

## 2024 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 15, 2023** ([via email at biomedgrant@gate.sinica.edu.tw](mailto:biomedgrant@gate.sinica.edu.tw)), which includes a brief synopsis ( $\leq 250$  words in English or  $\leq 500$  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 **July 17, 2023**; 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. Any research project involving biological and/or genetically engineered materials, animal experiments or human subjects must obtain approval from the appropriate authorized AS committees. If the official approval document cannot be submitted at the time of grant application, proof of having applied for approval must be provided instead.
5. Please note that, in accordance with the regulations of Academia Sinica (Lett No. 1111401198, dated September 19, 2022), "Research staff (including research technical personnel) shall not engage in research related to the scope of a subject matter of technologies that have been exclusively licensed with the use of funds from the public sector."
6. Academia Sinica encourages researchers to learn various new tools, including advanced AI-driven applications, to enhance research quality, ensure thorough considerations of supporting background information, and improve work efficiency. However, the responsibility for the accuracy of all content, writing quality, and adherence to academic research integrity standards rests solely with the applicant.

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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 5<sup>th</sup> year funding will be granted based on satisfactory performance), but the actual funding level and length will be commensurate to the project proposed.
2. The project may be provisionally funded for two years to obtain key results. Application for third year or coming year funding can be made by submitting a progress report for competitive review.
3. Actual funding may be adjusted on a yearly basis based on budget availability and progress. Failure to demonstrate satisfactory progress will result in premature termination of funding support.
4. Oral presentation, if required during the review or project period, will be arranged and notified in advance.
5. 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) Approval from the authorized AS committees must be obtained and submitted before commencing any project involving biological and/or genetically engineered materials, animal experiments or human subjects. Should there be any change in the experimental content or subject matter during the project period, appropriate amendment or new application must be filed for approval;
  - 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 and co-PI(s) 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).
6. 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 15, 2023**.
  2. Complete the online application process by **July 17, 2023**. Log into the online application system at <https://asms.sinica.edu.tw> using the PI's SSO account and follow through the steps as instructed. Applicant should first maintain and update the personal data of the PI and co-PI(s), then fill in online the required basic information including the project category, title, the budget requested, executive summary, and keywords. Use the document template provided ([Appendix 2](#)) to prepare the Full Proposal, adhering to the format and rules specified within. Each of the required items including research plan, supporting letter, recent research accomplishments, and personal track record with a list of current and pending grant support, should be uploaded as **ONE PDF** electronic file via the online system.
  3. Upon completion of the online application process, an automatic confirmation email will be generated and sent by the system to acknowledge receipt, which can be used as proof of submission.
  4. Grant Office contact information:  
Email: [biomedgrant@gate.sinica.edu.tw](mailto:biomedgrant@gate.sinica.edu.tw)  
c/o Ms. Yuan-Chen Chang (Tel: 2787-2614)  
Department of Academic Affairs and Instrument Service
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## 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 112 年 5 月 15 日前以電子郵件寄送計畫申請意願書，含中英文摘要及建議審查委員名單等資料，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 112 年 7 月 17 日止，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。
- (四) 研究計畫中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，應檢附相關委員會之核准文件。核准文件未能於申請時提交者，須先提交已送審之證明文件，並於計畫審核通過前補齊核准文件。
- (五) 依據本院 111 年 9 月 19 日學術字第 1111401198 號書函規定「本院研發成果已完成專屬授權者，研究人員（含研究技術人員）不得再以公部門經費從事涉及該專屬授權標的範圍之研究」。
- (六) 本院鼓勵研究人員學習各種新的工具，包含各式人工智慧的應用，藉此提升研究品質、確保背景資料的周全性，及改善工作效率。惟所有計畫內容的正確性，撰寫品質，和遵守學術倫理規範的責任均由申請人全權承擔。

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## 貳、計畫補助年限與執行前需求

- 一、計畫經費補助上限為新台幣 2 千萬元，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、新核定計畫暫先核給 2 年計畫補助經費，計畫主持人應於計畫執行次年度起，依核定時之規定以研發成果提交進度報告，據此申請下年度經費。
- 三、每年實際核定經費將視當年之預算金額及前一年之執行進度而定，審查未獲通過之計畫，應無條件終止計畫。

四、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。

#### 五、核定後執行前須知

- (一) 經核定通過之總主持人及共同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，若有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，應於提供相關委員會之核准文件後，方可核撥經費。如相關實驗內容於執行期間有所變更，亦須重新申請或修訂審核同意文件；
- (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) 計畫主持人及共同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。

六、計畫執行期滿，須向學術處提交完整執行成果報告。

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#### 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 112 年 5 月 15 日前以電子郵件寄至計畫辦公室。
- 二、**申請流程**，請按照本院學術研究管理系統 ( <https://asms.sinica.edu.tw> )，以 SSO 帳號登入) 所敘明之步驟，於 112 年 7 月 17 日前完成線上申請。申請者應先於線上維護及更新計畫主持人與共同主持人之個人履歷，並填妥計畫類別、名稱、經費需求、摘要、關鍵字等基本資料。計畫內容、支持說明信函、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，則依計畫書 ( 附件 2 ) 規定之格式撰寫後，轉存為一個 PDF 電子檔於線上系統上傳。
- 三、完成線上申請後，申請人將即時收到系統自動發送之確認回函，可作為收件之存證。
- 四、學術及儀器事務處 計畫辦公室 與承辦人聯絡方式：

[biomedgrant@gate.sinica.edu.tw](mailto:biomedgrant@gate.sinica.edu.tw)

承辦人：張元貞女士，電話：2787-2614

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