National Research Foundation

- PMO Department established in Jan 2006
- Manages S$5 billion National Research Fund
- NRF Board
  - Chaired by Dr Tony Tan, ex-DPM
  - Members include Ministers, senior civil servants, university presidents and corporate technology leaders
- Scientific Advisory Board (SAB)
  - Co-chairs
    - Dr Curt Carlson, President & CEO, SRI International
    - Prof Ulrich Suter, ex-VP (Research), ETH Zurich
  - Members include eminent academics and technologists
Terms of Reference for the NRF

- To coordinate the research of different agencies within the larger national framework in order to provide a coherent strategic overview and direction

- To develop policies and plans to implement the five strategic thrusts for the national R&D agenda

- To implement national research, innovation and enterprise strategies approved by the RIEC, and to allocate funding to programmes that meet the NRF’s strategic objectives

- To provide secretariat support to the RIEC
Five Strategic Thrusts for the National R&D Agenda

- Intensify national R&D spending to achieve 3% of GDP by 2010
- Identify and invest in strategic areas of R&D
- Fund a balance of basic and applied research within strategic areas
- Provide resources and support to encourage private sector R&D
- Strengthen linkages between public and private sector R&D
The NIS Framework

Knowledge Creation
- Develop a market-oriented and entrepreneurial environment within the research performing bodies

Knowledge Diffusion
- Strengthen and create support structures between the research bodies and firms to facilitate the transition of knowledge and people.

Knowledge Usage
- Catalyse higher churn of high tech start ups;
- Continue to stimulate greater innovation demand in existing firms
Overview of NRF Programs

**Strategic R&D Areas** → **New industries**

- Environment & Water Technologies - Clean water, energy
- Interactive and Digital Media
- Biomedical Sciences Phase 2

**Top Down**

Vibrant R&D based innovation system for a knowledge based economy

**Bottom up**

- NRF Research Fellowships
- Competitive Research Program Funding Scheme
- CREATE
- Research Centres of Excellence

NRF initiatives → Increased R&D capacity and capabilities
Competitive Research Program (CRP) Funding Scheme

supporting broad based, high impact research groups through competitive funding
CRP Funding Scheme Details

- Funding for programs each comprising multiple related projects
- Open to all Singapore-based researchers
- $10 million (max) per award (including overheads)
- 3+2 years with mid-term review
- CRP calls would be held twice yearly and include:
  - General Call
  - Scenario-based Call **NEW!**
What NRF Looks for in a CRP Proposal

- Excellent science
  - High impact, potential for breakthrough
- Maximum societal and economic benefits
  - Not purely curiosity driven, but use-inspired
  - Will this potentially lead to future economic payoffs for Singapore?
  - Can this enhance public-private collaboration? Consortium?
- Track record in managing large grants
  - Coherent program, not disparate projects
  - Program director, not just another PI
Some Observations from the First Round

- Co-PIs and collaborators
  - Active participation, not just to include big names
  - Funding overseas not allowed generally

- Industry participation
  - Not just letters of support
  - Companies can be funded up to 70%

- Declaration of other funding support
  - Do not send us what is being considered elsewhere
Some Observations from the First Round

- Budget calculations

<table>
<thead>
<tr>
<th>Items</th>
<th>Calculation</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifying direct cost (less exceptional items)</td>
<td>-</td>
<td>S$ 5 mil</td>
</tr>
<tr>
<td>Exceptional item (e.g. equipment)</td>
<td>-</td>
<td>S$ 1 mil</td>
</tr>
<tr>
<td>Overheads</td>
<td>20% x S$5mil</td>
<td>S$ 1 mil</td>
</tr>
<tr>
<td>Support for IP &amp; commercialisation activities</td>
<td>(5% + 5%) x S$5mil</td>
<td>S$0.5 mil</td>
</tr>
<tr>
<td><strong>Total amount awarded</strong></td>
<td>S$5mil + S$1mil + S$0.5mil</td>
<td><strong>S$7.5 mil</strong></td>
</tr>
</tbody>
</table>
Some Observations from the First Round

- Budget management
  - Overheads managed by university admin
  - IP / commercialization managed by university admin (TTO)

- Budget submission
  - Let us know only the direct costs of the research program
  - We need you to justify the need for buying new major equipment

- CV
  - 2 page CV with the right information is all that is needed
  - We use a template that is very similar to what NSF uses
IP Policy

● Foreground IP
  ● Owned by organizations of inventors (on equal shares where relevant)
  ● Royalty-free licence to use for research and educational purposes to Government and IHLs if owned by private company
  ● Managed and commercialized from Singapore
  ● No assignment to 3rd parties in general

● Background IP
  ● Free access to all collaborators if necessary
  ● Negotiations in good faith between parties if necessary for subsequent commercialization
~ End ~

Thank You
NRF Research Fellowship

The National Research Foundation Research Fellowship Scheme aims to attract promising young scientists from all over the world to conduct independent research in Singapore.

Inaugural meeting of the NRF Scientific Advisory Board
25 - 27 April 2006
Terms and Conditions of the Fellowship

- Open to all areas of science and technology with no quota on specific disciplines.
- Targeted at young talented post-doctoral fellows of all nationalities.
- Appointed Fellows will be given complete independence and freedom to pursue their own research directions.
- Appointed Fellows will be free to choose the host organisations to work in.
- Each appointed Fellow will be provided with a research grant of up to US$1.5 million over three years with the option of a second round of three-year funding provided at the discretion of NRF to support projects that exhibit a high likelihood of a research breakthrough.
- Salary of appointed Fellow will be covered over and above the research grant, pegged to that of an Asst. Prof. at a local university.