



China Intellectual Property
Management Network

Covid19 IP realities in biomedical industry-academic partnerships

新冠疫情背景下 生物医学产业 - 学术合作伙伴关系中的知识产权现状

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Negative COVID-19 realities

新冠疫情的消极影响

- Years 2020-2021 are about social distancing 2020-2021年是关于社会距离的
- Networking, collaboration, pitching are becoming much more complicated 网络，协作，推销变得越来越复杂
- In certain countries there is a growing emphasis on localization, nationalism, etc. 在某些国家/地区，人们越来越重视本地化，民族主义等
- The end result is a much complicated and risky echo-system for public private partnerships. 结果使公私合作伙伴关系的系统非常复杂且风险很大。

Positive COVID-19 realities

新冠疫情的积极影响

- Clear demonstration of the benefits of public-private partnerships (Moderna-NIH, Astra-Zeneca- Oxford)明确展示公私伙伴关系的好处（如Moderna-NIH，阿斯特拉-泽内卡-牛津的合作模式）
- Enhance ability to expedite lab-research into marketable solutions
- 提高实验室研究可销售解决方案的能力
- The power of the private market in being a driver for innovation is clearly visible
私人市场作为创新驱动力的力量显而易见
- Benefits of collaboration of with multinational companies.与跨国公司合作的好处。
- The 4th Industrial Revolution is now a reality 第四次工业革命现已成为现实

Benefits of academia / industry collaboration

学术界/工业界合作的优势

- Transformation of academic research into new life saving treatments and medicines将学术研究转化为新的生命救治方法和药物
- Faculty obtains access to state-of-the-art technologies, while industry benefits from ingenuity of academic researchers.学院获得了最先进的技术，而工业界则受益于学术研究人员的独创性。
- Creation of new companies创立新公司
- Infrastructure for economic growth, employment and investment经济增长，就业和投资的基础设施
- Royalty income, to expand research capabilities版税收入，以扩大研究能力

INDUSTRY – ACADEMIA: COLLABORATION AND CONFLICT

工业界-学术界：合作与冲突

ACADEMIA学术界

- Research leads to knowledge, publication研究产出知识，出版物
- Goal: Be the first to publish目标：第一个发布
- Freedom of research and publication into the public domain研究和出版进入公共领域的自由
- Academic credit, dissemination of information学术信用，信息传播

INDUSTRY工业界

- Research leads to development of new products推动新产品研发
- Goal: protect patent /product目标：保护专利/产品
- Directed research and secrecy指导研究和保密
- Bring product to the market, create sales & profits将产品推向市场，创造销售和利润

Gap can be bridged by mutual understanding of the needs:相互了解需求可以弥合差距：

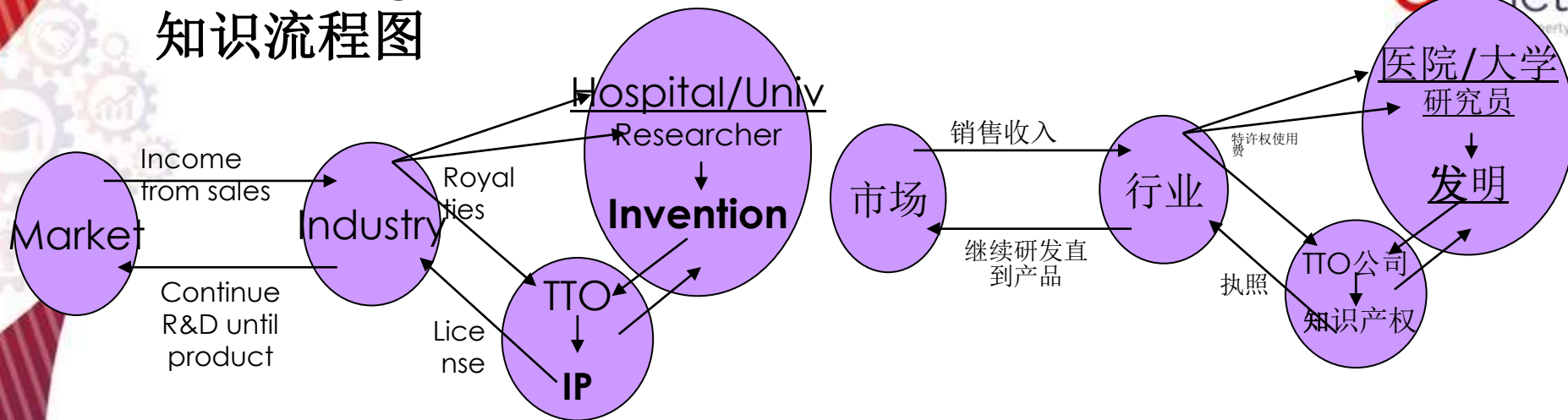
- Academia – needs funds for research and income from royalties学术界 – 需要研究经费和特许权使用费收入
- Industry – needs new products工业界-需要新产品

Successful collaboration leads to Commercialization of new and useful technologies via Licensing Agreements, creation of new Startup Companies

成功的合作将通过许可协议，将新的有用技术商业化，并创建新的初创公司

Knowledge flow chart

知识流程图



A study tracing back the origins of 32 major innovative drugs found that the contribution to their development of industry (53%) and non-industry (47%) is roughly equal [\[1\]](#)

一项追溯32种主要创新药物起源的研究发现，对其工业（53%）和非工业（47%）的发展贡献大致相同^[1]

[\[1\]](#) Chin-Dusting, Jacques Mizrahi, Garry Jennings and Desmond Fitzgerald, Finding improved medicines: the role of academic-industrial collaboration. *Nature Reviews Drug Discovery*, **4**, 891-897 (2005)

Creating an IP portfolio 创建知识产权组合

- Understand the nature of the asset (technology, artistic creation, brand..., specific use, platform use, a product, a process....) 了解资产的性质（技术、艺术创作、品牌、特定用途、平台用途、产品、过程...）。
- Understand your own capabilities (budgets, size, level of knowledge, complementary assets, etc) 了解自己的能力和（预算、规模、知识水平、互补资产等）
- Define the IP asset as early as possible (each IP asset as a micro-cosmos) 尽早界定知识产权资产（每个知识产权资产都是一个微观世界）
- Prioritize the IP assets and identify the “front runners” 优先考虑知识产权资产并确定“领先者”
- Manage the assets systematically (and on different levels – legal, commercial, financial, R&D), etc. 系统地（在法律、商业、金融、研发等不同级别）管理资产等。



These will increase your chances for a good return on investment
这些将增加您获得良好投资回报的机会

The Paradox: it is still likely that one
success will pay for all the failures

悖论：所有失败将为一次成功付出代价

The licensing option许可

Licensing-vs. licensing-out 许可 vs.许可证发放/授权

When and why should we consider to license and what

Up stream vs. down-stream licenses 何时/为什么要考虑知识产权许可

Basic terms of the license许可基本条款

Exclusive vs. non exclusive license独家与非独家许可

The associated know-how相关的专业知识

Royalties特许权使用费

Additional models for the exploitation of IPRs 利用知识产权的其他模型

The Joint Venture (including spin-offs) 合资企业（包括分拆）

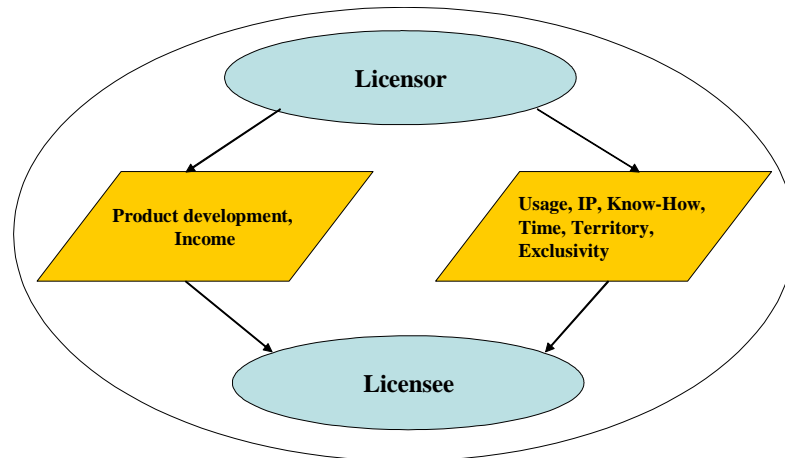
Strategic alliances (including patent pools and cross-licensing) 战略联盟（包括专利联盟和交叉许可）

Franchising 特许经营

Sale of IPRs 知识产权销售

Collaborative R&D 协同研发

Consultancy and services 咨询和服务



Concluding thoughts

小结

- Covid-19 emphasized the power of PPPs 新冠疫情强化了政府和社会资本合作模式
- IP remains both a vehicle for commercialization and a driver for growth
知识产权既是商业化的手段，也是持续增长的推动力
- Mapping and protecting institutional IP is more important
知识产权的布局和保护很重要
- So is the ability to open up to international players to secure the mutual beneficial sharing and exploitation of knowledge products.
- 应向国际参与者开放以确保知识产品的互利共享和开发的能力

Thank you!



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