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NOTIFICATION

The Syndicate in its 22nd meeting held on 03.05.2019 has approved the recommendations made by the Academic Council in its 5th meeting held on 20.03.2019, regarding Intellectual Property Management Framework for Universities along with relevant agreements/annexures (copy attached). The Syndicate directed that approved version of said document should be published and be placed on the university website.


Maher Iftikhar Ahmad
Deputy Registrar (Acad.)
For Registrar

Distribution

- All Deans/Directors/Chairpersons of Teaching Departments.
- Secretary to the Vice Chancellor
- Office File

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Appendix

Intellectual Property Management Framework for
Universities

Best Practices and Recommendations

I. Introduction

Public universities have a mission to promote not only research and development but also public benefit from its investments. Inventions and discoveries hold great potential for commercial and public benefit. Hence, the proper management of inventions is necessary in pursuit of this mission.

In order to realize both commercial and public benefit from research, MNS University of Agriculture needs to establish and implement a framework that defines and asserts ownership over inventions and other intellectual property rights (IP). A strong IP framework will promote private investment and commercialization in government funded research discoveries for overall public good. The commercialization of innovation, research findings and effective utilization of the benefits have also been recognized as a reputable way of academic development and promoting linkages between universities and industry.

In order to achieve these ends, a consistent IP policy and protocol needs to be applied by the university. A consistently applied IP framework will allow the fruits of inventions and educational investment to reach the public in a fair and equitable manner. Consistent application of a policy in this field will also reflect upon the university's leadership role in setting industry standards and safeguarding academic research. Positioning itself as a leader lends higher credibility as an inspiring public image to an academic institution. It will also build credibility and positive public image of the university, attracting talent, resources, and investment. IP policies should be implemented in a manner consistent with the mission of the University, in order to serve both public and commercial interests.

II. Institutional Intellectual Property Policy

An IP strategy, which is incorporated in an IP Policy, will determine the long-term goals of a university about its intellectual assets, and guide the adoption of measures to achieve those goals. The IP policy of the university will also guide how technology transfer will take place. An IP policy is concerned with two main practical aspects, namely, incentivizing researchers, and managing and controlling the dissemination of resulting research output.

IP rights are outlined in Article 27 of the Universal Declaration of Human Rights, which "provides for the right to benefit from the protection of moral and material interests resulting



from authorship of scientific, literary or artistic productions.” IP rights are not limited to the private interests of an inventor, and have substantial public dimensions which any institution, building an IP policy, should harness. IP rights and protection of these interests serve as incentives and rewards for inventors. IP rights also help define intellectual assets that an organization has, enabling it to strategize the transmission, communication and transactions related to inventions more tangibly.

The IP policy must be assessed and formulated in line with the university’s mission. The university may prioritize objectives such as:

- Disseminate knowledge through research, teaching and publication
- Generate innovation
- Be an instrument of technology transfer
- Promote economic development and public service through education and technology transfer(Kowalski, 2007)

The institutional commercialization of IPR are licensing out, incentives given for licensing and IP sale (Malackowski, 2009)

III. Features and Implementation of an IP Policy

The IP strategy must be assessed and formulated in line with the university’s mission. In designing an effective policy, the primary issue that has to be addressed is the question of ownership. The university should clearly define the inventor’s rights and outline a clear assignment of these rights to the university. (Kowalski, 2007).

A university generally owns the intellectual property “made, designed, discovered, or created by a member of staff, students, guest researchers, etc., during their employment and responsibilities. (Kowalski, 2007).”The intellectual property would also have to be made through a significant use of the university’s resources. It would also be helpful for the policy to define ‘university resources’ to include the University’s funds, time, facilities or equipment. In case the research is sponsored, then the terms of the grant or agreement will determine ownership, and usually such agreements give the university ownership. Ownership provisions should also address what the protocol would be in case of visiting researchers. At MIT for example, visiting researchers sign an Inventions and Proprietary Information Agreement before beginning work. (Kowalski, 2007)

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Addressing these questions before implementing the policy will help ensure there are uniform practices in place. Uniformity helps reduce transaction costs, increases transparency, ensures consistency and builds trust.(Bennett, 2007).

IP ownership and practical considerations

Who should own inventions developed at the university? The question of ownership and assignment can be a point of friction between the university and inventors.

As a general practice, universities own the inventions developed at the university. The following circumstances may occur at institutions:

- (1) There is an express agreement between the inventor and the University providing for the assignment of the invention to the University employing the inventor.
- (2) There is an implied agreement for the assignment of an invention between the inventor and the University because the inventor:
 - a. was hired to or assigned to invent; or
 - b. was hired or assigned to solve a specific problem

If there is no express agreement and no implied contract to assign, then the inventor will own the invention. However, this is subject to a court's determination, especially if the invention was made with the employer's resources or facilities (significant use of university's resources) which would usually mean that there was an implied contract. Although the law is not settled on this issue in Pakistan, should such a situation arise, the University can argue to obtain a non-exclusive royalty-free license to practice the invention even if there is no express or implied contract. This is referred to as a "shop-right" in other jurisdictions (Weidemier, 2007).

In respect of third parties

Research sponsors often insist upon the assignment of IP as an important condition under the agreement of research funding. This applies both to certain public and private sector sponsors and there may and may not be any obligation on the assignee to share future benefits of IP with the organization. Ownership policies for IP of government funded research differs much. It ranges from free ownership by the research institution to shared ownership between the research institution and the funding agency, to full ownership by the funding agency, with benefit sharing system applicable in some cases. But the funding agency should not have any share in the



invention once it is made out of their funding. Sponsored from Industry put pressure on owning technology that develops from research. This does not, however, considered the reality that universities also contribute financially, because universities do not generally apply principles of full cost recovery when pricing these contracts. Research universities are therefore tackle with how to cost and price research contracts more effectively without pushing away industry funders (Wolson, 2007).

There are certain practices the University should adopt to keep the question of ownership as clear as possible:

- On the day a professor or researcher starts working at the university, they should sign a clear and unambiguous agreement to assign inventions to the university-defining the area of research and making the inventor aware of the revenue and rewards they can obtain if they assign the invention to the university.
- University is responsible for paying the fee for patent filing or all applications associated with patents.
- The university employee, in the absence of a signed agreement, should still adhere to the university policy which would assign ownership of inventions in the course of employment or through sponsored research to the university.
- Employees would only own their inventions if they were not developed in the course of sponsored research or some agreement with the university or not developed with the significant use of university funds and resources
- In the case of a dispute as to ownership between the employee and the university, the following factors must be taken into consideration along with legal advice: -whether there was a clear agreement to assign the invention -source of funding -whether the employee was hired to work in that specific area of research or to solve a problem with the invention
- In case there is no clear agreement, the policy should stipulate that there will be an implied contract to assign the invention to the university if the university's funds or facilities were used and it was invented during university time. However, since policies and handbooks are not legal contracts, universities should strongly rely on explicit agreements signed by the employer at the time of employment.

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- Before any action is taken on the disclosure of a new invention, the technology transfer office should double check to make sure all the relevant contracts and assignment agreements have been communicated to and signed by the employee and the university.
- If the invention was created in the employee's own time or discovered by accident in their own time, while the employee was still under a contract with the University, the University should be careful to add relevant provisions in the invention assignment agreement (IAA). The agreement should stipulate the assignment to the university of "conception-at-home" situations. It is important to do so because the inventor would not have come up with the invention had it not been inspired by research at the university. During the course of engagement with the university, the research provides inspiration for any on-premises or off-premises inventions.
- Ownership v shop right- in the absence of an agreement and if the employee works on something unrelated to their usual area of research and invents something, a shop right can be assigned to the university. It is a nonexclusive royalty free right for the employer to practice the invention in case there is no agreement and by law the title belongs to the inventor. (Weidemier, 2007).
- Some time employee change his/her job and publish the data with new institutional affiliation. He/she should mention the previous institute in the published articles along current address for his/her institute.
- In case of international co-inventor, well planned policy should be designed at the start of project according to Pakistani rules and rights of patent and share should be addressed in detail
- After the completion of project, the notebook should be submitted in concerned office/supervisor for future use.
- Sometime the improvement in invention even after the award of patent may leads towards something new. Which could be submitted as a new invention. In this case, it could be a new process, product, and method so it needs to be addressed in this document.
- University should engage a legal advisor having expertise for patent filing, and to solve legal issue of IPR as followed in developed countries.

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Following the best practices of IP policies in universities, the policy tenets stipulated in this framework should be *"applicable to all full- and part-time faculty, staff and employees, students, postdoctoral fellows and non-employees who use University funds, facilities or other resources, or participate in University-administered research, including visiting faculty, industrial personnel and fellows, regardless of obligations to other companies or institutions."* (Anonymous. 2013).

A situation the university may face is if students get involved on a research project without signing any sort of agreement and in the process of their work, create an invention. In order to prevent confusion in these situations, every person (either faculty, staff, visiting scientists or student) should sign agreements to assign any inventions to the university, before doing technical parts of the work.


In case of visiting researchers: in the absence of an agreement, the University should consider reaching a settlement. It is most likely that a visiting researcher would own the invention in absence of an agreement, and the University can negotiate joint ownership or retain a right to use the invention. As a practical matter, working towards a settlement would also generate goodwill and a positive reputation for the University. (Anonymous. 2013).

IV. Objectives of a Technology Transfer Office

A Technology Transfer Office (TTO) is a key instrument in implementing the university's objectives about its IP policy. The TTO supports the key objectives of universities to support education, research, innovation, commercialization and public service. They are key facilitators in promoting and rewarding inventiveness at the university. They are also trustees for the university's IP and should have a clearly articulated mission and management practices to ensure its functions are carried out smoothly.

Although TTOs have business objectives, they should also incorporate social welfare in alignment with the country's developmental goals. They have a role in ensuring that commercial benefits are not necessarily antithetical to social good. Societal welfare includes the ability to reap rewards from research but also benefit farmers, the environment, and society as a whole (Young, 2007).

The main objectives of a TTO may be:



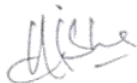
- To foster continuing support for research at the university from government institutions by showing societal benefit from new technology and products.
- To arrange events for students of university to generate novel ideas which could be used to hunt funding from national and international agencies
- To generate business and industry support for research
- To foster public service by creating new study and work opportunities
- To help students, faculty, and research staff develop their knowledge into entrepreneurial skills.
- To enable research faculty to see the practical results of their work (Kowalski, 2007).

A clear framework of procedures and management practices needs to be followed by everyone involved in the establishment and running of a TTO. At the heart of this framework is defining who owns an invention and how to manage an invention. The TTO serves its role in protection and commercial development through the following functions:

- Decide what kind of IP protection is needed for an invention
- Evaluate the commercial potential of the invention
- Obtain the appropriate IP protection through fulfilling the requirements set by law
- Market the technology to seek suitable commercial partners or other research institutions and license the technology to them
- Negotiate and manage licenses and university IP portfolios (Gregory, 2007)

Public sector universities must also align their functions with public service. In addition to commercial development, the university's IP strategy framework is incorporated in the TTO's functions:

- Promote awareness about IP amongst innovators and government institutions highlighting the importance of innovation to the growth of an institution
- Use information contained in national and international IP databases to keep researchers and TTOs informed
- Connect with resources in national and overseas markets to assist with commercial exploitation
- Include a specific officer within the TTO to specifically for IP management. It is important to remember that while IP management is a significant part of the TTO, it is



not the only one as the TTO must also carry out administrative duties, conflict of interest compliance, and market evaluation.

- Promote good communication between the TTO and other departments of the university (Pitkethly, 2007).

V. Disclosure

Role of inventor

Disclosure is the process by which the TTO will learn about inventions from the inventors. The process of disclosure and technology protection and licensing cannot be conducted smoothly if there is no cooperative relationship between inventors and the technology transfer office. The inventor understands the technology best, and their cooperation in disclosure and transfer is necessary. Therefore, certain management practices should be instituted within the technology transfer office that would ensure effective disclosure.

Inventors to be involved in all stages of protection and commercialization. This is essential because inventors have the unique and detailed knowledge about the invention that no one else has. This is critical for the description, characterization and evaluation of the invention. Secondly, inventors and researchers often have useful contacts, such as third parties if they are working on grants, or contacts in their industry. This can help seek potential licensees and help market the invention.

The TTO and the inventor will have to cooperate and ensure good communication to determine all the information needed for a proper disclosure using a comprehensive Invention disclosure form.(McGee, 2007). It is good practice to disclose as soon as there is an invention, a determination the inventor is best equipped to make. (McGee, 2007).

There are certain practices the University and TTO can follow to ensure a smoother disclosure process:

- The inventors and researchers in the university should be aware of the TTO and the IP policy. It is important that there is a conscious knowledge amongst inventors about the existence of the TTO, and their trust in the TTO.

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- Inventors must be aware of the importance of timely disclosures, as well as the dangers of premature disclosure, especially through publications.
- The process should be as easy and accessible as possible. The TTO also has a public relations challenge to encompass. This may be because inventors may be willing to disclose to academic peers but unwilling to disclose to a TTO. Therefore, the TTO must engage with the faculty and maintain a positive image in the university. (Sante, 2007).

Additionally, the TTO:

- Must be aware that the inventor has a central role in the whole process
- TTO should take care related to inventions submitted by another inventor for novelty after discussion with previous inventors or patent holder in the same institution
- Must ensure that the Inventor has realistic expectations about what would happen after disclosure and commercialization efforts.
- Technology Transfer Offices are often asked how long the process of protection and commercialization will take. This will depend on the complexity of the technology and the detail required in the disclosure and protection paperwork.
- The inventor must be ensured that their disclosure will remain confidential and that there is value in disclosing the invention and allowing the TTO to work on its protection and exploitation.
- Determine inventor ship accurately. Sometimes authors are confused as inventors so TTO needs to work with department heads and relevant contributors to determine who the inventor is.
- After technology transfer and licensing is complete, inventor should be encouraged to be vigilant about any infringement, as the inventor would best be able to recognize an infringement.(Sante, 2007).

Confidentiality

In the process of disclosure, maintaining confidentiality is important. In a university setting, a researcher or staff member may be asked to sign a confidentiality agreement if he or she is consulting or working for an outside institution. If the inventor discloses the invention to a fellow researcher or employee, it should be understood that the disclosure is confidential. As a general

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practice, an inventor should minimize disclosure to parties other than the TTO until the evaluation and protection of the invention is undertaken.

Furthermore, confidentiality should also be maintained when entering into agreements with third parties such as companies interested in developing or licensing an invention. The TTO is usually involved in handling external agreements. During that process, the TTO should ensure that a company or third party interested in possibly licensing intellectual property should sign a confidentiality agreement before obtaining detailed information.

VI. **Conflict of interest**

A conflict of interest arises when there is a personal interest and professional obligations such that it has the potential to interfere with objective decision-making. Developing a policy to deal with institutional conflicts of interest is a critical step in maintaining integrity and building trust in the University. With the involvement of multiple researchers, staff, technology transfer officers, and university administration, a check on potential conflicts is necessary to prevent decisions that may not be in the university's best interests.

It is important to remember that a conflict of interest exists regardless of whether a decision based on personal interests was made or not. Therefore, a review of potential conflicts must begin before any professional decisions regarding the protection and licensing of inventions are made.

Examples of conflicts may be when a researcher has a strong personal financial interest in a outside licensee. To check for such conflicts, each licensing decision must go through a 'licensing decision review'. The review may be undertaken by parties other than the researcher or any person with a conflict of interest and will determine if there have been any inappropriate influences in making the licensing decision. This review should be taken based on an independent assessment of the facts by qualified persons who do not have a direct interest in the transaction.

A conflict of interest policy should aim to strike a balance between individual and institutional goals. This section of the University's policies should be clear about to whom it applies. It should be clear about the extent to which it applies to a researcher's outside activities and the kind of information a researcher must disclose about their external activities. In addition to providing what kind of activities are prohibited and when, the adoption of such a policy should

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be supplemented with appropriate training for staff and researchers. There should be a clear information about any conflict of interest regarding publications in the agreement.

TTO officer should ensure the confidentiality of the invention to the researcher/scientist. The 'licensing decision review' by experts needs to sign the document for confidentiality of the invention also.

VII. TTO and Revenue Generation

A common misconception surrounding the establishment of a TTO is that it would be an immediate and primary source of income. While investment in developing and licensing technology has significant returns, it should not be a way to support the university. A robust technology transfer system requires sustained effort and investment in building portfolios, attracting talent and seeking expert advice.(Nelsen, 2007).

For example, data from US universities shows that the total income from royalties and equity was US\$959 million in one year. (Nelsen, 2007).This was after the research expenditure was over US \$32 billion in the same fiscal year. This means that before subtracting expenses, the income was less than 3% of what was spent on research. Furthermore, ten universities in the US account for 60% of the total royalty income from all US universities. (Nelsen, 2007).This shows that even top universities with lucrative technologies and massive budgets require continued investment to develop and license inventions. It also shows that monetary gains are not the only measures of success for a technology transfer office.

The Technology Transfer office of the University should align licensing goals with a larger mission of public service. A Technology Transfer office cannot simply be a tool for revenue generation. It is especially important to realize that although technology transfer is a source of support for the university, it takes considerable time and investment for technology transfer to be a significant source of revenue. As a public university, the objectives of the university are not limited to making profit. Therefore, an internal and external evaluation of resources must be taken into consideration when implementing an IP strategy at public universities.

VIII. Valuation

The valuation of a technology is a crucial step the TTO must engage in. The valuation of the technology will determine whether its commercially exploitable and what terms may be



negotiated with a potential licensee. Some factors that determine the value of a technology include: rights to practice, commercial data available, future improvements, right to sublicense, registration expenses, defense and possible infringement costs, general indemnity, quality control, and regulatory approval needed. (Razgaitis, 2007).

Generally, a cost-based method is a poor basis, since it fails to consider the technology's future application and what market would pay for it. Therefore, institutions should avoid basing value based primarily on the cost accrued to develop it.

Methods of valuation as described by Razgaitis (2007) includes:

- The Use of Industry Standards: This method looks at the published royalty rates for technologies within a certain industry, or as used by other universities and research institutions, to guide the valuation of a similar technology.
- Rating/Ranking: This method involves looking at existing license agreements for similar technologies. This would allow the technology to be compared and ranked against existing agreements, what stage of development they are at and the scope of IP protection awarded to them, profit margins and market size.
- Rule of Thumb: This method apportions anticipated profits between the licensor and licensee.
- Discounted Cash-Flow Analysis with Risk-Adjusted Hurdle Rates: This method adjusts profit and loss to consider the "timing of investment returns and risks borne by both parties." (Razgaitis, 2007).
- Advanced Tools Method: This method applies statistical methods to the discounted cash-flow method referred to above to test various risks and assumptions about a license and the possible outcomes.
- Auctions Method: This method is the last option used as it means the owner would lose control over the invention by selling it. Due to its structural inflexibility with licensing agreements, this method is rarely used in technology licensing contexts. (Razgaitis, 2007). This method allows interested parties to bid on the technologies based on independent valuations, and sets a price based on the highest available valuations.



IX. Licensing Plant Varieties

The key external components of an IP strategy relate to the exploitation of the IP assets. The University will usually have three options. Firstly, it can sell the technology and not continue in the field. Secondly, the University can exploit the technology in-house by using its resources to develop and market a product or service. The third option is to license the technology. The University has the right of refusal for any further changes or improvement in the research.

Licensing can be a way to access technologies that public-sector universities need and do not have the resources to develop. In-licensing, or licensing to use technologies from third parties, can help increase access and investment in the University to develop their own research. Out-licensing, or licensing to allow third parties access to their own technologies, will allow institutions to disseminate their research and seek a return on their investment.(Nilsson, 2007).

Licensing is at the heart of a TTO and a major aspect of the implementation of a university's IP strategy. It allows both for researchers to access technologies, and for the university to extend the use of its own technologies. Although there are other options for exploitation of technologies such as sale, joint ventures and acquisitions, licensing is an easier option for organizations with limited resources.

The objective of licensing is to extract maximum benefit from the innovation. Licensing agreements should look at long-term benefits as well, such as from overseas expansion. The TTO should construct contracts in view of long-term strategy, considering the possibility of future opportunities. For example, licensing contracts for exclusive licenses can be drafted to include options that allow inventors to benefit from 'unexpected increases in revenue' or new opportunities to work on the invention.

TTO should take care related to inventions submitted by another inventor for novelty after discussion with previous inventors or patent holder in the same institution

Role of the inventor

There are certain roles that the inventor is best positioned to undertake in the evaluation and licensing process. The inventor knows the industry and technology best and can guide the TTO about the market. The inventor can best identify a specific unmet need in the market and help the TTO reach the right channels to market the invention.



The inventor is also likely to be contacted by potential licensees because of publications, funding sources, and connections. It is important to encourage the inventor to direct all such communication should be directed to the TTO. It would help the TTO manage the commercialization process from the start. It would establish early on that the key contact is central for all university-owned inventions, which is the TTO. Furthermore, it allows the inventor to focus on the science and not the business, ensuring that there is minimal conflict of interest.

Finally, the extent of an inventor's participation in licensing negotiations depends on the individual and the decision about how much to involve the inventor rests with the TTO. The TTO must assess the inventor's personality, interpersonal and negotiation skills, ability to function as part of a team, and the understanding of the University's IP policy. The TTO needs to be cautious of the inventor siding with the licensee in self-interest, as this may not necessarily be the best use of the technology for the University. It is important to manage such a situation by understanding the inventor's position and working on a solution that doesn't completely isolate the inventor but also keeps them informed.

Licensing Agreements

Technology licensing agreements allow the owner of the intellectual property to allow another party to use, make, or sell products using the intellectual property.

The typical agreement includes terms such as those defining the duration for which the license is valid, the markets in which the licensee can make, use and sell the technology, whether sub-licensees are permitted, the amount of royalties, and whether the licensing institution and inventor have any rights to any improvements or further development. (Mahoney and Krattiger, 2007).

The opening section or preamble of a license lays out the goals and motivations of the parties. This is especially important in agreements between public and private institutions so that there is an alignment between their respective goals. If a dispute ever arises, the introductory session will help clarify the reasons for entering into the agreement and it should be as direct as possible.

Public universities also have certain objectives to protect public interest in the use and dissemination of a technology. They can require the licensing agreement to include favorable



pricing for the public sector. Non-exclusive licensing as an option for public universities means the licensor retains the right to license to more than one party. This can also foster competition and lower prices. However, if a commercial party insists on an exclusive license, the licensor should consider limiting it by the market the technology can be used in.

Agri.-biotech agreements

Plant breeders and agricultural biotechnology researchers can license varieties to help disseminate the use of their research and allow institutions to commercialize their products. The development of a private seed sector will increase competition and increase interest in the farming industry. It can also help institutions build a product portfolio. This in turn could promote foreign investment.

Plant Breeder Rights (PBR) are a form of intellectual property protection reserved for inventions and technologies from agricultural research. Like other IP systems, PBR have three components, namely the definition of the protectable subject matter, requirements needed to be met to receive protection, and rights of the variety owner. Public institutions should be cognizant of the requirements of the Plant Breeders Rights Act in protecting plant varieties before licensing them (Anonymous, 2015).

There are several factors that must be considered in determining the type of license for agri.-biotech, namely:

- former experience of the licensee
- seed production and distribution infrastructure accessible to the licensee
- type of species to be licensed
- type of plant variety protection

There are two major types of licenses that may be used: the *distribution license*, “which includes the rights to market and sell the licensed material” and a *production license*, which additionally includes the “rights to seed multiplication and production.” An example of a distribution license may be for varieties that are easily multiplied. In this case the licensor would like to retain seed production rights and only grant exclusive rights for distribution. A production license may be used for species with “high sowing rates and low multiplication factors”, thereby making the transportation cost high.

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Structure

A variety license agreement will have certain clauses that are specific to this kind of an agreement, and certain “boilerplate” clauses which address issues like arbitration, applicable law, assignability, warranty, and force majeure.

The specific elements of a variety licensing agreement are:

- determination of whether it is an exclusive or non-exclusive grant
- territorial limitations
- definition and description of licensed material
- protection of germplasm
- any national registration or plant variety protection
- royalties
- effect of termination
- reporting obligations to licensor

Definition

In licensing biological materials or agri-biotech, the agreement should precisely define what is being licensed. This would include the complete list of named plant-breeding lines, cell types and lines, plasmids etc. Any patents, patent applications and plant protection certificates should also be attached. It should also be clear if any derivatives of patents and applications are included in the grant of rights. (Cahoon, 2007).

In agri-biotech licensing, there is usually a mixture of rights conveyed to the licensee. For example, the licensee may get a right to sell a specific line of transgenic plant but not be allowed to make variants of the line. (Cahoon, 2007). If it is an exclusive license to a transgenic plant line, it would likely not include the right to “make, use, or sell any of the components of the genetic material alone or in combination, but only as an inextricably linked part of the specific transgenic plant.”(Cahoon, 2007).

Territory

Territory describes the “geographic area where the licensee has the right to exercise its exclusive rights.” Defining this area should take into account specific countries, and their plant variety protection legislation. (Cahoon, 2007). The grant of rights in the license may include territorial

limitations. As with other types of intellectual property, agri-biotech and PBR are also country specific. However, there can be an additional limitation based on the countries the technology may be exported to.

Agri-biotech licenses are unique in the scope of rights and use of the technology. A field-of-use provision can limit the use of the invention in different ways such as by industry or kind of product that can be created. The field-of-use of each crop variety will differ. For example, the parties will have to determine whether and how the licensee can make, use and sell monocots and dicots made while using the technology. Field-of-use is also useful in licensing genetic construct components such as genes, selectable markers, translation enhancers, or promoters. (Cahoon, 2007). Additionally, licensors should seek to incentivize sublicensing. This would allow the technology to reach markets

that only a certain sub-licensee can cover. Sub-licenses can be considered varies from invention to invention. Therefore, the licensing institution should undertake an evaluation of potential incentives for sub-licensees and the scope of rights that may be granted to them.

Exclusivity

Plant Breeders often grant exclusive licenses more than non-exclusive ones. The idea is that a mutual commitment would be stronger when working exclusively. A good variety can be a competitive advantage and granting an exclusive license can prompt the licensee to invest and create revenue. Both parties should endeavor to create as much benefit as possible from the transaction. (Cahoon, 2007).

A common type of exclusive right granted at the beginning of a partnership is the 'first right of refusal.' In this case, the licensor provides a few varieties or gives the licensee the opportunity to choose from several varieties. The varieties not chosen by the licensee can then be disposed of through other agreements. It should be noted that this exclusivity is only provided for single varieties, and the licensor should evaluate the licensee's ability to commercialize it. This can be a helpful strategy to distribute varieties among a range of licensees in order to stimulate competition and obtain a larger market share overall. Licensors may make this decision in light of building a long-term relationship with certain licensing companies. If there are participating companies that specialize in certain crops, then it may be appropriate to grant this exclusivity to more than just variety. (Cahoon, 2007).



Another approach is to allow a licensee access to many varieties under a 'Material Transfer Agreement' which would allow them to test and determine the variety or varieties which the licensee wishes to access under a commercial licensing agreement.

Some provisions that licensors can discuss with the licensee to determine the kind of exclusive rights to be granted include "conditioning for the purpose of propagation, offering for sale, selling or marketing, production or reproduction, exporting, importing, and stocking for any of the purposes mentioned above." (Cahoon, 2007).

Public sector universities have a duty to facilitate public access to technologies as well, especially agri-biotech given the importance of agricultural development for a country's foodsecurity. Hence granting exclusivity may not always be the best course of action. The license agreements may contain provisions that allow continued access to the licensed varieties in the interest of public access. (Cahoon, 2007).

Licensors should also define whether the licensee can use the technology to create new variants. Cahoon (2007) described that one consideration may be if the licensee can 'make crosses of the exclusively licensed plant line with its own proprietary germplasm' and how would this affect the royalty rate. The agreement will determine if there are limits to the exclusivity right. Exclusivity may also be limited by time, only being available for a certain time period.

Consideration

Each agreement must stipulate for an exchange of benefits or consideration for the parties. This will usually include an evaluation of the value of the licensed material, marketing potential of the technology, and the cost to develop it and of the license. The licensor, in exchange for providing a genetic construct, may get access to valuable biological material for future transformation of a germplasm.

Restrictions

Plant breeders can reserve some variety protection by limiting access to seed for the purpose of propagation. If the license only allows for marketing and sales, then the variety will be better protected because the licensor will not have to "leave out early generations of seed for multiplication from its internal control system." however, in case the licensor wants to spread the



risks in seed multiplication and reduce transportation costs, then the licensee may be given the right to multiply and produce as well.(Cahoon, 2007).

In countries where the seeds are marketed predominantly for the public, it can be hard to realize sales because of the high cost of production, and the low costs chosen to facilitate access for farmers. If the licensee has access to the required seed production infrastructure, costs can be kept low. This will mean access to farm capacity for growing, harvesting, processing, storing and transporting the seed.(Cahoon, 2007).

Hybrid seed production is often more expensive and the license agreements pertaining to these varieties are usually limited to marketing and sales. Furthermore, retaining control over the hybrid seed production protects the hybrid components which is valuable intellectual property. (Cahoon, 2007).

The breeder should also be careful to obtain protection for finished varieties and those still in trials. The agreement should have a section that states how plant material will be handled and supervised before it has officially obtained plant breeder's rights protection. If it has not yet received protection, the agreement should restrict the distribution rights of the material and the use of the germplasm. (Cahoon, 2007).

Evaluation for Adaptation

The evaluation of whether to license the material should consider market demand, and the value of the variety to the local agricultural conditions. The value of a variety will depend on its adaptation to the local growing conditions and whether it improves agricultural performance. This characteristic will also determine if the variety can be exported to various geographic and climatic conditions. The licensee should ensure the conduct of international trials to licensor towards the geographical patents.

Sometimes introducing new varieties requires either public testing or private trials. The strategy for such a trial should be discussed and included in the license agreement, including any decision about sharing of costs. The licensor may require the licensee the evaluate the value on their own depending on their determination of agricultural conditions, and whether to officially list these varieties in the territory. (Cahoon, 2007).

Royalties



The payments from the licensee to the licensor (University) from the commercial exploitation of plant varieties in exchange for the rights granted in a license agreement are called royalties. Licensor (University) signed agreement with licensee on behalf of researchers. Royalties are determined by levels acceptable to the market. It cannot be so high that farmers cannot access the seed, or so low that the licensor cannot make any profit. Usually, the licensor and licensee split the royalties and the proportion of the division is negotiated when agreeing on a license agreement. This is determined by factors such as the costs during development and trials, maintenance of national lists and PBR, and market support. While no one method is applicable to all varieties, there are some methods that can be used to calculate royalties. (Cahoon, 2007).

If licensee could not make required distribution and production in specific time and he/she is not willing to pay royalty, then according to agreement penalty should be paid in proceeding year(s) to licensor

- Fixed royalty rate: this means that the rate is set by the agreement. However, calculating an appropriate fixed rate requires knowledge of the seed business in the targeted territory and the farmers' ability to pay. (Cahoon, 2007). This rate is usually independent of the sales price and calculated "per weight unit of seed bags containing a specified quantity." Royalties may also be set centrally by negotiations between researchers and farmer representatives. (Cahoon, 2007). The fixed royalty rate may be set annually for each species and seed generation or individual varieties. The royalty must be negotiated between researcher and licensee and licensee can negotiate with farmers (IP Policy Charles Stuart University)
- Seed Price: royalties may also be calculated on the basis of the seed's price. The royalty would change as the price of the seed increases and decreases. It can be the net sales price to the farmer. However, since the actual net sales prices is difficult to verify, "trust between the licensee and the licensor is of great importance." (Cahoon, 2007).
- Minimum royalty rate: this method is usually combined with some other form of royalty payment. It exists in addition to another method of royalty payment. For example, if the total royalty to be collected is below the minimum, the minimum will be paid regardless of the actual total royalty. This method is also connected to the scope of rights of use and territory as the licensor can increase or decrease the minimum to incentivize the licensee to pursue commercialization in a certain crop or area. (Cahoon, 2007).



- Sold Quantity: royalties can be calculated and paid according to how much seed is sold. The rate can be fixed to be paid at intervals of sold seed quantities. (Cahoon, 2007).
- End-point royalty: this method can be used in places where most of the agricultural produce is not used on the farm. The farmer can deliver the produce, and a royalty based on the delivered quantity will be charged. This will depend on the variety or use of certified seed. (Cahoon, 2007).

The royalty received by the licensor (University) for successful commercialization of any invention can be distributed as a) 50% of net royalty to inventor, b) 25% of net royalty to appropriate faculty, school, center or division and c) 25% of net royalty to University account nominated by Vice Chancellor (might be ORIC). These rates can be vary by mutual agreement between inventor and University. In case of more than one inventor, it is a matter for them to distribute their share of net royalty and in case of dispute, matter will be resolved through dispute settlement committee of University.

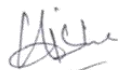
Termination

The termination of any agreement has both immediate and long-term consequences for the parties. While there is no set formula for how to manage termination, each license negotiation will have to take into account its unique factors to decide the terms of termination. The parties should ideally determine what will happen to marketed varieties, varieties that are going to enter the market soon, and varieties in trial. The licensor usually requires that all rights to the varieties be rescinded and any seed still in the licensee's possession should be returned or destroyed as deemed appropriate. (Cahoon, 2007).

Reporting to the Licensor

The agreement should specific if the licensee has any reporting obligations to the licensor. Establishing such an arrangement will ensure transparency and foster trust and cooperation between the parties. (Cahoon, 2007). The kind of information that may have to be shared on a regular basis could include:

- marketing plans and sales targets for the season(s)
- sales reports and forecasts throughout the season
- royalty statements
- variety trialing plans and results



- copies of documents connected to PBR and a national list, such as application forms and PBR certificates

X. References

- Anonymous. 2013. Statement of Policy in Regard to Intellectual Property (IP Policy).Harvard University.
- Anonymous. 2015. Plant Breeders Rights Act 2015, available at http://www.na.gov.pk/uploads/documents/1463729205_570.pdf
- Bennett, A.B. 2007. Conflict of Interest and Conflict of Commitment. Management in Technology Transfer. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA,527
- Cahoon, R.S. 2007. Licensing Agreements in Agricultural Biotechnology. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 2: MIHR and PIPRA,1011
- Graff, G. and M. DandMutschler. 2007. Introduction to IP Issues. In: The University Setting: A Primer for Scientists, In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 750
- Kowalski,S.P. 2007. Making the Most of Intellectual Property: Developing an Institutional IP Policy. In:Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 487
- Malackowski, J. E. 2009. IP Asset Sales, Still a Work in Progress. In B. Berman (Ed.) *From Assets to Profits: Competing for IP Value& Return*. New Jersey: John Wiley & Sons.
- Mahoney, R.T. and A, Krattiger. 2007. Agreements: A Review of Essential Tools of IP Management. In:Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA,677
- McGee, D.R. 2007. Invention Disclosures and the Role of Inventors. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 779



- Nelsen, L. 2007. Ten Things Heads of Institutions Should Know about Setting Up a Technology Transfer Office. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 538
- Nilsson, M. 2007. The In- and Out-Licensing of Plant Varieties. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 2: MIHR and PIPRA, 1018
- Pitkethly, R. 2007. IP Strategy. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 471
- Razgaitis, R. 2007. Pricing the Intellectual Property of Early-Stage Technologies: A Primer of Basic Valuation Tools and Considerations. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 817
- Sante, A.C.D. 2007. The Role of the Inventor in the Technology Transfer Process. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 507
- Weidemier, B.J. 2007. Ownership of University Inventions: Practical Considerations. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 495, 502
- Young, T.A. 2007. Establishing a Technology Transfer Office. In: Intellectual Property Management in Health and Agricultural Innovation, a handbook of best practices, Vol. 1: MIHR and PIPRA, 547

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Annexure -I

Definitions

Assignment: the transfer of rights in intellectual property by a written agreement through which the assignee is vested with the rights of ownership.

Biological Materials: includes but not limited to cell lines, germplasm, genetic material, organisms, proteins, plasmids, DNA/RNA, chemical compounds, transgenic plants, transgenic animals, and other materials used in agricultural or biotechnology research or commercial development, or in the process of being used or developed, protected by IP laws or in the process of being protected, by persons covered by the University's IP Policy.

Confidentiality Agreement: may be a separate agreement between disclosing and recipient parties, or a term in a contract or license agreement. The effect is that information disclosed by a licensing company, university employee or inventor, the recipient agrees to be personally bound not to release the confidential information unless expressly permitted to do so.

Contract: a legally binding mutual agreement in writing between two or more parties in which an exchange of value occurs with the obligation to certain duties.

Contributor: an individual who is stated by the inventor or the Technology Transfer Office, as applicable, to have contributed to the development of an Invention.

Disclosure: sharing information pertaining to an invention or related technology with one or more individuals who are not the inventors or contributors.

Know-how: the scientific knowledge, innovations, practices, expertise, processes of individuals regarding the use of a material, or an element of an invention.

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Incidental Invention: an invention which was conceived or reduced to practice through an incidental use of the University's space, facilities or resources. This part of research must be analyzed comprehensively before reporting and documenting.

Intellectual Property: rights and ownership related to scientific discoveries, materials, technological advances, compilations, marks, original works, and anything deemed to be Intellectual Property by the law. Intellectual Property includes but is not limited to Plant Breeders' Rights, Patents, Trademarks, Copyrights, and Trade Secrets.

Inventor: a person covered by the University's IP policy who individually or jointly with others makes an invention and meets the criteria for Intellectual Property protection under Pakistani laws and regulations. A scientist during express agreement, after disclosure form submission, will be called an inventor.

Invention: any patentable or potentially protectable idea, discovery, biological material or know-how and any associated technology that is required for its development or application.

Inventor's Laboratory: the university facilities used by the Inventor to experiment, observe and practice a research project in the inventor's field of work.

Inventor's Notebook: a workbook or record which details the date, processes and experiments related to a research project. This is crucial when the inventor is involved in the process of disclosure, investigation or Intellectual Property protection.

License: a contract between parties, licensor and licensee, in which the licensor awards to the licensee the right to make, use, sell, import or develop products or services based on the licensor's intellectual property. A license may also be called a license agreement.

Licensee: an individual or entity, entering into a license agreement with a licensor who is an inventor or representative of the University.



Material Transfer Agreement: the transfer of Intellectual Property, often biological materials. This agreement is intended to cover materials coming into the University or going from the University and its inventors. The agreement may pertain to the use and replication of the materials.

Publication: a public disclosure of an invention, in print or oral form. A public disclosure is a non-confidential communication.

Research Contract: a separate agreement between a researcher and the university or a third party, with the research as an individual to whom the University's IP policy applies, to conduct or receive funds for a research project.

Research Data: any recorded and reliable information useful for the evaluation of research performed at the University or using the University's space, facilities, or resources.

Right to First Refusal: the right granted to a licensee, by which the university may agree that it will not execute a license agreement with any other party without offering the license to the third party first. This is usually done in exchange for research funding or a research contract.

Royalties: compensation for the rights granted through a license agreement.

University: refers to the Muhammad Nawaz Shareef University of Agriculture

Unpatented/Unlicensed materials: includes Intellectual Property, such as biological materials, and such materials are developed by researchers covered under the University's IP policy:

1. Subject to agreement between the University and a third party; or
2. With use of direct or indirect funds from the University, including support or funding from any outside entity awarded to or administered by the University; or
3. With use (other than incidental use) of space, facilities, materials or other resources provided by or through the University.

Visiting Researcher: a person appointed through a written agreement to make use of the University's space, facilities or resources to carry out a research project or specific work for the University.





TECHNOLOGY TRANSFER OFFICE

OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION

MNS University of Agriculture Multan

INTELLECTUAL PROPERTY AND CONFIDENTIALITY AGREEMENT²

The Intellectual Property and Confidentiality Agreement (“Agreement”) is by and between MNS University of Agriculture Multan and the individual identified in the signature block below (“you”). MNS University of Agriculture Multan hiring you as an employee or independent contractor, the adequacy and acceptance of which you hereby acknowledge, you agree as follows;

1. Ownership

In this agreement, “Inventions” means any creations, discoveries, designs, developments, processes, improvements, copyrightable material and trade secrets discovered or created by you in connection with your duties at MNS University of Agriculture Multan, whether created alone or in a team. To an extent, any Invention is subject to copyright and you agree that it is done as an employee of MNS University of Agriculture Multan and MNS University of Agriculture Multan shall have all copyrights therein. You will make rapid and complete disclosure of any invention to MNS University of Agriculture Multan and will keep in confidence for the sole benefit of the MNS University of Agriculture Multan.

Note: This agreement would not apply to an invention for which MNS University of Agriculture Multan’s equipment, facility, supplies or trade secret information were not used and was developed entirely on your own time unless;

- (1) It directly links to the business of MNS University of Agriculture Multan or to MNS University of Agriculture Multan’s real or obviously expected research or development OR
- (2) It results from any work done by you for MNS University of Agriculture Multan.

2. Pre-existing Work

During your stay at MNS University of Agriculture Multan, if you use, provide or incorporate any IP owned by you or in which you have an interest into any good or service to MNS University of

² This is a customized template and adopted from following link.
wayfindlegal.org/wp-content/uploads/.../KCBA-Ex-B-IP-Confidentiality-Agmt.doc
This can be modified with the help of legal advisor as and when required.



Agriculture Multan. Under all of your intellectual property and proprietary rights, you thereby grant MNS University of Agriculture Multan, the following non-exclusive, global, continuous, irreversible, royalty free and fully paid rights;

- (1) to create, copy, modify, make and use derivative works of such intellectual property
- (2) to openly execute or show, import, broadcast, transfer, dispense, license, offer to sell, and sell, rent, lease or lend copies of such intellectual property (and derivative works thereof) and
- (3) to sublicense to third parties the foregoing rights, including the right to sublicense to further third parties.

3. Further Undertakings

By this agreement, you agree to execute and provide such documents and take such other action as may be asked or demanded by MNS University of Agriculture Multan. If, due to your psychological or physical inability or for any other reason whatsoever, MNS University of Agriculture Multan is impotent to get your signature to apply for or to pursue any patents, copyrights or other protection for any Invention assigned to MNS University of Agriculture Multan. You hereby conclusively entitle and assign MNS University of Agriculture Multan and its duly authorized officers and agents as your agent and attorney-in-fact. They will act on behalf of you to submit any applications and to do all other legally acceptable actions to proceed the process and issuance of any such patents, copyrights, or other protections with the same lawful potency and effect as if accomplished by you. At MNS University of Agriculture Multan's request, you will appear in any litigation or other legal proceeding that may arise during or after your employment at MNS University of Agriculture Multan.

4. Confidentiality

"MNS University of Agriculture Multan Confidential Information" as used in this agreement, means all information formerly or successively revealed to you or observed by you that relates to MNS University of Agriculture Multan that is identified as being exclusive and/or confidential, or that, by the nature of the adjacent conditions, the disclosure or your observation, rationally should to be considered as proprietary and confidential.

MNS University of Agriculture Multan Confidential Information includes, without limitation,



- (1) Information regarding identification of MNS University of Agriculture Multan's customers and vendors and the procedures MNS University of Agriculture Multan adopt to obtain them;
- (2) MNS University of Agriculture Multan's financial information and funding sources; and
- (3) Information regarding MNS University of Agriculture Multan's employees or contractors.

You agree not to use MNS University of Agriculture Multan Confidential Information for any purpose except to perform your duties for MNS University of Agriculture Multan. You agree not to disclose MNS University of Agriculture Multan Confidential Information except to other MNS University of Agriculture Multan employees or contractors who need to know such information in order to perform their duties. You will not reverse engineer, disassemble, or decompile any prototypes, software, or other items that are provided to you. You will immediately return all MNS University of Agriculture Multan Confidential Information and documents in your custody or under your control upon demand.

5. Miscellaneous

In writing, unless agreed in a distinct agreement, you as employee or contractor may be dismissed by MNS University of Agriculture Multan at any time without any reason. This Agreement shall be seen and controlled by the laws of the Government of Pakistan and Government of the Punjab, excluding that body of law known as conflicts of law. This Agreement includes the complete, joined understanding and agreement of the parties with respect to intellectual property and confidentiality responsibilities and surpasses all previous or contemporary agreements or considerations, written or oral, between MNS University of Agriculture Multan and you. If any provision of this Agreement is found to be unenforceable by a court of competent authority, the rest of this Agreement shall not be affected, and this Agreement shall continue in full force and effect.

Your Name: _____

Signature: _____

Date: _____

MNS University of Agriculture Multan

By: _____





TECHNOLOGY TRANSFER OFFICE
OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION
MNS University of Agriculture Multan

INVENTOR/ AUTHOR STATEMENT CONCERNING INVOLMENT IN LICENSING DECISIONS³

This form is to be completed by University inventors/authors and submitted to the University Authorized Licensing Office.

It should be completed after discussions with the Licensing Professional responsible for managing the invention or work of authorship (herein, "invention"). Generally, it is submitted:

- upon selection by the Licensing Professional of candidate licensees, and
- upon any change in a disclosed financial interest of an inventor in a candidate licensee.

SECTION I.

Title of Invention: _____ MNSUAM Case # (if known) _____

Inventor/Author Name: _____

Department: _____ Campus/Lab: _____

Initial statement for this invention

Supplemental statement for this invention

SECTION II.

I understand the applicability of the Pakistani law to my involvement in University licensing decisions. Based on that understanding, I assert the following:

(CHECK ONE)

/ ___ / DISQUALIFICATION

³ This is a customized template and adopted from following UC Davis link.
<http://research.ucdavis.edu/wp-content/uploads/InvAuthStatement.pdf>
This can be modify with the help of legal advisor as and when required.

Aliya

I hereby disqualify myself. I have not and do not intend to participate in making, or attempting to influence a University licensing decision concerning the invention identified above, including the selection of a licensee(s), and other decisions made in the course of attempting to license this invention.

STOP HERE (No need to complete Section III below).

/ ___ / ELIGIBILITY TO PARTICIPATE

I do not disqualify myself. I have, or wish to remain eligible to participate in or influence a University licensing decision concerning the invention identified above, including the selection of a licensee(s), and other decisions made in the course of attempting to license this invention. I understand all such University decisions will be subject to an intervening Licensing Decision Review by a disinterested official or committee.

COMPLETE SECTION III BELOW.

Signature: _____ Date: _____

SECTION III.

(Complete only if you have not disqualified yourself in II, above)

Inventor's/Author's Statement of Financial Interest in Candidate Licensee

Provide the following information about this candidate licensee:

Company Name (candidate licensee): _____

Company location: _____

A. Are you or a member of your immediate family a director, officer, trustee, or employee of, or do you hold any position of management in the company identified above? Yes/No

If yes, identify specific position

(s): _____

Do you, or does a member of your immediate family, have:

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TECHNOLOGY TRANSFER OFFICE
OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION
MNS University of Agriculture Multan
LICENSE AGREEMENT⁴

For use of [DESCRIPTION OF WHAT IS BEING LICENSED]

This License Agreement ("Agreement") is made and effective as of [COMMENCEMENT DATE] ("Commencement Date") by and between:

MNS University of Agriculture Multan, a higher education institution organized and existing in Pakistan, with a registered address at Old Shujabad Road, Multan ("Licensor")

and

[SIGNER. Company], a company organized and existing in [SIGNER. Country], with a registered address at [SIGNER. Address] ("Licensee").

WHEREAS:

1. Licensee desires to get a license to use [DESCRIPTION OF PRODUCT] (hereinafter, the "Asset"), and
2. Licensor is preferably keen to grant to the Licensee, a non-exclusive/exclusive, non-transferable License to use the Asset for the period and explicit purpose set forth in this Agreement but the option of exclusive license is open,

NOW, THEREFORE, in respect of the previous, and of the joint promises and deeds enclosed herein, and other good and valued consideration, the parties agree as follows:

1. Definitions

1.1. "Agreement" means this License Agreement including the attached Schedule.

1.2. "Confidential Information" means information that:

- a. is confidential by nature;

⁴ This is a customized template and adopted from following link.
<https://www.pandadoc.com/license-agreement-template>
This can be modify with the help of legal advisor as and when required.

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- b. is confidential as designated in writing by Licensor;
- c. the Licensee recognizes and rationally have to know is confidential;
- d. Information included in or concerning to any IP Rights of Licensor.

1.3. "Asset" means the Asset given by Licensor as stated in Item 6 of the Schedule in the form as stated in Item 7 of the Schedule.

1.4. "IP Rights" means all rights in and to any copyright, trademark, trading name, design, patent, trade secrets and all other rights resulting from intellectual activity in the engineering, scientific, literary or artistic field and any application or right to apply for registering of any of these rights and any right to protect or enforce any of these rights, as further specified in clause 5.

1.5. "Party" means a person or business entity who has executed this Agreement; details of the Parties are specified in Item 2 of the Schedule.

1.6. "Term" means the tenure of this Agreement commencing on the Commencement Date as specified in Item 4 of the Schedule and expiring on the Expiry Date specified in Item 5 of the Schedule.

2. License Grant

Licensor grants to the Licensee a non-exclusive, non-transferable License for the Term to use the Asset for the specific purpose specified in this Agreement, subject to the terms and conditions described in this Agreement.

3. Charges

In connection to the Licensor given the License under clause 2 of this License Agreement, the Licensee agrees to pay Licensor the amount of the License Charge (fee) as specified in Item 9 of the Schedule.

4. Licensee's Obligations

4.1. The Licensee cannot use the Asset, for purposes other than as specified in this Agreement and in Item 8 of the Schedule.

4.2. The Licensee may permit its employees to use the Asset for the purposes described in Item 8, provided that the Licensee takes all essential steps and enforces the necessary conditions to



assure that all employees using the Asset and do not commercialize or disclose the contents of it to any third person, or use it other than in accordance with the terms of this Agreement.

4.3. The Licensee will not distribute, sell, License or sub-License as well as nor engage in trade or disclose for sale the Asset to a third party.

4.4. Duplication of the Asset is not allowed other than as specifically permitted by Licensor.

4.5. Licensee cannot alter the Asset or its content.

4.6. The Licensee will provide technical and safety measures to assure that the Asset, which the Licensee is accountable for, is physically and electronically secure from unauthorized use or access.

4.7. Licensee shall confirm that the Asset holds all Licensor copyright notices and other proprietary legends and all trademarks or service marks of Licensor.

5. Intellectual Property Rights

All IP Rights over and in respect of the Asset are owned by Licensor. The Licensee does not obtain any rights of ownership in the Asset.

6. Limitation of Liability

The Licensee recognizes and agrees that neither Licensor nor its board members, officers, employees or agents, will be accountable for any loss or damage arising out of or resulting from Licensor's provision of the Asset under this Agreement, or any use of the Asset by the Licensee or its employees; and Licensee hereby releases Licensor to the fullest extent from any such liability, loss, damage or claim.

7. Confidentiality

7.1. Party may neither use, disclose or make available to any third party, the other Party's Confidential Information, unless such use or disclosure is done in accord with the terms of this Agreement.

7.2. Each Party must hold the other Party's Confidential Information secure and in confidence, except to the extent that such Confidential Information:

- a. is required to be disclosed according to the requirements of any law, judicial or legislative body or government agency; or



- b. was approved for release in writing by the other Party, but only to the extent of and subject to such conditions as may be imposed in such written authorization.

7.3. This clause 7 will survive termination of this Agreement.

8. **Disclaimers & Release**

8.1. To the extent permitted by law, Licensor not accountable to the Licensee or any third party for any loss or damage, however any loss caused (including through negligence) which may be directly or indirectly suffered in association with any use of the Asset.

8.2. Licensor provides the Asset on an "as is" basis.

8.3. Licensor will not be held liable by the Licensee in any way, for any loss, damage or injury suffered by the Licensee or by any other person related to any use of the Asset or any part thereof.

8.4. Apart from whatsoever contained in this Agreement, There is no liability of Licensor for any entitlements, damages or loss, which may arise, from the adjustment, combination, operation or use of the Asset with Licensee computer programs.

8.5. It is not the responsibility of Licensor that the Asset will function in any environment.

8.6. The Licensee admits that:

- a. The Asset has not been equipped to meet any explicit requirements of any party, including any requirements of Licensee; and
- b. It is therefore the duty of the Licensee to assure that the Asset meets its own individual requirements.

8.7. To the extent permitted by law, no express or indirect warranty, term, condition or undertaking is given or presumed by Licensor, comprising any indirect warranty of merchantability or suitability for a certain purpose.

9. **Indemnity**

9.1. The Licensee must insure, protect and grip inoffensive Licensor, its board members, officers, workers and agents from and against any and all claims (including third party claims), demands, actions, suits, expenses (including attorney's fees) and damages (including indirect or significant loss) resulting in any way from:

- a. Licensee's and Licensee's employee's use or dependence on the Asset,
- b. any breach of the terms of this License Agreement by the Licensee or any Licensee employee, and



c. any other act of Licensee.

9.2. This clause 9 will survive termination of this Agreement.

10. Waiver

Any failure or interruption by either Party to exercise any right, power or honor here under or to maintain upon compliance or performance by the other of the requirements of this License Agreement shall not operate or be construed as a waiver thereof.

11. Governing Law

This Agreement will be taken by and administrated in accordance with the laws of Pakistan. The Parties submit to exclusive authority of the courts of Pakistan.

12. Termination

12.1. This Agreement and the License granted herein begins upon the Commencement Date and is granted for the Term, unless otherwise terminated by Licensor in the event of any of the following:

- a. if the Licensee is in breach of any term of this License Agreement and has not corrected such breach to Licensor's rational satisfaction within 7 days of Licensor's notice of the same;
- b. if the Licensee becomes bankrupt, or introduces (or there is instituted against it) minutes in bankruptcy, liquidation, reorganization or dissolution, or makes an assignment for the benefit of creditors; or
- c. the Licensee is in breach of clause 5 or 7 of this Agreement.

12.2. Termination under this clause shall not affect any other rights or remedies Licensor may have.

13. License Fee

13.1. In consideration for the License grant described in this License Agreement, Licensee shall pay the yearly License fee immediately upon execution of this Agreement and upon each anniversary date of this Agreement.

13.2. The License fee and any other amounts payable by the Licensee to the Licensor, under this Agreement, are exclusive of any and all foreign and domestic taxes, which if found to be



applicable, will be invoiced to Licensee and paid by Licensee within 30 days of such invoice.

14. Assignment

Licensee shall not assign any rights of this License Agreement, without the prior written consent of Licensor.

15. Notices

15.1. All notices required under this Agreement shall be in writing and shall be deemed given

- a. when delivered personally;
- b. five (5) days after mailing, when sent certified mail, return receipt requested and postage prepaid; or
- c. one (1) business day after dispatch, when sent via a commercial overnight carrier, fees prepaid.

15.2. All notices given by either Party must be sent to the address of the other (unless otherwise changed by written notice).

16. Counterparts

This Agreement may be implemented in any number of complements, each of which shall be considered to be an original and all of which taken together shall constitute one instrument.

17. Severability

The Parties recognize that the ambiguity of the law with respect to certain provisions of this Agreement and particularly specify that this Agreement will be construed in a manner that renders its provisions valid and enforceable to the maximum extent possible under applicable law. To the extent that any provisions of this Agreement are determined by a court of competent jurisdiction to be invalid or unenforceable, such provisions will be deleted from this Agreement or revised so as to make them enforceable and the legitimacy and enforceability of the remainder of such provisions and of this Agreement will be unaffected.

18. Entire Agreement

This Agreement covers the whole agreement between the Parties and surpasses any previous understanding, commitments or agreements, oral or written. Further, this Agreement may



not be altered, changed, or otherwise improved in any respect except by a written agreement signed by both Parties.

IN WITNESS WHEREOF, this Agreement, including the attached Schedule, was signed by the Parties under the hands of their duly authorized representatives and made effective as of the Commencement Date.

MNS University of Agriculture Multan

Director ORIC

[SIGNER.Company]

[SIGNER.Title]

19. Schedule

Item 1 – License Agreement

THE LICENSE AGREEMENT OF WHICH THIS SCHEDULE FORMS A PART IS DATED AS OF [DATE] AND IS BY AND BETWEEN THE PARTIES REFERENCED IN ITEM 2 BELOW.

Item 2 – Name and Address of Licensor and Licensee

Licensor: MNS University of Agriculture Multan, a University organized and existing in Pakistan, with a registered address at Old Shujabad Road, Multan.

Licensee: [SIGNER.Company], a company organized and existing in [SIGNER.Country], with a registered address at [SIGNER.Address].

Item 3 – Other License Terms

Item 4 – Commencement Date

Item 5 – Expiry Date

Item 6 – Description of Asset

Item 7 – Format of Asset

Item 8 -Approved Purpose

Item 9 – License Fee





TECHNOLOGY TRANSFER OFFICE

OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION

MNS University of Agriculture Multan

MATERIAL TRANSFER AGREEMENT⁵

This Agreement is made for DESCRIPTION OF TRANSFERRED MATERIAL, by and between THE ADVISORS' OF THE MNS University of Agriculture Multan, having an address at the Old Shujabad Road, Multan and _____ ("RECIPIENT"), having its principal place of business at _____ (collectively "the PARTIES").

RECIPIENT has requested from MNS University of Agriculture Multan the MATERIAL defined in Section 1.b. below for the RESEARCH USE defined in Section 1.f. below by the RECIPIENT INVESTIGATOR(S) defined in Section 1.g. below. In consideration of the supply of MATERIAL from MNS University of Agriculture Multan to RECIPIENT, the PARTIES agree as follows:

1. Definitions

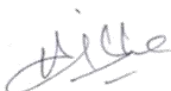
a. "ORIGINAL TRANSFERRED MATERIAL": The physical material actually delivered to the RECIPIENT by MNS University of Agriculture Multan, as identified in Appendix A attached hereto.

b. "MATERIAL": ORIGINAL TRANSFERRED MATERIAL, PROGENY, and UNMODIFIED DERIVATIVES.

c. "PROGENY": Unmodified descendant from the MATERIAL. Examples include but are not limited to: virus from virus; cell from cell; and organism from organism.

d. "UNMODIFIED DERIVATIVES": Ingredients produced by the RECIPIENT that constitute an unchanged practical sub-unit or an expression product of the ORIGINAL TRANSFERRED MATERIAL. Examples include but are not limited to: purified or fractionated sub-sets of the ORIGINAL TRANSFERRED MATERIAL; PROGENY or products thereof;

⁵ This is a customized template and adopted from following link.
<http://www.research.pitt.edu/ccm-material-transfer-agreements>
This can be modify with the help of legal advisor as and when required.



subclones of unmodified cell lines; transcription and translation products (e.g., RNA and protein derived from provided DNA); reverse transcription and reverse translation products (e.g., DNA synthesized on a template using provided RNA); monoclonal antibodies secreted by a hybridoma cell line; and chemically-synthesized copy or copies.

e. "MODIFICATIONS": Substances created by the RECIPIENT that either contain or incorporate the MATERIAL or were created using the MATERIAL.

f. "RESEARCH USE": The scientific RESEARCH USE specified in Appendix A.

g. "RECIPIENT INVESTIGATOR(S)": The RECIPIENT's scientific investigator(s) specified in Appendix A.

h. "CONFIDENTIAL INFORMATION": Information, data or material in written or other physical form related to the MATERIAL that is recognized as confidential at the time of disclosure. CONFIDENTIAL INFORMATION does NOT include information that is:

- (i) generally known to the public at the time of disclosure to the RECIPIENT;
- (ii) already in RECIPIENT's possession at the time of disclosure by MNS University of Agriculture Multan;
- (iii) disclosed to RECIPIENT on a non-confidential basis by a third party having the right to make such disclosure;
- (iv) independently developed by RECIPIENT without the use of the CONFIDENTIAL INFORMATION disclosed by MNS University of Agriculture Multan as evidenced by written records; or
- (v) required to be disclosed by law or governmental rule or regulation.

2. Terms and Conditions

a. Use

- i. The RECIPIENT shall use the MATERIAL solely for the RESEARCH USE. Any other use of the MATERIAL by the RECIPIENT is explicitly illegal without the prior written consent of MNS University of Agriculture Multan. In addition, the RECIPIENT agrees to use the MATERIAL in compliance with all relevant laws and regulations, including, but not limited to, those related to research involving the use of animals or recombinant DNA. The MATERIAL may not be used on any human subjects or for commercial purposes or any other use other than the RESEARCH USE.



- ii. RECIPIENT will not analyze the MATERIAL for chemical composition or physical structure or have or allow any component of the MATERIAL to be analyzed or make any use of any such analysis. The RECIPIENT will not alter the chemical structure of the MATERIAL in any way.

b. Tangible Property Ownership

MNS University of Agriculture Multan holds ownership of the MATERIAL, including any MATERIAL confined or integrated in MODIFICATIONS.

c. Confidentiality

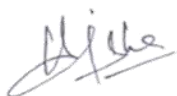
Any CONFIDENTIAL INFORMATION disclosed by MNS University of Agriculture Multan to RECIPIENT shall be treated as confidential and maintained in confidence by RECIPIENT for five (5) years after disclosure. RECIPIENT shall not disclose any CONFIDENTIAL INFORMATION of MNS University of Agriculture Multan, except to its own personnel who have a need to know. Without limiting the previous, RECIPIENT agrees to take the same steps and use the same methods to prevent the unauthorized use or disclosure of CONFIDENTIAL INFORMATION of MNS University of Agriculture Multan as it takes to protect its own CONFIDENTIAL INFORMATION or proprietary information.

d. Distribution

RECIPIENT agrees NOT to transfer the MATERIAL or MODIFICATIONS to anyone other than to one who works under the direct supervision of the RECIPIENT INVESTIGATOR within the RESEARCH USE without the prior written consent of MNS University of Agriculture Multan.

e. Disclosure, Inventorship, and Intellectual Property Rights

- i. Disclosure: The RECIPIENT shall promptly inform MNS University of Agriculture Multan of any potential patentable discoveries or inventions made using the MATERIAL, whether or not made within the specified limits of the approved RESEARCH USE. The RECIPIENT shall promptly supply MNS University of Agriculture Multan with a copy of the invention disclosure.
- ii. Inventorship: Inventorship shall be determined according to Pakistan's law.
- iii. Intellectual Property Rights: Collaborative efforts of MNS University of Agriculture Multan and the RECIPIENT may create Inventorship rights under Pakistan's law as well as



under the law of any applicable jurisdiction in which a party or the PARTIES may elect to file patent application(s). Each party shall own its undivided *interest in joint inventions*. The PARTIES shall cooperate in discussing and securing intellectual property rights to protect potentially patentable inventions.

- iv. No Implied Rights: The RECIPIENT acknowledges that the MATERIAL is or may be the subject of a patent application. Except as provided in this Agreement, no express or implied license or other rights are provided to the RECIPIENT under any patents, patent applications, trade secrets or other proprietary rights of MNS University of Agriculture Multan, including any altered forms of the MATERIAL made by MNS University of Agriculture Multan. In particular, no express or implied licenses or other rights are provided to use the MATERIAL, MODIFICATIONS or any related patents of MNS University of Agriculture Multan for commercial use or any other use other than the RESEARCH USE.

f. Warranty and Licenses

- i. Any MATERIAL delivered pursuant to this Agreement is implicit to be experimental in nature and may have harmful properties. MNS University of Agriculture Multan makes no representations and extends no warranties of any kind, either expressed or implied. There are no express or implied warranties of merchantability or fitness for a particular purpose, or that the use of the material will not infringe any patent, copyright, trademark, or other proprietary rights.
- ii. If the RECIPIENT desires to use the MATERIAL or MODIFICATIONS for profit-making or commercial purposes, the RECIPIENT agrees, in advance of such use, to negotiate in good faith and conclude a license agreement containing terms typically required in license agreements executed by MNS University of Agriculture Multan. It is agreed by the RECIPIENT that MNS University of Agriculture Multan will have no obligation to grant such a license to RECIPIENT, that future licensing rights, if any, may be subject to preexisting contractual obligations of MNS University of Agriculture Multan, and that MNS University of Agriculture Multan may grant exclusive or non-exclusive commercial licenses to others.

g. Liability



The RECIPIENT assumes all liability for damages that may arise from its use, storage or disposal of the MATERIAL and MODIFICATIONS. MNS University of Agriculture Multan will not be liable to the RECIPIENT for any loss, claim or demand made by the RECIPIENT, or made against the RECIPIENT by any other party, due to or arising from the use, storage or disposal of the MATERIAL and MODIFICATIONS by the RECIPIENT. The RECIPIENT agrees to assure, hold harmless and defend MNS University of Agriculture Multan against any claims, costs or other liabilities which may arise as a result of RECIPIENT's use, storage or disposal of the MATERIAL.

h. Publication of Research Results

The RECIPIENT may publish or present results of research relating to the MATERIAL, provided the RECIPIENT provides MNS University of Agriculture Multan with a copy of any proposed manuscript, abstract, poster session or presentation at least thirty (30) days prior to such publication or presentation. MNS University of Agriculture Multan shall review such publication or presentation for CONFIDENTIAL INFORMATION or patentable material and may request a delay of the proposed publication or presentation for up to an additional thirty (30) days to allow for the removal of CONFIDENTIAL INFORMATION or the filing of patent application(s). Unless MNS University of Agriculture Multan directs otherwise, any publication or presentation reporting the research carried out with the MATERIAL shall contain proper referencing in academic journal format, acknowledging MNS University of Agriculture Multan as the source of the MATERIAL.

i. Termination

- i. Date: This Agreement will terminate on the earliest of the following dates:
 - (a) on completion of RECIPIENT's current RESEARCH USE with the MATERIAL;
 - (b) on thirty (30) days' written notice by one party to the other; or
 - (c) (x) years from the date of execution of this Agreement by MNS University of Agriculture Multan.
- ii. Surviving Obligations: Obligations with respect to Tangible Property Ownership (2.b.), Confidentiality (2.c.), Distribution (2.d.), Disclosure, Inventorship, and Intellectual



Property Rights (2.e.), Warranty and Licenses (2.f.), Liability (2.g.), Publication of Research Results (2.h.), and this Section (2.i.ii) shall survive termination.

- iii. Return of MATERIAL: As directed by MNS University of Agriculture Multan, RECIPIENT shall stop using the MATERIAL and shall return or destroy any remaining MATERIAL on the termination of this Agreement.

j. Applicable Law

The validity and interpretation of this Agreement and legal relations of the PARTIES in the performance of this Agreement shall be governed by the laws of the Government of the Pakistan without regard to conflicts of law provisions.

k. Notice

Any notice required under this Agreement will be considered accurately given and effective on the date of the postmark if mailed by prepaid postage first-class certified mail; on the date of delivery if delivered in person; or on the date of receipt if mailed by any global express carrier service that requires the recipient to sign the documents demonstrating the delivery of such notice. Notice shall be given to the designated authorized official at the address provided below:

FOR THE ADVISORS' OF THE MNS University of Agriculture Multan:

Authorized Official: _____

Address: _____

City/State/ZIP: _____

Country: _____

Telephone: _____

Fax: _____

FOR RECIPIENT:

Authorized Official: _____

Recipient Institution: _____



Address: _____

City/State/ZIP: _____

Country: _____

Telephone: _____

Fax: _____

3. Complete Agreement

This Agreement constitutes all the agreements between the PARTIES, both written and oral with respect to the subject matter hereof. All prior agreements respecting the subject matter hereof, either written or oral, expressed or implied, between the PARTIES are hereby canceled.

THE ADVISOR OF THE UNIVERSITY

RECIPIENT

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

UNIVERSITY INVESTIGATOR and RECIPIENT INVESTIGATOR acknowledge reading and understanding this Agreement and shall abide by the terms and conditions thereof.

MNSUAM INESTIGATOR

RECIPIENT INVESTIGATOR

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Exhibit A:

1. Physical material
2. Research use

Handwritten signature



TECHNOLOGY TRANSFER OFFICE
OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION
MNS University of Agriculture Multan

NON-DISCLOSURE AND INTELLECTUAL PROPERTY RIGHTS AGREEMENT⁶

This Agreement is between MNS University of Agriculture Multan and _____
an individual residing at _____ (“RECIPIENT”).

WHEREAS, MNS University of Agriculture Multan has developed or create certain inventions, designs, procedures, copyrightable material and trade secrets directed and associated to _____ (“INFORMATION”) through generous effort, research, time, and expense.

WHEREAS, MNS University of Agriculture Multan wants to reveal the INFORMATION on a confidential basis to RECIPIENT solely for the purpose of assessing the INFORMATION for probable future commercial provisions; and

WHEREAS, MNS University of Agriculture Multan desires to keep the secrecy of the INFORMATION and to safeguard the MNS University of Agriculture Multan’s IP rights.

NOW, THEREFORE, with respect to the common promises, contracts, and situations enclosed herein, the sufficiency of which is hereby acknowledged, the parties agree as follows:

1. CONFIDENTIAL INFORMATION

- a) MNS University of Agriculture Multan agrees to disclose INFORMATION to RECIPIENT to expedite potential future business communications between the stakeholders. RECIPIENT agrees to get such INFORMATION and to refrain from replication, revealing, using, selling, or offering for sale any and all of said

⁶ This is a customized template and adopted from following link.
https://cisloandthomas.com/wp-content/uploads/2012/08/NDA_and_assgmt_of_ipMar2011.pdf?x55154
This can be modify with the help of legal advisor as and when required.



INFORMATION, other than at the request of MNS University of Agriculture Multan, with the exemptions as given in part c herein. RECIPIENT agrees to keep confidential and refrain from revealing any and all of the INFORMATION, and to take all essential and rational steps to avoid illegal disclosure or use of any and all of the INFORMATION.

- b) Nevertheless of part b, RECIPIENT shall not be accountable for disclosure or use of INFORMATION only if, and only to the extent that, said INFORMATION was in the public domain at the time it was disclosed by MNS University of Agriculture Multan, or was acknowledged to and documented in writing by RECIPIENT prior to the time of disclosure by MNS University of Agriculture Multan, or is received from a third party or passes into the public domain without breach of this Agreement. With respect to any INFORMATION known by RECIPIENT prior to the time of disclosure by MNS University of Agriculture Multan that RECIPIENT has confidence to create the INFORMATION, or any portion thereof, RECIPIENT shall disclose to MNS University of Agriculture Multan, an acceptable written explanation of the INFORMATION within fourteen (14) days of the disclosure by MNS University of Agriculture Multan.
- c) This INFORMATION is not an offer for sale or license. MNS University of Agriculture Multan does not grants any right or license to RECIPIENT in association with the technical information or inventions released under this agreement. All documents or resources related to the INFORMATION and all replicas thereof, shall remain the sole property of MNS University of Agriculture Multan at all times and shall quickly be reverted by RECIPIENT upon demand.
- d) This Agreement shall remain applicable, whether MNS University of Agriculture Multan disclose the INFORMATION in the form of patent applications, copyright applications, or other disclosures by MNS University of Agriculture Multan.

2. RESTRICTIONS

- a) Apart from the written agreement of MNS University of Agriculture Multan, RECIPIENT agrees:
1. Not to disclose or use to any other individual or entity, any secret information of MNS University of Agriculture Multan;



2. Not to make, or cause to be made, any reproductions, facsimiles or other imitations comprising record files of any documents having intimate information of MNS University of Agriculture Multan; and
 3. To use all other rational ways to keep the privacy and secrecy of the confidential information of MNS University of Agriculture Multan.
- b) Upon request of MNS University of Agriculture Multan, RECIPIENT further agrees:
1. To promptly return to MNS University of Agriculture Multan all of the things in the custody of RECIPIENT which relate to or which disclose in whole or in part any confidential information of MNS University of Agriculture Multan; and
 2. To withdraw from using or disclosing to any other individual or entity any intimate information of MNS University of Agriculture Multan.

3. INTELLECTUAL PROPERTY

- a) Title and Copyright Assignment
1. All products and results of RECIPIENT's services considered (the "Work") as work for hire. RECIPIENT admits and agrees that the Work (and all privileges therein, including, without restriction, copyrights) goes to and shall be the single and exclusive property of MNS University of Agriculture Multan.
 2. Apart from the abovementioned, RECIPIENT hereby assigns and handovers the entire rights, title and interests in and to all copyrights in the Work to MNS University of Agriculture Multan and its inheritors. The RECIPIENT assigns all recordings and patent claims linking thereto and all renewals and extensions thereof; all works based upon, derivative from, or integrating the Work to MNS University of Agriculture Multan and its successors. RECIPIENT also assigns all revenue, royalties, loss, claims and expenses now or hereafter due or payable with respect thereto; all causes of action, either in law or in equity for past, present, or future violation based on the copyrights; and all rights conforming to the foregoing throughout the world.
 3. RECIPIENT agrees to complete all credentials and to accomplish such other proper acts, as MNS University of Agriculture Multan may consider obligatory to



protect for MNS University of Agriculture Multan or its designee the rights herein assigned.

b) Patent Assignment

1. RECIPIENT may design new, novel, and attractive or useful inventions in the course of or related to RECIPIENT's business relationship with MNS University of Agriculture Multan ("the Inventions").
2. RECIPIENT hereby assigns and/or transfers to MNS University of Agriculture Multan, its successors or assigns, the all-inclusive right, title, and interest in and to said Inventions, and any patent and patent applications originating there from for any such invention in Pakistan and throughout the world. The RECIPIENT assigns the right to file overseas applications directly in the name of MNS University of Agriculture Multan and to claim for any such foreign applications any priority rights to which such applications are permitted under global agreements, treaties, or otherwise; and to collaborate with MNS University of Agriculture Multan as may be compulsory or anticipated for attaining, sustaining, reproducing, or imposing said patent or patent applications in Pakistan and throughout the world for said Inventions, and for perfecting, recording, or maintaining any such title in MNS University of Agriculture Multan.
3. Nevertheless, from above, RECIPIENT shall not assign and/or transfer any invention for which no confidential information of MNS University of Agriculture Multan was used, unless the invention results from any work performed by RECIPIENT for MNS University of Agriculture Multan.

c) Ownership of Trademarks

RECIPIENT hereby acknowledges that MNS University of Agriculture Multan shall keep all right, title, and interest in all trademarks, trade dress, and good will that results from the INFORMATION or any use or offer to sell thereof.

c



4. COVENANT NOT TO SUE

RECIPIENT shall not take any action or suit at law or in justice against MNS University of Agriculture Multan, nor introduce, prosecute or in any way aid in the prosecution of any claim, demand, action, or cause of action arising out of the INFORMATION or any IP thereof, including but not limited to, claim, demand, action, or cause of action for invalidating any IP of MNS University of Agriculture Multan.

5. DAMAGES AND SPECIFIC PERFORMANCE

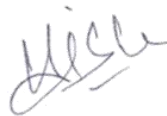
RECIPIENT agrees that the violation of any of the promises contained in this Agreement that MNS University of Agriculture Multan would suffer irreversible damage, MNS University of Agriculture Multan would be without suitable remedy at law, and that MNS University of Agriculture Multan may get injunctive relief, including explicit presentation of the Agreement, as well as financial award for losses suffered by MNS University of Agriculture Multan for RECIPIENT's breach of this Agreement.

6. NO WAIVER

The failure in the fulfillment of any of the provisions herein shall not waive or diminish a party's right subsequently to request compliance therewith or with any other provision. Waiver of any default shall not waive any other default. A party shall not be considered to have waived any rights hereunder unless such waiver is in writing and signed by a duly authorized officer of the party making such waiver.

7. SEVERABILITY

If any of the portion of this agreement deemed invalid, illegal or unenforceable by a court of competent jurisdiction, the remaining provisions shall remain in full force and effect. The parties shall use equitable efforts to substitute a effective, legal, and enforceable provision that fulfill the purpose of the provision that held invalid, illegal, or unenforceable to any extent permitted under the law.



8. MERGER/MODIFICATION IN WRITING

RECIPIENT agrees that this Agreement shall surpass all previous agreements and shall not be revised by either party except in writing and by agreement between both parties. Notwithstanding this paragraph, RECIPIENT shall honor all previous commitments regarding privacy of MNS University of Agriculture Multan's confidential INFORMATION.

9. CHOICE OF LAW

This Agreement shall be administered by, construed, and imposed in accordance with the laws of the Government of Pakistan and Government of the Punjab. Any clash including the terms or conditions of this Agreement shall be brought in the District Court of competent subject matter jurisdiction therein. Each of the parties hereby submits to the personal jurisdiction of said court.

IN WITNESS WHEREOF, the parties have executed this agreement as of the latest date indicated below.

MNSUAM

RECIPIENT

(RECIPIENT'S name)

(Signature)

(Signature)

(Date)

(Date)





TECHNOLOGY TRANSFER OFFICE
OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION
MNS University of Agriculture Multan

DISCLOSURE FORM/ RECORD OF INVENTION (ROI)⁷

Note: This is a disclosure/ record of an important invention but does not itself considered as patent rights.

1. Inventors

This section includes all the inventors and their employment status (A patent attorney will decide the actual inventorship)

a) MNSUAM Inventors

Name (Write contact inventor first)

Department/ Research Unit

b) Non MNSUAM Inventors (if applicable)

Name

Department/ Research Unit

2. Invention

a) Title of the invention (Short and descriptive):

b) Brief summary of the invention (including novelty)

⁷ This is a customized template and adopted from following UC Davis link.
http://research.ucdavis.edu/wp-content/uploads/ROI-Form_PDF_20120131.pdf
This can be modify with the help of legal advisor as and when required.

c) Detailed description of the invention (Use additional sheets as an appendix, if necessary).

The description and attachments should reflect how to make and use this invention.

d) State the advantages of this invention over its alternatives.

3. What is/are the funding source(s) for the project under which this invention was made?

Identify the grant number or contract and names of the PI/Supervisor of each (if applicable).

Funding Source/Sponsor	Grant No. or Contract	Name of PI/ Supervisor
-------------------------------	------------------------------	-------------------------------

4. This invention utilized material and data from;

A Material Transfer Agreement (MTA) or any other document transferring non MNS University of Agriculture Multan material

Other patented sources (specify):

If any patented material (e.g. cell line, antibody, plasmid, computer software or chemical compound) acquired from external sources and used to make this invention, under a restrictive written or verbal transfer agreement (other than a normal purchasing agreement), please attach a copy or summary of that agreement.

5. When did you conceive the idea of this invention?

6. What is the date of the first written record (notebook, letter, proposal, drawing etc.) of this invention? (Identify the document, page numbers and location of the document).

7. What is the date of first successful test of this invention?

8. Did you disclose this invention to non MNS University of Agriculture Multan personnel (including research sponsor)

Yes _____ No _____



If yes, please indicate when, under what circumstances and to whom. (Attach copies of abstract, papers, posters, handouts and other communications)

- a) Orally
- b) In writing
- c) By actual use, demonstration, poster or handouts

9. Do you plan to submit an abstract, report, paper or thesis relating to this invention for publication or presentation at a conference or to a research sponsor? Yes

_____ No _____

If yes, furnish details about the actual or planned submission or publication date. Also, attach latest manuscript draft available.

10. Give details regarding any references, patent application or other publications which you are aware of and which you believe to be pertinent to this invention. Please attach copies of these references and give 4-6 keywords of your invention to assist us in our patent searches and marketing efforts.

11. Give names and contact details of the companies, which you believe might be interested in using, developing or otherwise commercializing this invention. Also, attach statement of commercial use or potential of the invention.

12. Names, signatures and addresses of all inventors

Signature Date Signature Date

Print Name Print Name



Job Title

Job Title

Department

Department

Institute with Address (if non-MNS
University of Agriculture Multan)

Institute with Address (if non-MNS
University of Agriculture Multan)

City/Province/Zip

City/Province/Zip

Telephone

Telephone

Email

Email

13. Two witnesses (technically qualified) – invention disclosed to and understood by:

a) Signature

Date

b) Signature

Date

Printed Name:

Printed Name:

In addition to printed and signed document, this office may request electronic copies of the disclosure, manuscript, abstract and other documents later.

Note: Please do not disclose this invention information to others except described in No. 9, without prior intimation to MNS University of Agriculture Multan Technology Transfer Office.

