

Quality Assurance / Quality Improvement
Programme for Research Centres
2006-2007



Quality Improvement Plan

National Institute for Cellular Biotechnology

November 2007

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1. INTRODUCTION

The NICB would first of all like to thank most sincerely each and every member of the PRG for the substantial commitment, time, effort and creativity which they contributed, resulting in this very useful report.

The PRG records a number of significant strengths, notably its staff, well-established scientist base, strong Director with outstanding national and international network, very strong support and loyalty from all external collaborators and the fact that NICB fulfils key needs for a number of partners including industrial partners, hospitals and collaborating external academic institutions. Furthermore, its strong record in pre- and postdoctoral training, excellent research equipment and facilities are highlighted. It points out particular strengths and opportunities in translational research, Given the strong negative impact of the “pause” in PRTL funding the level and quality of activity noted by the PRG in collaborations and establishment of translational research linkages represent a substantial achievement. It is worth noting that the Quality Review process is institution-orientated, so that the PRG report understandably concentrates heavily on the NICB activities at DCU rather than NICB in its entirety across the 3 Institutions.

The PRG also identified a number of areas in which new initiatives were especially in view of the new funding landscape in Ireland; these included more defined management, governance, expert advisory and communication structures, underpinned by University-led initiatives to provide security of employment/funding for key research staff (which might *inter alia* entail increased input into teaching by some NICB staff) and a revised strategic plan using a “structure, strategy and focus” approach. This document summarises NICB’s, the Faculty’s and Senior Management’s responses to the PRG’s specific recommendations.

The Quality Improvement Plan was finalised in a meeting on 2nd November 2007. The meeting was attended by

- Members of Senior Management
 - Deputy-President, Prof Anne Scott
 - VPR, Prof Eugene Kennedy
- Members of the Peer Review Group
 - Dr Brendan Hughes, Wyeth Biotech (external)
 - Dr Enda McGlynn (rapporteur)
- Representatives of the NICB
 - Director of NICB, Prof Martin Clynes
 - Chair of Coordination Committee, Dr Donnacha O’Driscoll
- Director of Quality, Dr Heinz Lechleiter (chairing)

It was arranged during the meeting that, in relation to Recommendation 1 perceived “anomalies of treatment which exclude NICB staff” would be brought to the attention of the Dean of Faculty and discussed at the appropriate levels. Feedback about such perceived anomalies and about corrective action where applicable will be given to NICB staff.

2 Recommendations for Improvement for SCHOOL/UNIT/CENTRE

The following notation is used in the recommendations for improvement.

P1: A recommendation that is important *and* requires urgent action.

P2: A recommendation that is important, but can (or perhaps must) be addressed on a more extended time scale.

P3: A recommendation which merits serious consideration but which is not considered to be critical to the quality of the ongoing activities in the Centre.

Additionally, the PRG indicate the level(s) of the University where action is required:

A: Administrative Unit

C: Centre

G: Group Action

U: University Executive/Senior Management

S: School

F: Faculty

O: OVPR/OVPLI

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
1	U + F	P1	<p>1 – NICB should be supported by DCU senior management as a key strategic asset of both local (DCU) and national importance. This will require support in a number of ways including but not limited to:</p> <ul style="list-style-type: none"> • DCU should provide ongoing operational funding to support the core admin functions of the centre, based on a revised NICB strategic plan and management structure • DCU should enable the NICB transition to the next phase of development by providing bridging funding, based on a revised and 	<p>University management has been and continues to be supportive of the activities and goals of NICB within the limits placed on the university by the current university funding environment. NICB is one of four PRTLTI supported national research centres led from DCU. All are core to DCU's research strategy. DCU is currently providing support to the NICB for core administrative and technical staffing for 2006/07 academic year. For future years DCU will base further support for the Centre on achievements against their revised strategic plan and management structures, but will also be constrained by overall</p>

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			<p>detailed strategic plan, management structure and costings</p> <ul style="list-style-type: none"> • DCU should engage with NICB via the Educational Trust in an active way to seek funding streams for NICB • DCU and Faculty of Science & Health senior management should engage with NICB to identify methods to provide security of funding and career structure for key NICB senior staff (related to points 8 & 9 below). Some of the more senior members of the research team (e.g. key section leaders) must feel assured of reasonable tenure. • DCU should work within the national context to ensure appropriate career structures for all researchers • DCU should ensure that NICB have appropriate representation on all relevant university committees either via the director or his nominee. In the light of impending developments related to formalising 4th level postgraduate education in Ireland it seems appropriate for example to have research centre directors sit on the Academic Council of the university. This representation on various committees should be agreed between both parties and would foster better communications between NICB and the wider university community 	<p>availability of support funds. It is also important that NICB, like other research centres, plan for revenues both by participating in research funding programmes / calls and by looking for other funding avenues including contract research, consulting and so forth.</p> <p>C comment: NICB has initiated in depth discussions with DCU Education Trust.</p> <p>F: The Dean of Faculty, Associate Dean for Research, Vice President for Research and Human Resources are in the process of dealing with this issue. They will commence discussion with the NICB within Q4 of 2007.</p> <p>DCU is working with the IUA through the Vice-Presidents for Research Forum to input to the HERG (SSTI group) to address this issue at national level.</p> <p>NICB is part of the Faculty of Science and Health and through membership in the Faculty participates in both the faculty and university committee structures. Research Centres, and Schools, are represented by the relevant Dean of Faculty at senior level university bodies such as the University Executive. NICB staff have voting rights in Governing Authority elections. The longer term positioning of research centres and their interactions with schools and faculties will be reviewed through an externally facilitated process overseen by DCU's Research Committee. As part of this review university</p>

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			<ul style="list-style-type: none"> The university should endeavour to identify and iron out any anomalies of treatment which exclude NICB staff from entitlements which equivalent staff in other units enjoy (e.g. voting rights in staff representative elections) 	management will facilitate a discussion of the representation of research centres on Academic Council.
2	P1	A	NICB management structure should evolve to meet scale of current and future developments. The institute should consider a structure involving associate director(s), programme managers etc.	<p>NICB has defined a number of key areas, aligned to the new strategic plan, in which significant responsibility will be devolved in terms of research leadership and leadership in Technology Platform/Core Facility delivery. Seven appointments have been made at Programme Leader level.</p> <p>The NICB working draft strategic plan addresses this issue directly.</p>
3	P1	A	NICB should set up an internal administrative structure to engage the entire NICB membership in a process to facilitate communication of and participation in NICB operations and strategy	<p>The PRG report suggests a number of developments and formalisation of structures and committees both internal (Pt 3) and external (Pt. 5), and formalisation of their reporting to DCU (and as appropriate to NUIM and ITT). Since communication between these various groups is central to the efficient and transparent management of the NICB we have combined our response to these two key recommendations.</p> <p>NICB accepts the recommendations of the PRG that the membership, reporting procedures, meeting frequency and engagement of these groups with University Management should be reviewed and that this should form part of an overall review of administrative structure to engage the entire NICB membership and to facilitate communication and participation.</p> <p>o The membership of the <u>Scientific Advisory Board (SAB)</u> is being</p>
5	P1	A	NICB should formalise its management and advisory boards, review their membership, and have regular meetings to fully engage them in the institute strategy and operations. The reports generated from such meetings should be forwarded to DCU management at both faculty and university level.	

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				<p>expanded, (with advice from the existing SAB and the NICB Membership including the MAC), and its remit extended as a Scientific and Strategic Advisory Board (SSAB).</p> <ul style="list-style-type: none"> o The procedures of the <u>Management Advisory Committee</u> (MAC), which is representative of all sections and of the 3 Institutions involved in NICB, is being reviewed to maximise the participation of all NICB disciplines/Schools/groups. The focus of the MAC will be on communication and participation at all levels of NICB in decision-making and strategy development. o The <u>NICB Board</u>, established just over one year ago, has represented a valuable forum for interaction between DCU, NUIM and ITT at the level of VPs for Research, as well as NICB Management, and NICB SAB and MAC. NICB will establish a frequency schedule for meetings of the SSAB, MAC and the NICB Board. Minutes of SSAB and MAC will be tabled at the NICB Board meetings. Minutes of NICB Board will be forwarded to the Dean of Faculty, and to appropriate offices (following consultation) at NUIM and ITT. NICB board will ensure that decision take at the various board will be followed through and it will monitor the performance and metrics of these boards.
4	P3	A	NICB should formalise many of its major external collaborations and service research interactions via MoUs to plan and manage its operations. This planning should also include the appropriate use of NICB technology & equipment for service research, managed by research assistants, as a sustainable funding stream	A policy for this will be developed in discussion with the expanded Scientific and Strategic Advisory Board and the Management Advisory Committee.
6	P1	A	NICB should develop a revised strategic plan encompassing research agenda and funding models, addressing the themes of structure, strategy and focus,	NICB has prepared a working draft strategic plan encompassing research agenda and proposed funding models, addressing the themes

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			and the peer review group comments	of structure, strategy and focus, and associated peer review group comments. This plan addresses the strategic direction and appropriate metrics of the NICB research portfolio and involves a consideration of the balance of and distinction between service research and hypothesis-driven research, breath of focus, etc (PRG recommendation no. 10), and possible innovative routes for enhancing internal DCU collaboration (PRG Recommendation No. 8).
7	P2	U + A	NICB and DCU management should increase the level of formal engagement in the strategic direction of the NICB. This is closely related to point 5 above	A: NICB is enthusiastic about increased formal engagement. U: Given the current university structures, the appropriate place to discuss NICB strategic direction and minutes of NICB Board is at School management team meetings (where relevant), and Faculty Board level. Issues arising from this that require input from the University Executive will then be raised at Executive through the Dean of Faculty. The Dean may also arrange meetings involving NICB management, the Dean of Faculty and DCU management with a focus on the future strategic direction of NICB when the need arises – as is the case with meetings between university management and other DCU research centres. A&F: The Dean will meet on a biannual basis with the Director of NICB to discuss the strategic development of the Centre, and bring any matters of relevance to the University's Executive committee.
8	P2	A	Development of innovative pathways for enhancing existing and building new internal collaborations with other DCU units and schools. This could be helped by e.g. internal secondments and sabbaticals (in both directions, NICB ↔ school)	NICB is enthusiastic about consolidating existing collaborations, and initiating new ones across the University. A number of discussions on interaction in this regard are already underway. A list of short specific proposals has been made to the Quality Promotion Committee. Existing NICB members from the Schools of Biotechnology, Chemical Sciences and Computing have in follow-up discussions on the PRG report expressed a high level of satisfaction with their involvement with NICB to date, and would like to continue and expand their

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<p>involvement.</p> <p>NICB has applied for seed funding for some of the above new initiatives. Such funding would allow them to mature to a stage where they should be capable of attracting external funding</p> <p>OvPR comment: OvPR will consider as part of future strategic research implementation possible support schemes to enable secondments. If adopted, funding will be competitive across the institution.</p>
9	P2	A + F	<p>Development of a formalised teaching strategy and input into such activity with cognate schools (e.g. Biotechnology, Chemical Sciences) within the Faculty of Science & Health framework. This could include e.g. graduate schools (we note that NICB have made initial steps in this process), taught M.Sc. programmes (e.g. using elearning approaches in cooperation with Oscail), undergraduate teaching, SFI Stokes' academic appointments. This is related to recommendation 1 above.</p>	<p>NICB would like to respond in a positive way to these suggestions. It should be noted that NICB researchers have always contributed to undergraduate teaching when requested, and NICB has not in the past asked for resources in return. Substantially increased teaching output from NICB research staff would need to be matched by appropriate resource input to contribute towards job security, if it is to be sustainable. A reasonable balance between research time and formal teaching (with its associated administrative input) would need to be maintained if the primary goals of NICB in establishing research and postgraduate/postdoctoral training excellence are to be achieved. Involvement at the level of final year project supervision by NICB scientists would be welcomed. NICB believes that it can contribute substantially to enhancing both undergraduate and postgraduate teaching and learning environments within DCU.</p> <ul style="list-style-type: none"> (i) 2 NICB Senior research staff have applied for Stokes Lectureships as suggested in PRG Recommendation No. 9. (ii) NICB have engaged in discussions with various potential partners within DCU in relation to contribution to

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<p>teaching and other aspects of potential collaboration.</p> <p>F: Dean of Faculty will meet with the Director of NICB to discuss these issues in detail.</p> <p>U comment: DCU Senior Management are clear that this is an issue which should be sorted out at School and Faculty level, which is where responsibility for allocating teaching input and programme delivery ultimately rests.</p>
10	P2	A	Develop strategic directions and appropriate metrics for the NICB research portfolio. This should involve a consideration of the balance of and distinction between service research and hypothesis driven research, the breadth of focus areas in which excellence can be achieved etc.	Proposals on these issues will be included in the Strategic Plan.

3. SUMMARY OF THE ONE-YEAR PLAN

The aim of the NICB with regards to Quality Improvement plans over the coming year is to devise and implement procedures which address the recommendations made in the PRG report. Though a number of the recommendations will take longer than 12 months to fully implement it is the intention of the NICB to ensure that all recommendations are road-mapped with clearly defined milestones and deliverables.

In summary, the primary issues and objectives are:

	Target
○ To complete an initial draft of a new Strategic Plan, using the current review recommendations as a reference, by October 2007.	DONE
○ To define a number of key areas, aligned to the new Strategic Plan in which significant responsibility will be devolved in terms of research leadership and leadership in Technology Platform/Core Facility delivery.	DONE
○ The membership of the <u>Scientific Advisory Board (SAB)</u> will be expanded and its remit extended as a Scientific and Strategic Advisory Board. A Translational Research Advisory Group may be established as a subcommittee of SAB.	Q2 2008
○ The procedures of the <u>Management Advisory Committee (MAC)</u> will be reviewed to maximise the participation of all NICB disciplines/Schools/groups.	Q3 2008
○ NICB will establish a frequency schedule of meetings of the SSAB, MAC and the NICB Board. Minutes of SSAB and MAC will be tabled at the NICB Board meetings. Minutes of NICB Board meetings (including key items recorded from SAB and MAC minutes) will be forwarded to the President's office and OVPR, at DCU, and to appropriate offices (following consultation) at NUIM and ITT.	Q2 2008
○ A policy for the formalisation of the NICB's major external collaborations will be developed in discussion with the expanded SSAB.	Q4 2008
○ To identify a list of short specific projects, with the assistance of the SAB, which will leverage off shared resources between the NICB and other DCU schools and centres with the aim of enhancing collaboration and integration amongst DCU's research community.	Q1 2008
○ To explore opportunities for the NICB to increase its teaching activity within the University.	Q4 2008
○ To define appropriate metrics to quantify NICB research output.	Q4 2008

4. SUMMARY OF THE THREE-YEAR PLAN

Building on the PRG recommendations and the actions listed for the first year, by year 3 post PRG report:

- NICB will have established a number of active collaborations across DCU, including existing school-based NICB partners in the Schools of Biotechnology, Chemical Sciences and Computing, but also including other Schools/Research Centres.
- NICB will be making a significant contribution to the Teaching and Learning mission of the University.
- The tri-institutional (DCU, NUIM, ITT) collaboration in both research and postgraduate training will have been both consolidated and further developed.
- NICB will be actively collaborating with at least 2 industrial partners, as well as continuing its current flagship collaboration with Wyeth.
- The combined activities of the various Advisory and Management committees will have made a major impact on defining the strategic direction of NICB, and will be facilitating exploitation by NICB of major funding applications.
- These developments within NICB and its strategy development will provide a logical basis for prioritisation of NICB by DCU, NUIM and ITT for major external funding opportunities such as PRTL 5.
- NICB will be making a major contribution to research and education in the areas of cancer, cell-based production of biopharmaceuticals; diabetes; ocular disease; regulation of gene expression; and opportunistic microbial infections.
- DCU and NICB working together will have developed income streams and structures to support a higher degree of security and continuity for a number of key NICB scientists.
- A modified management structure with wider distribution of responsibility will be in place, encouraging new initiatives across the spectrum of research areas covered by NICB.
- At least one major new research area will be under development as a result of ongoing strategy evaluation by MAC and SSAB.

APPENDIX

• **Centre Quality Committee (for the Self-Assessment Report)**

Donnacha O’Driscoll (Chair)	Paul Dowling	Annemarie Larkin	Norma O’Donovan
Niall Barron	Patrick Gammell	Paula Meleady	Lorraine O’Driscoll
Mairead Callan	Michael Henry	Verena Murphy	Finbarr O’Sullivan
Padraig Doolan	Joanne Keenan	Robert O’Connor	Derek Walsh

• **Peer Review Group**

Chair – Professor Ralph de Vere White Director UC Davis Cancer Centre University of California
Dr. Brendan Hughes Director of Development Wyeth Biotech Grange Castle, Dublin 22
Dr. Michael Moriarty Consultant Oncologist St. Luke's Hospital/St. Vincent's University Hospital.
Dr. Kay Mac Keogh Senior Lecturer Oscail – National Distance Education Centre Dublin City University
Rapporteur - Dr. Enda McGlynn Senior Lecturer School of Physical Sciences Dublin City University

• **Centre Quality Committee (for the Quality Improvement Plan)**

Donnacha O’Driscoll (Chair)	Paul Dowling	Annemarie Larkin	Norma O’Donovan
Niall Barron	Patrick Gammell	Paula Meleady	Lorraine O’Driscoll
Mairead Callan	Michael Henry	Verena Murphy	Finbarr O’Sullivan
Padraig Doolan	Joanne Keenan	Robert O’Connor	Derek Walsh
Martin Clynes	Dermot Brougham	Brid Quilty	Rosaleen Devery
Heather Ruskin	Nick Gathergood	Kevin Kavanagh	Ken Carrol

APPENDIX 2

Prioritised Resource Requirements

Applicant: National Institute for Cellular Biotechnology

Title: Seed Funding Program for Inter-School / Centre Research Collaboration

Aim: To develop innovative pathways for enhancing existing and building new internal collaborations with other DCU units and schools.

The most efficient and productive means to establish long-term meaningful linkages between NICB and other units and schools is to identify areas of research collaboration which can leverage funds through grant applications, industrial / clinical sponsorship etc. Normally, when a potential project is identified, some preliminary work is necessary to develop the concept, investigate the potential of the work and / or carry out some small scale project as a proof of principle. This initial work allows the collaborators to draft up a more comprehensive, longer term proposal which can be submitted to the appropriate agencies for more significant funding, but often such preliminary work cannot be undertaken due to lack of such funding.

A number of discussions on interaction in this regard are already underway. Existing NICB members from the Schools of Biotechnology, Chemical Sciences and Computing have expressed satisfaction with their involvement with NICB to date, and would like to continue and expand their involvement. A list of short specific projects will be made available ahead of meeting on 2nd November.

Traditionally it has been difficult to obtain initial exploratory funding for collaborations which are wholly within one institute. One of the major remits of the agencies is the promotion of collaborations between institutes and therefore more localised collaborations tend to be lower ranked and often fail to make it into the funding stream.

If seed funding could be provided for some of the above new initiatives (which will receive priority listing based on review by the NICB Scientific Advisory Board) it would allow them to mature to a stage where they should be capable of attracting external funding.

The funding sought would be used to fund the highest priority projects over the next 12 to 18 months. Beyond this timeframe it is envisioned that these projects should have matured to the stage of being able to win more substantial funding from other sources and from this a critical level of collaborative activity will have been reached which should assist in the establishment of further collaborative projects.

Reference to Peer Group Report: The need for the NICB to increase collaborations and further integrate with other DCU schools and units in order to better secure its long term activities is highlighted throughout the report but most specifically on page 14 where they stated that there was a “*Need for stronger internal partnering and collaboration*” and that there was a need to “*Develop new internal collaborations in DCU*”. Also, one of the PRG recommendations is the “*Development of innovative*

pathways for enhancing existing and building new internal collaborations with other DCU units and schools.”

Expected impact on quality: The primary issue of quality within the research sector is quality of output. Through various successful initiatives both by individuals and various consortia, DCU has amassed world class facilities, technology platforms and most importantly, excellent scientists. In order for these individual initiatives to secure future success and for DCU to establish itself as a world class research institution, it is essential that these individual units maximise their capabilities by leveraging off each other’s capabilities through collaborations.

Financial Requirements: The NICB is requesting €50,000 to establish a seed fund. This level of funding would be sufficient to allow 3 to 4 early stage projects to carry out basic proof of principle type research in order to establish a more substantial grant proposal for external funding. It is not possible to give a specific financial outlay per project at this stage as this will depend greatly on the nature of the project and applications received. In assessing candidate projects, consideration will be given by the SAB to how best to maximise the number of potential collaborations with the available funds.