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Edited Copy

UNIVERSITY SCIENCE, ENGINEERING AND TECHNOLOGY, INC.

BUSINESS PLAN

2:30

1 UNIV. funding R.I.P.
2. UNIV. + Ind R.I.P.
3. SBIR
4. Patents → contacts
5. Pat. App. → Go Univ
6. Software
7. other tech.
8. services FCC Labs.
9. facilities

January 11, 1990

EXECUTIVE SUMMARY

In 1988, University Science, Engineering and Technology, Inc. (USET) was formed to pursue as one of its purposes the development of a database composed of licensable technology, facilities and services available from worldwide creative sources. Approximately three million dollars have been expended by Maxwell Communications Corporation (MCC) in:

1. Identifying organizations attempting to license technology, facilities and services;
2. Accumulating descriptions of such technology, facilities and services; and
3. Developing an electronic delivery system that will provide industry easy access to the accumulated information.

This expenditure has produced an operational prototype of an online electronic data system consisting of approximately 185,000 abstracts of licensable technology, facilities and services searchable with our proprietary software. This software enables a subscriber to search the full-text database without the use of the thesauri or complicated search commands.

A substantial portion of the three million dollars was devoted to the development of the described software, which is intended for generic use with other full-text databases. For purposes of this plan and possible purchase of the USET database, it is assumed that approximately $200 thousand dollars was devoted to identifying organizations attempting to license technology and accumulation of descriptions of technology. Purchase of a license to use the software for the purposes of delivering the database would be calculated on the MCC invest in the software.

BACKGROUND

For many years companies interested in new products have developed them through their own resources or have relied on a small cottage industry to supply them with information on licensable

technology. The services provided have not been widely used because the financial backing for this cottage industry has not been adequate enough to assure a comprehensive or current database of licensable technology, nor has the industry been innovative enough to leverage their resources to create such a database.

CONCEPT

Industry and entrepreneurs everywhere have recognized that they are in the midst of a worldwide explosion of new technology that may enure to the benefit of their competition unless they themselves can pursue its application. The pursuit of technologies developed by universities, government and other laboratories, and the use of their facilities and services has become essential as the cost of many internal research and development projects has been moving out of even for large companies' reach.

At the same time governments worldwide, who fund research, are creating new incentives to encourage the exchange and use of scientific and technical information, facilities and services, especially between business and government-supported research institutions. This is being done to expedite the application of research by industry and to justify the continuing government investment in R&D. These facts have created an unprecedented environment in which government-supported research institutions, who as a result of recent government actions own their technology and may lease their excess facilities, are under increasing pressure to collaborate with industry manufacturers in order to complete the innovation process and produce jobs.

Because the scientific journals are not the most efficient or timely way of communicating a new product or process to industry or to entrepreneurs, an increasing number of institutions with large government-funded programs have employed Technology Managers to supplement journal publications with other disclosures ~~tailored~~ designed to attract industry's attention.

In addition to the support provided to research institutions, governments like the U.S.'s have recently started funding small businesses to test concepts and develop prototypes of new products and processes that have been evaluated by government review bodies to be potentially useful. These small businesses account for a substantial portion of the technological breakthroughs that produce new jobs.

Because of these new funding programs, an opportunity exists to match industry manufacturers with technologies from innovative, aggressive small businesses who have won government awards. Abstracts of the 16,000 awards, which cover an investment of over $1.5 billion dollars since the programs began, are publicly available. These abstracts have been accumulated from participating federal agencies for inclusion in the USET database.

Finally, there is a growing number of large industrial firms that have begun licensing technology that they perceive to be in excess of their own needs. For instance, some of these technologies are valuable industrial processes being used by the creating company, but believed to have other uses. There is no known single source for hardcopy disclosures of this class of technology and no comprehensive electronic database.

There is clearly no single credible entity in the worldwide business of identifying the finite number of organizations attempting to license technology, accumulating their technology portfolios in a database, and then selling access to industry. The preliminary findings of a market study conducted on behalf of USET indicate that industry would be interested in subscribing to such a database. This is not surprising since the database will create savings over that which they themselves would have to incur to find the same information and the database will be the only known product that cuts horizontally through all technology for that which is licensable. Other technology databases are ordinarily vertically organized around specific technology without the additional information regarding available licenses, stage of development, appropriate contact points, etc, that will be furnished in the USET database.

PRODUCT DESCRIPTION

The Database

The USET online prototype system is an information source consisting of several full-text, technology-oriented databases, most of which are unique to the USET system. This information has been collected worldwide from universities, government laboratories and industry. New information sources are continually being added. The following list provides a brief summary of each information source currently available.

1. University Administrators

   This source contains the technology management contacts for the major U.S. research universities. These are the university administrators for: (1) setting R&D policy, (2) managing sponsored research, and (3) licensing technology to outside groups. For each university contact, the name, title, address and phone number is provided. This database is updated continuously.

2. University Funding

   The annual R&D funding (federal, non-federal and total amounts) for the major U. S. universities is provided for 22 research areas including: Life Science, Environmental Science, Engineering, Physical Science, Mathematics and Computer Technology. This database is updated annually.

3. Research Grants and Contracts

   This source contains descriptions of the more than 140,000 federally-funded research projects in progress in industry and at more than 700 universities, medical schools and research hospitals. The descriptions include: Title and Abstract, Principal Investigator, and Research Institution. This database is updated monthly.

4. Patents

This source contains descriptions of more than 15,000 licensable patented technologies owned by universities, government laboratories and private industry worldwide. The descriptions include: Patent Title and Abstract, Inventor(s), Licensing Agent Information and Major Claims. This database is updated continuously.

5. Patent Applications

This source contains descriptions of the licensable patent pending technologies available from domestic universities, government laboratories and industry. The descriptions include: Non-enabling Abstracts, Inventors, and Licensing Agent Information. This database is updated continuously.

6. Other Technology

This source contains descriptions of technologies that are not ordinarily patented, such as computer software and monoclonal antibodies. These licensable technologies are available from domestic universities, government laboratories and industry. The descriptions include: Title, Non-enabling Abstract, Inventor(s), and Licensing Agent Information. This database is updated continuously.

7. Small Business Technology

This source consists of two databases composed of:

(a) 8000 descriptions of Small Business Innovation Research (SBIR) projects, funded by eleven agencies of the U. S. government, and

(b) More than 8000 proposals recommended by the National Bureau of Standards (NBS) to the DOE Energy-Related Inventions Program.

The SBIR program annually awards more than $400 million for its projects in two phases. Phase I awards are for feasibility studies. Phase II awards are for the further development of Phase I projects and are based on scientific or technological importance.

The Department of Energy (DOE) proposals had to meet technical feasibility, potential energy supply impact or conservation, and commercial feasibility criteria to justify NBS recommendations.

The descriptions for these two databases include: Title and Abstract, Research, Company, and Stage of Development. This database is updated several times per year.

8. Facilities

This source describes the state-of-the-art R&D facilities at domestic universities and government laboratories available to the public on a fee basis. The description includes the name and phone number of the facility director. This database is updated continuously.

9. Services

This source describes the R&D services offered to the public on a fee basis by domestic universities and government laboratories. The description of services includes the director's name and phone number. This database is updated continuously.

The Search Features

The USET search features ~~are intended to~~ make online searching ~~with personal computers~~ for technology ~~in the database~~ very simple. With the USET ~~online~~ system, subscribers can find and track technology developments in their areas of interest without using third party information specialists.

To search the USET ~~online~~ system's full-text information sources, no thesaurus or complicated search commands are required. The USET ~~online~~ system uses four search features: Keyword, HyperWord, Relevance and HyperRelevance.

These features, which simplify the access to technology-related articles, are described as follows:

Keyword -- allows the subscriber to look through a chosen database using ~~Boolean~~ search methodology. The search can be limited to one or more fields or all fields of the chosen database.

Hyperword -- allows the subscriber to search through all the databases simultaneously, by entering search terms (words or phrases) of choice. The USET system then displays those databases containing information which satisfies the entered search terms. When a database of interest is selected, titles of all articles containing the search terms are displayed and selection of the full text of each can be made. If desirable, the words or phrases may be chosen directly from the text of an article of interest previously found through a keyword search.

Relevance -- allows the subscriber to easily find other articles within a single database which are similar in content to an article of interest found through a keyword search. In one keystroke, the USET system compares relevant terms from the article of interest and then displays the titles of the similar articles in order of decreasing relevance. Selection of the full text of each title can then be made.

Hyperrelevance -- allows a subscriber to search with one keystroke all the databases simultaneously for those databases having articles similar in content to an article of interest found through a keyword search. When a database of interest is selected by a second

keystroke, the USET system compares the relevant terms within the article of interest and similar articles within the selected database in order of decreasing relevance. Selection of the full text of each title can then be made.

OWNERSHIP

While much of the information included in this database is publicly available, the fact that it has been reorganized, reformatted, can be found in one place and has valuable information added makes it clearly unique, proprietary and copyrightable.

With over 350 different and constantly changing technology portfolios from around the world represented in the database with the contact responsible for negotiating licenses added to each item in each technology portfolio, we consider the barriers to competition to be very high.

The fact that USET personnel have developed both a cooperative relationship with many technology managers in the community and have a unique process of accumulating major parts of the database, which is not dependent upon person-to-person contacts, greatly reduces the labor intensive techniques which competition must now undertake.

THE MARKET

A number of indications point to a strong market for this database. First, it has been widely reported that the current movement of the Eastern Bloc to free-market economies is largely motivated by their failure to deliver adequate consumer goods to their communities. Francis Fukuyama of the Department of State has called this change "The End of History," which "will be replaced by economic calculation, the endless solving of technical problems, environmental concerns and the satisfying of consumer demands." Indeed, hundreds of negotiations have already been undertaken to conclude joint ventures intended to bring western technology into the Eastern Bloc. Eastern Block technology

will also be available to the West. Gordon Feller of Integrated Strategies recently stated that, "There are 6000 R&D institutes in the Soviet Union alone. Together, it and Eastern Europe account for one-third of the world's PhD level engineers and scientists. They have a huge pool of patents. But they know nothing about how to commercialize their ideas."

Further, as noted previously, industry and entrepreneurs everywhere have recognized that they are in the midst of a worldwide explosion of new technology that may enure to the benefit of their competitors unless they, themselves, consider its application. That this is understood and that industry is reacting to it is clear from each of the following attached articles:

1. "Sometimes the Best Solution is in Someone Else's Lab"
2. "Technology Forecasting at J&J"
3. "Easy Access to Federal Technology a Booster for Small Business"
4. "Getting High Tech Back on Track"
5. "Competitor Intelligence: A Grapevine to Rivals' Secrets"
6. Boehringer Ingelheim Advertisement for "Information Scientist"

The increased interest of businesses in technology databases is paralleled in the U. S. government by the priorities identified by George Bush in an October 14, 1988 interview for Science Magazine.

> "We will encourage exchange of scientific information, especially between business and academic institutions, to speed up the application of research to benefit the public."
>
> "We will improve the acquisition of scientific and technical information from other countries through expedited translation services and more aggressive outreach by federal agencies."

The only conclusion one can draw from these items is a growing interest in earlier access to information regarding new technology. It is well-established that the pharmaceutical and chemical companies already have personnel, similar to that advertised for by Boehringer, searching for technology created outside their company. Some examples include Abbot Labs, Adria Labs, American Cyanamid, American Hoechst, Amgen, Baxter, Dow Chemical, Pfizer, Merck and hundreds of others identifiable from the membership list of the Licensing Executive Society. What remains to be determined is whether these individuals can be convinced to search for technology on the USET online system.

USET, BETHESDA, MD
FIXED ASSET INVENTORY
2-28-90

FURNITURE

#	DESCRIPTION	MAKE/MODEL #	USER/ LOCATION	PURCHASED FROM	REPLACEMENT COST
3	Desks		Latker, Liverman Temp	General Furniture 4-88, $903	
1	Secretarial Desk		Temp		
1	Credenza		Latker	General Furniture 4-88, $362	
3	Executive Chairs		Latker, Liverman	General Furniture 4-88, $1,153.68	
1	Secretarial Chair		Temp	General Furniture	
1	Chair	SX100G	Liverman	Assoc. Office Products 5-13-88, $294	
3	File Cabinets Metal Standard	4-Drawer FLF 4L-36	Work Space	Assoc. Office Products 5/16&18/88	$725 each
1	File Cabinet	2-Drawer	Liverman		$163
10	Conference / Waiting Room Chairs		Latker, Liverman,		$253 each
1	Folding Work Table	8 Ft	Work Space	The Stationers 2-11-88 $99.85, PO 35100	$150

USET, BETHESDA, MD -- FIXED ASSET INVENTORY -- 2-28-90 -- FURNITURE

#	DESCRIPTION	MAKE/MODEL #	USER/ LOCATION	PURCHASED FROM	REPLACEMENT COST
1	Work Table	6-1/2 Ft	Liverman		$368
1	Wood Bookcase	5 Ft	Latker	7-8-88	$197
1	Wood Bookcase/ Cabinet	6 Ft	Liverman		$200
2	Metal Bookcases	6 Ft	Liverman Work Space		$197 each
1	Metal Supply Cabinet	6 Ft	Work Space		$250
2	Metal Literature Sorters		Conference Room	Office Communications 10-24-89, $286 PO 13239	
5	Cubical Dividers		Working Space		$163 each
1	Conference Room Table		Conference Room	Came with Premises	$180
8	Stacking Chairs		Conference Room	Came with Premises	$52 each

USET, BETHESDA, MD
FIXED ASSET INVENTORY
2-28-90

SOFTWARE

FOR IBM-COMPATIBLES

DESCRIPTION	MAKE/MODEL #	PURCHASED FROM	REPLACEMENT COST
Bizplan Builder 3.1		Egghead, 12-26-89 $70, PO 13536	
Chart-Master	Ashton-Tate		No Longer Made Applause II = $69
DataFlex			$625
DataFlex -- Supplemental	Developed by Liverman & Assoc		$30,000
Flow Charting	Patton & Patton		$200
Laser Envelops	Ermasoft	Egghead, 1-10-90 $50, PO 13587	
Lotus 1,2,3		Newco Data, 4-8-88 $301, PO 11007	$350
MapInfo			$675
Magellan	Lotus		$120
Word 3.1	Microsoft	Sears, 12-23-87 $215, PO 34123	$230
Org Plus	Banner Blue		$200
Pagemaker 3.0	Aldus	Sears, 12-18-87 $525	$555
ProCom			$70
ScreenExtender for Wordperfect	Stairway Software	Egghead, 1-12-90 $73, PO 13604	
Word Perfect 5.0		Newco Data, 4-8-88 $230, PO 11007	$250
Word Perfect 5.1 Upgrade		Egghead, 1-10-90 $79, PO 13587	

USET, BETHESDA, MD -- FIXED ASSET LIST -- 2-28-90 -- SOFTWARE

FOR MACINTOSH

DESCRIPTION	MAKE/MODEL #	PURCHASED FROM	REPLACEMENT COST
MacDraw II		Came with TIC Mac	$335
MacPaint 2.0	Claris	Egghead, 1-23-90 $85, PO 13641	
MacPrint	Insight	Computerland, 10-3-89 $136	
MacProject		Came with TIC Mac	$420
Microsoft Word		Came with TIC Mac	$296
Microsoft Works 2.0		Egghead, 11-20-89 $189, PO 13406	
More II Desktop Publishing	Symantic	Came with TIC Mac	$300
Tops		Came with TIC Mac	$240

INFO ON COMPAC COMPUTER SENT TO TIC IN EXCHANGE FOR MACINTOSH —

DESCRIPTION	MAKE/MODEL #	SERIAL #	USER/ LOCATION	PURCHASED FROM	REPLACEMENT COST
Computer	Compaq DeskPro 286 40 MB, 1.2 MB Floppy Drive		Houston	Sears, 12-23-87 $2,395, PO 34123	
Keyboard					
Monitor	Compaq Amber		Houston	Sears, 12-23-87 $171, PO 34123	
?	Compaq VDU		Houston ?	Sears, 12-23-87 $119, PO 34123	
Drive	360 K		Houston	Sears, 12-23-87 $255, PO 34123	
Software	Compaq 3.2		Houston	Sears, 12-23-87 $70, PO 34123	

This awakening and the absence of a comprehensive worldwide database aimed at licensable technology leads us to conclude that the following private sector individuals and groups will have an interest in purchasing the USET online system:

1. Licensing executives
2. Company librarians
3. In-house legal department
4. VP/Director, Research and Development
5. VP/Director, New Business Development
6. VP/Director, Strategic Planning
7. VP/Director, Manufacturing
8. Major law firms
9. Specialty law firms (e.g., intellectual property)
10. Venture capital partnerships / investment bankers
11. Business brokers
12. Some consulting firms

Many of the individuals in these groups can be easily reached through membership lists of peer associations. Thus, licensing executives normally join the Licensing Executive Society and the Association of University Technology Managers, vice presidents and directors of research and development belong to the Industrial Research Institute, patent attorneys join the American Intellectual Property Law Association, etc.

Indeed, in oral discussions with a number of individuals from these categories all were receptive to purchasing the USET service when available. One individual indicated that if USET does not continue to develop and market this product someone else will have to do it.

THE COMPETITION

A survey of possible competitors reveals that businesses offering services based on at least some accumulation of licensable technology do so as follows:

1) Solicit abstracts of available technology on a specified format;

2) Create a database that is searchable only by its employees; and

3) Sell hardcopy access only to technology areas in which subscribers have indicated an interest. (Clearly no one is providing an online system as developed as USET's, nor are we aware of anyone using CD-ROM floppy disks to communicate the results of a search to subscribers.)

Another characteristic that is not entirely common to the companies reviewed is a conference capability. Conferences are structured around sources of technology interested in licensing and those looking for new technology. Both the technology sources and the lookers pay to attend. Not only does the conference supplement income, it also builds the business's database. While this plan does not contemplate a conference function, such an initiative is a natural adjunct to the USET database. Further, as will be noted from the discussion of competitors, many use their accumulated information to support a newsletter which could also be undertaken by USET, using its database as the source.

The following are companies that generally have the characteristics noted in 1 through 3 above:

Dr. Dvorkowitz & Associates, Ormond Beach, FL. Dr. Dvorkowitz is franchising his database overseas and solicits a great deal of foreign technology. Dr. Dvorkowitz, who is 72 years old, recently sold his conference capability and is also interested in selling his database activity which purportedly includes 20 K technologies. Subscriptions for selected technology areas are $10K annually. Dr. Dvorkowitz has indicated that he presently has close to 125 subscribers. His annual gross would then be $1.25 million.

Lloyd Patterson, International, Ormond Beach, FL. Lloyd Patterson has only twenty-two clients which he services on a very personal basis including small conferences. Patterson is interested in being acquired. He claims to have 20 K technologies in his database.

Subscriptions for selected technology areas are $30K annually. His gross, including conferences, is over $700,000.

NERAC, Tolland, CT. NERAC searches not only the database it has accumulated, but other on-line databases to address specific technology problems. Most of NERAC emphasis is "batch" searching to solve technology problems. Subscriptions are $6K annually. NERAC has indicated a gross of $3 million. NERAC is not considered to be a competitor since the databases they search are not limited to licensable technology.

Technology Catalysts, Washington DC. Technology Catalysts claim that its database has much licensable technology from small businesses. They have a conference capability. Subscription rates unknown. Gross unknown.

Technology Insights, Englewood, NJ. Technology Insights discloses its technology by newsletter for specific areas of technology. Technology Insights puts great emphasis on reviewing the Patent Office's weekly Gazette for new patents with high technology potential. Technology Insights is not considered to be a competitor since their newsletter is not limited to licensable new products and processes. Subscription rate for newsletters are approximately $250 annually.

TECHSTART International, New York, NY. TECHSTART indicates that Arthur Anderson Company is their alliance partner. While access is provided by hardcopy, they indicate that floppy disks will be available in the future. Subscription rates unknown.

BBI (MacMillan), Tustin, CA. BBI discloses its technology by newsletter. They limit themselves to the Life Sciences and also have a conference capability. Their newsletter is not limited to licensable new products and processes. They are now part of MCC through the MacMillan acquisition.

Regis McKenna, Inc. (Center for Technology Licensing), Palo Alto, CA. Not much is known about Regis McKenna, though most of their activity appears to be focused on the electronic industry. However, on February 2, 1989 the company offered a seminar entitled "University Research: The R&D Gold Mine."

While in theory, all the companies have access to all technology sources, it does not appear that any one company has attempted to pursue all available sources or even all technology categories. Further, some do not limit their database to licensable technology. There appears to be little evidence that the government laboratories are being tapped at all. NERAC, Patterson, and Technology Catalysts appear uninterested in universities. Most provide a surprising amount of technology available from industry sources. As noted, none disclose their database through an online system.

With the possible exception of Technology Catalysts, there is no evidence that these companies have tapped the SBIR abstracts.

As best as could be determined, all the companies are running in the black. While this is in no means an exhaustive study of the companies reviewed, it has assisted in designing the service we intend to provide around our proprietary technology database.

THE USET ADVANTAGE

We believe that the USET prototype online system will be far superior to any current product or service presently offered by any known competitor for at least the following reasonings:

1. Simple online access to the licensable technology in the database is not offered by any other company. To the extent such information is available, it is retrieved out of an in-house database by the sellers personnel on the basis of the subscriber's predetermined "wish list" or in the form of a newsletter. A subscriber cannot browse

through such a database at its leisure nor change its "wish list." In short all current competitors force their subscribers to find data through the supplier's own information specialist.

2. The USET proprietary software permits a subscriber to search the full-text database without the use of thesauri or complicated search commands with keywords of its selection.

3. The USET database is more comprehensive than that of competitors because:

   a. USET personnel have far better access to a greater number of technology sources than competitors. We presently are in contact with 170 U. S. universities and are able to accumulate most of the technology portfolio from over 350 sources of licensable technology.

   b. USET's electronic scanning process will more efficiently convert hardcopy to electronic media, making the database more extensive.

   c. Knowledge and ability to identify technology sources permits segregation of licensable technology from existing electronic databases that do not make such segregation. It appears that competitors have limited themselves to resource intensive person-to-person solicitation and have not discovered how to identify licensable technology from publicly-available databases.

   d. USET accepts technology abstracts in hard copy or electronic form and will format information as needed. Submitters are not required to submit in prescribed formats.

4. The organization of the database into research grants and awards, patent, patent applications, etc., permits subscribers to search the kind of subject matter of interest more efficiently.

5. That information in the database which is not unique in itself has been reorganized, reformatted and in combination cannot otherwise be found in one place, which makes the database in its entirety completely unique.

6. The licensable technology database has the following standard format into which all acquired information is adapted:

a. Creating Organization
b. Inventor (s)
c. Title
d. Description of technology
e. Potential Application of the Technology
f. Advantages of this Technology
g. Patent Status (Patented, Patent Pending or Tech Note)
h. Submit Inquiries To (Contact Name and Telephone Number)
i. Reference Number (Internal ID Number)
j. License Terms
k. Keywords

7. The database is being presently developed so that each of the 350 technology portfolios can be viewed in isolation. We believe this can be a major incentive in attracting the cooperation for organizations wishing to license their technology since most do not have electronic access to their own information. The University of California has already agreed to give us access to their 1600 technologies if we give them electronic access to the result. If we complete this transaction we believe other large organizations will follow.

PRODUCT STATUS

As noted, the USET online system now exists in prototype form. In order to have reached this stage of development, we:

1. Fixed the design of the product;
2. Identified over 350 organizations with a licensable technology portfolios;
3. Established an efficient means of accumulating all identified portfolios; and
4. Completed software which enables simple personal computer searching of the accumulated information.

PERCEIVED MARKET POTENTIAL

A saleable product exists now though it will be continually enhanced as long as it is pursued. A strong marketing strategy is needed to put the product in the hands of the private sector consumers identified above. Based on the modest success of the Dvorkowitz and Patterson databases, we have concluded that selling annual subscriptions for unlimited use of the online system is a better approach than selling time on an hourly basis. Indeed, if we were to sell online time, we could probably negotiate an arrangement with an online vendor such as ORBIT or COMPUSERVE. However, we do not believe this will maximize potential profits.

Starting with the Dvorkowitz and Patterson databases and their subscription marketing approach, we have concluded that the comprehensiveness of the USET online system will assure a far greater revenue stream than either. It is assumed that if the superiority of the USET online system is convened to its potential consumers by vigorous marketing, that our product should be sold to at least the 125 Dvorkowitz clients at a price at least equal to that Patterson charges his clients (30K). These minimum estimates produce a revenue stream of 30K multiplied by 125 or $3.75 million annually.

However, we believe that 125 clients is extremely modest for a database intended to be as timely and comprehensive as USET's. Based on a number of conversations with technology managers, we do not believe it to be unrealistic to target potential clients to over 1000 at a price in excess of

30K. We base this on the belief that the database should create savings to subscribers over that which they themselves would have to incur to find the same information. Considering the way targeted consumers are organized, it does not appear possible that they are able to maintain contact with the 350 technology portfolios we have targeted for accumulation. The lower end of this second scenario gives a revenue stream of $30 million annually (1000 x 30K).

With a potential revenue stream of this magnitude, we believe that a large portion of funds available for operation should be earmarked for marketing through an organization with proven experience in the area. The marketing strategy should be worked out in negotiations with Capitol Systems Group. However, we have included one cost option for marketing in the financial strategy that follows.

FINANCIAL STRATEGY FOR BUILDING AND MAINTAINING THE USET DATABASE

Summary

The following table and attached notes and tables present the resources we believe will be required for the creation, sale and maintenance of an effective database of licensable technology. This estimate is based on the best information currently available and the investment parameters previously established in consultation with Capitol Systems Group (CSG). The $420K set aside for the Database Development Group below falls within the range of costs suggested by CSG for the data creation portion of the initiative. Marketing, administration and royalty costs are intended to be mostly tied to revenue, while the CSG costs assigned to CSG staff may be absorbable by existing personnel.

Four Year Operating Statement for Database Program

	1ST YR	2ND YR	3RD YR	4TH YR
SUBSCRIPTION REVENUE (A)	1500	3450	8100	12900
COST OF SALES				
Marketing (B)	1190	1971	4089	4862
Capital Systems Group (C)	325	225	250	280
Database Development Group (D)	420	480	540	660
Administration (5% revenue) (E)	75	173	405	645
Royalties (F)	75	173	405	645
Depreciation	50	50	50	50
TOTAL COST	2135	3072	5739	7142
NET PROFIT	(635)	378	2361	5758

Footnotes to Financial Table

(A) Revenue Projections for Years 1 Through 4:

	1990		1991		1992		1993	
YEAR 1 (100 COMPANIES)	3000		2400		2100		2100	
(ACTUAL)		**1500**		**1200**		**1050**		**1050**
YEAR 2 (150 ADDITIONAL)			4500		3600		3300	
(ACTUAL)				**2250**		**1800**		**1650**
YEAR 3 (350 ADDITIONAL)					10500		8400	
(ACTUAL)						**5250**		**4200**
YEAR 4 (400 ADDITIONAL)							12000	
(ACTUAL)								**6000**
TOTAL INCOME		**1500**		**3450**		**8100**		**12900**

- Assumes annual subscriptions at $30,000.
- Assumes sales will equal 50% of projection; 80% renew after first year; 90% of those after second year, 100% thereafter.
- After Year 4, sales should reach the 1000 customer goal with resultant sales of $30,000,000 or over.

(B) Marketing Costs:

The marketing plan must be worked out with the assistance of Capital Group Systems and other marketing professionals. For purposes of this plan we assumed that the marketing function consists of the Director of Marketing and three support people. The sales effort would be performed by TELEMARKETING and/or independent agents on a commission basis. Commission is included at 33% on new subscriptions and at 10% on subscriptions renewals.

	1990	1991	1992	1993	1994	1995	1996
MARKETING STAFF EXPENSES	200	407	434	447	467	487	505
COMMISSIONS **							
1st year sales	990	79	71	71	71	71	71
2nd year sales		1485	119	107	107	107	107
3rd year sales			3465	277	249	249	249
4th year sales				3960	317	285	285
TOTAL	990	1564	3655	4415	744	712	712
TOTAL MARKETING COSTS	**1190**	**1971**	**4089**	**4862**	**1211**	**1199**	**1217**

(C) Software Development, Maintenance and Improvement:

The Capital Systems Group will be responsible for software development maintenance and improvement. Costs for the Group in the 1990 budget are calculated at a higher level than in subsequent years because of possible problems in getting the system entered in various consumer locations and shakedown of the central processing facility. In future years the work will be essentially maintenance and some improvements as needed. Alternatively, we could attempt to retain the services of the USET Houston software staff on a royalty basis. Whether or not this is a viable alternative needs to be determined.

(D) Database Development Group:

The Database Development Group will constitute the center for the licensable technology database business. Data accumulation, formatting, conversion and quality control will be the responsibility of this Group. In addition, the Group will be responsible for:

a. Responding to subscriber inquiries;
b. Providing other services to subscribers determined to be a necessary incentive to attract subscriptions; and
c. Coordinating necessary software development and maintenance of the electronic database with the Group ultimately assigned to software development.

These responsibilities are presently being performed by the USET Washington office at a salary level of approximately $225K (administration, rent, telephone, travel and other expenses are not included). This level of funding is sufficient only for continued building of the prototype. The $420K for 1990 presumes operating expenses to maintain a marketed product. The management component of the group includes the present Director and Deputy of the existing USET Washington office.

The following is how we recommend expanding staff to meet the demands of a marketed product:

	Management	Database Operations	Total
1990	3	4	7
1991	3	5	8
1992	3	6	9
1993	3	7	10

(E) General Administration:

It is assumed that the general administration will be handled out of Capital Systems Group.

(F) Royalties:

Royalties of 5% of revenues will go to MCC as part of the purchase price for a license to software and ownership of the database and a small amount to Plenum, Inc. and NTIS for electronic information intended for use in the database.

The following press release is indicative of the background of why UTC was formed and indicates in general terms the purposes and marketing strategy of the company. Following the press release are a series of short paragraphs giving the major features of UTC's business, its officers, and its procedures.

** Press Release **

Corporation Formed To Help Transfer Of Technology From Universities Of Industry

Durham, NC - September 3, 1986

University Technology Corporation (UTC) has been formed to solve the problems of getting the intellectual innovations of U. S. universities to the appropriate U. S. companies. UTC is starting with financing of $3.5 million and exclusive signed licensing contracts with The Georgia Institute of Technology, and the Universities of Maryland and Connecticut.

"American university researchers are making some of the most exciting advances in the world, but getting those inventions out of the labs and into production is often a secondary concern," says Carl B. Wootten, President of UTC.

UTC, as the exclusive agent for licensing most forms of technology from these universities, will identify the innovations, find the most likely potential users, and negotiate the licensing terms on behalf of the universities. Where it is appropriate, UTC will obtain venture capital to develop and market the invention.

Says Wootten, "UTC is already playing the essential role of making sure that advances that could benefit the national economy do not languish in an isolated laboratory. We intend to play the facilitating role similar to that often played by government departments in Japan, only we will do so as a private sector company."

Wootten co-founded UTC after seeing the problems and opportunities while the Director of the patents program at the University of Virginia and then Duke University. He was responsible for technology transfer programs at both institutions.

UTC's approach of having a full time specialist on campus and a separate group of licensing specialists is unique in the U. S.

The other co-founder of UTC is Stanley P. Fisher, a noted patent attorney.

While Georgia Institute of Technology, Atlanta Georgia; the University of Maryland, College Park; and the University of Connecticut, Storrs, Connecticut have already made UTC their exclusive agent, negotiations continue with a number of other universities.

Contracts with these universities provide for a 50/50 sharing of compensation or income that results from a license. UTC's income will come only as a result of successful licensing arrangements, a strong incentive.

Collectively, the three signed universities undertake relevant research of over $150 million per year.

Says Wootten, "Companies can approach UTC to tap into all this valuable research. To them, we are like one-stop shopping. One enquiry with us will tell them what is available at several universities and provide a business-like organization with which to negotiate. Our unique approach simplifies the approach of technology transfer."

The $3.5 million financing was just raised in conjunction with the Atlanta based investment banking firm of Robinson-Humphrey, Inc., a subsidiary of American-Express. Among the investors are a number of prominent business leaders in the Southeast, Robinson-Humphrey and several Japanese business persons.

UTC has started with seven employees and is located in Durham, North Carolina near the Research Triangle Park.

As part of its early growth, UTC is assisting in establishing a similar company (UTC-Japan) to facilitate world awareness of its client's research and is working to establish UTC-Europe.

BUSINESS CONCEPT

- Exclusive licensing agent for selected major universities.
- Screen all university research
- Identify inventions with commercial applications.
- Protect the inventions with patents
- Locate companies needing the technology.
- Negotiate licenses to use the technology
- Share royalties on a 50/50 basis.

TYPICAL UNIVERSITY PROBLEMS WITH TECHNOLOGY TRANSFER

- Law requires active licensing program
- Usually assigned as a part time job to an inexperienced and overworked staff member
- Difficult to obtain adequate funding specifically for technology transfer activities
- Many inventions presently lost
- Faculty upset if not pursued

VALUE ADDED BY UTC

- Support provided for a full time, experienced on-campus staff
- Supervision and support of the on-campus staff
- Special computer system for university patents
- Highly trained, industry-specific licensing executives
- Proprietary data base with technology interests of hundreds of companies worldwide

UTC STAFF

Carl B. Wootten - President, Chairman of the Board, Chief Executive Officer and Treasurer, age 53. From 1979 to mid 1986, Director of Patent Administration at Duke University. Held a similar position at the University of Virginia prior to Duke. From 1964 to 1975, Mr. Wootten was an Officer and a Board Member of several corporations dealing primarily with the Nuclear field. He was responsible for the formation of Iradaco, Inc., a new type of irradiation sterilization facility. Prior to this he served for eight years in management and administrative positions with the U. S. Navy. Mr. Wootten obtained his Bachelor of Science degree from the U. S. Naval Academy in 1956.

John A. Fraser - Executive Vice President, age 40. From 1984 to mid 1986 Mr. Fraser was a private consultant in Toronto, Canada in the area of business development of technology products. From 1980 to 1984 he was Vice President of a $15 million Toronto based venture capital company. From 1973 to 1980 he was a senior officer at the Natural Sciences and Engineering Research Council (the Canadian equivalent of the U. S. National Science Foundation). Mr. Fraser received a Masters Degree in Biochemistry from the University of California at Berkeley.

David W. Strevel, Ph.D. - Licensing Executive, age 39. David was most recently Manager for Technology Assessment in the computer area at RJR Nabisco headquarters. In this job he evaluated many different lines of computer hardware and new software products. David has managed several software development projects in the dental and medical fields and was Assistant Professor at Bowman Gray School of Medicine for seven years. He has a Bachelor's and Master's degree in electrical and computer design engineering from the University of Michigan and a Ph.D. in Decision Science from the Wharton School of Business.

Jacob W. Maczuga - Licensing Executive, age 38. Mr. Maczuga will join the Company on August 1, 1987, rounding out UTC's technical capabilities in the areas of chemicals and chemical engineering. From 1984 to present he served as Engineer/Scientest at Western New York Technology Development Center and from 1980 to 1984 as Development Engineer for Allied Chemical. Mr. Maczuga has a Bachelor's degree in Biochemistry and a Master's in Chemical Engineering. He has been responsible for licensing and development of start-up companies for the New York University system for the last several years, and is experienced in the licensing of university technology to industry.

Edward F. Horne - Associate Licensing Executive, age 30. From 1984 to 1986, Marketing Specialist - Analyst for Gregory Poole Equipment Company in Raleigh, North Carolina. His duties included development of procedures for making five year sales forecasts and annual updates to the forecast, preparation of five year economic forecasts and monthly sales analysis for the sales department. In 1983 he served with E. Boyd and Associates with responsibility for coordinating the flow of frozen poultry from the plant to overseas customers. Mr. Horne has a Masters of International Management from the American Graduate School of International Management in Arizona awarded in 1982.

The licensing professionals are supported by an Administrative Staff of four excellent people who handle the financial and administrative functions of the company.

UTC BOARD OF DIRECTORS

- Carl B. Wootten, Chairman, Chief Executive Officer and President.

- Charles B. Heustis. From 1966-1986 was Senior Vice President of Finance for Duke University. Previously (1958-1966) was Director of Finance for Hughes Aircraft Company.

- Norman A. Jacobs, President and CEO, Biotechnica, International, Inc. Mr. Jacobs was past President of Amicon Division, W.R. Grace from (1982-1985) and was President of Amicon, Inc.. Was a founder of the company in 1962.

- Edward S. Croft, III, Managing Director and Director of Corporate Finance, Robinson-Humphrey, Inc.,

- Stanley P. Fisher, Director, Secretary and co-founder of UTC. Mr. Fisher is "of Counsel" at the law firm of Oblon, Fisher, Spivak, McClelland & Maier, P. C. and was a founder of the firm. Mr. Fisher was previously a technical writer for the Navy Department and served as Patent Examiner in the U. S. Patent Office for four years.

- Additional two from investors

UTC BOARD OF ADVISORS

- Dr. William T. Davis, Director of Licensing, Pfizer, Inc. (1973-Present). He has held prior positions in licensing and science with Squibb, Inc. Ciba-Geigy, Inc. and Abbott Laboratories, Inc.

- Roger F. Drake, Director of Advanced Technology, American Technology and Ventures Division, American Hospital Supply Corp. (Now part of Baxter-American). Mr. Drake has sixteen years experience in licensing and science with AHSC. Organized the centralization of research for AHSC, and directed the Corporate Technology Center for nine years.

- Robert Goldscheider, Esq., Chairman, International Licensing Network, Limited. Past Vice President, Licensing Executive Society. He is an International lecturer and consultant on technology transfer and licensing.

- Preston W. Grounds, Manager, University-Industry Liaison Program and Associate Director for Research, The Proctor and Gamble Company, Inc. He has held several research and business management areas for Proctor and Gamble for the last twenty years.

- Shozo Saotome, President and Chairman, DIA Research Corporation, Tokyo. He set up by Mitsubishi as an advanced technology and business forecasting company for the Mitsubishi Group. He was previously Chief Patent Counsel, Mitsubishi Chemicals and Past President of LES Japan. Mr. Saotome has received the "Blue Medal" twice from Emperor - top honor in Japan for industry and the only one twice so honored.

- Robin J. Skelton, Esq., Senior partner in March, Pearson, & Skelton, Manchester, Eng. Mr. Skelton in a Past president, LES U.K. and Chairman, LES University-Industry Committee. He is the Director of several companies in the U.K. and founder of the Manchester Science Park, a joint venture with universities.

- Mr. W. Bjorn Eriksen, President of Danish Technology Transfer, which is a new company he formed this past summer. Previously Mr. Eriksen was the Director of the Danish Invention Center where he handled all of the technology from Denmark as part of the Danish Government.

- Dr. Joseph J. Curry, Vice President, Hambrecht & Quist Technology Partners, Inc. Dr. Curry has been involved in semiconductor manufacturing technology since he joined Bell Labs in 1969. Since then he has served as V.P., and General Manager of Storage Technology, Microtechnology Corporation, Senior Director of semiconductor manufacturing at Four-Phase Systems and has operated his own consulting company, Semiconductor Micro-electronics International.

UNIVERSITY TECHNOLOGY LIAISON OFFICER

In order to assist the University in locating and hiring appropriate candidates for the position of Technology Liaison Officer at the University, UTC has prepared the following outline of the type of person we feel best suited to filling this role and maximizing the University's disclosure rate. Obviously, these guidelines are not "cast in stone", but experience has shown that a person who meets these general requirements has the best chance of performing the required functions in an outstanding manner to the benefit of both the University and UTC.

Education

The candidate should have a University degree in the Sciences or in Engineering, with advanced degrees helpful.

Preferred Experience

Prior working history should include familiarity with a range of technologies and/or sciences.

A history of practical working experience with product development of a technology based product in a research management role would be of particular help.

Must have enough work history to be credible to the faculty, but should not be at the retirement age, which many times tends to result in a lower energy level than is needed for this position.

Must have a proven organizational ability and the desire to create this new campus office.

Other Attributes

Must have good verbal and writing skills, with an outgoing type of personality.

Must show demonstrated administrative ability, follow through and completion of assignments with particular attention to detail.

Must be flexible and have the ability to respond promptly and favorably to work pressures.

Must be a "shirt sleeves" manager, who will not be adverse to meeting the faculty in their laboratory and will respond promptly to faculty requests.

Must have an appreciation of the important factors in the University environment, and be sensitive to the politics of University interaction between faculty and staff.

Must be willing and able to serve as a staff arm to the faculty to assist them in the administrative details of invention management.

As previously stated, these guidelines are for review and comment by the University, and are presented in the hope that they will provide a useful working tool to assist the University in finding the right Technology Liaison Officer.

ROLE OF THE TECHNOLOGY LIAISON OFFICER

The role of the TLO in the overall operation is a critical one, both from the University's and UTC's standpoint.

Without the TLO, the faculty does not have anyone to consult who is versed in patenting procedures and rules, and consequently many inventions are lost via publication or inadvertent disclosure. Without the TLO, the faculty does not have anyone to translate the technical jargon of the invention to something meaningful in the eyes of the businessman who must review it and make the decision to invest corporate funds in its development. Most importantly, without the TLO, UTC does not have the flow of solid disclosures to take to industry.

Thus, the TLO is one of the most critical elements in the entire technology transfer process. Without the TLO's continuous supply of disclosures, the financial base upon which both UTC and the TLO's position at the University are based cannot be maintained.

The following pages contain the description of the TLO's position and the advertisement describing the position sent to the University, as well as copies of the contract clauses pertinent to the position.

By way of guidance, the TLO is expected to build the disclosure of inventions to a rate equal to at least one disclosure per $1 million in hard science research. This rate should be attained by the end of the first year.

ADVERTISEMENT FOR TECHNOLOGY LIAISON OFFICER POSITION

UNIVERSITY TECHNOLOGY LIAISON OFFICER

University Technology Corporation is a company in the business of identifying university research with commercial potential and managing the transfer of the research to an interested industrial corporation.

UTC is seeking three unique individuals with industrial technical and management experience to take leadership of its program at three universities to enhance and increase activities in the areas of university technology identification and development on the selected university campus.

These universities are the University of Connecticut at Storrs, Connecticut, the Georgia Institute of Technology at Atlanta, Georgia, and the University of Maryland at College Park, Maryland.

Duties include:

- Maintain liaison with university researchers, administration and UTC;
- Review research underway at the university and actively seek out research with commercial potential;
- Coordinate with faculty and UTC the review and processing of each potential invention;
- Provide support to faculty members in the administrative details of invention management.

Attractive candidates will have a substantial background in at least one science or engineering discipline, approximately five years of practical working experience with product development of a technology based product in a research management role, have acquired familiarity with a broad range of technologies and have a proven ability to recognize the commercial possibilities of research work. The individuals must have the technical expertise necessary to elicit the confidence of individual researchers. They must also have excellent written communication skills necessary to document and communicate technological information to diverse audiences. They must have a proven organizational ability and the desire to create this new campus activity. They must be a shirt sleeves manager with entrepreneurial drive. Attractive candidates will have a knowledge of, and be local to each university.

Each individual will be located at and employed through the university to assist faculty to prepare documentation for UTC to seek commercial interest.

The salary will be in the $35-50K range depending on qualifications with unique performance incentives. The universities and UTC are seeking multi-talented, high energy level individuals to spearhead this increasingly important university activity.

Please send resume and name of three references within four weeks to UTC, 5012 Butternut Road, Durham, North Carolina 27707.

This is an equal employment opportunity.

DUTIES OF THE TECHNOLOGY LIAISON OFFICER

Extracts from the UTC/GT Contract

The following paragraphs are extracted verbatim from the contract between UTC and Georgia Tech. They provide the legal basis for the Technology Liaison Officer's duties and responsibilities.

"A technology liaison officer shall be appointed, who shall be a University employee and shall, if deemed necessary by University, be trained by UTC, and shall have duties including the following:

A. Maintain an awareness of the progress of research activities and close contact with the research faculty to insure and encourage high disclosure rate and patent awareness of faculty.

B. Based on advice of GTRC patent counsel, advise GTRC, University and UTC as to the patentability of identified technology which GTRC and University desire to be patented.

C. Assist faculty inventors and provide in-laboratory consultation in preparation of disclosures and marketing documents, etc.

D. Prepare and submit monthly reports to UTC, as called for in the UTC technology tracking program and such other reports as required by University or GTRC.

E. Monitor additional research funded by licensees who have taken licenses through the efforts of UTC, to ensure that such research is in compliance with the terms of the grants by which said additional research is funded, and report and non-compliance to UTC and GTRC.

F. Prepare and provide technical information to UTC for marketing packages for all technologies or inventions under this Agreement in consultation with UTC, such as executive summaries, technical packages, etc.

G. Operate said technology liaison office utilizing the automated technology tracking and management program provided by UTC

H. Conduct faculty awareness workshops/seminars regarding technology transfer opportunities and University policy/employee obligations regarding inventions.

I. Arrange or prepare and submit all necessary documentation to protect the interests of the inventor, the University, and GTRC, including patent opinions, applications and appropriate government reports.

The technology liaison officer designated may delegate any or all of the above functions as the University and GTRC deem appropriate and proper.

V

It is understood between the parties that the performance of the University's technology liaison office is critical to the intent of this Agreement, and that UTC may, from time to time, make recommendations to University for setting the procedures of said office."

EXTRACT FROM UTC/UMCP AGREEMENT

"UMCP agrees to implement under the authority of a senior UMCP officer, a full-time Technology Transfer Office as described in Article IV. A. of this Agreement, and to promptly disclose to UTC all technology subject to this Agreement. The full-time Technology Transfer Officer, who shall be a UMCP employee or employees of its designee, shall be identified and trained by UMCP, assisted by UTC, and shall have duties including he following:

A. Maintain close contact with the research faculty to insure and encourage maximum disclosure rate and patent awareness of faculty.

B. Based on advise of patent counsel, advise UMCP and UTC as to the patentability of identified technology which UMCP desires to be patented and actively pursue patenting of such technology.

C. Assist faculty inventors and provide in-laboratory consultation in preparation of disclosures and marketing documents, etc.

D. Prepare and submit monthly reports to UTC as called for in the UTC technology tracking program, and such other reports as required by UMCP.

E. On behalf of both UTC and UMCP, monitor additional research funded by grants from licensees who have taken licenses through the efforts of UTC.

F. Prepare marketing documentation for all inventions in consultation with UTC, such as Executive Summaries, Technical Packages, etc.

G. Operate said Technology Transfer Office in conjunction with the automated technology tracking program provided by UTC.

H. Conduct faculty awareness workshops/seminars regarding technology transfer opportunities and UMCP policy/employee obligations regarding inventions.

I. Arrange on-campus corporate visits for potential licensees.

J. Acquire, prepare or arrange for and submit all necessary documentation to protect the interests of the inventor, UMCP and UTC, including patent opinions and technical packages and appropriate government reports.

VII

It is understood between the parties that the performance of the UMCP's Technology Transfer Office is critical to the intent of this Agreement, and that UTC may, from time to time, convey written recommendations to UMCP for setting the procedures of the Technology Transfer Office."

EXTRACT FROM UTC/UIRF AGREEMENT

UIRF agrees to hire under the authority of a senior UIRF officer, a full-time Technology Liaison Officer as described in Article IV A. of this Agreement, and to promptly disclose to UTC all technology subject to this Agreement. The full-time Technology Liaison Officer, who shall be a UIRF employee or employee of its designee, shall be trained by UTC, and shall have duties including the following:

A. Maintain close contact with the research faculty to insure and encourage maximum disclosure rate and patent awareness of faculty.

B. Based on advice of patent counsel, advise UIRF and UTC as to the patentability of identified technology which UIRF desires to be patented and actively pursue patenting of such technology as agreed to by UTC.

C. Assist faculty inventors and provide in-laboratory consultation in preparation of disclosures, marketing documents, etc.

D. Prepare and submit monthly reports to UTC as called for in the UTC technology tracking program, and such other reports as required by UIRF.

E. On behalf of both UTC and UIRF, monitor additional research funded by grants from licensees who have taken licenses through the efforts of UTC.

F. Prepare marketing documentation for all inventions in consultation with UTC, such as Executive Summaries, Technical Packages, etc.

G. Operate said Technology Liaison Office in conjunction with the automated technology tracking program provided by UTC.

H. Conduct faculty awareness workshops/seminars regarding technology transfer opportunities and UI/UIRF policy/employee obligations regarding inventions.

I. Arrange on-campus corporate visits for potential licensees.

J. Acquire, prepare or arrange for and submit all necessary documentation to protect the interests of the inventor, UIRF and UTC, including patent opinions and technical packages and appropriate government reports.

ARTICLE VII

It is understood between the parties that the performance of the UIRF's Technology Liaison Officer is critical to the intent of this Agreement, and that UTC may, from time to time, convey written recommendations to UIRF for setting the procedures of the Technology Liaison Office and requiring increased performance of the office.

EXTRACT FROM UTC/UCONN AGREEMENT

"UCONN agrees to implement under the authority of a senior UCONN officer, a full-time Technology Liaison Office as described in Article IV A. of this Agreement, and to promptly disclose to UTC all technology subject to this Agreement. The full-time Technology Liaison Officer, who shall be a UCONN employee or employee of its designee, shall be identified and hired by UCONN, assisted by UTC, and shall have duties including the following:

A. Maintain close contact with the research faculty to insure and encourage maximum disclosure rate and patent awareness of faculty.

B. Based on advice of patent counsel, advise UCONN and UTC as to the patentability of identified technology which UCONN desires to be patented and actively pursue patenting of such technology.

C. Assist faculty inventors and provide in-laboratory consultation in preparation of disclosures and marketing documents, etc.

D. Prepare and submit monthly reports to UTC as called for in the UTC technology tracking program, and such other reports as required by UCONN.

E. On behalf of both UTC and UCONN, monitor all additional research funded by grants from licensees who have taken licenses through the efforts of UTC.

F. Prepare marketing documentation for all inventions in consultation with UTC, such as Executive Summaries, Technical Packages, etc.

G. Operate said Technology Liaison Office in conjunction with the automated technology tracking program provided by UTC.

H. Conduct faculty awareness workshops/seminars regarding technology transfer opportunities and UCONN policy/employee obligations regarding inventions.

I. Arrange on-campus corporate visits for potential licensees.

J. Acquire, prepare or arrange for and submit all necessary documentation to protect the interest of the inventor, UCONN and UTC, including patent opinions and technical packages and appropriate government reports.

IV

It is understood between the parties that the performance of the UCONN.s Technology Liaison Office is critical to the intent of this Agreement, and that UTC may, from time to time, convey written recommendations to UCONN for setting the procedures of the Technology Liaison Office."

EXTRACT FROM UTC/KSURF AGREEMENT

KSURF agrees to hire under the authority of a senior KSURF officer, a full-time Technology Transfer Officer as described in Article IV A. of this Agreement, and to promptly disclose to UTC all technology subject to this Agreement. The full-time Technology Transfer Officer, who shall be a KSURF employee or employee of its designee, shall be trained by UTC, and shall have duties including the following:

A. Maintain close contact with the research faculty to insure and encourage maximum disclosure rate and patent awareness of faculty.

B. Based on advice of patent counsel, advise KSURF and UTC as to the patentability of identified technology which KSURF desires to be patented and actively pursue patenting of such technology.

C. Assist faculty inventors and provide in-laboratory consultation in preparation of disclosures and marketing documents, etc.

D. Prepare and submit monthly reports to UTC as called for in the UTC technology tracking program, and such other reports as required by KSURF.

E. On behalf of both UTC and KSURF, monitor additional research funded by grants from licensees who have taken licenses through the efforts of UTC.

F. Prepare marketing documentation for all inventions in consultation with UTC, such as Executive Summaries, Technical Packages, etc.

G. Operate said Technology Transfer Office in conjunction with the automated technology tracking program provided by UTC.

H. Conduct faculty awareness workshops/seminars regarding technology transfer opportunities and KSURF policy/employee obligations regarding inventions.

I. Arrange on-campus corporate visits for potential licensees.

J. Acquire, prepare or arrange for and submit all necessary documentation to protect the interests of the inventor, KSURF and UTC, including patent opinions and technical packages and appropriate government reports.

ARTICLE VII

It is understood between the parties that the performance of the KSURF's Technology Transfer Officer is critical to the intent of this Agreement, and that UTC may, from time to time, convey written recommendations to KSURF for setting the procedures of the Technology Transfer Office.

ORGANIZATION

OF THE

TECHNOLOGY LIAISON OFFICE

PROPOSED CHARTER AND PROGRAM DESCRIPTION

FOR THE

OFFICE OF TECHNOLOGY LIAISON

2.4 PROMOTE COLLABORATIVE AGREEMENTS WITH INDUSTRY

If an invention is not developed to a stage where it is ready for transfer to an industrial client, the Office of Technology Liaison will with the assistance of UTC where applicable, identify and encourage collaborative agreements with industry to facilitate technology development and utilize commercially feasible scientific discoveries. The Office will:

*act as liaison with the Office of Sponsored Programs

*if needed, aid in the preparation of proposals

*track progress of the work to help assure client/researcher interaction and project success

*interact with State and local Economic Development Agencies as necessary

2.5 FULFILL CONTRACT OBLIGATIONS

The Office will assist in the fulfillment of the terms of research grants and contracts so as to

*comply with federal laws and regulations regarding inventions when federal research funds are involved

*comply with obligations of collaborative "technology development and utilization agreements" with industry

*where applicable, draft or review University/Industry agreements before signature by University officials

3.0 SIX-MONTH TIMETABLE FOR INITIATING THE PROGRAMS (STATUS AND PLANS)

The following five sections list the plans and example of specific actions designed to initiate Charter Programs within the first six months of operation.

3.1 PROMOTE INTELLECTUAL PROPERTY PROTECTION

-Publicize the Office, achieve positive publicity for the University and UTC

Campus Paper	Month One
Business Section of local paper and major area paper	Month Two

-Make presentations to campus groups concerning Office Services

At least one per month	Ongoing

-Distribute new and Comprehensive Invention Disclosure Forms — Month Three

-Coordinate seminar by Legal Counsel to faculty and interested administration — Month Five

-Distribute an educational Brochure to faculty — Month Six

3.2 ENCOURAGE RESEARCH

-Present Invention Disclosure Incentive Plan and have approved by University — Month Two

-Publicize Incentive Program (campus papers) — Month Three

3.3 TRANSFER TECHNOLOGY

-Complete initial action items for all prior disclosures and recommend action to UTC — Month Four

3.4 INTERACTION WITH SPONSORED PROGRAMS ON NEW GRANTS

-Design a system, with the Office of Sponsored Programs for entering and assigning keywords to new contract and grant awards — Month Four

-Debug and test UTC database system — Month Five

-Finalize system and begin operations — Month Six

3.5 FULFILL CONTRACT OBLIGATION

-Design a system, with the Office of Sponsored Programs, for making interim and final government reports — Month Four

Debug system — Month Five

Finalize System — Month Six

-Review various agreements and Memoranda of Understanding for University researchers involved in industrial client relationships involving patent agreements

Complete review of prior agreements — Month Two

Review new agreements — Ongoing

OFFICE OF TECHNOLOGY LIAISON

1.0 CHARTER

Provide expert guidance, support and assistance to: safeguard intellectual property, encourage research, facilitate technology transfer, promote collaborative R & D agreements with industrial sponsors, and assist in fulfilling terms of research grants and contracts in order to provide maximum benefit to the public and the University.

2.0 PROGRAMS

2.1 PROMOTE INTELLECTUAL PROPERTY PROTECTION

In order to safeguard the intellectual property of the University, the Office of Technology Liaison will provide materials and educational services to researchers in the following areas:

*patentability (requirements for obtaining a patent)

*the invention disclosure process

*guidelines for technical records and documentation of inventions

2.2 ENCOURAGE RESEARCH

The Office will provide individual incentives to inventors in the form of:

*professional recognition and

*financial compensation

2.3 TRANSFER TECHNOLOGY

The Office will act as a technology liaison to link the goals of the University to opportunities in the industrial sector through interactions with University Technology Corporation (UTC). The Office will:

*review University Policy in the areas of research, technology development and intellectual property protection;

*recommend modifications of policy to include new incentives which are consistent with the spirit of the University;

*seek out and identify opportunities for technology transfer and serve as a liaison between University researchers and University Technology Corporation;

*develop and nurture interactions with industry for technology transfer;

*maintain an awareness of technical expertise and individual accomplishments of University staff to promote research and technology development at the University.

UTC COMPUTER PROGRAM FLOW CHART

The following pages describe, in flow chart format, the functions of the Technology Liaison Office. The charts are divided into five main areas and show how each section is interconnected.

-Grants and Contracts: The liaison with Office of Sponsored Programs to identify new research and introduce the TLO to individual researchers.

-Receipt of Invention Disclosures: Tracks a new disclosure to the decision point of proceeding with marketing or obtaining a patent opinion.

-Marketing: Delineates TLO action required to provide UTC with documentation for marketing.

-Patent Opinion: Shows TLO action needed when patent opinion required to bring the invention to the marketing step, reject it or put it in abeyance.

-Government Reports: Tracks invention reports required on government sponsored research.

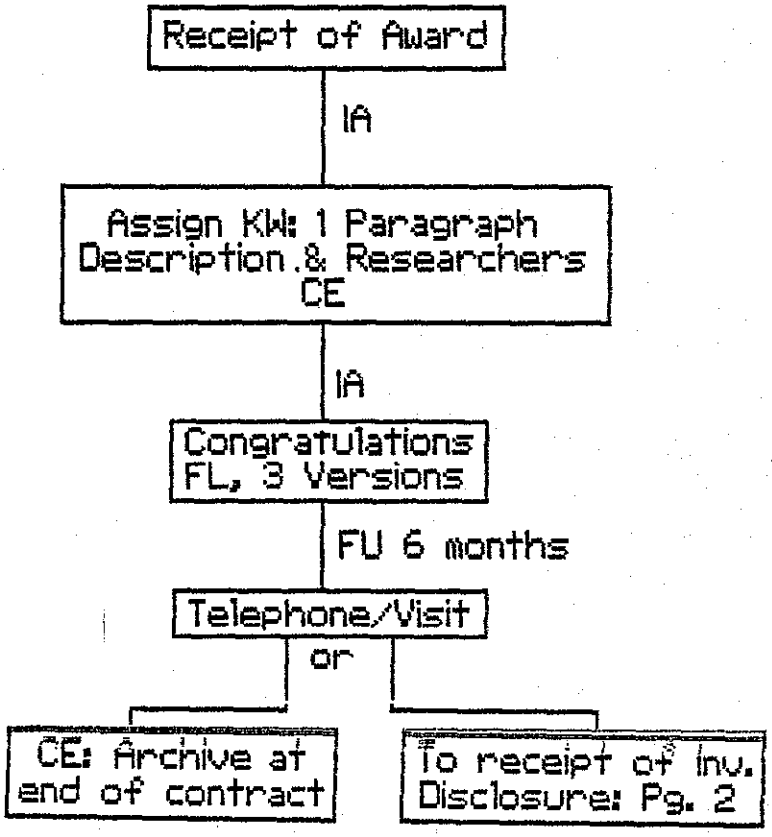
FLOW CHART

Technology Liaison Office

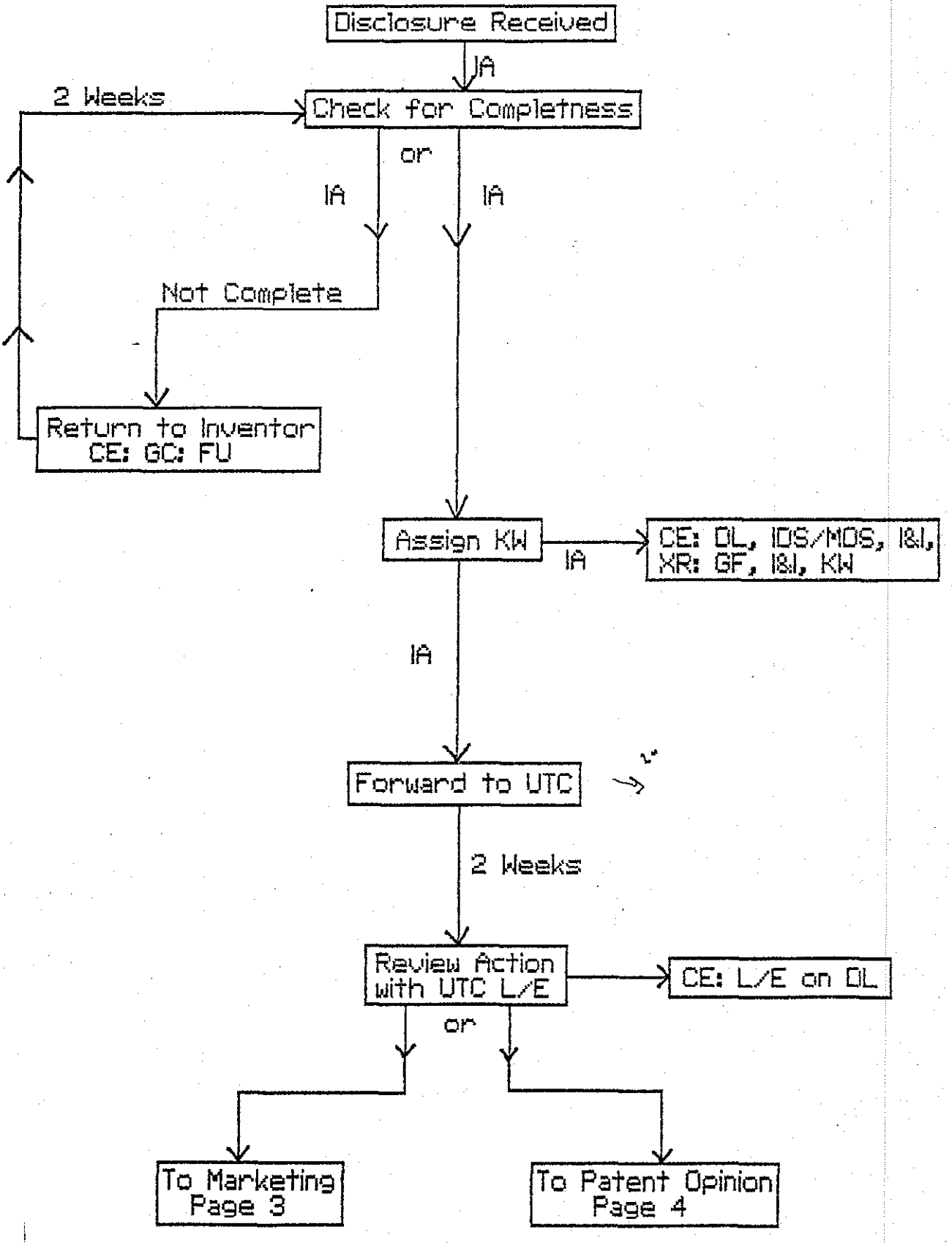
Legend:

CE = Computer Entry Required
DL = Disclosure Log
ES = Executive Summary
FL = Form Letter
FU = Follow Up Action Required
GC = General Correspondence
GF = Grants File
GR = Government Report
IA = Immediate Action
IDS = Invention Data Sheet
I&I = Inventor & Invention
KW = Keywords
MDS = Monoclonal Data Sheet
TP = Technical Package
VX = Volkswriter
XR = Cross Reference File

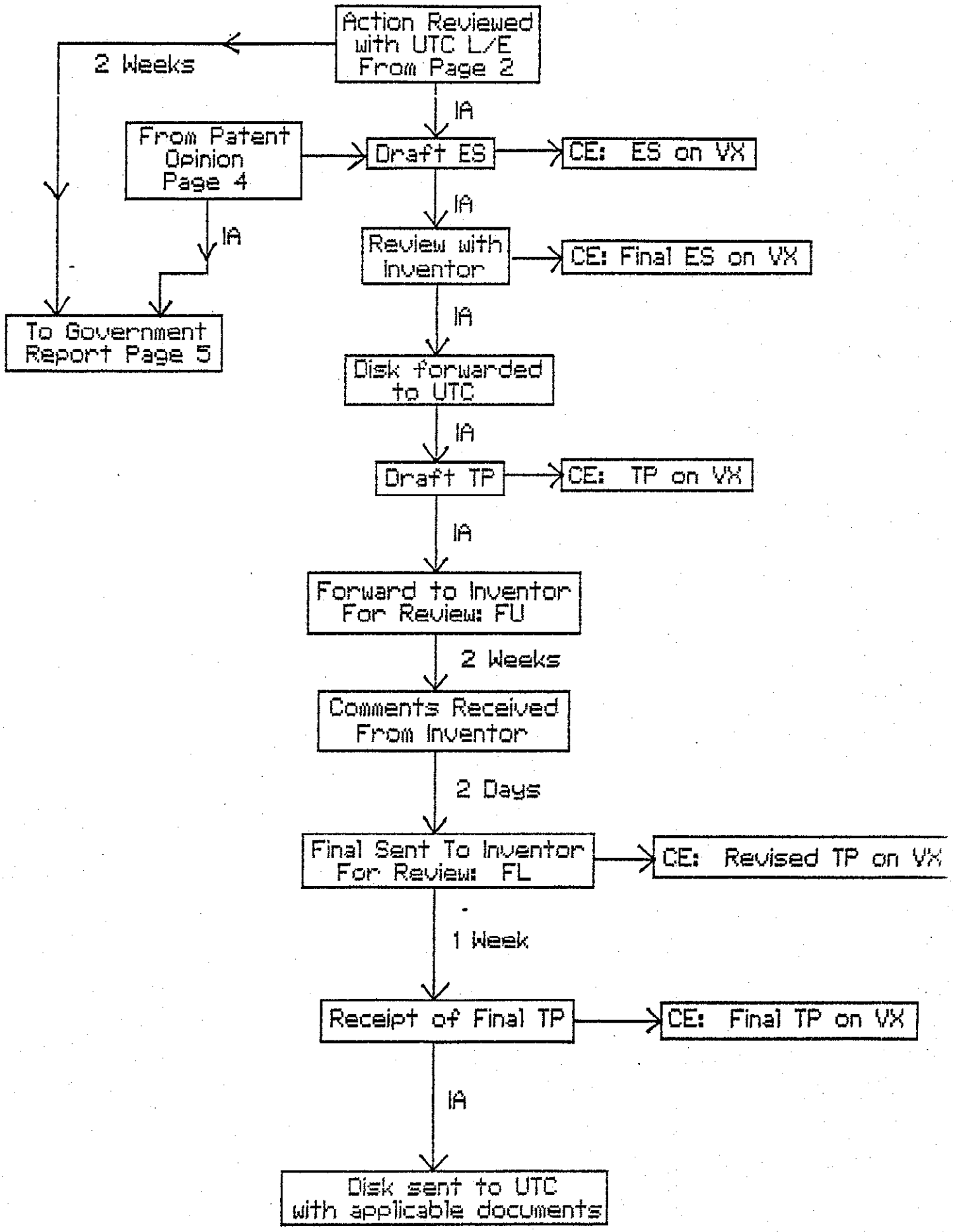
Grants & Contracts



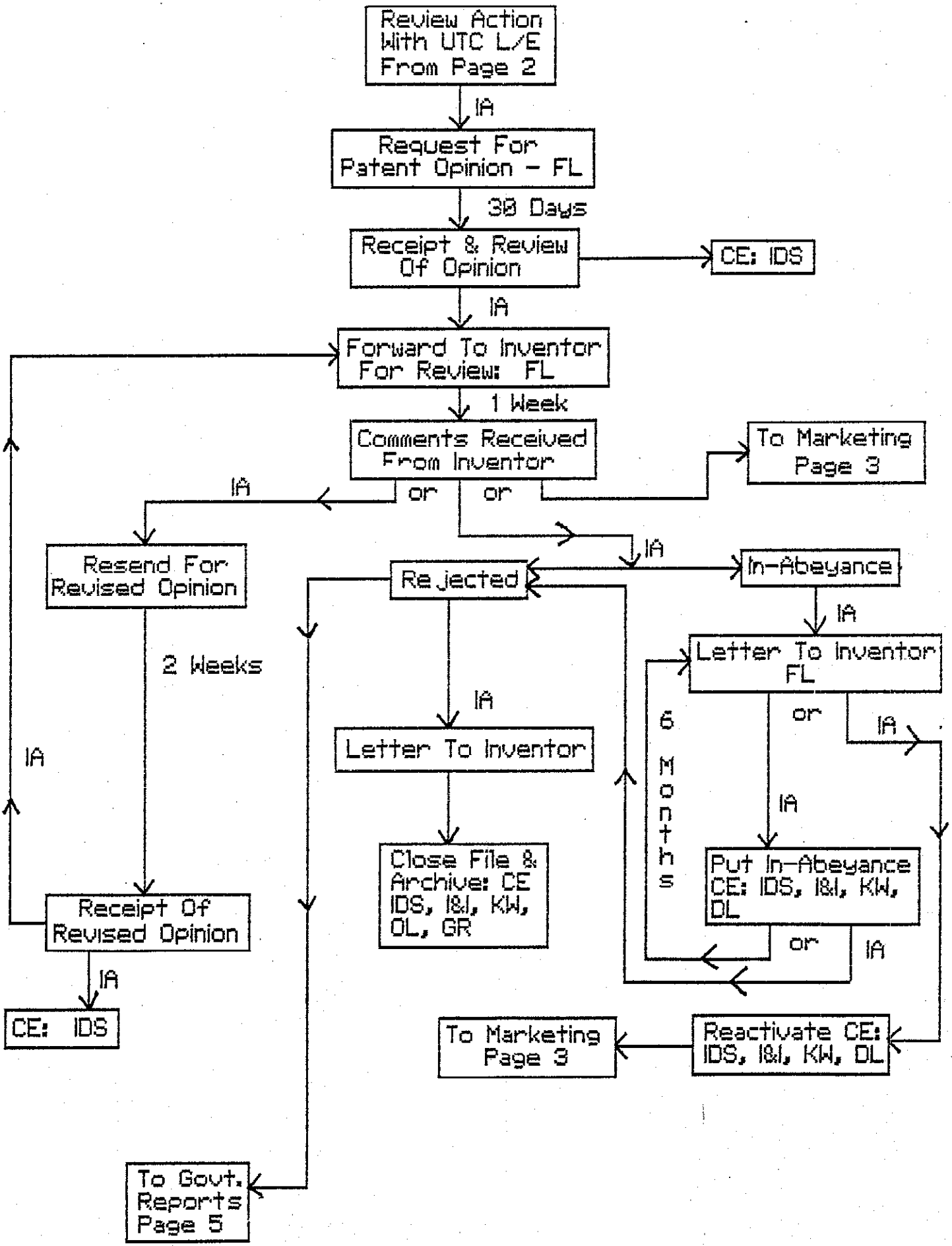
Receipt of Invention Disclosure



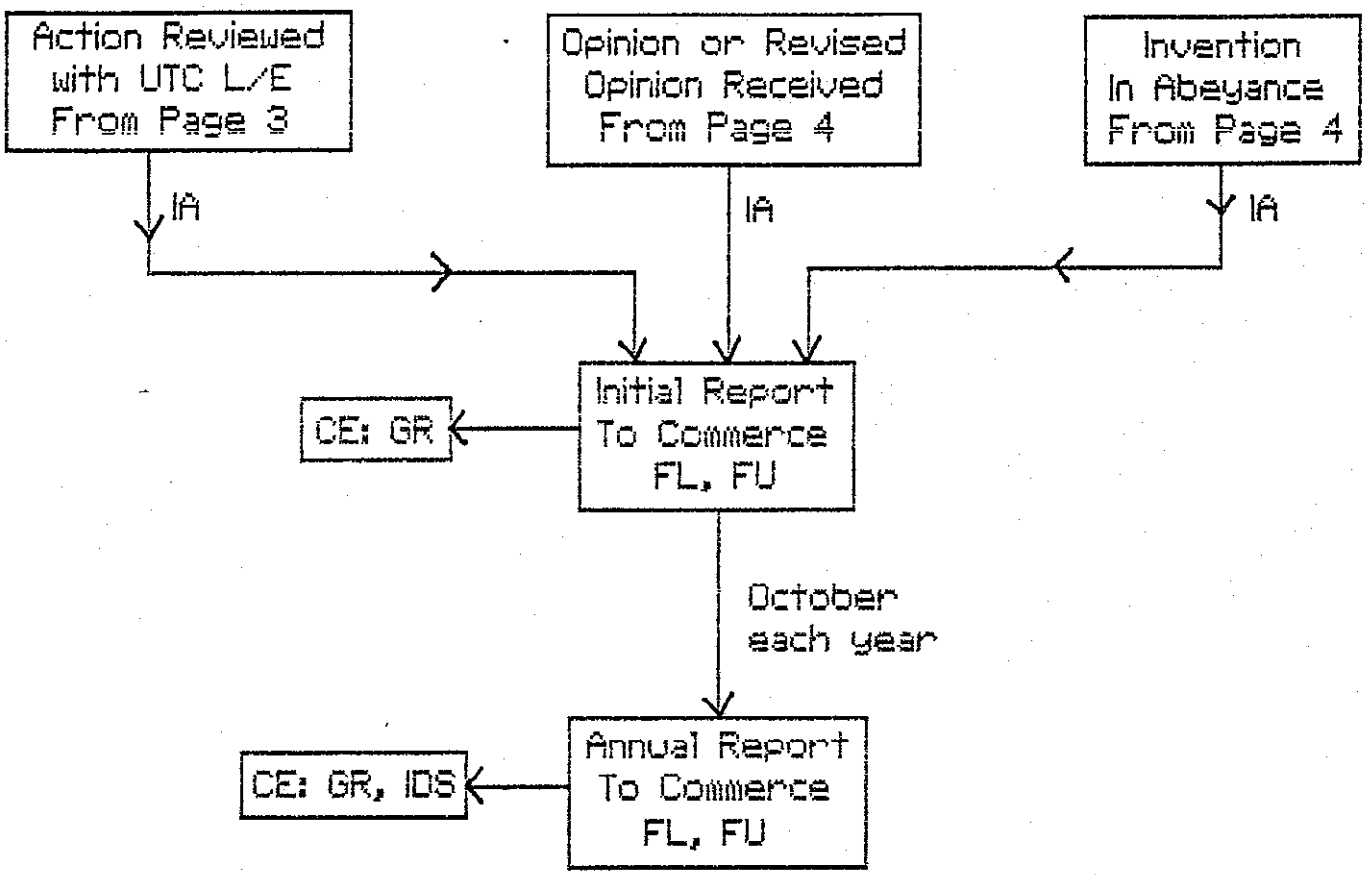
Marketing

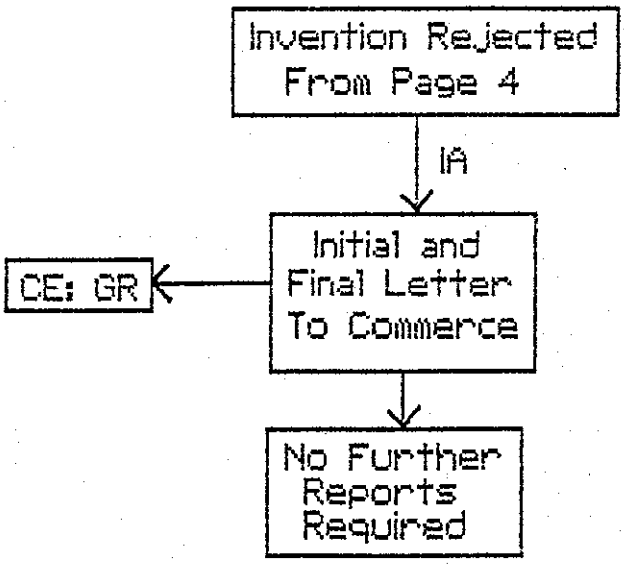

Action Reviewed with UTC L/E From Page 2
2 Weeks
IA
From Patent Opinion Page 4
Draft ES
CE: ES on VX
IA
IA
Review with Inventor
CE: Final ES on VX
To Government Report Page 5
IA
Disk forwarded to UTC
IA
Draft TP
CE: TP on VX
IA
Forward to Inventor For Review: FU
2 Weeks
Comments Received From Inventor
2 Days
Final Sent To Inventor For Review: FL
CE: Revised TP on VX
1 Week
Receipt of Final TP
CE: Final TP on VX
IA
Disk sent to UTC with applicable documents

Patent Opinion



Government Reports





TECHNOLOGY LIAISON OFFICE SECRETARY'S HANDBOOK

I. Secretarial Office Procedures

A. Telephone

1. Incoming Calls - Maintain pleasant and courteous telephone manner at all times.

    a. On each incoming call obtain person's name, who they are associated with and what the call is in reference to. This is done so that the TLO can access the appropriate file from the computer system for the telephone discussion.

2. Outgoing Calls - Long distance calls associated with invention management should be made on the office telephone. All other long distance calls must be charged to a separate account.

B. Mail

1. Incoming Mail - All correspondence should be date and file stamped and logged in on the computer by the Secretary, and given to the TLO for review. This system has proven to be very efficient and allows immediate response on a daily basis to most correspondence.

2. Outgoing Mail - To be sent out at least once a day, unless it is urgent, in which case arrangements will be made for immediate mailing, e.g. Emory, Federal Express, Telefax, etc.

C. Office Supplies - An inventory of supplies is to be made at least monthly. A list of supplies is maintained in the office and should be kept up-to-date. See Appendix A for basic requirements.

D. Filing - All filing should be maintained on a daily basis due to the constant need for referral to the files.

II. Outgoing Correspondence

A. Two copies of all outgoing correspondence associated with inventions will be made, with one copy filed in the appropriate invention file and one copy filed in a chronological file.

III. Procedures For Invention Disclosures

A. Make sure all signatures have been obtained and sponsor section is complete. If not fully executed, return to the Inventor(s) with appropriate instructions. These must be signed completely by all parties, including the witness and inventor(s) signatures inside the disclosure document. Do not stamp, log in or assign an ID # until complete.

B. Date and File Stamp each Invention Disclosure Form as received, but only when it is complete.

1. Assign the calendar year, sequential number to the invention, e.g., 02-86-002 (This is the invention ID number).

2. Complete the following computer entries:

a. Invention Data Sheet

b. Record appropriate follow-up dates for government sponsorship, if applicable, check of publication status, etc.

c. Invention Status Sheet.

C. Review by TLO with Inventor(s) for initial decision on acceptance/in-abeyance/rejected and verification of keywords.

1. If rejected, forward only the Invention Status Sheet to UTC for concurrence. If UTC concurs, prepare appropriate government report (if applicable) and file in Rejected files.

2. If "in-abeyance", forward entire disclosure to UTC for concurrence. If UTC concurs, file government report accepting invention for government purposes, and place in appropriate follow-up with the inventor(s).

3. If accepted, forward entire disclosure to UTC for review and assignment to responsible LE. Prepare government report, if applicable, and put on appropriate follow-up.

D. The TLO, in conjunction with the inventor, prepares an Executive Summary and Technical Package. These then need to be typed into the computer for future use along with sending the Executive Summary and Technical Package to UTC on a floppy disk for review by the responsible LE.

IV. File Set-Up And Maintenance

A. Set-up the Invention files in the following manner:

1. Technical & Patent Files:

a. White, long tab on 8-1/2 x 14" manila folder with the label on the left hand side. There will ultimately be several technical and patent files for each invention for such items as Continuations-in-Part (CIP's), Divisional Applications (DIV's), and a variety of foreign filings, such as individual countries and/or Patent Community Treaty (PCT). These files contain the Invention Disclosure Form and all technical and patent (legal) information and correspondence associated with the invention.

b. Green, long tab on 8-1/2 x 11" manila folder with the label in the center. This file will contain government reports and all government correspondence associated with the invention.

c. Blue, long tab on 8-1/2 x 11" manila folder with the label on the right hand side. This file contains correspondence with the inventor(s) concerning internal matters only. Correspondence with the inventor(s) concerning technical aspects belong in the Technical & Patent files.

d. Red. long tab on 8-1/2 x 14" manila folder with the label on the left hand side. This file should be made only when and Option/License/Research agreement is concluded. This file contains the original legal document of the Option/License/Research agreement.

2. Labels on each file should contain the following:

a. Technical & Patent file - I.D.#, Title of Invention, and identification of the file, e.g., U.S. Patent, PCT, CIP, etc.

b. Government Reports - I.D.#, Title of Invention, Government Agency involved.

c. Inventor Correspondence - I.D.#, Title Of Invention, Primary Inventors Name.

d. Option/License/Research - I.D.#, Title Of Invention and Company Name.

3. Hanging files are to be set-up with corresponding colors and tab locations for each invention.

4. Other files - General correspondence and General information files are to be set-up as desired by the individual TLO.

V. Future Improvements

A. As the system is refined, Executive Summaries and Technical Packages, including additional technical information requested by UTC (addendums to the Technical Package) will be sent by modem directly to UTC's computers.

APPENDIX A

Basic Supplies Needed

Date Stamp - See attached

File Stamp - See attached

High Density Floppy Disks

8 1/2 x 14' Manila Folders

8 1/2 x 11" Manila Folders

Hanging File Folders

Labels:

White - Long
Green - Short
Blue - Short
Red - Long

Hanging Folder Tabs:

White - Long
Green - Short
Blue - Short
Red - Long

Other various office supplies

The following stamp should be procured to serve as the log in of inventions and separation to the appropriate files

Jul 15 1987 Date Stamp

File Stamp →

University Name	
T/P_____	— Technical & Patent
Inv.Corr._____	— Inventor Correspondence
Gov.Rpt._____	— Government Report
O/L_____	— Option/License
Visits _____	— Visits
Gen.Info_____	— General Information
Other_____	— Other
Logged In_____	— Logged In Date
L.E._____	— UTC Licensing Executive

FORMS

UNIVERSITY TECHNOLOGY CORPORATION

(University Name)

INVENTION DATA SHEET

I.D.No._____

Discl. Date_____

TECHNICAL TITLE:_____

LAYMAN TITLE:_____Discl.Date_____

Inventor (1) _____ Dept._____ Royalty % ____

Inventor (2) _____ Dept._____ Royalty % ____

Inventor (3) _____ Dept._____ Royalty % ____

Inventor (4) _____ Dept._____ Royalty % ____

Attorney:_____ Docket Number_____

Govn't Sponsored: Y ____ N ____ C/G Number_____

STATUS INFORMATION

Initial Patent Opinion: Received:_____

Comments:_____

_____

Revised Patent Opinion: Received:_____

Comments:_____

_____

Initial Report Sent To Sponsoring Agency: _____

Annual Report 19__; _____: 19__; _____: 19__; _____: 19__; _____

Patent Application & Assignment Filed:_____

Declaration Executed:_____ Assignment Executed:_____

Small Entity Status Filed: Y____ N____

Rejected/In-Abeyance:_____ Archived? Y____N_____

Date: _____

PUBLICATION STATUS

Journal	Date	Submitted	Accepted	Published

PATENT STATUS

	Serial No.	Date	For. Pub. Date	Patent Number	Issue Date	
U.S.			N/A			CIP DIV I.D.#
PCT						CIP DIV I.D.#
EPC						CIP DIV I.D.#
G.B.						CIP DIV I.D.#
FRN.						CIP DIV I.D.#
W.G.						CIP DIV I.D.#
JAP.						CIP DIV I.D.#
CAN.						CIP DIV I.D.#
						CIP DIV I.D.#
						CIP DIV I.D.#
						CIP DIV I.D.#

UNIVERSITY TECHNOLOGY CORPORATION

(University Name)

MONOCLONAL DATA SHEET

I.D.No:_____

Disc.Date:_____

TITLE:_____

Inventor (1) _____ Dept._____ Royalty % _____

Inventor (2) _____ Dept._____ Royalty % _____

Inventor (3) _____ Dept._____ Royalty % _____

Inventor (4) _____ Dept._____ Royalty % _____

Government Sponsored Y____ N____ C/G No._____

PUBLICATION STATUS

Journal	Submitted	Accepted	Published

STATUS INFORMATION

Monoclonal Summary Sheet Received _____ Publications Received_____

Request For Release To Spons. Agency _____ Received_____Release No._____

Licensed: Y ____ N ____

Rejected/In-Abeyance: _____ Date:_____

Comments:_____

_____

_____

_____

(University Name)

****

Disc. No. _____

I.D.No._____

RE: REPORT OF INVENTION DEVELOPED UNDER FEDERALLY FUNDED RESEARCH

1. Type of report: Initial_____Annual as of_____

2. Agency

3. Contract:_____ Start Date:_____
   Grant_____ Start Date:_____

4. Title:

5. Inventor(s):

6. Date of disclosure to University:_____

7. Description of invention:

8. Status of U.S. Application:

9. Recorded assignment to University:

10. Publication status:

Journal	Accepted	Published
_____	_____	_____
_____	_____	_____
_____	_____	_____

Copies of published papers enclosed: Yes____ No____

11. Publications ban by agency requested: Yes____ No____

12. Elections of title to be made by:_____

13. U.S. Application to be filed by:_____

14. Foreign filing election to be made by:_____

15. Utilization of invention:

Date:

I.D. Number _____

RE: REPORT OF INVENTION DEVELOPED UNDER FEDERALLY FUNDED RESEARCH

16. Status of development

17. Date of first commercial sale or use:

18. Licensees and Intended Commercial Use:

19 Copy of Application:

20 Copy of Licenses:

21. Government license status:

22. Copy of patent:

Calendar Year _____ Page_____

UNIVERSITY TECHNOLOGY CORPORATION

DISCLOSURE LOG -(UNIVERSITY NAME)

Disc. Date	I.D. No	Title	Inventor(s)	L. E. Assigned	Rejection/ In-Abeyance Date	Comments

Calendar Year _____ Page_____

UNIVERSITY TECHNOLOGY CORPORATION

PRE-DISCLOSURE LOG - (UNIVERSITY NAME)

Disc. Date	I.D. No	Title	Inventor(s)	L. E. Assigned	Rejection/ In-Abeyance Date	Comments

(University Name)

TECHNOLOGY LIAISON OFFICE

CAMPUS PROMOTION PROGRAM

The following pages are recommended programs for the Inventor Incentive Plan to be put in place on the campus and to outline the initial promotional activities when the Technology Liaison Office is first started.

Once approved by the appropriate University administrative officials, they should be widely publicized.

INVENTION DISCLOSURE INCENTIVE PLAN

FOR

(UNIVERSITY NAME)

Prepared by

OFFICE OF TECHNOLOGY LIAISON

Date

1.0 Description of the Plan and Potential Benefits

1.1 Description

This plan outlines the mechanism to recognize and award inventiveness at the University. The awards will take the form of cash payments from the TLO Office and funded by UTC. Although the amounts are small when compared to the inventor's share of revenue from a licensed invention, an early incentive is provided to inventors to disclose and follow-up on their inventions. Three types of cash awards will be provided.

First, the author(s) of each invention disclosure, accepted by the TLO and approved for marketing by UTC, will be awarded a small cash payment of $50. This will give inventors the incentive to complete and submit disclosures.

Second, a $100 cash payment will be made to the inventor(s) for any filed U.S. Patent application. This payment will offer an incentive to work with the TLO and the patent attorney in the time preceding filing of the application. It also serves as payment for the assignment of rights to the University.

Third, an annual Outstanding Invention Award will be presented to the inventor (s) for the best overall invention, as determined by an inventor ballot. Presentation of the award will be made at an annual "Inventors Luncheon(Dinner)". All inventors, listed on disclosures for the calendar year, and selected University administrators will be invited to the presentation ceremonies and luncheon. The program will include the recognition of all disclosures submitted during the year and a cash award of $1000 will be made by UTC to the inventor, along with a plaque commemorating the occasion.

1.2 Other Benefits

In addition to the benefits described in Section 1.1, other benefits accrue to the University, such as:

*the awards will serve as an avenue for publicity for the Office of Technology Liaison

*the luncheon (dinner) and award ceremony for the Outstanding Invention Award for the year will provide a forum to remind researchers of the services available through the Technology Liaison Office.

*the award ceremony will provide professional recognition for the inventors, their disclosures and the inventors' accomplishments.

2.0 Description of the Awards

2.1 Individual Disclosure Awards

Each invention disclosure submitted to the Office of Technology Liaison will be reviewed by the TLO and UTC for acceptability. Upon acceptance, a total cash award of $50 will be made to the inventor(s). Each inventor will receive an equal share of the award.

2.2 **Assignment Awards**

An assignment payment will be made to the inventor(s) of each invention disclosure which results in a United States Patent Application. A total cash payment of $100 will be made to the inventor(s) upon assignment of the invention. Each inventor will receive an equal share of the award.

2.3 **Outstanding Invention Award**

An annual award will be given to the inventor(s) of the most outstanding invention. A $500 cash award will be presented at the annual inventors luncheon (dinner) along with a plaque. The cash award will be presented and funded by UTC, and the plaque presented by the University. The University will host the luncheon (dinner).

TECHNOLOGY LIAISON OFFICE

PROMOTION PROGRAMS

1. On opening the office, arrange for a press release on-campus and in the local newspapers.

2. Arrange a time for UTC to give an open seminar on Inventions/Patents/ Commercialization (see attached for agenda).

3. Arrange to meet the Principal Investigators of major contracts to review their technologies and make them aware of the new office.

4. Arrange to meet key University Administrative Deans and Department Heads.

MEETING KEY PERSONS

It is important to identify and meet key decision makers on campus.

Review the disclosures and identify these people. In your review of their cases, determine if it is beneficial to meet them. Ask who the "inventive people" are on campus.

Meet Department Heads and request an invitation to address a departmental meeting.

Meet key Deans and Vice Presidents to inform them of the program. Learn of expectations and anticipated problems. Win their support.

Meet key faculty members who have been successful in acquiring company contracts.

UTC SEMINAR

INVENTIONS/PATENTS/COMMERCIALIZATION

1. University Host Introduction.
2. UTC - Who/Why/Structure
3. University:
    - Slide of Contract/Grant $ and recent number of disclosures
    - UTC Incentive Plan
    - UTC Goal
4. University TLO - Who and Why
5. UTC Disclosure Forms - What and Why
6. Patenting - Why and When
7. TLO Process:
    - Visit To Inventor
    - Disclosure Form
    - UTC Executive Summary
    - UTC Technical Package
8. UTC Marketing:
    - Database
    - Inventor Suggestions
    - Others
    - Visits To University Inventor
    - Deal - Option & Research & Development
    - Closing A Deal
9. Expectations:
    - Per project - 6 months
    - Per university - Disclosures/$1 Million
    - Compensation
10. Getting Started

TLO LETTER TO UNIVERSITY CONTRACT HOLDER

Date:

Name/Address

Re: Contract Number _____

Dear Dr. X:

I note that you received the above contract starting in _____.

I am interested to learn more about your research program and will call you in one week's time.

As you can see from the enclosed news release, my role on campus is specific action to commercialize research that has excellent potential. This requires a desire on your part and hard work on my part.

I look forward to talking with you next week. If you have any questions in the meantime, please don't hesitate to give me a call at _____.

Sincerely,

TLO
Title

THE DISCLOSURE PROCESS

THE DISCLOSURE PROCESS

1. TLO assists inventor with the completion of the disclosure form.

2. Once complete and all signatures are affixed, the disclosure is logged into TLO Office. (NOT before, as within two months of "log-in", University must make invention report to the government. Keep track of it by utilizing the follow-up system on the computer).

3. Assign keywords from UTC keyword list.

4. Forward disclosure and attached documentation to UTC.

5. UTC will assign it to the appropriate Licensing Executive, who will discuss status and strategy with the TLO.

6. Upon agreement that the invention should be pursued, prepare and forward the government report if applicable.

7. TLO prepares the Executive Summary, reviews it with the inventor for accuracy and completeness, and forwards it to the Licensing Executive at UTC.*

8. TLO, with assistance from the inventor, prepares the Technical Package, and forwards this to the Licensing Executive at UTC.*

9. UTC receives material and begins marketing search.

* NOTE: Executive Summary and Technical Package should be forwarded on computer disks.

DISCLOSURE FORMS

(UNIVERSITY NAME)

DISCLOSING AN INVENTION

The business of a university is the creation and dissemination of knowledge. Making an invention and putting it to use in the service of the public is a thoroughly valid mode of accomplishing this objective.

Accordingly, the University encourages the inventive process and within the limits of financial practicality, can often provide advice and assistance in bringing inventions to the point of public use. The University's Patent Policy sets forth the University's position in detail. A copy may be obtained on request to the Technology Liaison Office (TLO).

In the sense used here, an "invention" has a presumed commercial use and value. From this certain caveats follow as a consequence:

1. Disclose first, publish later. Disclosing your invention by no means proscribes publication; on the other hand, premature publication can have both legal and tactical effects on the University's efforts to commercialize it.

2. Disclose your idea verbally to the TLO as soon as the invention is clearly conceptualized. It is not wise to wait for reduction to practice, and the TLO can assist you in determining the timing for completing the disclosure form.

3. Leave procedural questions to the specialists. For example, Federal funding does not usually impede commercialization. What sometimes constitutes a patentable invention is a complex legal question.

If you think you have made an invention, but you are not sure, consult the TLO before completing the formal disclosure form. We will find out for you.

If you think, but are uncertain, that your invention has commercial merit, say so. Perhaps we can encourage you, or save a lot of wasted effort.

Since the majority, if not all of the disclosures we receive are in the very early stages, it is critical that we have your total cooperation and assistance during the patenting and marketing process of your invention. This is very important, and by placement of your signature on the Disclosure of Invention Form, we will accept the fact that you are in agreement, and will work with us to the best of your ability.

The form attached is offered as a guide to help in getting your invention down in writing.

Disclosure No. _____

(University Name)

INVENTION DISCLOSURE APPROVAL SHEET

The following questions should be answered by the Department Chairman or Dean, as applicable. The questions are designed to verify the source of the invention and to obtain the viewpoint of other technically qualified scientists as to the uniqueness and efficacy of the invention. This approval MUST be completed before submission of the Invention Disclosure Form to the Office Of Technology Liaison.

1. Title Of Invention

2. List Of Inventor(s)

	Name	Position
A.	_____	_____
B.	_____	_____
C.	_____	_____

3. Ownership

In my opinion this invention is:

_____ A. Owned by the University in accordance with the Patent Policy.

_____ B. Was developed by the inventor(s) without use of University time, facilities or materials and is related to the inventor's area of technical responsibility to the University. Belongs to the inventor(s).

4. Advisor approval for student submissions (if applicable):

_____ _____
Advisor Date

Reviewed for University ownership:

_____ _____
Name Date

_____
Title

Disclosure No._____

(University Name)

DISCLOSURE OF INVENTION

Submit this disclosure to the Technology Liaison Officer (TLO) or contact the TLO for assistance. Disclosure must contain the following items: (1) title of invention, (2) a complete statement of invention and suggested scope, (3) results demonstrating the concept is valid, (4) variations and alternate forms of the invention, (5) a statement of the novel features of the invention and how these features distinguish your invention from the state of the art as known to you, (6) applications of the technology, and (7) supporting information.

(1) Technical Title:

Layman's Title:

Inventor(s):

1. Signature_____ Revenue Share ____% Date_____

Printed Name In Full_____ Citizenship_____
First Middle Last

Home Address_____ City_____ State_____ Zip_____

Location_____ Phone Extension_____

2. Signature_____ Revenue Share ____% Date_____

Printed Name In Full_____ Citizenship_____
First Middle Last

Home Address_____ City_____ State_____ Zip_____

Location_____ Phone Extension_____

3. Signature_____ Revenue Share ____% Date_____

Printed Name In Full_____ Citizenship_____
First Middle Last

Home Address_____ City_____ State_____ Zip_____

Location_____ Phone Extension_____

Disclosure No._____

(Continuation Page)
DISCLOSURE OF INVENTION

(2) Statement of Invention and Suggested Scope:

Give a complete description of the invention. If necessary, use additional pages, drawings, diagrams, etc. Description may be by reference to a separate document (copy of a report, a preprint, grant application, or the like) attached hereto. If so, identify the document positively.

Inventor(s)_____Date_____Witness_____Date_____

_____Date_____Witness_____Date_____

_____Date_____Witness_____Date_____

Disclosure No._____

(Continuation Page)
DISCLOSURE OF INVENTION

3. Results demonstrating the concept is valid.

Cite specific results to date. Indicate whether you have completed preliminary search studies, laboratory model or, prototype testing.

4. Variations and alternative forms of the Invention.

State all of the alternate forms envisioned to be within the full scope of the Invention. List all potential applications and forms of the Invention, whether currently proven or not. (For example, chemical inventions should consider all derivatives, analogues, etc.)

Inventor(s)_____Date_____Witness_____Date_____

_____Date_____Witness_____Date_____

_____Date_____Witness_____Date_____

5. Novel Features.

a. Specify the novel features of your invention. How does the invention differ from present technology?

b. What is the deficiency in the present technology which your invention improves upon, or the limitations it overcomes?

6. Application of the technology.

List all products you envision resulting from this invention, and whether these products could be developed in the near term (less than 2 years) or long term (more than 2 years).

Inventor(s)_____ Date_____ Witness_____ Date_____

_____ Date_____ Witness_____ Date_____

_____ Date_____ Witness_____ Date_____

Disclosure No._____

(Continuation Page)
DISCLOSURE OF INVENTION
SUPPORTING INFORMATION

1. Are there publications-theses, reports, preprints, reprints, etc. pertaining to the invention? Please list with publication dates. Include manuscripts for publication (submitted or not), news releases, feature articles and items from internal publications.

2. What was the date the invention was first conceived?_____ Is this date documented?_____ Where?_____ Are laboratory records and data available? Give reference numbers and physical location, but do not enclose.

3. A literature search should be done by the Inventor to determine publications relevant to the Invention. Please list these publications and any related patents known to you.

4. Date, place, and circumstances of any disclosure. If disclosed to specific individuals, give names and dates.

5. Was the work that led to the invention sponsored? If yes, check the appropriate blank(s). Government agency___, industrial company___ university ___ other___.

Sponsor	Contract No.

6. What firms do you think may be, or are interested in the invention. Why? Name companies and specific persons if possible.

Disclosure No._____

(Continuation Page)
DISCLOSURE OF INVENTION
SUPPORTING INFORMATION

7. Being for the moment the Devil's Advocate, what do you see the greatest obstacle to the adoption of your invention?

8. Alternate Technology and Competition

a. Describe alternate technologies of which you are aware that accomplish the purpose of the invention.

b. List the companies and their products currently on the market which make use of these alternate technologies.

c. List any research groups currently engaged in research and development in this area.

9. Future Research Plans.

a. What additional research is needed to complete development and testing of the invention? What are the timeframes and estimated budget needed for completion of each step?

b. Is this research presently being undertaken? Yes___No___ Actively pursued? Yes___No___ If yes, under whose sponsorship?_____If no, should corporate sponsorship be pursued? Yes___No_____

10. Attach, sign, and date additional sheets if necessary. Enclose sketches, drawings, photographs and other materials that help illustrate the description. (Rough artwork, flow sheets, Polaroid photographs and penciled graphs are satisfactory as long as they tell a clear and understandable story.)

(UNIVERSITY NAME)

DISCLOSING A MONOCLONAL ANTIBODY

The business of a university is the gathering and dissemination of knowledge. Making an invention and putting it to use in the service of the public is a thoroughly valid mode of accomplishing this objective.

Accordingly, the University encourages the inventive process and within the limits of financial practicality, can often provide advice and assistance in bringing inventions to the point of public use. The University's Patent Policy sets forth the University's position in detail. A copy may be obtained on request to the Office of Technology Liaison. Monoclonal antibodies are inventions and as such are covered under the Patent Policy.

Many monoclonal antibodies have commercial potential but, due to a twist in the patent laws which did not foresee the technology, patenting of these inventions can sometimes hinder the commercial use of the cell lines. This is due to the fact that a deposition of the cell line is required, and after the patent issues, anyone can get the line from the depository. Thus, the University does not attempt to patent these inventions and will attempt to commercialize them only if the inventor is willing to restrict distribution of the actual cell lines to the licensee and to his colleagues in university research. The distribution to colleagues is done under a short agreement whereby they agree not to further distribute the cell line and to use it only in pursuit of their own research. A copy of this agreement may be obtained from the Office of Technology Liaison.

This is very important, and by placement of your signature on the Monoclonal Disclosure Form, we will accept the fact that your are in agreement, and will work with us to the best of your ability.

The form attached is offered as a guide to help in getting your invention down in writing.

Disclosure No._____

MONOCLONAL DISCLOSURE APPROVAL SHEET

The following questions should be answered by the Department Chairman or Dean, as applicable. The questions are designed to verify the source of the invention and to obtain the viewpoint of other technically qualified scientists as to the uniqueness and efficacy of the invention. This approval MUST be completed before submission of the attached Monoclonal Disclosure Form to the Office Of Technology Liaison.

1. Title of Invention

2. List of Inventor(s)

	Name	Position
A.	_____	_____
B.	_____	_____
C.	_____	_____

3. Ownership

In my opinion this invention is:

_____A. Owned by the University in accordance with the Patent Policy

_____B. Was developed by the inventor(s) without use of University time, facilities or materials and is related to the inventor's area of technical responsibility to the University. Belongs to the inventor(s).

4. Advisor approval for student submissions (if applicable):

_____ _____
Advisor Date

5. Reviewed for University ownership:

_____ _____
Name Date

_____
Title

MONOCLONAL DISCLOSURE FORM

Submit this disclosure to the Technology Liaison Officer (TLO) or contact the TLO for assistance. The disclosure MUST contain the following items: (1) descriptive title of the cell line, preferable including its intended use, (2) results demonstrating the specificity of the line, (3) supporting information and (4) summary sheet giving the technical details of the cell line and its intended use.

(1) Descriptive Title:

Inventors:

1. Signature_____ Revenue Share____% Date_____

Printed Name _____ Citizenship_____
First Middle Last

Home Address_____ City_____ State___ Zip_____

Location_____ Phone Extension_____

2. Signature_____ Revenue Share___% Date_____

Printed Name_____ Citizenship_____
First Middle Last

Home Address_____ City_____ State___ Zip_____

Location_____ Phone Extension_____

3. Signature_____ Revenue Share____% Date_____

Printed Name_____ Citizenship_____
First Middle Last

Home Address_____ City_____ State___ Zip_____

Location_____ Phone Extension_____

(2) Results demonstrating the specificity of the cell line

Cite specific results to date and the analytical method(s) used to determine specificity. If other methods are also available, please specify.

Disclosure No._____

(Continuation Page)
MONOCLONAL DISCLOSURE FORM

(3) Supporting Information

a. Are there publication-theses, reports, preprints, reprints, etc. pertaining to the invention? Please list with publication dates. Include manuscripts for publication (submitted or not), news releases, feature articles and items from internal publication, and attach them to this disclosure form. b. Specify the location of the cell line and security precautions taken to prevent unauthorized release.

c. Has the cell line previously been released to anyone? If so, give specific individuals, affiliation and dates. Indicate in each case whether or not an agreement restricting further distribution was executed.

d. Was the work that led to the cell line sponsored? If yes, check the appropriate blank(s). Government agency___, industrial agency___, university___other___.

Sponsor	Contract No.

e. What firms do you think may be, or are interested in the cell line and why? Name companies and specific persons if possible.

f. Being for the moment the Devil's Advocate, what do you see the greatest obstacle to the commercial use of the monoclonal antibody?

MONOCLONAL SUMMARY SHEET

Cell Line Designation_____ Date_____ Discl. No._____

Description of Use:

Specificity :
Immunogen :
Recipient :
Ig :
Precipitate :
Screen :
Panel :
Myeloma :
Organ :
Fusor :
Mw :
Selection :
Cloning :
Feeders :
Procedure 1 :
Procedure 2 :
Procedure 3 :
Procedure 4 :

Applicable Publications:

ITEMS FOR DISCUSSION DURING FACULTY INTERVIEW

1. Background of TLO/UTC

2. Describe TLO/UTC Interaction

3. Review the disclosure in detail; following the Invention Disclosure Form with the Inventor

4. Discuss marketing strategy as seen by the Inventor

5. Construct a positive course from disclosure and define follow-up items needed and time frames/milestones to completion

6. Explain the procedures from disclosure to marketing by UTC, and how UTC approaches the marketing

7. Review "Patent Information" with the Inventor to insure that he is aware of the procedures

8. Give the Inventor TLO's initial reaction to the Invention. Be sure to include negative items, but don't emphasize.

Summary:

Be Enthusiastic

Leave With Positive Ending

PREPARATION OF EXECUTIVE SUMMARY

THE EXECUTIVE SUMMARY

The Executive Summary is designed for the busy executive. It should briefly describe, in layman's terms, what the invention does, but not how it does it.

The following are guidelines for the preparation of the Executive Summary:

1) One page maximum

2) Point to cover:

   a) A summary of the problem being addressed.

   b) A summary of how the invention solves or addresses the problem.

   c) A paragraph on current results and future work planned.

   d) A paragraph on potential market and applications as seen from our perspective.

   e) Patent situation and licensing statement.

UNIVERSITY TECHNOLOGY CORPORATION
South Square Corporate Centre Suite 210
3710 University Drive Durham, North Carolina 27707
(919) 493-0101

CATHETER DEVICE TO TEMPORARILY SEAL VENTRICULAR SEPTAL DEFECTS POST MYOCARDIAL INFARCTION

Executive Summary

Approximately 600,000 Americans are hospitalized each year after having heart attacks. In 2% - 3% of these cases, ventricular septal defects (VSDs - holes between chambers of the heart) occur leading to stresses such as right ventricular volume overload, congestive heart failure, and diminished cardiac output. Such defects have an 85% early mortality rate.

The Emory University School of Medicine has recently initiated a joint research program with the Georgia Institute of Technology to perfect a device to temporarily close such defects when the infarct patient is admitted to the hospital. This catheter-based, non-surgical technique allows the physicians to stabilize the patient's condition before surgical closure is attempted. The intent is to allow sufficient time (10-14 days) for healing of the tissue adjacent to the VSD to occur so that the defect can be closed successfully and permanently by surgery. This device is a radical departure from what is clinically available in the management of ventricular septal defects post myocardial infarction.

The internationally known Cardiology expertise of the Emory University School of Medicine will be combined with the mechanical design and manufacturing expertise of the Georgia Institute of Technology in the development and testing of this device.

Preliminary designs of this device have been created and prototypes constructed. In the next several months, studies will be undertaken in vitro in a bench-top heart model, with in vivo canine studies to follow.

The inventors are targeting the first market as heart attack victims with VSDs requiring emergency open heart surgery. Given the current high mortality associated with alternative therapeutic procedures, it is felt that the risk-benefit ratio for this technique is more than acceptable.

Other possible markets for this device include the temporary closure of the rupture of the free wall of the left ventricle into the pericardium, as well as the closure of acquired aorto-venocaval fistulae.

Patent protection is under evaluation. The inventors are currently seeking governmental and private foundation funds to finance further research and development.

UTC, as exclusive agent for the Georgia Tech. Research Corporation and the Emory University School of Medicine for this project, is seeking a corporate partner to guide, finance and, if successful, to introduce the device commercially.

PREPARATION OF THE TECHNICAL PACKAGE

If a patent application has not been filed, and the inventor has not published, this document will contain confidential information, and should be marked CONFIDENTIAL on the cover.

The document is drafted by the TLO using the invention disclosure and any additional test results available from the inventor. Once drafted, it is reviewed with the inventor for accuracy and completeness. The Technical Package should be arranged in the following general format:

- Abstract (usually the Executive Summary)
- Introduction to the problem addressed
- Full technical description of the invention
- Apparatus and procedures used for achieving the test results
- Test results to date
- Technical advantages and disadvantages of invention
  (Do not try to hide any technical disadvantages, but don't highlight them, either)
- Further work required, including what portion is being accomplished by the inventor and what the inventor is unable to do because of funding, equipment or staff limitations
- References (including copies of publications, if any)

Once completed and forwarded to UTC, a follow-up should be scheduled for six months to review and update the Technical Package based upon any new results obtained by the inventor.

INTERACTING WITH YOUR PATENT ATTORNEY:

PATENT OPINIONS AND FILING APPLICATIONS

SELECTING A PATENT ATTORNEY

In order for the TLO to build up an inventory of firms that have the patent expertise to handle university technologies, the following is suggested:

1. Obtain qualifications brochure or other documentation outlining specific areas of technical expertise in firm. This should not be too general if possible.

2. Interview a partner with a specific Invention in hand. Quiz partner in regards to actual experience of specific attorney he would assign.

3. Select one attorney based on experience. You may find specific attorneys, in different firms, for different types of technology.

4. Obtain specific information re billing rates, types of expenses; control of interaction by TLO.

INTERACTION WITH PATENT ATTORNEY

1. Ask inventor for all background documentation and send this, plus Invention, to patent attorney.

2. Patent attorney reviews documentation and provides cost quote to TLO.

3. TLO approves quote and gets attorney to talk with inventors to ask specific questions on invention, obtain background information, and even ask blue sky questions to smoke out undisclosed aspects.

4. Attorney prepares first draft, sends it to TLO (not inventor). TLO forwards it to inventor and requests review by certain date. TLO follows up.

5. Drafts go back and forth through TLO.

6. Attorney can get together with inventor on an "as needed" basis. Preferably by phone.

7. Billings to TLO are to be done monthly, specifying action done, person involved and billing rate and costs.

8. Typical letters requesting opinions and requesting the filing of an application are attached.

PATENT INFORMATION

The business of a university is the gathering and dissemination of knowledge. Making an invention and putting it to use in the service of the public is a thoroughly valid mode of accomplishing this objective.

The following paragraphs outline in a very general sense the relationships between patents and university research., It explains why, in a university setting, it is best to wait as long as possible before filing patent applications.

The idea that a patent should be filed at the completion of the research program is a common misconception. The research program and patents should proceed as a cooperative effort from the time an invention is first conceived. The information provided at an early stage of the invention will necessarily be somewhat tentative and any proposed patent may need to be modified as data accumulates.

A research project often suggests a number of different solutions to a problem. These different solutions may each be patentably distinct inventions which form the subject of separate patent applications. Some will be fully developed commercially, others that are less attractive may only be explored to a limited extent. It is useful at the early stage to explore the level of commercial interest to ensure that the patent will have later commercial appeal as opposed to those proposed ideas which may be of technical interest only.

Thus, delaying the actual filing of the application until all of the data is available is important. Additionally, the company to which the invention is licensed should review the application to insure that the application reflects items of importance in the commercial marketplace and that the resulting patent would not be directed solely at the "lab model". Furthermore, filing of the U. S. Patent Application starts the time clock ticking on filing foreign patents, which the University cannot afford without assistance from a commercial partner. See the paragraph below concerning patent law requirements for a further explanation of this problem.

Formulating and writing a patent application is done with the assistance of an outside patent attorney. Normally, the work involved is done by the attorney, selecting information from the disclosure document, reprints, preprints and research notes. However, it must be carefully reviewed by the inventor and requires as much careful consideration as a peer reviewed publication.

It is important to understand the relationship between publication and the requirements of the patent laws of the various countries. If a public disclosure (such as a publication, poster board talk at a technical meeting, reprint of a talk at such a meeting, etc.) is made prior to filing of the U. S. Patent Application, you have one year from the date of such publication to file the U. S. Application, but essentially all foreign patents would be forfeited. On the other hand, if the U. S. Patent Application is filed prior to such publication, the date of <u>filing</u> in the U. S. protects the <u>opportunity</u> of filing for foreign applications.

EXCERPTED CONTENTS OF PATENT SEARCH REPORTS

The purpose of this document is to define what the TLO and the inventor should receive from a patent search firm as the results of a patent search. It is presumed that the submission to the firm included a paper and /or the disclosure form describing the invention and an opinion as to how broad the search should be (what topics, in what countries to search). It would have specified the time limit within which you expect the reply and the approximate expense you expect to pay for the search.

In reply, you should receive a multi-page letter containing:

1. A summary of the invention in the reviewer's own words to show his understanding of the invention.

2. A review of the scientific literature on the subject, with a summary of its implications for the patent claim and full citations on the most relevant articles.

3. Copies of the most relevant articles and abstracts should be attached.

4. A documented conversation with a named Patent Examiner to aid in orienting the search.

5. A list by number and name of all classes and subclasses selected for search.

6. A description of prior patents found.

7. Copies of the most relevant previous patent documents should be attached.

8. The reviewer's detailed and thoughtful outline of all features that could likely be claimed as advances over the prior art.

9. A list of questions and issues for the inventor to consider to aid in clarifying and strengthening his claim.

If any of the nine parts mentioned above could be consider optional, it would be numbers 2 and 3.

The purpose of item 1 is to check on the understanding of the invention developed by the attorney so all of us who read his product know we share that understanding.

Item 4 helps assure that the search was properly directed.

Item 5 lets us check up on the searcher's judgement and if there is ever a question as to the quality of the work, it gives us a basis for discussion with the firm.

Items 1, 4, and 5 take very little time to do or to report, yet they add a lot of assurance that the patent search has been well done.

All nine items from a competent firm should be received in 30 days at a cost in the $500 - $700 range.

TYPICAL STANDARD PATENTABILITY OPINION REQUEST

Date:

Stanley P. Fisher, Esquire
Oblon, Fisher, Spivak, McClelland & Maier
Crystal Square Five - Suite 400
1755 South Jefferson Davis Highway
Arlington, Virginia 22202

Re: 02-86-001; Invention Title

Dear Stan,

Enclosed herewith is a recent disclosure on the referenced subject.

Would you please conduct a patent search on the referenced invention within the standard thirty day time frame and send your opinion as to it's patentability to me at your earliest convenience? Please search all prior patents, both domestic and foreign, to determine whether the invention is patentable. I understand the cost will be approximately $_____.

Sincerely,

TLO
Title

TLO:

Enclosure

cc: To Inventor(s)

TYPICAL STANDARD REQUEST TO FILE AN APPLICATION

Date:

Stanley P. Fisher, Esquire
Oblon, Fisher, Spivak, McClelland & Maier
Crystal Square Five - Suite 400
1755 South Jefferson Davis Highway
Arlington, Virginia 22202

Re: 02-86-001; Invention Title; Your File # _____

Dear Stan,

Please prepare a patent application on the above referenced application.

[The technical material was previously forwarded to you for a patentability opinion, and subsequent information is enclosed herewith.]*

[The filing deadline for this application is _____, and we must have the draft for review at least 30 days prior to that time.]

*[Since the invention was developed with government funding, please insure that the appropriate credit is given in the specification to (Agency).]

I understand the cost of preparing this application will be approximately $_____. Do not exceed this cost without my specific authorization.

Sincerely,

TLO
Title

TLO:

*Enclosure

cc: Inventor(s)

*[To be added as applicable].

EXCERPTED FROM A LETTER FROM GREGORY J. MAIER

OF

OBLON, FISHER, SPIVAK, McCLELLAND & MAIER, P.C.

"Recent developments with respect to patent filings in accordance with the PCT (Patent Cooperation Treaty) format have occurred. PCT became effective in January of 1978 and was designed as an alternative to the conventional approach to international filing. However, PCT was not widely used because the only advantage it provided was an additional eight-month period during which foreign filing could be delayed. PCT filings were thus used in a few instances as emergency techniques of buying an additional eights months time.

The scope of PCT has now been extended since the U.S. has now agreed to Chapter 2 of the Treaty. Chapter 2 provides a total of 30 months from the priority date of an international application before an applicant must decide whether to proceed with national patent prosecution. Thirty months is a long period of time, and could be well suited to your program.

A PCT filing for your organization would proceed as follows. Your original application would be prepared, as a normal U.S. application. However, it would be filed as a PCT application rather than a standard U.S. application. The only difference between a PCT and a conventional U.S. application are the forms filed with the application and the fee. The PCT fee is about twice the normal U. S. filing fee.

After the PCT application is filed, you basically do nothing for nineteen months. At that time you file a "demand" for a preliminary examination and pay a government fee. Within twenty-eight months from the PCT filing date, you receive a non-binding opinion from the examining authority as to whether the invention is patentable. You then have two months, for a total of thirty months, in which to decide whether or not to proceed further with the application. Proceeding further means entering the national stage (i.e. normal prosecution) in the U.S. as well as other designated foreign countries. Normally this would mean entering prosecution in the U.S., the European Patent Office, and the Japanese Patent Office.

Disadvantages of this system appear to be relatively minor. The first is that Canada is not a member of PCT. Thus a separate Canadian application would have to be filed. This is not a major problem since Canadian filings are relatively inexpensive. The second disadvantage is that the government fees for PCT applications are higher than those for national applications. However, we are talking in terms of only about $1,000. You may consider this additional fee the price of deferring foreign filing expenses for an additional eighteen months.

In summary, the PCT approach provides a technique of preserving world-wide rights in an invention for about the same costs as the preparation of a U.S. application. Furthermore, it will delay prosecution and issuance of the U.S. patent for approximately eighteen months. Thus, if you want to put international patent rights "on ice" for about a year and a half, the PCT route appears to be the way to go."

THE MARKETING PROCESS

THE MARKETING PROCESS

UTC PROCEDURES

The following paragraphs summarize the steps taken in the marketing process of an invention, including the TLO's role in this process.

ACCEPTANCE

UTC will not accept a disclosure and will not begin marketing until the complete disclosure is received together with keywords and an Executive Summary. Only at that time will UTC officially accept a disclosure.

UTC Procedure

Based on the industrial experience of its staff and a computerized keyword data-base of commercial interests, UTC will contact target companies, qualify their interest and negotiate a technology transfer agreement.

On-Campus Visits

1. After receiving an indication of corporate interest, UTC will arrange for the corporate technical and corporate licensing people to visit the university inventor and TLO.

2. The TLO will organize the logistics of the on-campus visits to arrange for a suitable conference room with blackboard and coffee available.

3. Prior to the visit, UTC will work with the TLO (and through him with the inventor) to get an initial estimate of the work required and its associated budget. This information will be passed to the company, along with the basic terms of the option/license prior to the visit. The TLO also prepares and forwards the Agenda to UTC for forwarding to the company after discussion and concurrence.

PREPARATION BY TLO FOR CORPORATE VISIT

1. Arrange for suitable rooms for meetings.

2. Arrange for refreshments.

3. Arrange for availability of necessary university people.

4. Throughly discuss situation with Inventor(s).

   - Review and practice Inventor(s) presentation.

   - Ensure necessary documentation is available (Executive Summary, Technical Package, etc.)

5. Sensitive Issues

   - Other companies - Do not volunteer that there have been discussion with other companies.

   - If asked if there have been discussions with other companies, state YES or NO. If YES, say that since we would not inform other companies of your name, we cannot inform you of the name of the other companies

6. Information Needed Prior To Meeting (as applicable in each case):

   - Executive Summary

   - Technical Package, prepared by TLO and Inventor and sent to UTC. UTC must get it to Potential Licensee prior to visit.

   - Agreement (Option or License) prepared by UTC and sent to potential licensee prior to visit

   - R & D Proposal Outlining:

   - Further development and associated costs

     This can be presented, discussed and finalized during the visit.

THE MARKETING PROCESS

THE ON-CAMPUS VISIT

1. Suitable room - arranged for presentation.

2. Meeting agenda

   - Welcome by TLO

   - Presentation by Potential Licensee of their general activities, sales, specific activities in the area of "invention"

   - Presentation by Inventor (1-1/2 hours (wide ranging questions and answers)

3. After Q & A presentation: Inventor, corporate technical people and TLO adjourn to finalize technical discussion and agree on R&D contract and timetables. Discussion of costs should be only in "ball-park" terms, with specific costs forwarded later with the proposal.

   - UTC and corporate business people adjourn to finalize business discussion and discuss Agreement (Option, License, R&D contracts)

4. Reconvene to finalize arrangements, have a meal and disperse.

THE MARKETING PROCESS

Licensing: The TLO's Role

1. It is important that the TLO not let himself or the inventor get caught in a situation where the potential licensee can play them against UTC in the licensing negotiations. Accordingly, all licensing questions and/or licensing contacts from the potential licensee should be referred to UTC. Do not attempt to answer even what seem to be basic licensing questions.

2. Conversely, the TLO should get intimately involved with preparation of the research proposal and the tracking of the proposal through the appropriate University approvals. Once approved, this proposal will form a part of the option/license agreement negotiated by UTC.

TLO Follow-up On R&D Contracts

1. Continuing goodwill between the researcher and the corporate technical respresentative is what will move initial option agreements to license agreements and the production of a product.

2. The TLO needs to review timing of deliverables and, in conjunction with the Contracts office, check that these deliverables are met.

3. The TLO must check on the research progress and address and solve problems as they arise in concert with the Contracts Office.

4. The TLO must establish rapport with the corporate technical liaison person so that problems are addressed and solved.

5. The most common cause of an option failing to turn into a long term license is a lack of communication between the researcher and the company that results in unfulfilled expectations on the part of each. The TLO must solve these problems before they reach either the corporate or university management.