



UIC Technology Corner

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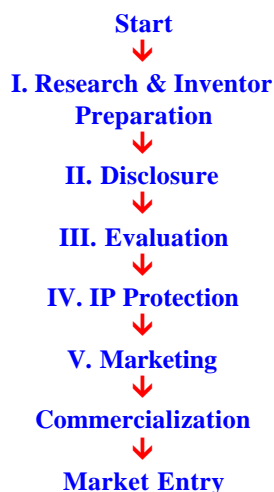
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What is the technology commercialization process?

The technology commercialization process begins with an idea and is successful when that idea enters the marketplace as a product or service.

Each step is critical in the process and generally follows a timeline that depends on many factors including the quality of the disclosure, the interest of industry partners, and the resources available for invention development and protection.



I. RESEARCH AND INVENTOR PREPARATION

Researchers need to plan for the possibility of creating intellectual property during the research phase. By keeping laboratory records it is easier to document the date of conception of the invention and can show who was

involved in the development of the original idea. This proof is needed in case there is a question about inventorship and/or ownership.

Industry or government sponsored research may present questions. Remember that public disclosure to a third party may result in lost opportunities to commercialize your invention. Be sure to submit an [Invention Disclosure](#) to ensure that there is enough time to protect the idea.

If you have any questions, contact OTM.

PLAN Planning for Successful Protection of Intellectual Property

Research may result in the creation of intellectual property which you, the University, and possibly the sponsors of research have an interest. A few key points:

- Keep good laboratory records and maintain them. They can be used to prove the date of conception and show that you and/or others have continued to develop the idea.
- Understand the intellectual property terms and provisions of all sponsored research, whether it is industry or government sponsored.
- Disclose your invention before you submit an abstract, publication, presentation, poster or grant application.

Web Resources

[ibio Network](#)

[Calendar of Midwest Technology -related Events](#)

[AUTM](#)

[AURRP](#)

[Licensing Executive Society](#)

[Chicago Technology Park](#)

[The Illinois Coalition](#)

[Illinois Medical District](#)

[IL Dept. of Commerce & Community Affairs](#)

[OVCR](#)

[UIC- Office of Technology Management](#)

[UIUC- Office of Technology Management](#)

[United States Patent and Trademark Office](#)

[European Patent Office](#)

Download copies of:
[Confidential Disclosure Agreement](#)

[Invention Disclosure Form](#)

GOOD LABORATORY RECORDS

What are "good laboratory records"?

Two key issues for a patent are the date of conception and the enablement of the invention. Well-maintained lab notebooks are one way to record these and can be used in court to establish fact.

Lab records can also solve questions about who is an inventor and who is not, who contributed what portion to the invention, and so on. For activities involved in materials transfer agreements, these records can show that a company's research materials, such as a compound, were properly used and any invention ownership issues can be resolved quickly.

Here are a few guidelines:

- Use permanently bound notebooks.
- Make legible and complete entries.
- Update in ink.
- Record the date and initials/names of the contributor on each page including sketches, photos or other additions.
- Use a new page for new experiments.
- Use a diagonal line to mark out blank portions of pages.
- If you make an error in the entry, draw a single line through with an initial and date. Don't erase or completely cross it out.
- Record all observations, even if the significance is not known.
- Record any thoughts on future experiments that should be done.
- Other data from equipment should be entered when possible and with handwritten initials and date. Electronic/computer files, diskettes, and similar data may be useful, but do not carry as much proof as the lab record because they may be easier to alter.
- Have the records "witnessed" with signature and date by

someone who can understand the science or content. Do not use coworkers, supervisors, or other collaborators in the research. An objective witness is best.

INTELLECTUAL PROPERTY PROVISIONS AND TERMS

What are typical intellectual property provisions for industry sponsored research?

Many agreements give the sponsor an option to license any inventions created under the research contract. This option usually has a time limit of a few months and gives them time to decide whether they are interested. If they are not interested, or they do not make a reasonable offer, the OTM will seek another licensee.

DISCLOSE YOUR INVENTION Where are the guidelines for managing the intellectual property aspect of research?

As you prepare a research agreement or grant application, consider the possibility that intellectual property may result from your work. All [UIC Standard Research Agreements](#) have provisions addressing the creation and management aspect of intellectual property derived from research. These should be fully understood by all parties. Any other understandings, written or verbal, should be embodied in the agreement and reviewed by the Office of the Vice Chancellor for Research to avoid any problems.

II. DISCLOSURE

The disclosure process begins with submission of an [Invention Disclosure form](#) to OTM.

This form requires a complete description of the invention and relevant background information, dated signatures of all inventors, contact information, and the percentage of each inventor's contribution if more than one inventor is involved. It is important to be concise and factual. This information may be used to develop a patent application and is used during the evaluation process. Electronic submission of the form is allowable, but must be followed by an original signed by the inventor(s).

Public disclosures, which include posters and grant applications, may limit protectability of the idea.

Contact OTM if you have a question or are in doubt.

If you are submitting a **grant proposal** that contains information about an invention, mark it "**Confidential Information of UIC**".

III. INVENTION EVALUATION

After receiving an **Invention Disclosure**, a Technology ID number is assigned and a Technology Manager is designated to serve as OTM's primary point of contact. The disclosure is reviewed and a meeting or telephone interview is conducted with the inventor(s). Additional information may be needed to fully understand the disclosed invention.

The evaluation process involves the Technology Manager, inventor(s), and in some cases, third party reviewers who operate under confidentiality during this initial evaluation. A variety of databases and contacts are used to assist the Technology Manager in developing a clear understanding of the technical merit, patentability or protectability, and commercial potential.

The outcome from this evaluation process determines whether funds will be expended to patent an invention and serve as the foundation for the commercialization strategy.

IV. INTELLECTUAL PROPERTY PROTECTION

There are several ways to protect IP. Patenting is the most common, the most expensive, and may take from two to five years to complete. However, other ways to protect IP include [confidential disclosure agreements](#), trademarks, copyrights, and trade secrets.

The sections below provide some basics on patenting and questions you may have. The [US Patent and Trademark Office](#) also offers information on a wide variety of topics.

V. INVENTION MARKETING

OTM can market an invention, providing it has data to prove it works.

If not, the invention is at the conceptual stage and therefore, is very difficult to find any interested commercial partner. However, grant funding, from public or private sources, might be a possibility. The grant could be used to gather the data required to "reduce" the idea "to practice". The grant funds (public or private) may carry some ownership rights with them.

When an invention is disclosed, OTM will complete a preliminary market analysis using a variety of databases and other resources. These results are used to determine a preliminary value of the technology including market size, market share, and associated risks or barriers. It may also uncover potential licensees.

If OTM decides to pursue commercialization, a non-confidential description of the idea will be drafted and reviewed by the inventor(s). This "Tech Alert" will then be posted on the [Available Technologies web page](#) and may be faxed or mailed to potential licensees. OTM also communicates with various technology listing services or exchanges that promote university/industry technology transfer.

During this process the invention may be protected in some form (provisional patent, full patent, copyright, trademark). OTM will actively market to potential licensees to determine interest, but the inventor(s) is usually the best source of leads. The inventor(s) should be prepared to discuss possible licensees and be prepared to speak with them at the appropriate time.

FAQ INVENTION DISCLOSURE

Q. I'm going to submit or present a paper in the next few weeks. What should I do?

Ans. Contact OTM immediately. If the publication or presentation is enabling and the invention has commercialization potential, a provisional patent application can be filed in a short period of time. If a patent application is not filed, foreign rights will be lost and if a

US patent is not filed within one year, US rights will also be lost.

Q. How does public disclosure affect protecting my invention?

Ans. US patent law gives an inventor a period of one year to file a patent application after the date of the first publication, abstract, conference presentation or any other public disclosure. If the disclosure is made more than one year before a patent application, the disclosure is considered "prior art" and the invention will not be patentable.

In most other countries, the one-year period does not apply. "Absolute novelty" is required which means that there is no allowance for any period between the first public disclosure and patent filing, including the issuance of a patent in another country. In these countries, failure to file a patent application before any form of public disclosure often results in the loss of patent. If we fail to get certain foreign rights, many licensees will not be interested in commercializing the invention.

UIC in the News

The May issue of "**Discover**" Magazine, now on newsstands, includes an article that spotlights UIC faculty. "Internet2" (p. 62) looks at the next generation of the net, with special focus on the UIC-invented "CAVE" virtual environment facility. Mathematics, Statistics and Computer Science professor Robert Grossman, director of UIC's Laboratory for Advanced Computing, also offers comment in general on the prospects for Internet2.

i-street Magazine's April edition has several articles on UIC's faculty. Among the inventors mentioned are Drs. Carley and Radulovacki for their work on sleep apnea and Drs. Johnson and Neyfakh for their work on drug therapy and resistance to microbes.

To read more about "Academics commercializing Technology" Please link to [i-street magazine](#)



Technology Events

UIC's inaugural i-emerging event took place on April 10, 2002 with a SRO audience. The event showcased eight (8) emerging UIC technologies to the business and venture capital community. The technology presentations were as follows:

Drs. Brenda Russell, Luke Hanley & Tejal Desai on "Hospitable Cultures" This technology utilizes a three dimensional cell habitat to grow more lifelike tissue.

Drs. Chakrabarty and Das Gupta on "Cellular Shootout" which utilizes bacterium to kill cancer cells.

Drs. Michael Johnson & Alexander Neyfakh on "Tag Team" This technology aims its goal on treatments for drug resistant infections by using a one-two punch from antibiotics and antibiotic boosters.

Drs. Radulovacki and Carley on "To Sleep Perchance to Breathe" utilizes drug therapy to treat sleep apnea.

Dr. Sugaya on "Brain Boosters" using stem cells for improvement in Alzheimer's disease and other neurodegenerative diseases.

Dr. Fady Charbel on "Vascular Vision" an innovative software to assist physicians in make decisions about stroke treatment.

Dr. Ouri Wolfson on "Mapping Motion" which utilizes software for mobile resource management.

Dr. Krishna Shenai on "Power to the People" which offers innovative integrated circuits to provide consumers with better and more efficient communications technology.

For more information on any of these technologies, please contact the Office of Technology Management at 312 996-7018.

The next Emerging event will take place in October at the UIUC campus.



TechDay 2002

TechDay2002 symposium with a theme of "Feng Shui your IP" attracted an audience from the public, private, and government sector. It was held at the Chicago Illini Union, On April 3, 2002.

Session I : "Putting your Intellectual Property House in Order" featured: Nabeela McMillan, Marshall, Gerstein and Borun. Christopher Bloom, Bell, Boyd and Lloyd Terrence McElwee, Associate University Counsel, University of Illinois Ellen Rodgers, Ernst & Young

Session II "Attaining Positive CHI by balancing Economic Development with University Missions" featured: Gail Longmore, President, Trenarthan International Paul Grimes, Alsace Development International Elliot Kaufman, Interim Head, Molecular Genetics, UIC

Power point presentation are available on our website.



2002 Inventor of the Year Award

The Process

Nominees, come from the vast community of UIC researchers and inventors. Each is an outstanding leader in his/her field. The nomination and selection process is quite rigorous culminating in a vote by the Intellectual Property Advisory Committee and recommendation award to the Vice Chancellor for Research. The Inventor

of the Year is chosen and is kept secret until this Celebration.

2002 Nominees Honored

Farid Amirouche- College of Engineering

For his outstanding achievements and leadership in the advancement of science and useful arts through United States Patent No: **5,536,059** in the field of biomechanics and the development of medical devices.

Fady T. Charbel-College of Medicine

For his outstanding achievements and leadership in the advancement of science and useful arts through United States copyright and patent protection for the Computer Aided Neuro Vascular Analysis and Simulation (CANVAS) invention.

Michael McNallan- College of Engineering

For his outstanding achievements and leadership in the advancement of science and useful arts through United States Patent Nos: **5,980,723** and **5,661,113** in the field of high temperature chemistry of materials.

Krishna Shenai- College of Engineering

For his outstanding achievements and leadership in the advancement of science and useful arts through United States Patent Nos: **5,959,439**, and **5,914,513** in the field of novel solid-state power management electronics.

Kiminobu Sugaya- College of Medicine

For his outstanding achievements and leadership in the advancement of science and useful arts in the field of stem cell research and neuropsychiatry.

? Dr. Sylvia Manning presented The 2002 Inventor of the Year Award to Dr. Fady Charbel for his work on Computer Aided Neuro Vascular Analysis and Simulation (CANVAS) invention at the Celebration Event.



UIC Inventors of the Year, 1990-2001

2001

Faydor L.Litvin
College of Engineering

2000

David E. Boyce
College of Engineering

Ananda M. Chakrabarty
College of Medicine

Thomas A. De Fanti
College of Engineering

Norman R. Farnsworth
College of Pharmacy

John M. Pezzuto
College of Pharmacy

Charles K. Rhodes
College of Libe & Sciences

Igor B. Roninson
College of Medicine

Daniel J. Sandin
College of Architecture and the Arts

1991

Donald Chambers
College of Dentistry

1990

Abe Widra
College of Medicine



UIC Patents Issued April 2001 – April 2002

Hayat Onyuksel Israel Rubinstein	6,217,886
Tapas Das Gupta Darrick Kim John Pezzuto	6,225,353
Igor Roninson Kyunghee Choi Andrei Gudkov	6,268,134
Igor Roninson Kyunghee Choi Andrei Gudkov Tatyana Holzmayer	6,281,011
Ludwig Bauer Hemendra Bhargava William Dunn	6,284,769
Andrei Gudkov Igor Garkavstev Karl Riabowol	6,297,366
Daniel Fiat Janez Dolinsek	6,313,631
Eric Dadey Xiao-Hui Mei	6,316,424
Hayat Onyuksel Israel Rubenstein	6,322,810
Igor Roninson Andrei Gudkov	6,326,488
David Carley Miodrag Radulovacki	6,331,536

Hayat Onyuksel 6,348,214
Israel Rubenstein

David Blaustein 6,350,265
Brian Schumacher

For further information on the technology transfer process at University of Illinois, contact the Office of Technology Management (312) 996-7018, or visit the [OTM website](#).

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