solutions to existing problems, and occasionally, to recognize and solve a challenge that no one had thought of before.

Ready to Fly

The OEDK is not only well-equipped, it offers students the opportunity to work with experienced professionals and start to develop a professional network well ahead of graduation. Mentors, facilities and real-world challenges provide the deep, practical experience that sets Rice students apart from the crowd.

Design a device to help astronauts keep their skeletons strong and healthy by measuring bone mineral density loss. Design a Bubble CPAP for use in the developing world. Design a cardiorespiratory monitor that is power efficient, low cost, rugged and sustainable, and easy to operate for clinics in developing countries. Design a simple, intuitive, and fun device that will output affected patient motion in three dimensions in order to give doctors the data they need. Design a full-custom set of avionics as a technology demonstration for an eventual unmanned aerial vehicle for exploring the surface of Mars. Design an automated syringe pump for neonatal care intended to be used primarily in developing countries; it is designed to be inexpensive, to work independently of electrical power, and to be accurate despite variations in working and storing conditions. Design the unique combination of hardware and software which incorporates a spirometer — a tube-like device that measures lung volume — connected via Bluetooth to a smartphone running Windows 7 Mobile. Design a portable, inexpensive hemoglobinometer for point-of-care diagnosis of anemia in low-resource settings. Design a solar-powered autoclave using broadband photothermal nanoparticles to address the problem of ineffective sterilization within resource-constrained settings. Design a modular ambient energy harvesting device to be used on micro air vehicles in flight. Design a set of goggles that would allow spacefarers to wash their eyes in an emergency while containing and eliminating excess fluids. Design a shoebox sized car that will be powered and stopped using chemical reactions. Design, prepare, build, document, present, and finally race 20-foot concrete canoes, showcasing the versatility and durability of concrete as a building material. Design a two-part vision screening system capable of performing basic optometric measurements and capturing wide-field retinal images. Design a low-cost, robust sensor to reliably detect respiratory rate of premature infants and monitor for apneic instances. Design a magnetic pen that can levitate and transfer a 3-D cell culture between petri dishes, wells, or plates. Design a power efficient system that utilizes high-powered UVC lamps in the overhead air ducts which will create a modular solution to be installed and tested on Houston METRO buses. Design a device that will properly immobilize the neck without further damaging the spine. Design a portable, endoscopic evaluation kit designed to fit the constraints of the developing world. Design a rehabilitation device that both positions the patient's limb and senses forces in order to build and measure the patient's strength Design a chemical plant to convert 1 trillion cubic feet of shale gas in the Burgos Basin of Mexico into a chemical of our choice. Design a multi-use flushing device that minimizes the risk of saline contamination and catheter colonization while reducing product costs by at least 50%. Design an automatic syringe pump capable of delivering various drugs administered to cardiac arrest patients. Design a coffee-condiment proportioning system for use by astronauts on the International Space Station. Design a process to produce a green energy source from indigenous natural gas in Somalia. Design a process for integrating the production of steam from solar-heated nano-particles immersed in water with a process for breaking down cellulose into sugars. Design a miniature turbine that can be used to harvest energy.

Keeping the Professional Edge

Organizations change; technologies change; management practices evolve. Advanced professional education can equip today's workforce to navigate the present and the future. From individual courses to industry-specific seminars, to programs customized for one company or organization, to full-scale graduate degree programs, Rice offers solutions that help professionals and executives develop solid science and technology foundations and master new skills without interrupting their careers.

We also offer customized programs for corporate partners to address unique organizational challenges, such as strengthening leadership skills or developing "deep dives" into emerging technology areas. Our robust schedule of guest lectures, workshops and seminars feature prominent researchers and industry and policy leaders who can deconstruct the latest research and policy trends. Most important, they can provide context for how emerging trends may affect your business.

Professional and Executive Mastery

The Jones Graduate School of Business' (JGSB) Professional, Executive and Full Time MBA programs instill the financial, management and leadership skills required for business success. The JGSB MBA curriculum is a rigorous blend of cutting-edge academic theory and practical methods and experience. An elite faculty turn classrooms into living labs, challenging students to think in new ways, take on research assignments, and test ideas in the marketplace. Consistently ranked among the top executive programs by The Wall Street Journal and The Financial Times, a Rice MBA delivers strengthened skills for immediate added value at work.

"Big data" information technology looms large over the energy landscape. Rice's annual Oil and Gas High Performance Computing Workshop focuses on rapidly changing technology and making the most of software and software innovation. This popular networking forum explores industry challenges and highlights growing computational workforce opportunities at the nexus of the energy sector, the IT industry and the academic community.

Our Professional Master's in Science and Engineering programs produce technical and scientific professionals who are also trained business leaders. The cross-disciplinary curricula goes beyond standard technical graduate programs, blending policy analysis, business and doctoral-level STEM courses to produce technical experts who are also strong communicators and effective collaborators. Guest lectures and a seminar series provide real-world insight and an opportunity to benefit from a widening professional network.

Expanding the Toolkit

Rice University specializes in meeting career professionals where they are. For many, certificate courses in key areas may be the answer. The Jones School offers Graduate Certificates in Finance and Accounting, Health Care Management, Leadership and Customer-Focused Strategy. JGSB also offers Executive Education programs, ranging from energy management certificate programs to custom programs that address organizational challenges.

The Glasscock School of Continuing Studies, the leading university continuing education program in Houston, offers certification courses in human resources, paralegal studies, career development, communication and financial services and preparation for the Certified Financial Planner certification exam.

From helping people gain critical skills to become more productive, to customized programs geared to satisfying specific organizational education challenges, to advanced degree programs for successful midcareer professionals dedicated to rising to the top of their fields, Rice welcomes learners at all stages of their careers.

Businesses and government agencies looking for technical experts who also understand essential business imperatives seek out Rice's Professional Science Master's (PSM) graduates. The PSM program offers concentrations in five areas — bioscience and health policy, environmental analysis and decision making, nanoscale physics, space studies and subsurface geoscience. The PSM graduate pictured here is working on a wind turbine.

LEARNING FOR LIFE

A Smart Start

Rice's rich continuing education opportunities provide pathways to professional and personal growth for adults. But we also offer more than 50 programs designed to bolster achievement from kindergarten to college and beyond. Since education lasts a lifetime, Rice has embraced the challenge of helping education systems deliver the opportunities that can help a child's aspirations become reality. In developing talent for a global workforce, it's not enough to keep up. In Houston, we want to forge ahead.

The Rice K–12 Initiatives

Rice University has been an active partner in Houston's K–12 community since 1964. More than 9,000 administrators and faculty come to Rice each year for professional development opportunities. Programming for administrators includes focused workshops for school superintendents, entrepreneurship training for current and aspiring principals and customized training programs to address specific school or district needs and challenges.

Programs for teachers cultivate best practices in curriculum and instructional strategies for every grade level and subject. Educators striving for the next level in their professional growth turn to Rice's graduate degree programs. Once in the classroom, teachers return to Rice for professional development that deepens content knowledge while focusing on new developments in pedagogy and research on how students learn.

A teacher in the Rice School Science and Technology Program explores new ways to engage students in biology using double-blind gel electrophoresis. (above)

Early readers have a jump start in school success. The School Literacy and Culture project (SLC) delivers programs that examine childhood development, cultural issues and curriculum design. (top left)

The Literacy and the Arts program emphasizes the direct relationship between the arts and reading and writing skills. Here, teachers and students visiting the Rice Gallery use the visual arts as a springboard to analytic thinking and creative writing. (left)

For students, Rice offers stimulating hands-on learning experiences in technology, business, math, science, engineering, creative writing and music designed to create a hunger for lifelong learning.

Rice also creates and delivers high-quality educational content that engages students, including the comprehensive online science curriculum STEMscopes, the Web-based free textbooks of OpenStax College and free Rice-led courses through Coursera and EdX.

Committed to the Future

A healthy society requires the full participation of an increasingly diverse population, and the quality of the contribution often depends on access to high-quality education. Rice's embrace of both our Houston and global citizenship drives our commitment to making "learning for a lifetime" a meaningful concept for as many people as possible. Our wide variety of K–12 programming enriches students and teachers throughout the city, and increasingly throughout the state, the nation and even beyond.

Unconventional

Rice University knows that a collaborative partnership provides the creative sparks that generate productive new ideas. From offering our corporate partners access to the latest research, to creating a flexible and friendly recruiting environment, to setting our minds to an industry-driven challenge — Unconventional Wisdom is what makes Rice a different kind of university.