2022 Academia Sinica

Funding Opportunity Announcement

Infectious Diseases Research (IDR) Project

COVID-19 has reminded us that pandemic or endemic outbreaks will continue to pose significant threats in the coming years. To prepare for the emerging and existing infectious diseases outbreaks, we are launching this "Infectious Diseases Research Project" to address the following mission: **rapid deployment of preventive and therapeutic solutions to emerging infectious diseases.** The topics include rapid diagnosis, drug and antibody design and screening, vaccines, omic and systems analysis, and any other innovative ideas that are instrumental in achieving the mission. Fundamental mechanistic investigations and platform technology development, such as automation, AI, and advanced imaging, are also welcome as long as the results will contribute significantly to achieving the goal. Projects seeking rapid practical solutions should also consider manufacturing and regulatory issues and propose a "total solution".

To prepare for any future pandemic outbreaks, the ideal goal is to build the most efficient workflow to obtain rapid test kits (in 1 month), neutralizing antibodies (in 3 months), repurposed or new drug leads (in 6 months), and vaccines (1-1.5 years). These timelines may seem optimistic, but have been either achieved or advocated internationally. They serve as a useful benchmark to fight the next outbreak. To achieve these goals, innovative ideas and preparedness are essential. In addition to research problems, PIs are encouraged to consider issues in technology transfer, for pre-clinical and clinical trials, as well as regulatory approval processes.

Moreover, all platform technologies, samples and biological materials, cells, and model animals, optimized protocols, and data that are collected and established by IDR projects, are mandated to be deposited and maintained in National Biotechnology Research Park (NBRP), which will serve as a national resource bank for emerging infectious diseases of Taiwan.

To meet the aforementioned mission and goal, submitted IDR project proposals should provide concrete research plan and strategies, targeting pathogens of emerging infectious disease such as novel strains of coronavirus, influenza virus, flavivirus, etc. that pose a significant threat to human societies, with critically laid out timeline, anticipated deliverables and milestones. Current IDR focal points include:

1. Methods to collect and monitor pathogenic viruses and other pathogens
2. Tests and kits for screening pathogens and disease diagnosis
3. New chemicals or re-purposed drugs
4. Therapeutic antibodies
5. Vaccines of good efficacy and safety
6. Advanced, semi- and fully automated research workflow, platform technologies, and/or production instruments
7. Mechanistic research and platform technologies that facilitate accomplishing the project mission
8. Regulations governing product commercialization from research outputs

The funding ceiling per project is 20 M per year for 4+1 years, but the actual funding level and length will be commensurate to the project proposed.

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1. Application Process

1.1 **Eligibility**

1. The Program/Project PI must be an Academia Sinica Research Fellow or Specialist of any rank.
2. PI can invite non-Academia Sinica scientists to participate in the project and serve as co-PI, if necessary.

3. Collaborators enlisted should be justified in the proposal and each is required to provide a Supporting Letter delineating their expertise and specific roles in the projects.

1.2 **Deadlines** and **Important Reminders**

1. Applicants should use the form provided (Appendix 1) to first submit a **Letter of Intent** by **May 3, 2021**, which includes a brief synopsis (≤250 words in English or ≤500 words in Chinese) of the intended research, the mission-oriented problem to be addressed, and names of suggested potential reviewers. The Letter of Intent will not be used for screening nor will it be subject to review. It serves only to facilitate the administrative aspects of the grant review process.
2. Application deadline is 17:00, **June 1, 2021**; Proposals should be written in English, adhering to the guidelines and format specified within the document template provided (Appendix 2), with a Research Plan describing the following four major sections: 1) **the problem to be solved**, 2) **the innovative ideas proposed**, 3) **the potential impact of the work**, and 4) **plans to test the ideas**.
3. In preparing the proposals, applicants are reminded that the main reviewing criteria for IDR Projects are based on **potentials in accomplishing the specified mission**. Applicants are advised to read the **Review Criteria** (Appendix 3, also available online) before starting to write their proposals.
4. Selected proposals will be funded by the amount and period as determined for each individual project.

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2. Funding Period and other Requirements

1. The funding ceiling per project is 20 M per year for 4+1 years (the 5th year funding will be granted based on satisfactory performance), but the actual funding level and length will be commensurate to the project proposed.
2. An annual progress report must be submitted in September, which will be evaluated by a review panel of experts and used as a basis to determine continuing funding support for the next year. The project can be terminated at the end of any execution year if it fails to meet the expectations.
3. Oral presentation, if required during the review or project period, will be arranged and notified in advance.
4. Grant **Acceptance** and **Requirements** prior to Project Execution

   i) Project PI and co-PI(s) of a successful grant application must sign and undertake to abide by the terms as stipulated in the respective Project Execution Agreement, and complete the Conflict of Interest declaration process, prior to commencing the project;

   ii) Relevant approval from the authorized AS committees must be obtained before commencing any project involving biological and/or genetically engineered materials, animal experiments or human subjects;

   iii) In accordance with the AS Research Ethics regulations, all personnel who directly perform any AS-funded research activity should receive at least one hour of research ethics training every three years. Such training must be completed within six months of joining the research project, or within the duration of the project for a project lasting less than six months;

   iv) Project PI found to have violated research ethics will be subject to recommended actions by the AS Ethics Committee.

v) PI and co-PI(s) executing an IDR project must undersign in the Project Execution Agreement to deposit in the resource banks of NBRP validated replicates of all platform technologies, samples and biological materials, cells and animals for disease models, optimized protocols, and data that are collected and established under IDR project for long-term maintenance and preservation, which will be made available by request for other researchers upon securing the consent of the PI and co-PI(s).

5. A final written report to the AS Department of Academic Affairs and Instrument Services is due upon completion of each project.

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3. Application Materials to be submitted

1. Use the form provided (Appendix 1) to submit a one-page **Letter of Intent** to the Grant Office by **May 3, 2021**.
2. Use the document template provided (Appendix 2) to prepare the **Full Proposal**, adhering to the format and rules specified within. All required information including research plan, budget request and justification, supporting letters, biographical sketch, recent research accomplishments, and a list of current and pending grant supports, should be organized into one PDF file and submitted as email attachment or through cloud-based service to the Grant Office, before the submission deadline: **17:00, June 1, 2021**. Name the submitted files as "IDR-PI English name", *e.g.* IDR-ChenXX refers to an IDR Proposal submitted by PI ChenXX.
3. A confirmation acknowledgement email will be sent upon receipt and content verification of the submitted proposal. It can be used as proof of submission. Incomplete applications will not be considered.
4. Grant Office contact information:

   Email: biomedgrant@gate.sinica.edu.tw
   c/o Dr. Yuan-Chen Chang (Tel: 2787-2614)
   Department of Academic Affairs and Instrument Service

申請 **中央研究院 111年度「因應流行病研究計畫」**簡要中文說明

壹、計畫申請作業

一、申請人資格

(一) 研究計畫之(總)主持人需為本院專任助研究員或研究助技師(含)以上。

(二) 計畫主持人可邀請非本院專家學者參與研究團隊，擔任該計畫共同主持人。

(三) 若因執行計畫另需邀請協同參與或合作研究人員，計畫主持人可於申請書說明其必要性，並檢附該協同參與或合作研究人員同意提供協助與支持該計畫或合作意願之說明信函(supporting letter)。

二、計畫申請時程與其他注意事項：

(一) 有意願申請者應於 110 年 5 月 3 日前先遞送計畫申請意願書，以利安排審查作業，格式請見附件 1。

(二) 申請時程為即日起至 110 年 6 月 1 日 17:00 止，計畫書應以英文撰寫，格式請見附件 2。

(三) 「因應流行病研究計畫」之審查以能及時達成計畫徵求所列之任務導向目標及重點研發建置項目為評審基準，敬請參酌本徵求的英文版說明，及審查基準英文說明 (附件 3)。經審查通過之計畫，其經費補助和執行時程等依個別計畫核定之。

貳、計畫補助年限與執行前需求

一、計畫經費補助上限為 2 千萬新台幣，執行期程為 4+1 年，可視計畫需求與表現申請最多延長 1 年。

二、計畫主持人每年得於執行當年度 9 月提交進度報告，經相關專家組成之團隊進行績效評估審查後，據此申請下年度經費，不符預期績效者於年底終止其計畫。

三、審查過程如需申請團隊口頭報告或說明之會議安排等事宜將另行通知。

四、核定後執行前須知

(一) 經核定通過之總主持人及共同（分支）計畫主持人須簽署相關計畫執行同意書，並於計畫執行前完成利益揭露程序；

(二) 核定通過之研究計畫，涉及生物材料及基因重組相關實驗、動物實驗及以人為研究對象者，應檢附經相關委員會核准之同意函，方可開始執行該計畫；

(三) 依據「中央研究院學術研究倫理教育課程實施要點」，執行以本院預算支應之研究計畫者，參與計畫人員每 3 年應接受至少 1 小時之學術倫理教育課程訓練，至遲應於開始參與研究計畫之日起 6 個月內完成；研究計畫執行期限少於 6 個月者，應於計畫執行期限內完成；

(四) 計畫主持人如涉有違反學術倫理之情事者，依「中央研究院各級倫理委員會設置及作業要點」處理；

(五) 主持人需於簽署計畫執行同意書時，承諾執行期間所建立、收集及產出之生物樣品、生物材料、載體、細胞株、細胞模式、動物模式等、及所優化的實驗作業流程（protocols）及資料，需完整備份於國家生技研究園區以長期維護及保存，作為本院為國家建置之重要新興傳染病防治資源庫，經所屬研究人員同意後，提供其他需要的研發人員使用。

五、計畫執行期滿，須向學術處提交完整執行成果報告。

參、申請資料

一、**申請意願書**，請依格式（附件 1）填妥簡要資料後，於 110 年 5 月 3 日前以電子郵件寄至計畫辦公室。

二、**申請計畫書**，請依規定計畫書格式（附件 2）備妥所需資料，含研究規劃、經費需求與說明、計畫支持說明信函、主持人與共同主持人個人履歷、近期研究成果，目前正執行與申請中之計畫件數及經費補助情形等，合併成一完整 PDF 電子檔，於 110 年 6 月 1 日 17:00 前，以電子郵件或雲端分享方式傳達計畫辦公室。檔名請命名為“IDR-PI 英文姓名"；例如 IDR-ChenXX 為陳姓主持人申請之「因應流行病研究計畫」。

三、承辦人於收到完整無誤的計畫書後，將回信確認，此回覆信函可當收件之存證。

四、學術及儀器事務處 計畫辦公室 承辦人聯絡方式：
biomedgrant@gate.sinica.edu.tw
張元貞博士，電話：2787-2614
