

Referência da candidatura: LA/P/0087/2020

Designação: Ciências da Vida para um Futuro Saudável e Sustentável

Acrónimo: LS4FUTURE

Coordenador do LA: Inês Antunes Cardoso Pereira

Nº Investigadores Doutorados Integrados: 495

Instituição de Gestão Principal: Universidade Nova de Lisboa

Instituição Proponente: Microbiologia Molecular, Estrutural e Celular - Instituto de Tecnologia Química e Biológica António Xavier – MOSTMICRO (ITQB)

Outras Unidades de I&D:

Biorecursos para a Sustentabilidade (GREEN-IT)

iNOVA4Health - Programa de Medicina Translacional (iBET, CEDOC/FCM, IPOLFG e ITQB)

Instituto Gulbenkian de Ciência (IGC)

CRITERION A

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

Rating: 5

Comments:

LS4FUTURE is an Associate Laboratory (AL) that brings together four research units, MOSTMICRO-ITQB, INOVA4HEALTH, IGC and GREEN-IT, and five institutions, ITQB NOVA, IBET, IGC, CRDOC and IPO-LisbonFrancisco Gentil . LS4FUTURE is an ambitious and very well designed AL proposal, involving 495 PhD holders with complementary competences in fundamental, clinical and applied science, allowing an integrated approach to societal challenges related to Health and Sustainability. LS4FUTURE's R&D activities, in the past 5 years, fit perfectly in the support of Public Policies, mainly in the areas of Biotechnology, Health and Environment. This is clearly demonstrated by the examples presented, namely the one related to actions focused on combating COVID19 pandemic, where the capacity to translate fundamental research into diagnostic services, with the support of state of the art technologies, is evident. Research is organized in four thematic lines (TL) addressing research questions at different levels of complexity: From Molecules to ecosystems (TL1); Mechanisms of disease for precision Medicine (TL2); Advanced Therapeutics:discovery and development (TL3) and Biotechnology for a sustainable world (TL4). The proposed thematic lines specific objectives are clearly directed towards subjects with full relevance in supporting Public Policies. One of the major strengths of the AL is the commitment in the training of new researchers in the translation of knowledge to application, which has been identified as a gap at national level. For this purpose , a Translation Enabler Programme (TEP) was designed to support selected team leaders to develop translation of knowledge into practice, and seed funding will be provided to support the initial activities included in TEP.The strategy to promote a closer interaction between researchers and clinicians through the new

created Medical Liaison Officer, is potentially relevant. The link to health units and hospitals (IPO-Lisbon/Francisco Gentil is a partner of the AL) is also a favourable aspect. The governance model of LS4Future is aligned with the AL major goals, and seems adequate to the development of initiatives in support of Public Policies..

CRITERION B

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

Rating: 5

Comments:

Regarding the main goal of Criterion B, Promotion of scientific or technical careers at doctoral level & Attraction of Talent, a strong track record of AL partners (ITQB NOVA and IGC) in post-graduate training, namely at the PhD level (running of PhD Programs in Life Sciences, recognized at national and international level), is stated in the proposal. This activity is also extended to other AL partners and is closely associated to the conditions and capacity to attract and retain talented researchers and technicians, and to the scientific performance of thematic lines. The institutions integrating LS4Future have shown great capacity to attract international talent in the past, achieving 12 ERC grants and 21 Marie Curie fellowships. All institutions involved in the AL proposal are involved in PhD programs, either as coordinators or in partnership, have established research career rules that allow the development and progression of integrated researchers and are a positive addition to attracting talents. Furthermore, the Joint Career Centre, proposed to be created under the scope of the AL, focused in promoting career development in AL partner institutions, is expected to contribute to achieve successful careers in Life Sciences. The Governance Model is aligned with AL vision and aims , through the above mentioned Joint Career Centre and the proposed creation of the Networks and International Funding Hub. Although it appears somewhat complex, perhaps resulting from the size and variety of participating institutions, this does not seem to affect the AL ability to take initiatives to attract talented researchers. There is a well-defined and detailed strategy with a large investment in human resources to enhance the attraction of talents and the promotion of the best researchers. The rationale for the annual recruitment plan of PhD holders, from 2021 to 2025, is clearly justified. LS4FUTURE is committed to support the development of 75 careers, including 48 new positions, in the Research and Technical careers, and by retaining 27 additional positions, will reach 30% of permanent contracts in 2025.

CRITERION C

International projection & Securing diversified funding

Rating: 5

Comments:

LS4FUTURE research units have been successful in attracting international funding, namely, European funding. In the past (2016 to 2020), they participated in 51 internationally funded consortia and coordinated 11 consortia. LS4FUTURE researchers secured 12 ERC grants (6 Starting + 6 Consolidators), and also independent researcher grants, namely, 4 EMBO Installation Grants, 2 La

Caixa Junior Leadership incoming programme. At the postdoctoral level, LS4FUTURE was able to attract 21 Marie Curie Individual grants and 7 EMBO long-term fellowships. Despite this high capacity to attract competitive international funding, in 2021-2025, the AL is still highly dependent on FCT funding. In fact, in the 2015-19 period, the AL obtained 141 M of external funding sources, of which 51% from FCT and 34% from international funds. For the next five-year period, it is expected to secure a total of 172 M of external funding sources, 57% from FCT and 44% from international sources. Taking into account the organizational model of the AL, the technological capacity already existing, and the quality of its researchers, it is expected a reinforcement of the capacity to establish a robust network of international collaborations that enable to leverage the international prominence of the scientific and technological activities developed at the AL integrated institutions. There is a governance strategy in place, complex but well defined, with significant investment in new human resources to enhance the institution's capacity to successfully compete for national and international funding, and to help start-ups in securing seed and long-term funding, eg. EU Liaison Officer (to promote the increase in attracting EU funding), the Value Creation Officer (to lead to an increase in attracting industrial funding) and the Medical Liaison Officer (to increase the efficiency of the relationship with the Health sector). This strategy, however, seems too based on new human resources, namely five shared PhD holders that will leverage the strategic plan implementation, to be hired through the financing obtained in the present application for Associate Laboratory. The Strategic Advisory Board, composed by five external members with a global vision and expertise in the management of scientific institutions, is expected to contribute to an efficient governance, leading to leverage international prominence and secure funding.

Overall

Rating: 100

Recommended annual funding: 1 700 210,13 €

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 1,700,210.13 .