The mission of CCTEC is to partner with industry to develop Cornell’s technologies into products and services for the public good, leverage Cornell’s intellectual property to promote entrepreneurial opportunities and regional economic development, and provide technology transfer services to Cornell faculty and researchers.
FY 2010 was a “milestone” year for the Cornell Center for Technology Enterprise & Commercialization (CCTEC) that evidenced the significant progress made by the Cornell technology transfer program in recent years. The year was memorable in that:

- For the second fiscal year in a row, CCTEC received more than 300 new disclosures of Cornell technologies and work of authorship. Last fiscal year, FY 2009, was the first time ever more than 300 (362) new disclosures were made to CCTEC or its predecessor, the Cornell Research Foundation. FY 2010 (338) provided confidence that it could be the beginning of a trend in the right direction rather than a “one off” happenstance in FY 2009;

- CCTEC granted the highest ever number of commercial licenses (114, see P. 18) to industry partners to develop Cornell technologies for the benefit of the public;

- Twelve new businesses were founded on licensed Cornell technologies (see P. 4 to 8 for a glimpse of some of them), representing the highest ever number of startups spun out of Cornell in any fiscal year;

- Cornell amicably settled two long-standing legal disputes related to Cornell inventions and licensing with industry partners; and

- CCTEC grossed the highest ever revenues, either inclusive or exclusive of the extraordinary settlement income resulting from the above-mentioned settlements (see P. 21).

Although I credit the CCTEC professionals and staff members for their dedicated effort, I would be remiss if I fail to acknowledge the continuing encouragement and support CCTEC receives from the senior leadership at Cornell, from the trustees to the president’s office, to the provosts, to the vice presidents and vice provosts, to the research administration heads, to the deans and chairs, and to the involved alumni. All of them have been instrumental in spreading the message of the importance of early capture of valuable innovations by CCTEC and of making results of research at Cornell useful so that Cornell may strategically leverage them to advance the land-grant mission of the university.

I also want to take this occasion to express a special thank you to The Office of University Counsel for the expert assistance in guiding us through the above-mentioned and protracted disputes.

Last but not least, I want to thank the Cornell University Technology Transfer Advisory Committee and its various standing subcommittees for providing guidance throughout the year.

I hope you enjoy this report and feel assured by the progress the program is making. As always, I welcome your feedback and input and I look forward to your continuing support.

Respectfully,

Alan Paau, MBA, PhD, CLP
Vice Provost & Executive Director
Selected New Businesses

iFyber, LLC
Ithaca, NY
www.ifyber.com

iFyber, LLC is a materials science company applying novel coating technologies developed by Juan Hinestroza, Assistant Professor of Fiber Science & Apparel Design, to functionalize natural and synthetic fibers for the industrial, medical, military, and consumer markets. iFyber’s technology platform deposits conformal, nanoparticle coatings on both flat and curved surfaces using a unique layer by layer assembly process. The process provides for the ability to control particle size and inter-particle spacing which in turn allows iFyber to impart a remarkable array of custom properties to treated fibers and fabrics. Custom properties allowing electrical conductivity, self-cleaning, anti-microbial action, and identity authentication can be developed using the novel coating technologies.

Orthogonal, Inc.
Ithaca, NY
www.orthogonaldinc.com

Orthogonal, Inc. is founded on inventions developed by Professors Christopher Ober and George Malliaras of Materials Science & Engineering. Orthogonal is commercializing a suite of fluorinated photoresists allowing the electronics industry to take advantage of its current infrastructure to manufacture organic electronics using photolithography. Based on fluorine chemistry, the technology enables users to pattern a wide range of semiconducting and conducting materials using currently installed electronics manufacturing equipment and processes. The process can be used to make or pattern organic transistors, conducting polymers, OLEDs (organic light-emitting diode), and organic solar materials. Orthogonal’s photoresist system, OSCoR, makes use of environmentally friendly and “green” advanced fluorinated solvents. The combination of these commercially available solvents and OSCoR creates a highly recyclable photolithography process (orthogonal photolithography) resulting in very little waste. Any solvents that may escape will quickly degrade in the atmosphere, contributing little to global warming and having no impact on the ozone layer.

In FY 2010, CCTEC launched twelve new businesses, eleven located in the state of New York, based on licensed Cornell technologies. One is located in Orleans County, six in Tompkins County, and four in New York County.
Diabetes is a chronic disease affecting almost 30 million Americans and 270 million people worldwide, statistics that are expected to double within the next 25 years according to the American Diabetes Association. Despite great strides made in the management of this disease, an unmet clinical need exists for preventative therapies for diabetic retinopathy, nephropathy and vascular complications. Ezra Pharmaceutical, Inc. is founded on a licensed invention from Weill Cornell Medical College based on the work of Roberto Levi, Professor of Pharmacology and Randi Silver, Professor of Physiology. Ezra is currently developing a first-ever preventative therapy for diabetes-related blindness. Also known as diabetic retinopathy, this disease is the leading cause of adult blindness in the United States and the developed world. This innovation utilizes the concept of a “therapeutic switch” based on the novel reformulation and repurposing of an already FDA-approved drug for a new clinical indication. (updated November 19, 2010)

Coferon, Inc., a company founded on an invention by Francis Barany and Maneesh Pingle from Weill Cornell Medical College, is developing a platform approach to making new drugs with the capability of reaching their intended intracellular targets that many current drugs fail to accomplish. Many currently approved drugs are limited in their ability to reach drug targets inside the cell, in part, because of the size of the drug molecules. An estimated eighty percent of currently known drug targets are “undruggable” since large molecule therapeutics, such as monoclonal antibodies, are too large to enter the cell, and traditional small molecules, while they can enter the cell, are too small to effectively disrupt the targeted protein-protein interactions. The vision of the Coferon platform technology is to develop orally active drugs with components that act like small drug molecules to permeate cell membranes, and once inside, can assemble into larger molecules to behave like effective therapeutic biologics.

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New York, NY
www.ezrapharmaceutical.com

Coferon, Inc.
New York, NY
www.coferon.com

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Novita Pharmaceuticals, Inc. is developing new drug molecules to prevent cancer metastasis by targeting a new gene target, fascin. The novel drug candidate molecules and the gene target resulted from the work of Professor Xin-Yun Huang of Weill Cornell Medical College and his collaborators at Memorial Sloan-Kettering Cancer Center and the National Institutes of Health. These drug molecules are currently in pre-clinical development.

Novita Pharmaceuticals, Inc.
New York, NY
Novita Pharmaceuticals, Inc. is developing new drug molecules to prevent cancer metastasis by targeting a new gene target, fascin. The novel drug candidate molecules and the gene target resulted from the work of Professor Xin-Yun Huang of Weill Cornell Medical College and his collaborators at Memorial Sloan-Kettering Cancer Center and the National Institutes of Health. These drug molecules are currently in pre-clinical development.
Adenios, Inc. is founded on an invention that can precisely control the blood-brain barrier. The invention will find commercial opportunities in improving the delivery and extend the patent life of existing drugs and in bringing new drugs to market. While the blood-brain barrier is a critical component of the central nervous system that prevents toxic substances from entering the brain, it also prevents over 98% of existing drugs from being delivered to the brain. Adenios is developing practical approaches to modulate blood-brain barrier permeability that both allow and prevent small-molecules, antibodies, and cells from entering the brain. The technology platform, based on an invention by Assistant Professor of Microbiology & Immunology, Margaret Bynoe, is currently in pre-clinical development aimed at improving the delivery of therapeutics for treatment of Alzheimer’s, Parkinson’s, brain cancer, multiple sclerosis, and other central nervous system diseases.

ADispell, Inc.  
Ithaca, NY  
www.adispell.com  

According to the Alzheimer’s Association, Alzheimer’s disease (AD) affects 5.3 million individuals in the U.S. and 35 million worldwide. As the overall population ages, the number of cases will grow rapidly. ADispell, Inc. is dedicated to the discovery and development of drugs for the treatment and prevention of Alzheimer’s disease, a disease currently without a cure. The company has licensed an invention by George Hess, Professor Emeritus of Molecular Biology & Genetics. The invention includes unique compounds that can impact both beta-amyloid peptides, whose aggregation is believed to be a major cause of Alzheimer’s, and the ion channels involved in signal transmission between brain cells, thus affecting the progression of the disease in two ways. The company aims to halt AD advancement and other neurodegenerative disorders.
ZetrOZ, Inc.
Ithaca, NY
www.zetroz.com

ZetrOZ, Inc. is founded on a technology developed by George Lewis, a graduate student in Biomedical Engineering. Its pocket-sized, super efficient acoustic generating device aims to make today’s expensive, complex, and large ultrasound tools portable, affordable, and easy to use. ZetrOZ is developing products that can use rechargeable batteries without sacrificing power output or customizability. The technology is not restricted by transducer size, frequency, or intensity, and provides increased flexibility to bring down both the size and the cost of ultrasound applications. The innovation allows for the creative use of ultrasound in a myriad of applications including pain therapy, drug delivery, minimally invasive surgery, food processing, and more. ZetrOZ’s first product, a very small ultrasound pain therapy device, is currently in clinical trials.

NYAG (New York Apple Growers), LLC
Albion, NY

NYAG, LLC is a strategic partnership of New York State apple growers founded to license, exclusively in North America, the rights to grow and market two new apple varieties, New York-1 and New York-2, that resulted from fourteen years of breeding effort by Professor Susan Brown of Horticultural Sciences. The members-owned company is open only to New York State apple growers to help promote the growth and long-term competitiveness of the New York apple industry. NYAG aims to perform market research and help its members with the growing, marketing/promotion, and sales of the new apple varieties to achieve commercial success. New York-1 produces red apples with sweet, crisp and juicy flesh, while New York-2 produces red fruit with sweet, juicy flesh, a touch of tartness, and do not brown quickly when sliced. Both varieties were bred not only for quality, but for high amounts of vitamin C, longer storage life of the fruit, and for trees with reliable productivity. The two apple selections are the 65th and 66th releases from the Cornell apple breeding program, but are the first to be released exclusively to benefit New York growers.
Where Are They Now?

Kionix, Inc. Kionix, manufacturer of high performance, silicon micromachined MEMS inertial sensors, was acquired by ROHM Co. Ltd., a semiconductor and electronics company, in November 2009 for $233 million. According to I-Micronews, the acquisition price, at a p/s ratio of 4.5x, represented a 36% premium over the average p/s ratio of 3.37x for the industry from 2000 to 2009.

Novomer, Inc. Novomer, a company pioneering the use of renewable feedstock to make plastics, polymers, and other chemicals using licensed Cornell technologies, received $18.4 million in federal funding from the U.S. Department of Energy in July 2010. The funding will be used to convert waste carbon dioxide into polymers for various uses.


Widetronix, Inc. Widetronix, a developer of long-life, betavoltaic batteries, received two grants totaling $2.2 million from the federal government to expand its operations and to open a prototyping facility in Ithaca, NY.

Stealth Peptides, Inc. Stealth Peptides, a biopharmaceutical company developing a unique class of compounds discovered at Weill Cornell Medical College, concluded a first in human Phase I clinical trial for Bendavia™. Bendavia™ targets mitochondria to treat ischemia reperfusion injury, a common complication of interventional procedures for acute myocardial infarction.

Pacific Biosciences Pacific Biosciences, a pioneer in real-time detection of biological events at the single molecule resolution level, received a $50 million strategic investment from Gen-Probe Inc. (NASDAQ: GPRO) to apply its technology to the diagnosis of human diseases.
Selected Products From Cornell Technologies

Sono-Tek manufactures ultrasonic nozzle systems for applying precise, thin film coatings. One of Sono-Tek’s products is the “ThinSonic™ Pulsed Capacitive Voltage Divider (CVD) System”. It relies on the introduction of a small amount of precursor liquid into an ultrasonic atomizing spray nozzle allowing the nozzle to produce a soft, unpressurized spray of small drops as a short pulse. The system has proven successful in a variety of Metallic Organic CVD applications, as well as, in CVD applications using polymers. ThinSonic™ CVD applications include electronic coatings on semiconductor wafers, solar cells, fuel cells, and sensors, hardness coatings for wear resistance, and biological coatings for heart valves, hip and knee joints, and dental implants.

mVision™
Metabolon, Inc.

Bruce Kristal, Weill Cornell Medical College & Burke Medical Research Institute
mVision™ is an integrated service platform designed to help clients identify biochemical biomarkers from numerous chemical classes and various sample matrices including: plasma, serum, urine, cerebrospinal fluid (CSF), cell extracts, and tissues. mVision™ provides researchers with the unified biomarker discovery and a pathway analysis platform they need to understand disease processes and to evaluate drug effects throughout their in vitro, in vivo, and human clinical studies. mVision™ detects various classes of biochemicals including amino acids, carbohydrates, lipids, energy metabolites, nucleotides, and xenobiotics.

ThinSonic™ Pulsed
CVD Systems
Sono-Tek Corp.
C. Thomas Avedisian, Mechanical & Aerospace Engineering

Sono-Tek manufactures ultrasonic nozzle systems for applying precise, thin film coatings. One of Sono-Tek’s products is the “ThinSonic™ Pulsed Capacitive Voltage Divider (CVD) System”. It relies on the introduction of a small amount of precursor liquid into an ultrasonic atomizing spray nozzle allowing the nozzle to produce a soft, unpressurized spray of small drops as a short pulse. The system has proven successful in a variety of Metallic Organic CVD applications, as well as, in CVD applications using polymers. ThinSonic™ CVD applications include electronic coatings on semiconductor wafers, solar cells, fuel cells, and sensors, hardness coatings for wear resistance, and biological coatings for heart valves, hip and knee joints, and dental implants.
Clinical specialties which manage diseases and disorders of hearing, balance, cranial nerves, and the skull base require precision tools that can maneuver in tight spaces, provide maximum visibility, and avoid causing injury to critical structures. The MicroFrance® Selesnick Lateral Skull Base Instrument Set is a product that allows a surgeon to safely and effectively dissect during lateral skull base surgery. It is composed of 24 different instruments with slim profiles for superior access and offers a range of working tips for exceptional control and precision in difficult to reach areas.

A diet rich in plant foods is known to reduce the risk of cancer, diabetes, heart disease, and many other lifestyle-related diseases. Fruits contain naturally occurring compounds that are potent antioxidants and have anti-inflammatory activities. In apples, many of those beneficial compounds are in the peels. AppleBoost is a commercial product containing 100% organic dried apple peel powder processed by a patented Cornell technology for drying and milling of apple peels to further concentrate the beneficial compounds without affecting their activities.

Formaldehyde is a chemical used widely in the manufacturing of building materials and household items. In 2004, the International Association for Research on Cancer (IARC) identified formaldehyde as a known carcinogen. One of the most significant sources of formaldehyde exposure within the home can be attributed to pressed wood products containing urea-formaldehyde resins. e2e Materials has developed high strength composites using a proprietary soy matrix-based resin and natural fibers with no formaldehyde or other petroleum-based products. The company’s cabinets are made out of standard 1/4” thick high-strength composite material with a honeycomb design to provide for extra strength. The products are finished with a “whitewash” stain that tints the material, while allowing the unique material texture to show through. All of the finishes are water-based and coupled with sustainable, zero volatile organic compound (VOC) material.

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The traditional pest management solution for most growers is based on the premise “when in doubt, spray,” and growers often spray with conventional insecticides. Frequently, treatments are scheduled on a calendar basis and deployed independent of the pest’s presence in the field. Four key problems have been associated with this constant use of conventional insecticides to control insect pests: pesticide residue on food, increased pesticide resistance, detrimental effect of pesticides on beneficial insects, and economic inefficiency. ISCA develops environmentally friendly, natural and pheromone-based tools to control insects. ISCA lure-Tuta is a pheromone-based lure product for South American tomato leafminer, *Tuta absoluta*, that attracts and traps the insect. The lure is loaded into a lure dispenser to protect the pheromone compounds from the elements and modulate the release of the pheromone with a release rate mimicking that of the leafminer.
Emerging Technologies

Branched Chain Fatty Acids for Gastrointestinal Health
Tom Brenna, Nutritional Sciences
This technology teaches the use of effective compositions of branched chain fatty acids (BCFA) for the maintenance of gastrointestinal health and for the prevention and treatment of gastrointestinal disorders, including necrotizing enterocolitis (NEC) in premature babies. NEC, a life-threatening condition affecting about 10% of premature infants, is caused by an overabundance of pathological bacteria in the gut. BCFA are endogenous and are necessary for the development of normal gut microflora. Products containing BCFA are likely to have few side effects, rendering the technology safe and low risk for all age groups. BCFA compositions can be used as consumer products for nutritional health, as therapeutic products, or as adjuncts to other therapeutics for conditions dependant on microfloral colonization of the gastrointestinal tract, e.g., maintenance of a healthy gut environ while on or after antibiotic treatments, and to treat inflammatory conditions involving the intestine, such as Inflammatory Bowel Disease (IBD).

Hydrolysis of cellulose is a key rate-limiting step in the break down of cellulose in plant cell wall to make the sugars in plant biomass accessible for fermentation in biofuel production. A genetic technology can alter the characteristics of plant cell wall making it more amenable to break down by hydrolysis. Plants with such altered cell wall structure would provide biomass more suitable for biofuel production.

Altering Plant Cell Wall Structure for Cellulosic Ethanol Production
Jocelyn Rose, Plant Biology

Hydrolysis of cellulose is a key rate-limiting step in the break down of cellulose in plant cell wall to make the sugars in plant biomass accessible for fermentation in biofuel production. A genetic technology can alter the characteristics of plant cell wall making it more amenable to break down by hydrolysis. Plants with such altered cell wall structure would provide biomass more suitable for biofuel production.
Search Engine Ads: An Auction Software System for Selling Ad Space
David Martin, Computer Science

Search engine advertising space is currently sold through an auction process. An ad yields payments to a search engine only when a consumer ‘clicks’ on the ad. This invention provides a system and method that supports an enhanced bidding process with very fast bid-winner determination. Instead of only allowing bids to be based solely on clicks, the invention includes algorithms to provide more bidding features which include clicks, purchases, and the ability to bid on various slot positions on a search results page. This more expressive approach to bidding provides better flexibility to advertisers, and more ad revenue potential for search engines.

Powering Bio-Nano-Machines
Alexander Travis, James A. Baker Institute for Animal Health

A unique feature in sperm is the tethering of many proteins involved in cell signaling and metabolism. One such example is tethering of enzymes involved in glycolysis - metabolism of glucose into adenosine triphosphate (ATP), the biological energy source - to the fibrous sheath of the sperm tail. This tethering provides for local ATP to power tail motility and its regulators. Researchers have harnessed the enzymes involved in glycolysis onto solid surfaces allowing for the production of ATP on chips. These chips can be incorporated into bio-nano-machines (nanomachines whose component parts are comprised of biological material) to provide the necessary energy source to power the various functions these devices are designed for. Bio-nano-machines hold much promise in revolutionizing the medical industry. They can perform inside the patient body mechanical operations, inspections, and targeted delivery of drugs to treat diseases.
A Private Overlay for Cellular Networks
Stephen Wicker, Electrical & Computer Engineering

Alstroemeria Tangerine Tango
Mark Bridgen, Horticulture

Alstroemeria Tangerine Tango is a new, winter-hardy Inca Lily with vivid orange petals, intense lemon-yellow highlights, flecks of brown, and a hint of lime tint. This Inca Lily is native to Chile and can bloom continuously throughout the season until frost. It has a maximum size of 3’x3’ and is hardy to the U.S. Department of Agriculture zone 5 that includes western Massachusetts, midstate New York, northern Pennsylvania, Ohio, Indiana, Illinois, much of Michigan, southern Iowa, Nebraska, northern Missouri, Kansas, and eastern Colorado.

Cellular telephony is a surveillance technology. Cellular network designs may be exploited to collect personal data, thus creating an enticing avenue of personal information for law enforcement agencies and marketers. This surveillance exploits the privacy of users and has a significant impact in social, economic, and political contexts. It is possible, however, to secure cellular networks against surveillance. A technology has been developed to provide a private overlay for cellular systems that protects user privacy by separating equipment identity from user identity with the addition of a public key infrastructure and certification authority.
Organic solar cells have attracted significant basic research interest and commercial investment in recent years. These devices are inexpensive, easy to manufacture, lightweight, and can be mechanically flexible. However, the organic materials are much less efficient than their inorganic counterparts because they lack the long-range order required to transport charge over long distances. This invention creates a new method for preparing robust, ordered, and highly absorbent organic materials designed for improved conversion of solar radiation into direct electricity.

William Dichtel, Chemistry & Chemical Biology

Anti-Addiction Vaccines

Despite decades of effort, there are no small molecules, monoclonal antibodies, enzymes nor active vaccines approved for treatment of cocaine addiction. The major hurdle is, like most small molecules, addictive drugs are poor immunogens. Attempts to link cocaine analogs to larger molecules, usually proteins, have had limited success. A new technology linking a cocaine analogue to the coat proteins of a disrupted adenovirus has been developed. Using cocaine and nicotine as examples, anti-addiction vaccines eliciting high-level, high-affinity addictive drug-specific antibodies sufficient to reduce drug-induced locomotor activity in animal models have been developed.

Ronald Crystal, Medicine
Outreach

CCTEC hosts, attends, and supports many events on and off-campus to promote regional economic development.

JULY 09
Joined Tompkins County and Ithaca City Officials for a Tompkins County Area Development (TCAD) Collaborative Meeting
Attended Grants for Growth Advisory Committee Meeting
Presented biomedical technologies to representatives of Johnson & Johnson
Alan Paau, Vice Provost, spoke at Technology Transfer in Agriculture Meeting sponsored by the U.S. Department of Agriculture and China State Intellectual Property Office in Beijing, China, on "Roles of Public Sector Innovation in Agriculture - A U.S. University Perspective"
Alice Li, Sr. Technology Commercialization & Liaison Officer, spoke at Technology Transfer in Agriculture Meeting sponsored by the U.S. Department of Agriculture and China State Intellectual Property Office in Beijing, China, on "Public Sector and Entrepreneurship in Technology Transfer of Agricultural Innovations - A U.S. University Perspective"

AUGUST 09
Booth at Empire Farm Days in Seneca Falls, NY
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities
Alan Paau, Vice Provost, spoke at the Local Government Leadership Institute- “Beyond the Fiscal Crisis: How to Build Partnerships and Leverage Opportunities”, hosted by Cornell’s Community and Rural Development Institute and the Office of the New York State Comptroller in Ithaca, NY

SEPTEMBER 09
CCTEC IP & Pizza with the College of Agriculture & Life Sciences
Seminar & Social Hour with CCTEC and Johnson School MBAs
Hosted a reception for members of the BayHelix Group at the Cornell Club in New York City
Co-hosted Cornell BioPharma Network/Cornell Entrepreneur Network Joint Event
Alan Paau, Vice Provost, spoke at the Chinese PI Club in New York City, on “Making Research Results Useful”

NOVEMBER 09
Seminar & Social Hour with CCTEC and Johnson School MBAs
Alan Paau, Vice Provost, spoke at Southern Tier Business & Entrepreneur Conference
Co-sponsored Entrepreneurship Seminar on Idea Validation & Opportunity Assessment
Alan Paau, Vice Provost, spoke at Weill Cornell Medical College Research Integrity Conference in New York City on “Intellectual Property & Conflict Management in Academic Institutions”
Alan Paau, Vice Provost, spoke at Clinical Trial Magnifier Conference in Hong Kong, on “Principles of Investigator Initiated Trial Agreements”
Participated in Technology Transfer Fellowship Exchange Program in Paris, France

DECEMBER 09
CCTEC IP & Pizza with the Faculty of Computing & Information Science

JANUARY 10
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities
Joined Tompkins County and Ithaca City Officials for a Tompkins County Area Development (TCAD) Collaborative Meeting
Attended “Minding the Gap: Translating Promising Academic Discoveries into Breakthrough Therapeutics”, convened by the Leukemia & Lymphoma Society in New York City

FEBRUARY 10
Seminar & Social Hour with CCTEC and Johnson School MBAs
CCTEC Inventions Roundtable at Weill Cornell Medical College
CCTEC IP & Pasta with the Department of Hematology/Medical Oncology at Weill Cornell Medical College
CCTEC IP & Pizza with Life Science Departments
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities
Co-sponsored Entrepreneurship Seminar on Raising Money

MARCH 10
Seminar & Social Hour with CCTEC and Johnson School MBAs
CCTEC IP & Pizza with the Family Life Development Center of the College of Human Ecology
Co-hosted Upstate New York Biocareer Connection
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities
Attended SUNY ESF/CNY Biotechnology Symposium in Syracuse, NY
Attended Association of University Technology Managers (AUTM) Annual Meeting in New Orleans, LA
CCTEC IP & Pizza with the Johnson Graduate School of Management

APRIL 10
CCTEC New Business & Emerging Technology Showcase at Entrepreneurship@Cornell Celebration
Booth at the Technology Business & Resource Expo at Entrepreneurship@Cornell Celebration
CCTEC Inventions Roundtable Seminar & Social Hour with CCTEC and Johnson School MBAs
Attended Tompkins County Area Development (TCAD) Marketing & Development Meeting
Co-sponsored Entrepreneurship Seminar on Upstate Venture Connect
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities

MAY 10
Booth at BIO International Convention in Chicago, IL
Hosted a reception for Cornell alumni at BIO International Convention in Chicago, IL
Attended Licensing Executives Society (LES) Spring Meeting in Boston, MA
Scott Macfarlane, Sr. Technology Commercialization & Liaison Officer, presented new technologies and startups from Cornell at SmartStart UNYTECH Venture Forum in Syracuse, NY
Attended Metropolitan Development Association of Syracuse & Central New York Annual Meeting and Luncheon

JUNE 10
Booth at Cornell University Reunion
Hosted monthly CCTEC Economic Development Coordinating Group Meeting, a meeting of individuals from the region involved in economic development activities
Attended Carnegie Foundation Community Engagement Classification Meetings
Attended Tompkins County Area Development (TCAD) Annual Meeting
Attended Building an Innovation Ecosystem in NYS Conference
Hosted a visit from faculty and administrators of Kyoto University’s Entrepreneurship Program
In FY 2010, CCTEC completed a total of 536 agreements (excluding amendments to existing agreements) related to technology management.

*Technology transfer activity metrics may be different from those in previous reports due to post-report adjustments.
Regional Impact:
New York Licensing by County
Total - 35

U.S. Licensing by State
Total - 96
In FY 2010, CCTEC received 340 disclosures for 12 copyrights, 37 plants, and 291 inventions.

### Patents

In FY 2010, CCTEC filed 166 U.S. provisional patent applications, 153 U.S. nonprovisional patent applications, and 172 international patent applications. Cornell was issued a total of 154 patents - 79 international and 75 U.S.

#### Filed

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<td>$9,553,064</td>
<td>$7,799,700</td>
<td>$31,866,615</td>
<td>$65,355,478</td>
</tr>
</tbody>
</table>

*Extraordinary income includes non-recurring items such as sale of equity and payments resolving patent litigation cases.

## Expenses

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>5-YR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal</td>
<td>$4,501,803</td>
<td>$5,044,150</td>
<td>$5,291,847</td>
<td>$5,186,172</td>
<td>$6,201,995</td>
<td>$26,225,967</td>
</tr>
<tr>
<td>Office Operations</td>
<td>$2,857,452</td>
<td>$3,780,968</td>
<td>$4,303,938</td>
<td>$4,717,159</td>
<td>$4,125,926</td>
<td>$19,785,443</td>
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<tr>
<td>Extraordinary*</td>
<td>$4,515,378</td>
<td>$6,813,021</td>
<td>$9,523,188</td>
<td>$1,548,726</td>
<td>$686,507</td>
<td>$23,086,820</td>
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<tr>
<td>TOTAL</td>
<td>$11,874,633</td>
<td>$15,638,139</td>
<td>$19,118,973</td>
<td>$11,452,057</td>
<td>$11,014,428</td>
<td>$69,098,230</td>
</tr>
</tbody>
</table>

*Extraordinary expenses include expenses for litigation.

## Mandatory Distributions

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>5-YR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventor-Author Share</td>
<td>$1,868,603</td>
<td>$1,612,688</td>
<td>$1,846,799</td>
<td>$1,948,911</td>
<td>$3,064,194</td>
<td>$10,341,195</td>
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<tr>
<td>Joint Titleholders Share</td>
<td>$115,194</td>
<td>$130,197</td>
<td>$236,481</td>
<td>$142,066</td>
<td>$1,048,195</td>
<td>$1,672,133</td>
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<tr>
<td>Research Labs/Dept/ College Share</td>
<td>$711,615</td>
<td>$600,769</td>
<td>$1,045,720</td>
<td>$1,740,795</td>
<td>$1,931,131</td>
<td>$6,030,030</td>
</tr>
<tr>
<td>CCTEC-University Share</td>
<td>$2,020,648</td>
<td>$2,065,950</td>
<td>$2,308,536</td>
<td>$1,865,224</td>
<td>$5,091,074</td>
<td>$13,351,432</td>
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<tr>
<td>TOTAL</td>
<td>$4,716,060</td>
<td>$4,409,604</td>
<td>$5,437,536</td>
<td>$5,696,996</td>
<td>$11,134,594</td>
<td>$31,394,790</td>
</tr>
</tbody>
</table>

As of the end of FY 2010, Cornell holds private equity in 25 companies with licensed Cornell technology, the value of which cannot be reliably estimated at this time. Cornell holds convertible notes in the principal amount of $2,300,086.
Advisory Committee (FY 2010)

John Alexander
Trustee Emeritus

Madelyn Antoncic
Overseer

Susan Henry
Dean of the College of Agriculture & Life Sciences

Robert Buhrman (Chair)
Sr. Vice Provost for Research

C.C. Chu
Professor

Geoffrey Coates
Professor

Christopher Ober
Interim Dean of the College of Engineering

David Fischell
Trustee

Samuel Fleming
Trustee Emeritus and Overseer

Kent Fuchs
Provost

Antonio Gotto
Provost for Medical Affairs and Dean of Weill Cornell Medical College

Steven Gross
Professor

Ken Gurrola
Chairperson of the Cornell Council Technology Transfer Committee

Leonard Harlan
Overseer

Stephen Johnson
Vice President for Government & Community Relations

Michael Kotlikoff
Dean of the College of Veterinary Medicine

Peter Lepage
Dean of the College of Arts & Sciences

Marcus Loo
Trustee

Dan Luo
Professor

Elmira Mangum
Vice President for Planning & Budget

Rajit Manohar
Professor

Alan Mathios
Dean of the College of Human Ecology

Kevin McGovern
Trustee Emeritus

Peter Meinig
Chairman of the Board of Trustees; and Overseer

James Mingle
University Counsel

Alan Paau (Secretary)
Vice Provost for Technology Transfer & Economic Development

Phil Proujansky
Alumnus

John Schimenti
Professor

Robert Seem
Professor

Randi Silver
Professor
Executive Director & Vice Provost
Alan Paau
apaau@cornell.edu

Technology Commercialization

Life Sciences (Ithaca Office)
Jeff Fearn
jcf55@cornell.edu
Alice Li
xl11@cornell.edu
Phillip Owh
po62@cornell.edu

Biomedical Sciences (WCMC Office)
Brian Kelly (Director)
bjk2003@med.cornell.edu
Carol Dempster
cjd2004@med.cornell.edu
Liyan He
lih2017@med.cornell.edu
Bruce Toman
bet2006@med.cornell.edu

Physical Sciences & Engineering
Chidori Boeheim
cb472@cornell.edu
Scott Macfarlane
ssm8@cornell.edu
Martin Teschl
mt439@cornell.edu

Plant Varieties & Germplasm
Jessica Lyga
jml73@cornell.edu

Outreach & Economic Development
Laura Cima
lc12@cornell.edu

Intellectual Property Services
William Hopewell
wh289@cornell.edu

Finance & Operations
Lewis Goodwin
lbg8@cornell.edu

General Inquiries
cctecconnect@cornell.edu
www.cctec.cornell.edu