



Walter+Eliza Hall
Institute of Medical Research

Innovative business development models:

Investing in partnerships, people and in-house assets

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- Partnerships
 - Three party collaboration
- People
 - Interns catalyzing and adding value to partnerships
- In-house assets
 - Maximising the value of research reagents

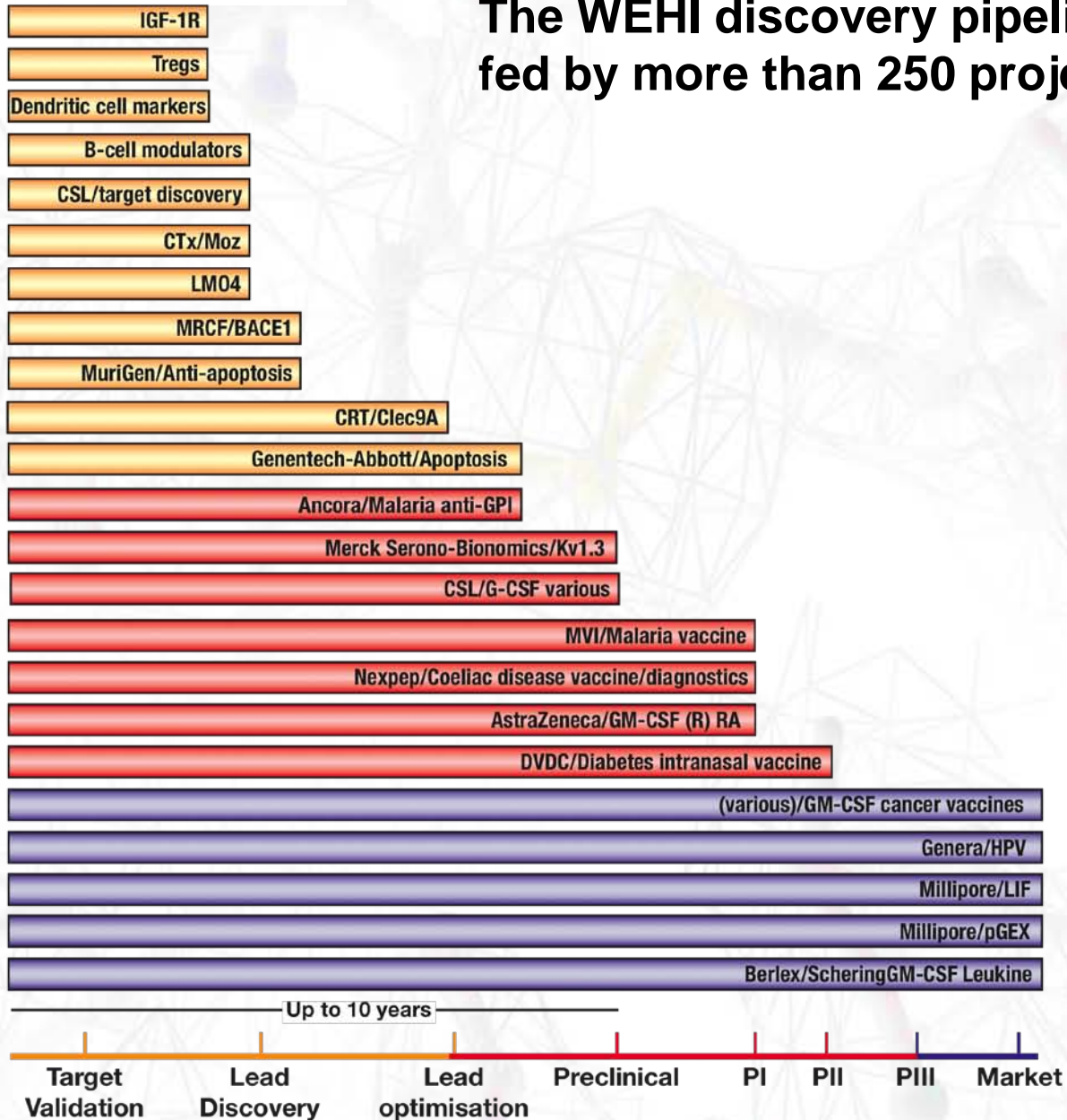


The Walter and Eliza Hall Institute of Medical Research

- \$70 million investment in research per year
- \$7 million commercial revenue/royalty per year
- More than 600 staff in 50 research laboratories - incl. 50 faculty, 120 post docs, 70 PhD students
- Increasing transactions - currently per month – 2 provisional applications, 3 CDA, 25 MTA and 8 LOAC



The WEHI discovery pipeline is fed by more than 250 projects....





470 collaborations, 250 projects, 120 cities, 43 countries



Aachen Adelaide Ankara Ann Arbor Argentina Arta Athens Atlanta Auckland Australia Austria Baltimore
 Bangkok Barcelona Beijing Belgium Berkeley Berlin Berne Bilthoven Birmingham (AL) Birmingham (UK)
 Boston Brazil Brisbane Brussels Budapest Buenos Aires Buffalo Bulgaria
 Cambridge Canada Charleston Chicago China Christchurch
 Cincinnati Copenhagen Cork Croatia Cypress Czech Republic
 Darwin Davis Debrecen Denmark Dortmund Dublin
 Dundee Dunedin Durham Ehome Erlangen Estonia
 Finland France Freiburg Garoka Geelong Geneva
 Germany Greece Hamilton Hanoi Heidelberg Helsinki
 Hobart Houston Hungary Innsbruck Iowa City Ireland
 Irvine Italy Ithica Japan Karlstad Kenilworth Kenya La
 Jolla Latvia Lausanne Leiden Ljubljana London Los
 Angeles Lund Lyons Madison Madrid Manchester
 Maputo Marseille Melbourne Memphis Menlo Park Mexico
 Milano Mozambique Munich Nairobi Naples Netherlands New
 York New Zealand Nicosia Nutley Osaka Oxford Papua New
 Guinea Paris Perth Philadelphia Pittsburg Poland Port Moresby Prague
 Research Triangle Park Rome Roskilde Rotterdam Salt Lake City San Diego San
 Francisco Sao Paulo Seattle Shanghai Singapore Slovenia Sofia Spain St Louis Stockholm Strasbourg Sweden
 Switzerland Sydney Taiwan Tallin Tampere Thailand Tokyo Townville Turkey United Kingdom Uppsala USA
 Utrecht Vancouver Vienna Vietnam Warsaw Washington Wellington Whithouse Station Wollongong Xi'an
 Yokohama Zagreb Zurich

Abbott, BACE Therapeutics, Bionomics, Cancer Therapeutics CRC,
 Cancer Research Technologies, CSL, Gates Foundation, Genentech,
 Genera Biosystems, Merck, MuriGen Therapeutics, Nexpep



A new breed of collaboration is emerging...

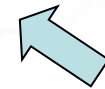
- From a focus on licensing, contract research and investigator lead sponsored research

“money over the wall”



- To integrated sponsored collaboration and consortium lead research

“a wall around the money”



Our focus



A tough drug development environment ...

- Pharma growth rate is at 1961 levels (3.8%) with lowest rate of new approvals since 1981
- Patent expiries are at an all-time-high
- Safety and regulatory concerns have a major impact
- How to move from a few historical drug targets to biological novelty and efficacy?
- Need to strengthen the front end of the drug discovery process



Pharma returns to spawn in the fertile waters of academia ...



- Novel drug targets and complex biology
- A need to access a wide range of fast-moving disciplines
- Regulators want more information and evidence from earlier stages in the development process
- Targeted molecular diagnostics require integration of therapeutic, diagnostic, clinical and pathology skills



Recent academic-industry collaborations highlight the trend

- Belgian consortium (Brussels, Louvain, Liege, GSK, Euroscreen, UCB)
- Cancer Therapeutics CRC
- WEHI – Genentech/Abbott
- Innovative medicines initiative (Europe)
- King's College London/Lundbeck (and others)



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Investing in partnerships
Three party collaboration
Genentech/Abbott/WEHI



- New small molecule cancer drugs targeting pathways that control cell death (bcl-2 family proteins)
- WEHI/Genentech agreement executed December 2006 - into fourth year
- Abbott, previously a major competitor in this area, joined in a tripartite collaboration in January 2008 - combining three world leaders
- Three sites with multidisciplinary teams (South San Francisco, Abbott Park, Melbourne)





A compelling logic for all parties:

- Complementing skills and disciplines
- To gain critical mass
- Tackling complex biology and chemistry
- Linking “bench”, “clinic” and “industry”
- A spin-out company was too vulnerable for WEHI alone





- Project IP managed to encourage collaboration
- Individual confidentiality and IP deeds at WEHI
- Regular teleconferences
- Rotated face-to-face meetings
- Simple quarterly formal reports



- Strong scientist-to-scientist links
- Alignment of goals - to discover and commercialise novel cancer therapeutics
- Shared values driven by world class science
- Cultures open and participative
- Integrated multidisciplinary teams
- Focus on timelines and project management





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**Investing in people:
Business Development interns to
catalyze and add value to
partnerships**



Strengthening collaborative linkages

- Early career scientists are critical to project delivery and collaborations
- Early career scientists usually have the intellectual mobility essential for:
 - *In-reach* (within own laboratory environment)
 - *Cross-reach* (within own organisation)
 - *Out-reach* (between organisations)
- Therefore, engage postdoctoral scientists in business development and especially the development of opportunities and collaborations



- A team of high-achiever postdocs that spend up to 20% of their time with the Business Development Office
- Mutual benefits
 - Learning the skills of technology transfer at the same time as “hot-wiring” new opportunities
 - Becoming more competitive as a contemporary scientist
 - Understanding the “big picture” of collaboration
 - Increasing the Institute’s “bandwidth” for translation
 - Awarded a certificate of achievement





Graduated



Active



In-waiting





- “*WEHI Connect*” training
 - Developed together with InnovationXchange
 - Recognising gaps and linking projects
 - Building trust and creativity
 - Establishing close working relationship with other interns
- Seminars, case studies and references
 - Technology transfer, route to market strategies, licensing/start-ups, product development, risk management, valuation techniques, IP strategy, personalities, cross-cultural collaborations, pitching and selling, etc
 - Internal and external case studies



- Work as de facto members of the Business Development Office
- Work on real WEHI projects
- Must cover five main areas in order to graduate with a certificate:
 - Opportunity identification and analysis
 - Intellectual property management
 - Technology marketing communication
 - Legal agreements
 - Technology transfer administration and policy



What I have gained from the internship program

“This unique program has given me insights into life beyond the laboratory: the world of collaborative agreements and new funding opportunities. I feel that an extra dimension of business awareness and skill has been added to my scientific identity”

Marthe D’Ombrain

WEHI Business Intern Graduate (April 2009)



Metric	Last 10 years	Last 3 year average	2009/10
Research expenses	\$601 million	\$74.1 million	\$78.1 million
Lab operating expenses	\$128 million	\$15.7 million	\$16.3 million
FTE	5,620	625	661
Publications	2,270	240	249
MTAs	2,100	242	245
Invention disclosures	185	23	24
Patent applications	125	16	10
Commercial agreements	400	69	82



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**Investing in in-house assets
Maximising the value of research
reagents – Commercialisation
collaboration BD/WEHI**



- Portfolio >100 monoclonal antibodies
- In-house Antibody Facility with internal clients from 50 laboratories / 250 projects
- Approx. 40 fusions performed in last year for internal clients
- WEHI research focused on key disease areas and has high impact* – Institute's antibodies are leading edge reagents in their field
- Antibodies represent a 'commercial-ready' asset





A shift to proactive commercialisation

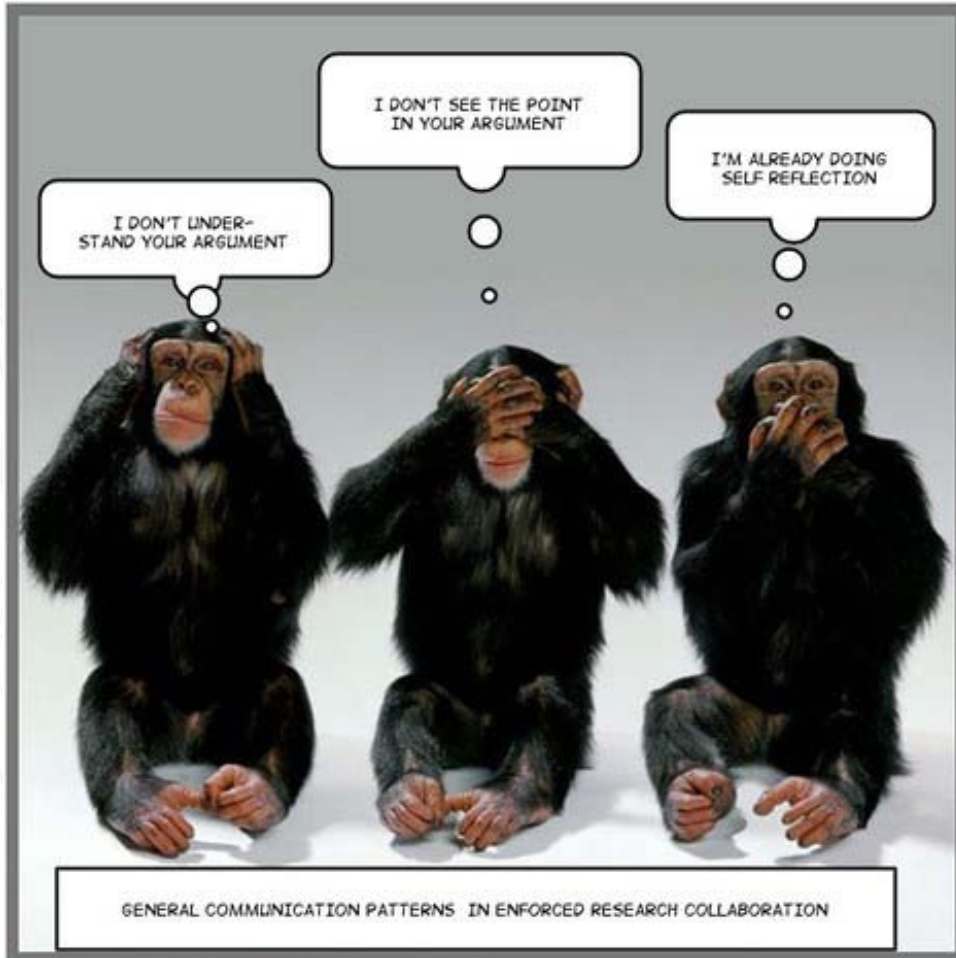
- Historically 'reactive' commercialisation of antibodies
- 'proactive' approach to help realise the value of in-house antibody facility and portfolio
- Sought reputable international partner with aligned areas of interest
- Provide a rapid and effective route to market
- Focus on research and diagnostic markets, not therapeutics



- Commercialisation collaboration with BD
- First option to evaluate and commercialise antibodies for research and diagnostic markets
- Upfront and annual payments as well as royalties on sales
- BD's international profile and quality of product key factors



Investing in partnerships, people and in-house assets



“...Put bluntly, the sooner academic and industry scientists destroy the stereotypes they hold of each other, the more likely that drug discovery and development will truly evolve to succeed in the 21st century

Editorial (2006) *Nature Rev Drug Discovery* 5:359



Thank you ...

For more information
about collaborating with
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