

Researcher's Guide to Technology Transfer and Research Agreement

CONTENTS

1.	WHERE TO LOCATE INFORMATION	1
2.	THE SERI BD OFFICE	2
3.	TECHNOLOGY DISCLOSURE	3
4.	INVENTION DISCLOSURE	5
5.	PATENTS	6
6.	OWNERSHIP OF INTELLECTUAL PROPERTY	8
7.	COMMERCIALIZATION	9
8.	RESEARCH AGREEMENTS	11

This guide answers some of the most common questions encountered from researchers and is organised to give a broad overview of the technology transfer process and the services available to researchers at the SERI BD office.

1. WHERE TO LOCATE INFORMATION

- **I've made an invention and would like to know more.**
See section 4 ("Invention Disclosure"), page 5.
- **I want to protect my invention before publishing.**
See section 5 ("Patents"), page 6.
- **I'm considering a research collaboration with an industrial or academic partner.**
See section 8 ("Research Agreements"), page 11.
- **I have an industrial partner who may be interested in partnering with SERI.**
See section 8 ("Research Agreements"), page 11.
- **I have an industrial partner who wants to license my technology or invention(s).**
See sections 3 ("Technology Transfer") and 7 ("Commercialization"), pages 3 and 9, respectively.
- **I would like to form a spinoff company based on my inventions.**
See sections 3 ("Technology Transfer") and 7 ("Commercialization"), pages 3 and 9, respectively.

For further details and support regarding all questions and topics, please contact the BD office:

Email: danny.belkin@seri.com.sg

Tel.: 6576-7214

Location: SERI @ Academia

2. THE SERI BD OFFICE

This SERI Business Development (BD) office has been set up to drive the development of promising SERI technology towards commercialization, via direct licensing to industry or spinning off of start-up companies. As part of this the office will be charged with managing SERI's Intellectual Property (IP) portfolio and ensuring SERI and its researchers receive the optimal return from their work.

Additional tasks of the SERI BD office will include initiating and maintaining industry contacts with the goal of generating industry-sponsored research collaborations; protecting SERI's interest regarding IP and revenue within the framework of research collaborations; educational efforts on commercialization, business development, intellectual property protection and other related topics towards the SERI and SingHealth clinical and research communities; communication efforts towards industry and other relevant parties with the goal of enhancing SERI's image and increasing the Institute's appeal to external partners; and the training of BD professionals who will in coming years be able to expand the breadth of technology sources for which effective commercialization activities are carried out.

How do I work with the SERI BD office?

The process of technology development and commercialization can be long, expensive and require a substantial amount of specialized experience. The role of the SERI BD office is to either offer these directly to inventors or facilitate linking them to relevant resources, such as design, testing or manufacturing partners.

Whether you're considering a research collaboration, an invention, a material transfer or any other aspect of your research that has to do with IP, commercial potential or revenue sharing, we encourage you to contact the BD office. This can be at any time along the research pathway: prior to, during, or following your research, according to your needs.

We want to ensure that you are aware of the options that will best leverage the commercial potential of your work. The process of technology transfer is summarised below. Note that these steps can vary in sequence and often occur simultaneously and that the Institute might decide to stop the process of technology transfer depending on the progress of protecting and/or marketing of the invention.

3. TECHNOLOGY TRANSFER

What is technology transfer?

The purposeful transfer of the results of research from universities and research institutions into the market.

How long does the technology transfer process take?

The process of protecting an invention and deciding on the best route for commercialization (either finding the right licensing partner or moving towards spinning off a company) may take months - and even years - to complete. The amount of time will depend on the development stage of the invention, the market for the invention, competing technologies, the amount of work needed to bring a new concept to market-ready status, and the resources and willingness of the licensees and the inventors.

The technology transfer process at a Glance

1. Research: Observations and experiments during research activities often lead to discoveries and inventions. An invention is any useful process, machine, composition of matter, or any new or useful improvement of the same. Often, more than one person may have contributed to the inventions. For this reason and others, it is crucial to document the work done very carefully - this record keeping can turn out to be of paramount importance once commercial value is seen in the research outcomes!

2. Invention Disclosure: The written notice of invention to the BD office that begins the formal technology transfer process. An Invention Disclosure remains a confidential document, and should fully document your invention so that the options protecting the invention and commercialization can be evaluated and pursued. This document will be mailed to you upon contacting the BD office with a potential invention. It is important to keep in mind that SERI has implemented the SingHealth IP policy - the BD office can help you understand how this policy applies to the results of your research.

3. Assessment: The period (normally taking around 1 month) in which the BD and relevant IP office (SingHealth, A*Star, or other, depending on the agreements underlying the research) review the Invention Disclosure and conduct patent searches.

4. Protection: The process in which protection of the intellectual property rights to the invention are secured. This is done so that there is an asset to transfer to a third party. Patent protection begins with the filing of a patent application with one or more government patent offices. Once a patent application has been filed, it will require several years and a lot of money to obtain an issued patent.

5. Marketing: With your involvement the BD office staff identifies candidate companies that have the expertise, resources, and business networks to bring the technology to market. This may involve partnering with an existing company or forming a start-up. Your active involvement can dramatically enhance this process.

6. Spinning off a start-up: If creation of a new business start-up has been chosen as the optimal commercialization path, the BD office will work to assist the founders in planning, creating and finding funding for the company.

7. Licensing: A license agreement is a contract between SERI ("licensor") and a third party ("licensee") in which the institute grants certain rights of use of an invention to the external party for financial or other benefits. A license agreement is used with both new start-up businesses and established companies.

8. Commercialization: The licensee of the invention continues the advancement of the invention and makes other business investments to develop the product or service. This step may entail further development, regulatory approvals, sales and marketing, support, training, and other activities.

9. Revenue: Revenues (net income) received by SERI from licensees are distributed as follows, depending on the body funding the research:

- NMRC/SingHealth funded research: 50% inventor(s); 40% SERI; 10% SingHealth

What regulatory issues can I expect to encounter during the technology commercialization process?

Developing a new healthcare technology (whether device, therapeutic, software or diagnostic) from invention to commercial stage is a prolonged, complicated and expensive process, involving a high degree of regulation. Diligent work is required to demonstrate the quality, safety and effectiveness of the product, and regulatory submissions will be required in several stages to prove to the authorities that this work has been carried out, and done so in an appropriate fashion.

Despite the fact that regulatory documents are generally easily accessible online, finding your way through them is far from simple, especially when dealing with authorities in multiple countries. The BD office is there to assist you by providing access to regulatory professionals who can help you in developing this area as you advance along the R&D pathway.

How can I help in this process?

- Contact the BD office at danny.belkin@seri.com.sg or call on 6322 8311 when you believe you have an invention or idea with potential commercial or research value.
- Complete and submit the Invention Disclosure form, which will be sent to you, in sufficient time to file a patent application before publicly disclosing your invention or publishing a manuscript.
- To avoid risking your patent rights and possibly hindering the opportunity to market your invention, contact the BD office before holding any discussions with people outside SERI. If a patent application has not yet been filed, we will provide you with a Non-Disclosure Agreement for the party to sign before you describe your invention.
- On the Invention Disclosure, include companies and contacts you believe might be interested in your invention or who may have already contacted you about it. Studies have shown that over 70 % of all licenses are executed with commercial entities known by the inventor, so your contacts can be extremely useful.
- Respond to the requests of the BD office and SingHealth IP and legal offices. While some aspects of the patent and licensing process will require significant participation on your part, we will strive to make efficient use of your valuable time.
- Keep the BD office informed of upcoming publications or interactions with companies related to your intellectual property.

Have there been SERI technologies which have been successfully commercialized?

A growing number of technologies developed at SERI, some in collaboration with external partners, have been commercialized. This includes the Tan Endoglide, a corneal surgery device which was initially licensed to a medical device company in 2008 and is now nearing its third generation, which will likewise be developed and marketed together with this partner; lenticular storage technology which has recently been licensed to a new Singapore-based start-up company which will pursue its commercialization in the region; and several ocular imaging software technologies which have been licensed to well known industrial companies in the ophthalmic imaging domain. The highly promising and continually developing technology portfolio being developed at SERI ensures that this list will be supplemented by additional licenses and spin-offs in the coming months.

What funding is available beyond the usual grant awarding bodies?

While 'traditional' funding sources, such as research grants, will continue to play a part in fostering commercializable medical technology, additional sources of funding and support are available particularly for projects with an applied or market-oriented goal. These can come from a variety of sources and can be used for different steps along the technology development path, including proof-of-concept, proof-of-value, preclinical and clinical testing of devices and compounds.

In addition, SERI is striving to establish its own ophthalmic technology incubator framework to support the in-house development of commercially-oriented projects.

If you're interested in learning more about such sources of support, please contact the BD office.

4. INVENTION DISCLOSURE

What is an Invention Disclosure?

An Invention Disclosure is a description of your invention or development that is provided to the BD office. The Invention Disclosure should also list all sponsors of the research and should include any other information necessary to begin pursuing protection and commercialization activities. It is critical that you note the date of any upcoming publication or other public disclosures describing the invention.

To initiate the process, contact the BD office and you will receive the ID document. This document will be treated as confidential within SERI. You will be contacted after your submission of the Invention Disclosure with information on the evaluation process of your invention.

How are Invention Disclosures evaluated?

BD office staff will, along with the help of the inventors and patent office staff (whether at SingHealth or other, examine each invention disclosure to review the novelty of the invention, competing technologies, patentability and marketability, relationship to related intellectual property, size and growth potential of the relevant market, amount of time and money required for further development.

How do I know if my discovery is an invention? Should I be submitting an Invention Disclosure?

You are encouraged to submit an Invention Disclosure for all developments that you feel may solve a significant problem and/or have significant value. If you are in doubt, contact the BD office to discuss the potential invention.

When should I complete an Invention Disclosure?

You should complete an Invention Disclosure whenever you feel you have discovered or developed something unique with possible commercial value. This should be done well before public disclosure of any aspect of the invention, which can be through publications, poster sessions, conferences, press release, abstracts, or other communications. Publicly disclosed inventions have a minimal potential for patent protection in most countries.

Will I be able to publish the results of my research and still protect the commercial value of my intellectual property?

Yes, but since patent rights are affected by these activities, it is best to contact the BD office and then submit an Invention Disclosure form well before any public communication or disclosure of the invention.

Once publicly disclosed (published or presented in any form), an invention may have restricted or minimal potential for patent protection. Be sure to inform your contact at the BD office of any imminent or prior presentation, lecture, poster, abstract, web site, description, research proposal submission, dissertation/thesis, publication, or other public presentation of the invention.

5. PATENTS

What is a patent?

A patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing any patented invention. Note, however, that a patent does not provide the holder any affirmative right to practise a technology, since it may fall under a broader patent owned by others; instead, your patent only excludes others from practising it. Patent claims are the legal definition of an invention's protectable invention.

What type of subject matter can be patented?

Patentable subject matter includes processes, machines, composition of matters, and methods.

Can someone patent naturally occurring substances?

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.

What is the definition of an inventor on a patent and who determines this?

An inventor is a person who makes an original and substantive contribution to the conception of the ideas in the patent claims of a patent application. An employer or person who furnishes money to build or practice an invention is not an inventor, neither is a person who tests or reduces someone else's idea into practice, nor someone who provides samples for an experiment. Determination of inventorship may require an intricate legal process by the patent attorney prosecuting the application.

Who is responsible for patenting?

SingHealth, A*Star and other institutional IP offices contract external, Singapore-based patent attorneys for patent prosecution and maintenance. Inventors work with the IP offices in drafting the patent applications and responses to patent offices in countries where the patent is pending.

How does the patenting process progress?

Patent applications are generally drafted by an external patent attorney, although early ('provisional') applications may be in the form of a research manuscript. For more advanced patenting stages, the patent attorney will ask you to review an application before it is filed and will also ask you questions about inventorship of the application claims. Filing a provisional application institutes a reference filing date which can later be referenced as commencing the patent protection period. Filing a provisional application also allows the inventor(s) to publicly disclose his or her invention without invalidating the patent. However, a provisional does not become an issued patent unless a 'regular', non-provisional patent is applied for by the applicant within one year.

At the time an application is filed, the patent attorney will ask the inventor(s) to sign an Inventor's Declaration and an Assignment under which the inventor(s) assigns his or her rights in the patent to SingHealth or A*Star, depending on the body funding the research. This is part of normal patenting procedures, and your signing the document does not mean that you relinquish the right to potentially receive remuneration.

A search report is sent from the patent office 14-16 months from the first filing. The search report lists all prior art documents found by the Examiner and includes them as copies. More often than not, the Examiner rejects the application because either certain formalities need to be cleared up, or the claims are not patentable over the "prior art" (anything that workers in the field have made or publicly disclosed in the past).

The patent attorney files a written response by amending the claims and/or pointing out why the Examiner's position is incorrect. This procedure is referred to as patent prosecution and it may take more than one correspondence between the Examiner and the patent attorney. During the prosecution process, input from the inventor(s) is often needed to confirm the patent attorney's understanding of the technical aspects of the invention and/or prior art cited against the application. Your application is published 18 months after the filing date. Your invention will appear in databases accessible to other people and it will act as prior art against any future patent applications.

Can patent applications be changed during the filing process?

While in theory any provisional patent application can be amended after filing, amendments increasing the application's scope will be disqualified. If you're still in the provisional stage, the recommended strategy is to file a new provisional application as soon as possible to establish a priority date for the added information you wish to add, rather than attempting to add these to an existing application.

Is there such a thing as an international patent?

No, but an international agreement known as the Patent Cooperation Treaty (PCT) provides a streamlined filing procedure for most industrialized nations. A PCT application is generally filed one year after the corresponding first national patent application has been submitted. The PCT application must later 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.

What is the timeline of the patenting process and resulting protection?

The average patent application is pending for about 4 years. Once a patent is issued, it is enforceable for 20 years from the initial filing of the application that resulted in the patent, assuming the patent office's mandated maintenance fees are paid.

Will SERI, SingHealth or A*Star initiate or continue patenting activity without an identified licensee?

Often SERI, together with the body filing the patent (SingHealth or A*Star), accepts the risk of filing a patent application before a licensee has been identified. After the institute's rights have been licensed to a licensee, the licensee generally assumes the patent expenses.

It will occur at times that the Institute is forced to decline further patent prosecution after a reasonable period of attempting to identify a licensee, as sustaining a patent can prove extremely costly.

What happens if a patent is infringed?

Infringement is the unauthorized use of an invention claimed in a patent. When infringement happens, the holder of the patent (in our case, SERI or its partners) has the option to sue the infringing party in court, and ask the court for an injunction to prevent the continuation of the patent infringement. The patent holder can also ask for award of damages, which can be substantial. As patent infringement litigation can be extremely expensive, most infringement cases never reach trial, with the threat of being forced to defend against a patent infringement lawsuit compelling companies in many cases to pay royalties or abandon particular products.

Can I patent a new method of using currently patented inventions?

While this is a legally complex question, the simple answer is that there is no limitation on filing new patents on already patented inventions. However, when seeking to commercialize this new patent a license will need to be obtained from the holder of the original patent, and this may limit the ability to find commercial partners and bring the new invention to market. This situation can thus restrict the attractiveness of such a new invention; however it can also be positive as the license holder for the original invention can potentially add a new method of use which adds substantial value, and the inventors of the new method can link directly to a strategic partner with existing marketing and sales capability.

In such complex cases a comprehensive case-by-case freedom to operate analysis will be required to assess the exact IP circumstances and recommend the optimal path to take. If you encounter a case in which you discover a beneficial way of using an already patented invention and wish to evaluate the possibilities from a patent law and commercialization standpoint, please approach the BD office and we will examine this with you in depth.

6. OWNERSHIP OF INTELLECTUAL PROPERTY

What is intellectual property?

Intellectual property is an invention and/or material that may be protected under patent, trademark and/or copyright laws.

What's the difference between patent ownership and inventorship?

Inventorship is a legal concept that is assessed by meeting the requirements to be an inventor: having made an inventive contribution to the invention which is described in the patent. The concept of ownership, however, relates to who actually owns the legal rights associated with the patent. Often, especially in a university or a corporate setting, the institution and not the inventor is the patent owner.

Who owns what I create?

Ownership depends on the employment status of the invention's creators. Considerations include:

- What is the source of the funds or resources used to produce the invention?
- What was the employment status of the creators at the time the intellectual property was made?
- What are the terms of any agreement related to the creation of the intellectual property?

Inventions made by a SERI employee as part of his or her work at the institute belongs to SingHealth. However, as mentioned above, if you're collaborating on a project with a researcher from another institution, additional owners may also be in place. If in doubt regarding who owns IP based on your work, it is best to contact the BD office for advice.

Should I list visiting scientists on my Invention Disclosure?

All contributors to the ideas leading to a discovery or invention should be mentioned in your disclosure, even if they are not SERI employees. The BD office, along with SingHealth or A*Star IP office and patent agents, will determine the rights of such persons and institutions.

It is highly important to discuss all working relationships (preferably before they begin) with the BD office to understand the implications for any subsequent inventions.

Can a student contribute to an invention?

Yes, a student can even be the sole contributor or inventor. As a ground rule, ownership of an invention made by a student lies with the student. Ownership may, however, lie elsewhere if the invention was made by a student in a capacity as a SERI employee, as a trainee, or if the rights to his or her inventions have been assigned as part of the conditions for joining a sponsored research project. A further special case in which attention should be paid is when a student is working at SERI on a visit from another institution.

7. COMMERCIALIZATION

What are the typical steps in a commercialization process?

Usually a patent application is filed before any marketing of the technology takes place. Often a period of maturing or validating the invention will take place prior to or simultaneously with any marketing of the invention. Once a licensee is found, the BD office negotiates an agreement for the use of the invention and subsequently monitors the agreement on behalf of the Institute.

How does the BD office market my inventions?

The BD office uses many sources and strategies to identify potential licensees and market inventions, including proactive approaches to relevant companies, distribution of technology offer documents, and presentations at conferences. Many times existing relationships of the inventors, the BD office and its staff, and other researchers are highly useful in marketing an invention. Various types of market research can also assist in identifying prospective companies.

How can I assist in marketing my invention?

Your active involvement can significantly improve the chances of matching an invention to an outside company. Your research and consulting relationships are often helpful in both identifying potential licensees and technology champions within companies. Former students and colleagues are also a good source for leads. Once interested companies are identified, 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 BD office staff member work together as a team to market and promote use of the invention.

How long does it take to find a potential licensee and negotiate a license agreement?

It can take anywhere from a phone call to years to locate the right licensee. This usually depends on the attractiveness of the invention and the size and stage of development of the market.

What is a license agreement?

A license is permission granted by the owner of intellectual property that allows another party to act under all or some of the owner's rights, usually under a written license agreement. License agreements typically describe the rights and responsibilities related to the use and exploitation of intellectual property.

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 only for a unique field-of-use (application) or geography.

What is a start-up and why choose to create one?

A start-up is a new business entity formed to commercialize one or more related intellectual properties. Forming a start-up business is an alternative to licensing the invention to an existing company. A few key factors when considering a start-up company are:

- Development risk: Large companies in established industries are often unwilling to take the risk on an unproven technology.
- Development costs versus investment return.
- Can the investors in the start-up obtain their needed rates of return?
- Potential for multiple products or services from the same platform technology: few companies survive on one product alone.
- Sufficiently large competitive advantage and target market
- Potential revenues sufficient to sustain and grow a company

Who decides whether to form a start-up?

The choice to establish a new company for commercializing intellectual property is a joint decision made by the BD office, the inventor(s) and the SERI leadership. If a new business start-up is chosen as the preferred commercialization path, the BD office will assist you and the other founders in meeting investors, consultants, and entrepreneurs to help you in founding and developing the company.

As start-up companies spun-off at SERI will be based on technology developed at the Institute, the BD office will negotiate with a company representative to grant a technology license to the new company.

It is wise for inventors to have agreements regarding their roles with the start-up reviewed by their own counsel to ensure that all personal ramifications — including taxation and liabilities — are clearly understood.

What can I expect to gain if my IP is licensed?

According to the SingHealth IP policy, a share of any surplus financial return from a license (following deduction of patenting and overhead costs) is provided to the inventor(s) and to the Institute. In addition, inventors enjoy the satisfaction of knowing their inventions are being deployed for the benefit of patients in Singapore and in other countries. New and enhanced relationships with businesses are another outcome that can augment one's teaching, research and consulting.

What is the relationship between an inventor and a licensee, and how much of my time will it require?

Most licensees need some active assistance by the inventor to facilitate the product development of their invention. This can range from infrequent, informal contacts to a more formal consulting relationship. Working with a new business start-up can require substantially more time, depending on your role in, or with, the company and your continuing role within SERI or SNEC. Please be mindful of potential positions of conflict of interest which may arise from personal consulting activities.

What revenues are generated for SERI if commercialization is successful?

Most licenses have licensing fees that can be very modest (for start-ups or situations in which the value of the license is deemed to warrant a modest license fee) or can reach sums many times that. Royalties on the eventual sales of the licensed products can generate similar or greater revenues, although this usually takes years to occur. Equity, if included in a license, can yield similar returns, but only if a successful equity liquidation event (public equity offering or a sale of the company) occurs.

Most licenses do not yield substantial revenues. A recent study of licenses at U.S. universities demonstrated that only 1% of all licenses yield more than 1 million dollars. However, the rewards of an invention reaching the market are often more significant than the financial considerations alone.

What will happen to my invention if the start-up Company or licensee is unsuccessful? Can the invention be licensed to another entity?

Licenses typically include performance milestones that, if unmet, can result in termination. This allows for subsequent licensing to another business. However, time delays and other considerations can hinder this re-licensing.

8. RESEARCH AGREEMENTS

Discussion between the PI and research leader and the BD office regarding the risks and benefits associated with research collaboration is essential at an early stage to help clarify the crucial issues, expedite the process and ensure agreement. This will ensure the Institution's interests are kept from initiation of the work all through until the fruits stemming from it are reaped. This discussion will cover several important issues:

- o Who developed the proposal
- o The scope of work
 - What the work will entail
 - Who will be doing what, and who brings what to the collaboration
 - Whether the work is part of a long term research strategy
- o The location in which the work will be carried out
- o Share of work
 - Who is involved in the research and what their participation is
- o What relationship (if any) does the work have with similar projects taking place or due to take place at SERI?
- o Funding
 - Who is the body funding this research, on all sides
 - The cost / price of the research activity and sub-activities (if known)
 - Whether there are any other parties providing funding, materials or otherwise
- o Intellectual property (IP)
 - Whether the work relies on SERI's IP or know-how
 - Whether any third party-owned IP or materials may be required
 - Whether novel or commercially viable IP is likely to arise
- o Whether there is any clinical activity associated with the project

- o Whether research involves use of human tissue

Any kind of research collaboration, including confidential discussions with another party, exchange of materials, or any other research related activity, may well require a contract to be put in place before the collaboration begins. SERI serves as the entity governing all research conducted at SERI and SNEC, and the SERI Admin office is tasked with the oversight to ensure that legal due diligence is observed prior to the conduct of any research activities at SERI and SNEC. Consequently, all research agreements (e.g. non-disclosure/ confidentiality agreements, research collaborative agreements, material transfer agreements, clinical trial agreements) must be reviewed by the SERI Admin office.

All negotiations with the collaborating party which touch upon the topics highlighted above should involve, at the least, the PI, the SERI Admin office and BD office representative.

Research contract negotiations undertaken by SERI will always attempt to establish an IP and revenue sharing position that is both **proportionate, and appropriate** to the nature of the collaboration in research activities, including time, funds and facilities, among others.

As some research agreement templates in Singapore defer the determination of IP ownership and revenue sharing until the end of the collaboration, collaborative research activities (especially when carried out in discussion or communication with the external collaborators), should be meticulously recorded in order to allow subsequent justification of IP ownership and revenue sharing demands.

Research collaboration reviews tend to focus on a few key areas, examples of which are:

Intellectual Property: Often the most contentious issue in an agreement, SERI will always try to ensure the rights of its researchers are protected with regard to future use of IP, and that any commercial benefit to be derived from the IP is shared proportionally to the contribution made by SERI staff. Care will always be taken to balance any commercial advantage against the academic benefits of carrying out an activity, in achieving the best deal possible for the Institute and the researcher(s).

Publication rights: The cornerstone of academic research is the right to publicly disseminate the outcomes of research. Whilst on occasion there may be good reason to delay or restrict publication (e.g. confidentiality, the patenting process, or arrangements with collaborators), SERI always seeks to protect this fundamental right in its research agreements. This right to publish is also linked to the Institute's academic mission and how it classifies its research activity.

Can I use material or intellectual property from others in my research?

Yes, but it is important to document carefully the date and conditions of use so that we can determine if this use may influence the commercialization potential of your subsequent research results. If you wish to obtain materials from outside collaborators, an incoming Material Transfer Agreement (MTA) should be completed. MTAs are used for incoming and outgoing materials, and describe the terms under which researchers and outside researchers may share materials, typically for research or evaluation purposes. Intellectual property rights can be endangered if materials are used without a proper MTA.

For more information on MTAs, please contact either the SERI BD or Admin office.

Will I be able to share material, research tools or intellectual property with others to further their research?

Yes. However, it is imperative to carefully 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 may also be necessary to have a Non-Disclosure Agreement completed to protect your research results or intellectual property. Please contact the BD office for more information.

What rights does a research sponsor or collaborator have to any discoveries which stem from my research? What rights do I have?

The Research Collaboration Agreement (RCA) signed with your collaborator or sponsor should specify the rights of both parties regarding intellectual property and potential revenue sharing, and depend, among other factors, on the party funding the research, existing IP and/or materials on which the collaboration is based, and the facilities in which this is conducted. The sponsor may have rights to obtain a license to the intellectual property arising from the research. However, the sponsor will not have contractual rights to discoveries which are clearly outside of the scope of the research. Therefore, it is important to define the scope of work within a research agreement and the companies' "field of use".

For help to draft and negotiate research agreements please contact the BD office, which will assist, in close consultation with the SERI Admin and the SingHealth Legal offices.

For more information on RCAs, please contact either the SERI BD or Admin office.

What are NDAs? How are they used at SERI?

Non-Disclosure Agreements (NDAs) are often used to protect the confidentiality of an invention during evaluation by potential licensees as well as when exploring the viability of research proposals. SERI frequently enters into NDAs for the purpose of sharing proprietary information with someone external to the institute. Two-way NDAs also protect proprietary information of third parties that SERI researchers need to review in order to conduct research or evaluate research opportunities. It is **strongly advised** that an NDA is signed before any IP or other sensitive information is disclosed in any communications with other parties.

For more information on NDAs, please contact either the SERI BD or Admin office.

