**中央研究院113年度「任務導向生技研究計畫」計畫書**

**2024 Biotechnology Research Park Translational (BRPT) Project Proposal**

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| 申請組別Division | 🞎 數理組Mathematics and Physical Sciences  🞏 生命組Life Sciences  🞏 人文社會組Humanities and Social Sciences  \*跨組者可複選Select applicable divisions for a cross-disciplinary project | | |
| 計畫名稱Project  Title | 中文： | | |
| English: | | |
| 計畫主持人Project PI | 中文： | 職稱  Position |  |
| English: | 申請單位  Affiliation |  |
| 指導研究員  Mentor | 計畫主持人如為本院博士級研究人員，須有本院專任研究員同意指導、支持及協助計畫經費統籌管理與核銷  A full time Academia Sinica Research Fellow (any rank) is required to serve as mentor and agree to oversee the grant administration and undersign all expenditure approval, if the PI is a Research Associate with a PhD degree. | | |
| 中文 / English: | 職稱/單位Position/Affiliation | |
| 共同  計畫主持人  Project Co-PI | 中文 / English:  1. | 職稱/單位Position/Affiliation | |
| 2. |  | |
| 3. |  | |
| 計畫經費  單位：新臺幣元Total Budget  Unit: NTD | 第一年 Year 1: *e.g.* 6,000,000元 | 第二年 Year 2: | |
| Matching:  *e.g.* 3,000,000元  來源 Source: *e.g.* 所內業務費 | Matching:  來源 Source: | |
| 第三年 Year 3: | 第四、五年 (視前3年成果另核定)  Year 4, 5, contingent upon satisfactory performance | |
| Matching:  來源 Source: |
| 計畫聯絡人  Project  Contact Person |  | Email: | |
| Tel: | |
| 計畫關鍵詞  Keywords | 中文：  English: | | |
| 本計畫涉及  This project involves: | 🞎 mRNA藥物  mRNA therapeutics | 🞎 生物材料及基因重組相關實驗biological and/or genetically engineered materials | |
| 🞎 動物實驗  animal experiments | 🞎 以人為研究對象者  human subjects | |

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**2024 Biotechnology Research Park Translational (BRPT) Project Proposal**

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計畫名稱 (中文)：

Project Title (English):

計畫主持人Project PI:

申請單位Affiliation:

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1. **Executive Summary and Chinese Abstract**

*Please address each of the following questions briefly and precisely:*

* 1. What is the unmet medical need will be solved?
  2. What is your major idea? How innovative it is? How are you going to solve the unmet medical need?
  3. What is your plan for the product commercialization and/or company spin-off during 3-year funding period in the National Biotechnology Research Park (NBRP)?

In addition to an Executive Summary answering to the above points in a total of ≤ **250 English words**, provide also a **Chinese Abstract** based on the above statements in less than 500 words.

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1. **Summary of Previous Research Accomplishments** (Project PI only).

Summarize and highlight your previous research accomplishments in the **last five years**. Identify 3 recent publications most representative of your accomplishment that are relevant to the research work to be undertaken in this proposal (reprints to be submitted with the application material). Do not include manuscripts in preparation or submitted.

*The page limit for this section is* ***one*** *page.*

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1. **Research Plan**

**3.1** **The problem to be solved.** Define the problem(s), focusing on its translational potential and importance. Describe the state-of-the-art and identify the current bottleneck. *(about half a page recommended)*

**3.2 The innovative ideas and milestones proposed.** Define the innovative ideas underlying the specific aims of the project, their scientific rationale and merits, intended milestones and paths to technology transfer and/or product commercialization in 3 years’ time *(about half a page recommended,* *to be elaborated later in Section 3.4)*.

**3.3** **The potential impact of the work.** Describe how the outcome of this project may impact the local and global biotech industry, if successfully lead to technology transfer and/or commercialization *(about half a page recommended).*

**3.4 Plans to test the ideas.** Describe the ideas and research approaches, with any supportive prior findings or data, that would feasibly realize the translational potential. Identify the scientific or technical challenges, risks/difficulties, projected milestones and the timeline to accomplish them. Also describe international competitiveness of your project, the expertise of the team you assembled, and any potential or ongoing collaboration with industry.

*The total page limit for this section including references is* ***ten*** *pages; by A4 size, 1 inch or 2.54 cm margins for all sides, single spaced, font: Times New Roman or Calibri, 11 point. Smaller font size 9 or 10 is allowed only for Figure legend and Bibliography.*

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1. **Changes/Progress made since last Application**

Please state if this application is an extension of any of your ongoing or completed grant support, or previous failed application(s) to any of the AS grant program. *You may simply provide a statement or two if this has already been elaborated in the Research Plan section.* *You can ignore this Section if non-applicable but failure to disclose the relevant information may disqualify your current application*.

**4.1 If this is an application to extend or renew your ongoing or completed grant support** (provide grant number and title) for related research topics and aims, summarize the major accomplishment thus far and how the current proposal may capitalize on this recent progress to make further advances in the next 5 years.

**4.2 If this is an application based on similar research aims proposed in previous round of failed application** (to any AS grant type), describe the major changes you have made in response to Reviewers' comments and/or after taking into considerations progress in the field (either your own or others) since the proposal was last submitted. Point-to-point rebuttal is not required.

*The page limit for this section is* ***one*** *page.*

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1. **Budget Plan and Justification**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 年度Year | | | 1 | 2 | 3 |
| 業務費(A) | 教育訓練費Training | International |  |  |  |
| Domestic |  |  |  |
| Mainland China |  |  |  |
| 旅費  Travel | International |  |  |  |
| Domestic |  |  |  |
| Mainland China |  |  |  |
| 臨時人員酬金Personnel Salary | |  |  |  |
| 研究相關耗材費用Consumables | |  |  |  |
| 業務費總額Total (A) | |  |  |  |
| 獎補助費Graduate Student Stipend (B) | | |  |  |  |
| 申請總金額Total (T) = (A)+(B) | | |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 年度Year | 1 | 2 | 3 |
| 其他經費來源 Matching Funding Source: 中研院/國科會/其他 | | | |
| 業務費Operating Expenses |  |  |  |
| 設備費Equipment |  |  |  |
| 總額 Total |  |  |  |

\*單位：新臺幣元 \*Unit: NTD; 4th, 5th year funding is subject to satisfactory performance

Use the Budget Table to prepare your itemized budget request. Briefly justify the budget allocated for each of the categories, including the intended number and level of research personnel to be employed, consumable items requested, and any other aspects not apparent from the Table. Also describe any intended access to core facilities at NBRP. Disclose all other matching public and private funding source, including support from host Institute/Research Center and industrial sponsorship, if available.

*The Total Budget Plan (using Table above) and the descriptive justifications to be provided should not exceed* ***one*** *page.*

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1. **Space Requirements**

Use this Table to describe the total residency lab space needed in NBRP. Biomedical Translation Research Center (BioTReC) provides share lab spaces for multidisciplinary research, including general lab, cell culture room, chemical lab and P2+ lab for infectious diseases. Corresponding equipment required for most experiments are already available in these labs and core facility (<https://cftm.biotrec.sinica.edu.tw/facility/List?bid=1>). If the project needs a special space other than above, please describe the specific need elaborately. BioTReC will make the arrangement according to the request. The operating fee for the lab space will be additionally supported by Grant Office.

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| --- | --- | --- | --- |
| 實驗室  Available Labs | 每單位費用/月\*  Fee/per Month\* | 每一單位包含設施  Facilities for Each Unit | 需求單位數  Unit Requested |
| 一般實驗室  General Lab | 2,400 | 1×實驗桌 (Bench) 可容納 2-3人  2-3×座位 (OA) |  |
| 細胞實驗室  Cell Culture Room | 5,300 | 1×生物安全櫃 (BSC)  1×培養箱 (CO2 Incubator) |  |
| 感染性實驗室  P2+ Lab | 9,100 | 1×實驗桌 (Bench) 可容納2人  1×生物安全櫃 (BSC)  1×培養箱 (CO2 Incubator)  2×座位 (OA) |  |
| 化學實驗室  Chemical Lab | 4,600 | 1×實驗桌 (Bench) 可容納2人  1×化學排煙櫃 (Chemical Hood)  2×座位 (OA) |  |
| 其他空間  Others | 960/坪/月 | | 說明Describe： |

\*單位：新臺幣元 \*Unit: NTD

1. **Personal Track Record** (for every Project PI/Mentor and Co-PIs)

**7.1 Output from Recently Completed** (2021-2023) **and Current AS Grant Support**

List only publications that carry statement specifically acknowledging the relevant AS grant support. (Include Abstract as appeared in the cited publication).

**7.2 Biographical Sketch**

Each PI/Mentor and co-PI should use the template provided in the next page to prepare their **Biographical Sketch**,which should include among others:

1. a **Personal Statement** - brief self-introduction of research path/career in 200-300 words;
2. **Contributions to Science** - a summary of major research achievements by referring to selected key publications and other forms of contributions, their significance and impact;
3. **Complete/Selected List of Recent Publications** - selected key publications can be combined with a more complete list of publications in the last 5 years, but keep to the total page limit

*This section including list of publications should not exceed* ***four*** *pages for each PI and co-PIs.*

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**BIOGRAPHICAL SKETCH**

**NAME:** 中文姓名**：**

**INSTITUTE/RESEARCH CENTER:**

**Current POSITION:**

**EDUCATION** (Begin with baccalaureate or other initial professional education)

|  |  |  |  |
| --- | --- | --- | --- |
| **INSTITUTION AND LOCATION** | **DEGREE** | **DURATION**  MM/YY-MM/YY | **FIELD OF STUDY** |
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|  |  |  |  |
|  |  |  |  |

**EMPLOYMENT** (Include postdoctoral training)

|  |  |  |  |
| --- | --- | --- | --- |
| **INSTITUTION AND LOCATION** | **POSITION TITLE** | **DURATION**  MM/YY-MM/YY | **FIELD OF STUDY** |
|  |  |  |  |
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1. **PERSONAL STATEMENT**

A brief self-introduction of research path/career, 200-300 words

1. **HONORS**

Include Professional distinctions and service, honors and selected speaking invitations

1. **CONTRIBUTIONS TO SCIENCE**

Summarize major research achievements and describe their significance and impact

1. **LIST OF PUBLISHED WORK**

Provide a complete or selected list of recent (last 5 years) publications to keep within the total four-pages limit. Earlier key publications can also be provided here, or under item III above.

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Total should not exceed 4 pages

**7.3** **Current and Pending Grant Support**

List any current (ongoing) and pending projects/proposals funded by Academia Sinica and external agencies. AS allows submission of similar proposals to more than one funding sources but any overlapping similarity and/or requested cost-sharing items must be fully disclosed and justified to avoid duplicated funding. Any incomplete or inaccurate information will adversely affect the consideration of this proposal.

Please be reminded that,

1. applicants should not submit the same proposal for different types of AS grant program during the same grant application cycle;
2. applicants must fully disclose if similar proposal has also been submitted to NSTC and other funding agencies at the time of submitting this proposal to AS, with the amount requested and any duplicated items fully described and justified here; any eventual cost-sharing, joint or supplemental funding by multiple agencies must comply with their respective funding policies;
3. applicants must pro-actively inform the AS grant program office if the funding decision of any pending application is known before the outcome of this application is announced; applicants should withdraw current proposal if adequate funding has been secured.

主持人/指導研究員/共同主持人Principal Investigator/Mentor/co-PI:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_`

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | (1) Funding Agency and Project Type補助單位及計畫類型: e.g. 中研院/國科會 個人型/整合型  (2) Grant Title and number計畫名稱與編號 :  ● Status計畫狀態: □ Current執行中 □ Pending申請中  ● Research Role計畫擔任角色: □ Project PI/Mentor 計畫(總)主持人/指導研究員  □ Project Co-PI 計畫共同主持人  (3) Project Period執行期間: \_\_\_\_\_\_(YYYY/MM) to \_\_\_\_\_\_(YYYY/MM)  (4) Funding Amount in NTD補助總額 (新臺幣元)   |  |  |  | | --- | --- | --- | | Year 年度 | Total Project Amount 總研究經費 | Individual Project Amount個人研究經費 | |  |  |  | |  |  |  | |  |  |  |   (5) Is there any relationship between this funded/pending grant project and the current application? 此計畫是否與本次申請計畫有相關？  □ No  □ Yes. (Please specify details請敘明其關聯性) |

*\*Extend this form as necessary to include all funding sources.*

此頁由現任指導研究員填寫

**任務導向生技研究計畫**

**博士級研究人員計畫申請**

**同意說明信函 (Supporting Letter)**

❖若計畫主持人為本院博士級研究人員，應檢附現任指導研究員(本院專任研究員)同意說明信函。

指導期間：

指導單位：

指導人職稱：

本人之研究與博士級研究人員\_\_\_\_\_\_\_\_\_\_\_\_申請之任務導向生技研究計畫\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_內容**相關**，故後續有研發成果或專利共享關係，且本人與博士級研究人員\_\_\_\_\_\_\_\_\_\_\_\_**已達成未來成果利益分配協議**，本人**同意支持**其計畫申請，並**協助計畫經費統籌管理與核銷**。

簽名：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

日期：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_