Technology Transfer & Commercialisation of Ideas
Making an IMPACT with IP/Know-how

Chim K Chu: Senior Technology Transfer Manager
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Oxford University Innovations (OUI)

- OUI is 100% owned by the University of Oxford
- Technology Transfer:
  - IP, Patents
  - Licences
  - Spin-outs
  - Seed funds
  - Investment networks
- Consulting:
  - provision of expertise from academics to Industry, Government, public bodies
Impact

• The impact of OUI activities is the take-up of new technologies and ideas that form the basis for new products and services.

• Making an impact means identifying, integrating, and brigading University IP, know-how and R&D capabilities to meet Society’s need through Industry’s eyes.

• Bundling of technologies (IP, Know-how, experiences) and collaborate with the right Industry Partners.
What is Intellectual Property?

• **What is IP?**
  • Patents, trademarks, design rights...
  • AND know-how: process specs, recipes/formulae, test specs/harnesses, test data, simulations, customer lists, supplier lists, all kept as trade secrets

• **Who creates IP?**
  • Research team members singularly or collectively
  • Principal Investigators and DPhil Students; many examples in Mat Dept

• **What does IP look like?**
  • An example patent handout from Eng Dept
Examples of Intellectual Property: Materials Dept

- Graphene, Carbon Nanotubes, CVD Probe
- Buckyballs
- 3D Atom Probe
Examples of Intellectual Property: Chemistry Dept

- **Dendrimer Sensors**

![Dendrimer Sensors Image]

- **Dendrimer/OLED Displays**

![Dendrimer/OLED Displays Image]

**United States Patent**

Burn et al.


Date of Patent: Dec. 15, 2009

Field of Classification Search: 313/904, 313/906, 257/40, 428/900, 917, 5462, 5464, 5480/101, 402

Reference Cited

U.S. Patent Documents

5,041,516 A

8/1991 Fréchet et al.
Examples of Intellectual Property: Engineering Dept

- Crycoolers for Space
- 19 Satellites so far

James Webb Space Telescope: Northrop Grumman

Launch in late 2018, NASA’s James Webb Space Telescope - “the most powerful infrared space telescope ever built and will observe the most distant objects in the universe, provide images of the first galaxies formed, and study unexplored planets around distant stars”
What do we do with Intellectual Property?

- **What we do with IP and underpinning technology**
  - Licensing the patents/know-how to a third party able/willing to exploit the IP
    - Honeywell – Northrop Grumman (Cryocoolers for Space Satellite Instruments)
  - Develop/mature the IP to make it more attractive for adoption by industry
    - Further research to embody the IP/technology as demonstrations
    - Develop the IP/technology under a translational programme as a Proof of Concept

- **What we do when a more valuable exploitation route exists**
  - Incubate a new virtual company to test the technology and business prospects first
    - Graphene, Carbon Nanotubes, CVD Probe
  - Start-up a new company to with VC funding as a University Spinout
    - Designer Carbon Materials Ltd (Buckyballs)
    - Arborescent Ltd/Opsys Ltd/CDT Ltd (Dendrimer/OLEDs)
Intellectual Property Policy (from October 2000)

• University claims ownership of all employees’ and students’ IP rights resulting from University research activities

• The University *assists* those researchers *who wish to* commercialise their research
  • by patenting, licences, spinout companies & consultancy

• Researchers share the benefits
  • Royalty shares from licences
  • Equity in spinout companies
  • Income from personal consultancy

• The wider perspective: beyond learning and teaching: what can Oxford do for Society at large from the research outcomes?