

October 15<sup>th</sup>, 2013

**Report by the co-Chairs of the External Advisory Committee (EAC) of the ICVS/3B's Associate Laboratory**

The External Advisory Committee of the ICVS/3B's Associate Laboratory is very favourably impressed by the continuous progress and achievements of this R&D Unit. The Unit was created in 2011 as a result of the interplay of two very complementary research groups from the University of Minho, Portugal: the ICVS (School of Health Sciences) and the 3B's (School of Engineering). Both Units were classified as "Excellent" by international panels of the FCT, already at that time of creation of this Associate Laboratory.

OVERALL COMMENTS

The site visits to the ICVS (Campus of Gualtar, Braga) and the 3B's (Avepark, Caldas das Taipas - Guimarães) facilities together with the analysis of the scientific reports from 2011 and 2012, as well as the quinquennial report 2008-2012, confirmed the strong progression of these Units. In our opinion these groups continue to perform in accordance with the highest international standards.

The visit also confirmed that the strong partnership between both groups, in the context of the Associate Laboratory, strengthens relevant R&D projects in the interface between biomedical sciences/tissue engineering and health technologies at the forefront of research, with relevant impact in the creation of new interventions with potential medical application.

Of note, we highlight:

- The high number of articles published in international peer-reviewed journals – more than 700 over the last five years – including many in journals of high impact factor;

- The unique ability to generate value from knowledge, as demonstrated by the 60 patents over the same period of time;
- The entrepreneurial capacity of the ICVS/3B's as revealed by the 4 spin-off companies launched, with some already attracting relevant private investments;
- The high degree of involvement of the ICVS/3B's in graduate and post-graduate activities. It deserves particular mention the quality of the ongoing MSc and PhD programs, some of which in collaboration with international partners of leading universities such as Columbia and Thomas Jefferson Medical Schools and the MIT in the USA, as well as partners of the European Institute of Excellence on Tissue Engineering and Regenerative Medicine. Furthermore, the advance training in health sciences/technologies also targets health professionals, with more than 300 foreign participants in courses/workshops of the International Post-graduation Program over the last five years;
- The organisation of several major conferences, workshops and advanced courses (Gordon Research Conference-like meetings), as well as the leadership in National and major International Scientific Societies by members of the ICVS/3B's;
- The level of internationalisation of the ICVS/3B's is another distinctive feature of this R&D Unit, as shown by the diverse nationalities of its researchers (originating from more than 30 countries), by the high percentage of publications within the context of international partnerships (more than 70%) and, importantly, by the capacity to attract competitive funding (including large projects) from international agencies, for example the FP7 of the UE, including the most prestigious European Research Council (ERC) Advanced Grant;
- The high quality of the research infrastructures of both groups, as well as the recent availability of a fully operational Clinical Academic Center, to perform clinical research, and the unique hosting of the headquarters of the European Institute of Excellence on Tissue Engineering and Regenerative Medicine.

We were very pleased to learn that a major bottleneck of this R&D Unit, the lack of an animal facility with the required capacity, will be relieved in the near future, in view of the fact that the call for tender for its construction has already been launched.

## RECOMMENDATIONS

1. The EAC acknowledges the adequacy of the model of scientific organisation and governance adopted by the ICVS/3B's, based on only two Units, the ICVS and the 3B's, with, respectively, three and four Research Lines. The organisation fosters the appearance of a high critical mass within a multidisciplinary networking environment. We recommend that this organisational structure, which is at the core of the excellent output of the R&D Unit, should be maintained.

2. As a recommendation for the next steps of advancement for the ICVS/3B's, we would encourage the Associate Laboratory to request from the Portuguese Governmental Entities - within the context of the national network of R&D - the level of financial resources that are compatible with its high level of scientific outcomes. The amount of funding should be comparable to the ones attributed to other research units of similar top-quality in Portugal. In particular, the ICVS/3B's should consider applying for specific funds, in order to not only maintain, but also expand, its technical and assistant staff. This is essential to support the infrastructures and the installed scientific platform over the long run.



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