

"2021 HEALTHY LONGEVITY GLOBAL GRAND CHALLENGE" ANID (CHILE) – NAM (USA) COMPETITION INTERNATIONAL CATALYST PHASE

1. Background

The Ministry of Science, Technology, Knowledge and Innovation (Ministerio de Ciencia, Tecnología, Conocimiento e Innovación) incorporates among its objectives the formulation, coordination, implementation and evaluation of policies, plans and programs aimed at the promotion and strengthening of science, technology and innovation derived from scientific-technological research (from now on also "scientific-technological based innovation") to contribute to the development by increasing the cultural, educational, social and economic heritage of the country and its regions, and aiming at the common good, the strengthening of national and regional identity and environmental sustainability.

The Ministry of Science, Technology, Knowledge and Innovation, among its goals, also incorporates the need to promote scientific-technological based knowledge and innovation to enrich the processes of formulation and implementation of public policies.

On the other side, it is the responsibility of the National Research and Development Agency (Agencia Nacional de Investigación y Desarrollo) to prepare and implement the terms of competitions and open calls and carry out any administrative action necessary for the implementation of the programs or instruments, following the definitions established by the Ministry of Science, Technology, Knowledge and Innovation.

The Agency can, put into effect programs and instruments that support the creation, building or strengthening of abilities for scientific research, technological development and scientific-technological based innovation at a national, regional and international level.

This competition is part of the Memorandum of Understanding signed between the National Research and Development Agency (ANID) and the United States National Academy of Medicine (NAM) to systematically promote and strengthen scientific-technological cooperation between both organizations and respective countries. In 2019, the United States National Academy of Medicine launched the "Healthy Longevity Global Grand Challenge", defined as a worldwide movement to improve the physical, mental and social well-being of people as they age. This initiative includes the "Healthy Longevity Global Competition" www.healthylongevitychallenge.org which includes 3 phases:

- 1. Phase 1: Catalyst Phase The purpose is to stimulate innovative ideas. (2020 2022)
- Phase 2: Accelerator Phase- International Catalyst Awardees and finalists that have made significant progress on advancing their ideas and achieved proof of concept are awarded (2021-2023)
- 3. Phase 3: Grand Prize One or more breakthrough innovations are awarded (2023 2025)

Phase 1 takes into account the association with global partners, who manage and finance the initial phase of this initiative called "Catalyst Phase", which aims to promote the submission of innovative ideas to improve a healthy longevity. Due to the above, the National Research and Development Agency, ANID,

assuming its leadership at a regional level, calls for the submissions of research proposals within the framework of this NAM initiative

2.-Aim:

The aim of this competition is the funding of bold, new, and potentially transformative ideas to improve the physical, mental, or social well-being and health of people as they age. The search for innovative approaches aiming to extend human health, especially those that challenge existing paradigms or propose new methodologies or concepts. High-risk ideas are encouraged, which could yield great rewards and consequently dramatically change the field of healthy longevity.

Ideas can focus on any stage of life, as long as they ultimately promote health among people as they age.

Based on the above, proposals can address the following topics:

- Biology of aging and molecular pathways.
- Built environment and urban planning.
- Disease prevention, including biomarkers and disease indicators.
- Health care provision.
- Housing: homes with smart qualities, intergenerational housing models.
- Policy: economic, health and scientific politics.
- Social connection, commitment and well-being.
- Technology, such as: artificial intelligence, robotics, medical technology, healthcare-related and information technology.
- Mental Health and Post COVID-19 studies.

3. - Competition announcement and schedule

All proposals must be submitted through the online application platform http://auth.anid.cl/. Regarding, the application period, the opening and closing dates of this competition, will be announced through a newspaper with wide national circulation and/or will be found on the ANID website:

www.anid.cl/concursos

4. - Participation modalities

Research and development institutions can apply with new projects having innovative ideas that meet the objectives of this call.

One can apply according to the following modality:

Modality	Requirements
Institutional	The funds allocated to the idea will be awarded to an Eligible Institution.

4.1. - Eligible participants

Proposals are submitted by an Eligible Institution. These are entities authorized to receive subsidies from ANID, national non-profit legal entities, including universities and higher education institutions recognized by the State; technological, research and development institutes, both public and private, and other

institutions that carry out scientific-technological activities of which goals include research and development activities, as it must be expressly indicated among its statutes.

The Eligible Institution will be the national Institution that is identified as such in the application form and to which the director of the project belongs, who will be responsible for its management before ANID.

A researcher can participate in a single application as director. In case of presenting two or more applications under the role of director, only the first application sent and received in accordance with the application system will be considered. On the other hand, the eligible institution may apply for one or more projects, complying with the above.

5. - Instructions for submitting proposals

Proposals must be sent to ANID by the digital application platform auth.anid.cl, in which it will be requested to complete and attach the following:

5.1- Online submission form.

5.2- Attach a PDF document of a maximum of 2 pages (follow format recommendations indicated below) containing the description of the proposal, organized in two sections. Applicants can decide the length of each section, however, ANID suggests the sections to be the same length (that is, one page each).

You must answer each of the questions and considerations described below. Write in plain language so that both experts and non-experts can understand your idea. Do not include identifying information (e.g. individual or organizational affiliation) or refer to project partners/collaborators by name or other identifying information.

- Section 1: Explain your idea. Why is it innovative and potentially transformative?
- Use this section to briefly describe your idea and why it is innovative and potentially transformative. In particular, if your proposal work, what impact would it have on people's health and well-being as they age? What will it change?
- Briefly state, in one or two sentences, the crux of your idea.
- Why does your idea present an innovative, unconventional or creative approach?
- Why is now the right time for this idea?
- Describe the hypothesis for your proposal (if applicable) and why you expect it to be successful.
- Section 2: How would you test or implement your idea?
- Use this section to briefly describe the project design and implementation plan.
- How would you plan to establish a proof of concept? How would you measure the effectiveness of your idea?
- If you are successful in demonstrating the viability of your idea, what are the next steps you would take?

Formats and other requirements of the application:

- must be in English
- must be sent in PDF format
- must not exceed two pages in length
- must be single spaced
- must not include identifying information (e.g. individual or organizational affiliation) or refer to project partners / collaborators by names or other identifying information.
- must not use a font smaller than 11 point and have margins of at least ½"on all sides
- can include a maximum of one image, which will be counted towards the two-page limit
- can include up to three key references to literature, theories, and / or evidence to support that the

proposed idea would be effective, included within the two-page limit

- must not include hyperlinks
- must not include embedded videos
- must not be or include a slide show
- **5.3- Institutional Support Letter:** Issued by the eligible Institution of the Project and signed by its Legal Representative, according to the established format.
- **5.4- Budget form:** The applicant must complete the budget form, available in the application system http://auth.anid.cl/ and on the ANID website www.anid.cl/concursos.

6. - Duration and start of projects

The duration of the project may not exceed twelve (12) months, the projects may begin once ANID issues the exempt resolution that approves the subsidy agreement signed between ANID and the beneficiary institution (s).

The starting date of the project will determine the initial date of the project's activities, understood as the date of notification of the exempt resolution that approves the subsidy agreement, given by the Sub-direction of Applied Research to the Legal Representative of the beneficiary institution.

7.-Financing

ANID will finance as many projects as the budgetary availability allows and will give to each one a single amount of up to \$ 40 million Chilean Pesos, an amount, which might be adjusted in the evaluation and awarding process, based on the activities presented, the impact of the project, its relevance to the call, among others.

7.1. - **Financeable items**. ANID's contribution will be destined to finance the expenses directly involved in the execution of the project, in accordance with the terms indicated in the guidelines of the call and in the awarding decision thereof.

The resources requested must be expressed in Chilean Pesos and linked to the objectives and activities in accordance with the proposal. The project must complete the budget form in the application platform.

Full and / or partial financing may be requested for the following categories of expenses:

ITEM	DESCRIPTION
Personnel	These shall be understood as those destined to hiring the services of national or
expenses	foreign personnel to carry out activities directly related to the Project and who
	participate permanently in it. The following categories may be considered in this item:
	Fees: corresponding to the payment of occasional services or salaries of
	personnel hired after the start of the project and with exclusive dedication to the project.
	Incentives: corresponding to an additional payment for the permanent staff of
	the beneficiary institution. The maximum monthly incentive amount per person
	must not exceed \$ 500,000 Chilean Pesos and must not exceed the amount
	contributed by the institution in remunerations for each person.
Operational	These are the expenses directly related to carrying out the project in accordance
expenses	with what is stated in the General Instructions for Accountability and its
	annexes.
	The travel and allowances expenses to attend an annual Innovators Summit in
	Washington, D.C. must be included.
Equipment	A maximum of 30% of the total subsidy requested from ANID for this type of
	expense will be financed. In the event that the project exceeds the permitted
	percentage, the excess expense must be assumed by the Beneficiary Institution
	of the project.

Projects will not be able to use the subsidy transferred by ANID in investments of any type of fixed or variable income financial instrument, short or long term and with or without financial risk, for example: mutual funds, stocks, term deposits, bonds and the like. Is specially excluded the ascription and/ or use of subsidy funds for the payment of compensation of any kind and, specially, those derived from labor relations. Neither is it possible to use the project budget for the payment of medical leave to the project staff.

8. - Admissibility

Only proposals that meet the requirements and specifications established in these terms and conditions will be accepted and evaluated, in accordance with the fulfillment of the "requirements for submitting proposals" present in number 5, and their corresponding clarifications.

Proposals must be submitted only through the forms available on the online application platform. Failure to comply with this requirement will leave the application out of the terms and conditions.

Once the proposals have been received by ANID, the Sub-direction of Applied Research will carry out an analysis of the admissibility of the proposals.

Applicants in Chile whose proposals have been labelled as not being in compliance with the terms and conditions may file the corresponding appeal for reconsideration to the Head of the Service, within 5 working days upon notification.

9. - Evaluation

Eligible projects will be evaluated by ad hoc evaluation panels designated for this purpose by the Subdirection of Applied Research. Proposals will be evaluated based on the following four (4) dimensions:

- a. Innovation 40%.
- b. Impact potential 20%.
- c. Quality 20%.
- d. Significance 20%

The components of each dimension as the percentages are detailed below:

Innovation (the most important one)		
The extent to which the proposed idea challenges existing paradigms and employs		
new methodologies or concepts		
Impact Potential		
The extent to which the proposed idea can have a significant impact on people's		
physical, mental, or social well-being as they age.		
Quality		
The extent to which the proposed idea and research methodology are clearly		
explained and include a convincing or well-defined outcome metric.		
	_	
Significance		
The extent to which the proposed idea represents a challenge that affects the entire		
field, and not only the interests of the applicant.		

Once the evaluation process is finished, the Sub-direction of Applied Research will present to the ANID Technical Advisory Committee the results of the evaluations, as well as the ranking of the projects suggested for approval, ilt based on the added qualification.

Based on the information received and in compliance with its functions, the Technical Advisory Committee will recommend to ANID the projects that, in its opinion, should receive financing.

Likewise, the Technical Advisory Committee will draw up a waiting list based on the projects not awarded that have the best evaluation scores and meet the minimum scores for this, in accordance with the aforementioned.

The waiting list may be made effective in the following cases: resignation of any of the beneficiary (s), that one of them is unable to execute the project, that the beneficiary (s) does not subscribe (n) the agreements within the terms established in the bases, or that there is budget availability in the period, with our own resources or with other sources of financing, materializing through an administrative act.

In the event that the waiting list is activated due budget availability of other financing sources, the Technical Advisory Committee may propose the selection of projects according to the evaluation scores and criteria mentioned in point 10.1.

In the event that there is an equal score, and there are no resources available to pay for the projects in a tie, the project whose Director's gender has less representation among the total of those awarded will be

preferred for the award and, in addition, the who come from a region other than that of the metropolitan region.

10. - Selection and project awarding

The awarding of the competition will be notified to the applicant via the email entered in the application and to the representative of the beneficiary institution.

The ANID, through the corresponding administrative act, will award the competition, upon the proposal of the corresponding Technical Committee, in accordance with article 15, letter d) of Law 21.105.

10.1 Waiting list

The present contest includes a waiting list, which will be made up of those proposals recommended for award, but which have not been financed due to lack of resources available at the time of the award. If ANID has additional funds to award the proposals on the waiting list, this will be activated by applying the criteria indicated below:

- a) Proposals led by persons of the sex least represented in the corresponding award,
- b) Proposals whose origin and realization of all or most of their activities are from regions other than the Metropolitan Region,
- c) Proposals that deal with lines of research or areas of underrepresented knowledge in the original award, or
- d) Proposals according to the score obtained during the evaluation process.

In addition, the waiting list will be made effective in the following cases: resignation of any of the beneficiary (ies), ifone of them is unable to carry out the project, that the beneficiary (ies) does not subscribe the agreements within the terms established in the bases.

All the above, materializing through an administrative act.

The maximum term for the validity of this waiting list will be 120 calendar days from the date of the last notification of the award resolution of the contest.

11. - Agreement

After the awarding and acceptance, the beneficiaries will be notified of the date on which the corresponding agreements between ANID and the Beneficiary Institution must be signed, requesting the necessary documentation for such purposes. The agreement will expressly establish the rights and obligations of each of the parties, the duration of the project and all those clauses that protect the fulfillment of the objectives of this competition.

The deadline for signing the agreements and sending the aforementioned documents will be stipulated by the Sub-direction of Applied Research, considering the date of communication by ANID. If the beneficiary institution does not sign the agreement within the indicated period, it will be understood that it renounces its benefit.

12. - Transfer of Resources

The projects being awarded must submit a bank account, to which ANID will transfer the resources corresponding to the awarded projects.

Once the agreement is signed, the awarded amount will be transferred to the Beneficiary Institution in a single installment.

12.1. - Conditions for transfers:

- 1) The transfer of resources granted by ANID will be carried out following the full processing of the administrative act approving the respective financing agreement.
- 2) According to budget availability corresponding to the contribution made by ANID.
- 3) Private Institutions must guarantee the faithful use of resources transferred by ANID for project activities, as provided in the clauses indicated in the agreement, by means of a bank guarantee letter, an endorsable promissory note or an insurance policy with immediate execution. The documents must be valid for at least 180 days from the Accountability Report due date for each payment or installment. The cost of issuing this document may be included in the item Operational Expenses. ANID may execute the collection of the aforementioned guarantees for all kinds of breaches, of any nature, that may arise during the realization of a project.
- 4) <u>Public Institutions</u>, in ruling N° 15.978 / 10 by the General Controller of the Republic, it is stated that in national institutions under State administration there is no obligation to guarantee or assure the fulfillment of agreements contracted between Bodies of the State Administration. Therefore, ANID will not require the presentation of guarantees to State Institutions for resources being transferred within the framework of agreements signed by the parties. Without prejudice to this, it is the obligation of the Beneficiary Public Institution to comply with its reporting obligations, technical and financial follow-ups related to these terms and the signed agreement.
- 5) Procedure for Administrative Collection and Collection of Guarantees. In the event of non-compliance with any of the technical and financial obligations and commitments established in this agreement, ANID must collect and / or execute the existing sureties and / or guarantees that have been provided to safeguard the correct technical and financial functioning of the project. For this, ANID must apply an administrative collection procedure, consisting of sending letters and reminders to the representatives of the Institutions and / or beneficiaries, to proceed within the period indicated, to resolve the observations made regarding their technical and financial obligations and proceed to comply with what is pending, to the satisfaction of the ANID. If this procedure does not succeed, ANID must proceed to collect the existing bonds.
- 6) Simple affidavit of commitment to deliver the corresponding guarantee once the security conditions exist in relation to the development of the disease in the country or when required by ANID.
- 7) Private Institutions must not maintain unguaranteed pending accountability reports with ANID, and in the case of Public Institutions, they must not maintain pending accountability reports with ANID in accordance to the due date.
- 8) Certificate of Registration in the Central Registry of State Collaborators and Municipalities (Private and Public Institutions)

13. - Monitoring and development of projects

The director must send progress on the development of the project, and make at least one accountability report of the expenses incurred in its development in accordance with the mechanism established by ANID. In addition, he/she must send a final accountability report for all the resources, no later than 30 days after the end of the project.

All documents generated within the framework of this competition must explicitly indicate the financial support received by this competition, using the following format: ANID (CHILE) -NAM (US) CONTEST + Project Code.

Applicants further agree that, if selected for a Catalyst award, the Abstract may be made available to the

public by ANID.

14.- Intellectual property

Projects awarded in the Catalyst Phase will retain all intellectual property rights they may have in their applications. Applicants are encouraged to consult with intellectual property attorneys prior to entering the competition.

15. Accountability

Accountability reports of the resources transferred by ANID will be governed by the norms established in Resolution No. 30, of March 11, 2015, of the General Controller of the Republic and ANID. All of this in addition to the rules and detailed instructions in the corresponding general instructions for ANID's accountability reports and its annexes.

For the financial closure of the project, all funds delivered by ANID would have to have been spent or taken into accountability, which is to say, 100% of the transferred resources, or have reimbursed the unspent and / or rejected funds.

16. - Anticipated termination of the project

In the event of non-compliance with any of the obligations established in the terms and conditions and in the respective agreement, ANID may terminate the agreement in an anticipated way and request the full restitution of the transferred resources and / or make the corresponding guarantees effective. Among others, it will be cause for early termination:

- 1) Non-execution or partial and/or delayed execution of the study, declared by the Technical Counterpart Committee.
- 2) Total or partial non-compliance with the purpose for which the project was financed, declared by the Technical Counterpart Committee.
- 3) At the request of the project director and / or institutional representative with due justification.
- 4) If there are pending balances in the accountability report and / or objections or observations referred to those renderings, ANID will inform the director and the Beneficiary Institution, once that has occurred, it must correct the objections or reimburse the resources observed within a period of 15 working days from when they were notified of the fact. If the objections are not corrected or the funds are not reimbursed, ANID will declare the anticipated termination of the project, which will mean the return of the unspent, unapproved or unused resources.