First, may I wish you greetings for this time of the year. As I write, in late December, the University has closed, and will open in the New Year, for a new year. My warmest wishes for safe travel, for time with your families, and for your grant writing over the Xmas/New Year vacation.

State of the Bosch Institute

The two years since my last Newsletter (December 2012) have been times of growth in a complex environment.

The complexity we know about – increasing centralization of University administration has reduced the flexibility of Schools (like SoMS) and of research centres, like the Bosch Institute; the University’s Health and Medical Research Strategy Review, whose report appeared early in 2013, has launched the organisation of the University’s medical research into Strategic Priority AREas for Collaboration (SPARCs), still largely to be implemented; the University has launched the CPC venture, its largest building-based investment in medical research since the Anderson Stuart Building (which opened in 1890); and the University has organized many research facilities into four ‘Core Facility’ units. All this is in addition to the normal year-on-year re-structuring of courses and research programs and our fortune good and bad with research grants.

Our growth can be measured. In a Business Plan, which the COO and I prepared late in 2013, we reviewed a number of Bosch Institute statistics and were able to report that:

A review of available measures of research performance shows that over the last 3 years (2010-12):

- The use of Bosch multi-user facilities rose 57%, to 481 paid-up users*.
- HERDC listable publications from Bosch laboratories increased 16%, to 450 in 2012*.
- The numbers of postgraduate research students in Bosch laboratories rose 22%, to 196*.
- Competitive income to Bosch laboratories from the NHMRC rose 22% to $6.058m p.a.
- Competitive income to Bosch laboratories from the ARC rose 27% to $1.24m p.a.
- Research Infrastructure Block Grant funds to the Institute rose 63% to $1.56m* p.a.

The asterisks indicated record levels.

We have yet to extend this analysis to 2013 and 2014, but at least some of these indices will show continuing growth, setting new record highs. For example, the number of paid-up users of our Facilities in 2014 was over 650 in 2014, postgraduate student numbers continued their steady growth of recent years, and the number and variety of our scientific meetings continue to increase.

Numbers are not everything, but they give us some objective measure of success and are essential when we engage, as from time to time we must, in debates over our place in the future.

Any institute needs to understand its own strengths and weaknesses. The Bosch Institute has three enduring strengths, which should – if the world were reasonable – ensure its future in this complex environment. First, our governance structure has a strong populist element – it is driven by what our researchers want and do; second, our ‘networked institute’ structure still seems, even after the 21 years of our own development, innovative and cost effective; and third, given that any research institute is financially needy – a resource sink, the Bosch Institute is co-localised with the School of Medical Research, whose teaching (your teaching) earns major funding for the University. The School is a resource source, and the co-localisation of sink and source is administrative magic; the cost of running the Institute (most for salaries for our Officers) is <2% of SoMS’ teaching earnings.
This seems to be an optimal model for how the research and teaching of a university should be organised - but that is another issue. For the foreseeable future it is the role of the Executive Director, of our Officers, of the ELG and Advisory Board, to build on these strengths.

Notes from 2014:
- The inaugural HL and PO Bishop Fellowship in Neuroscience, endowed by bequest from Professor Peter Bishop FAA FRS (Professor and Head of Physiology 1955-1967), was advertised, late in the year.
- This year’s Young Investigator Meeting attracted record numbers of abstracts for talks and posters
- Record numbers of Facility users (see above)
- Successes in applications for equipment funds in 2013 enabled major upgrades to the equipment base of several of our Facilities during the year. Major successes in the 2014 round, just announced, will enable further upgrades during 2015.
- New space in the Anderson Stuart Building for the Molecular Biology, Advanced Microscopy and Live Cell Analysis Facilities, and in the Medical Foundation Building for the Live Cell Analysis Facilities has added greatly to their capacity to implement new initiative.
- Funding has been obtained for a new Facility Officer, in Biostatistics and Bioinformatics – again the Sir Zelman Cowen Universities Fund has made this possible. The SZCUF has previously provided three-year salaries for officers for the Molecular Biology, Flow Cytometry (now Live Cell Analysis) and the Oxidative Stress Biology (now the Mass Spectrometry) Facilities.

Challenges:
- The impending (? 2020) reconstruction of the Blackburn Building will require the re-location of the major Molecular Biology laboratory located there; this has still to be negotiated. It is a significant problem.
- The impending (?2016) demolition of the Bosch Building will require the relocation of the Animal Behaviour Facility; negotiations are advanced on this relocation. Space has been allocated in the CPC ‘Hub’; it will be under administration of the University’s Laboratory Animal Services unit.
- The Institute will need to interface optimally with the SPARCS, and with the University Core Facilities
- **Sandstone Valley** (an idea): Maintaining and improving our success with the major granting bodies remains a challenge, along with and the identification of alternative funding sources. My impression is that the major grant bodies in this country are, by their own policies, becoming less and less relevant to small-team research. Somehow, we have to respond to this emerging reality. I suspect that small-team research groups are, like hi-tech start-ups in the commercial world, a major source of innovation; and that large research teams are like big companies, scooping up innovation and using their brain- and person-power to deploy it. Can we make the Bosch Institute a creative ‘biomedical valley’? Perhaps it always has been, and we need to tell that story? And give it a name – like ‘Sandstone Valley’? or ‘Sandstone Alley’? I have in mind several great examples of innovative research that has fed into both understanding and clinical practice, and would value your thoughts.

Institute Plans for 2015
- **Celebrations:** We will be celebrating 2015 as the Institute’s 21st birthday, in a series of gentle but thoughtful events.
• **TGIA workshop:** This is planned for August 2015, as a ‘debrief’ meeting for the teams who were awarded grants-in-aid, in the second (2013) round of such grants.

• **ASM, BYIM:** These meetings – the major meetings of our academic year – are already in the planning.

• **New Facility:** Early in the new year, we will begin the process of recruiting an officer to establish a biostatistics and bioinformatics facility, to provide expertise, training and software platforms for institute researchers in these two important subdisciplines.

• **Three year plan:** Under this plan, three year goals are being set for each of our Facilities. We will also introduce additional training in science communication for our young (and older) investigators, and we will review and upgrade all our current operations.

• **Early grant planning:** We are planning to trial an internal grant review process, at an earlier stage of the grant cycle than our previous processes. Effectively, this means CIs will need to draft grant outlines in November, for discussion in late November. (Previously we organised peer review of late drafts in the second half of January.)

• **The story of our research:** Following my comment above on funding and innovation, I will work with Theme Leaders to identify discoveries-worth-celebrating; and to bring them to life as part of these celebrations.

**And finally …..**

….. my thanks to all those whose commitment and work have been essential to the Institute this year – to the Deputy Director (Professor Mason), to our Advisory Board, to the ELG, to the superb Officers of our Facilities, to the Young Investigators Committee and their mentor (Professor Lovicu) and to our Chief Operating Officer, Charean Adams, who manages so much of the Institute’s work, from strategy to the detail of our functions.

Jonathan Stone
Executive Director