Take Home Messages

Workshop: "TT in Life Sciences"

February 23rd -24th -2022

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Day 1 – *Fabio Terragni* – introduction to the workshop

- To emphasize the value of Technology Transfer
- The Aim is to help the growth of TT in Italy & promote innovative processes focusing on IP mgm
- **New Center of TT is coming…**

Day 1 - *Riccardo Pietrabissa* – introduction to Tech Transfer

- Research is a freedom activity but freedom needs responsibility.
- Publication is the traditional result and value of the research.
- Impact is generated by innovation, as an extra value of research activity.
- Impact is contest related.
- **TT is the capability to understand, select, extract and address research results in order to generate new knowledge, impact & progress**
- Technology Transfer and money are TOOLs!
- Knowedge Transfer is evolving in Knowledge Exchange.
- The general path is research (IP) – development (POC) – application (new products).
- Is important to know the IP trends in order to foresight the future market trends.
- **TT requires Time, Cost/investment and Risk**

Day 1 - *Luigi Naldini* – from lab to market "Genenta Sciences"

- Development phase is the clinical translation and requires partnerships
- The **path**: disease modelling, preclinical POC, preclinical development, clinical develompment, registration for marketing .. Through the path you must find the right partners and be able to "loose" leadership (but not control) of some actitivities -especially in the last steps…
- In the business development, **model 1** with pharmaceutical companies: you have to face to multiple changing actors and spend time to keep leadership
- In the business development, **model 2** with biotech companies: you have to face to financial & returnes costraints and volatile partnerships, night be difficult to preserve control on IP..
- In the business development, **model 3** with start up companies: you have to face to financial resources costrained, possible conflict of interest to be managed, might be diffulct to balance scientific priorities vs. short term goals
- Epsilen Bio launched in nov2021 with 125$ in Series A financing – based on strong IP !!
- A vector design for target deliver has been the key factor and IP on which Genenta was set up, founded with first round of 10ml€ in 2015 and now moved to IPO at Nasdaq.. In a few years!!

Day 1 – *Iain Mattaj* – first conclusions

- We don't have to be pessimistic in presenting ourselves!!
- Italians Researchers are interested and able to get money and win projects! We must hep them to spend it in Italy!
- There is a progressive change at a individual behaviour and institutional block (i.e. professor priviledge) looking at innovation.
- Some universities have great TTO organization dispite prof priviledge.
- It is **funny** to be involved and **make experiences** dealing with investors and other stakeholders.
- How difficult is to have **good TTO professionals** supporting researchers?
  - *They need to **understand** science,*
  - *They need to understand the **worth** of IP and if an invention is worth to be protected*
  - *They need to take over to the scientist (to be an entrepreneur is a different job)*
  - *They need to know the **market** and company for licensing out IP*
  - *They have to be embedded in the Institute to build up **trust***
  - *They need to have **patience***

Day 2 – *Maria Grazia Roncarolo* – Translational Research

- **Translational research can bridge the gap between Academia & industry**
- Thinking, idea, reading, talking learning …. Anche then Data, IP/licensing, development, clinical trial & cure
- When we get public funds we have obligation to bringe products/cure to the patient!
- Typical path from discovery to product.. 15 years & 1 billion US$ investment .. **It's a long journey**:
  - Only big pharma can support this journey
  - No one invest without a clear vision and path on IP & medical need
- **Regulatory & commercial risk are higher than Scientific risk**
- Look at fast track FDA approval about rare disease due to the possibility to cut from 15y to 5 years
- **TTOffice is a fundamental partners** for researchers in dealing with IP & licensing process
- Currently approved cell & gene therapies for genetic disease and cancer are stemming from academia!
- A model could be to build a unique bench to bedside center covering all pahses with significant investment in falicities
- A spin-off can be set up after the FDA approval ..
- **The role of Human Technopole can be strategically fundamental** in order to build a system, moved by a common goal, an **ecosystem** of infrastructure and all different stakeholders from academia, industry and investors sides.

Day 2 – *Alessandro Sannino*– Gelesis case study

- **There is more money than good ideas**
- The technology is not the product, the technology is not enough to set a spin-off company
- When you have an idea probably someone else i the world already did it
- **Investors can help you to find «killer market application»**
- To do a business plan you need to know the market and not the technology
- For a good formulation you must develop the product not the technology restarting the research!
- You have to think how to espand your ip protection facing to different markets
- Scale up production is not linear in some sectors!
- Most important is the path and not the results
- **You have to accept the fact of changing your technology to create a product**
- 3 balances:
  - **Falling in love & love actually** .. Love means change with the person you love
  - **Risk & specialization** .. You need the team for changing your tech to get to the market
  - **Failure and success** .. If you want to be an entrepreneur you must consider these two words not like opposite
- **Life is to long for being always the same**

Day 2 -*Anja Zimmerman*- from Research to Patent

- The IP problem:
  - Interest of the inventor – mantain invention secret ..
  - Interest of public – improve technology
  - **The balanced solution within different interestes is the patent**
- The ways to protect IP (secret – copyrights – patents – utility models –variety protection)
- Requirments for obtaining a patent: novelty, inventive step, industrial applicability
- **Shall a patent be filed?** If there are requirements satisfied but also (especially) **if there is market**, check it before filing!
- Be carefull about any disclosure affecting novelty (written, oral etc.)
- **Patents are costly** and cost are increasing year by year, you should preparare an exploitation plan before filing a patent
- Take care about ownership especially in negotiating research contracts
- **Keep in mind to patent before to publish!**

Day 2 -*Anna Maria Merico*- from Patent to Market

- TT process needs teaming up with industry and investors
- Telethon model of TT starts in the very beginning of the path with a full support of Ttoffice to researchers
- A therapy for rare disease is a long journey guided by industry development vision
- **POC (Proof of Concept) can be a usefull tool** to move on the steps of TT path and let the researcher able to talk with industry in order to exploit the IP
- **Early managment of IP is relevant**! And TTO can help you to get this degree of freedom
- **TT is not a one-shot activity!**
- Is it possibile to partner with industry? Yes it is!
- The pillars of TT and the role of TTO:
    - Safeguard research independent
    - Reatain IPR
    - In case of failure revert IP
    - Partners should provide research adn additional funding
- Scientistic can contribute to negotiation

HUMAN TECHNOPOLE

TT
Is difficult

More money
than **Ideas**

Look at
impact

Take care of
The **Problem**

Listen to
the **Need**

Protect
your **IP**