

**Senate Standing Committee on Economics**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Innovation, Industry, Science and Research Portfolio  
Supplementary Budget Estimates Hearing  
19 October 2011

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**AGENCY/DEPARTMENT:** AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION

**TOPIC:** COLLABORATIVE INVESTMENT

**REFERENCE:** Question on Notice (Hansard, 19 October 2011, pages 20 and 21)

**QUESTION No.:** SI-155

**Senator ABETZ:** Of the total amount of collaborative investment, what percentage is associated with ANSTO director affiliated sites? You might need to take that on notice, I suspect.

**Dr Paterson:** I am not sure I understand the question.

**Senator ABETZ:** ANSTO has a lot of collaborative investments. Are we agreed on that?

**Dr Paterson:** Yes, but I am not certain what is meant by 'investments'—if that includes, for example, the investments that are made in the Bragg Institute. We collaborate with every Australian university in that respect. Looking at collaborative investments that are made through the Leith funding proposals, we would include every Australian university in that, because we work with all Australian and New Zealand universities through the Australian Institute of Nuclear Science and Engineering. So unless there is some precision to the question as to which types of collaborations you have an interest in, it will be very difficult to unpick the total service that we provide to the full range of Australian—

**Senator ABETZ:** In relation to the Petnet area, et cetera, that we have been canvassing—  
**Dr Paterson:** Cyclotron based nuclear medicine?

**Senator ABETZ:** Yes. Limit it to that. Just quickly backtracking, I understand that in the past you have indicated that ANSTO complies with corporate governance. But what I would like to have given to us in detail are the rules, guidelines—whatever—by which you can assert that corporate governance is complied with. On that basis, I thank the committee.

**ANSWER**

As previously advised in response to a Question on Notice at Budget Estimates in May 2010 (BI-39), ANSTO has in place the following collaborations for the further development of cyclotrons across Australia for the purpose of nuclear medicine research:

- A collaboration with the Sir Charles Gairdner Hospital in Western Australia for cyclotron targetry and radionuclide development research. ANSTO contributed \$250,000 towards the cost of the research infrastructure, and in return receives \$200,000 worth of radioisotopes over five years. This agreement also enables key knowledge transfer, training of engineers and technicians, and opportunity for a range of collaborative research projects.
- The Camperdown Research Cyclotron is associated with radiopharmaceutical research laboratories and an imaging platform. These new state-of-the-art facilities received shared establishment funding under the National Collaborative Research Infrastructure Strategy (NCRIS) from the Commonwealth, the New South Wales (NSW) Government and the

University of Sydney, with additional investment from private donors to the Brain and Mind Research Institute. ANSTO provided funding for construction and installation of the cyclotron, and the enhancement of the radiochemistry facility towards full operational capability. The research cyclotron and radiopharmaceutical laboratories will be operated by ANSTO for research purposes. The operations are formally part of the National Imaging Facility (NIF) program, which falls under the Characterisation Council. The facilities there operate an access program for Australian researchers from associated institutions. These nodes have the following representatives responsible for governance:

- University of Queensland Node: Mr John Kelly (nominee for Professor Max Lu, DVC-R);
- University of Sydney Node: Mr Michael Milne (nominee for Professor Jill Trehwella, DVC-R);
- ANSTO: Dr Adi Paterson (CEO of ANSTO);
- University of NSW Node: Professor Les Field (DVC-R);
- University of Western Sydney Node: Professor Andrew Cheetham (PVC-R);
- FNI Node: Dr Henry De Aizpurua (nominee for Professor Geoff Donan, Dir-FNI);
- University of Melbourne Node: Professor Keith Nugent (nominee for Professor James McCluskey, PVC-R);
- Monash University Node: Professor Ian Smith (PVC - Research & Research Infrastructure);
- Swinburne University Node: Professor Andrew Flitman (DVC-R) ;
- LARIF Node: Professor Heddy Zola (Research Director of SA Pathology); and
- University of Western Australia Node: Professor Ian Puddey (nominee for Professor Robyn Owens, DVC-R)

Two members of ANSTO's Board have affiliations with the University of Sydney and one with Monash University.

- An agreement with the University of Queensland to partner in their successful Education Investment Fund bid for a Centre for Advanced Imaging. ANSTO provided \$2 million of the total cost of \$73 million required for this project. In return, ANSTO receives access to more than \$2 million worth of equipment, which is vital to a range of collaborative research projects. Aspects of this initiative are also associated with the NIF program referenced above. One member of ANSTO's Board has an affiliation with the University of Queensland.
- There have been some preliminary discussions with the Department of Health in Western Australia regarding possible future cyclotron collaboration at the new Fiona Stanley Hospital. At this time, ANSTO has not entered into any contracts or contributed any funds to this collaboration.
- There have been partnership discussions with the Peter MacCallum Institute regarding the establishment of an ANSTO-sponsored Collaborative Clinical Radiopharmacy Research Facility at the intended Comprehensive Cancer Centre in Melbourne. At this time, the project is in the preliminary stages, and ANSTO has not entered into any contracts or contributed any funds to this collaboration.
- An agreement with Austin Health/Ludwig Institute for Cancer Research with ANSTO for a competitive research cyclotron access for novel radioisotopes on an open proposal basis to the Australian research community. ANSTO contributed \$1.4 million in capital costs as part of this collaboration. This covered the cost of hot cells, targetry and radiochemical equipment. The cyclotron was already funded and established by Austin Health/Ludwig,

meaning that ANSTO's funding leveraged this underlying investment. In addition, ANSTO receives a weekly delivery of one of four radioisotopes (for research purposes) and training in solid targetry which would not otherwise be available to ANSTO staff. One member of ANSTO's Board has an affiliation with Austin Health/Ludwig Institute for Cancer Research.

- ANSTO is supporting a South Australian consortium establishing a cyclotron for local clinical supply of flouro-deoxyglucose ( $^{18}\text{F}$ FDG) and an associated research mission. ANSTO has not made an investment in the facility, but is likely to be a research partner when the facility is established.
- ANSTO participates in the Cooperative Research Centre (CRC) for Biomedical Imaging Development, which includes the development of novel cyclotron-based radiopharmaceuticals. ANSTO will contribute \$1.75 million over the life of the CRC, plus an in-kind contribution of staff and equipment and ANSTO's intellectual property acquired through research into radiopharmaceuticals used for melanoma imaging. Partners include Cyclotek, Berthold Australia, the Garvan Institute, GE Healthcare, Monash University and Peter McCallum Cancer Centre.
- As noted in response to a Question on Notice at Budget Estimates in May 2010 (BI-6), the following institutions have attended workshops facilitated by ANSTO to establish a more coordinated approach to cyclotron and nuclear medicine production from cyclotrons in Australia:
  - Austin Health;
  - University of Sydney;
  - Centre for Advanced Imaging at the University of Queensland;
  - Sir Charles Gairdner Hospital;
  - Royal Adelaide Hospital;
  - Royal Brisbane and Women's Hospital;
  - Australian Radiation Protection and Nuclear Safety Agency; and
  - Sydney South West Area Health Service.

The costs indicated above are the capital contributions to each collaboration and do not reflect the net costs, given ANSTO's in-kind contributions and the (often intangible) benefits ANSTO derives from the collaborations. Accordingly, it is not possible to calculate a percentage of collaboration funds associated with ANSTO director-affiliated sites.

As required by section 27F of the *Commonwealth Authorities and Companies Act 1997*, ANSTO requires a director of a Commonwealth authority who has a material personal interest in a matter that relates to the affairs of the authority to give the other directors notice of the interest. To that end, ANSTO maintains a Board register of interests which is updated at each Board meeting.

As previously stated in a response provided to a Question on Notice at Budget Estimates (May 2010, BI-4), the ANSTO Board and ANSTO's operations operate in accordance with the *Australian Nuclear Science and Technology Organisation Act 1987* and the *Commonwealth Authorities and Companies Act 1997*. ANSTO is satisfied that the requirements of both Acts have been met.