Cornell University

THE REPORT

Collaborative Approach World-Class Facilities

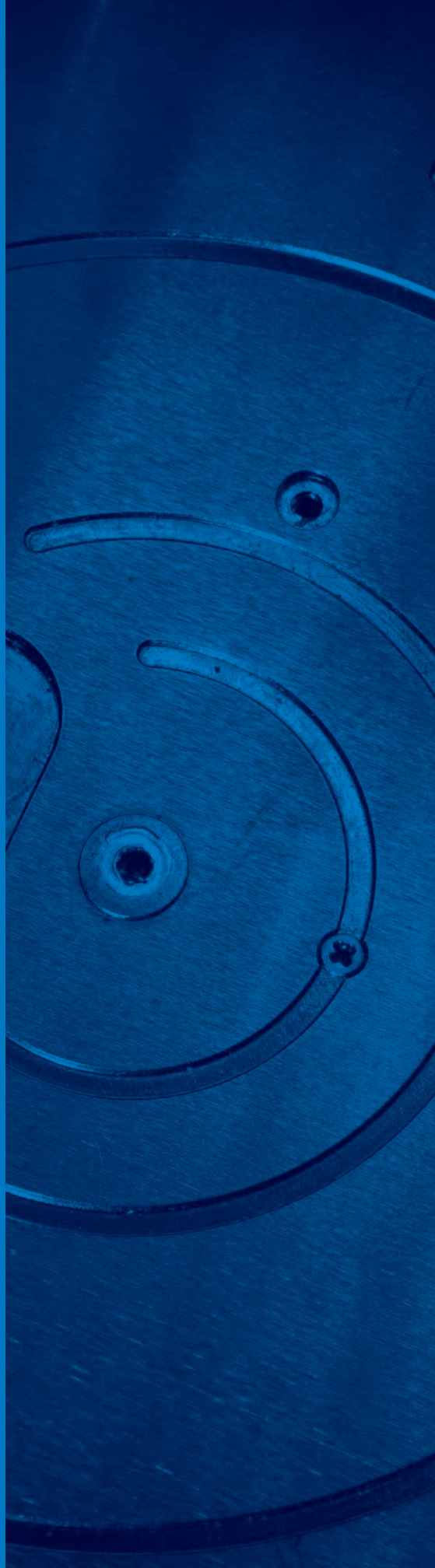
FY 2008 / FY 2009

Research at Cornell / A Statistical Excerpt

Office of the Vice Provost for Research

Boockvar Lab / WCMC

In This Report



Aggregating the Pieces

FROM THE SENIOR VICE PROVOST FOR RESEARCH

When we survey the amazing breadth and profoundly exciting characteristics of research across the Cornell campus, we see large-scale projects that promise to improve the well-being of our national and global societies; we see smaller ingenious research projects that could lead to the next breakthrough in any number of areas; and we see scholarly work that supports and enhances the spirit of humanity. When we aggregate all the pieces, we have the essence of Cornell's preeminence in research.

THE FOUNDATION OF CORNELL'S RESEARCH LEADERSHIP

To continue to lead, Cornell must also continue to renew its faculty. The strong success of our recent efforts at renewal is confirmed by Cornell's excellent cadre of young faculty who won many national awards over the past year, including a notable number of National Science Foundation Early Career Development awards.

Cornell faculty continue to increase the university's external funding for top-flight research and secure our leadership position in academic research. In FY 2009 Cornell was second among the nation's research universities in total National Science Foundation (NSF) research awards. Prior to the American Recovery and Reinvestment Act (ARRA) stimulus funding, Cornell had a 5 percent increase in research funding on the Ithaca campus for FY 2009, with a marked increase in nonprofit and foundation funding. A Bill and Melinda Gates Foundation's award of $26.8 million established a Cornell global partnership to fight stem rust, a lethal wheat disease that threatens global food security. The NSF's renewal and increase in funding for the National Nanotechnology Infrastructure Network (NINN) for the next five years confirms the impact of this network led by Cornell.

By the end of 2009, Cornell researchers on the Ithaca and New York City campuses had received more than $140 million in stimulus funding, garnering exceptional success across areas with the immediate potential to address some of the nation's urgent needs. We received $17.5 million from the Department of Energy, along with additional funds from New York State, for an Energy Frontier Research Center: the Energy Materials Center at Cornell (EMC^2). Cornell's Ithaca campus and Weill Cornell Medical College, partnering with the University of Buffalo, received $13 million from the National Cancer Institute to fund the Center for the Microenvironment and Metastasis, which brings physicians and engineers together to gain a deeper understanding of the complexity of cancer. NSF's yearlong review of the Cornell High Energy Synchrotron Source and Energy Recovery Linac R&D program culminated in NSF's National Science Board approving up to $125 million in funding for CHESS and ERL over the next four years.

Cornell continues to lead in research and technology development, including computer hardware and information sciences; the ability to manipulate, understand, and

To Reimagine

As we look toward Cornell's future, my vision for Cornell research is straightforward. I want the Cornell research enterprise to have

tactics
and actions that will enhance our research productivity and enable Cornell to excel in areas defined by the faculty;

mechanisms
by which new initiatives of the faculty with the prospect of winning external resources and yielding an impact can be addressed as they emerge;

a way to use
the resources we have—which are limited—as effectively and efficiently as possible, taking our best practices in organizing shared facilities, administrating research, and stimulating and supporting interdisciplinary initiatives and implementing them successfully and appropriately across campus; and

a strategy
to identify Cornell's best areas and determine how to make those areas even better, without detracting from other areas.

communicate data; and nanoscience and nanotechnology, rapidly evolving fields that are now playing a fast-growing role in medical technology. Cornell leads in research on personal decision making and lifestyle in human health, including such issues as obesity and smoking, which extract steep personal and societal costs. The impact of Cornell's work in genomics touches on all areas of the life sciences. Analysis of genetic information that was unattainable 10 years ago—now available at ever-decreasing costs—is yielding knowledge and insights that will reshape biology in the coming decades. Data-intensive sciences, high-tech telescopes, energy, and the environment are all areas in which Cornell leads.

ENDORSING EXCELLENCE

We recognize that Cornell has excellent strengths across the campus—and it's exciting. We want to support all of our strengths, based on our ability to attain external resources, and excel in these areas. This means that we must continue to advocate for federal and nonprofit objectives that align with societal and scientific needs and opportunities. Whether our research is in the medical sciences where we expect to improve human health or in astronomy where we are looking back to the beginning of time, leading galactic surveys, and exploring other planets; in the life sciences where research is driven by curiosity (why does this little animal do this?) or by concern for human impact on the environment; in the social sciences where we seek to understand and improve the human world; or in scholarly work that uncovers new facts about history and the arts or otherwise enriches human life, we strive for excellence and to deliver the research that makes the difference.

By recognizing and supporting excellence, Cornell has been, and still is, at the forefront of trends where we can make significant contributions to meeting societal needs and enriching humanity. I aim to extend our support of excellence and to ensure, to the extent possible, that Cornell faculty have the facilities, particularly shared facilities, and tools they need to excel. These facilities include CHESS and the ERL, new and updated telescopes, life sciences core facilities, materials characterization facilities, the Cornell NanoScale Facility (CNF), social sciences survey tools and databases, scholarly collections for the humanities, cost-effective high-performance computing facilities of the Center for Advanced Computing, and others, as the best ideas and initiatives of the faculty and other researchers materialize. Supporting the best is a dynamic process, and we depend on the collective wisdom and energy of the faculty for guidance.

We recognize that Cornell has excellent strengths across the campus—and it's exciting.
– Robert A. Buhrman

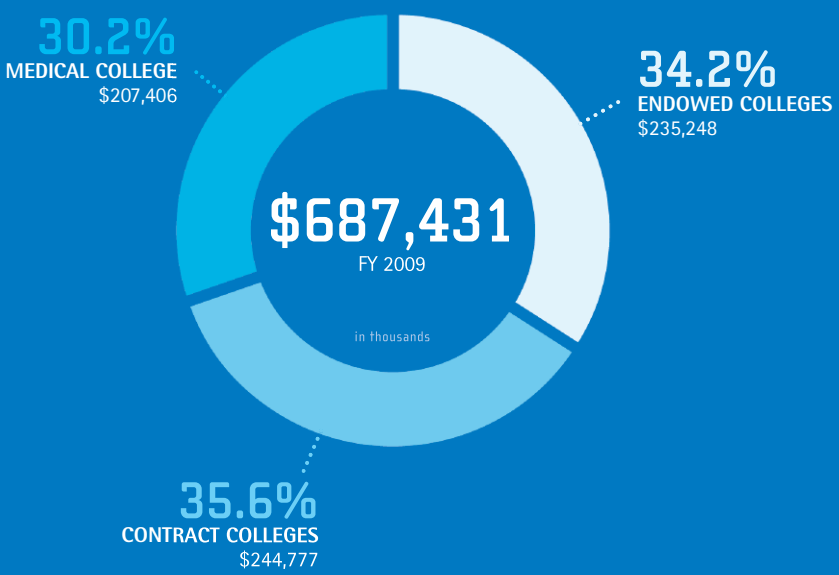
TO FORECAST OR NOT TO FORECAST

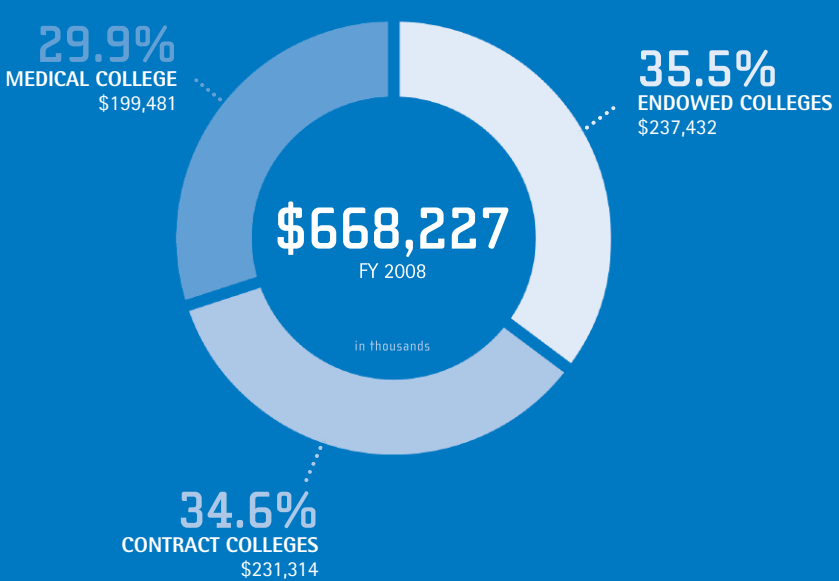
We have just experienced a substantial increase in federal funding for research, but how much of it will be sustained is uncertain. We expect the NSF budget to grow, while the National Institutes of Health (NIH) budget projections show only modest increases. Cornell is a top recipient of funding from these agencies. How quickly and how successfully the economy recovers and grows will determine how much industrial and other types of funding Cornell can obtain over the next few years. As we look ahead, we cannot accurately predict what will be the new important trends or next big opportunities for funding. Energy, the environment, and sustainability will certainly continue to receive prominent attention, as well as our long-standing areas of strength in the physical sciences, engineering, information sciences, and life sciences, both basic and applied. Our strategy will continue to be to support the best ideas of the faculty, rather than trying to predict and plan for specific areas of growth. I encourage faculty to think positively, but also realistically, about starting new adventures. We are confident that Cornell will continue to lead.

Robert A. Buhrman
Senior Vice Provost for Research

Photo: Frank DiMeo

Cornell's Total Research Expenditures





Source: Cornell University, Sponsored Financial Services

Ranking Cornell Nationally

in thousands

BY RESEARCH EXPENDITURES		FY 2008
1	Johns Hopkins University*	$1,680,927
2	University of California, San Francisco	885,182
3	University of Wisconsin, Madison	881,777
4	University of Michigan	876,390
5	University of California, Los Angeles	871,478
6	University of California, San Diego	842,027
7	Duke University	766,906
8	University of Washington	765,135
9	University of Pennsylvania	708,244
10	Ohio State University	702,592
11	Pennsylvania State University	701,130
12	Stanford University	688,225
13	University of Minnesota	682,662
14	Massachusetts Institute of Technology	659,626
15	Cornell University	653,996

Cornell computer scientists, using online versions of mainstream media and news blogs, tracked and analyzed the way stories rise and fall in popularity. Tracking a total of 90 million articles—one of the largest analyses anywhere of online news—over the three-month period leading up to the 2008 presidential election, they were able to measure the temporal dynamics of the news.

JON KLEINBERG
COMPUTER SCIENCE

Ranking Cornell in New York

in thousands

BY RESEARCH EXPENDITURES		FY 2008
1	Cornell University	$653,996
2	Columbia University	548,704
3	University of Rochester	375,218
4	SUNY, Buffalo	338,300
5	New York University	310,699
6	Mount Sinai School of Medicine	296,380
7	SUNY, Albany	270,414
8	SUNY, Stony Brook	252,745
9	Rockefeller University	247,505
10	Yeshiva University	197,311

* Johns Hopkins University includes the Applied Physics Laboratory, with $845,396 in total R&D expenditures.

Source: National Science Foundation

Note: Research expenditures of $12,586 for Cornell's National Astronomy and Ionosphere Center (NAIC) are reported separately and are not included in the above NSF amounts. Nonscience and Engineering research expenditures of $1,645 are not included in the above NSF amounts.

Photo: Robert Barker/CU

Funding Cornell's Research

55.8%
Federal Sources

44.2%
Nonfederal Sources

56.5%
Federal Sources

43.5%
Nonfederal Sources

in thousands

BY DOLLARS EXPENDED	FY 2009	FY 2008
Total Federal Sources	**$383,246**	**$377,896**
Sponsored Research	375,118	368,540
Appropriated Research	8,128	9,356
Total Nonfederal Sources	**304,185**	**290,331**
Sponsored Research	132,160	111,829
State & Local Governments	25,917	20,449
Corporations & Trade Associations	27,715	25,947
Foundations	36,066	25,996
Nonprofit Organizations*	41,913	37,919
All Others	548	1,518
Appropriated Research	172,025	178,502
Cornell Support**	117,888	123,476
New York State	54,137	55,026

Federal Agencies			
DHHS	Department of Health & Human Services	$192,485	$190,792
NSF	National Science Foundation	115,067	116,000
DOD	Department of Defense	19,759	16,428
USDA	Department of Agriculture	17,204	16,227
NASA	National Aeronautics & Space Administration***	10,538	10,599
DOE	Department of Energy	9,519	7,195
AID	Agency for International Development	2,213	2,822
	All Others	8,332	8,476

* Includes sub-awards of federal funds from other universities, national labs, nongovernment organizations, etc.
** Consistent with NSF reporting guidelines, university support includes institutional cost sharing, GRA tuition fellowships, university seed research grants, unrecovered facilities and administration costs, and organized research allocation of NYS-funded employee benefits.
*** NASA includes JPL funds under subcontract.
Source: Cornell University, Sponsored Financial Services
Discrepancies may occur due to rounding.

Expending Research Dollars

in thousands

BY DISCIPLINES	FY 2009	FY 2008
Medical Sciences	$256,605	$247,623
Biology	102,407	98,354
Multidisciplinary	57,187	58,542
Agriculture	57,158	49,543
Physics	42,055	45,730
Astronomy	29,412	26,892
Chemistry	20, 858	20,526
Computer Sciences	17,744	19,935
Electrical Engineering	17,387	15,975
Economics	14,333	5,540
Institutional & College Research Support*	13,413	10,724
Metallurgical & Materials Engineering	9,362	7,835
Sociology	9,257	9,918
Mechanical Engineering	6,890	7,758
Civil Engineering	6,207	6,912
Earth Sciences	5,884	6,158
Chemical Engineering	5,706	5,083
Mathematical Sciences	4,603	5,250
Psychology	4,941	4,243
Bioengineering & Biomedical Engineering	4,206	2,755
Humanities	916	756
Political Sciences	632	359
Communication, Journalism, & Library Sciences	185	1,300
Oceanography	96	270
Other Social Sciences	74	
Law	51	90
Business & Management	17	9,985
Visual & Performing Arts		9

* Expenses incurred at the administrative unit level in support of research.
Disciplines are defined by the National Science Foundation.
Source: Cornell University, Office of Sponsored Accounting
Discrepancies may occur due to rounding.

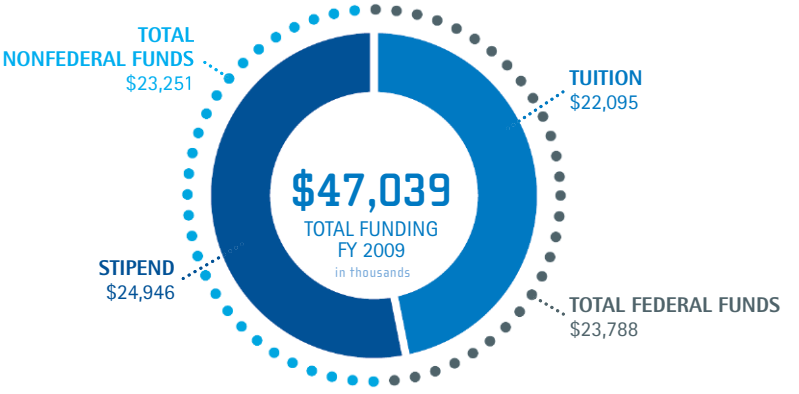
Cornell researchers developed a new technique that takes a snapshot of all the locations on the human genome where RNA polymerases actively transcribe genes. The method provides a new and highly sensitive way to pinpoint all the active and silent genes in the human genome.

JOHN T. LIS
MOLECULAR BIOLOGY AND GENETICS

Photo: University Photography

Funding Graduate Education, FY 2009

Organized Research



in thousands

EXPENDITURES BY SOURCE	TOTAL	TUITION	STIPEND
Total Federal Funds	**$23,788**	**$7,635**	**$16,153**
Sponsored	23,403	7,519	15,884
Appropriated	385	116	269
Total Nonfederal Funds	**$23,251**	**$14,459**	**$8,792**
Sponsored	8,568	2,748	5,820
Cornell Appropriated	13,948	11,711	2,237
New York State Appropriated	735		735

Source: Cornell University, Sponsored Financial Services
Discrepencies may occur due to rounding.

2009

1,612
GRADUATE STUDENTS
IN ORGANIZED RESEARCH*

4,835
Total Graduate School
Student Enrollment**

2010

2,032
GRADUATE STUDENTS
IN ORGANIZED RESEARCH*

5,028
Total Graduate School
Student Enrollment**

* Primarily graduate research assistants
** Includes all students enrolled in the Graduate School: Research Masters, Professional Masters, and PhDs. Does not include MBAs, JD/LLMs, and DVMs.
Source: Cornell University, Graduate School

in thousands

FUNDING BY CORNELL DIVISION	SPONSORED	APPROPRIATED
Tuition Total	**$10,267**	**$11,827**
Endowed Colleges	$7,798	$7,648
(Architecture, Art, & Planning; Arts & Sciences; Computing & Information Science; Engineering; International Relations; Provost; Research Centers; Miscellaneous Institutional)		
Contract Colleges	$2,470	$4,179
(Agricultural Experiment Station, Geneva; Agriculture & Life Sciences; Human Ecology; Veterinary Medicine; Industrial & Labor Relations)		
Stipend Total	**$21,705**	**$3,241**
Endowed Colleges	$15,886	$723
(Architecture, Art, & Planning; Arts & Sciences; Computing & Information Science; Engineering; Provost; Research Centers)		
Contract Colleges	$5,819	$2,518
(Agricultural Experiment Station, Geneva; Agriculture & Life Sciences; Human Ecology; Veterinary Medicine)		

Source: Cornell University, Sponsored Financial Services
Discrepancies may occur due to rounding.

Cornell is number 1 in sending students in the life sciences to graduate school, according to the NSF. Cornell received $1 million from NSF to establish the Biology Research Fellows Program in order to enhance the diversity and number of undergraduates entering life sciences graduate fields to pursue careers in biological research. The inaugural class of eight fellows, all juniors, began the program in January 2010.

RONALD HARRIS-WARRICK
NEUROBIOLOGY AND BEHAVIOR

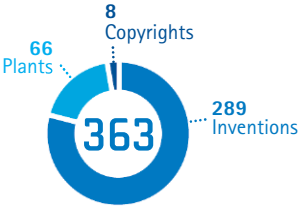
MYRA SHULMAN
ECOLOGY AND EVOLUTIONARY BIOLOGY

Photo: Provided

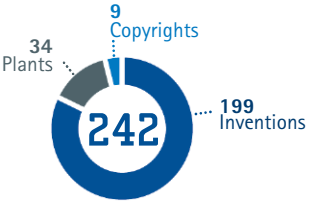
Transferring Technology

3 COMPANIES STARTED FY 2009

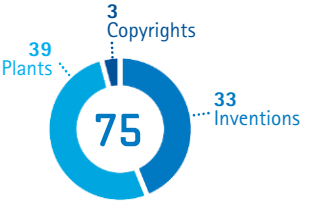
8 COMPANIES STARTED FY 2008



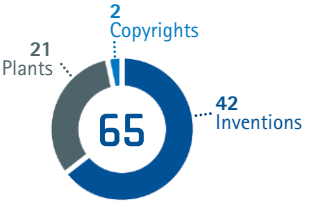
IP DISCLOSURES
FY 2009



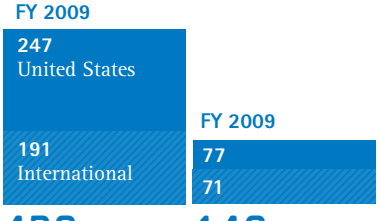
IP DISCLOSURES
FY 2008



LICENSES
FY 2009



LICENSES
FY 2008



438 PATENTS FILED

148 PATENTS ISSUED

473 PATENTS FILED

155 PATENTS ISSUED

in thousands

REVENUE	FY 2009	FY 2008
Total	**$7,799,700**	**$9,553,064**
Fees and Royalties	5,084,199	6,831,463
Reimbursements	2,670,778	2,703,216
Extraordinary Income*	44,723	18,385

* Includes nonrecurring income, such as sale of equity.
Source: Cornell Center for Technology, Enterprise, and Commercialization (CCTEC)

ARRA's Impact

Since the American Recovery and Reinvestment Act (ARRA)—also known as the economic stimulus package—was enacted in February 2009, Cornell has received funding for an array of projects, from research on tuberculosis and energy to a study on poverty. Cornell's ARRA-supported research will not only lead to innovations and discoveries, but also create and retain jobs, upgrade research facilities and equipment, and train graduate students—and thereby contribute to economic growth.

ARRA Funds*

CORNELL, ITHACA CAMPUS	WEILL CORNELL MEDICAL COLLEGE
137 AWARDS	**72** AWARDS
$106.6 M TOTAL DOLLARS	**$36.9 M** TOTAL DOLLARS
159.8 (FTEs)** TOTAL JOBS CREATED/RETAINED	**81.53 (FTEs**)** TOTAL JOBS CREATED/RETAINED

* As of February 2010
** Full-time equivalents

Cornell researchers received ARRA funding to create tiny 3-D models of tumors that mimic conditions necessary for tumor angiogenesis. The models will help researchers understand how tumors create blood vessels that facilitate tumor growth—an important step toward learning to block the development of these vessels and starve the tumor. Three graduate students and one post-doctoral fellow will be supported by the project.

CLAUDIA FISCHBACH-TESCHL
BIOMEDICAL ENGINEERING

ABRAHAM D. STROOCK AND JEFFREY D. VARNER
CHEMICAL AND BIOMOLECULAR ENGINEERING

VIVEK MITTAL
CARDIOTHORACIC SURGERY, WEILL CORNELL MEDICAL COLLEGE

Photos: Lindsay France/CU; Jason Koski/CU; Frank DiMeo

Three start-ups based on Cornell technologies were launched in New York State in 2009:

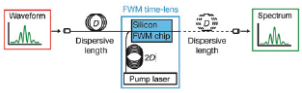
Reparo Therapy is developing DNA repair-enhancing ingredients and products for consumer and clinical use. The technology is based on a discovery at Weill Cornell Medical College of a mechanism that improves the ability of cells to repair DNA damages caused by UV or chemical carcinogens.

Geneweave Biosciences is developing rapid molecular diagnostic tests for infectious diseases. The invention is based on bacterial detection technology from the Departments of Biomedical Engineering and Microbiology.

InFlora is commercializing a collection of unique woody ornamental plants developed at Cornell. Woody ornamentals are popular for defining outdoor living spaces, and the flowers are used in creative floral arrangements.

A Cornell engineer invented a new genetic-engineering technique, a protein readout method for cells, paving the way for creating and cataloging disease-specific antibodies in the lab and revolutionizing antibody-based drugs for such diseases as Alzheimer's and cancer.

MATTHEW DELISA
CHEMICAL AND
BIOMOLECULAR ENGINEERING



Cornell researchers created an ultra-fast oscilloscope that can plot the waveform of an optical signal with a resolution of less than a trillionth of a second. Applications include analyzing intermittent glitches in fiber-optic communications and observing such fast-moving events as chemical reactions or laser fusion.

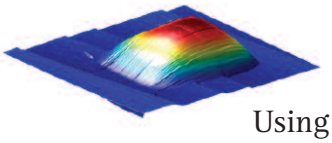
ALEXANDER GAETA
APPLIED AND ENGINEERING
PHYSICS

MICHAL LIPSON
ELECTRICAL AND COMPUTER
ENGINEERING

Cornell neurosurgeons at Weill Cornell Medical Center performed the world's first intra-arterial cerebral infusion of Avastin (bevacizumab) directly into a patient's malignant brain tumor. This novel technique, a combination of the latest in drug treatment and revolutionary delivery procedure, may expose the cancer to higher doses of the drug therapy, sparing the patient common side effects of receiving the drug intravenously throughout the body.

JOHN A. BOOCKVAR
NEUROLOGICAL SURGERY

HOWARD RIINA
NEUROLOGICAL SURGERY/
NEUROLOGY/RADIOLOGY

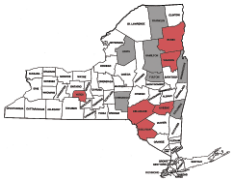


Using a lump of graphite, a piece of scotch tape, and a silicon wafer, Cornell scientists—including physics graduate students Arend van der Zander and Jonathan Alden and former graduate student Scott Bunch (now faculty at the University of Colorado)—created the world's thinnest balloon, one atom thick, that is strong enough to contain gases under several atmospheres of pressure without popping. This balloon-like membrane is ultrastrong, leakproof, and impermeable to even nimble helium atoms. The research could lead to a variety of new technologies, from novel ways to image biological materials in solution to techniques for studying the movement of atom or ions through microscopic holes.

PAUL MCEUEN AND JEEVAK PARPIA
PHYSICS

HAROLD CRAIGHEAD
APPLIED AND ENGINEERING PHYSICS

RESEARCHER SCOTT VERBRIDGE
BIOMEDICAL ENGINEERING

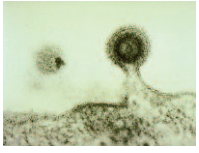


Cornell researchers found that retirees or older people, sometimes called "grey gold," who move to rural areas often have a positive impact on local economies, but they also drive up housing prices and can have other negative effects. For example, affordable housing becomes less available to such service professionals as teachers and nurses. They published the findings in their book, *Rural Retirement Migration* (Springer 2008).

DAVID L. BROWN
AND NINA GLASGOW
DEVELOPMENTAL SOCIOLOGY

A Cornell poet was nominated for a National Book Award in poetry, chosen for her 2009 work, *Open Interval* (University of Pittsburgh Press), a collection of poems drawing on the intersections of astronomy and mathematics, history, literature, and lived experience.

LYRAE VAN CLIEF-STEFANON
ENGLISH



Cornell researchers provided a new insight into how receptors on cell surfaces turn off signals from the cell's environment. The findings have implications for better understanding cancer, AIDS, neurodegenerative disorders, and other illnesses, because such diseases can result when receptors go awry by failing to turn off, a function known as down-regulation.

SCOTT D. EMR
WEILL INSTITUTE FOR CELL AND
MOLECULAR BIOLOGY

Photos: Robert Barker/CU; Jason Koski/CU; CU; University Photography; Provided

one

Cornell ranks among the nation's top academic institutions in research expenditures: $687 million in FY 2009.

- Top sources of funding for Cornell research are the National Science Foundation (NSF) at $115 million and the Department of Health and Human Services (DHHS) at $192.4 million in FY 2009.
- Cornell ranks number one in NSF funding in the latest NSF report and has alternated between the first and second spots for the past several years.

two

Cornell's Ithaca campus and Weill Cornell Medical College together had received a total of $143.5 million in ARRA funds as of February 2010.

Total number of awards:
209

Total number of jobs created or retained:
241.33 (FTEs)

three

Cornell graduate student stipends and tuition expenditures for organized research totaled $47 million in FY 2009.

Federal support:
$23.7 million

Nonfederal sponsored support:
$8.5 million

Cornell appropriated support:
$13.9 million

Graduate students enrolled in organized research:
2,032 (FY 2010) and 1,612 (FY 2009)

four

Cornell annually ranks among the top 10 universities in innovation and number of patents issued.

Number of patents Cornell received in FY 2009:
77 U.S. patents and 71 international patents

Number of new technologies Cornell researchers disclosed in FY 2009:
363

Number of licenses Cornell negotiated:
75 licenses (FY 2009) and 65 (FY 2008)

Number of new companies formed:
3 (FY 2009) and 8 (FY 2008)

five

Cornell has a distinguished share of faculty—191 memberships in 2009—in the national academies.

- In 2009 Cornell faculty members totaled 13 in the American Philosophical Society, 86 in the American Academy of Arts and Sciences, 44 in the National Academy of Sciences, 28 in the National Academy of Engineering, 16 in the Institute of Medicine, and four in the American Academy of Arts and Letters.
- Eight Cornell faculty have been elected to the national academies as of April 2010—one to the American Philosophical Society, four to the American Academy of Arts and Sciences, one to the National Academy of Sciences, and two to the National Academy of Engineering.

six

Cornell's Young Faculty won a total of 19 career development and young investigator awards in FY 2009.

- Cornell faculty won 13 NSF Faculty Early Career Development Awards in FY 2009, ranking second in the nation. Cornell ranked number one in FY 2007, receiving the largest number of awards of any university.
- Cornell young faculty received two Presidential Early Career Awards for Scientists and Engineers (PECASE) in 2009. Cornell ranked first in these awards in 2007.
- In 2009 Cornell faculty won two Department of Energy Early Career Research Awards, one Office of Naval Research Young Investigator Award, and one NIH New Innovator Award.

eight

The Research Division/ Office of the Vice Provost for Research consists of approximately 1,000 academic and nonacademic staff.

- The division includes three national research centers; 18 other research centers; four service units, serving faculty research-related needs; and a central administrative unit.
- Cornell's National Research Centers are the Cornell NanoScale Science and Technology Facility, National Astronomy and Ionosphere Center, and Cornell High Energy Synchrotron Source.

nine

Cornell has more than 100 interdisciplinary research centers, institutes, laboratories, and programs that enable faculty and staff to share specialized research facilities, equipment, and other resources.

- Founded in 2009 the Center on the Microenvironment and Metastasis, using nanotechnology for cancer research, is a collaboration between Cornell in Ithaca and Weill Cornell Medical College.
- Established in 2009 to concentrate on energy materials, including fuel cells and batteries, the Energy Materials Center at Cornell became one of DOE's newly funded Energy Frontier Research Centers.

seven

Cornell commands world-class research and teaching facilities, several recently completed or in-progress.

- Cornell's state-of-the- art physical sciences building, housing three prominent departments (Applied and Engineering Physics, Chemistry and Chemical Biology, and Physics) fosters research in sustainability, energy, and human health. It is slated to be completed in the fall of 2010.
- Milstein Hall, expanding Cornell's College of Architecture, Art, and Planning, will be a "center of gravity" for the design arts, supporting creativity and the best teaching and scholarship. It is scheduled for completion in 2011.
- Weill Hall, one of only six university laboratory buildings with Leadership in Energy and Environmental Design "gold" certification, is a cutting-edge life sciences facility for interdisciplinary research and teaching in the biological, physical, engineering, computational, and social sciences. Also housing the Weill Institute for Cell and Molecular Biology, it opened in 2008.
- Cornell's innovative Duffield Hall, completed in 2004, was designed for the interdisciplinary research in nanotechnology and education in which Cornell is a global leader.

ten

Cornell's research distinction is diversified and far-reaching, propelled by a distinguished faculty throughout its history.

- Seven Cornell faculty have been recipients of the President's National Medal of Science.
- Forty Nobel laureates have been affiliated with Cornell as faculty or students.

Photo: CCMR/Erin Henrick

Six Research Distinctions at Cornell

one

Cornell scientists are building and testing a prototype of a linear accelerator-driven, ultrabright x-ray source—the Energy Recovery Linac (ERL)—an essential tool for investigating all types of materials, physical phenomena, biological molecules, and chemical processes.

two

With its legacy of leadership in nanoscience and nanotechnology, Cornell is a global force in nanofabrication capabilities, particularly featuring advanced electron beam and optical lithography and expertise in complex process integration.

three

With a long tradition of research leadership in genetics and genomics, Cornell is a nationally recognized institution for implementing and utilizing the latest sequencing technologies as shared resources. More than 1,000 researchers use Cornell's sequencing capabilities annually for genomics research.

four

A Cornell lead science team created two of the world's most famous robots—Spirit and Opportunity—which have been exploring Mars since January 2004.

five

Cornell faculty scholarship in literary theory is among the most highly regarded in the field.

six

Cornell biophysicists invented multiphoton microscopy, a widely used technology that is allowing researchers to image fluorescent markers deep inside tissue, "seeing" what takes place inside living cells.

CORNELL'S COLLEGES AND DIVISIONS

College of Agriculture and Life Sciences†

College of Architecture, Art, and Planning

College of Arts and Sciences

College of Engineering

College of Human Ecology†

College of Veterinary Medicine†

Division of Nutritional Sciences

Faculty of Computing and Information Science

Graduate School

Johnson Graduate School of Management

Law School

School of Continuing Education and Summer Sessions

School of Hotel Administration

School of Industrial and Labor Relations†

Weill Cornell Graduate School of Medical Sciences (New York City)

Weill Cornell Medical College (New York City)

†Contract College

By recognizing and supporting excellence, Cornell … is at the forefront of trends where we can make significant contributions to meeting societal needs and enriching humanity.
– Robert A. Buhrman

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