SAMPLING OF UNIVERSITY PATENT LICENSING PROGRAMS

	Inventor	University	Invention	Licensee	Approximate Investment
1.	Walser	Johns Hopkins U.	Keto-Acid analogs of Amino Acids for treatment of uremia	Pfrimmer of Germany and Syntex of U.S.A	Millions - Clinical trials in process. Expected to be marketed in 6 mos. in Europe.
2.	Wiktor	Wistar Institute	Rabies Vaccine	Wyeth Laboratories	On the market - millions
3.	Kamen et al	Case Western Res.	Methotrexate Assay during Cancer Chemotherapy	Diamond Shamrock Corp.	Being test-marketed. Production scheduled for late 1977. Millions.
4.	Lillehei/Kaster	U. of Minnesota	Pivoting Disc Heart Valve	Medical, Inc.	Being sold in world-wide market since 1971. Millions.
5.	Blackshear et al	U. of Minnesota	Implantable Infusion Pump (Constant Infusion of Drugs for Treatment of Cancer, Diabetes, Pain, Morphine-addiction, etc.)	Metal Bellows Co.	Undergoing clinical trials. $750,000.
6.	DeLuca	U. of Wisconsin	25-Hydroxycholecalciferol for treatment of Osteo-dystrophy with liver dysfunction	Rousel-Uclaf (Hoechst) and	Have applied for equivalent of NDA in France. Approximately $5 million.
				Upjohn	About to apply for an NDA and an NADA. Will spend about $10 million.
7.	DeLuca	U. of Wisconsin	1-Alpha Hydroxycholecalciferol for treatment of Osteo-dystrophy with Kidney Dysfunction	Leo Pharma-ceuticals	Applying for new drug applications in Denmark and Great Britain. May be marketed this year. Approx. $5,000,000.

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	Inventor	University	Invention	Licensee	Approximate Investment
8.	DeLuca et al	U. of Wisconsin	1, 25-Dehydroxyergocalciferol for Treatment of Osteodystrophy with Kidney and Liver Dysfunction and Senile Osteodystrophy	Hoffman-LaRoche Inc.	About to apply for NDA. Will spend about $10 million.
9.	Fox	Columbia U.	Silver Sulfadiazine used in Treatment of Burns	Marion Labs., Kansas City, Mo.	Now on market - Approx. $5,000,000
10.	Heidelberger	U. of Wisconsin	Use of F_3TDR for Herpes Infections of the Eye	Burroughs Wellcome Co., Research Triangle Park, N.C.	Approx. $5,000,000 NDA expected by end of 1977.
11.	Fischell	Johns Hopkins U.	Rechargeable Cardiac Pacemaker	Pacesetter Systems Sylmar, California.	On market since Feb. 1975 - Approx. $720,000
12.	Holland	Tulane U.	Method of Reducing Intraocular Pressure in the Human Eyes (Glaucoma Treatment)	Cooper Labs., Bedford Hills, N.Y.	$2,000,000 - Development leading to NDA is in process and on schedule
13.	Pressman	U. of Miami	Application of X-537A in the Cardiovascular System (for stimulation in cardiogenic shock, congestive heart failure, etc.)	Hoffman-LaRoche, Nutley, N.J.	$500,000 to $1,000,000 Clinical evaluations still in progress
14.	Higley	Natl. Institute of Scientific Research	Polycarbonate Dialysis Membranes (kidney dialysis)	C. R. Bard Inc., Murray Hill, N.J.	Over $1,000,000. Market introduction expected imminently.
15.	Talbot/Harrison	Johns Hopkins U.	Ballistocardiograph Apparatus	Royal Medical Corp. Huntsville, Ala.	Approx. $330,000. Now on market.

SAMPLING OF UNIVERSITY PATENT LICENSING PROGRAMS

	Inventor	University	Invention	Licensee	Approximate Investment
16.	Plotkin	Wistar Institute	Rubella Vaccine	1) Wellcome Foundation 2) L'Institut Merieux 3) Swiss Serum and Vaccine Institute and others (Merck, an Italian firm, etc.)	Approx. millions - Now on market.
17.	Schaffner/Mechlinski	Rutgers U.	Derivatives of Polyene Macrolide Antibiotics	E.R. Squibb of U. S. A. and Dumex of Denmark	Millions - Clinical trials progressing favorably
18.	Zweig	Syracuse U.	Apparatus for Measuring and Controlling Cell Population Density in a Liquid Medium	New Brunswick Scientific Co., Inc., of New Jersy	Millions - On the market since 1973
19.	Lovelock	Yale U.	Gas Analysis Method and Device for the Qualitative and Quantitative Analysis of Classes of Organic Vapors	Varian Associates, Palo Alto, Calif.	On the market
20.	Fried	U. of Chicago	Prostoglandins for possible Treatment of Bronchial Asthma, Duodenal Ulcers, Inflammatory Conditions, etc.	Richardson-Merrell, New York, N.Y.	Several millions - In process of development and testing for marketing here and abroad
21.	Leininger/Grotta et al	Battelle Memorial Institute	Preparation of Non-thrombogenic Surfaces and Materials	C. R. Bard, Inc., Billerica, Mass.; Sherwood Medical Industries, St. Louis Mo.; and American Hospital Supply Corp., Irvine, California.	$107,754 - Some products being marketed and others being tested.

SAMPLING OF UNIVERSITY PATENT LICENSING PROGRAMS

Inventor	University	Invention	Licensee	Approximate Investment
22. Merrifield	Rockefeller U.	Apparatus for the Automated Synthesis of Peptides	Beckman Instruments, Fullerton, California	Being marketed since 1973.
23. Smith/Kozoman	Duke U.	Apparatus and Method for Rapid Harvesting of Roller Culture Supernatant Fluid	Bellco Glass, Inc. Vineland, New Jersey	$25,000 - Being marketed since June 9, 1976
24. Zweng	Stanford U.	Laser Photocoagulator	Coherent Radiation, Palo Alto, Cal.	Approximately $500,000 Standard tool of ophtholmologists
25. Sweet et al	Stanford U.	Cell Sorter	Becton-Dickinson, Rutherford, New Jersey	Approx. $200,000. Importa research tool
26. Boyd/Macovski	Stanford U.	Computerized Axial Tomography	S.A.I. Cupertino, Cal.	Approx. $300,000. Will be marketed soon.
27. Saxena	Cornell U.	Method for Testing for Pregnancy	Carter-Wallace	Approx. 1/2 million On market
28. Calnek/Hitchner	Cornell U.	Cell-free virus Preparation	Merck	
29. Carlson	Iowa State	Respiratory Augmentor with Electronic Monitor and Control	Bourns, Inc.	On market since 1966; sales now in millions.
30. Leake/Rappoport	Harbor General Hospital	Bone Induction in an Alloplastic Tray	Am. Hospital Supply	Data not available

SAMPLING OF UNIVERSITY PATENT LICENSING PROGRAMS

	Inventor	University	Invention	Licensee	State of Development
31.	Bradford/ Williams	U. of Georgia	Protein Assay Reagent and Method	Bio-Rad Labs, Inc; Quantimetrix Corp.	On the market since April 1977
32.	Tenckhoff	U. of Washington	Catheter Insertion Trocar	Sweden Freezer Mfg. Co; Cobe Labs; Physio-Control Corp;	On market
33.	Leonard et al	U. of Illinois	Fluorescent Derivatives of Cytosine-Containing Compounds	PL Biochemicals	On market
34.	Secrist et al	U. of Illinois	Fluorescent Derivatives of Adenine-Containing Compounds	PL Biochemicals	On market
35.	Asgar	U. of Michigan	Partial Denture Alloy		On market
36.	Carlson/Ward	U. of Washington	Coherent Biological Cell Analyzer	3M Company	Marketing development in progress.
37.	Charlson/ Alhquist	U. of Washington	Integrating Nephelometer and Photon-Counting Integrating Nephelometer	Battelle Development	On market
38.	Thomas	U. of Washington	Artery-Vein Shunt Applique	Battelle Development Corp.	Being marketed

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	Inventor	University	Invention	Licensee	State of Development
39.	Holcomb	Yale University	Method and Apparatus for Stimulation of Body Tissue	Avery Labs, Inc.	On the market since 1973
40.	Dugan	Temple University	Novel Compositions for Radiotracer Localization of Deep Vein Thrombi	Rand Research & Development Corp.	Licensed in 1977.
41.	Roelofs	Cornell University	Codling Moth Pheromone	Zoecon Corp.	On market since 1972.
42.	Whitby	Univ. of Minnesota	Particle Counter	Name not available	On market since 1969
43.	Backaner	Univ. of Minnesota	Method for Suppressing Ventricular Fibrillation	Burroughs Wellcome	About to be marketed
44.	Whitby	Univ. of Minnesota	Aerosol Sampler	Not available	On market since 1969
45.	Bradley	Univ. of Minnesota	Apparatus to Stimulate the Bladder	Two licenses, names not available	On market since 1972
46.	Blackshear	Univ. of Minnesota	Implantable Infusion Pump	Metal Bellows Company	About to be marketed
47.	Lillehei	Univ. of Minnesota	Pivoting Disc Heart Valve	Name not available	On market world-wide since 1971
48.	Butler	Purdue Research Fdn.	Hydrophobic Noncovalent Binding of Proteins to Support Materials	Regis Chemical	On market since April 1977

Inventor	University	Invention	Licensee	State of Development
49. Rosenberg	Michigan State Univ.	Platinum Compounds as Anti-Tumor Agents	Possibly Adria, Bristol or Miles Labs.	On market in late 1977
50. Coller	Institute for Cancer Research	Process of Viral Diagnosis and Reagent (Radioimmuno-assay)	Abbot Labs.	Licensed in 1977 (Canada) On market in U.S.A.
51. Kosikowski	Cornell University	Antibiotic Test Kit	Bacto Strip	On market
52. Kosikowski	Cornell University	Process for Milk Sterilization	De Laval Alpha Laval	On market
53. McLafferty	Cornell University	Pregnancy Test	Carter-Wallace	On market
54. Kattwinkel et al	Case Western Reserve	Device for Administering Pressure via Nasal Route	Sherwood Medical	On market since 1975