



EMORY



OFFICE *of* TECHNOLOGY TRANSFER

ANNUAL REPORT 2006



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LETTER FROM THE DIRECTOR



Letter from the Director

The Office of Technology Transfer continued its focus this year on advancements to Emory's "world-class" product pipeline. A robust product pipeline with multiple products at all stages of development/regulatory approval will serve Emory extremely well in fulfilling its mission to create, preserve, teach, and apply knowledge in the service of humanity.

Our licensees achieved a number of substantial milestones this year, which help ensure the progression of new products to the market. In July, Gilead Sciences received FDA approval of Atripla™, the first and only once-daily single tablet indicated for use alone as a complete regimen for the treatment of HIV. Atripla™ is a triple combination fixed-dose pill that combines Bristol-Myers Squibbs' Sustiva® with Gileads' Truvada®, a combination fixed-dose pill itself composed of Emtriva® and Viread®. The royalty stream for the Emory drug in this combination, Emtriva®, was monetized last year for a record-breaking \$525 million. In late 2005, Emory start-up Atherogenics formed a partnership with AstraZeneca valued at \$1 billion in fees and milestones alone. This partnership will fuel the development of its lead product, AGI-1067, which is currently in a Phase III clinical trial known as the ARISE trial. Results from the ARISE trial are expected early in 2007. Emory will receive a portion of revenues and developmental milestones from AGI-1067 pursuant to its license with Atherogenics.

Funding is always a critical event for maturing companies in search of working capital. Two Emory start-ups, GeoVax and Cougar Biotechnology, sought funding through reverse mergers. The GeoVax merger is expected to close early in the new fiscal year and Cougar held a private placement in conjunction with its merger resulting in \$47.5 million in gross proceeds. Metastatix, another Emory start-up, also achieved substantial financing with the close of its \$3.6 million A round. These funds will allow the

company to aggressively pursue its Emory-licensed lead molecule, MSX-122. In addition, Emory participated through its Investor Challenge Fund in convertible note financing of Curry Pharmaceuticals, which is developing Emory-licensed technology for oncology and dermatitis indications.

The approval of new products on the market provides the ultimate validation for any technology and assures public benefit from university inventions resulting from federal sponsorship of basic research. Emory worked with its British start-up company, GT Plus, to secure sublicensing arrangements with Nutramax Products and Insight Pharmaceuticals around its glutathione technology. Insight has incorporated this technology into the well-known Sucrets® brand, the number one selling throat lozenge for over 70 years, and recently announced the market launch of Sucrets® Defense with Glutathione. Emory licensee, Microbe Guard, received two EPA Registrations for its antimicrobial products used in the building and construction industry. The market opportunity for these products is reported to be at least \$500 million annually.

Along with the continued progression of existing technologies in Emory's product pipeline, I look forward to working with our investigators and business partners in the new year to add innovative technologies that will feed the pipeline for years to come!

Todd T. Sherer, PhD
Associate Vice President for Research and
Director, Office of Technology Transfer

PRODUCT PIPELINE



The Emory Product Pipeline - Therapeutics



EMORY
UNIVERSITY

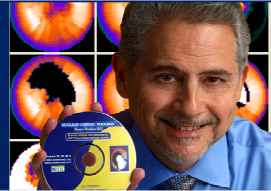
OFFICE of TECHNOLOGY TRANSFER

Product Pipeline

Product Pipeline: Therapeutics

Product	Licensee	Indication	Preclinical	Phase I	Phase II	Phase III	NDA	Market
3TC (Combivir®)	GlaxoSmithKline/Shire	HIV	██████████	██████████	██████████	██████████	██████████	██████████
3TC (Epivir®)	GlaxoSmithKline/Shire	HIV	██████████	██████████	██████████	██████████	██████████	██████████
3TC (Epivir-HBV®)	GlaxoSmithKline/Shire	HIV	██████████	██████████	██████████	██████████	██████████	██████████
3TC (Epizicom™)	GlaxoSmithKline/Shire	HIV	██████████	██████████	██████████	██████████	██████████	██████████
3TC (Trizivir®)	GlaxoSmithKline/Shire	HBV	██████████	██████████	██████████	██████████	██████████	██████████
FTC (Atripla™)	Gilead Sciences, Inc.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
FTC (Emtriva®)	Gilead Sciences, Inc.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
FTC (Truvada®)	Gilead Sciences, Inc.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
AGI-1067	AtheroGenics, Inc.	Atherosclerosis	██████████	██████████	██████████	██████████	██████████	██████████
β-L-Fd4C (elvucitabine)	Achillion Pharmaceutical	HIV	██████████	██████████	██████████	██████████	██████████	██████████
DAPD (amdoxovir)	RFS Pharma, LLC	HIV	██████████	██████████	██████████	██████████	██████████	██████████
DFC (dxelvucitabine)	Pharmasset, Ltd.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
eeFTC (Racivir®)	Pharmasset, Ltd.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
LAP (Factor VIII)	Octagen Corporation	Hemophilia	██████████	██████████	██████████	██████████	██████████	██████████
AGI-1096	AtheroGenics, Inc.	Transplant Rejection	██████████	██████████	██████████	██████████	██████████	██████████
CUR-770	Curry Pharmaceuticals	Psoriasis	██████████	██████████	██████████	██████████	██████████	██████████
DNA/MVA HIV Vaccine	GeoVax, Inc.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
Phenoxybenzamine	WellSpring Pharmaceutical	Graft Vasospasm	██████████	██████████	██████████	██████████	██████████	██████████
Glutathione Lozenges	GT-PLUS	Influenza	██████████	██████████	██████████	██████████	██████████	██████████
Histone Methyltransferase	Chroma Therapeutics	Cancer	██████████	██████████	██████████	██████████	██████████	██████████
LIP (Factor VIII)	Octagen Corporation	Hemophilia	██████████	██████████	██████████	██████████	██████████	██████████
LMP-1	Medtronic Sofamor Danek	Bone Disorders	██████████	██████████	██████████	██████████	██████████	██████████
Noscopine	Cougar Biotechnology, Inc.	Anti-Tumor Cancer	██████████	██████████	██████████	██████████	██████████	██████████
2-Fluoronucleosides	Pharmasset, Ltd.	HIV	██████████	██████████	██████████	██████████	██████████	██████████
CUR-024	Curry Pharmaceuticals	Cancer	██████████	██████████	██████████	██████████	██████████	██████████
DAPD	RFS Pharma, LLC	HBV	██████████	██████████	██████████	██████████	██████████	██████████
Dioxolane-T	RFS Pharma, LLC	HIV	██████████	██████████	██████████	██████████	██████████	██████████
HCV Polymerase Inhibitors	BioCryt Pharm, Inc.	Hepatitis C	██████████	██████████	██████████	██████████	██████████	██████████
mGluR5	Seaside Therapeutics	Fragile X Syndrome	██████████	██████████	██████████	██████████	██████████	██████████
Sphingolipids	Slainte Bioceuticals	Proliferative Diseases	██████████	██████████	██████████	██████████	██████████	██████████

PRODUCT PIPELINE



The Emory Product Pipeline – Diagnostics and Devices



OFFICE of TECHNOLOGY TRANSFER

Product Pipeline

Product Pipeline: Diagnostic/Device Products

Requiring IND/IDE/NDA Regulatory Processes

Product	Licensee	Indication	Preclinical	Phase I	Phase II	Phase III	NDA	Market
Beta-Cath™	Novoste Corporation	Restenosis	██████████	██████████	██████████	██████████	██████████	██████████
Braingate™	Cyberkinetics	Motor Impairment	██████████	██████████				
FACBC	Nihon-Medi-Physics	Tumor Imaging	██████████	██████████				
Stent Sheath	Cordis Corporation	Heart Disease	██████████					
IVACBC	Nihon-Medi-Physics	Tumor Imaging	██████████					
Neurostimulator (RNS™)	NeuroPace, Inc.	Epilepsy	██████████					
TECACBC	Nihon-Medi-Physics	Tumor Imaging	██████████					

Product Pipeline: Diagnostic/Device Products

Requiring 510K Regulatory Processes

Product	Licensee	Indication	Prototype	Registration Trial(s)	510(k)/PMA Application	Market
CLEARGLIDE™	Datascope Corp.	Vein Harvesting	██████████	██████████	██████████	██████████
ECTb™	Syntermed, Inc.	Cardiac Imaging	██████████	██████████	██████████	██████████
ExSPECT II™	Philips Medical Systems	Cardiac Imaging	██████████	██████████	██████████	██████████
Fragile X Diagnostic Test	Quest and others	Fragile X Syndrome	██████████	██████████	██████████	██████████
NeoControl®	Neotonus, Inc.	Incontinence	██████████	██████████	██████████	██████████
QuantEM™	GE/Elgems	Renal Imaging	██████████	██████████	██████████	██████████
NeuroStar TMS Therapy™	Neuronetics, LLC	Depression	██████████	██████████		
OxLDL	CPD, LLC	Heart Disease	██████████	██████████		
Aegis™	3Ti	Immunohematology	██████████	██████████		
Epicardial Drug Delivery	Cordis Corporation	Atrial Fibrillation	██████████			
Tumor Marker Kit	ALVita Corporation	Cancer	██████████			

Product Pipeline: Consumer Products

Product	Licensee	Indication	In Development	Market
Sucrets® DEFENSE	GT-PLUS	Immune System Booster	██████████	██████████
BioBlast	Microbe Guard	Antimicrobial-Construction	██████████	
BioBlast OEM	Microbe Guard	Antimicrobial-Construction	██████████	
Duralast	Microbe Guard	Antimicrobial-Construction	██████████	
Duralast OEM	Microbe Guard	Antimicrobial-Construction	██████████	
Goldshield 5	NBS Technology, LLC	Antimicrobial-Surface	██████████	

FINANCIAL METRICS

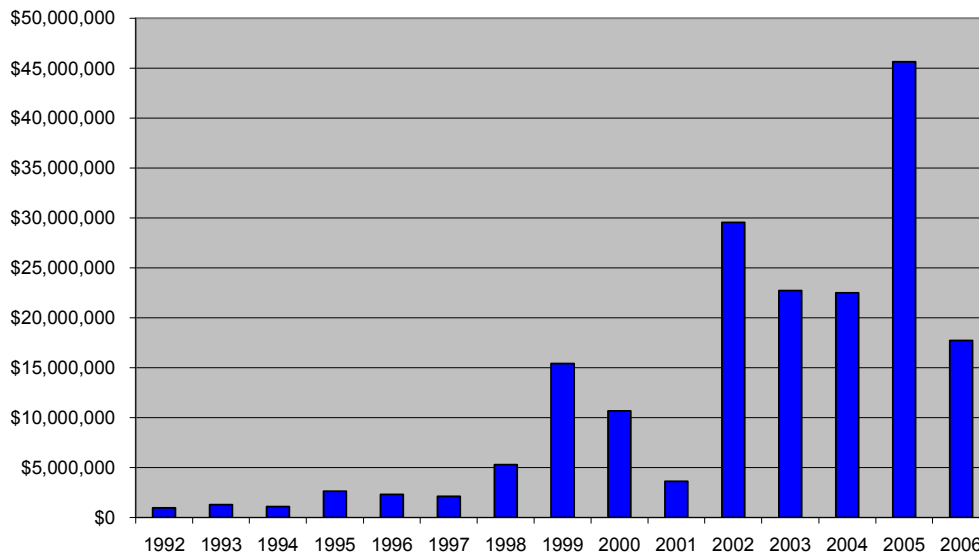


Revenue

As a result of the monetization of Emory's royalties on FTC last year, revenues dropped significantly this year to \$17,769,294.77.

Emory has received a grand total of \$723,680,076.85 through FY06 from the commercialization of Emory technologies.

Net Fees and Royalties by Year



FINANCIAL METRICS



Summary of Expenditures and Revenues for FY92–FY06

Fiscal Year	Total Patent Expenses	Reimbursed Patent Expenses	Reimbursed Past Patent Expenses	*License Revenue	** Return on Patent Expense Investment
1992	\$(243,554.87)	\$137,868.56		\$978,181.83	\$872,495.52
1993	\$(316,315.79)	\$174,066.98		\$1,278,731.43	\$1,136,482.62
1994	\$(448,767.07)	\$182,100.50		\$1,083,398.45	\$816,731.88
1995	\$(585,415.31)	\$245,178.91		\$2,637,146.69	\$2,296,910.29
1996	\$(1,210,632.63)	\$777,391.86		\$2,316,793.30	\$1,883,552.53
1997	\$(1,066,584.60)	\$284,074.69		\$2,115,559.48	\$1,333,049.57
1998	\$(1,524,810.61)	\$551,263.85		\$5,313,706.40	\$4,340,159.64
1999	\$(2,332,896.46)	\$500,948.48		\$15,437,285.00	\$13,605,337.02
2000	\$(3,266,373.14)	\$671,767.20		\$10,671,921.65	\$8,077,315.71
2001	\$(4,568,569.50)	\$4,005,408.35		\$3,608,156.91	\$3,044,995.76
2002	\$(7,155,792.41)	\$889,586.94	\$145,248.51	\$29,557,916.39	\$23,436,959.43
2003	\$(2,565,067.46)	\$931,626.59	\$349,629.66	\$22,737,389.16	\$21,453,577.95
2004	\$(2,190,578.77)	\$835,926.24	\$234,408.31	\$22,517,830.24	\$ 21,397,586.02
2005	\$(1,852,482.44)	\$605,011.07	\$244,028.90	\$45,656,765.15	\$ 44,653,322.68
***2005				\$540,000,000.00	
2006	\$(2,063,712.70)	\$951,051.43	\$199,565.42	\$17,769,294.77	\$16,856,198.92
Total	\$(31,391,553.76)	\$11,743,271.65	\$1,172,880.80	\$723,680,076.85	\$705,204,675.54

* License Revenue includes Emory's Share only; amounts distributed to other institutions not included.

** Return on Patent Expense Investment is equal to the sum of License Revenue, Reimbursed Past Patent Expenses, and Reimbursed Patent Expenses minus the Total Patent Expenses

*** Revenue received in connection with the monetization of future FTC royalties

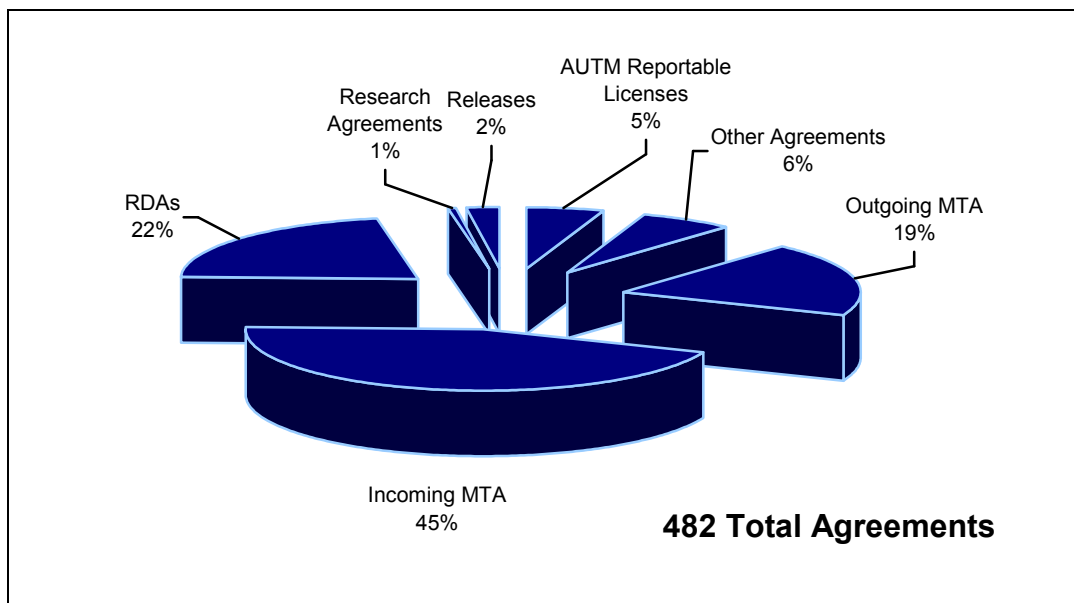
NON-FINANCIAL METRICS



Non-Financial Metrics Network of Agreements

The pie chart below demonstrates the complexity of the network of agreements that must be executed to protect Emory's intellectual property. A total of 497 contracts were executed. The largest share of contracts on a numbers basis continues to be incoming MTAs which govern the use of outside biological materials by Emory investigators. RDAs (confidentiality agreements) and outgoing MTAs come in 2nd and 3rd,

respectively. AUTM reportable license agreements are the "bread and butter" of any technology transfer program as these agreements represent opportunities to get new products to market and to generate revenue. Twenty-two AUTM reportable agreements were executed this year, down from last years record high 30 agreements. The licensee for each of these agreements is listed on page 20.



NON-FINANCIAL METRICS



AUTM Reportable Agreements

License Agreements by Type > \$1,000

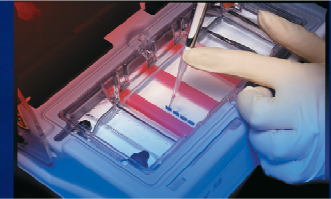
License Category	FY06	FY05	FY04	FY03	FY02
Exclusive Licenses & Start-Ups	6	7	14	5	12
Non-exclusive Licenses & Commercial MTAs	14	21	12	8	16
Option Agreements	2	2	1	3	0
Total	22	30	27	16	28

* Note: These option agreements were embedded in the license agreements listed above; not included in the total amount

License Agreements by Technology > \$1,000

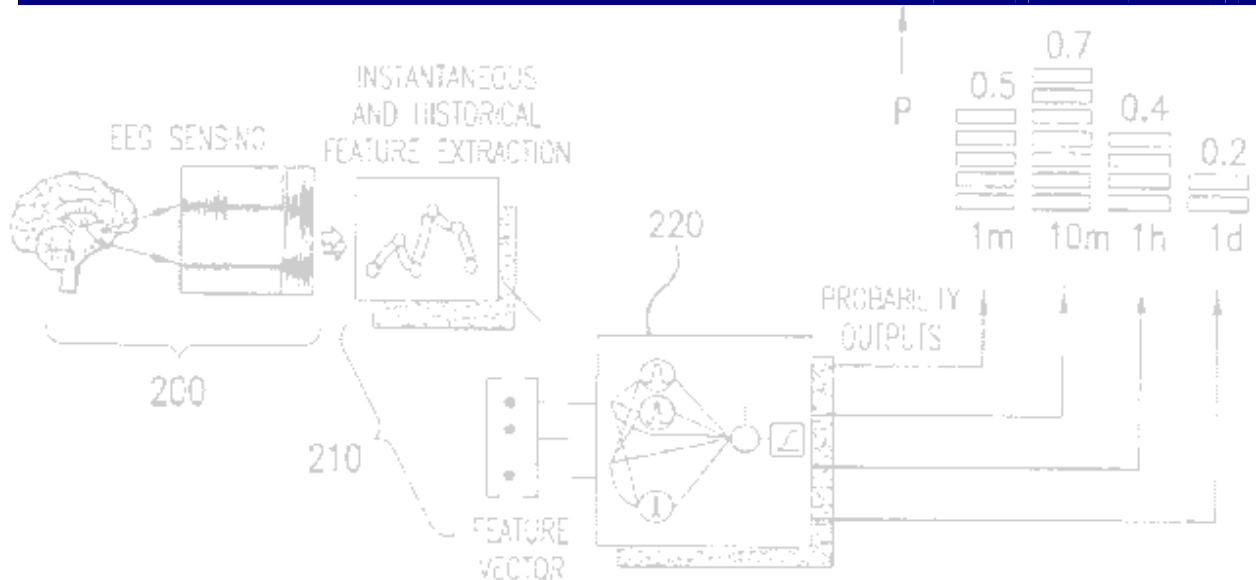
Technology Category	FY06	FY05	FY04	FY03	FY02
Biological Materials	13	17	10	10	18
Computer Software	0	2	3	0	1
Medical Devices	1	0	2	1	3
Method of Synthesis	0	3	1	0	0
Therapeutic Materials	6	2	6	0	4
Diagnostic Materials	0	1	3	2	1
Vaccine Material	0	0	0	0	1
Method of Treatment	0	2	0	2	0
Other	2	3	2	1	N/A
Total	22	30	27	16	28

NON-FINANCIAL METRICS



Non-AUTM Reportable Agreements

Agreement Type	FY06	FY05	FY04	FY03	FY02
Other Agreements	34	49	41	48	64
Amendments	12	13	18	17	
IIAs	2	2	3	10	
In-licenses	0	0	3	3	
Non-exclusive	2	2			
Sub-licenses	5	2	0	3	
Other, including Assignments, MOU, Promissory Notes, Registration Rights, Royalty Sharing, Service, Stock Purchase, etc.	13	32	16	5	
Outgoing Material Transfer Agreements	100	132	75	65	69
Incoming Material Transfer Agreements	236	287	233	221	158
Restricted Disclosure Agreements	113	108	120	57	39
Research Agreements (with IP option)	3	9	53	38	62
Release to Inventor Agreements	11	16	3	6	3
Total	497	601	525	395	395



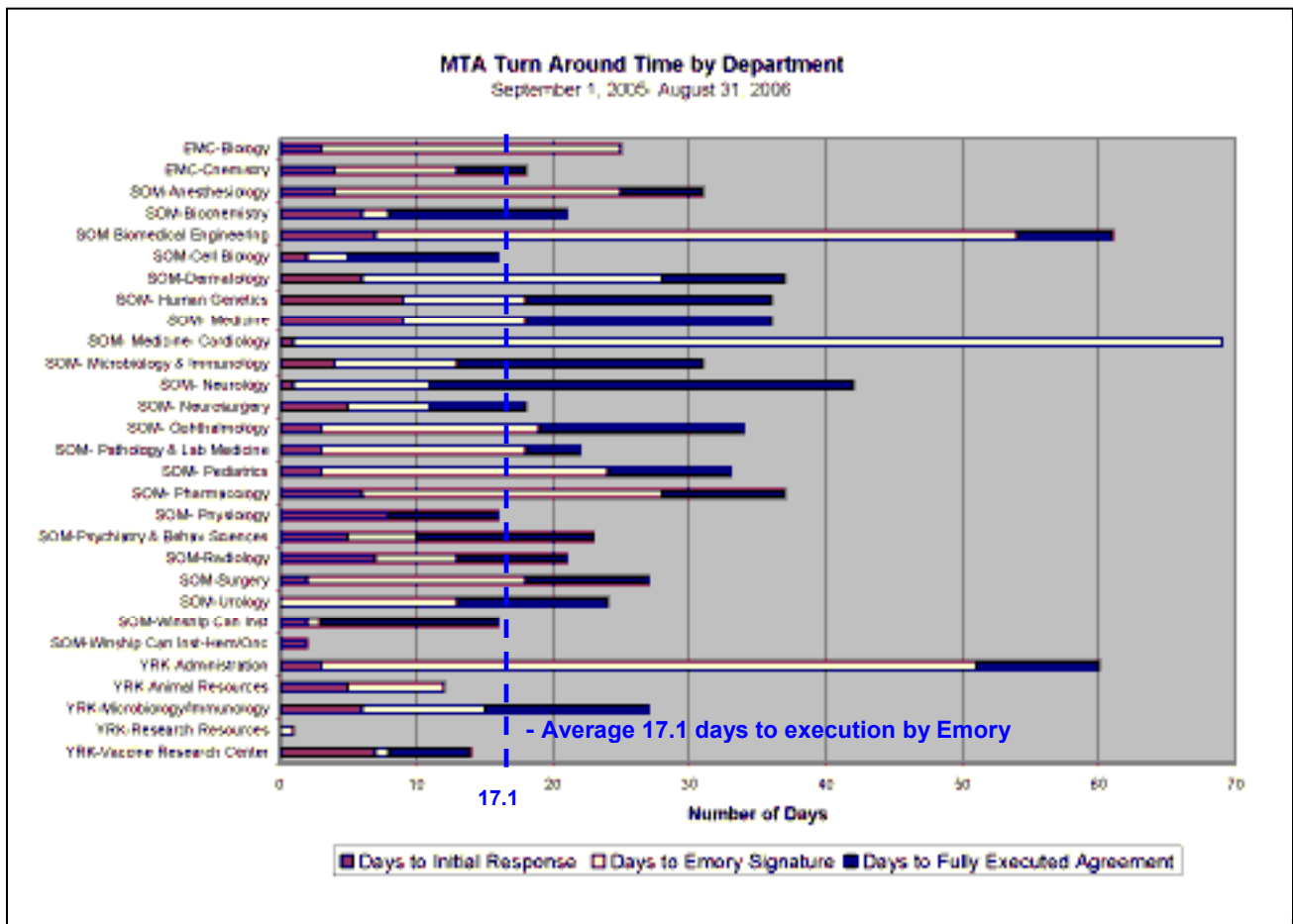
NON-FINANCIAL METRICS



MTA Program

The Material Transfer Agreement (MTA) program experienced a solid year of activity with 335 total agreements processed and executed in FY06. Consistent with the program's strategy for continuous process improvement, significant enhancements were made to various procedures including the development of totally new questionnaires used for processing MTAs. The average turn-around time for incoming MTAs for was 17.1 days.

Incoming MTA turn-around time by department is shown below:



NON-FINANCIAL METRICS



Disclosures, Patents and Agreements

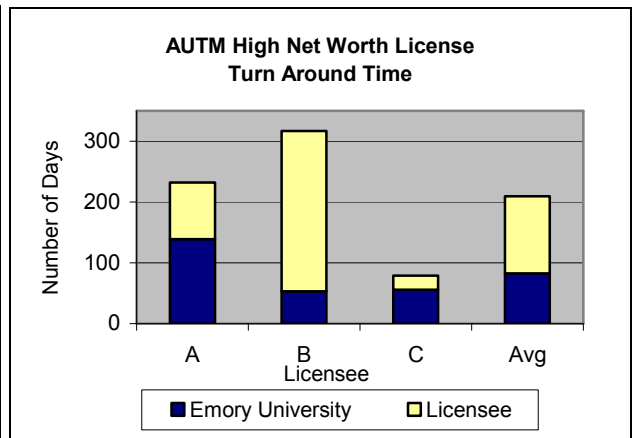
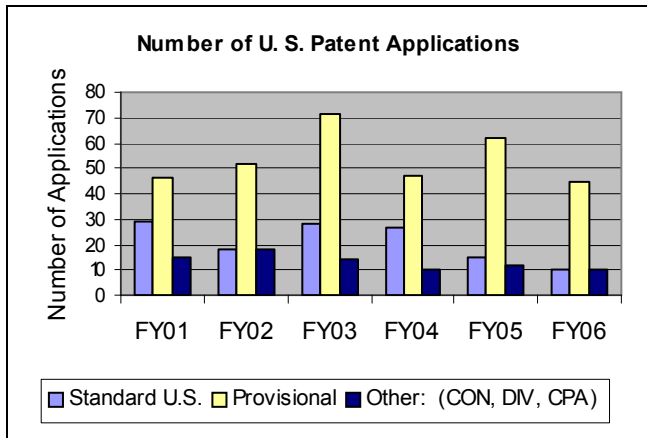
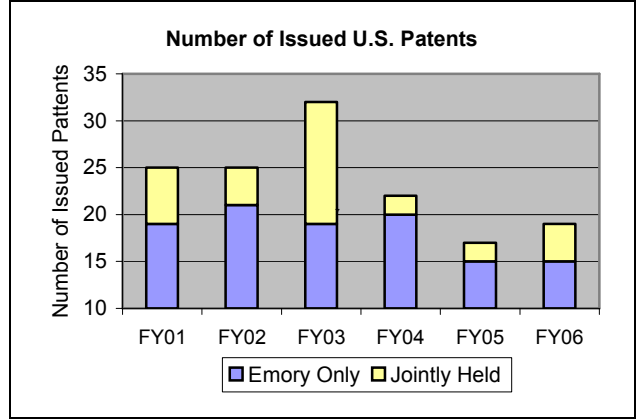
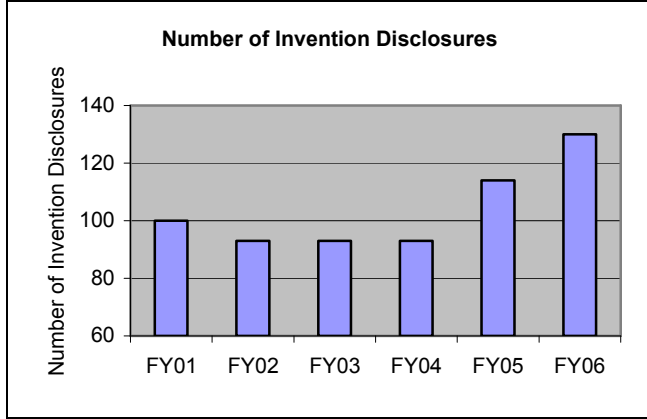
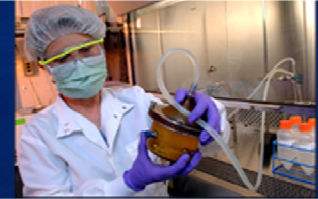


FIG. 5

NON-FINANCIAL METRICS



Disclosures, Patents and Agreements by School

The following agreements (identified in particular categories) are associated with personnel/researchers in the following schools:

Agreement	SOM	College	SOM and EMC	Public Health	Yerkes	Other
22 AUTM Reportable Agreements	17	3	2	0	0	0
11 Releases	11	0	0	0	0	0
34 Other Agreements	30	4	0	0	0	0
100 Outgoing MTAs	92	2	0	0	6	0
236 Incoming MTAs	206	5	0	0	25	0
113 RDAs	100	6	0	1	3	3
All Agreements	516	34	2	1	28	3

Patents

19 US Patents issued on Emory technologies, 15 of which are solely owned by Emory, and 4 of which are jointly owned by Emory and/or an Emory licensee or an Emory research partner. Of these 58% (11) of issued patents are licensed. The creation of the technology embodied in these patents emanated from the various schools as follows:

- 17 created in the School of Medicine
- 2 created in Emory College

Disclosures

130 Invention Disclosures were submitted to OTT this year; 11 of these disclosures have been released to the inventors, 3 have become inactive and the remaining 116 are active. The contributors to these disclosures are located in the following schools:

- 108 created in the School of Medicine
- 8 created in Emory College
- 3 created jointly in the School of Medicine and Emory College
- 1 created jointly in the School of Medicine and Yerkes Primate Research Center
- 1 created jointly in the School of Medicine and School of Public Health
- 5 created in School of Public Health
- 4 created in Yerkes Primate Research Center



NON-FINANCIAL METRICS



Emory FY06 Start-Up Companies Metastatix, Inc.

Metastatix, Inc. (Atlanta, GA) develops small molecules targeting CXCR4 protein for therapies on cancer and HIV. CXCR4 is a cell surface receptor that is naturally present on cells such as stem cells and liver cells. It normally functions in growth and recovery. However, in cancer cells it promotes metastasis. Emory biologist Hyunsuk Shim (WCI) and chemists Dennis Liotta and James Snyder (Chemistry) discovered compounds blocking CXCR4's function, preventing cancer from spreading and, possibly, from growing. Metastatix's inception was funded by a GRA VentureLab grant followed by a seed round from local VC firms including Georgia Venture Partners and The State of Georgia Seed Capital Fund. Metastatix currently has seven full-time employees. With a recent completion of a \$3.6 million Series A financing, Metastatix is ready to move toward clinical development of its first small molecule drug for the indication of cancer.

NeurOp Corp.

NeurOp (Atlanta, GA), founded by Emory pharmacologists Raymond Dingledine and Stephen Traynelis and Duke neurologist James McNamara, develops small molecules for neuroprotection. During stroke and other disease states, NMDA receptors initiate a chain of events leading to injury and death of brain tissue. However, clinical trials of drugs that inhibit this target have yielded disappointing results due to problems with the compounds as well as flaws in clinical trial design. The Emory scientists discovered a pH sensitivity of some NMDA receptor antagonists, developed novel compounds based on the pH sensitivity, and designed a unique clinical development strategy in which to test these compounds. These small molecules are inactive at normal brain pH but rapidly block NMDA receptors in ischemic tissues as soon as the pH drops. They block NMDA receptors only in the area of insult that is needed to maintain efficacy and minimize side effects. NeurOp's drug development has been funded by grants from EmTech Bio, GRA VentureLab, and federal government, totaling \$2 million. The company is currently housed at EmTech Bio and has four full-time employees. NeurOp is in the lead compound optimization phase of drug development and nearing the goal of selecting a drug candidate and testing it in ischemic injury following subarachnoid

hemorrhage (SAH), the proposed drug's initial indication.

SiGen Pharmaceuticals

SiGen Pharmaceuticals (San Ramon, CA) develops drugs and drug formulations that enhance the efficiency of siRNA-based biopharmaceuticals. The company, founded by Emory genetic biologist Peng Jin (scientific founder), was initiated to develop novel EGFP-based reporter technology for compound screening and sensor technology for monitoring activities of endogenous miRNA or siRNA. Using these technologies, Dr. Jin has discovered compounds for drug formulations and research use. Financed by funds from friends and family, SiGen is testing its first research product RNAi-E. The company is seeking seed or Series A round capital to finance the clinical drug development of RANi-E.

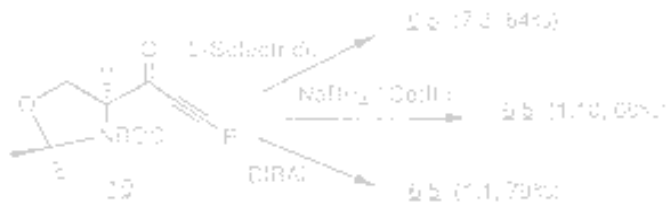
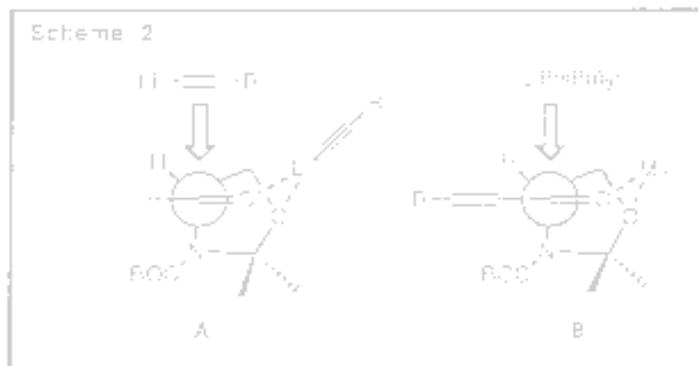


FIG. 2