Session 3 :
Building & operating a TTO

Positioning of TTO in academia/ R&D labs, financial & resource management, practical issues in managing a TTO, impact & performance tracking, communication

Richard Cahoon, John Fraser

Who's Speaking

Richard Cahoon
PhD

Richard Cahoon, Adjunct Professor at Cornell University, specializes in technology transfer, IP management, and commercialization. With over 30 years of experience, he has advised governments, universities, and global organizations on innovation ecosystems, IP strategy, venture creation, and technology-driven economic development in over 25 countries.

Affiliation

- Past Association of University Technology Managers, USA (AUTM) Board of Directors
- President, BioProperty Strategy Group, Inc.
- Head of Tech Transfer, Cornell University

Who's Speaking

John Fraser

CLP, RTTP

John is a global expert in technology transfer and knowledge exchange, with extensive experience in maximizing innovation impact. Having led four technology transfer offices across two countries, he understands the complexities of translating research into market-ready products. As a former AUTM President, he has advised global technology transfer professionals on country-specific challenges. Through Burnside Development, he consults for WIPO, Chilean institutions, Serbia's Innovation Foundation, and India's Department of Biotechnology.

Affiliation

- Past President Association of University Technology Managers, USA(AUTM)
- President, Burnside Development & Associates LLC
- Head of Tech Transfer for Florida State University & Simon Fraser University

Enabling policies and guidelines
Positioning of a TTO in academia/ R&D labs
Financial and resource management
Other practical issues in managing a TTO

Richard Cahoon

Building & operating a Tech Transfer Office (TTO)

Enabling policies and guidelines

Positioning of a TTO in academia/ R&D labs

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Building & operating a Tech Transfer Office (TTO)

Enabling Policies & Guidelines

- Is there an IP Policy?
- Clear institutional ownership of patentable IP made by institutional personnel in the course of their duties
- Are revenue sharing mechanisms in place?
- Is there a governing/advisory IP body (e.g., IP committee)
- What is the goal of IP/Tech Transfer?
  - Revenue generation $$$?
  - Technology advancement for the public good?
  - Institutional reputation?
  - Economic development?

Building & operating a Tech Transfer Office (TTO)

Enabling Policies & Guidelines

- Does educational and research mission, and academic tradition (e.g. publishing) transcend IP/tech transfer?
- No sale/only license of PSRI IP
- Is there an IP Policy appeal mechanism?
- Does leadership support the TTO and its goals?
- Are start-up policies in place?
- Are start-ups encouraged and supported?

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Positioning of a TTO in academia/ R&D labs

- The TTO/Tech Transfer Professional is a team player with inventor(s)
- TTO/TT Professional are the inventor's friend & advocate
- TTO/inventor/research labs engage in "business development" on behalf of the research enterprise
- The goal: technology development & advancement
- The TTO/TT Professional is a champion for the invention
- TTO/TT Professional seeks IP license & research contract

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Financial & Resource Management

- How is the TTO funded?
  budget from institutional leadership?
  share of IP-license revenue?
  combination of above?
  other?
- The US model: 1/3 – 1/3 – 1/3 (of net revenue)
  inventor/TTO/Institution
- Triage & Selection of viable inventions is critical
- With 1/3 share, and Triage/Selection,
  Break-even is likely

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Financial & Resource Management

- Strive to shift IP costs to licensees
- Dedicate time & effort to manage IP costs
- Regarding Tech Marketing, be creative & frugal

Building & operating a Tech Transfer Office (TTO)

Other Practical Issues in Managing a TTO:

- Triage & Selection is key; diplomatic rejection is an art
- Hire optimistic, “can-do” people with business development mindset, who believe in the mission
- Keep senior leadership always apprised, but never in the loop of negotiations
- Dedicate time/effort to promoting tech transfer its impact and effectiveness in technology development and advancement

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Other Practical Issues in Managing a TTO:

- Look for allies at institution that will help IP/TT process
- Focus on lots of “good” deals
  rather than a few “perfect” deals

What value does a TTO bring to an institution
Impact and performance tracking and communicating

John Fraser

Session #3:
Building & Operating a TTO

Dick Cahoon and John Fraser. Monday 16 June 14:00-15:30

DICK: Positioning of a TTO in academia/ R&D labs

- Enabling policies and guidelines
- Financial and resource management
- Other practical issues in managing a TTO

JOHN: 30 minutes

- What value a TTO brings to the institution
- Impact and performance tracking and communicating

What Value does a TTO bring to the institution ? - 1

- Value defined: “the regard that something is held to deserve; the importance, worth, or usefulness of something”.
- The 10 largest economies in the world as of 2025 are **the USA, China, Germany, India, Japan, the UK, France, Italy, Canada, and Brazil.**
- **All** have a significant, working, academic TTO network in place. Without it, can you be counted as a significant player?
- Each national and regional government expects the University system to add to its current responsibilities by helping to grow an Innovation Eco-System to boost the national Economy. The TTO helps do that.

What Value does a TTO bring to the institution ? - 2

A very interesting study of Impact was a series of publications by Economics Professor Edwin Mansfield at the University of Pennsylvania. In a series of papers mid 1980s- early 1990's, he concluded:

- About 11 percent of the new products introduced in these industries (information processing, electrical equipment, chemicals, instruments, drugs, metals, and oil) in 1975-85 were based in recent academic research. The 1985 sales of its new products first commercialized in 1982-85 that were based on academic research, revealing the total of about $24 billion for these seven industries.
- The time lag between academic research findings and the commercialization of the products based on these findings has a mean of about 7 years.
- Overall, the results reveal that the contribution of academic research to industrial innovation has been particularly strong in the drugs, instruments, and information processing industries.

What Value does a TTO bring to the institution ? - 3

- A further Mansfield study concluded that a company that invests in new products, etc. will capture only about 25% of the benefits of the investment (financial and otherwise). Society captures twice as much at 54%, with the rest too diffuse to measure
- In the 1980's and early 1990s these studies helped strengthen the rationale for US federal tax dollars to support R&D in the private sector and to encourage the transfer of technology from PSRIs to private companies for investment and commercialization.

- US Vice President Al Gore (1993-2001) quoted Mansfield's findings when seeking support to increase the NSF budget.

Impact and performance tracking and communicating - 1

MACRO: Benefits of participation – accelerate research careers by accessing new people, problems and resources; further enhance the Institutional Reputation by showing how its research addresses real societal problems; increase local economic development by attracting national R&D $$ and creating spinout companies raising $$ and creating Jobs, responding to government mandates to create innovation eco-system

Transaction Metrics (disclosures; deals; compensation)– One measure of Impact

Stories – Another measure of Impact

AUTM/BIO Impact Report results (1922): **The Licensing of Academic Patents Contributed Up to $1.9 Trillion to the US Economy, Supported up to 6.5 Million Jobs in the last 25 Years**

US FDA approved drugs in US: from 1980-2010 (30 years), 153 new FDA approved vaccines, drugs and/or new indications for existing drugs were created during the course of research carried out in public sector institutions i.e. 20% of new molecular entities at the FDA.

Build the research base across the country.

Impact and performance tracking and communicating - 2

MACRO

- US FDA approved drugs in US: from 1980-2010 (30 years), 153 new FDA approved vaccines, drugs and/or new indications for existing drugs were created during the course of research carried out in public sector institutions i.e. apprx. 20% of new molecular entities at the FDA. *From The Contribution of Public Sector Research to the Discovery of New Drugs and Vaccines By Ashley J. Stevens, Mark L. Rohrbaugh et al. Nature Biotechnology 2010.*

- In 2025, VP Kevin Garner at SUNY Brook, NY released a preprint: By identifying the inventors of drugs approved by the Food and Drug Administration (and the key patents curated in the FDA Orange Book), our review revealed that from 2020 to 2024, universities contributed patents underpinning 50% of FDA-approved drugs. Even more stunningly, 87% of those academic breakthroughs came from American institutions.

Impact and performance tracking and communicating - 3

MICRO: there are local Institutional studies that show the research Impact from researcher participation; local economic development and Jobs created via Spinout companies which raised significant outside Financing, all of which build the Institutional research base.

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Thank you for Listening !

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