

## **TECHNOLOGY TRANSFER SURVEY - RESULTS**

The Technology Transfer survey was available online from 5/25 to 6/16/2006. An initial email invitation was sent out on 5/25 to the 1798 email addresses on the faculty listserv; a reminder email was sent on 6/8. 465 responses were received, for an overall response rate of 25.8%.

### **Have you worked with the Technology Transfer Office at the University?**

<b>Yes</b>	162	34.8%
<b>No</b>	303	65.2%

### **IF YES: With which office have you worked?**

<b>Office of Technology Transfer – Medical Center</b>	120	74.1%
<b>Office of Technology Transfer – River Campus</b>	63	68.9%

### **IF NO: Why not?**

	<b>N</b>	<b>%</b>
Technology transfer does not apply to my type of work	198	65.1%
I chose to pursue my inventions outside the university	3	1.0%
I have not wanted to spend my time on the transfer of my technology and would rather focus on my research	21	6.9%
I didn't know how to proceed	40	13.2%
Other – specify:	45	14.8%

As of yet it has not been indicated
do not know anything about this
do not know what it is
don't know how this applies to my work-what do they do?
don't know what it is or how it applies to my job
Have not done research to which this would apply yet
haven't yet had an opportunity to apply it to my type of work, but hope to
I am new faculty and my projects are not ready for tech transfer
I am working on a project of application of particular laser in dentistry that will require technology transfer in the future
I don't believe we have developed anything as a by-product of our research which would be patentable or marketable. As I write this, though, it occurs to me that I am hardly an expert in whether or not this is actually true.
I don't know what it is. Is it my inattention or paucity of advertisement?
I don't know what technology transfer is
I don't know what technology transfer is.
I don't know what this is
I have not had relevant results to date.
I haven't developed a technology to transfer yet
i'm not sure what it is
LLE has acted as a go between so far
New faculty
New to UR faculty
no commercial opportunity to date, although there may be some
No longer doing research of that type.

no need to yet
no opportunity to need it
No opportunity to need their services
no specific need at present
no technology ready for transfer yet
None to transfer
Not a need at this time
not necessary at this time
not sure if technology transfer applies to my type of work
Nothing commercially viable
nothing relevant at this time in my work, but could be in future
purpose and existence unknown before now
reputation for significant delays in processing has discouraged me from trying.
the secretary has worked directly with this individual and has passed info onto the faculty
the technology I'm working on has not gotten to the transfer stage yet
There is in-house lab staff for handling things like tech transfer, I believe.
This is the first time I've heard about it
time between research and tech transfer is hard to balance. time is short
unaware of existence
We did not consider the tools we developed to be unique enough to worry about tech transfer.
What is technology transfer?
what IS technology transfer?--perhaps I am doing this...

**On a scale of 1 to 5 (1=low and 5=high) please assess your level of knowledge about how you should document your invention and work with the Technology Transfer Office to patent and commercialize it.**

Mean = 2.15

	N	%
<b>1</b>	175	46.2%
<b>2</b>	71	18.7%
<b>3</b>	60	15.8%
<b>4</b>	46	12.1%
<b>5</b>	27	7.1%
<b>Total</b>	379	100.0%
<b>missing</b>	86	

**Comments:**

<b>1</b>	As someone in a Humanities discipline, the only interaction I've had with Technology Transfer occurred when someone from that office suggested I should copyright the extensive pages I'd done for undergraduate courses.
	because not applicable to me/my job
	Does this apply to music at all ?
	I am not the PI, I am the research administrator.
	I do not do this kind of research
	I do not invent anything that would require a patent or commercialization.
	I do only clinical work
	I don't ever expect to invent anything more tangible, technological, or transferable than an innovative historical argument, which benefits from copyright protection almost automatically.
	I don't have any inventions.

	I don't invent. I think and write.
	I don't know what "Technology Transfer" is!
	I have had no experience with the TTO
	I have no clue whatsoever.
	My experience with Tech Transfer has been in support of Tech Commercialization, more from a strategic perspective, than as a Faculty Researcher / Inventor. I have worked with CEIS for over 10 years and participated in the process of allocating CEIS NYSTAR Research Funds to the PI that have submitted their proposals.
	My knowledge of Japanese history offers little substance for this kind of issue.
	no clue no need
	no experience
	no patents or inventions
	not applicable
	Not at all applicable to my work
	we do not invent, we create
2	don't know much about it but don't need to in my line of work
	I don't know anything about this office.
	I know something about how it is done at other institutions.
	If it looked like a marketable idea was coming out of my research, then I would call the Technology transfer office and get the information I needed.
	Just know that if I have something to patent or commercialize I should contact the Technology Transfer Office.
	Only Marjorie Hunter has any degree of real expertise and she is totally overwhelmed by the work load.
	Since my work doesn't create a product that can be patented and/or sold, I have not investigated this area much.
	Tech Transfer Office really needs to offer training/information sessions for faculty at regular times throughout the year.
	We relied on the expertise in the office.
3	experience with one application, one provisional patent, one licensing agreement.
	Given that my research does not need patenting, I pay little attention on this area
	I only just started working with them and have only had contact with a licensing associate. Initial contact has been prompt and helpful. I have to see if the follow-up and outcomes are as good. I wish there was a "brief" or something that I could read to get an overview of the entire process.
	I simply had an idea that I spoke to a person in that office about, he was helpful in thinking about next steps. I was applying for a technology grant, but decided not to proceed with the project primarily because it was out of my area of expertise
	I worked with the tech transfer office to obtain a lentiviral vector from switzerland. My responses are based mostly on that experience, though I did go to an invention seminar the tech transfer office hosted.
	It doesn't pertain to my area of research but I learned about through coursework in my PhD program
	My knowledge is not high, but have found good support in walking me through it.
	My last communication with this office was almost 10 years ago but I found it very helpful at the time.
	the process of filing works but I am unaware of any requirement or established process to work towards commercialization.
	This is really 2 questions. Thus, responses are of questionable validity.
	to my knowledge LLE has an effective way of dealing with technology transfer and I rely upon that service.
4	Commercialization is not the University's responsibility.
	Have obtained University held patents for inventions in the past but before a Tech Transfer office was established.
	I have almost exclusively worked with the River Campus OTT. They have helped a lot and seem to have selected reasonable firms to help. I have about 10 different patents awarded, filed/pending, and submitted

	I have not personally made an invention disclosure, but the office has worked with students in one of my classes.
	I have one patent granted, another in the works.
	I have produced a number of disclosures, some of which have led to successful patent applications.
	I took a course on tech transfer in the MPH program
	in the early 1990s, the Tech Transfer Office on River Campus was not aggressive with advice or support. The situation has reversed in the last 8 years.
	It's true that the OTT has a standard form for disclosure available on line. (This form could be improved, I believe). However, from my work in industry I know that there are standards with which researchers should document their lab notebooks. I don't believe that many faculty members are aware of standard procedures.
	I've been issued 4 patents through UR action, but none in the past 5-8 years. My experience includes a successful interview in the Patent Office, reversing a preliminary denial. My comments below may be out of date now, but they may also reflect existing opinions of other faculty with earlier interactions with the RTO.
	Most of my experience pre-dates the arrival of Marjorie Hunter and her staff.
	The K30 Program has a course on this: "Technology Transfer: Working with Industry"
5	I can write my own patents
	I have done it and will do another one soon.
	I have several patent applications in process and several invention disclosures, I also serve on the University's committee that evaluates invention disclosures and provisional patent applications where I advise on their relative merit.
	I'm not an engineer, but several friends are deeply involved in the University's tech transfer process, and keep me informed.
	Took a class.
	Up until recently, there was poor follow up for tech transfer assistance.
Missing	Education getting better-probably most important however is knowing what to patent and when to start process-assessing real commercial potential-and communicating who is paying for process and whether it might be better to licence without patenting
	I don't "invent" except in metaphoric terms; I think this survey is not directed at a humanities professor.
	I don't have an invention.
	I will only answer questions about MTA if there are any following this
	n/a
	NA
	na
	NA
	not applicable
	Not applicable
	This has not come up for many years, other than the fact that all our meeting presentations and publications are gone over by our administrators for items of possible relevance to patents, tech transfer, etc.

**On a scale of 1 to 5 (1=low and 5=high) please indicate your opinion of the effectiveness of the Technology Transfer Office in the following areas:**

		1	2	3	4	5	Total	No Opinion	Mean
Providing education to faculty on patenting inventions	N	175	71	60	46	27	379	86	2.88
	%	46.2	18.7	15.8	12.1	7.1	100.0		

		1	2	3	4	5	Total	No Opinion	Mean
Providing assistance to faculty on executing Material Transfer Agreements	N	33	51	44	59	17	204	261	3.01
	%	16.2	25.0	21.6	28.9	8.3	100.0		
Knowledge of your technology	N	39	41	47	42	17	186	279	2.77
	%	21.0	22.0	25.3	22.6	9.1	100.0		
Keeping inventors apprised of the status of their invention in the patenting and licensing process	N	22	26	29	41	25	143	322	3.15
	%	15.4	18.2	20.3	28.7	17.5	100.0		
Ability of the Office to be responsive to your questions/needs	N	19	26	46	50	45	186	279	3.41
	%	10.2	14.0	24.7	26.9	24.2	100.0		
Ability of the Office to respond in a timely manner	N	32	25	40	59	31	187	278	3.17
	%	17.1	13.4	21.4	31.6	16.6	100.0		
Ability of the Office to assess commercial viability of an invention	N	22	33	39	44	9	147	318	2.90
	%	15.0	22.4	26.5	29.9	6.1	100.0		
Ability of the Office to commercialize UR technologies and negotiate licenses	N	18	28	26	34	13	119	346	2.97
	%	15.1	23.5	21.8	28.6	10.9	100.0		
Ability of the Office to assist in the formation of a start-up company	N	9	19	17	16	5	66	399	2.83
	%	13.6	28.8	25.8	24.2	7.6	100.0		

**Comments (if you have worked with both the Med Center and River Campus offices, please elaborate on anything specific to each office):**

<b>SMD Only</b>	Assessing commercial viability is very difficult. I have not personally taken any of our inventions to the stage of commercialization or licensing.
	Execution of MTAs required by other academic institution in order to receive reagents, is very slow.
	I am developing a pathology application which is jointly developed by UR and Columbia university. Columbia is taking the lead on the patent application. Our group has been excellent.
	I have never, in over five years, been able to send an MTA to Tech transfer and have it go through without having to follow up with at least one and sometimes multiple phone calls. I don't know if this is routine, or if they're understaffed, but I expect that if I've done everything required, then they can at least acknowledge receipt of the paperwork (via email) and maybe even deal with it within a month or two without prompting. The quality of my work and my laboratories ability to access reagents that would increase our productivity is compromised by the lack of effectiveness of our Tech Transfer department.
	I have only worked with the Med Center office, but they have been very unresponsive and when they do

	respond, they send paperwork for me to fill out, but I have no real knowledge about how to properly fill it out and they do not follow up.
	In general they have a good group, but I think they are understaffed for their mission. I have worked with them many times- always pleasant, but more support/tech personnel would help.
	Is there a number lower than 1??? As for timeliness of working on MTA - it's not a priority for them and has significantly delayed my research multiple times.
	It is painfully slow as far as any MTA paperwork is concerned. One can wait months to get a DNA plasmid MTA from another institute!!
	It takes too long to get an MTA signed off.
	Med Center: slow execution of MTAs is a problem. Office has not fulfilled my request to be notified when the MTA is executed and send me a copy so that I can know when to expect material. frustration.
	Med Ctr office may be overwhelmed; I have several files in my portfolio and not much is happening, particularly with an antibody we developed/ I simply do not have the time to become a business person!
	MTA have been my only contact, and the response has been very slow for even the most simple agreements.
	My attempts to initiate a simple MTA with a biotechnology company was a complete failure. The TTO made a mess of it. Paperwork was lost, calls were not returned and no effective contact with the company was made.
	My biggest complaint over several years of dealing with Med center office on issue of MTAs is they are very slow. I always here that we do not have the staff to process these more quickly. Please remedy this, it is frustrating not to be able to perform experiments in a timely manner when beauracracy slows us down.
	My experience was limited to inquiries on my part about a Johnson and Johnson grant.
	OTT officer did not show up for our first appointment, and made no follow-up phone call to reschedule or apologize. OTT officer was awkward and unfriendly in our meetings
	The Med Center TT is overwhelmed and can not help small operational activities. I have turned to outside consultants who have track records of starting companies. Our patents are shown to companies without letting us know such that we are unable to interact and define whether we would have any interest in working with them, thus disseminating information to our potential competitors. The Med Center TT is broken, under powered, and over burdened. The focus should be on enhancing our IP value not licensing to the first bidder. they have their priorities wrong if TT is going to really contribute to a UR revenue stream. The people who I talk with have built from scratch biomedical businesses that range in value from \$85M to \$1B. In response to your questions below, you left out the option poorly invested since until that is defined, it is not possible to know whether we are underinvested. Simply adding more of the same will continue to be poorly invested.
	The office was enthusiastic about the idea, but I didn't think it had that much merit. However, if I had a good idea that had commercial potential, I'd not hesitate to ask for their help again.
	The technology transfer group has been very helpful. It is unclear how effectively we will be able to market the patents with companies since we are just starting to work on this.
	The technology transfer office is a ponderous bureaucracy. They are more vested in protecting their own chain of command day to day, as opposed to fostering the next potential "Praxis"(s) to come out of UR
	There is a slow turn around. Also, when material transfer agreements are required, it takes forever to get one signed by the University.
	Though OTT has offered various courses on IP, most faculty like myself do not always have time to attend the sessions. This limits our knowledge of the process.
	With one exception, my experiences have all involved MTAs with both for-profit and non-profit organizations. My main complaint is that there is little-to-no feedback on the process from Tech Transfer to the investigator and the process has been incredibly slow (months). The one exception to MTAs is an attempt I made 5-6 years ago to investigate whether one of our research findings was patentable. At that time, the tech transfer office seemed to have so little understanding of the technology/research that they were of little help. I soon got frustrated and gave up. Undoubtedly the office is more prepared and experienced now than they were then.
<b>RC Only</b>	An innovation that was referred to the Research Corporation for evaluation and returned by Res. Corp. for lack of expertise was not pushed further by contacting any other appropriate expert, despite repeated requests that this be done. This was a River Campus event in the late 1980's.
	It would be nice for the TTO to have a start-up package to assist faculty members, including some sample documents such as the employee confidential agreement and non-compete agreement, which can be tailored for the individual companies. The package can also include contact information for various resources.
	Mark Coburn was quite good, but he is gone now. Candidly - forming start-ups takes an entrepreneurial spirit but the tradition seems to be to hire nearly retired managers from local big business, which has a far different culture.

	My disappointment is with the law firms that are involved and only indirectly with the Office of Tech. Transfer. We have lost a patent (i.e. someone else patented first) because it took three years for us to file the patent.
	Negotiation of licences and commercialization are very different.
	we got in trouble by going to expensive outside lawyer before we were really ready. More local expertise on the technical and the look-and-feel level of the application could have saved some money I think.
<b>Both offices</b>	Both river campus and med center offices are very helpful with the startup company forming process, and are generally very responsive to PI/inventor questions. Overall, the offices have come a LONG way from where they were when I started here. However, evaluation of commercial viability and/or patentability is still somewhat haphazard. Negotiation and execution of licensing agreements is significantly slower than it should be; I suspect this is mainly due to a lack of personnel in the tech transfer offices.
	I have found RC OTT to be much easier to work with. I would wish for more help in shopping around some of the invention disclosures and in market assessment but I realize this would be time consuming and difficult to maintain expertise across the board.
	I have supported the Forbes Competition as a Mentor, and the support for Undergraduates seems to have been quite good
	i've not tried to commercialize any of my patents yet. However, companies have approached us and I am knowledgeable of colleagues who have started companies and based on this my sense tells me the office is very helpful.
	med ctr has made substantial progress in expertise and providing positive interactions
	On occasion, I have found some of the tech transfer office personnel to be disrespectful and antagonistic. The length of time it takes to execute an MTA is unreasonably long, and it is sometimes difficult to find out what is causing the delay, and to determine what the likely time to implementation will be.
	sometimes there has been confusion over which office should be involved.
	The recruitment of Marjorie Hunter, John Fahner-Vitehlic and Claudia Stewart has greatly improved the Tech Transfer process. I deal primarily with John Fahner-Vitehlic and find him to be very competent, methodical and knowledgeable.
	worked with river campus prior to med center having own dept. Hence may be irrelevant. My biggest problem is lack of communication with med. center office. I still am waiting to hear from them about a simple tech transfer issue with the gov. on gene chips. Over one year now.
	<b>Neither</b>
I didn't even know we had this type of office.	
I didn't know there was such an office	
I have a family member who worked with them. Apparently they nearly killed the deal by demanding unreasonable excessive portion of revenues.	
I have had no contact with the office.	
I have had no interaction with either office, though I am aware that the U of R ranks highly in tech transfer in comparison to other schools, so I will assume that it does a good job.	
I have no experience with this office, therefore not opinion	
I have no knowledge about this process	
I have not worked with the office.	
In the clinical trial arena, The University is recognized as corporate unfriendly with regards to speed of approval and its attitudes to business	
I've never heard of the Technology Transfer Office	
I've never interacted with them. It therefore does not seem sensible for me to evaluate them.	
My indirect observations indicates there is helpful expertise in the office.	
na	
No experience with them. I once (years ago) made an inquire and received prompt, effective information.	
Technology transfer is not relevant to my work. Consequently, I am not aware of the activities sponsored by the Technology Transfer office and have no opinion regarding its effectiveness.	
The tech transfer office came to the biology dept and gave a short seminar on how they can help with tech transfer issues. This was perhaps three to four years ago. So I do not have a fresh memory of their capabilities.	

**Please indicate your opinion of the level of UR financial resources invested in technology transfer:**

Underinvested	68	54.4
Appropriately invested	50	40.0
Overinvested	7	5.6
<b>TOTAL</b>	125	100.0
Not sure	152	
No opinion	167	

**Please indicate your opinion of the level of UR staff resources invested in technology transfer:**

Understaffed	61	51.7
Appropriately staffed	55	46.6
Overstaffed	2	1.7
<b>TOTAL</b>	118	100.0
Not sure	160	
No opinion	165	

**Please indicate whether you'd be interested in attending a training session on the following topics:**

		Very interested	Somewhat interested	Not interested	TOTAL	Mean
How to keep laboratory notebooks	N	28	102	301	431	2.63
	%	6.5	23.7	69.8	100.0	
Issues in entering into Material Transfer Agreements	N	43	128	255	426	2.50
	%	10.1	30.0	59.9	100.0	
How to prepare an invention disclosure	N	46	125	260	431	2.50
	%	10.7	29.0	60.3	100.0	
The patenting process	N	60	144	225	429	2.38
	%	14	34	52	100	
How a patent gets licensed	N	61	130	237	428	2.41
	%	14.3	30.4	55.4	100.0	
How to manage possible conflicts of interest and commitment presented in the technology licensing process	N	71	127	232	430	2.37
	%	16.5	29.5	54.0	100.0	
Private consulting arrangements	N	74	134	225	433	2.35
	%	17.1	30.9	52.0	100.0	



Other – specify:	N	9	9	131	149	2.82
	%	6.0	6.0	87.9	100.0	

An afternoon training session for faculty is a good idea. Also the university should be encouraging faculty to enter into consultancy with companies.

Again, if this were relevant to my work I would be interested in these opportunities.

assuming you mean in the near future

best is set of reference materials that I can refer to when the particular question arises, rather than training sessions that are given at infrequent intervals.

Copyright information

copyright would be more useful

Generally training sessions are a waste of time, since they try to impart skills that may be needed rarely and can be acquired when needed.

Help in identifying whether something should be patented, e.g., monoclonal antibodies with designer specificity.

Hopefully, the information above is covered in IND501/503 for incoming graduate students, residents, postdoctoral fellows and nursing students.

How about, "What is technology transfer and how does it apply to clinical faculty?"

how do you get off the ground with small tech applications

How to get seed money or initial funding?

I am already familiar with many of the topics.

I am, probably, the world's leading authority on the design of safety IV systems. One of my patented devices has over 50% of the US market, and another is just entering marketing and I expect it to do very well. I have been unable to interest the office of technology transfer in any of these devices.

I do basic research, so I'm not sure that I have anything to patent.

I don't need to attend a class. I need individualized support appropriate to my needs. So far, this has been delivered.

I have been through development of two startups and received a lot of help from Jack Fraser at RC OTT. He is very helpful, knowledgeable and reasonable. Also, our lawyer at Nixon Peabody is outstanding in terms of his ability to really understand the technology and help draft claims. One area I would be very interested in is how to draft good claims. The legal issues are baffling. One other thing that would be nice is if we had more project assistance from Simon School students in trying to do technology assessment to determine whether ideas are worth patenting and what the likely applications would be. Again, I realize this is difficult. However, I received great project work from a group at Syracuse University that was invaluable in getting one company off the ground.

I have many patents....all of which occurred outside the UR. Many of my early works were left of the desk....Atomic Force Microscopy for example. I currently have low expectations from the technology office. I use it to record inventions for the purpose of my grant reporting. I do not really expect them to do anything useful except wait for the next hula hoop.

I have two patents. I don't need a Patents 101 course nor do my colleagues. The level of knowledge in the Tech Transfer Office is limited. At times, they seem to try to hinder the process. I have found it easier to work through the Tech Transfer Offices with my collaborators at other universities.

I indicated "not sure" in response to the questions regarding adequacy of financial and staff resources invested in tech transfer. A question that many of us have asked each other is - does tech transfer break even? We hear about the big successes and that's fine, but does the enterprise itself break even if averaged over say, a decade? Regarding the suggested topics for training sessions, the recent emphasis on commercialization has opened up many, many potential problems with conflict of interest. Education of our faculty, department chairs, and students/post docs in this area is a priority in my opinion.

I would prefer to be given the powerpoint presentations (or a written brief) so that I can review them on my own time as I need them and then call if I have questions. I would prefer not to have to schedule to attend a seminar.

I'd be interested in learning about copyright law, which is more useful in my work.

Identifying research funding mechanisms outside of government and usual resources.      Facilitating international collaborations.

I'll find out when I have a need to know.

I'm not sure how relevant it is for my area of research

It is difficult to justify spending time in a workshop for the rather infrequent occasions when I am involved in these problems. I would prefer good advice when I need it, perhaps along with relevant reading material.

It would be useful if the MTA process were made more transparent.

Licensing agreements

More interested in copyright issues than patents.

more public relations on this highly sensitive subject

My answers are all hypothetical since I'm not pursuing anything right now that is patentable

My daughter works at the US Patent Office as an agent. Between John Fahner-Vitehlic's and her knowledge, I receive great advice.

My discipline is not listed below-MUSIC!

na

no idea about relation to my work

Not applicable to my work

Please send the medical and patent faculty some music related surveys.

SBIT/STTR grant writing

Several of these would potentially be interesting to junior faculty starting out in these areas. But once you've figured these out, the workshops etc are not likely to be worth the time. My responses are based on my current situation.

The shift in focus to commercialization of academic research at this Institute is a concern.

There is much to be done. Pay attention to the small operations, they stand as much chance of succeeding at the large labs, perhaps more as they must take higher degrees of risk.

This was a frustrating survey to complete. It would have helped to have some description of what technology transfer is and maybe only send it to people to whom it would apply

Training sessions would be great and are very much needed.

very general seminars, such as how technology transfer applies to byproducts of curiosity-driven fundamental research, would be interesting to a large cross-section of the faculty, i would guess.

Where I was before (Univ of Miami) I served on the patent and copyright comm. and one thing they did to increase patent proposals was to offer 20K grants to people that had gotten a patent proposal passed through our committee.

### How long have you worked at the University?

	N	%
0-5 years	85	18.9
6-10 years	101	22.4
11-15 years	49	10.9
16-20 years	74	16.4
21-25 years	52	11.6
26-30 years	45	10.0
>30 years	44	9.8

### In what discipline(s) do you work?

	N	%
Engineering	58	12.5

Humanities	46	9.9
Life Sciences	244	52.5
Physical Sciences	55	11.8
Social Sciences	67	14.4

**Number of disciplines checked in previous question:**

1 discipline	403
2 disciplines	25
3 disciplines	4
4 disciplines	1

**In what school do you work?**

	N	%
College	149	33.5
SMD	253	56.9
Nursing	8	1.8
Eastman	18	4.0
Warner	6	1.3
Simon	11	2.5
<b>Total</b>	445	100.0
Missing	20	

**Do you have any additional comments about your interactions with the Technology Transfer Office?**

A substantial INTERNAL capital fund should be available for initial funding of startups based on an internal assessment by the tech transfer office or an associated committee. It should not rely on a Venture Capital firm that does NOT have the University's interest foremost.
Actually, mathematical sciences (not ``engineering").
As clinician with only participation in clinical trial research and not new technology invention research, have no knowledge whatsoever of this office.
At the Laboratory for Laser Energetics technology transfer appears to be fostered by the Division Directors rather than the TTO. They are keenly interested and knowledgeable about inventions with commercial value.
Based mostly on experience with the URM Tech Transfer Office and senior URM administration, but also on information from outside counsel, including a patent lawyer, I am left with the impression that one can not trust URM in this arena. This is disheartening.
Comments on courses of interest are based on feedback from my management staff. Contact Sue Powell(52834) for any additional information
During the past 6 to 8 years in which I participated in reviewing CEIS research requests, I found that the majority of the PI had little knowledge in the practical applications for their technology. I believe there is a need to proactively screen early stage proposals, provide resources to assist the PI in determining the potential applications / value of their Technology. The lack of such a process negatively impacts the ability to make the appropriate decisions regarding the allocation of research resources.
Exactly what the difference is between the OCA, the OTT, and the other half-dozen different names the whole thing has been given over the years, is not clear. There should be a single point source for ALL things commercial. Knowing who exactly to talk to is sometimes an issue, since often one will get e-mails from several different people in the OCA/OTT, on the same topic. Who is in charge is not readily clear.
Fix it please.
Get some people with actual experience as scientists who wish to make a change into this area of employment.
Good people, but total lack of manpower and resources, plus having 2 OTT is insane
I am concerned about expending resources on non-viable patents, in order to fluff ego's or increase tenure potential. Being careful to not disclose work in progress also serves to slow down progress gained from discussions with colleagues. Some

ideas seem so obvious when you are familiar with the technology, but patent potential can blind us, and slow down progress to the point where we can't compete with those who are less interested with patent profit. End of rant...
I have a joint appt. between BME (college) and NBA (SMD) but my labs are housed in the medical center even though officially my main appt. is through BME college. However, I've never used the college Tech Transfer office.
I have been satisfied with the arrangements that LLE was able to provide.
I have found the people in this office helpful and professional, but with rather limited resources to spend on pursuing patents that are groundbreaking rather than incremental.
I really would like to see a situation where I could call up and describe the concept. They would then take it from there. It is just too hard to do everything in research and spending several days on an invention disclosure is too much cost to my progress. Right now, I have a concept that could represent a bottleneck in manufacturing of next generation piezoelectrics. Give me a call.
I think a better understanding of cost of patenting and how the costs are covered would be a vast improvement. Second would be changing the current structure of recovering all the costs of patenting before inventors or departments see money would be an incentive to get more licensing agreements
I work at LLE in laser technology development and know that there must be many opportunities to transfer technology ... but we have no idea how to proceed.
I work at the Medical Center as a physician
I work in the medical center, which does not appear to be listed above.
I would like to see a similar survey about the University's investment of resources in promoting the humanities and liberal arts education. Robert Foster Mercer Brugler Distinguished Teaching Professor
It has been frustrating getting MTAs signed in a timely fashion.
It was a positive experience, Jon, the guy I spoke to is full of energy and ideas.
I've had no feedback on whether any attempts have been made to commercialize my device -- and what kind of responses may have been received.
Most have been very responsive and helpful with the special requirements for my class, which involves considerable potential for innovation.
My interactions with the tech transfer office on the River campus was much more positive than my interactions with the med center office.
offerings (presentations) are too broad and not specifically targeted to scenarios that we may experience
One OTT staff member is abrasive and has poorly communicated with the LLE Administration in the past, so much so that we have refused to deal with him. Mark Colburn, while he was the director, had knowledge of this and we dealt successfully with him.
Only that they seem to be very slow getting MTA's returned to us, and at times that delays the research for several weeks up to months.
Other than this survey I have not had any communication with the Technology Transfer Office, even though I am currently applying for a patent on technology that was developed here at the laser lab.
OTT needs more resources in terms of people and funding to be successful.
Patents should count much more than technical papers in evaluation of faculty and students. I'd suggest a 10 or 5 to 1 ratio so 10 patents are equal to 100 papers. We are so science based that inventions are ignored.
positive experience so far
see above, I would add that as a chair I hear from faculty in this dept. that they find the office at med. center slow and sometime not responsive to getting material transfers done in a timely fashion. You have to keep calling them is the main complaint.
Strong consideration needs to be given to new leadership at the medical center.
Tech transfer should consider "cherry-picking" those patent opportunities most likely to result in licensing and allow the others to be pursued wholly by the inventor. Also, too many preliminary applications approved -- not so much the money but the time in managing the portfolio
The class that Mark Coburn has taught through the Rochester Research Curriculum (Department of Community and Preventive Medicine) is quite informative and interesting even to those who do not foresee tech transfer as a likely issue in their career (such as myself).
The form we have to fill out is a little ambiguous. It does not make it clear that inventions in the form of works of art, or just publications for which one receives royalties, are different from other kinds of inventions.
The UR TTO staff seems to be well-qualified and proficient, but they suffer from being extremely understaffed. This has presented some major problems for my NIH-funded research to adhere to their strict timelines (mainly delays in MTAs and CDAs). Clearly, more attention needs to be paid to this very important part of our academic research environment.
There have been improvements in recent years, but the system still does not work well.
There may indeed be new applications involving the arts - that would be of some interest to me.
They are probably very good in a few areas. However, they have limited knowledge in many areas of biomedical

sciences. At times, I feel they know less about the process than I do.
They are very helpful.
They're trying very hard.
Transparency is needed in funds allocation. The COX-2 patent fiasco was a waste of money on a very large scale! Experts should make the decisions rather than interesting parties.
TTO should involve the inventor and/or consider the inventor's professional opinions in license negotiation. The inventor in many cases knows the technology and the market and can provide valuable insights in the process. In addition, such involvement gives the inventor a sense of participation and is beneficial for long term and productive working relationship between TTO and the inventor. An IMPORTANT issue concerning technology transfer concerns distribution of the royalty to the inventor's research program, although this issue has nothing to do with TTO. There is currently no policy concerning the share that the inventor's lab receives and it is at the discretion of the chair of the inventor's department. I believe that a productive research group should be rewarded and supported to bring about more inventions. A well defined policy (e.g. the inventor's research group gets 50% of the department's share to support further research) will help achieving this goal and avoiding potential contentions.
very approachable.
very good group, but needs more marketing help especially and more communication about various deadlines, where items are in the patent/licensing process
Very high turnover in personnel has made for poor continuity.
very positive experience in general. i wish more licensing agreements were achieved. help with achieving business agreements for relatively small market technologies not warranting full suite of patent protection would be helpful. The University, in contrast to goals of the office of tech transfer, does not support translational work very well, especially in the context of reduced NIH funding levels. Research faculty are at particular risk when they attempt to negotiate repeated short-term agreements with third parties.
very satisfactory on patenting and licensing
With outside research collaborations, we have developed an ELISA that may have commercial importance for assessing thrombotic risk. However, my attempts to get help from Tech Transfer to pursue this always ends up with the onus on me to figure out what to do next. I certainly do not know the legalities and terminology for protecting our interests in invention disclosure, licensing and patent application, etc. I am too busy trying to get grants, write papers, train students, etc, by myself without the added burden of figuring out how to transfer my technology appropriately to protect our long-term interests. What a timely survey!
Wrote a paper on the interest of voluntary health agencies in recovering royalties for research they sponsored with Gunta Liders and Marjorie Hunter. Nature Biotechnology 22:385, 2004.

## SUMMARY OF RESULTS OF LICENSEE SURVEY

### Respondents:

#### Medical Center Tech Transfer Office Licensees:

Pharmanova, Oyagen, Socratech, iCardiac, LAGeT, Cerebral Assessment Systems (6 Respondents)

#### River Campus Tech Transfer Office Licensees:

GG&C Imaging, Diffinity Genomics, Sydor, BetaBatt (4 Respondents)

### QUESTIONS:

1. Do you feel the personnel you dealt with in the Technology Transfer Office were:
  - A. Professional? 10 Yes 0 No
  - B. Knowledgeable about the subject matter of your interactions? 10 Yes 0 No
  - C. Responsive to your concerns? 10 Yes 0 No
  - D. Timely in his/her response? 10 Yes 0 No

### Comments:

- I. Total process took about nine months start to agreement. It seems to me that by streamlining the process the total time can be cut in half. (RC)
- II. Overall experience very positive. (RC)
- III. We were extremely pleased and impressed by our experience. Licensing officers were highly responsive, knowledgeable and accommodating. (MC)
- IV. People are great. No problems that I have seen. (MC)
- V. As communication improved between the company, UR, the scientists and the investors improved, the process did as well. The situation was complicated by a long history among and between the constituencies and the changing objectives and drivers. (MC)
- VI. The process of the license/ option discussions was by and large productive. The major issue revolved around the desire of the licensee for an extended option period to allow further assessment of the underlying invention's scope, applicability and relevance to the basic IP held by the Company. Eventually this was accommodated though it required a commitment of valuable early stage cash to the University in the form of research work to be done at the University. While good for the University it is not the type of obligation that is, in my view, in any way nurturing of the spin-out businesses the University publicly espouses. The UR also utilizes standard agreements that reflect traditional third party licensing practices and some thought might be given to approach UR spin-out businesses with a more start-up friendly model that recognizes the need for these early stage business to preserve cash resources, particularly in the case of companies involved in therapeutic development where the risk, availability of substantial cash and time to market are long and expensive pathways. (MC)

2. Have you licensed technology from other universities before? 5 Yes 5 No

If so, how would you compare the process at the University of Rochester with your experience elsewhere?

- I. Based on my personal experience, i.e., a small sample, I conclude that the River Campus OTT responds within a reasonable time, balances the interests of the University and the company/licensee, and imposes and accepts reasonable license terms. This is quite refreshing when compared to some other experience where the institution takes weeks and sometimes months to respond to communications and imposes conditions on small company licensees that make it difficult for the company to raise capital and develop the full value of the University faculty member's invention. (RC)
  - II. The previous experience we had was also positive, but this time there seemed to be a much more developed and quicker process for completing the technology transfer process. (MC)
  - III. In some respects the experience was better (the ultimate ability to resolve the timing on the option) and in other ways less satisfactory. Penn has a very sophisticated operation that provides support to its faculty entrepreneurs across a range of issues, providing an infrastructure around the initiation of the start-up process and a "start-up friendly structure for back end loading of the cash demands. Scripps also has a more start-up friendly process from a cash point of view. (MC)
  - IV. The decision making process at the University is much more complex than that in a for-profit corporation and the need to reach consensus within the UR management on various issues, at times led to a lack of confidence that the UR was in fact dealing in good faith or could deliver what was believed to be a commitment to the company. (MC)
  - V. The responses of the other institutions involved (USC and TSRI) were much quicker and demonstrated a flexibility and accommodation that was not always apparent in the interaction with the UR. There are a number of explanations for this and the fault did not always lie with the University but perceptions were driven by the lack of resolution or back-tracking on several issues that made the process more difficult. (MC)
  - VI. As with other start-ups, imposition of spending obligations on early stage companies is not particularly helpful to the business though beneficial to the University and in many cases to the faculty member. The insistence on committed research from early stage companies should be re-thought and alternatives more start-up friendly need to be identified. (MC)
3. What were the most contentious or difficult issues that were presented in your negotiations?
- I. The sequential decision making process. We seemed to go round and round on certain issues. (RC)

- II. Seemed like office didn't have much experience with smaller, start-up companies interested in their technology. More focus on how to deal with smaller, emerging companies would have been helpful. (RC)
- III. Very high royalty rate expectations which has made ongoing partnerships difficult to forge and to be commercially viable for all parties. (MC)
- IV. Dealing with the up-front costs (direct and indirect) and the need to conduct the early evaluation work in a time frame that met the cost requirements given the uncertainty and novelty of the basic therapeutic approach. (MC)
- V. The real issue is establishing a sense of shared risk and shared opportunity. Getting the technology to market is in the best interest of the faculty entrepreneur but most faculty need to be brought around to that point of view. The process too easily lapses into an adversarial interaction. (MC)
- VI. Conflict of interest remains a serious problem. As LAGeT does not have resources to hire directors, we were forced to confront the senior leadership of the Medical Center for whom we work to negotiate. (MC)

4. What were the most positive aspects of your negotiations with the university?

- I. The speed and reasonableness in which we reached agreement (RC)
- II. The license agreement was negotiated and signed in 6 months. ((RC)
- III. Good will and sincere desire to reach an equitable agreement. (RC)
- IV. UR was fully cognizant that we are a start-up and was very cooperative in minimizing our upfront and early costs. Another positive aspect was the professionalism and responsiveness of everyone we dealt with at the University during the process. (MC)
- V. We are a team focused on the commercialization of LAGT technology. (MC)
- VI. We got something signed. (MC)
- VII. The persistence and commitment of the members of URMC to work through the various problems. Their willingness to set aside real or perceived efforts to work around their internal processes. (MC)
- VIII. Accessibility and support from the administration that enabled the securing of lab space. (MC)
- IX. Willingness to work with local/small company. Professional/open behavior and attitude. (MC)

5. Overall, how would you rate your experience with the technology transfer process at the University of Rochester? :

Excellent – 5 (2 RC, 3 MC), Good – 5 (2 RC, 3 MC), Fair – 0, Poor - 0

6. Suggestions for improvement:

- I. Set up a decision making process that brings together all the decision makers and influencers at specific times to make a decision. Perhaps once up front to agree on guidelines and once at the end to make a final decision. Passing



documents around in a sequential manner from decision maker to decision maker takes a very long time and often does not reach closure.

- II. In the case of new start-up companies, the faculty member should be provided with a representative to argue their case so that there does not have to be a direct confrontation between the faculty and their superiors. (MC)
- III. Do not think of faculty as employees, they are not. They are the most legitimate stake-holders at the University, they are the University. One of your most important responsibilities is to the academic community. You might consider a quarterly newsletter for faculty to encourage awareness of the tech transfer process and the opportunities it presents. (MC)
- IV. The UR should assess how it can further encourage the start-up process and provide a better support system during the early fragile days of potential spin-outs. There is a great deal of serendipity to identifying critical resources and productive avenues to access them. Recognizing the University's obligations under the law as a non-profit needs to be assessed against the financial realities and benefits of generating economic development in the life sciences. (MC)
- V. Reach agreement on core terms early. Set mutually agreed deadlines, and exclusivity period within which to complete the agreement, Look for win-win rather than "the university comes first." (MC)