

# Technology Transfer 'experiments' and practices across the UK

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# UK ecosystem

- ❑ Circa 150 Higher Education Institutions
- ❑ 24 members of the Russell Group
- ❑ TT requires strong research base
- ❑ Technology Transfer V Knowledge Exchange (KE)
- ❑ Most universities do TT as part of KE activity
- ❑ Dedicated TT organisations are < 25

## Top tier and the rest

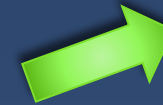
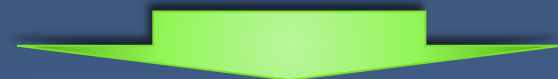
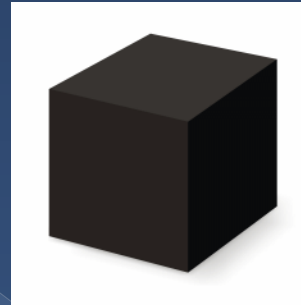
- ❑ Smaller offices generally operate within an Innovation/Enterprise Department
- ❑ Big 6 - Oxford, Cambridge, UCL, Imperial, Edinburgh, Manchester – 6UTTO
- ❑ All 'initially' set up as independent subsidiary companies
- ❑ Rest of Russell Group have variations - external, internal and one until recently outsourced its IT services

**There is a story behind each**

# The UCLB story

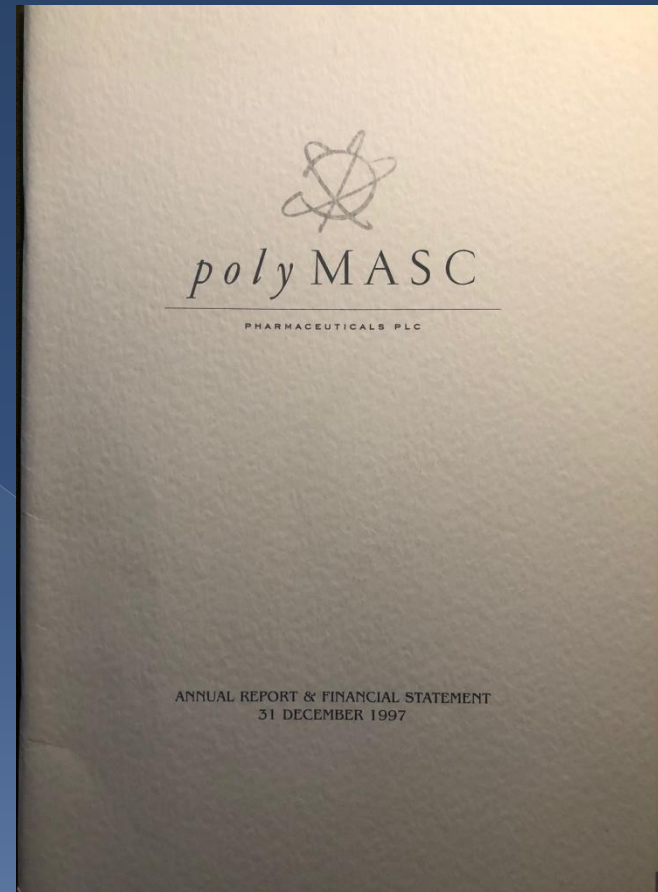
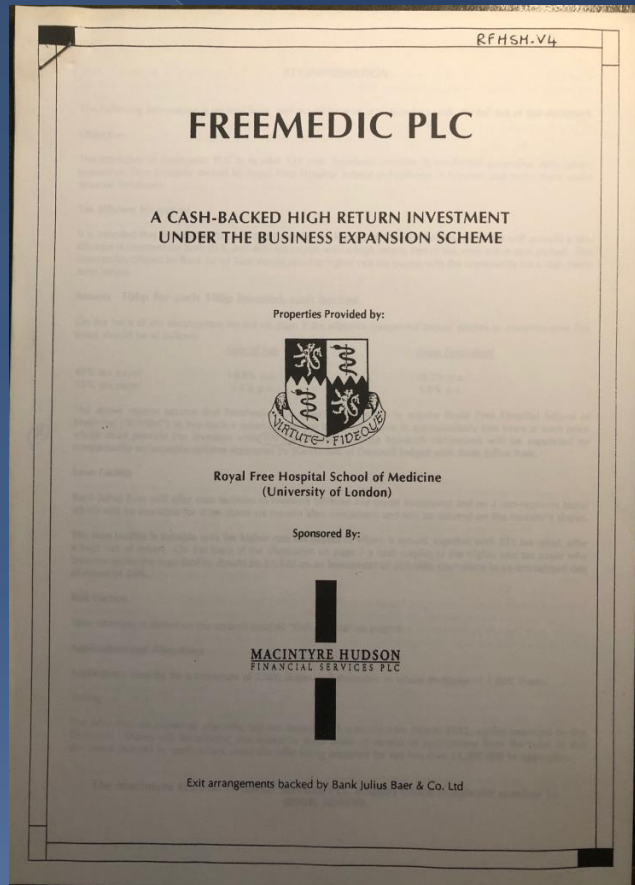
- ❑ Freemedic PLC incorporated 1993
- ❑ Object was to make profit
- ❑ This was to be a “business”
- ❑ Medical School needed money
- ❑ Commercialising IP was chosen
- ❑ There was no government support or grant funding, we didn't raise external funds just did it ‘organically’

# Working out what to do



**“Technology Transfer”**

# First two 'deals'



## First “spin out”

### PolyMasc PLC

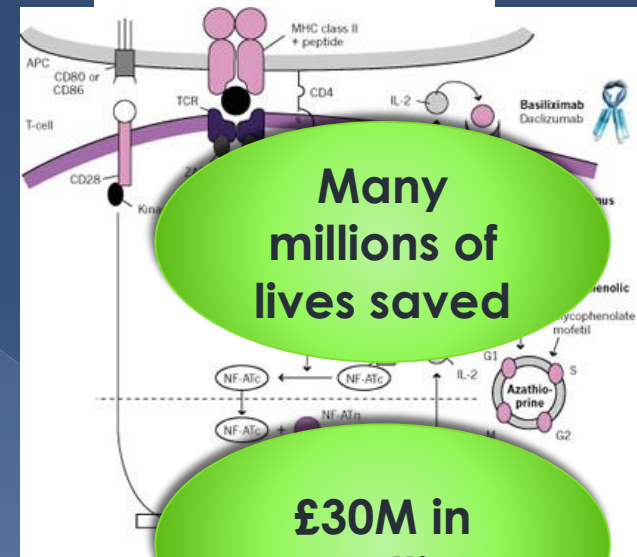
- ❑ 1995 - first spin out IPO onto AIM
- ❑ Raised £5M
- ❑ Capitalised at £20M
- ❑ Acquired by Valentis Inc
- ❑ Financial returns circa £10M over 5 years
- ❑ By early 2000's technology didn't scale up
- ❑ Company share price collapsed

**Lots of Lessons learnt**

# First “licence”



- ❑ **Research collaboration** with Sandoz (now a part of Novartis)
- ❑ UCL technology contributes to invention. Patents filed in UCL's name - all costs covered by Sandoz.
- ❑ Product developed through Clinical trials Phase I-III/IV and launched as Simulect in 2000 for use in renal transplantation.



**Many millions of lives saved**

**£30M in royalties**

**Great success story**





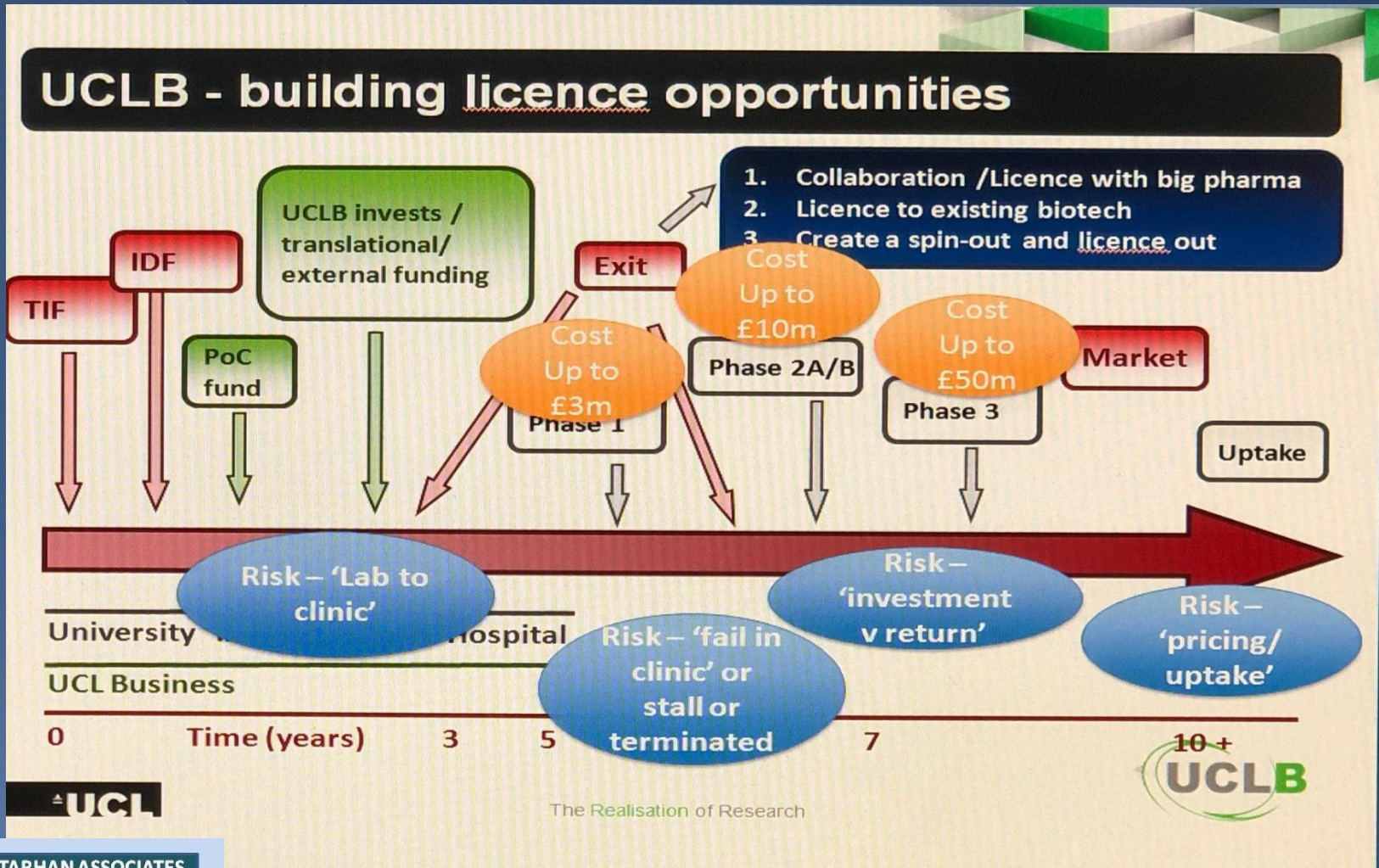
# Create an “engine” to do more

- ❑ IP generation and protection
- ❑ Recruit people
  - ❑ who understand the science
  - ❑ who understand the market
  - ❑ with expertise – patent, legal, accounting
- ❑ Money
- ❑ Partners – investors/collaborators/hospitals
- ❑ Understand development/regulatory path

**But most important - develop a purpose**



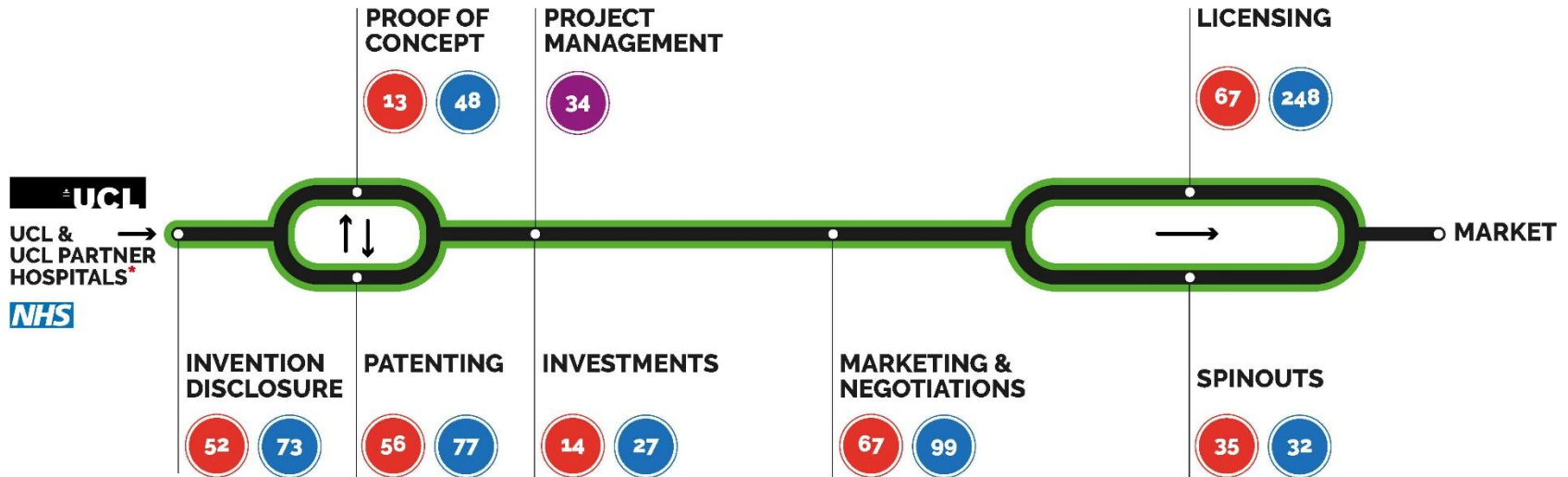
# The plan as it evolved by 2008





# The 'engine'

## OUR ROUTE TO MARKET



### KEY

UCLB activity

Total number of active projects per phase

- Engineering, Physical Sciences, Arts & the Built Environment
- Biomedical Sciences
- Project Management

\* Great Ormond Street Hospital for Children NHS Foundation Trust | Moorfields Eye Hospital NHS Foundation Trust | Royal Free London NHS Foundation Trust | University College London Hospitals NHS Foundation Trust



800+ projects

# UCL Business – why a subsidiary company?

- ❑ TT process not well understood – its not easy
- ❑ It's a long term game - no guarantees
- ❑ Leadership changes bring frequent reviews
- ❑ It's about people and teamwork
- ❑ Needs investment
- ❑ Inherent conflicts need to be managed between university, inventors, entrepreneurs/management, funding bodies, governments, investors/businesses

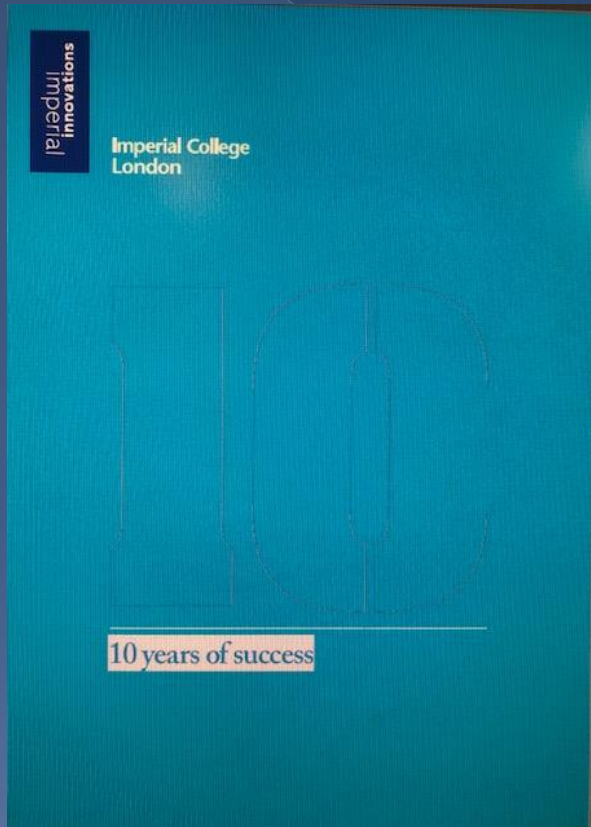


**Company structure works at UCL**

# The Imperial Innovations story

- ❑ Imperial Innovations established in 1986 within the Imperial College London
- ❑ Later raised private finance and formed an investment vehicle as an LLP
- ❑ Floated on London AIM in 2006 raising £25M
- ❑ Imperial College provides 15 year pipeline to IP
- ❑ Raised a further £390M from stock markets
- ❑ Each Fundraise diluted Imperial College's interest

# By 2008 – “10 years of success”



## By 2016-2017

- ❑ Imperial college equity interest is further diluted and control over its TT
- ❑ Company rebrands as Touchstone Innovations
- ❑ Consolidation led by investors forces merger with IP Group
- ❑ Merger turns aggressive
- ❑ Oct 2017 “IP Group takeover of Touchstone goes unconditional”



# Imperial now

“Technology Transfer at Imperial College London is now led by the Imperial Enterprise Division”



**Back to 1986?**

## Oxford story

- ❑ Incorporated as Isis Innovations in 1987
- ❑ Wholly owned by University of Oxford
- ❑ Independent Board
- ❑ Very successful (but rigid TT processes)
- ❑ Periodic reviews
- ❑ Potential drift away from University
- ❑ £600M Oxford Sciences Innovation fund launches
- ❑ 2016 - Rebrands as Oxford University Innovation

**Three distinct periods**

## Cambridge story

- ❑ IP at Cambridge was owned and commercialised primarily by Cambridge Academics/ inventors until 2004
- ❑ After 2004 new IP Policy was introduced so the University now owns all IP generated by its staff.
- ❑ Cambridge Enterprises has had a more 'relaxed' IP policy
- ❑ 5% policy

**With enormous success**

## Other notable 'experiments'

- ❑ Easy Access IP
- ❑ Played out at Glasgow, Kings College London and others

## Lessons learnt

- ❑ Demonstrate clear value of TT to university
- ❑ Constantly test and realign with university mission – it changes and so should TT
- ❑ Carry the university leadership

# Summary

- ❑ UK has been experimenting
- ❑ Current thinking suggests an independent but closely aligned wholly owned subsidiary has advantages but ONLY if there is a strong research base to support TT.
- ❑ Most universities are now embedding TT in and amongst Knowledge Exchange activity to support REF/KEF.