
Oxford, Innovations in Biomedical Research

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Research Context

- Curiosity-driven research:
 - Medical research ←←←intrinsic interest of diseases processes
 - Medical practice ←←← clinical problems
- Evidence based medicine
 - old ***French*** wine with a new Canadian label?
- Translational research
 - Appreciation of cognitive and contextual differences
 - Transfer →→→ Transformation

Research Context: UK

- **English NHS**
 - Tax-funded health system founded to “relieve money worries in times of illness”
 - 7.4 percent of GDP (around 90 percent of English health expenditures)
 - Target of 1.5% of the NHS Budget for R&D
 - 1.2 million staff members
- **NHS Innovation Landscape**
 - National Institute for Health Research (NIHR)
 - National Institute for Health and Clinical Excellence (NICE)
 - NHS Institute for Innovation and Improvement (NIII)
- **Cooksey’s review (2006)**
 - Barriers for translation of research into practice
 - Gaps in translation



Conceptual Background

- Literature on translational research
 - Many commentaries and editorial articles, still we are left craving for empirical studies on governance on translational research centres.
 - Some exceptions:
 - Key role of building infrastructure to support translational investigators; tenure conflicts (Garber, 2007).
 - Case on partnership between hospitalists and specialists at Univ. of Michigan (Flanders et al 2008): role of leadership and specific funding.
 - Use of SR (labs, hardware/software) in Cancer Centres (De Paoli, 2009): SRs are not sufficient, role of policies, administrative and clinical trials support.

Conceptual Background

- Governance as quasi-integration:
 - Bilateral governance, preferred structure (Ring and Van de Ven, 1992)
 - Legal contract, joint problem solving, joint planning, and collaborative communication (Cai et al., 2009)
 - Type of governance structure (i.e. Jointly Managed vs. Separately managed) influenced by corporate cultural difference across partners, trust, need for procurement autonomy – idiosyncratic to the setting-, and motivation for learning in construction industry (Ho et al., 2009)
- Governance as control and coordination mechanisms
 - Different purposes for SA / JV (Dacin et al. 2007)
 - Coordination mechanisms (cf. Grant 1996)

Research aim and design

- To explore the different governance structures (operationalized as coordination and control mechanisms) and their impact on translational research across the five British Biomedical Research Centres
- Design: multiple-case study
 - Stage one: exploratory interviews (N=12; in progress)
 - Stage two: OxBRC case study
 - Stage three: other BRCs.

OxBRC: case background

- At the moment of the bid (Oct, 2006) the total capital investment in biomedical research infrastructure on the hospital campus at Oxford over the last previous five years exceeded £136M, much of this gained through national and international competitive awards.
- Biomedical research activity had grown by more than 100% over the previous 5 years and involved more than 300 principal investigators who together had a combined research funding for 2005-6 in excess of £120M.
- Some of the strengths:
 - Basic Research Institutes on the Clinical Campus
 - Critical mass across a range of platforms in basic biomedical research (e.g. Platforms in molecular and cell biology, genetics medicine, biochemistry, imaging and bioengineering, etc)
 - National and international research collaboration and partnership (collaborative programmes in basic science included: MolPAGE - molecular phenotyping and genetic epidemiology in diabetes-, EU 6th framework, etc.)

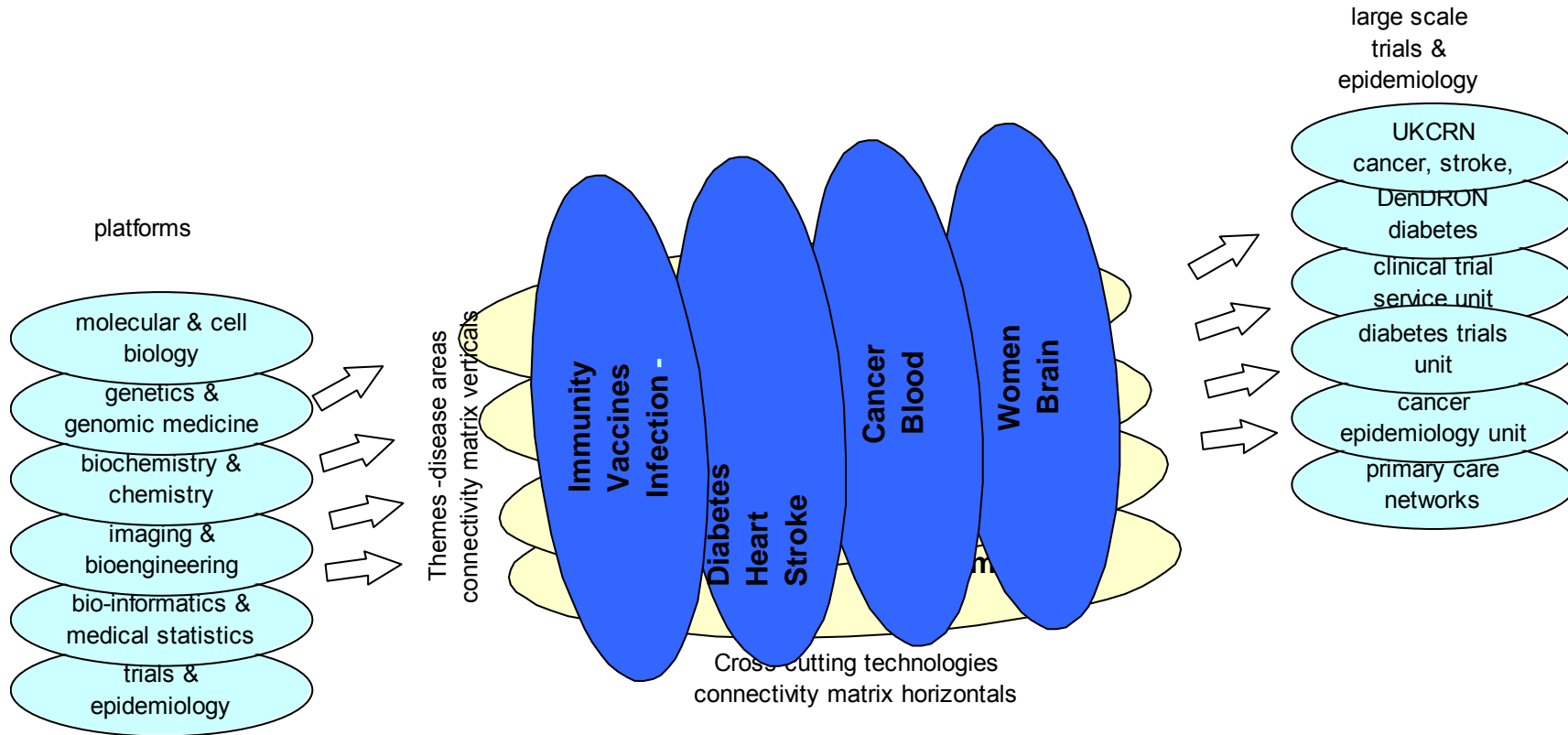
OxBRC: case background

- No major determinants of governance structure (i.e. NIHR did not impose any formal structure for the bid)
- Bid clearly driven by recognized competencies and legitimacy (i.e. recognition of the distinctive skills of both partners)
- Differences between bid and current Governance Structure

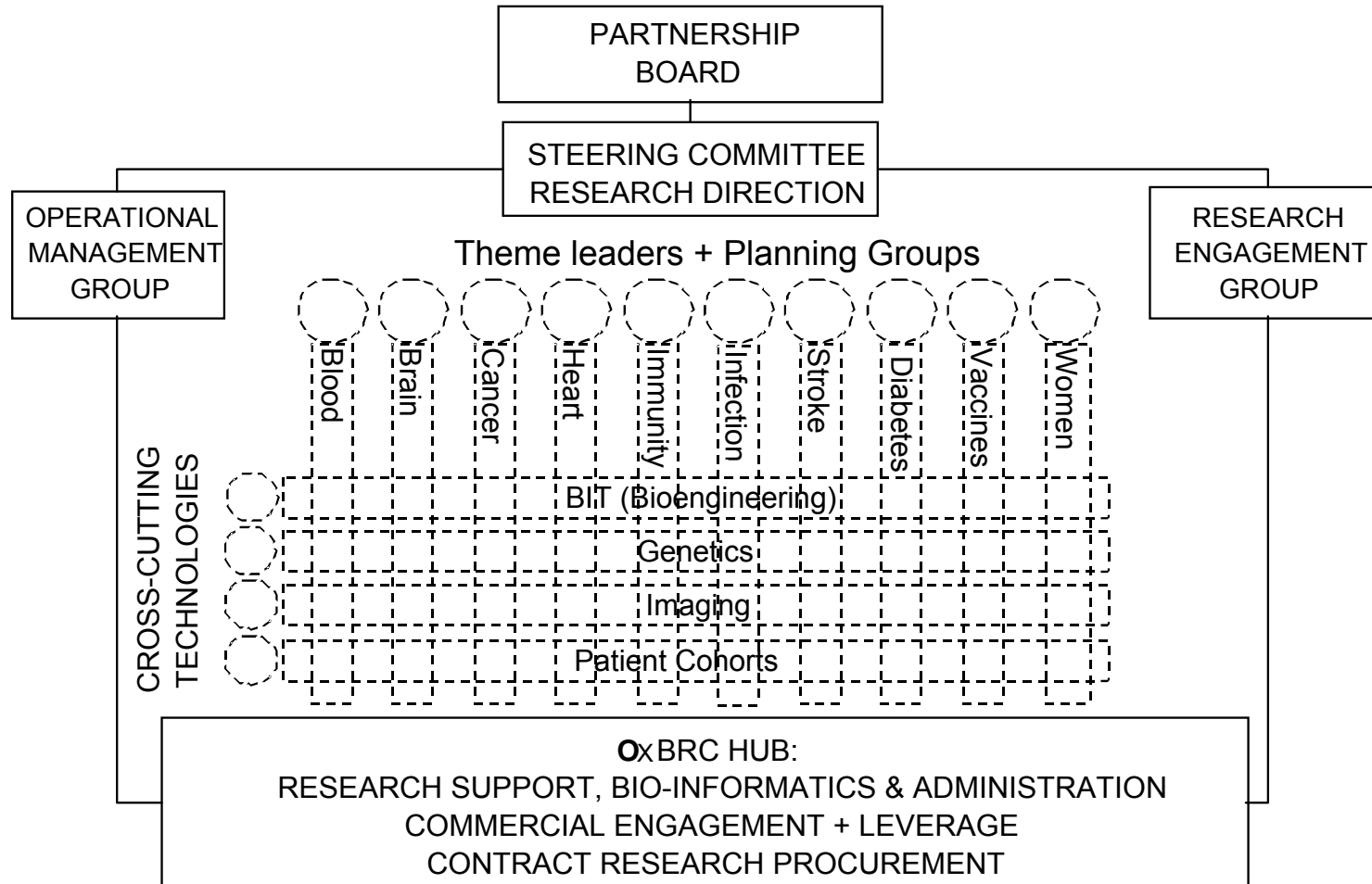
OxBRC: goals

- Facilitation of multi-disciplinary approaches
(assembled theme-specific multi-disciplinary units providing both clinical care and a safe environment for patient research)
- Facilitation of access to well characterized patient populations
- Facilitation of a multi-step translational process in partnership with industry.

OxBRC: Research Themes



OxBRC: Structure



Success

- # Patents
- # of startup companies
- # Publications
- Patient Initiatives
- Public Lectures
- Training of students
- Prizes / Awards

OxBRC: preliminary findings

- **Control**
 - Management (OMG) and review (Steering Committee) processes, but not legal framework binding the partners.
 - Challenges in facing leading edge technology
- **Coordination**
 - Research programme managers (support with adm. tasks)
 - Regularly meeting across prof. communities within themes (trust)
 - Flexible Job Plans
 - Theme Leaders meetings
- **Other findings**
 - Facilitate collaboration with clinicians (BIT perspective)
 - Complex regulatory standard for clinical trials and project manager
 - Although legally equal and autonomous parties (Ring and Van de Ven, 1992), asymmetries in terms of “reputational capital” across partners.
 - Also differences in terms of language, culture, administrative procedures and cycles;

Your thoughts?

- First, through case studies, it is difficult to assess the overall and relative importance of the variables found...
- Second, measure of *catalysis of transformation* (e.g. range of references cited from different disciplines) or direct outcomes (measures of success such as publications/patents)...
- Third, independent variables in terms of control and cooperation mechanisms...

‘He that will not apply new remedies must expect new evils; for time is the great innovator’ (Francis Bacon, 1625)

