

Referência da candidatura: LA/P/0070/2020

Designação: Instituto de Investigação e Inovação em Saúde

Acrónimo: i3S

Coordenador do LA: Claudio Enrique Sunkel Cariola

Nº Investigadores Doutorados Integrados: 442

Instituição de Gestão Principal: Instituto de Investigação e Inovação em Saúde da Universidade do Porto - Associação

Instituição Proponente: Instituto de Investigação e Inovação em Saúde (i3S)

Outras Unidades de I&D: -

CRITERION A

Technological capacity to sustainably support and promote the response of public policies

Rating: 5

Comments:

A1 - Relevance, scope and impact of the support to public policies in the last 5 years by the constituent entities of the Associate Laboratory. I3S-AL is a well-designed proposal bringing together 3 Research Institutes at the University of Oporto, namely, Instituto de Investigação e Inovação em Saúde da Universidade do Porto (i3S) - Associação, Instituto de Biologia Molecular e Celular (IBMC), Instituto de Patologia e Imunologia Molecular (IPATIMUP), and Instituto Nacional de Engenharia Biomédica - INEB U. Porto. It joins complementary expertise and competences in the area of Biology, Bioengineering and Health, creating an ecosystem able to boost high quality clinical and translational research, as demonstrated by the track record of publications included in the proposal. i3S is a major player in the development of the north of Portugal as knowledge region in health sciences. The AL is especially competitive in addressing some of the major disease-related challenges in modern society: cancer, infectious diseases, neurological disorders, regenerative medicine. The Institutes strategy is tightly aligned with the five pillars of core public policies for Portuguese R&D sector. Not so much is stated on the alignment with the national or regional health strategies. Success cases in support to public policies in the last 5 years are all very impressive: several scientific discoveries that impact on the wellbeing of human society, development of scientific platforms that provide advanced technological services, promotion of scientific and technical careers offering employment contracts, translating fundamental research and state of the art technologies into diagnostic services and other activities for the community (diagnostics in oncology, genetics, infectious diseases; collaborations with national and international patient associations, prevention campaigns); valorisation of knowledge (24 patents, 23 licensing agreements of products, 5 spin-offs). A2 - Relevance and scope of the proposed thematic lines and their specific objectives in response to public policies. The AL has multidisciplinary competences in basic, translational and clinical research and is organized in three thematic lines with a clear research plan showing their impact in the community: cancer, host interaction and response,

neurobiology and neurological disorders. These are relevant thematic lines, their specific objectives are sound, but their response to public health policies is less clear. Nevertheless, it should be highlighted the 3 services associated with the clinics: Ipatimup Diagnostico - which provides services in medical genetic testing and counselling, pathology and molecular pathology", "Centro de Genetica Preditiva e Preventiva, which offers genetic counselling and molecular diagnostics for diseases in neurology, psychiatry, paediatrics, neuropaediatrics, ophthalmology and haematology" and more recently, the i3S Diagnostics clinical service, in response to SARS-CoV-2 infection, in close collaboration with the regional health authorities. A3 - Adequacy of the governance model to secure effective support to public policies. The governance model to secure effective support to public policies is adequate. It is based on five strategic pillars defined by the AL that translate into the organizational structure, including the support offices (infrastructure, strategy and creation of value, training and development, scientific platforms, clinical services). In the last 5 years, the research units per se and in collaboration, have given relevant contributions in support and monitoring of public policies, as e.g., the commitment in valorisation of knowledge (24 patents, 23 licensing agreements of products, 5 spin-offs).

CRITERION B

Promotion of scientific or technical careers at doctoral level & Attraction of Talent

Rating: 5

Comments:

B1 - Demonstrated track record and capacity to develop and sustain scientific and technical careers for PhDs through permanent or open-ended employment contracts. Regarding the main goal of Criterion B, "Promotion of scientific or technical careers at doctoral level & Attraction of Talent," a very good track record of the partners and host institution to "develop or sustain" open-ended or permanent contracts of researchers or technicians is described in the proposal. The Institutes that integrate i3S have an established career structure for doctoral researchers since they became AL in 2000. They have now 442 integrated members, 45 of them with permanent employment contracts. They intend to hire 31 more with this type of contract, 25 being supported by FCT funding. B2 - Capacity to attract talent to Portugal, in particular PhD students and PhD researchers In order to attract talent to Portugal, in particular PhD students and PhD researchers, i3S presents a plan closely associated to the conditions offered and to the scientific performance of the thematic lines. The AL relies on large institutional research projects funded by the European Commission, as well as individual funding programs that offer the possibility to identify researchers considered outstanding. These researchers are stimulated to apply to i3S competitive calls. In addition, the Institute plans to establish teaching/research or clinical/research open-ended positions in collaboration with UP Faculties and Hospitals on a co-funding base. An important source for attracting talent is the 6 PhD Programmes in which the Institute is involved. The analysis of the performance of the i3S- AI partners shows their success in attracting international funding and talent, and in promoting careers (8 ITN, 3 Twinning projects, 3 ERC grantees). The capacity to attract and support talented PhD researchers, able to boost innovative projects is presented, although it was expected, but this is not the case, that a plan of mentoring the most promising candidates from very early stages, and to successful ERC grants

submission exists. The involvement of i3S-AL in 6 PhD Programmes is an additional way to attract talented PhD students, not only at a national level, but also from abroad. B3 -Adequacy of the governance model to secure careers and employment for PhDs and attract talent. The governance model is adequate to secure careers and employment for PhDs and attract talent, even the 25 positions proposed to the next 5 years. Recruitment is done through international competitive calls and there are procedures for regular evaluation. Open ended contracts are obtained through competitive calls and the selection procedure involves evaluation by the External Advisory Board with particular emphasis on the last 5 years of activity. The role of EAB in the evaluation and selection procedure of PhD Researchers and in careers development, as proposed, is crucial to contract the most talented. Doctoral researchers with coordinating positions have preference in accessing open ended contracts. Researchers with open ended contracts have the possibility of progressing in their careers (vertical path or horizontal path with increased salary in each category). Among the governing bodies the board of directors integrates the coordinators of the three thematic lines and a representative of the three participating institutes. All PhD researchers are part of the scientific committee (that approves the general strategy of the AL), chaired by the director. Lighter structures of this committee are the coordinating scientific committee, also chaired by the director and including all group leaders, and the restrictive scientific committee that includes the coordinators and vice-coordinators of all thematic lines. Thematic lines and scientific platforms are responsible for conducting research and they are assisted by six support departments.

CRITERION C

International projection & Securing diversified funding

Rating: 5

Comments:

C1 - Demonstrated track record and capacity to secure international funding, in particular from EU R&D Programmes. The AL has a track record and shows capacity to secure international funding in particular from EU R&D programmes. During the last five years (2015-2019) the three institutes that integrate i3S were able to receive funding in the total amount of nearly 119 million euros, registering a consistent annual increase. FCT R&D pluriannual funding was 29 million euros (24% of the total). International sources provided 16 million (14% of the total). Financial plan for the next quinquennium foresees an incoming 15% from the EU and international sources, a value somehow not ambitious in relation to the track record. C2 - Scientific and technological capacity to leverage the international prominence of science and technology activities. i3S scientific and technological capacity to leverage the international prominence is well demonstrated by a high publication rate. The AL has important technical infrastructures (13 scientific platforms), 7 of which integrate the national roadmap, and operate under an open sharing policy. Human capital is also very important providing advanced training courses, PhD fellowships, promotion of employment of national and foreign junior PIs. Economic valorisation, strong involvement with industry and healthcare institutions in more than 26 R&D projects, also adds to international prominence. C3 - Adequacy of the governance model to leverage international prominence and secure funding. The organizational structure of the AL includes a research and innovation unit (named strategy and creation of value) with a research funding office. This aims at assisting researchers in attracting competitive funding from public or private agencies.

Another office in the same unit is dedicated to translational research and industry partnerships. A third office is concerned with valorisation and commercialization of products and services. This unit has been reinforced in the last years with 2 FTEs dedicated to international funding programs. Also important to leverage international prominence and secure funding is the participation of i3S in more than 140 collaborative international networks. The Institute has also hired consultancy services in order to prepare a strategic plan for Horizon Europe calls. The leverage of actions to get successful European funding is crucial to the sustainability of the i3S-AL proposal. i3S is a member of PERIN Research and Innovation Promotion Nucleus. These various aspects illustrate the adequacy of the governance model to leverage international prominence and secure funding, namely European funding.

Overall

Rating: 100

Recommended annual funding: 3 926 515,84 €

Comments:

According to the comments above, the Panel recommends the award of the title of Laboratório Associado for the period of ten years. The Panel recommends complementary funding, as annual average for the period 2021-2025, of 3,926,515.84 .