

Discovery: From Concept to the Patient - The Business of Medical Discovery

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About Atlanta, Georgia

- ~ 5 million people in the metropolitan area
- Headquarters for 16 Fortune 500 companies
- Southeast US-good wages/low cost of living
- Big airport, spread out metropolitan area
- High tech & real estate economy--not biotech
- Home to Georgia Tech, Georgia State University, Morehouse School of Medicine, and Emory University – “Higher Education Cluster”



Association of University Technology Managers®
Advancing Discoveries for a Better World®

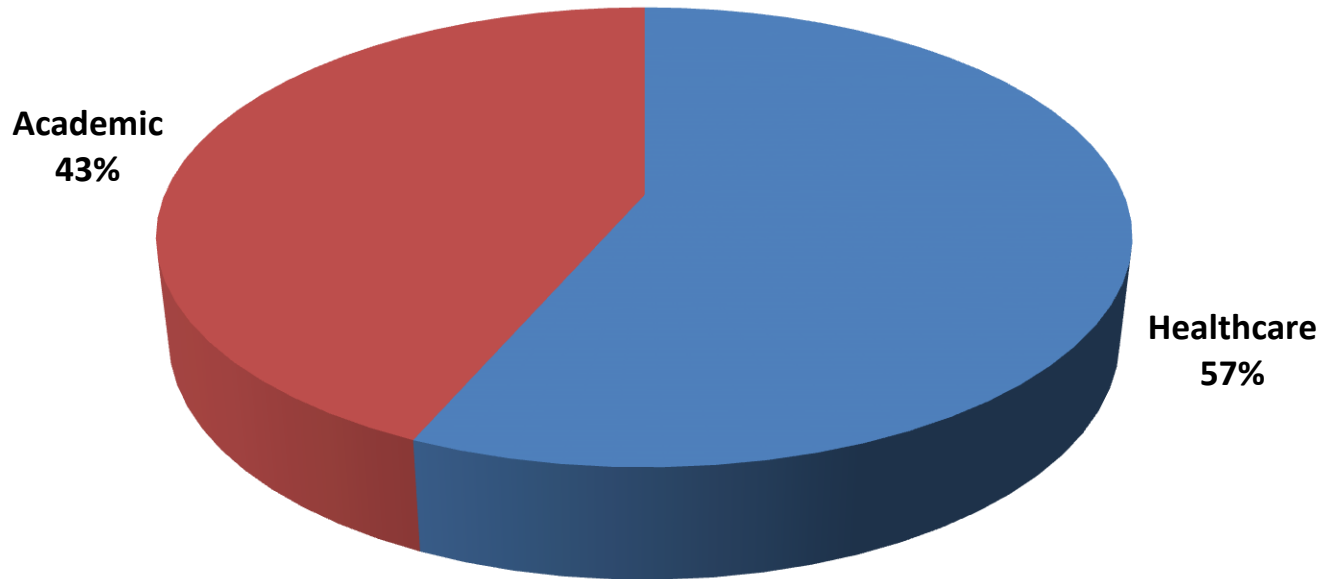
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Office of Technology Transfer - Gateway to Discovery, Innovation, and Products

Emory University--All Funds Budget FY12



Total Budget = \$3.5 Billion

Note: Emory Healthcare is estimated.

Emory University - Students and Staff FY11

Students

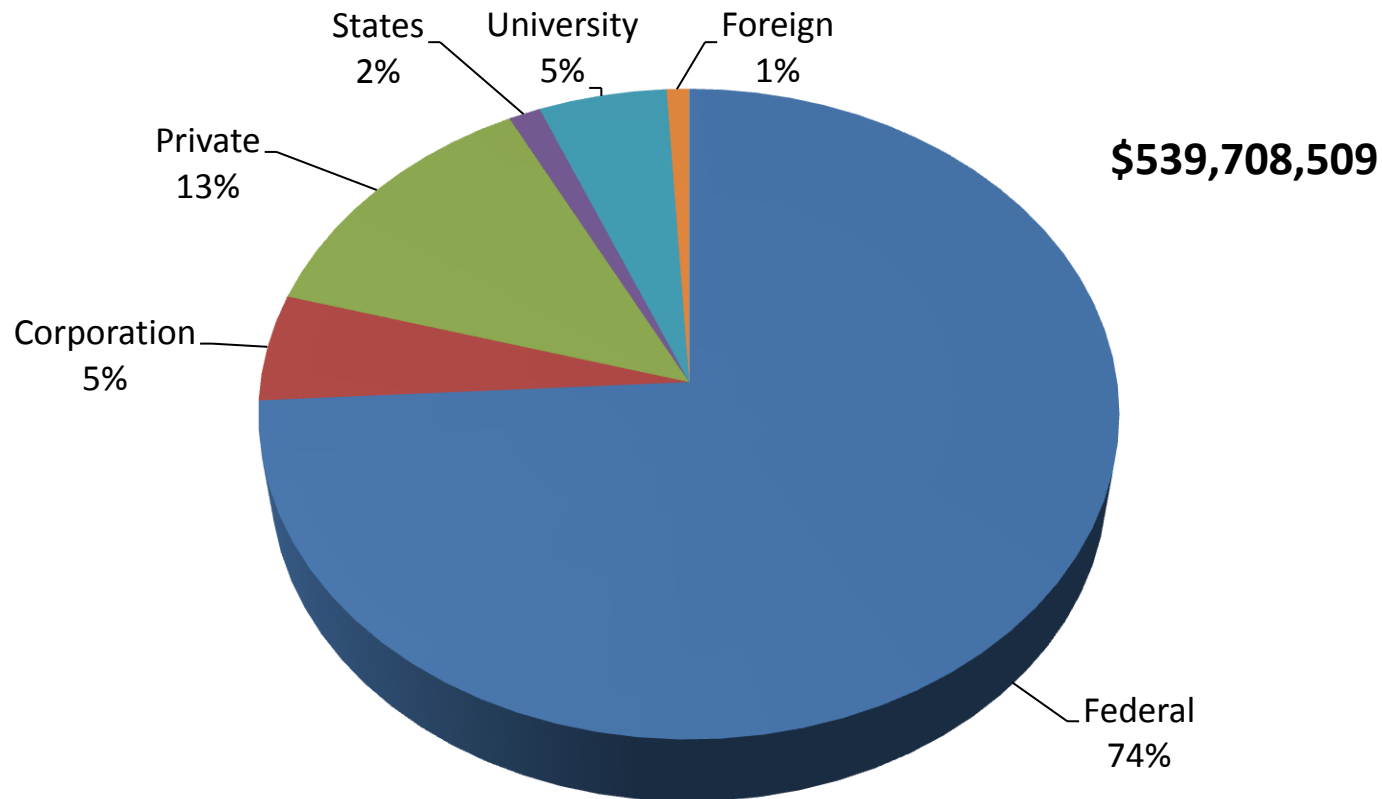
Undergrad	7,441
Grad/Prof	6,452
Total	13,893

Employees

University	12,949
Healthcare	11,935
Total	24,884

Faculty	2,868
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Total Sponsored Research FY11 at Emory University



Emory - TTO Mission Statement

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

Emory IP Policy

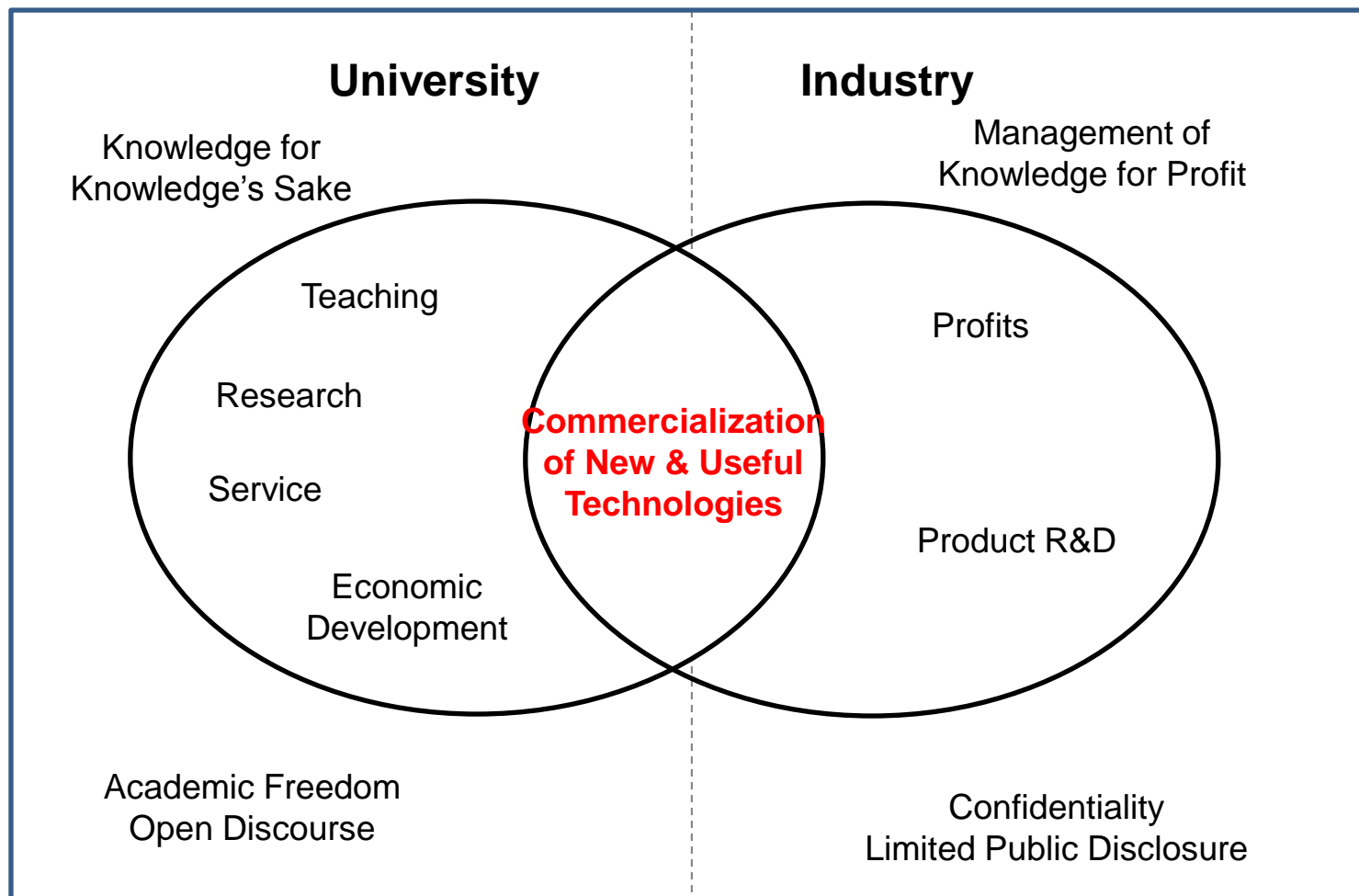
- **Policy 7.6 Intellectual Property Policy**
- **Responsible Official:** VP for Research Administration **Administering Division/Department:** Technology Transfer **Overview**
- Emory encourages faculty to pursue areas of study of their choice, to share the results of their intellectual efforts with colleagues and students and recognizes their need to retain traditional academic freedoms in the conduct of scholarly and scientific work. Although the University does not undertake research or developmental work principally for the purpose of commercial application, patentable inventions and other commercializeable works sometimes result from the activities carried out by Emory Personnel. To address these needs and support the University's mission and its commitment to use knowledge to improve human well-being, the University has established this Intellectual Property Policy.
- **Applicability**
- This policy applies to all Emory personnel, and in specific circumstances detailed within this policy, visitors and students.

Emory IP Policy (cont.)

- **7.6.01 Ownership of Intellectual Property**
- Emory University owns all Intellectual Property created or developed by Emory Personnel that is related to the Emory Personnel's normal duties (including clinical duties), course of studies, field of research or scholarly expertise, or was made with the use of Emory Support. All Emory Personnel hereby assign their rights in any such Intellectual Property to the University.

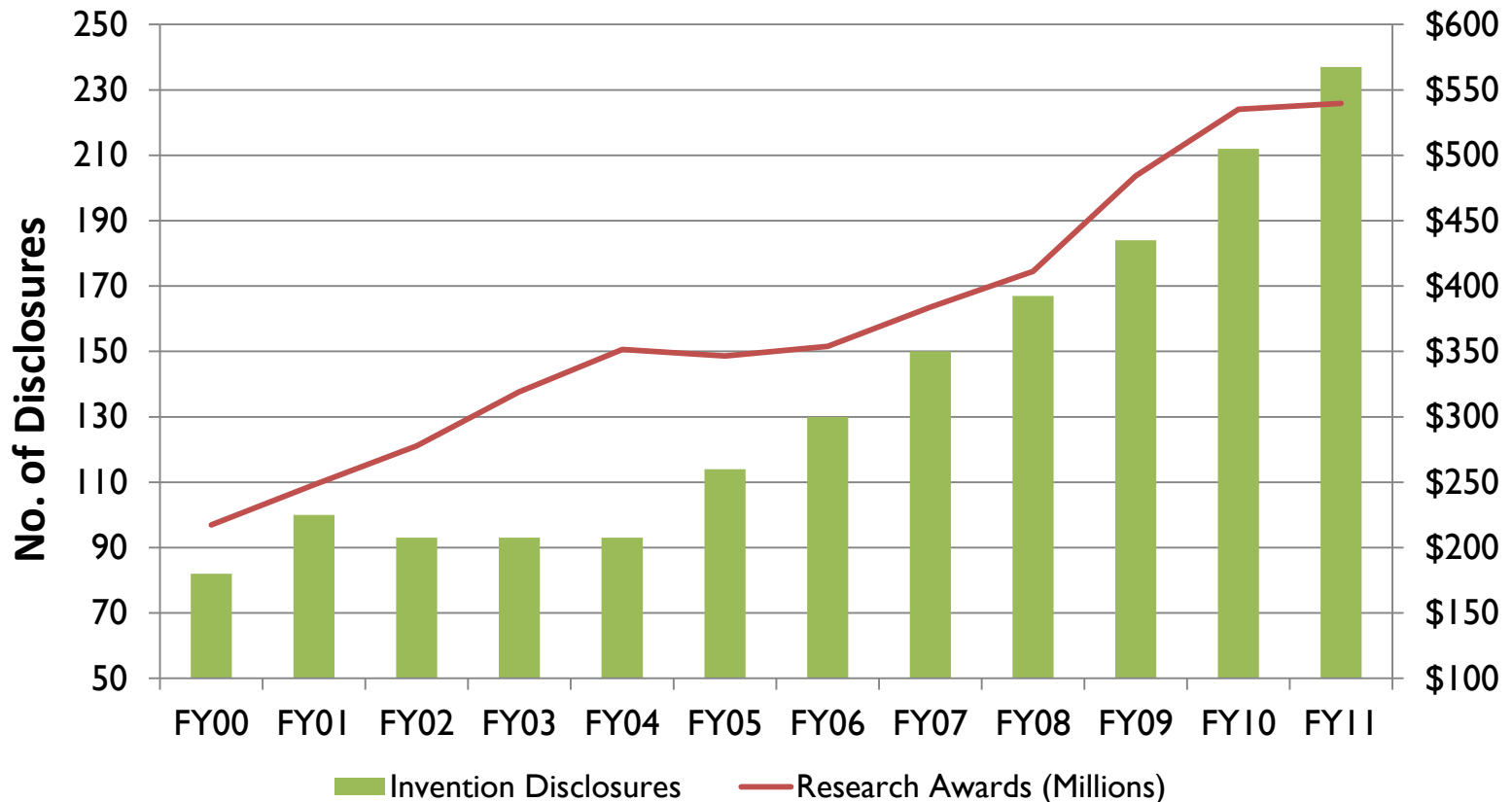
Emory - Distribution of Cumulative Net Revenue

	Gross Revenue up to \$25,000	Net Revenue up to \$4 million	Net Revenue \$4 million and over
Contributor Share	100%	33%	25%
Department Share*	0%	33%	33%
School/Center Share	0%	10%	17%
General University Share ****	0%	24%**	25% ***

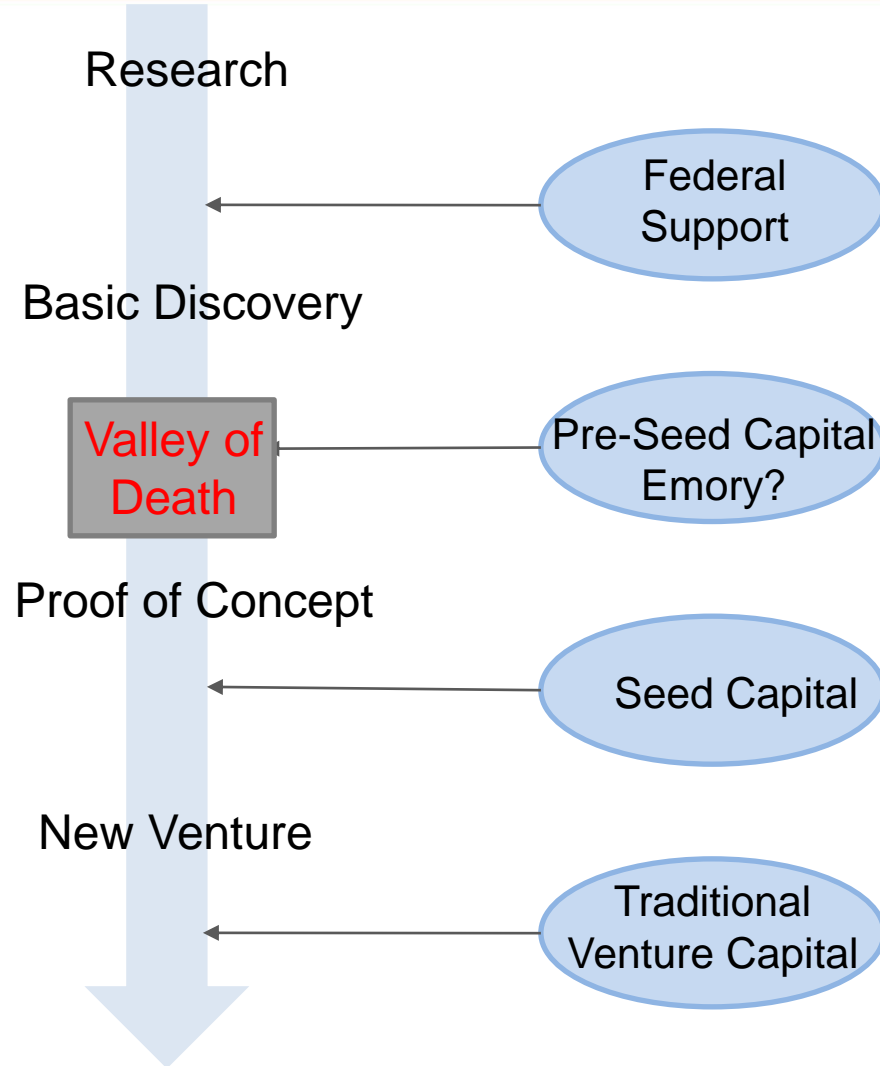


150% Growth in Research & Disclosures

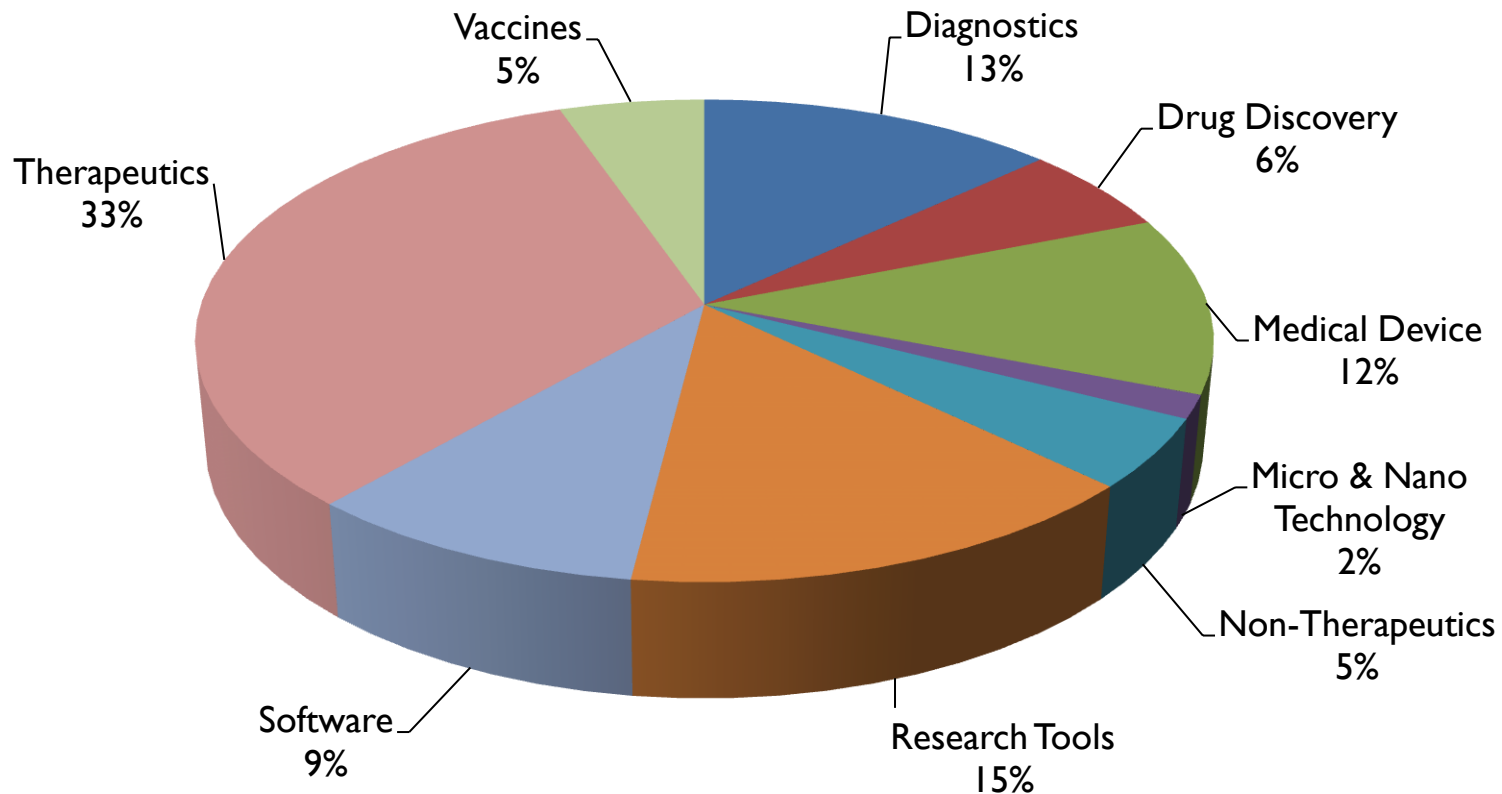
Research and Discovery on the Rise



The Valley of Death

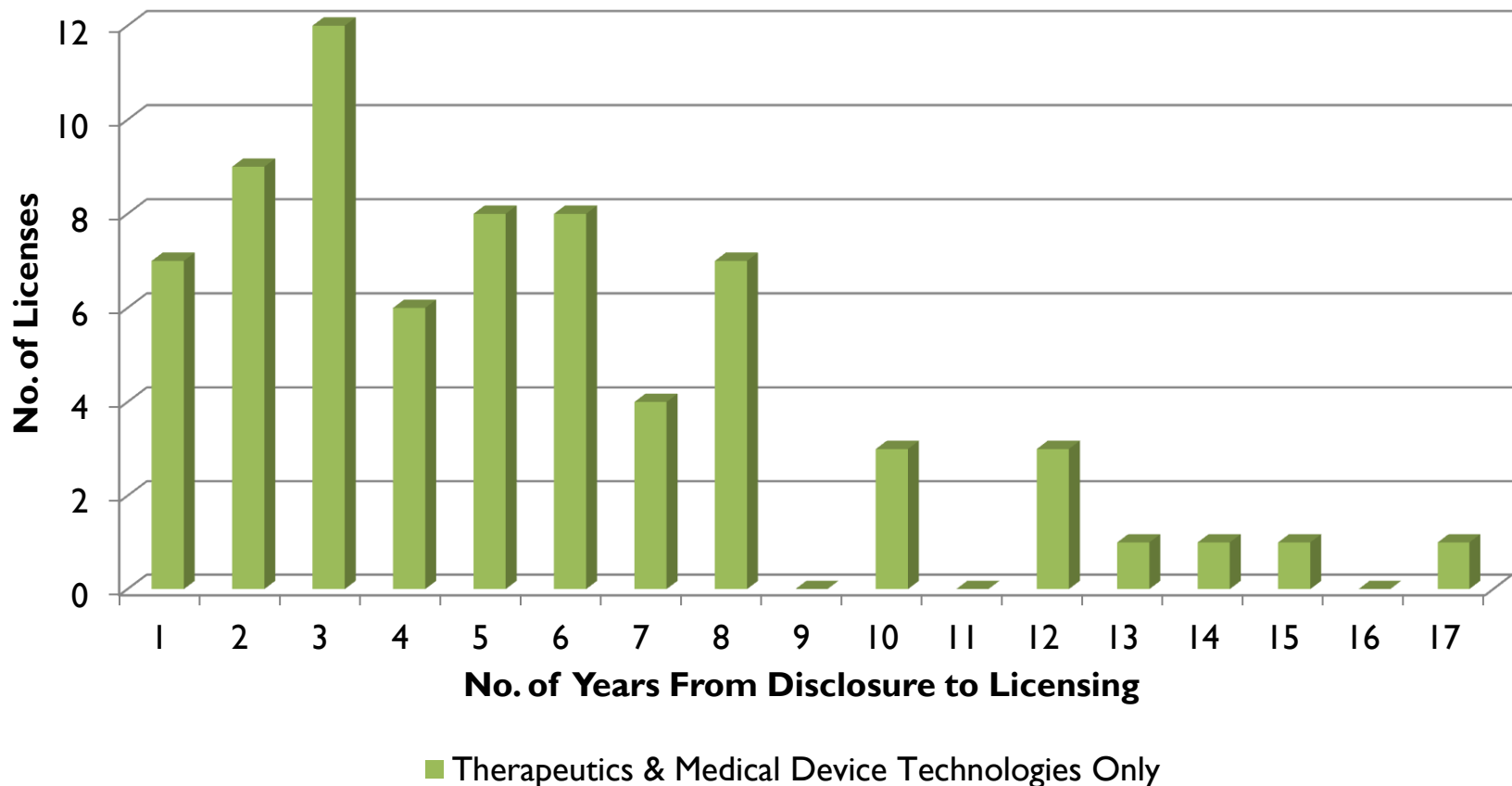


Emory TTO Portfolio 950 Active Technologies

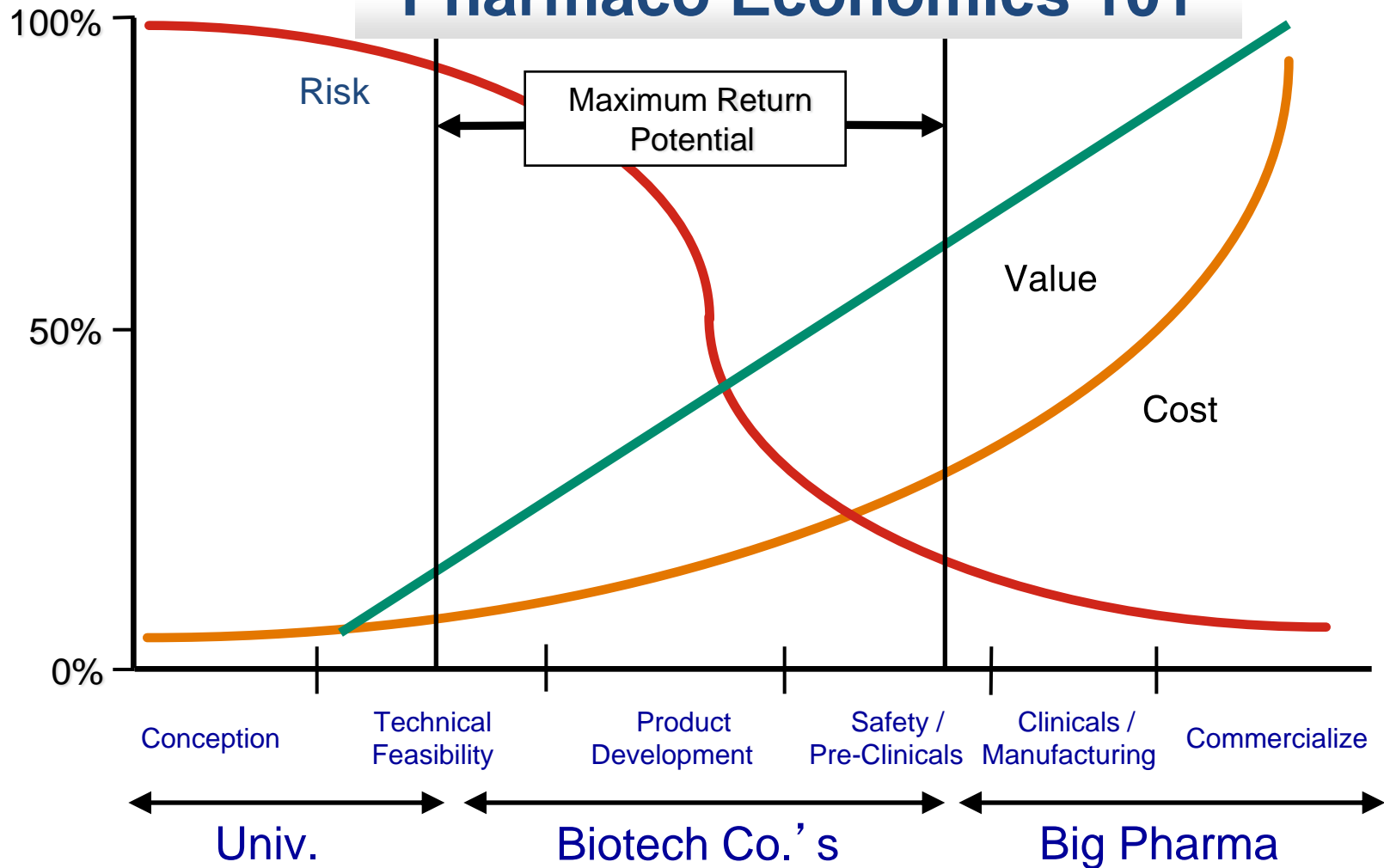


Success Takes Time

5.5 Years on Average to License



Pharmaco Economics 101



Metric	*2009 AUTM Licensing Survey Data for US	2009 AUTM Data Normalized Against Emory's Research Data	FY00-FY10 Emory Data
Research Funding	\$53.9B	\$3.393B	\$3.393B
Invention Disclosure	20,309	1,278	1,418
US Patents Filed	18,214	1,146	968
US Patents Issued	3,417	215	229
License Agreements	5,328	335	288
Start-up Companies	596	38	30
License Revenue	\$2.3B	\$145M	\$758M
Products to Market	658	41	~50 (25 major)

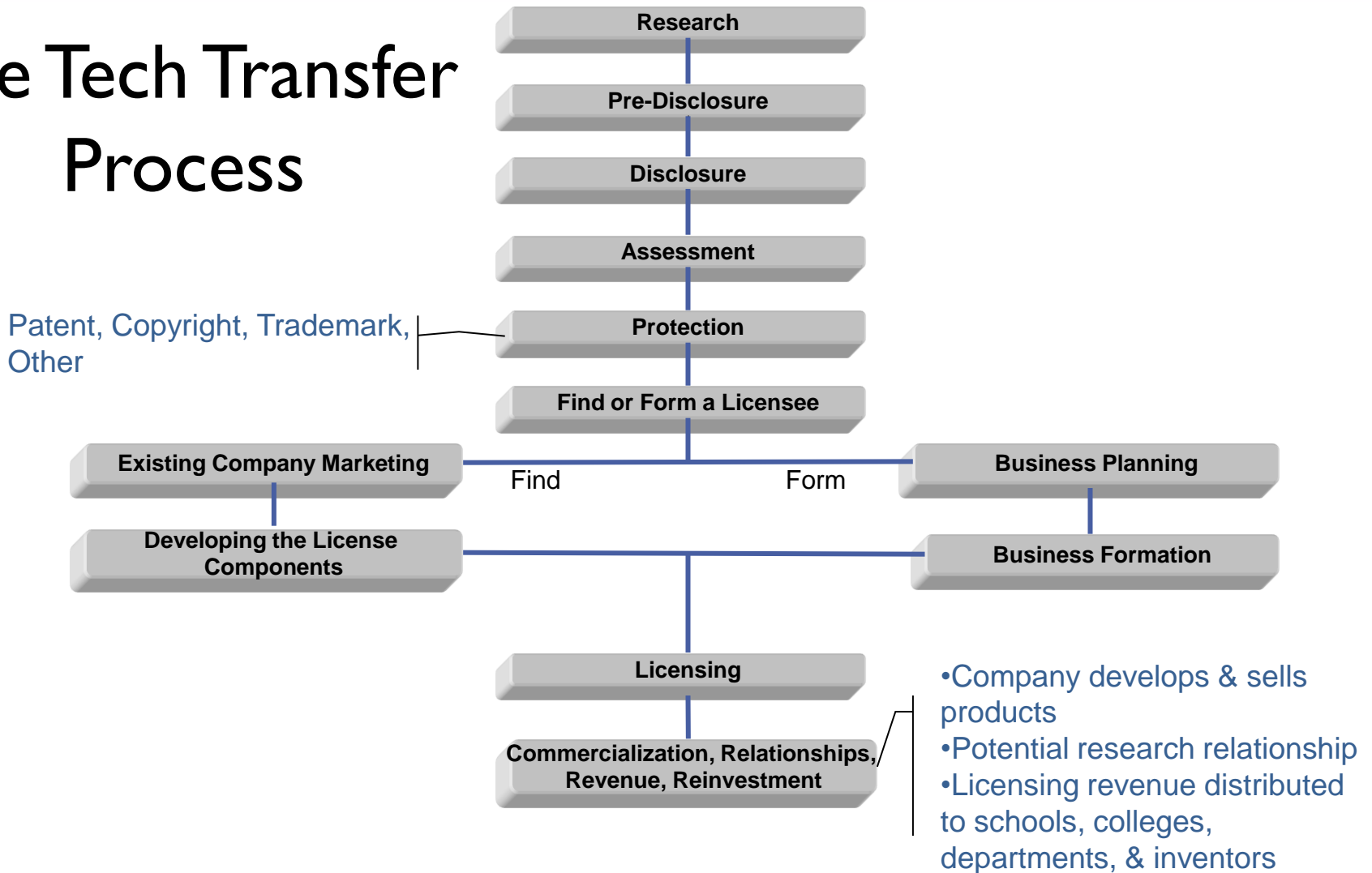
* 181 Respondents: 153 universities, 27 US Hospitals and research institutions, and one third-party firm.

OTT Incentive Plan

Reward the right behavior

Incentive Measures	Total license revenue	25%
	AUTM licenses	10%
	High net worth licenses	15%
	Avg. royalty rate	15%
	Turnaround time for MTAs	5%
	Startup companies	10%
Circuit Breaker	Disclosures	10%
	Proof of Principle funding	10%
	<ul style="list-style-type: none"> • Achieve both High net worth licenses and Average royalty rate results in full payout; • Achieve High net worth licenses results in half payout; or • Achieve Total license revenue and either High net worth licenses or Average royalty rate results in full payout. 	
Incentive Opportunity	Exempt Staff: 0-15% of salary Nonexempt Staff: 0-10% of salary	

The Tech Transfer Process



University Objectives in a License

- Primary Goal: Making the technology available to the public
- Milestones are included to verify diligence by licensee toward commercialization
- Emory desires a fair commercial return; timing and form of the return can be tailored appropriately
- Licensee must pay associated patent costs and costs of doing business (eg., liability insurance, enforcing patents, etc.)

Components of a License Agreement

- License fee
- Financial support for continuing research
- Designation of exclusive or non-exclusive rights
- Geographic territory
- Field of use limitations
- Schedule of royalty payments
- Minimum royalties or other due diligence clauses
- Reimbursement for patenting costs
- Publication policies
- Time period
- Confidentiality
- Use of Emory's name

How does the University Obtain Value in a License?

- Upfront payments (cash, stock, research support, past patent costs)
- Reimbursement of ongoing patent costs
- Milestone payments
- Annual minimum royalties
- Sublicense income sharing
- Earned royalties

Things We Argue About the Most

- Surprisingly, it isn't necessarily financial terms. A lot of time is spent on:
 - Diligence Milestones
 - Scope of Field to be Licensed
 - Improvements
 - Certain legal language associated with reps/warranties, insurance, patent control and enforcement

Stakeholders

- The Inventor
- The Department
- The College
- The University
- The State
- The Nation
- The World
- Industry

Stakeholder Conflicts

- Dollars vs. Deals
- Royalties vs. Research Funds
- Patents vs. Publications
- Startups vs. Established Licenses
- Licensees in Georgia vs. Other States
- Access in Developing Countries

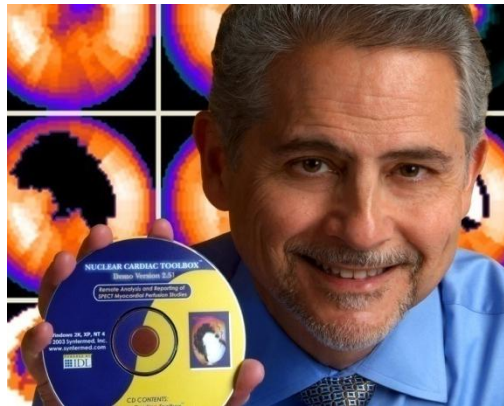


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Emory Marketed Products



Conclusion

- Just get deals done and good things will happen!
- Success takes time and it may never pay for itself
- Technology transfer is expensive, it is risky, it is impactful, and it is our duty!