


INVENTOR GUIDE



Instituto
de Medicina
Molecular

João
Lobo
Antunes

TECHNOLOGY TRANSFER OFFICE



“Our mission is to promote the transfer of IMM knowledge and technology for society’s use and benefit while generating unrestricted income to support research.”

TO ACHIEVE THIS GOAL, iMM TECHNOLOGY TRANSFER OFFICE (TTO) HELPS RESEARCHERS BY:



Identifying and assessing the market potential of discoveries and inventions made at iMM



Securing the necessary intellectual property rights (IP)



Supporting iMM's researchers in getting funds to develop and de-risk promising ideas



Supporting iMM's researchers in the identification and negotiation of collaborations with industry (e.g. sponsored, collaborative and contract research)



Licensing iMM's IP to new or existing companies



Stimulating innovation and entrepreneurship through specific activities and instruments

GLOSSARY

Invention Disclosure Form: formal document that captures the essence of a work or invention, the people having contributed to it, and their degree of contribution, as well as the involvement of third parties. The Invention Disclosure is a confidential document.

Inventor: a person who conceives an essential element of the invention. It is not considered an inventor someone who has only contributed with hands work and/or who has supervised routine techniques or who has done all the experiments as instructed by another person, but has not contributed to the idea and design of any of the embodiments of the claimed invention.

License: a license is a permission granted by the owner of intellectual property (IP) that allows another party (licensee) to act under all or some of the owner's rights, usually under a written license agreement.

Material Transfer Agreement (MTA): MTAs govern the transfer of tangible research materials (e.g. plasmids, antibodies, cells and mouse strains, chemical compounds, etc.) between two organisations. Intellectual property rights can be endangered if materials are used without a proper MTA.

Non-Disclosure Agreement (NDA): contracts that govern the exchange of confidential information between two or more organisations. Usually exchanges are reciprocal, but it can also be that one party discloses confidential information unilaterally to the other party for a given purpose.

Owner: ownership recognizes a proprietary right to the invention that will in principle vest in the applicant after the patent is granted. As a proprietary property right, the ownership of a patent can be transferred. IMM is the owner of all the inventions made by IMM's researchers.

Patent: a patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing any patented invention. Patent claims are the legal definition of an inventor's protectable invention.

Research & Development Agreement (RDA): RDAs govern the collaboration between two or more organisations, by facilitating the exchange of materials and information between the collaborating groups, and by setting the rules regarding ownership, contributions, publication, protection and exploitation of relevant research results arising from the collaboration.



PILLAR 1

Bring inventions
closer to market

**INCREASE IMM IMPACT
TO GLOBAL HEALTH**

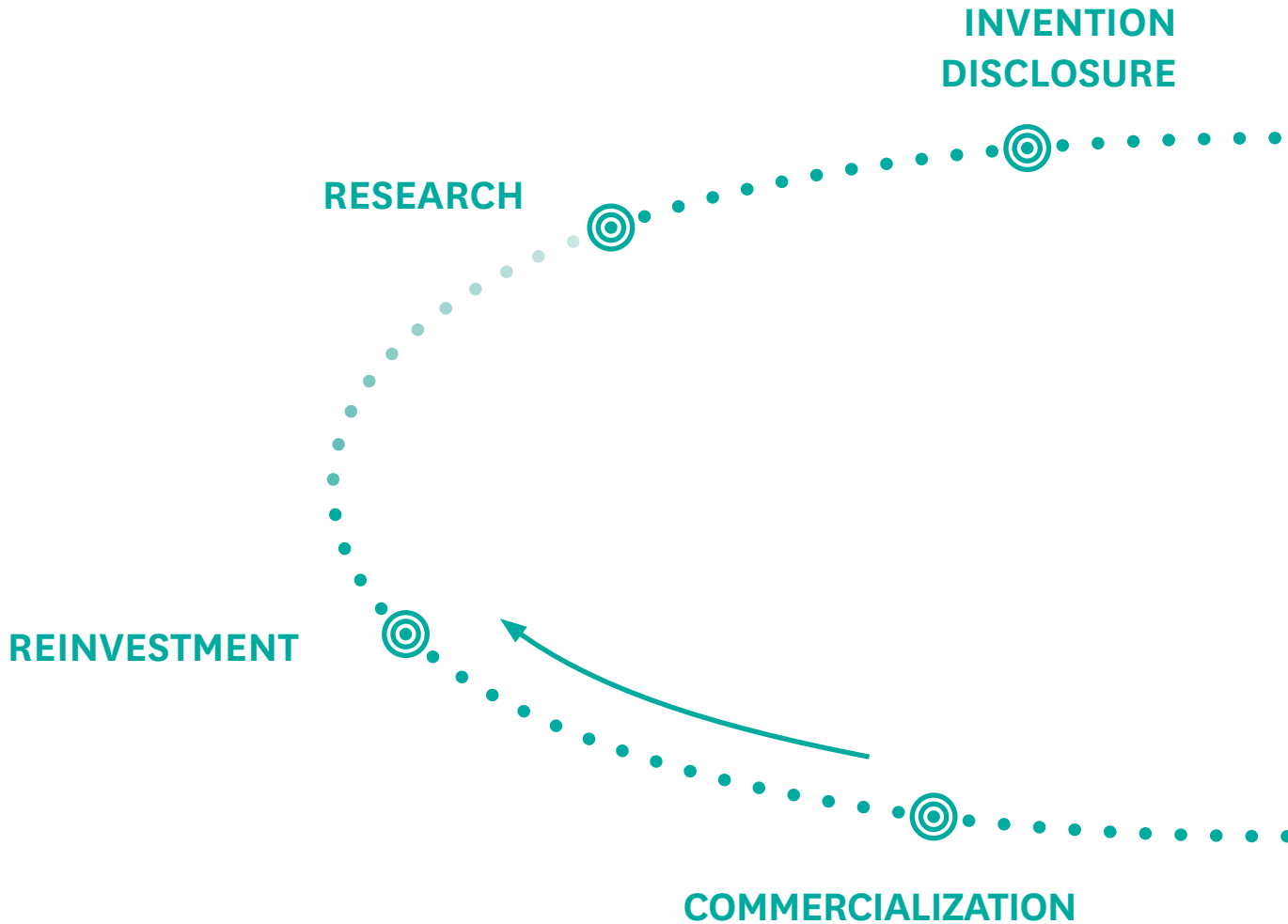
PILLAR 2

Develop research
and innovation
partnerships



PILLAR 1

BRING IMM INVENTIONS CLOSER TO MARKET

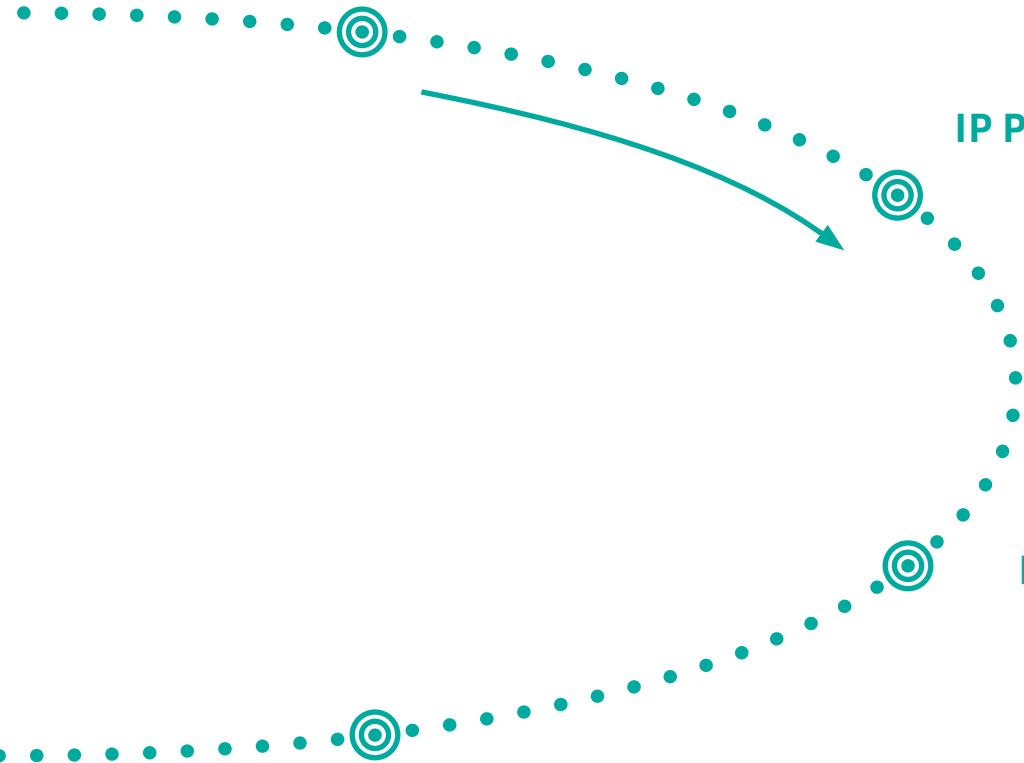


**ASSESSMENT /
INVENTION
EVALUATION**

IP PROTECTION

MARKETING

LICENSING

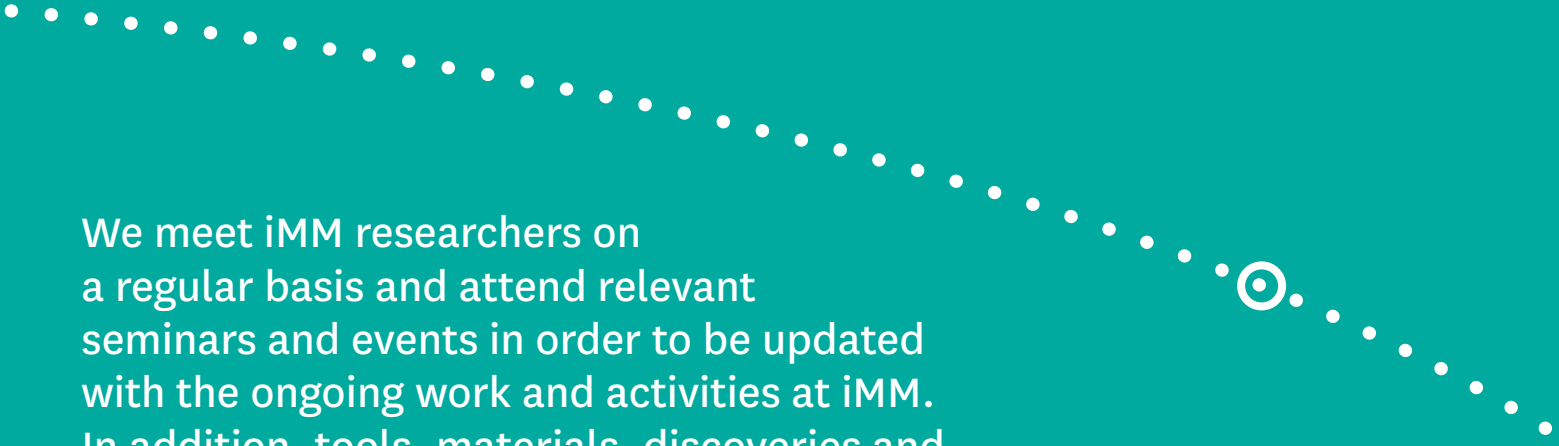


RESEARCH



An invention is any useful process, machine, composition of matter (e.g., a chemical or biological compound), or any new or useful improvement of the same. Often, multiple researchers – including trainees and research staff – may have contributed to an invention and may be inventors.

INVENTION DISCLOSURE



We meet IMM researchers on a regular basis and attend relevant seminars and events in order to be updated with the ongoing work and activities at IMM. In addition, tools, materials, discoveries and inventions arising from your own or collaborative research, and that you feel may solve a significant problem and/or have significant value, must be formally disclosed by submitting a confidential Disclosure Form to the TTO. The disclosure lists all sources of support and includes information necessary to begin pursuing IP protection and commercialization activities.





Importantly, publication or presentation of valuable results and inventions that have not been duly secured can severely affect their potential for commercialization. Therefore, talk to us as early as possible, and well before any public disclosure is made or planned.

WHY SHOULD I SUBMIT AN INVENTION DISCLOSURE?

When you disclose your invention to the TTO, it starts a process that could lead to the commercialization of your technology. From the TTO side, this may involve the initiation of the legal protection process and identification of external development partners.

WHAT KIND OF INVENTIONS SHOULD I DISCLOSE?

Any potentially commercialisable research results. This includes not only new molecules, but also new research methods, targets and pathways of disease and biomarkers.



WHEN SHOULD I COMPLETE AN INVENTION DISCLOSURE?

You should complete an **Invention Disclosure** whenever you feel you have discovered something unique with possible commercial value or when the terms of your sponsored research require disclosure of inventions. The invention could be a new drug, protocol, modified animal or even a new target/pathway for a specific disease.

Ideally, the completion of the Invention Disclosure Form should be done well before presenting the discovery through publications, poster sessions, conferences, press releases, or other communications.

Once the essence of an invention is publicly disclosed (i.e., published or presented in some written or oral form to a non-iMM audience), the potential patent rights may be limited. Make sure to inform the TTO of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal, dissertation/master's thesis, publication, or other public presentation of the invention. We will review your disclosed information to guarantee that you will not compromise possible patent rights.



SHOULD I LIST VISITING SCIENTISTS ON MY INVENTION DISCLOSURE?

All contributors to the ideas leading to a discovery should be mentioned in your disclosure, even if they are not IMM employees. The TTO, along with the legal department, will assess the rights of such individuals and institutions.



ASSESSMENT



The assessment of a new invention is performed in two steps. First, there will be a screening of the invention to gather additional information to that provided in the Invention Disclosure Form, which will inform the readiness of the invention to move to the assessment phase.

In the assessment phase, we will understand the invention's commercialization potential through contacts with key industry and market players. If positive, the assessment process will guide our licensing strategy – for example, to start a new venture or to license to an existing company, to license exclusively or nonexclusively, or to license the invention in different fields of use.



HOW DOES THE TTO ASSESS INVENTION DISCLOSURES?

TTO, often with the help of the inventors, examines each invention disclosure to review the novelty of the invention, competing technologies, protectability and marketability of potential products or services, relationship to related IP, size and growth potential of the relevant market, amount of time and money required for further development, pre-existing rights associated with the IP, and potential competition from other products/technologies.

IS AN INVENTION EVER REASSIGNED TO AN INVENTOR?

If the TTO decides not to pursue patent protection and/or chooses not to actively market the invention, IMM may, upon request by the inventor(s), reassign (transfer ownership) to the inventor(s). In such cases, the inventor typically pays all patent costs.



IP PROTECTION

A decorative graphic consisting of a series of small white dots arranged in a downward-sloping curve from the top left towards the bottom right. A single dot in the middle of this curve is replaced by a larger white circle with a smaller white circle inside it, creating a focal point.

Intellectual property (also known as “intangible property”) refers to inventions and/or material that may be protected under patent, trademark, trade secret and/or copyright laws. In opposite, “tangible property” refers to a land, a building, a computer, etc. Patent protection begins with the filing of a patent application with a National IP Office and, when appropriate, foreign patent offices. Then it will require several years and tens of thousands of Euros to obtain an issued patent (with no guarantee of success). Unique biological materials and software can often be successfully licensed without formal intellectual property protection.

WHO OWNS WHAT I CREATE?

Ownership depends on the creators' responsibilities to IMM and their use of IMM facilities.

Considerations include:

- What was the contractual relationship of the inventors at the time the intellectual property was created?
- Were IMM resources used in creating the intellectual property?
- What are the terms of any agreement related to the creation of the intellectual property?

As a general rule, all potentially patentable inventions conceived or first reduced to practice in whole or in part by IMM's community in the course of their responsibilities or with more than incidental use of IMM resources are owned by IMM regardless of the source of funding, if any.

iMM's full policy on ownership of intellectual property is stated in the iMM's IP Code. In some cases, the terms of a Sponsored Research Agreement or Materials Transfer Agreement may impact ownership. When in doubt, please contact the TTO for advice.



WHO OWNS RIGHTS TO DISCOVERIES MADE WHILE I AM CONSULTING?

The ownership of inventions made while consulting for an outside company depends on the terms of your consulting contract with the company.

It is important to clearly define the scope of work within consulting contracts to minimize any issues with inventions from iMM research. If you have questions, the TTO is available for advice.



WHAT CAN BE PATENTED?

For an invention to be patentable, it must satisfy three key criteria:

- 1.** It must be **NOVEL**, i.e. the invention should not be publicly known in any way, anywhere in the world. Inventors and owners of inventions should therefore be careful to keep the invention secret until a patent application has been successfully made. If the invention needs to be disclosed to a third party before a patent application has been made, a NDA should be drawn up. Once a Date of Filing has been obtained for the patent application, the invention can claim a “Patent Pending” status and the applicant can proceed to disclose the invention as indicated in the patent application to interested parties, for instance by publishing a paper.



2. It must be **INVENTIVE**, i.e. the invention must be something that represents an improvement over any existing product or process that is already available, and the improvement must not be obvious to someone with technical skills or knowledge in the invention's particular field. If an invention is new, yet obvious to a person skilled in the art, the invention will not fulfill the inventive requirement and therefore will not be patentable.

3. It must be **CAPABLE OF INDUSTRIAL APPLICATION**, i.e. the invention must be useful and have some form of practical application. It should be capable of being produced or used in some form of industry.



CAN SOMEONE PATENT A NATURALLY OCCURRING SUBSTANCE?

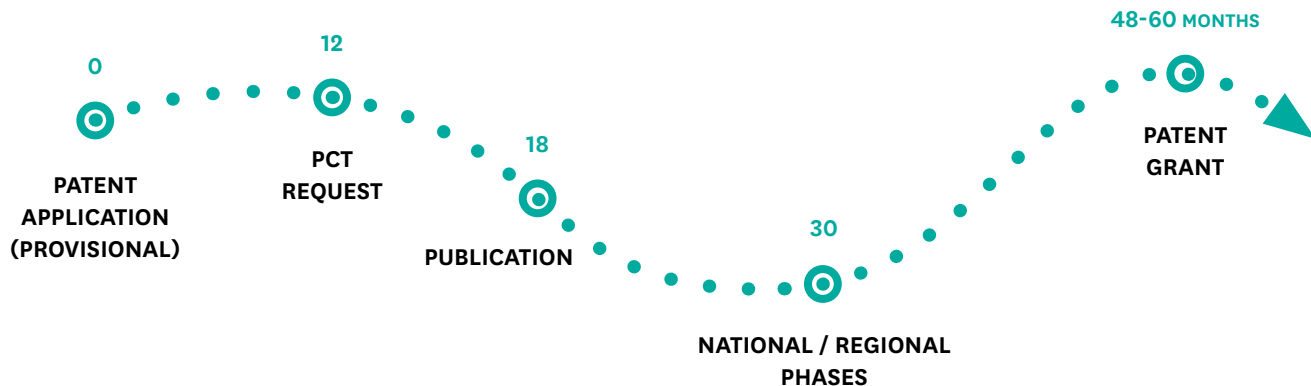
Not in its natural state. However, a natural substance that has never before been isolated or known may be patentable in some instances, but only in its isolated form (since the isolated form had never been known before). A variation of a naturally occurring substance may be patentable if an inventor is able to demonstrate substantial non-obvious modifications that offer significant advantages in using the variant.

WHO IS RESPONSIBLE FOR PATENTING?

TTO normally uses outside firms for IP protection, thus assuring access to patent specialists in diverse technology areas. Inventors work with the patent agents in drafting the patent applications and responses to patent office(s) notifications through the TTO.



HOW DOES THE PATENTING PROCESS WORK?



One year after the provisional application, the Patent Cooperation Treaty (PCT) is filed. The PCT is an international agreement that provides a streamlined filing procedure for most countries. The PCT application must be filed in the national patent office of any country in which the applicant wishes to seek patent protection, generally within 30 months of the earliest claimed filing date. The time between the initial filing of the patent application and the issuance of the patent is the “patent pending” period.



WHY DOES IMM PROTECT SOME INTELLECTUAL PROPERTY THROUGH PATENTING?

Having an innovative product reaching the market is often a long process that requires a high level of investment, and has a high failure rate, in particular in the life sciences sector. For example, putting a drug in the market can take more than 10-12 years of development, and cost millions of euros. The only way that companies (licensees) will

therefore take the risk is by ensuring that the intellectual property is duly covered by patents and other forms of protection. This gives them the monopoly to commercialize IMM inventions (or exclude others from doing so) in the absence of competition until benefits are made, and their investment is recovered.



WHO DECIDES WHAT GETS PROTECTED?

TTO and the inventor(s) discuss together relevant factors in deciding whether to file a patent application. The TTO makes the final decision to file a patent application or rather to seek another form of protection.

WHAT IF I CREATED THE INVENTION WITH SOMEONE FROM ANOTHER INSTITUTION OR COMPANY?

Typically, the invention will be jointly owned and each inventor assigns the invention to his or her employer. The TTO will work with other organizations under “inter-institutional” agreements to regulate ownership and protection and commercialization activities.



WILL I BE ABLE TO SHARE MATERIAL, RESEARCH TOOLS OR INTELLECTUAL PROPERTY WITH OTHERS TO FURTHER THEIR RESEARCH?

Yes.

However, it is imperative to document items that are to be shared with others and the conditions of use. If you wish to send materials to an outside collaborator, an outgoing MTA should be completed for this purpose. It also may be necessary to have an NDA completed to protect your research results or intellectual property. Contact the TTO for getting assistance with these procedures.



WILL iMM INITIATE OR CONTINUE PATENTING ACTIVITY WITHOUT AN IDENTIFIED LICENSEE?

iMM accepts the risk of filing a patent application before a licensee has been identified. At times we must decline further patent prosecution after a reasonable period of attempting to identify a licensee without results.



MARKETING

A decorative graphic consisting of a series of white dots forming a curved path that starts from the left and curves upwards towards the right. A white target symbol (a circle with a dot in the center) is placed on the path, approximately one-third of the way across the width of the slide.

iMM is committed to broadly marketing all inventions to appropriate companies that could be interested in pursuing diligent and vigorous commercialization efforts. With your input, we will create materials to market the invention, and identify and contact candidate companies (potential licensees) that have the expertise, resources, business networks and commercialization channels to bring the invention to market. If there are several parties interested in a license, we will endeavour to license non-exclusively or grant field-of-use licenses, if possible. If it is not possible to accommodate all interested parties, we will license to the company most committed and able to maximize the impact of the invention to society.



HOW DOES TTO MARKET MY INVENTIONS?

TTO uses many sources and strategies to identify potential licensees and market inventions. Sometimes existing relationships of the inventors, the TTO staff, and other researchers are useful in marketing an invention. Market research can also assist in identifying prospective licensees, as well as, examining other comparable technologies and agreements. We also attend the main industry conferences and trade shows to establish direct contacts with companies.

HOW LONG DOES IT TAKE TO FIND A POTENTIAL LICENSEE?

It can take months and sometimes years to locate a potential licensee, depending on the attractiveness of the invention and the size and intensity of the market. It is often challenging to attract a licensee because most IMM inventions tend to be in the early stage of the development cycle and require substantial investment to commercialize them. Nonetheless, if a licensee is not found but both TTO and inventor(s) believe in the potential of the technology, the creation of a startup may be considered to de-risk and accelerate the development of the invention.



HOW CAN I ASSIST IN MARKETING MY INVENTION?

The inventors know 70% of licensees. Thus, research and consulting relationships are often valuable sources for identifying licensees. Inventor publications and presentations are often excellent marketing tools as well. Furthermore, your active involvement can dramatically improve the chances of matching an invention to an outside

company. Once interested companies are identified with the inventor's help, the inventor is the best person to describe the details of the invention and its technical advantages. The most successful technology transfer results are obtained when the inventor and the TTO work together as a team to market and promote the use of the technology.



CAN THERE BE MORE THAN ONE LICENSEE?

Yes, an invention can be licensed to multiple licensees, either non-exclusively to several companies or exclusively to several companies, each for a unique application or geography.

WHEN WILL TTO LICENSE TO A STARTUP?

Licensing an invention to a startup might offer a unique opportunity to create more value and to develop the biotech industry in Portugal. As such, iMM will seriously consider licensing inventions to startups formed by passionate and committed teams with an ambitious plan to make the best use of iMM IP. To know more about startups please check our startup guide.



LICENSING

The TTO negotiates and executes a license agreement. This agreement is a contract between iMM and a company, in which certain iMM rights to an invention are granted to a company in return for financial and other benefits. An option agreement is sometimes used to allow a company to evaluate the invention for a limited time before a formal license agreement is concluded. iMM license agreements usually require the licensee to meet certain performance requirements (also known as diligence requirements) and to pay royalties to iMM.

HOW IS A COMPANY CHOSEN TO BE A LICENSEE?

A licensee is chosen based on its ability to commercialize the technology for the benefit of the general public. Sometimes an established business with experience in similar technologies and markets is the best choice. In other cases, the focus, commitment and intensity of a startup company is a better option.

WHAT CAN I EXPECT TO GAIN IF MY INVENTION IS LICENSED?

According to IMM IP Code, a share of revenues generated from a license is provided to the inventor(s). Besides, most inventors enjoy the satisfaction of knowing their inventions are being deployed for the benefit of the general public. Plus, new and enhanced relationships with businesses can bring new teaching, research, and consulting opportunities.



WHAT IS THE RELATIONSHIP BETWEEN AN INVENTOR AND A LICENSEE, AND HOW MUCH OF MY TIME WILL IT REQUIRE?

Many licensees will be more successful in their commercialization efforts if the inventor is actively involved. This can range from infrequent, informal contacts to a more formal consulting relationship. Working with a new business startup requires substantially more time, but is dependent of your role in the company and your continuing role within iMM.



COMMERCIALIZATION

Most inventions are very early stage and require further research and development efforts. The licensee company typically makes significant business investments of time and funding to commercialize the product or service. This step may entail regulatory approvals, sales and marketing, support, training, and other activities.

REINVESTMENT



Revenues obtained by IMM foster the creation of the next generation of research and innovators. Our new technology transferred to industry enhances industrial competitiveness, brings new products and therapies to the public, and further creates economic development and new jobs through our startup companies.

TO SUMMARIZE...

STEP

WHAT YOU NEED TO DO?

RESEARCH

KEEP CHASING
QUESTIONS

INVENTION DISCLOSURE

INFORM TTO AS SOON AS YOU
DISCOVER SOMETHING UNIQUE

REINVESTMENT

ASSESSMENT / INVENTION EVALUATION

HELP TTO IN REVIEWING
NOVELTY AND MARKET
OPPORTUNITY

IP PROTECTION

REVIEW THE PATENT APPLICATIONS

MARKETING

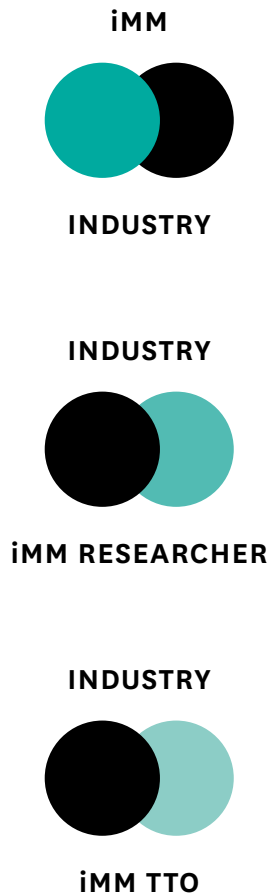
CREATE MATERIALS TO MARKET THE
INVENTION AND IDENTIFY CANDIDATE
COMPANIES WITHIN YOUR NETWORK

COMMERCIALIZATION & LICENSING

DESCRIBE THE DETAILS OF THE INVENTION AND
ITS TECHNICAL ADVANTAGES. MAINTAIN A CLOSE
RELATIONSHIP WITH THE LICENSEE TO SUPPORT THE
DEVELOPMENT OF THE INVENTION.

PILLAR 2

DEVELOP RESEARCH AND INNOVATION PARTNERSHIPS



The TTO is dedicated to creating and strengthening mutually beneficial relationships between iMM and external organizations, in particular in the biotech and pharma industry. Research collaborations combine fundamental and applied research and decrease the time it takes to move a potential product from the laboratory to the market. This cooperation directly benefits the patients and strengthens international economic competition. For the industry it is important to maintain strong alliances with research institutes to be involved in breakthrough discoveries. Additionally, research institutes get financial rewards decreasing the dependence on public funds, and access to cutting-edge scientific equipment not always available in their laboratories. The establishment of strong long-term partnerships places iMM at the forefront of health innovation.

HOW TO START A COLLABORATION WITH INDUSTRY?

Partnerships can have an internal or external origin. A collaboration can start by:

iMM ●● INDUSTRY:

you identify and report to us a specific requirement for the progress or application of your research and we identify the best industry partner according to your need;

INDUSTRY ●● iMM RESEARCHER:

you contact us to help defining and/or negotiating a collaboration with a company that is interested in working with you;

INDUSTRY ●● iMM TTO

we are in close contact with a vast number of pharma and biotech companies and often identify needs that match iMM's research capacities.

WHEN SHOULD I LOOK FOR AN INDUSTRIAL PARTNER?

Research collaborations with industry can be promoted at different stages.

AT IDEA STAGE:

in a very early phase, when you just have an idea with a clear use and purpose (a new target, a new treatment, a new diagnostic test, a technology that might enable new scientific advances), which would greatly benefit from the involvement of industry from the onset. The TTO will involve industry partners, entrepreneurs, clinicians and other experts to help assessing, refining and developing your idea. Ideas that generate industry interest will trigger follow-up fundraising efforts if needed.

AT A PROPOSAL STAGE:

when you are building or participating in a proposal that needs a consortium to be implemented, you may have already identified a funding call to apply to, but your project needs industry partners. In several funding schemes, the inclusion of an industry partner can increase the competitiveness of your proposal and, in other cases, its inclusion is actually mandatory.

AT A PROJECT STAGE:

when you have a specific project that needs to be formalized with industry or other external organizations. Please make sure you involve the TTO at the moment of defining the terms of the collaboration. Legal and financial terms must be negotiated in accordance with IMM policies, and that is the sole responsibility of IMM authorized officers.

WHAT TYPE OF CONTRACTS CAN BE ESTABLISHED UNDER AN INDUSTRY PARTNERSHIP?

SPONSORED RESEARCH:


funding of basic or clinical research in a specific field that fits into the interests and expertise of a particular research group. The sponsor can not make any claims to the results and IP. The benefit for the sponsor is early access to the results and opportunity to license IP.

COLLABORATIVE RESEARCH:


collaborative research is where two (or more parties) contribute to a research project through their scientific contribution, background IP, research staff and/or funding. Collaboration agreements make provision for sharing IP that was jointly created as well as coordinated dissemination and commercialization activities where applicable.

CONTRACT RESEARCH:

is a research requested by industry for a specific project to be carried out with identified aims and objectives. In return the company pays the commercial price for the research. Results and IP generated are normally owned by the company.



You can check IMM capacities catalogue at IMM's website. Our resources are listed according to the main stages of development and therapeutic areas, following industry standards. Please inform the TTO if you have a skill or a technique that is not listed.



Collaboration opportunities of several pharma and biotech companies are periodically updated in our intranet. Please inform the TTO if you identify needs matching your expertise.

WHY PARTNERING?

An industry collaboration can give you access to the people, processes and funds that:



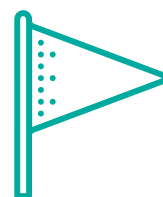
MOVE

your research from discovery to practical use;



HELP

you test the commercial potential of an idea or proposition;



CREATE

opportunities for your lab to work on groundbreaking innovations.

TOP TIPS FOR PARTNERING WITH INDUSTRY

NETWORK, NETWORK, AND NETWORK:

It is vital to put yourself out there and to promote your work where you can. This can include conference attendance and papers, reports in trade journals, having a profile on LinkedIn and so on. This is about advertising what you do, being seen in the right places, and making yourself visible. If you are going to a conference, check the participant list beforehand, make contact with the industry partners and arrange to meet with them to brief them about your work and discuss how you might work together.

SPEAK THEIR LANGUAGE:

Even seemingly, innocuous terms can cause problems: does “large scale” mean the same thing to you and your industry partner? Do a little research on the company’s mission statement and objectives and then articulate how your research might contribute to these. Make sure you have a good “elevator pitch” that articulates your research and potential benefits to the industry partner.

RECOGNIZE MUTUAL BENEFITS:

Yes, you will have extensive research knowledge and expertise that will be of great value to a potential industry partner but do not forget to recognise that they also bring their own knowledge and experience crucial to your research.

BE RESPONSIVE TO INDUSTRY DEMANDS:

Being flexible and responding to commercial interests/demands should not necessarily mean that you are compromising your research agenda. Rather, view this as an opportunity to focus your research in an area for a period of time, with the goal of creating research data/outputs that can be ‘applied’ in the world beyond academia. Any collaboration with industry will involve agreeing to certain outputs by certain dates. You have to stick to the timeline.

BE AWARE OF DIFFERING SPEEDS OF RESEARCH:

It is important early on to recognize that different sectors have very different working practices. The speed in which they work may complement or conflict with yours. An industry partner may work at a faster pace than IMM, owing to a different organizational structure, commercial pressures, and/or different conventions with regard to (peer) reviewing products and outcomes. When you agree to work with industry, you also agree to working at their pace.

BE SELECTIVE ABOUT WHO YOU COLLABORATE WITH:

Do not just collaborate for the sake of collaborating. Effective collaborations will involve all partners gaining mutual benefit from working together. Do not be afraid to decline an invitation if you cannot see the advantage to your research or if you have concerns as to whether the project will be a truly collaborative exercise.

BE OPEN-MINDED:

Being exposed to a different work culture can be both intellectually stimulating and challenging. Go in with an open mind and try to maintain this throughout the course of the project; see working with industry as an opportunity to expand your horizons and to learn.

IT TAKES TIME:

Building up successful working relationships takes time. Manage your meetings well and ensure that everyone is clear about the agreed actions to ensure that your working relationship is healthy from the start.

TALK WITH THE TTO:

- If you need an industrial partner to proceed with your research project
- If you need to share research materials with pharma and biotech companies
- If you discover something unique with possible commercial value
- If you need funds to develop and de-risk promising ideas
- If contacted by a private company interested in your research
- If you want to start your own company



Instituto
de Medicina
Molecular

João
Lobo
Antunes

TECHNOLOGY TRANSFER OFFICE

Contact us:

Email: imm-techtransfer@medicina.ulisboa.pt

Ext: 47020

