



EMORY
UNIVERSITY

**Office of
Technology Transfer**

Gateway to Discovery,
Innovation, and Products

Annual
Report
2010

Technology Transfer By The Numbers

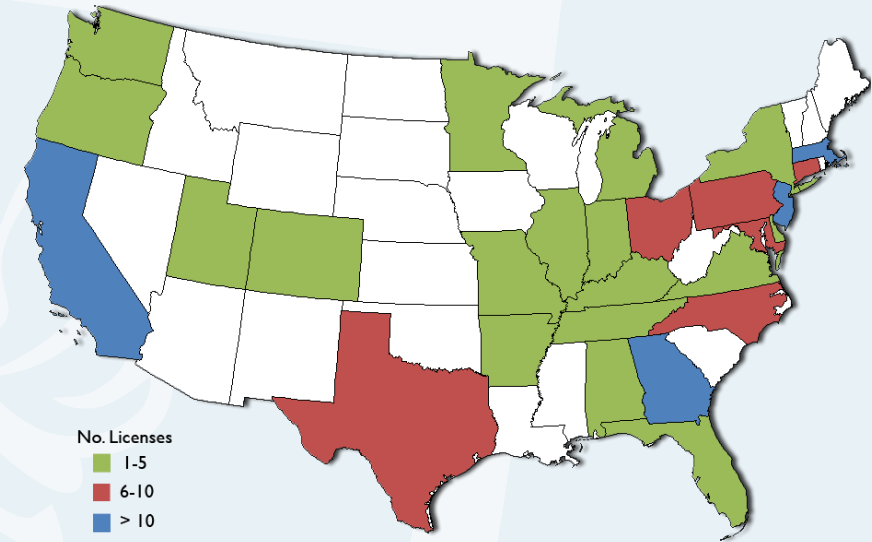
A Decade of Achievement

| | FY00-FY10 |
|------------------------|-----------------|
| Research Funding | \$3.393 Billion |
| Invention Disclosures | 1,418 |
| US Patent Applications | 968 |
| US Patents Issued | 229 |
| License Agreements | 288 |
| Start-ups | 30 |
| Licensing Revenue | \$758 Million |
| Products to Market | 25 |

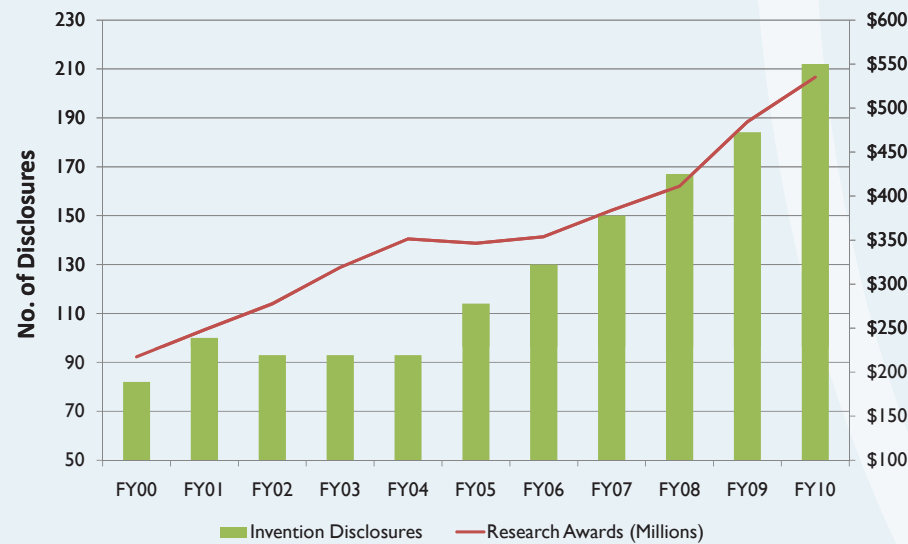
25
Products to Market

Emory Corporate Licenses in the US Alone

157
Unique Partners

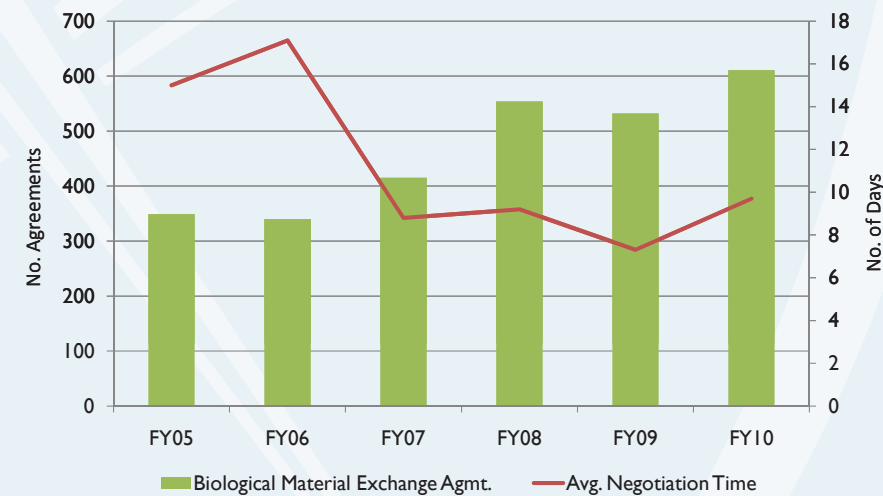


Research and Discovery on the Rise



145
Percent Growth in
Research & Disclosures

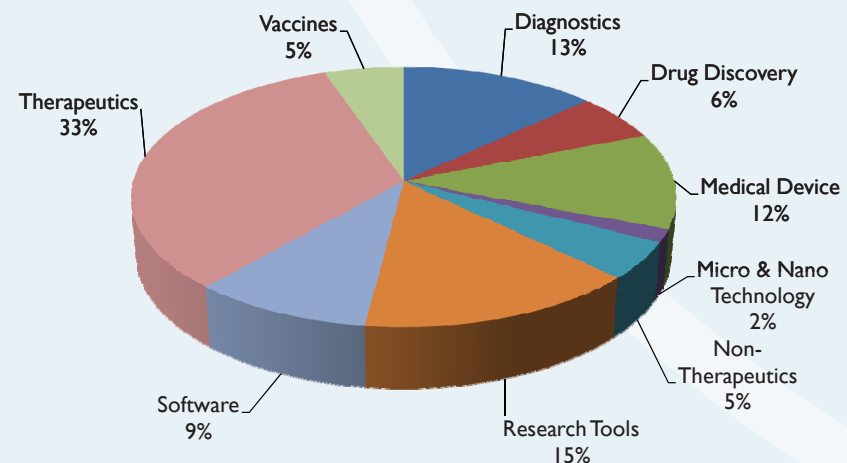
Commitment to Service



10
Days Average
Turnaround

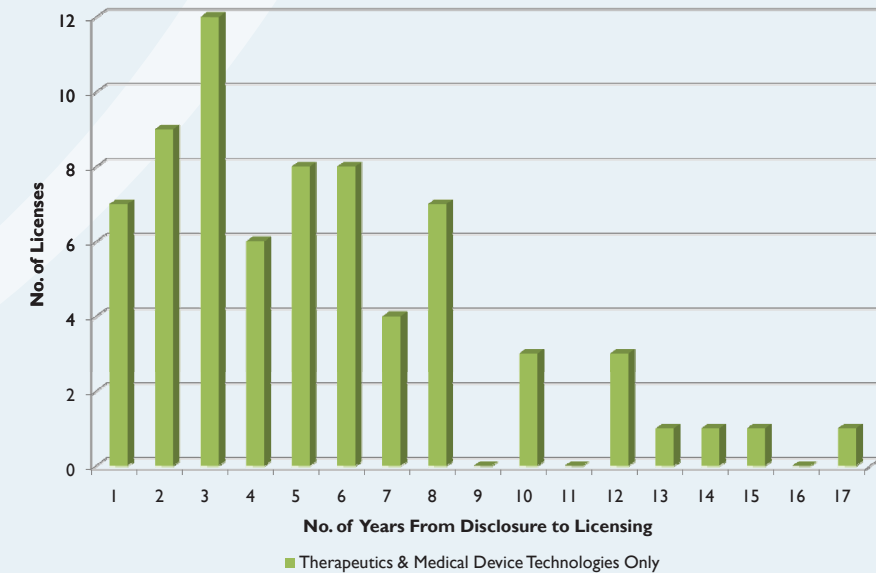
Diversity of Discovery

Invention Disclosures by Type



5.5
Years on Average
to License

Success Takes Time



950
Active Technologies



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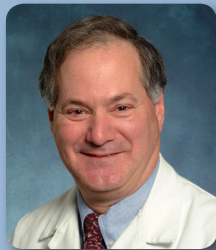
Todd Sherer, PhD
Assoc. VP for Research,
Director

Like wind, sun, or water, the untapped energy in human innovation is unlimited. Medical breakthroughs and new technologies require not just top minds working toward creative solutions, but large doses of imagination, courage, dedication, and teamwork. Emory's Office of Technology Transfer is the University's hub for patent protection, marketing, license negotiation, and start-ups. It's also a conduit for public and private partnerships, researchers and investors, industry and the academy. It is a space where bold ideas become reality. Join us!

Imagination

... Creativity, Ingenuity, Vision

Magnetic hope



Charles Epstein, MD

An electromagnetic headpiece that sends repetitive magnetic pulses into a patient's brain to treat severe depression may sound like the stuff of science fiction. But Neuronetics' NeuroStar Transcranial Magnetic Stimulation Therapy®,

invented by neurologist Charles Epstein, MD, is a current treatment that works for a majority of patients not helped by antidepressants, improving their depression in four to six weeks. NeuroStar TMS Therapy® was named a "Top 5" invention by CNN and Neuronetics was voted Emory OTT's Start-up of the Year.



NeuroStar TMS
Therapy™ System

Life savings

There should be a way to predict heart attacks before they happen. Syntermed's Emory Cardiac Toolbox™ (ECT) can do just that. The software program displays a three-dimensional image of a patient's heart, allowing physicians to determine blood flow and efficiency.

Developed by physician Ernest Garcia, PhD, whose own life was saved by the ECT, it is one of the most widely applied cardiac imaging systems in the world, is used in half of all nuclear medicine labs in the US, and helps in the diagnoses of four million heart patients a year. The improvements keep coming: a new imaging software, SyncTools, has been developed by Garcia and Emory scientist Jing Chen, that determines which heart failure patients will benefit from cardiac resynchronization therapy (CRT).



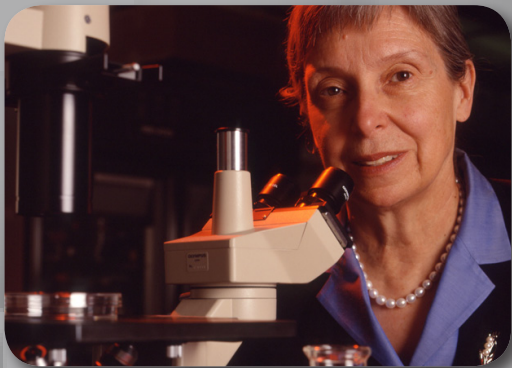
Ernest Garcia, PhD &
Rebekah Williams, RN, CMSRN

Courage

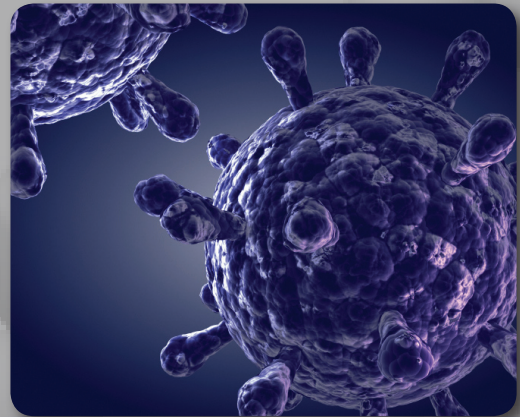
... Bold, Brave, Fearless

Vaccine hunt

Back when much of the scientific community was saying an AIDS vaccine was decades away, former Emory scientist Harriet Robinson, PhD, and her team didn't give in to the naysayers. They poured even more effort, time, and resources into vaccine development, creating the start-up biotech GeoVax in 2001 to focus primarily on HIV/AIDS vaccine development. Now, GeoVax has several promising preventative and therapeutic HIV vaccine candidates progressing in human clinical trials.

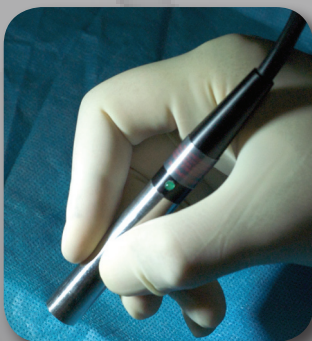


Harriet Robinson, PhD



Human Immunodeficiency Virus (HIV)

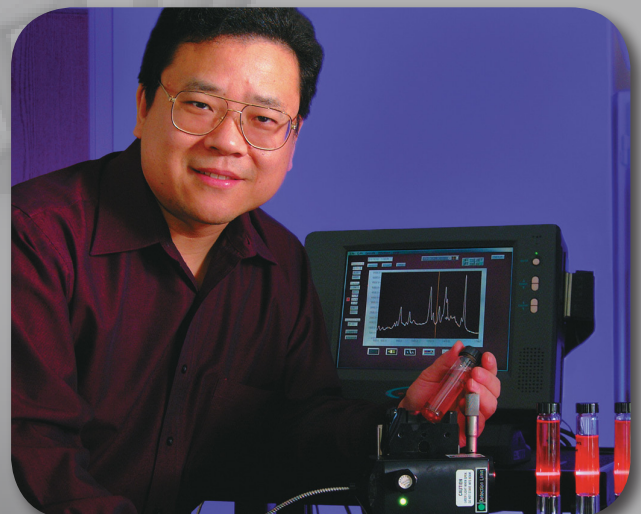
Going for the gold



SpectroPen™

“Did you get everything?” is all a patient with a tumor wants to know after waking up from surgery. Biomedical engineers at Emory, Georgia Tech, and Penn are developing a hand-held device called a SpectroPen™ that could help surgeons see the edges of tumors during surgery. The pen can be used to detect fluorescent dyes, cancer cells enhanced with

firefly genes, or scattered light from tiny gold particles, says Shuming Nie, PhD, a professor in the Wallace H. Coulter Department of Biomedical Engineering.



Shuming Nie, PhD

Determination

... Conviction, Dedication, Persistence

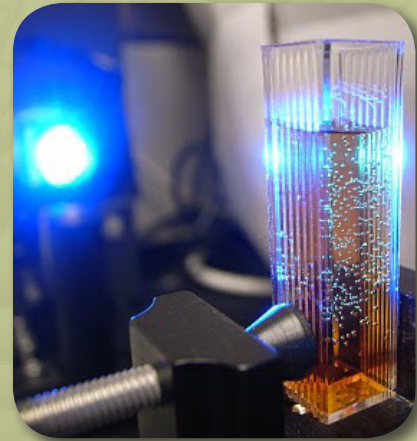
Solar system



Craig Hill, PhD

Hydrogen makes up three-fourths of all matter, and is the lightest and most plentiful element in the universe. Transforming hydrogen into a clean, sustainable fuel source is a promising yet elusive goal, but Emory chemist Craig Hill, PhD, has advanced the odds. The process involves splitting water into oxygen and hydrogen

with solar energy, and the challenges include developing a water oxidation catalysts (WOC). Hill's lab has developed the most effective, efficient catalyst so far. One step closer to a plentiful fuel whose only byproduct is . . . water. "Geothermal power and wind power are great, but the most abundant source of energy is light. Sunlight is the key to solving the dual problems of decreased fossil fuel resources and environmental pollution," says Hill, who grew up in sunny southern California. "I have always been inspired by the beauty and creativity that is intrinsic in nature."



Light Stimulated Oxygen (bubbles) Generation Using WOC
(Photo by Benjamin Yin)

Hands only



Prototype CPR Manikin



Art Kellerman, MD

The American Heart Association has modified its guidelines to increase the rate of bystander CPR: it is now permissible to provide continual chest compressions without mouth-to-mouth rescue breathing. In addition to making CPR easier and less intimidating to perform, this technique might even produce better results during the first minutes following cardiac

arrest. Emergency physician Art Kellermann, MD, MPH, formerly of Emory, and David Sanborn, of Georgia Tech, have invented a low-cost manikin to help anyone learn and practice "hands-only" CPR.

Teamwork

... Alliance, Collaboration, Partnership

Italian virtual class



Italian Virtual Class Screen Shot



Judy Raggi Moore, PhD

The innovative Italian Virtual Class method, developed by Judy Raggi Moore PhD, senior lecturer and program director of the Italian Studies Program at Emory, creates a virtual Italian community within a cultural context via Internet technology to help first-year students learn the language and more. The Italian Virtual Class, or Chiavi di Lettura, introduces students to Italian art, history, geography, literature, folklore, film and music and uses interviews with native speakers to let students hear and see Italians describing their own country and customs. The course has a corresponding text that is organized thematically, so students can learn Italian the way they did their first language—not as a list of vocabulary words and a series of grammar points, but as a dynamic, living language. Since the method has a regional focus, students can also compare dialects and accents from different parts of the country.

Personal planning



Best Method For Me Screen Shot

Family planning is a private matter, but Professor of Gynecology and Obstetrics Robert Hatcher, MD, MPH, and Peg Goedken, MPH, a researcher in the Family Planning division, have designed a web-based interactive tool that allows women to determine the contraception most suited for them: www.bestmethodforme.com. This research-backed survey (available in English and Spanish) considers medical history, life goals, past birth control methods, and is updated with the latest information about contraceptives, to generate a recommendation.

Mission

We support the University's mission through comprehensive management of Emory innovations to maximize the benefit to the University and to humanity.

Therefore the office is committed to:

- Working with researchers to acquire the knowledge, expertise, and resources to successfully navigate the complexities of protecting intellectual property and securing commercial licensing deals.
- Collaborating with researchers and industry to build and nurture partnerships that move ideas from the lab to the marketplace.
- Developing commercialization strategies that benefit both Emory and our industry partners while maximizing benefit to the public and return on investment.
- Creatively negotiating with industry partners for the best possible license terms and aggressively managing agreements to ensure that licensees honor their terms and obligations.



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Office of Technology Transfer

Director's Office

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Director

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Chief IP Officer

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