

Rewards from Carefully Managing Your Intellectual Property

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Protecting Intellectual Property - University

Lab notebook – date of invention

Witness

Invention Disclosure document filed

Patent application submitted

Public disclosure

License

Product development

Commercial production

Case Study: Oxyconsumeter

NIH funding to university (1972-76)

Invention disclosure

University patent

Public disclosure at IEEE conference

License

Reward: Contracted research

Reward: Cicero & Zeus anesthesia machines

Rascal II

Joint venture

- Electrical engineering
- Bioengineering
- Anesthesiology

Invention disclosure

Know-how licensed to start up company

Patent filed by company

Acquired by large anesthesia company

Reward: Anesthesia patient care

Pharmacologic Drug Display

NIH funding to university

Invention disclosure

Patents filed

License acquired by inventors

- Sublicenses to two companies

Reward: enhanced corporate image at ASA

Reward: minimum royalties

Safety Wedge

Spinoff from ongoing research

Invention disclosure

University returned technology to inventors

Patent filed privately

License to Singapore manufacturing company

Reward: Royalties from sales in Turkey

Neural Network Cardiac Output

Student thesis research (without financial sponsor)

Invention disclosure

Arbitration

Patent filed by student

Reward: technology awarded to student

NMB monitor

NIH small business innovation grant (SBIR)

Patent filed by small business

License agreement written by experienced attorney

License to R&D company

License to marketing company

Reward: Minimum royalties

NICO₂

NIH SBIR funding to small business

Flowmeter development

Clinical application from journal publication

Enabling technology: on-airway capnography

License to small company- R&D

Acquired by large company- marketing

Reward: contracted research +++

Reward: Royalties from small business

QED-100

NIH SBIR funding

Patent filed by small business

Clinical trials and publications

FDA approval

Formed startup company

Product development

Marketing failure

Rewards from Carefully Managing Your Intellectual Property

After ~50 patents, ~25 licenses and ~13 commercial products....

- Anesthesia patients receive better care
- Corporate sponsored research
 - ~100 student research projects
 - Career advancement
 - Friends in medical device industry
- Student employment
- Students start own companies
- Some royalties