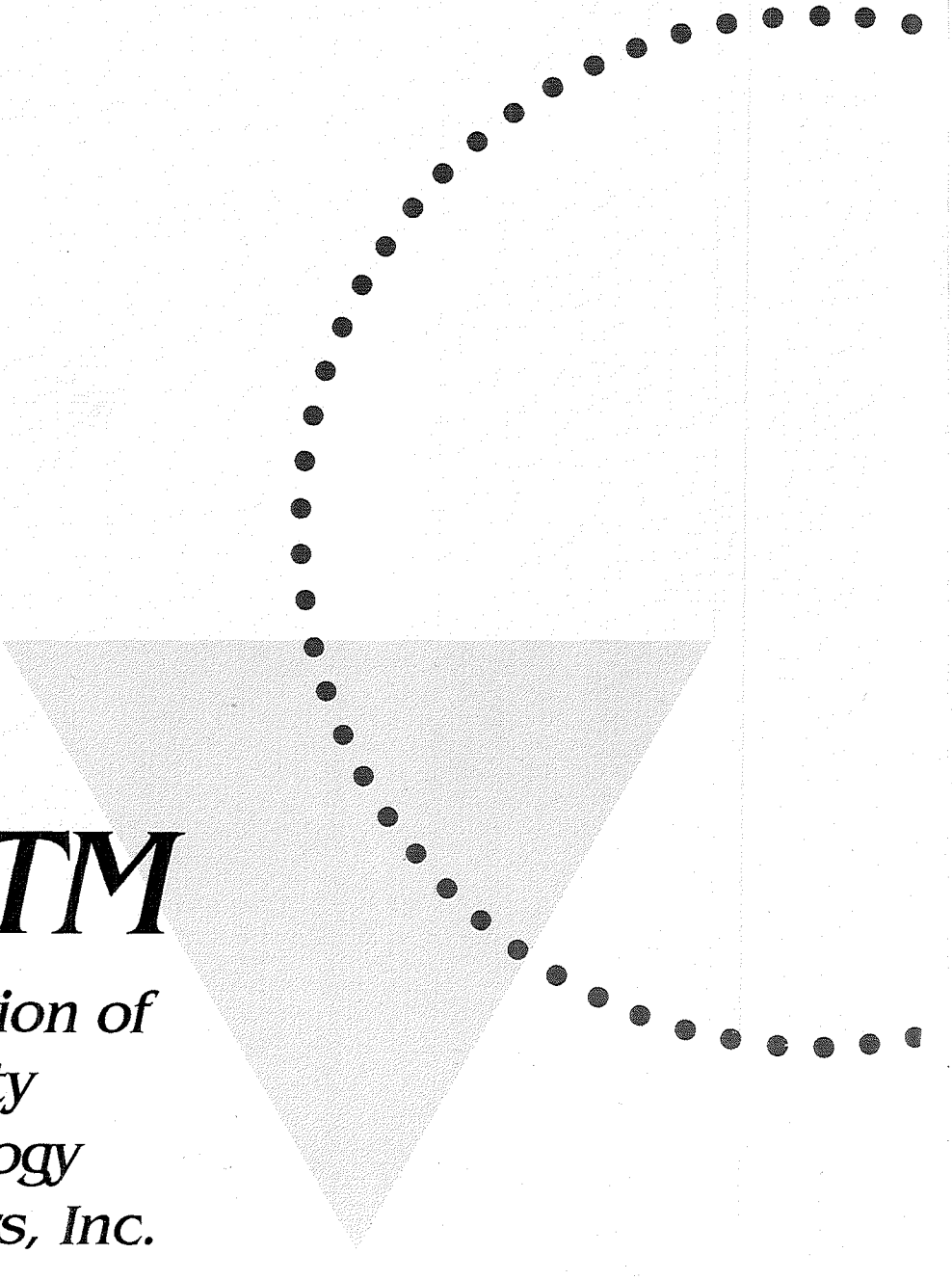
AUTM
Public Benefits Survey
Summary of Results



AUTM

Association of University Technology Managers, Inc.

AUTM

AUTM Public Benefits Survey
Summary of Results

Prepared for and Submitted to
The Association of University Technology Managers, Inc.

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FOREWORD

We are pleased to provide you with the results of the AUTM Public Benefits Survey. This survey was a follow-up to the AUTM Licensing Survey, which provided quantitative data on our programs. The AUTM Public Benefits Survey was forwarded to the respondents of the AUTM Licensing Survey (130 institutions), and requested data for products on the market and startups.

This report describes the products reported that have been protected and licensed through our technology transfer programs and are on the market today, and presents licensing data relevant to those products. It also summarizes the total number of startup companies founded by the participating institutions since 1980 for which initiation was dependent upon the licensing of these institutions' technologies.

Recognizing the effort that was required in completing the AUTM Licensing Survey, the follow-up campaign for the AUTM Public Benefits Survey was intentionally less aggressive, resulting in an overall response rate of 35% (45 institutions). On behalf of AUTM, we thank these institutions for providing additional data, without which this report would not have been possible.

For information on the price and availability of additional copies of this report, contact Ms. Penny Dalziel, AUTM, 71 East Avenue, Suite S, Norwalk, CT 06851-4903, Phone: (203) 852-7168 or Fax: (203) 838-5714. Questions regarding the material summarized in this report should be directed to our attention.

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EXECUTIVE SUMMARY

Introduction

The AUTM Public Benefits Survey was commissioned by the Association of University Technology Managers, Inc. (AUTM) as a follow-up to the AUTM Licensing Survey. The AUTM Licensing Survey was designed to gather data from U.S. and Canadian institutions on the licensing activities of their technology programs. The survey covered a large range of topics, including staffing levels, sponsored funding, gross royalties received, expenditures and reimbursements for legal fees, and statistics on invention disclosures and patent filings.[1]

The goal of the AUTM Public Benefits Survey was to illustrate, with concrete examples, that technology transfer programs are carrying out the mandate of the Bayh-Dole Act and achieving the goals it envisioned. To meet this objective, the survey requested the following:

1. Up to five licensable discoveries or inventions per respondent that are on the market today, generating sales.

2. The number of startup companies established (since 1980)[2] that were dependent upon licensing the institution's technology for initiation, even if the startups did not currently have products on the market.

3. Information on licensing activities with small and large business.[3]

Survey Coverage

The survey population consisted of the 130 institutions that responded to the AUTM Licensing Survey. The response rate for the AUTM Public Benefits Survey was 35%, reflecting 45 participating institutions.[4]

Summary of Results

The results of the AUTM Public Benefits Survey provide a *sampling* of products on the market and information on the licensing activities relevant to those products. It also offers the first aggregate reporting of a number of startups initiated since 1980 that were dependent upon the licensing of our institutions' technologies. Although the products and data described in this report are of interest, they do not account for the entire benefit that technology transfer programs bring to the community.

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Table 1

AUTM PUBLIC BENEFITS SURVEY

LICENSES GRANTED

177 PRODUCTS

⇓

440 LICENSES GRANTED

Nonexclusive		Exclusive	
302		138	
Small Business	Large Business	Small Business	Large Business
174 (58%)	128 (42%)	90 (65%)	48 (35%)

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SELECTED PRODUCTS ON THE MARKET AND PUBLIC BENEFITS

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(By State and Institution)

ARIZONA

Research Corporation Technologies

1. PSA Immunoassays

Blood Test for Prostate Cancer.

Date First Licensed:	1993	Assay to assess level of prostate specific antigen
Type of License:	NE	circulating in the blood stream.
Status of Patent Protection:	P	(Source of Invention: Roswell Park Health Research).
# of Companies Licensed:	16	
# of Licenses to Small Companies:	8	
# of Licenses to Large Companies:	8	

2. Cardiolite - Myoview

Cationic Radiopharmaceuticals

Date First Licensed:	1983	Radiopharmaceuticals for heart imaging.
Type of License:	NE	(Source of Invention: University of Cincinnati).
Status of Patent Protection:	P	
# of Companies Licensed:	3	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	3	

3. Avagen

PEG-Polyethyleneglycol

Date First Licensed:	1983	PEG-Polyethyleneglycol reduces immunogenicity of
Type of License:	E (by field)	enzyme therapies and increases the circulating
Status of Patent Protection:	P	half-life of the enzyme or drug.
		(Source of Invention: Indiana University).
# of Companies Licensed:	6	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	3	
Was a Startup Company Formed as a Result of this Product?	YES	

4. Helicomax

GMCSF

Date First Licensed:	N. Avail.	GMCSF - Granulo Macrophage Colony Stimulating
Type of License:	E	Factor--An adjuvant to bone marrow transplantation.

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4. **Chem Bred**
Chemical treatment to sterilize cotton plants.

Date First Licensed:	1987	Compound is used in breeding hybrid cotton to produce higher yields, thereby lowering crop costs.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

5. **C 60 Fullerene**
A new class of carbon (method for making)

Date First Licensed:	1990	Potential public benefits are myriad: drug delivery, diamond films, optical material, superconducting materials, semiconductors, catalysts, lubricants and even sunglasses to list a few.
Type of License:	E	
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

CALIFORNIA

Name Confidential

1. **DNA Sequencer**
DNA Sequencer

Date First Licensed:	1983	DNA Sequencer.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

2. **Peptide/Protein Sequencer**
Peptide/Protein Sequencer

Date First Licensed:	1983	Peptide/Protein Sequencer.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

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2. **Amplification of Genes**
Use of dhfr for Amplification.

Date First Licensed:	1984	Amplification of proteins produced in CHO cells.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	7	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	7	

3. **V System Software**
Software (S83-041)

Date First Licensed:	1984	Software: Distributed real time operating system.
Type of License:	NE	
Status of Patent Protection:	C	
# of Companies Licensed:	5	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	5	

4. **Anti Leu 12 Ma b**
Antibody (983-007)

Date First Licensed:	1983	Antibody against T cell antigen.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

5. **CHEF Electrophoresis**
Instrument (S86-049)

Date First Licensed:	1987	Electrophoresis Instrument.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

University of Southern California

1. **Antigen (1978)**
Hybridoma Cell Lines

Date First Licensed:	1985	Histopathology.

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2. **Anti-Mouse Alpha/Beta TCR**
Monoclonal Antibody

Date First Licensed:	1989	Used to study T-cell activation, characterize T-cell
Type of License:	NE	subpopulations, and examine immunological functions
Status of Patent Protection:	UP	of T-cells from mice.
# of Companies Licensed:	3	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	1	

3. **Anti-V Beta TCR**
Monoclonal Antibody

Date First Licensed:	1990	Diagnostic: for the identification and study of diseases,
Type of License:	E	such as toxic shock.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

University of Colorado

1. **Vitamin B12 Assay**
No Description Given.

Date First Licensed:	1979	B12 assay and No-Boil Method - used as a diagnostic
Type of License:	NE	test for B12 deficiency.
Status of Patent Protection:	P	
# of Companies Licensed:	9	
# of Licenses to Small Companies:	5	
# of Licenses to Large Companies:	4	

2. **Sulfhydryl Amino Acid Assay**
Method for detecting Cobalamin and Folic Acid Deficiency.

Date First Licensed:	1988	Assays to determine cobalamin and folic acid deficiency,
Type of License:	NE	which is used as a diagnostic test.
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	0	

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3. **Cell-Tak**
Bioadhesive isolated from marine mussels.

Date First Licensed:	1986	This adhesive promotes cell adhesion and growth during cell culture procedures. Other applications are under development.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

4. **Vinca flower varieties**
Series of vinca of varied colors.

Date First Licensed:	1986	Seeds are sold by distributors throughout the U.S. for use by home gardeners. Three of these varieties were chosen as All-America Selections in 1991.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

5. **Plastic Filter Drain**
No Description Given.

Date First Licensed:	1983	Filter drain products for use in residential, commercial building, and road construction projects.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	2	

DELAWARE

University of Delaware

1. **ProteinGenesis**
Industrial Enzymes

Date First Licensed:	None	Protein engineering company formed for the creation of novel improved industrial enzymes.
Type of License:	None	
Status of Patent Protection:	UP	
Was a Startup Company Formed as a Result of this Product?	YES	License Negotiations in Process.

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FLORIDA

University of Miami

1. **No Trade Name Given.**
Mononucleosis Diagnostic Test

Date First Licensed:	1987	Easy diagnostic test for mononucleosis.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

2. **No Trade Name Given.**
Microvial Kit

Date First Licensed:	1980	Diagnostic Kits.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

3. **No Trade Name Given.**
Monoclonal Antibody

Date First Licensed:	1983	Diagnostic Tests.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

4. **BSMP**
Bottom Shear Modulus Profiler

Date First Licensed:	1990	Public Benefits Not Described.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

5. **No Trade Name Given.**
Plasmid

Date First Licensed:	1991	Research.
Type of License:	NE	

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3. **SAW technology**
Hi-tech acoustic filter

Date First Licensed:	1992	New technology; gives high quality and performance
Type of License:	NE	at low cost.
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	1	

4. **Cybernetic potentiostat**
Analytical chemical measurements

Date First Licensed:	1983	New device.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

5. **Touch panel**
Computer I/0 device

Date First Licensed:	1985	New technology.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	12	
# of Licenses to Small Companies:	10	
# of Licenses to Large Companies:	2	

University of Illinois at Chicago

1. **TICE BCG Vaccine**
Cell line & trademark

Date First Licensed:	1986	Vaccine use in the treatment of transitional cell
Type of License:	E	carcinoma of the bladder and immunization for
Status of Patent Protection:	UP	tuberculosis.
Licensed to Large/Small Company:	Large	

2. **NAPRALERT**
Database & trademark

Date First Licensed:	1991	Natural products database of compounds derived from
Type of License:	E	plants for medicinal purposes; containing bibliographic

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# of Companies Licensed: 1
# of Licenses to Small Companies: 0
# of Licenses to Large Companies: 1

2. American Government Videotapes
No Description Given.

Date First Licensed: 1989
Type of License: E
Status of Patent Protection: C

Four videotapes depicting governmental processes and institutions for use in college and secondary school political science courses.

Licensed to Large/Small Company: Large

3. Project Direction
Videotape and Written Materials.

Date First Licensed: 1992
Type of License: NE
Status of Patent Protection: C

Information for peer-led college-age groups for anti-substance and alcohol abuse activities.

# of Companies Licensed: 1
# of Licenses to Small Companies: 1
# of Licenses to Large Companies: 0

Indiana University

1. BioNeb
Bionebulizer

Date First Licensed: 1992
Type of License: E
Status of Patent Protection: P

Enables cost effective cell breakage for recovery of protein and/or genetic materials. Also provides efficient and novel means to insert genes into cells with applications to gene therapy and plant development.

Licensed to Large/Small Company: Small

2. Diabetic Rat Model
No Description Given.

Date First Licensed: 1991
Type of License: E
Status of Patent Protection: UP

Highly sensitive and effective animal model resembling human diabetes, which will be used to evaluate new diabetic drugs and the mechanism of action.

Licensed to Large/Small Company: Small

Was a Startup Company Formed as a Result of this Product? YES

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Licensed to Large/Small Company: Small

2. **Integrity Hip System**
Anatomical Hip Prosthesis

Date First Licensed:	1985	Total hip replacement system with curved anatomical stem. (The curvature of the primary item is patented, other components are not patented.)
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

3. **Animal Model for the Study of Lyme Disease**
Non-Human Primate Model

Date First Licensed:	1993	A non-human primate model that mimics the symptoms of Lyme disease. Provides a model to study the efficacy of vaccine candidates.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	1	

4. **PACAP**
Pituitary Adenylate Cyclase Activating Polypeptide

Date First Licensed:	1992	Hypothalamic polypeptide with adenylate cyclase stimulating activity. Licensed as a research reagent. Compound stimulates growth of neurites and acts as a nerve growth factor.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	4	
# of Licenses to Small Companies:	4	
# of Licenses to Large Companies:	0	

5. **Helixx™ Breast Localization Wire**
Helical Lesion Marker

Date First Licensed:	1991	A device for marking small, radiologically discovered lesions in the breast. The device is visible under ultrasonic imaging, whereas other tumor markers are not.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Small

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5. **AID**
Recorder w/ Patient Alarm and Service Request for Automatic Implantable Defibrillator.

Date First Licensed:	1990	Real-time recording of fibrillation activity, automatic alerting of the patient, and storage of all events.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

Univ. of Maryland, College Park

1. **Bursa Vac PLUS**
Poultry Vaccine

Date First Licensed:	1989	A new vaccine for the poultry industry was developed. It protects poultry from an immuno suppressant virus that attacks the bursa. The product is estimated to have saved hundreds of millions of dollars in the poultry industry.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **XLT4**
Salmonella detection media

Date First Licensed:	1991	New media formulation improves speed and accuracy of detection of salmonella in medical and agricultural environments.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	5	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	2	

3. **Colta ™**
Monoclonal antibody for vibiro cholerae.

Date First Licensed:	1992	This very specific monoclonal antibody allows for detection of cholarae within 5 minutes when combined with SMART® technology of the licensee (test kit).
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

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3. **CHARMM**
Computer Software

Date First Licensed:	1985	Computer software used for chemical analysis and design.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

4. **GP120**
Antigen for use in diagnostics & vaccines for AIDS.

Date First Licensed:	1987	Incorporated in several diagnostic tests for AIDS: In development are several AIDS vaccines based in this technology. The master licensee sublicenses widely.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

5. **Autograf**
Replacement Skin

Date First Licensed:	1987	Methods for growing sheets of skin from small samples from patient. Provides replacement skin for treatment of burn victims.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

Name Confidential

1. **DePuy Profile Hip**
Profile^{R} Hip

Date First Licensed:	1992	Hip Prosthesis Design.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **Radionics-X-knife**
Radiologic software

Date First Licensed:	1990	Software tool for stereostatic radiological treatments.
Type of License:	E	

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2. **Cold-adapted Influenza Virus**
No Description Given.

Date First Licensed:	1993	Stable temperature sensitive human flu vaccine
Type of License:	E (by territory)	administered intranasally.
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Large	

MINNESOTA

Mayo Foundation

1. **ANALYZE**
Software

Date First Licensed:	1988	Multidimensional Biomedical Image
Type of License:	NE	Visualization and Analysis.
Status of Patent Protection:	UP	
# of Companies Licensed:	4	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	2	
Was a Startup Company Formed as a Result of this Product?	YES	

2. **Genesis Knee**
Knee Prosthesis

Date First Licensed:	1986	Modular Total Knee System.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

University of Minnesota

1. **Autoscope**
Vehicle Detection System

Date First Licensed:	1991	Vehicle Detection System.
Type of License:	E	
Status of Patent Protection:	P	

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MISSOURI

University of Missouri System

1. **Ceretec**
   Radiopharmaceutical

Date First Licensed:	1983	Radiopharmaceutical used to image the brain.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **ENDOVAC- Bovi^{R} -Porci ^{TM} -Equi^{R} and ENDOSERUM**. Veterinary Vaccine.

Date First Licensed:	1987	Salmonella Typhimurium Antiserum, Equine Origin;
Type of License:	E	Salmonella Typhimurium Bacterin-Toxoid.
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

3. **CAPD**
   Dialysis Solution.

Date First Licensed:	1979	Portable peritoneal dialysis solution.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

4. **Swan Neck Catheter**
   Catheter

Date First Licensed:	1989	A peritoneal catheter comprises a flexible catheter
Type of License:	E	tube carrying porous cuff means to facilitate permanent
Status of Patent Protection:	P	securance of the catheter to the abdominal wall.
Licensed to Large/Small Company:	Small	

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4. **Receptor**
Computer-Aided Drug Design

Date First Licensed:	1991	Software for the improvement in computer assisted design of pharmaceuticals.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

5. **Digital Switch**
No Description Given.

Date First Licensed:	1990	Asynchronous transfer mode (ATM) switch for digital communications in computer workstations.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	2	

NEBRASKA

University of Nebraska - Lincoln

1. **Soy Pass**
Ruminant Feed

Date First Licensed:	1987	A ruminant feed that causes the animal to utilize the protein in the feed more efficiently.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **"609" Buffalograss**
Buffalograss cultivar

Date First Licensed:	1991	A buffalograss that requires less water, less fertilizer, and less mowing.
Type of License:	E	
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Small	

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Licensed to Large/Small Company: Small

2. **Diogenes**
Enhancer for the chemiluminescence of luminol.

Date First Licensed:	1991	Diagnostic kit which is used to
Type of License:	E	diagnose and monitor the progress
Status of Patent Protection:	PP	of treatment of various diseases.
Licensed to Large/Small Company:	Small	

3. **Mab 1808**
Antibody to Dystrophin

Date First Licensed:	1991	Research reagent.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	1	

4. **Macscope**
Computerized oscilloscope.

Date First Licensed:	1988	Extensively used for educational
Type of License:	E	purposes.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

5. **Interleukin-2 Mab**
Interleukin-2 Monoclonal Antibody

Date First Licensed:	1984	Diagnostics and research products,
Type of License:	NE	kits.
Status of Patent Protection:	P	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	1	

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5. **Nanocarb**
Spray Conversion Nanophase Composites

Date First Licensed:	1990
Type of License:	E
Status of Patent Protection:	PP
Licensed to Large/Small Company:	Small
Was a Startup Company Formed as a Result of this Product?	YES

NEW YORK

Columbia University

1 . **Macromodel**
Molecular Modeling Software

Date First Licensed:	1987	Software for modeling complex chemical and biochemical molecules.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	30	
# of Licenses to Small Companies:	22	
# of Licenses to Large Companies:	8	

2. **Tissue Plasminogen Activator (TPA)**
Drug for Heart Attack Victims

Date First Licensed:	1988	Process is for insertion of genes into mammalian cells.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	1	

3. **Erythropoeian (EPO)**
Drug for Anemia

Date First Licensed:	1990	Process is for insertion of genes into mammalian cells.
Type of License:	NE	
Status of Patent Protection:	P	

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Licensed to Large/Small Company: Large

3. **Fibriscint™, NYB-"MoAbs"**
Monoclonal antibodies to fibrinogen/fibrin

Date First Licensed:	1986	In-vivo Miagnostic for imaging blood clots; in-vitro reagent for monitoring progression of clot formation and/or dissolution. There is an exclusive license for each of these uses.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

NORTH CAROLINA

Name Confidential

1. **Easy Eggs/Simply Eggs**
Ultra pasteurized liquid whole egg product.

Date First Licensed:	1988	Aseptically packaged liquid whole egg product to extend refrigerated shelf-life.
Type of License:	E	
Status of Patent Protection:	P	

If Non-Exclusively Licensed:

Licensed to Large/Small Company: Small

2. **No Trade Given.**
High strength, ultra-oriented polyester fibers.

Date First Licensed:	1991	A process for producing high strength, light weight, Kevlar®-like polyester fibers.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	2	

3. **No Trade Name Given.**
Root-specific gene promoter

Date First Licensed:	1992	A well-characterized gene promoter for the promotion of exogenous genes in plant roots. It has numerous and varied applications in a variety of fields from medical to agricultural.
Type of License:	E	
Status of Patent Protection:	P	

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TENNESSEE

St. Jude Children's Research Hospital

1. **SJ25-C1 (CD-19)**
Monoclonal Antibody.

Date First Licensed:	1990	Immunophenotyping for acute leukemia.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	10	
# of Licenses to Small Companies:	6	
# of Licenses to Large Companies:	4	

2. **SJ5-1B4 (CD-10)**
Monoclonal Antibody.

Date First Licensed:	1992	Immunophenotyping for acute leukemia.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	0	

3. **Hybridoma (CSF-1R)**
Monoclonal Antibodies.

Date First Licensed:	1988	Detection of expression of CSF receptors in human
Type of License:	E	tissue.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

TEXAS

Baylor College of Medicine

1. **No Trade Name Given**
Small Particle Aerosol Generator

Date First Licensed:	1984	Used to administer Ribavirin™. Device enables
Type of License:	E	aerosal administration of Drug to treat
Status of Patent Protection:	P	RSV in babies.

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University of Texas Southwestern

1. **Citracal**
Tablet for prevention of osteoporosis.

Date First Licensed:	1985	Over-the-counter calcium preparation for prevention for osteoporosis. Advantages over the other preparations include smaller tablet size and increased bioavailability.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

2. **Stone Risk/Stone Track**
Kit for measurement of kidney stone formation risk.

Date First Licensed:	1985	Method of preservation, processing, analysis and reporting of risk factors associated with kidney stone formation from urine specimens.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

3. **Urocit-K**
Treatment of calcium renal stones.

Date First Licensed:	1982	Use of Urocit-K (potassium citrate) causes an increase in urinary citrate which decreases calcium stone formation.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

4. **Thiola**
Orphan drug for treatment of cystinuria.

Date First Licensed:	1985	Decreases cystine stone formation. Mode of action similar to that of penicillamine, however, fewer side effects.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

5. **Calcibind**
Orphan drug for treatment of hypercalciuria.

Date First Licensed:	1982	Decreases effects of absorptive hypercalciuria by binding calcium in the gut to reduce calcium absorption.
Type of License:	E	
Status of Patent Protection:	UP	

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4. **Supercritical Fluid Chromatography**
Analytical Chemistry Instrument.

Date First Licensed:	1985	A unique separation technique for analytical chemistry.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

5. **Moxtek**
X-ray optics

Date First Licensed:	1988	X-ray detection windows and other x-ray optical technology.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

University of Utah

1. **Radiolabeled Technitium Chelates**
Imaging agent

Date First Licensed:	1986	Renal function determination.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **Per-Q-Cath**
Catheter

Date First Licensed:	1983	Drug delivery.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

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(By State and Institution)

VIRGINIA

University of Virginia Patents Foundation

1. Adenocard™
Pharmaceutical

Date First Licensed:	1985	Therapeutic drug to treat and diagnose atrio-ventricular conduction disturbances in the ischemic heart.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

2. SAF-T-CLIK and Shamrock
Medical Devices

Date First Licensed:	1987	Redesigned syringes and phlebotomy devices to avoid accidental needlestick injuries.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

3. pp60^{src}
Monoclonal Antibodies

Date First Licensed:	1992	Antibodies to study the properties of individual protein tyrosine kinases and their substrates.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

4. 6G9
Monoclonal Antibodies.

Date First Licensed:	1990	Antibody to detect and quantitate phospho-tyrosine containing proteins.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	1	

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4. Anti-integrins

Monoclonal Antibodies

Date First Licensed:	1989	Anti-integrin monoclonal antibodies for research on cell adhesion.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	6	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	3	

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Licensed to Large/Small Company: Large

5. **SPME Sampling Technique**
Solid phase microextraction

Date First Licensed:	1992	SPME fibers and holders provide direct, solvent-free
Type of License:	E	extraction of organic compounds from aqueous
Status of Patent Protection:	P	samples.

Licensed to Large/Small Company: Large

Queen's University

1. **Q'Straint**
Wheelchair Restraint System

Date First Licensed:	1983	A wheelchair tie-down system which has captured the
Type of License:	E	major market share in buses for the handicapped.
Status of Patent Protection:	P	System offers a safe and effective way of securing wheelchair and occupant.

Licensed to Large/Small Company: Small

Was a Startup Company Formed as a Result of this Product? YES

2. **Flower Preservation**
Process for Preserving Flowers.

Date First Licensed:	1986	Company sells preserved flowers for decorative and
Type of License:	E	novelty markets. Process accommodates a wide range
Status of Patent Protection:	P	of flowers for many different markets.

Licensed to Large/Small Company: Small

Was a Startup Company Formed as a Result of this Product? YES

3. **Q'Nial**
New Computer Language

Date First Licensed:	1984	NIAL is a general purpose, interactive programming
Type of License:	E	language.
Status of Patent Protection:	C	

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Licensed to Large/Small Company:	Small
Was a Startup Company Formed as a Result of this Product?	YES

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CANADA

Name Confidential

1. Maple

Symbolic Mathematics Software

Date First Licensed:	1989
Type of License:	E
Status of Patent Protection:	UP
Licensed to Large/Small Company:	Small
Was a Startup Company Formed as a Result of this Product?	YES

Maple V is an easy-to-learn computer algebra system for both symbolic and numeric computation. It offers superior mathematical functionality, speed, and accuracy as well as 3D color graphics, programmability, and efficient memory management.

2. Dantec Electronics Limited

Optimized solids drying processes.

Date First Licensed:	1985
Type of License:	E
Status of Patent Protection:	UP
Licensed to Large/Small Company:	Small
Was a Startup Company Formed as a Result of this Product?	YES

Dantec supply optimized drying solutions for a wide range of particulate drying procedures including grains, food, plastics, pharmaceuticals, rubber, etc.

3. Ash Monitoring System

Monitoring the ash build-up in large coal-fired steam boilers.

Date First Licensed:	1984
Type of License:	E
Status of Patent Protection:	P
Licensed to Large/Small Company:	Large

Signals from heat flux meters installed on the fire side of heat exchange surfaces in large coal-fired boilers provide a graphic picture of the extent and location of ash fouling to allow efficient and effective soot blowing sequences and programs.

4. Tornac Rubber

Catalyst for high nitrile rubber

Date First Licensed:	1986
Type of License:	E
Status of Patent Protection:	P

A catalyst system developed allowed for the economic production of a high heat and oil resistant rubber and the construction of a new plant.

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5. **Adenosine Antagonists**
Pharmaceutical

Date First Licensed:	1990	A drug to treat cardiac rhythm disturbances,
Type of License:	E	mechanical dysfunction and hypotension.
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

WASHINGTON

Fred Hutchinson Cancer Research Center

1. **Ceprate LC Laboratory Cell Separation System**
Cell Separation Device

Date First Licensed:	1989	(1) Laboratory cell separation system, and (2) Clinical
Type of License:	E	cell separation system for selection of cells for
Status of Patent Protection:	P	therapeutic and diagnostic application.
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

2. **Nested Deletion Kits**
DNA Sequencing Method

Date First Licensed:	1990	Kits for efficient sequence analysis of large
Type of License:	NE	DNA fragments.
Status of Patent Protection:	P	
# of Companies Licensed:	5	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	2	

3. **Leu M9**
Monoclonal Antibody

Date First Licensed:	1987	(1) Purified reagent; (2) Leukemia Immunophenotyping
Type of License:	E (by field)	Kit.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

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3. **Iontophoresis device**
For drug delivery

Date First Licensed:	1976/1993	Drug delivery.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

4. **DNA Identification Probes**
No Description Given.

Date First Licensed:	1991	Forensic science and paternity.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

5. **Air Sparged Hydrocyclore**
Flotation Device

Date First Licensed:	1987	Deinking recycled paper, minerals flotation,
Type of License:	E (by field)	environmental application.
Status of Patent Protection:	P	
# of Companies Licensed:	5	
# of Licenses to Small Companies:	4	
# of Licenses to Large Companies:	1	
Was a Startup Company Formed as a Result of this Product?	YES	

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Licensed to Large/Small Company: Small

UTAH

Brigham Young University

1. DSEARCH
Software

Date First Licensed:	1985	Search and retrieval for document text management.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	5	
# of Licenses to Small Companies:	5	
# of Licenses to Large Companies:	0	
Was a Startup Company Formed as a Result of this Product?	YES	

2. 2-CDA
2'-Chlorodeoxyadenosine

Date First Licensed:	1991	Chemotherapy treatment of hairycell leukemia.
Type of License:	E	Net sales of approx. $4 Million realized in the first
Status of Patent Protection:	P	five months after FDA approval. Company projects sales of $20 million.
Licensed to Large/Small Company:	Large	

3. M-9 Vaccine
Turkey Cholera Vaccine

Date First Licensed:	1984	Vaccine - Decreased turkey mortality rate from
Type of License:	NE	35-40% to 5-10%.
Status of Patent Protection:	UP	
# of Companies Licensed:	8	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	5	
Was a Startup Company Formed as a Result of this Product?	YES	

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Licensed to Large/Small Company: Small

2. **Abbacus**
Instrument

Date First Licensed:	1987	Process/device to manufacture synthetic oligonucleotide.
Type of License:	E	Device not sold, but service company uses patented
Status of Patent Protection:	P	technology.
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

3. **"PLIO"**
Physical Therapy/Rehab. Device

Date First Licensed:	1992	Device is a lower extremity orthotic device designed to
Type of License:	E	provide early weight bearing to quadriplegic and
Status of Patent Protection:	P	some spinal cord injured patients.
Licensed to Large/Small Company:	Small	

4. **No Trade Name Given.**
Hearing diagnostic device

Date First Licensed:	1991	Distortion product audiometer used to detect
Type of License:	E	hearing deficiencies.
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Small	

5. **"BRAT Bowl"**
Blood Collection Bowl

Date First Licensed:	1988	Blood centrifugation bowl used in blood processing
Type of License:	E	device in surgery.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

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Licensed to Large/Small Company: Large

4. **No Trade Name Given.**
Plasmid that protects bacterial cultures in the dairy industry.

Date First Licensed:	1987	A plasmid which offers phage resistance to bacterial cultures used to make fermented dairy products, e.g., cheese.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

5. **No Trade Name Given.**
Advanced electronic semiconductors.

Date First Licensed:	1987	Technology for the manufacture of semiconductors for advanced electronics.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Small

Was a Startup Company Formed as a Result of this Product? YES

OHIO

Ohio University

1. **Microinjection**
Method to make transgenic animals

Date First Licensed:	1989	This is the platform technology used to create transgenic animals. The animals receive an exogenous gene and express that gene. The process is used to make pharm. proteins, xenografts, and many other research models and products beneficial to society.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Small

Was a Startup Company Formed as a Result of this Product? YES

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# of Companies Licensed:	3
# of Licenses to Small Companies:	0
# of Licenses to Large Companies:	3

4. Colony Stimulating Factors (CSF)

Date First Licensed:	1991	Process is for insertion of genes into mammalian cells.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	1	

5. Factor VIII

Drug for Hemophilia

Date First Licensed:	1992	Process is for insertion of genes into mammalian cells.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	0	

New York Blood Center

1. Solvent/detergent (SID) Treatment

A virus inactivation method for blood products.

Date First Licensed:	1985	This method is used to kill the AIDS and hepatitis virus in about 2/3 of all the blood plasma-derived products sold in the world today.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	51	
# of Licenses to Small Companies:	36	
# of Licenses to Large Companies:	15	

2. Hepaccine-B

Plasma-derived Hepatitis B Vaccine

Date First Licensed:	1986	This is a hepatitis B vaccine which is very inexpensive to produce and highly immunogenic. It has been supplied by its manufacturer to a number of WHO and national vaccination programs, mostly in Asia.
Type of License:	E	
Status of Patent Protection:	P	

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NEW JERSEY

Rutgers, The State University of NJ

1. Constellation Dogwood Variety

Hybrid Dogwood Trees

Date First Licensed:	1991
Type of License:	NE
Status of Patent Protection:	P
# of Companies Licensed:	7
# of Licenses to Small Companies:	7
# of Licenses to Large Companies:	0

2. Jersey Giant Asparagus

No Description Given.

Date First Licensed:	1984
Type of License:	E
Status of Patent Protection:	P
Licensed to Large/Small Company:	Small

3. Suncrisp Dessert Apple

Quality Dessert Apple

Date First Licensed:	1991
Type of License:	NE
Status of Patent Protection:	PP
# of Companies Licensed:	3
# of Licenses to Small Companies:	3
# of Licenses to Large Companies:	0

4. Short Path Thermal Desorption

Gas Chromatographic Thermal Device

Date First Licensed:	1990
Type of License:	E
Status of Patent Protection:	P
Licensed to Large/Small Company:	Small

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3. **Rieke Metals**
Highly reactive metal powders

Date First Licensed:	1992	Finely divided metals and intermediates derived therefrom for use in the manufacture of chemicals, polymers, pharmaceuticals. Permit the manufacture of materials not readily made in other ways.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

4. **Peptide synthesis**
Economical synthesis of peptides.

Date First Licensed:	1986	Using recombinant DNA technique, peptides have been made for: (1) analysis of mercury in water, lead in soil; (2) production of pharmaceuticals; (3) treatment of post-menopausal osteoporosis.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

5. **DNA Sequencer**
DNA Sequencer

Date First Licensed:	1984	A DNA sequencer of lower cost and excellent performance for use in diagnostics, medical research.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

NEW HAMPSHIRE

Dartmouth College

1. **Aqua-Terr**
Soil Moisture Sensor

Date First Licensed:	1992	Very accurate measurement of moisture in the geteroneous media. Products can be used for irrigation, can help save water and fertilizers, can be used in waste management, textile, food, paper, and many other industries.
Type of License:	E (by field)	
Status of Patent Protection:	P	

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5. **Therasphere®**
Radiopharmaceutical

Date First Licensed:	1984	Radioactive glass microspheres for prevention of
Type of License:	E	metastasized liver cancer.
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

Washington University

1. **CK-MB**
Monoclonal Antibody

Date First Licensed:	1988	Rapid Diagnostic Test for the Detection of
Type of License:	NE	Heart Attacks.
Status of Patent Protection:	P	
# of Companies Licensed:	8	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	7	

2. **Confocal Microscope**
Confocal Microscope

Date First Licensed:	1989	Single aperture confocal scanning EPI-illumination
Type of License:	NE	microscope for imaging biological materials.
Status of Patent Protection:	P	
# of Companies Licensed:	1	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	1	

3. **No Trade Name Given.**
Software for Ultrasound

Date First Licensed:	1986	Improved software for ultrasound imaging in
Type of License:	E	cardiology.
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Large	

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Licensed to Large/Small Company:	Small
Was a Startup Company Formed as a Result of this Product?	YES

2. **Dog Lyme Disease Vaccine**
Lyme Disease Vaccine

Date First Licensed:	1988	Veterinary vaccine against lyme disease which uses attenuated virus.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

3. **THAIRapy Bronchial Drainage System**
Pneumatic Device for Physical Chest Compression Therapy.

Date First Licensed:	1988	Pneumatic Device for Physical Chest Compression Therapy - Treatment of cystic fibrosis - aids patients in elimination of mucous from lungs.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

4. **MRC-600 Confocal Laser Scanning System**
Confocal Laser Microscope

Date First Licensed:	1990	Argon-krypton laser attachment for a confocal microscope that enables simultaneous viewing of tissue sections that are labeled with two different flourescent tags.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

5. **HemoQuant**
No Description Given.

Date First Licensed:	1984	Laboratory Method to Detect Blood in Feces as an Early Screen for Colon Cancer.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	4	
# of Licenses to Small Companies:	3	
# of Licenses to Large Companies:	1	

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Status of Patent Protection: UP

Licensed to Large/Small Company: Small

3. **Ross Labs - Alitraq**
Alitraq Nutritional Solution

Date First Licensed:	1987	Nutritional supplement for enteral feedings.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

4. **Bard Alfenta Pump**
Alfenta Pump

Date First Licensed:	1987	Intravenous Narcotics Pump.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

5. **IVAC**
Infiltration Detective Device

Date First Licensed:	1986	Public Benefits Not Described.
Type of License:	E	
Status of Patent Protection:	P	

Licensed to Large/Small Company: Large

MICHIGAN

University of Michigan

1. **Cystic Fibrosis Gene**
No Description Given.

Date First Licensed:	N. Applic.	Identification of gene responsible for Cystic Fibrosis
Type of License:	N. Applic.	leading to gene therapy and treatment applications.
Status of Patent Protection:	PP	(Not on the market yet).

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4. **Noise Cancellation**
Improved noise cancellation system

Date First Licensed:	1990	The improved system removes background noise from many environments (e.g., office space, electronic, automobile mufflers) by providing real time feedback of antinoise wavelengths.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

5. **Improved U.V. Cure Lamp**
Improves photochemical airing system for printing.

Date First Licensed:	1992	This process improves an existing product that cures ink on such items as soft drink cans. It made a dramatic improvement in the quality of the equipment used.
Type of License:	E	
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Small	

MASSACHUSETTS

Harvard University

1. **Sequenase**
Research product used in sequencing (DNA)

Date First Licensed:	1986	Kits and reagents used to determine the genetic sequence of DNA.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

2. **Cardiolite**
Radio diagnostic--heart imaging

Date First Licensed:	1983	Material and process to create a radio-diagnostic compound used to create heart images to diagnose forms of heart disease.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

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MARYLAND

Johns Hopkins University/APL

1. OPTIMATR
Software

Date First Licensed:	1992	Software that calculates the optical properties of materials.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

2. SC32 Microprocessor
Microprocessor Chip

Date First Licensed:	1988	FORTH Microprocessor chip.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

3. The Zapp Board
Parallel Processor

Date First Licensed:	1992	Parallel processing board for personal computer.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

4. CorTemp
Ingestible temperature capsule.

Date First Licensed:	1988	Ingestible thermometer monitors, records, and reports body temperature.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

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3. **Spectroscopy Technology**
Spectroscopy Improvement

Date First Licensed:	1986	Job formation, local "support" business development and alliances.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

4. **Min Wu - Hieftje Spray Chamber**
Spray Chamber for Inductively Coupled Plasma Spectrometers.

Date First Licensed:	1993	Improved analytical performance over existing chamber types. Particularly useful where reduced memory effects are important. 2-3 times shorter sample clean out time. Lower cost and simpler construction than commonly used spray chambers.
Type of License:	E	
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Large	

5. **Cell Selection and Modulation**
No Description Given.

Date First Licensed:	1993	Technology offers new technique for isolation, identification, and culturing cells removed from human patients with cell abnormalities or deleterious disease conditions. Especially useful for gene therapy.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

LOUISIANA

Tulane University

1. **Decapeptyl**
LHRH Super Agonist

Date First Licensed:	1983	LHRH super agonist for treatment of prostate cancer. Also approved for other hormonal dependent conditions such as uterine fibroids and endometriosis. (LHRH: Luteinizing Hormone Releasing Hormone).
Type of License:	E	
Status of Patent Protection:	P	

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Status of Patent Protection:	UP	and factual data on natural products including information on the pharmacology, biological activity, etc.
Licensed to Large/Small Company:	Large	

3. **Laser-Slit**
Eye examination device

Date First Licensed:	1991	Instrument which optimizes inner eye/retinal examinations.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

4. **Applebaum Inducostapedial Joint/Prosthesis**
Middle ear prosthesis

Date First Licensed:	1992	Ear-bone joint prosthesis.
Type of License:	E	
Status of Patent Protection:	PP	
Licensed to Large/Small Company:	Large	

5. **Antibodies 2C4 9AE10, RDR34**
Monoclonal Antibodies

Date First Licensed:	1992	Monoclonal antibodies to rabbit MHC Class II (Ia) molecules and T-cells.
Type of License:	NE	
Status of Patent Protection:	UP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	0	

INDIANA

Ball State University

1. **CITE Materials**
Technology Education Activities

Date First Licensed:	1986	Curriculum ancillary materials of practical application for technology education classroom instruction.
Type of License:	NE	
Status of Patent Protection:	C	

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Status of Patent Protection: UP

# of Companies Licensed: 1
# of Licenses to Small Companies: 1
# of Licenses to Large Companies: 0

ILLINOIS

Name Confidential

1. **B. Megaterium**
Plasmidless strain cloning host

Date First Licensed: 1988
Type of License: E
Status of Patent Protection: P

Licensed to Large/Small Company: Large

Diagnostic test for HIV-1/HIV-2.

Name Confidential

1. **Order-disorder patent**
Chemical treatment of semiconductor devices.

Date First Licensed: 1989
Type of License: NE
Status of Patent Protection: P

# of Companies Licensed: 3
# of Licenses to Small Companies: 1
# of Licenses to Large Companies: 2

New technology; more cost effective method of manufacturing.

2. **Multiple exposure velocimeter**
Special measuring instrument

Date First Licensed: 1986
Type of License: E
Status of Patent Protection: P

Licensed to Large/Small Company: Small

New technology.

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2. CAV-DR-1
Use of a variant strain of Bursal Disease.

Date First Licensed:	1986	Useful in the production of vaccines important
Type of License:	NE	to the poultry industry.
Status of Patent Protection:	UP	
# of Companies Licensed:	6	
# of Licenses to Small Companies:	1	
# of Licenses to Large Companies:	5	

3. Speech Synthesizer
Computer Software

Date First Licensed:	1992	A synthetic voice developed to assist individuals
Type of License:	E	with progressive diseases of the nervous system
Status of Patent Protection:	UP	such as amyotropic lateral sclerosis.
Licensed to Large/Small Company:	Small	

4. Chromatography
Process technology

Date First Licensed:	1992	An inexpensive process for protecting silica and
Type of License:	E	strengthening it from attack; useful for a wide variety
Status of Patent Protection:	PP	of silica-based products, such as optical fibers.
Licensed to Large/Small Company:	Large	

5. Monoclonal Antibodies Kit
Monoclonal Antibodies

Date First Licensed:	1989	Pertaining to hybridomas for the production of
Type of License:	E	monoclonal antibodies to determine the presence
Status of Patent Protection:	UP	and/or concentration of certain lipoproteins in blood plasma.
Licensed to Large/Small Company:	Small	

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Was a Startup Company Formed as a Result of this Product? YES

3. **"Gene Machine"**
Synthesis of DNA

Date First Licensed:	1981	Synthesis of DNA, which is used to produce reagents and other biological materials.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	0	
# of Licenses to Large Companies:	2	

4. **Endoscopic Ligating Device**
No Description Given.

Date First Licensed:	1990	Device affixes to standard flexible gastroscope and effects accurate ligation of mucosal and submucosal targets.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

CONNECTICUT

University of Connecticut

1. **Orthodontic Wire**
No Description Given.

Date First Licensed:	1982	Wires and related products made from titanium are sold to orthodontists.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

2. **Lab-In-A-Bag**
Field Kit for Environmental Testing.

Date First Licensed:	1990	Kits to facilitate evaluation of sites contaminated with organic materials. A typical example is a site surrounding a leaking underground gasoline storage tank.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

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Type of License:	NE	
Status of Patent Protection:	PP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	0	

2. **BLA-36 Anti-Gen (2225)**
Hybridoma Clones

Date First Licensed:	1992	Histopathology.
Type of License:	NE	
Status of Patent Protection:	PP	
# of Companies Licensed:	4	
# of Licenses to Small Companies:	4	
# of Licenses to Large Companies:	0	

3. **Anti-Gen 57-15 (2293)**
Hybridoma Clones

Date First Licensed:	1992	Histopathology.
Type of License:	NE	
Status of Patent Protection:	PP	
# of Companies Licensed:	2	
# of Licenses to Small Companies:	2	
# of Licenses to Large Companies:	0	

COLORADO

National Jewish Center

1. **Azaquinone (formerly Gangamicin)**
Synthetic Tuberculosis Antibiotic

Date First Licensed:	1991	Assists in treatment of drug-resistant TB, and used
Type of License:	E	to treat systemic infection in AIDS patients, especially
Status of Patent Protection:	P	microbacterium avium intracellulare.
Licensed to Large/Small Company:	Large	

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Was a Startup Company Formed as a Result of this Product?	YES	

3. **Optically Pumped Laser**
Optically Pumped Laser

Date First Licensed:	1987	Optically Pumped Laser.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

4. **GPS Receiver**
GPS Receiver

Date First Licensed:	1992	Global Positioning Satellite Receiver.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

5. **GEL Electrophoresis**
GEL Electrophoresis Apparatus

Date First Licensed:	1992	GEL Electrophoresis Apparatus.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

Stanford University

1. **Phycobiliproteins**
Fluorescent Tag from Algae

Date First Licensed:	1982	Research and Diagnostic Reagents.
Type of License:	NE	
Status of Patent Protection:	P	
# of Companies Licensed:	49	
# of Licenses to Small Companies:	27	
# of Licenses to Large Companies:	22	

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Status of Patent Protection:	PP	Concomitant use in cancer chemotherapy. (Source of Invention: Ludiig Cancer Institutes.)
Licensed to Large/Small Company:	Large	

5. Helixx™
Helical Lesion Marker

Date First Licensed:	1991	Breast Tumor Localization Needle.
Type of License:	E	(Source of Invention: Tulane University).
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Small	

University of Arizona

1. Meriflour Cryptosporidium/Giardia
Monoclonal Antibody Diagnostic Kit

Date First Licensed:	1987	This technology detects the presence of Cryptosporidium parvum and Giardia Lamblia. C. parvum may be life threatening, especially to children and AIDS patients.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	

2. Group System V
Decision Making, Planning Software

Date First Licensed:	1989	The software has created new meeting environments conducive to high levels of group performance. Using networked personal computers and software products, people can have meetings more efficiently and produce higher quality results.
Type of License:	E	
Status of Patent Protection:	UP	
Licensed to Large/Small Company:	Small	
Was a Startup Company Formed as a Result of this Product?	YES	

3. Rotofor™ Cell
Protein Purification Apparatus

Date First Licensed:	1985	This apparatus is used to isolate proteins, such as DNA and hormones, for use as diagnostics to improve the public health.
Type of License:	E	
Status of Patent Protection:	P	
Licensed to Large/Small Company:	Large	

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MINNESOTA 29
Mayo Foundation
University of Minnesota

MISSOURI 31
University of Missouri System
Washington University

NEBRASKA 33
University of Nebraska-Lincoln

NEW HAMPSHIRE 34
Dartmouth College

NEW JERSEY 36
Rutgers, The State University of NJ

NEW YORK 37
Columbia University
New York Blood Center

NORTH CAROLINA 39
Name Confidential

OHIO 40
Ohio University

TENNESSEE 41
St. Jude Children's Research Hospital

TEXAS 41
Baylor College of Medicine
University of Texas Southwestern

UTAH 44
Brigham Young University
University of Utah

VIRGINIA 47
University of Virginia Patents Foundation

WASHINGTON 48
Fred Hutchinson Cancer Research Center

CANADA 50
Name Confidential
Queen's University

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Table 2

AUTM PUBLIC BENEFITS SURVEY

STARTUPS FORMED SINCE 1980

NAME OF INSTITUTION	NUMBER OF STARTUPS
University of Minnesota	43
University of Arizona	40
University of Utah	29
Washington University	22
University of Michigan	21
Stanford University	19
Name Confidential	19
Baylor College of Medicine	15
Queen's University	13
Harvard University	12
Brigham Young University	11
Univ. of Illinois @ Chicago	11
University of Colorado	8
Columbia University	7
Name Confidential	7
Univ. of Texas Southwestern	7
Indiana University	6
Thomas Jefferson University	6
Name Confidential	6
Name Confidential	5
University of Miami	5
Univ. of Virginia Patents Fndtn.	5
Dartmouth College	4
Mayo Foundation	4
Name Confidential	4
Ohio University	4
Rutgers, The State University of NJ	4
University of Connecticut	4
Princeton University	3
Univ. of Maryland, College Park	3
Tulane University	2
Univ. of Missouri System	2
Univ. of Southern California	2
National Jewish Center	1
New York Blood Center	1
University of Arkansas	1
University of Delaware	1
Name Confidential	0
Name Confidential	0
	357

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Specifically:

- The forty-five (45) participating institutions reported 177 products on the market, which have been licensed exclusively (70%) and nonexclusively (30%) to 440 small and large businesses.

- Sixty-five percent (65%) of the exclusive licenses and 58% of the nonexclusive licenses were negotiated with small business, with the remaining 35%-42% going to large business. (See summary provided in *Table 1.*)

- Thirty-nine (39) respondents reported the formation of 357 startups (since 1980) that were dependent upon the licensing of their institutions' technologies. (See summary provided in *Table 2.*)

- Of the 177 products reported under this survey, 35 new companies were created in support of these discoveries or inventions. (See *Selected Products on the Market.)*

A comprehensive list of the selected products on the market and the public benefits derived from these products is included in this report. The following abbreviated references were used when developing this compilation:

E	-	Exclusive
NE	-	Nonexclusive
P	-	Patented
PP	-	Patent Pending
UP	-	Unpatented
C	-	Copyrighted

Future Studies

The Association of University Technology Managers continues to monitor the activities of technology transfer programs through the administration of surveys to its members. Currently under way are a study on economic impact and the second annual AUTM Licensing Survey, the results of which will be made available this Fall 1994.

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1. *Two reports have been developed that summarize the results of the AUTM Licensing Survey and are available for purchase. These reports include the "AUTM Licensing Survey Executive Summary and Selected Data" report and "The AUTM Licensing Survey Fiscal Years 1991 and 1992" full report. To order either report, contact Ms. Penny Dalziel, AUTM, (203) 852-7168.*

2. *The year of the passage of the Bayh-Dole Act.*

3. *A small business was defined as a company that has less than 500 employees and net sales less than $100 million. A large business was defined as a company that has 500 or more employees or net sales of $100 million or more.*

4. *The survey contained a provision for confidentiality. If a survey response was provided on a confidential basis, the institution's name has been noted as "Name Confidential."*

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