## APCTT-CSIR Workshop on Technology Commercialization and Transfer

1-3 November 2017 • Ghaziabad, India

#### Guidelines for Preparing a Technology Transfer Agreement

#### Satyabrata Sahu, Ph.D.

Coordinator – Technology Intelligence
Asian and Pacific Centre for Transfer of Technology (APCTT) of the
United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) in New Delhi, India





### Outline

- Why TT agreements are important?
- Patents at the core of business
- Main types of TT agreements and key provisions
- General and commercial / Financial considerations
- Model TT agreements!!!
- IP due diligence in preparation of TT agreements
- IP investigation / assessment
- TT agreement checklists
- Final considerations and policy implications





#### Technology Transfer – A Complex Process

- Complex and long drawn-out process
- It deals not only with technology as the subject of transfer, but also addresses issues related to administration, planning, management, marketing and implementation.
- The complexity of the process often leads to difficulties and sometimes
   even failures
- The problems are generally attributed to the lack of systematic guidance in planning, control, monitoring and decision-making.

Technology Transfer, if carefully planned and implemented, brings significant benefits in terms of both <u>time and cost savings</u>.





# Stages of Technology Transfer An Investor's perspective

- Technology needs assessment
- Identifying sources of technology
- Specifying the technology / supplier
- Tech transfer negotiation
- Technology Transfer agreement
- Technology transfer implementation





#### Why TT Agreements are Important?

- Promoting business relationship
- Establishing contractual agreement that is binding on both parties and enforceable under legal provisions.
- Dealing with intellectual property (e.g. patents, copyrights, trademarks, industrial designs) – ownership, licensing, royalty
- Accessing technologies
- Providing flexibility of coverage over one or more types of intellectual property rights





# Why TT Agreements are Important? (Cont'd)

- Addressing contractual problems between parties by referring to the respective clauses written in the TT agreement.
- Addressing trans-national issues
- Facilitating non-licensing technology transfer relating to processes, know-how and trade secrets
- **Delineating the object of technology transfer -** manufacturing of new products, penetrating new markets, litigation rights, taxation, legal and accounting





#### Commercialization of Patents in the Shoes of Investors

- Commercial ventures based on new patents could be capital-intensive and investments have long payback period.
- Investors look for clear ownership of Intellectual Property (IP)
- Investors are well aware of the centrality of patents in the industry and will conduct a thorough due diligence prior to taking a decision to invest.
- Investors will seek to determine whether the company will have freedom to operate, i.e. whether it will be able to commercialize the product without any IP infringement.

Source: http://www.wipo.int/sme/en/documents/patents\_biotech\_fulltext.html





### Tracking Market Trends

Certain trends in 'medical biotech sector' an investor/company tracks:

- Aging population and their healthcare needs
- Global reach of certain diseases
- Global trends in vaccination coverage
- Obesity and diabetes trends
- Technological advances





#### Patents at the Core of Business

Inventions need to fulfill three basic requirements of patentability:

- Novelty
- Inventive step or non-obviousness
- Industrial application or utility

These should be borne in mind while:

- (a) Drafting patent applications
- (b) Devising R&D strategy for commercialization

Source: http://www.wipo.int/sme/en/documents/patents\_biotech\_fulltext.html





#### Case of CRISPR - "Biotech Trial of the Century"

<u>Crispr</u> (clustered regularly interspaced short palindromic repeats) is a revolutionary **genome-editing technique** 

Potential benefits across human health, agriculture and industrial biotechnology

In 2015, Crispr technology moved beyond academia attracting investment from – Novartis, AstraZeneca, Juno Therapeutics, Vertex Pharmaceuticals, Regeneron Pharmaceuticals, DuPont

<u>Patent battle</u> casting a shadow over the technology's future commercial potential:

- a) In 2012, Doudna and Charpentier (UC Berkeley) filed a **patent application**, followed seven months later by a separate patent application by Zhang (Broad Institute of Harvard and MIT).
- b) Despite being second to submit, Zhang was awarded the patent based on his **claimed invention date**.
- c) In February 2017, the US Patent Trial and Appeal Board ruled in favour of Board Institute.

Source: https://www.chemistryworld.com/business/crispr-goes-commercial/9359.article





### IP Due Diligence – Basic Elements

- Parties 'Seller/Licensor' and 'Buyer/Licensee'
- Purposes
  - ✓ Determine value of IP concerned
  - ✓ Determine the contractual terms (e.g. warranties, indemnities, etc)
- Process Requires three major actions:
  - ✓ Non-Disclosure (Confidentiality) Agreement
  - ✓ Memorandum of Understanding (MoU)
  - ✓ IP investigation procedure
- Other considerations
  - ✓ Collecting and cataloguing of all the information
  - ✓ Assistance of IP attorney in performing an IP investigation
  - ✓ Due diligence should be proportionate to the value of IP





#### Common Questions/Concerns that Guide IP Investigation Process

| Fields of IP  | Concerns/Questions   |
|---------------|--|
| investigation |  |
| Contents and  | What is the content of the IP in question?   |
| protection of | <ul><li>Is the IP protected/protectable?</li></ul>   |
| IP            | <ul> <li>Does the IP possess all the necessary requisites to be protected?</li> </ul>  |
|               | <ul> <li>Can it be protected uniformly in all the countries of interest?</li> </ul>  |
| IP rights     | <ul> <li>Does any third party, including employees or other personnel, have rights to this IP<br/>asset?</li> </ul>                      |
|               | <ul> <li>Are there any agreements/contracts with third parties that may affect its free use<br/>and what risks do they imply?</li> </ul> |
| Infringement  | <ul> <li>Does the IP asset infringe any third parties' IP rights?</li> </ul>   |
|               | <ul> <li>Are there any competing/blocking IP rights?</li> </ul>  |
| Commercial    | • Has the IP asset in question been "field tested" to ensure that the related  |
| application   | technology works?  |
|               | <ul> <li>What are the expected market applications of the technology?</li> </ul>   |
|               | <ul> <li>How much investment does the technology require to be brought to the market?</li> </ul>   |
|               | <ul> <li>Are there any competing technologies?</li> </ul>  |





#### Assessment of IP Assets – Issues and Actions

| Issues                | Actions needed  |
|-----------------------|---|
| Validity of IPR       | ➤ Information on the validity of the IPR concerned could be provided by showing the relevant register   |
| Controversies         | ➤ Information on any controversies surrounding the technology which might have occurred during the IP protection procedure, e.g. checking the novelty, inventive step, sufficiency of description of the subject matter of a patent, etc) |
| Legal status          | Check the legal terms under which employees' inventions have been<br>made   |
| Contractual situation | ➤ Check the contractual situation related to the technology concerned with third parties, i.e assignments and licensing agreements, terms and conditions, authorization to grant sub-licenses, scope of granted licenses, etc.            |





#### Strategic Thinking Before Drafting Agreements

- Technology Transfer agreements should be either drafted or thoroughly reviewed by an IP attorney
- Stop thinking in terms of a template for drafting a license
- Start thinking in terms of appropriate clauses for a license
- Most attorneys start with clauses from other agreements and modify them to fit the particular situation and desires of the parties.





### **Drafting and Negotiation**

- The negotiating team should prepare a preliminary draft known as 'Heads of Agreement'
- This document should have a summary of the key commercial as well as technical details to be negotiated and agreed upon
- This document acts a guide during the negotiation process and facilitates clarity and progress in the overall negotiations
- As a first stage of the negotiation, the transferor makes a
   presentation of the technology and submits a draft outlining the
   terms of the agreement.
- Clarifications are sought on this draft and as the negotiation progresses the draft may be updated many times.





## Main Types of TT Agreements

- Sale or assignment of IP rights No restriction in time/any other conditions
- License contract/agreement Rights restricted to specific country/duration
- Know-how agreement
  - Tangible form (Documents, Photographs, Blueprints, ........)
  - Intangible form (Explaining a process, Technical training ..........)
- Mergers & Acquisitions Combine technology, technical personnel, other assets
- Franchise Combines know-how, technical & managerial services of one entity with the investment of another entity
- Acquisition of equipment/capital goods Sale, Purchase, Import
- Consultancy arrangements Management/Technical advisory services
- **Joint Venture (JV) agreements** Equity JV (separate legal entity); Contractual JV (where separate entity not possible)
- Turn-key project Combines range of services (Planning, Construction and Operation)





## Key Provisions of TT Agreements

- Subject matter Patents, Confidential information, Technical know-how, trade secrets
- Product/service definition Provides exact description of the product or service for which technology is being transferred
- Confidentiality Obligation to maintain confidentiality; Extent of permissible disclosure; Remedy for breach of confidentiality
- Extent of rights Scope of license (e.g. exclusive, sole, non-exclusive)
   Geographical territory for which the license is granted; Term of duration





## General Considerations of TT Agreements

<u>Representations and warranties</u> - Statements or assurances about a matter or position relevant to the licensing agreement (Ex. Licensor owns the technology, has right/authority to grant license; licensed material is original; licensed IP is valid, not infringed by 3<sup>rd</sup> party, etc)

<u>Indemnity</u> - Licensor agrees to indemnify (reimburse/compensate) the licensee for infringement of any rights

<u>Licensor's obligations</u> – Guarantee of product quality; Allowing use of IP, Providing technical assistance, Training; Buy-back of product if any

<u>Licensee's obligations</u> – Making payment to licensor; Maintaining confidentiality; Exploiting technology to maximum benefit; Reporting production details; etc





# General Considerations (Cont'd)

<u>Amendment</u> – Entities need to agree in writing that the TT agreement may be amended whenever necessary

<u>Assignment or other transfer</u> - Whether agreement can be assigned/transferred to any subsidiary or group company of any of the entities, successors or assignees

<u>Other general clauses:</u> Preconditions, Anti-competitive practice, Government regulations, Expiration and termination, Consequences of termination, Applicable law, Disputes, Arbitration, etc





#### Commercial/Financial Considerations

- Timing of commercial production is critical for payment of royalties based on sales of manufactured goods and products
- 'Inspection and information' provision allows the licensor to inspect any information required from the licensee with regard to production and sales records
- Payment options Lump sums or Royalties
- Royalty variables (e.g. reduction of royalty rate as the volume increases or time passes)
- Inflation could be effectively addressed when royalty rate is expressed as percentage
  of sales
- **Financial administration** obligations on the licensee to keep accounts and records and to report the results to licensor and pay the consequent royalties
- Infringement issues





#### TT Agreements at different stages of commercialization



http://www.wipo.int/amc/en/center/specific-sectors/rd/





#### Model TT Agreements?

- No universal or standard format for all types of technology transfer
- Vary according to specific requirements with appropriate clauses
- Examples of TT agreements suitable for different TT situations
  - ✓ Non-disclosure agreement
  - ✓ IP sale or assignment agreement
  - ✓ Agreement for licensing of know-how
  - ✓ Model agreements for IP rights in joint ventures
  - Sale and purchase of equipment
  - Consultancy agreement
  - Licensing of trade mark
  - ✓ Invention Disclosure Form
  - Model agreements for collaborative and sponsored research





## TT Agreement Checklist

- Checklist of necessary <u>considerations and steps</u> before signing the TT agreement:
  - ✓ Preliminary considerations Analyze potential of partnership/alliance
  - √ Assessment of IP assets
  - √ Assessment of other assets
  - ✓ Legal framework for technology transfer
- Checklist for the <u>structure</u> of TT agreement:
  - ✓ Preliminary requirements General and financial clauses
  - ✓ Subject matter of the license
  - ✓ Miscellaneous provisions





#### TT Agreement- Final Considerations

The parties willing to sign a TT agreement among themselves should consider the following issues before entering into the final contract:

- They should collect and catalogue all the information that is likely to be of interest for the potential partner, in an organized and easily retrievable way;
- It is advisable to take the assistance of an IP attorney in performing an IP investigation; and
- Due diligence should be proportionate to the value of the deal.





### TT Agreement- Policy Implications

- Subject to prevailing national laws and regulations
- Determine the extent of financial, material, services and technology transfer
- Compliance with standard conditions, stipulations and limitations
- Standard conditions attached to approvals for TT in FDI
- The process of approval may vary depending on the type of agreements





#### Disclaimer

The views expressed in this session are those of the author and do not necessarily reflect the views of the Secretariat of the United Nations Economic and Social Commission for Asia and the Pacific.

The description and classification of countries and territories used, and the arrangements of the material, do not imply the expression of any opinion whatsoever on the part of the Secretariat concerning the legal status of any country, territory, city or area, of its authorities, concerning the delineation of its frontiers or boundaries, or regarding its economic system or degree of development.

Designations such as 'developed', 'industrialised' and 'developing' are intended for convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process. Mention of firm names, commercial products and/or technologies does not imply the endorsement of the United Nations Economic and Social Commission for Asia and the Pacific.





## Thank you

#### For more information, contact

Satyabrata Sahu, Ph.D.

**UNESCAP-APCTT** 

P.O. Box 4575, C-2, Qutab Institutional Area, New Delhi – 110 016, India

Tel: 91-11-30973756 | Fax: 91-11-26856274

Email: sahus@un.org | Website: www.apctt.org,

www.techmonitor.net



