3Cs: The Crick - Change and Challenges
Biological Research Facility (BRF)

Kathleen Mathers
MRC National Institute for Medical Research
(& The Francis Crick Institute!)
“Will the Francis Crick Institute change the world?”

“I feel certain it will. When it opens in 2015, there will be a great focus on collaboration and interdisciplinary approaches. While you can never predict what research will ultimately throw up, it will open opportunities for advancing science in a unique way.”
The BRF
Biological Research Facility, i.e. the animal facilities
DIRECTIVE 2010/63/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 September 2010 on the protection of animals used for scientific purposes
Critical elements for success

Constantly focus on ‘Achilles heels’

Fitting building to function not function to building....!
Principles of Design

• Deliver science outputs
• Maximum welfare and implementation of 3Rs
• Multidisciplinarity
• Flexibility & adaptability
• Longevity
<table>
<thead>
<tr>
<th>Zone</th>
<th>Number of Units</th>
<th>Name of Unit (on plans)</th>
<th>Number of Cage equiv.s</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>“SPF”</td>
<td>2</td>
<td>A1</td>
<td>4,000</td>
<td>High health status breeding areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A2</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
<td>7,000</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>3</td>
<td>B2</td>
<td>8,000</td>
<td>A range of areas to deal with different science and types of usage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B3</td>
<td>7,000</td>
<td></td>
</tr>
<tr>
<td>Unknown Health Status</td>
<td>1</td>
<td>C1</td>
<td>500</td>
<td>‘Quick &amp; Rapid’ ‘Proof of Concept’</td>
</tr>
<tr>
<td>Containment Level 3</td>
<td>1</td>
<td>D1</td>
<td>2,000</td>
<td>Infectious Disease Multiple CL3 organisms</td>
</tr>
<tr>
<td>Imaging</td>
<td>1</td>
<td>E1</td>
<td>500</td>
<td>‘Non-portable’ imaging modalities, MRI, PET/SPECT etc.</td>
</tr>
<tr>
<td>Aquatics</td>
<td>1</td>
<td>B4</td>
<td>2,000</td>
<td>Fish &amp; frogs</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td></td>
<td><strong>35,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
Transition
BRF Transition - what will we be doing?

The vision
To provide a cohesive, comprehensive, flexible and adaptable laboratory animal and technical resource that is both science and welfare driven.

The Objective
To successfully migrate the current BRF activities from both the National Institute for Medical Research (NIMR) and the London Research Institute (LRI) to the Crick

P Block at Clare Hall
- P Block upgrade works
- Equipment and consumables in place in P Block
- 121s with all Group Leaders for space analysis and planning for rederivation
- Home Office establishment, project and personal licences in place
- P Block transitional management arrangements for 2014/15 in place
- Health monitoring programme for P Block established
- MCMIS database up and running
- Sign P Block lease

People
- BRF staffing and organisational structure
- TUPE transfer BRF staff to the Crick
- 121s with all Group Leaders for rederivation
- Establish training and Career Development Programmes
- Staff communications/consultation
- Establishing the BRF “Crick Culture and Vision”

Operating Principles
- Daily operations
- Use of equipment
- Movement of animals and tissues
- Containment Levels
- Running animals from outside
- Decontaminate current equipment for transfer
- Equipment, maintenance and servicing
- Move equipment
- Install equipment
- Dispose/decommission remaining equipment after dual running

Home Office
- Home Office inspections of Crick site and oversight of plans
- Commission data/LOR
- Transfer Establishment Licences
- Transfer Personal Licences
- Transfer Project Licences

Equipment
- List existing equipment across both sites
- List/costings of all equipment to be transferred and procured
- Procurc equipment
- Determine consumables requirements and costs
- Decontaminate current equipment for transfer
- Equipment, maintenance and servicing
- Move equipment
- Install equipment
- Dispose/decommission remaining equipment after dual running

Relocation of animals
- Choosing mice recipients, rederiving 1350 strains and subsequent breeding
- Rederive 1350 mice strains at a high health status
- Transfer large and specialist species such as ferrets, opossums and rats
- Fish and frogs rederivation and migration
- Procure bedding and food

Imaging
- Buy and install low end MRI and PET/CT machine
- Buy and install high end MRI - recruit operating staff
- Collaborate with partners on strategy for high end MRIs and imaging generally
- Fish and frogs rederivation and migration
- Procure bedding and food

Building and Space
- Allocate space to BRF functions and staff
- Fit in transferred and new equipment
- Logistics of moving equipment, consumables and animals around the building
- ICT systems and databases set up

160 staff including technicians, administrators, transgenics, microbiologists and vets across 2 sites
New BRF SOPs, contingency plans, operating budgets, policies and procedures
Personal, Project and Establishment Licences covering both sites
Equipment including cages, IVCs and hoods and consumables available and maintained on both sites
1350 GA strains of mice, 488 GA fish strains and 40 GA frog strains at a high health status
Accommodation provided for larger species

Crick:
Philosophy of BRF Management

• Science and welfare/3Rs driven
• Dynamic, integrated & interactive: understand science needs
• Flexible & adaptable
• Mechanisms to review/control/promote sharing & synergies
• Proactive, ambitious & receptive to change
• Creative in training, career structure and opportunities
• Value for money
• Longevity
Summary

- Design to match the brief
- Science and welfare led
- EU Directive & amended ASPA
- Integrated and interactive
- Proactive, ambitious and receptive to change
- Value for money
Thank you!