**NUCLEIC ACID THERAPEUTICS INITIATIVE (NATi)**

**PROPOSAL FORM**

**Instructions**

* Use the template below to prepare your application. All sections must be completed.
* Adhere to a maximum of 10 pages. Use Arial 10, single spacing throughout.
* All documents must be in Word or PDF format. Do not submit scanned PDFs except for signatories.
* Relevant privileged or confidential information should be disclosed to help convey a better understanding of the project. Such information should be clearly marked in the proposal.
* The Director of Research (DOR) from the Lead Investigator's Host Institution must endorse the proposal submission. The email endorsement must be attached to the application.
* All budgets are to be calculated in Singapore dollars.
* Submit completed applications to enquiry@nati.sg by the deadline.

|  |  |
| --- | --- |
| **Section** | **Description** |
|  | Project Title |
|  | Details of Applicants (Project Team) |
|  | Total Budget Requested |
|  | Duration of Project (Months) |
|  | Lay Abstract  |
|  | Scientific Abstract |
|  | Significance and Potential Impact of Project |
|  | Detailed Research Proposal |
|  | Deliverables  |
|  | Key Performance Indicators and Tracking Indicators |
|  | Contribution of Project Team |
|  | Budget Request |
|  | Other Funding Support |
|  | Background Intellectual Property (BIP) |
|  | Foreground Intellectual Property (FIP) |
|  | Declaration of Ethics |
|  | Curriculum Vitae (CV) |
|  | Undertaking |

1. **PROJECT TITLE**

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|  |
| **Proposal Call Code:** *e.g. N01* |

1. **DETAILS OF APPLICANTS (PROJECT TEAM)**
* The Lead Investigator will coordinate research activities carried out by the project team. He/She will be responsible for all progress reporting on behalf of the project team.
* Team Leads will be the representative(s) leading the research at the Partner Institution.
* Co-Investigators(s) (Co-Is) will be the person(s) leading and managing a particular workstream in collaboration with the Lead Investigator or Team Lead within the same institution.
* Collaborator(s) refers to any company, institution or incorporated body who are engaged in the research in collaboration with the Lead Investigator or any Co-Is.
* Funding will be awarded to Singapore public sector research performers only. Collaborators do not receive funding.

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| --- | --- | --- | --- |
| **Role** | **Name** | **Host Institution /Partner Institution/ Organisation** | **Email Address** |
| **Lead Investigator** |  |  |  |
| **Team Lead** |  |  |  |
| **Co-Investigator (Co-I)** |  |  |  |
| **Collaborator** |  |  |  |

*Add rows as required.*

1. **TOTAL BUDGET REQUESTED**

Ensure the budget numbers tally with the budget template. Refer to the specific Call for Proposals for the maximum funding quantum. The project team is strongly advised to budget prudently and according to the needs of the proposed work.

|  |  |
| --- | --- |
| **Direct cost** | S$ |
| **Indirect cost (30% of direct cost)** | S$ |
| **Total cost (Direct cost + Indirect cost)** | S$ |

1. **DURATION OF PROJECT (MONTHS)**

Refer to the specific Call for Proposals for the maximum funding duration.

|  |
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1. **LAY ABSTRACT**

In no more than 300 words, provide a general and non-confidential description of the proposal which can be easily understood by an audience of experts from other subject domains. Note that the content may be released publicly for the purpose of announcing results of the Call for Proposals.

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1. **SCIENTIFIC ABSTRACT**

In no more than 500 words, outline the specific scientific aims, hypotheses, methodology and approach of the proposal, including how the problem statement(s) will be addressed and resolved.

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1. **SIGNIFICANCE AND POTENTIAL IMPACT OF PROJECT**

In no more than 2 pages, explain the significance and potential impact of the proposed project. You may refer to the guiding questions below.

1. What are the tangible deliverables expected at the end of the project? (e.g. more cost-efficient workflows to enable faster translation in Singapore, new core capability to scale up production for drug candidates, safer/more efficacious drug profile, etc)
2. How is it different from what is currently commercially available?
3. How can/will the deliverables be commercialised?
4. What is the value capture for Singapore?
5. **DETAILED RESEARCH PROPOSAL**

Proposals will be assessed based on their ability to contribute to NATi’s stated goals of developing a clinically impactful and economically feasible nucleic acid therapeutic. Ideal proposals will demonstrate not only high quality innovative science with detailed methodology highlighting novelty of concepts and appropriate allocation of requested budget but also well-articulated potential for adoption to demonstrate knowledge of the competitive landscape and differentiating factors. Provision of preliminary data is strongly encouraged.

1. **DELIVERABLES**

Using the template below as an example of a 3-year Gantt chart, propose workstreams leading to measurable deliverables by shading the relevant boxes. Refer to the information deck for a graphical example. A deliverable is a tangible outcome, e.g. prototype, functioning algorithm or a validated assay where specifications are met. A workstream should produce only 1 deliverable. One or a few workstreams converge at a stage gate where NATi, the Lead Investigator, relevant Team Leads and relevant Co-Investigators will convene to assess the collective effectiveness of the deliverables to determine if the project should proceed to the next stage. Criteria for go/no-go decisions should be proposed for each stage gate.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Deliverables** | **Y1****Q1** | **Y1****Q2** | **Y1****Q3** | **Y1****Q4** | **Y2****Q1** | **Y2****Q2** | **Y2****Q3** | **Y2****Q4** | **Y3****Q1** | **Y3****Q2** | **Y3****Q3** | **Y3****Q4** |
| Stage 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 1.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 1.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage Gate 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 2.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 2.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage Gate 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 3.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 3.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage Gate 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage 4 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 4.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Workstream/Deliverable 4.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage Gate 4 |  |  |  |  |  |  |  |  |  |  |  |  |
| Annual Report |  |  |  |  |  |  |  |  |  |  |  |  |
| Mid-Term Report (if applicable) |  |  |  |  |  |  |  |  |  |  |  |  |
| Final Report |  |  |  |  |  |  |  |  |  |  |  |  |

1. **KEY PERFORMANCE INDICATORS AND TRACKING INDICATORS**

Include proposed key performance indicators and tracking indicators where applicable.

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| --- | --- | --- |
| **S/N** | **Key Performance Indicators** | **Proposed Target (S$)** |
| 1. | Industry R&D spending (IRS) |  |
| **S/N** | **Tracking Indicators** | **Proposed Target** |
| 2. | Number of spin-offs |  |
| 3. | Number of out-licensing deals |  |
| 4. | Number of industry projects |  |
| 5. | Number of talents trained |  |
| 6. | Number of patents filed |  |
| 7. | Number of technical disclosures filed |  |
| 8. | Number of international collaborations |  |

**Projection for Industry R&D Spending (IRS)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Estimated Cash****($)** | **Estimated In-kind ($)** | **Status of Discussion** |
|  |  |  |  |
|  |  |  |  |

*Provide documentation to demonstrate industry support and/or commitment.*

*Add rows as required.*

1. **CONTRIBUTION OF PROJECT TEAM**

The percentage effort of work commitment of the individual team members must add up to 100%. Identify any synergies and provide a conflict management plan if applicable. Indicate the role and contribution of each team member specifically Lead Investigator, Co-Investigators, Team Lead and Collaborators.

|  |  |  |
| --- | --- | --- |
| **Name** | **Contribution** | **% Effort** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | 100% |

*Add rows as required.*

Continuity of NATi-funded projects is determined through go/no-go decisions at each stage-gate meeting. Propose a stage-gate committee assembled from selected members from the project team. For avoidance of doubt, each stage-gate meeting will be chaired by NATi.

|  |  |
| --- | --- |
| **Name** | **Role**  |
|  | (e.g. Lead Investigator) |
|  |  |
|  |  |

*Add rows as required.*

1. **BUDGET REQUEST**
2. Using the template below, clearly specify the budget request for each institution.
3. Researchers from overseas institutions and industry/companies can only participate as collaborators. No funding can be awarded to these collaborators. They may contribute technology or in-kind in terms of manpower, time or other resources.
4. **Budget Template**

Each institution should fill in an individual table.

|  |
| --- |
| **Name of institution:** |
| **EOM** | **FTE** | **Stage 1 ($)** | **Stage 2 ($)** | **Stage 3 ($)** | **Total ($)** |
|  |  |  |  |  |  |
| **EOM Sub-total** |  |  |  |  |
| **EQPT** | **Unit** | **Stage 1 ($)** | **Stage 2 ($)** | **Stage 3 ($)** | **Total ($)** |
|  |  |  |  |  |  |
| **EQPT Sub-total** |  |  |  |  |
| **OOE** | **Stage 1 ($)** | **Stage 2 ($)** | **Stage 3 ($)** | **Total ($)** |
|  Materials and Consumables |  |  |  |  |
| **OOE Sub-total** |  |  |  |  |
| **OT** | **Stage 1 ($)** | **Stage 2 ($)** | **Stage 3 ($)** | **Total ($)** |
|  |  |  |  |  |
| **OT Sub-total** |  |  |  |  |
| **Direct cost** |  |  |  |  |
| **Indirect cost**(30% of direct cost) |  |  |  |  |
| **Total cost** |  |  |  |  |

*Add rows and columns as required.*

1. **OTHER FUNDING SUPPORT**

Using the template below, provide the details for all currently held or applied grants over the last 3 years preceding this application by the project team which are relevant to the proposed research. Highlight any potential overlap of funds with this application and mitigating measures. Note that double-dipping is not allowed.

|  |
| --- |
| ***Currently held grants*** |
| 1. | Project Number/ID |  |
| Funding Agency |  |
| Project Title |  |
| Project Scope |  |
| Project Progress (%) |  |
| Total Amount Awarded |  |
| Project Start/End Date |  |
| Project Role  |  |

*Add table as required.*

|  |
| --- |
| ***Grant applications pending outcome*** |
| 1. | Funding Agency |  |
| Project Title |  |
| Project Scope |  |
| Total Amount Applied |  |
| Project Start/End Date |  |
| Project Role  |  |

*Add table as required.*

1. **BACKGROUND INTELLECTUAL PROPERTY (BIP)**

List the relevant patents, publications and technology disclosures which constitute BIP and Background Know-How which may potentially be required for the use, licensing or commercialisation of Foreground Intellectual Property or Foreground Know-How. Highlight any potential encumbrance or limitation in freedom to operate. Include any existing or planned licensing agreements with industry collaborators or others.

|  |  |  |
| --- | --- | --- |
| **S/N** | **BIP**  | **Details**  |
| 1. |  |  |
| **S/N** | **Background Know-How** | **Details** |
| 1. |  |  |

*Add rows as required.*

1. **FOREGROUND INTELLECTUAL PROPERTY (FIP)**

List the potential FIP or commercialisation activities which will be generated through this project. Attach any licensing agreements/options for FIP.

|  |  |  |
| --- | --- | --- |
| **S/N** | **Potential FIP**  | **Details**  |
| 1. |  |  |
| **S/N** | **Potential Commercialisation Activities** | **Details** |
| 1. |  |  |

*Add rows as required.*

1. **DECLARATION OF ETHICS**

Using the template below, indicate if the research involves ethical considerations. Note that the approval of the proposal is subject to the necessary ethics approvals.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Does the research involve ethical consideration?****(Yes/No)** | **Is IRB/IACUC approval/****exemption required?****(Yes/No)** | **Declare the participating institutions which require IRB/IACUC approval/****exemption** | **If (A) = Yes and (B) = No, explain why the participating institutions do not require IRB/IACUC approval/ exemption** |
| **(A)** | **(B)** |
| Human subjects |  |  |  |  |
| Use of human biological materials (HBM) |  |  |  |  |
| Conduct tissue banking activities regulated under the Human Biomedical Research Act (HBRA) |  |  |  |  |
| Use of health information or research data from primary donors |  |  |  |  |
| Use of commercially available HBM/animal tissues or cells |  |  |  |  |
| Animal experimentation not regulated under HBRA |  |  |  |  |
| Requirement for Class 2 containment and above |  |  |  |  |
| Multi-centre trials |  |  |  |  |

1. **CURRICULUM VITAE (CV)**

Attach the CVs of all Investigators and Collaborators using the template below. Each CV should not exceed 1 page.

|  |  |
| --- | --- |
| Name |  |
| Current position/appointment(s)/affiliation(s) |  |
| ORCID |  |
| Employment history |
| Academic qualifications |
| Relevant publications (list up to 10 with corresponding journal impact factor) |
| Relevant project management experience |
| Key research achievements (licenses, awards, spin-off companies, external consultancy, etc) |
| Patents held |

*Add table as required.*

1. **UNDERTAKING**

In signing this application form, the project team undertakes to:

1. Declare that all information provided is accurate and true to the best of their knowledge
2. Ensure that there is no financial conflict of interest
3. Be actively engaged in the execution of the research and ensure that the associated activities comply with all laws, rules and regulations pertaining to animal and human ethics
4. Ensure that all necessary licenses and approvals have been obtained or are being sought
5. Adhere to the prevailing Grant Terms and Conditions and Guidelines of the funding agency which may be amended from time to time
6. Agree to hold primary responsibility for the responsible conduct of research and shall abide and comply with the ethical, legal and professional standards relevant to research in accordance with the research integrity policy of the respective Institutions
7. Avoid sending similar versions or parts of this application/proposal to other agencies for funding
8. Ensure that the requested equipment/resources are not funded by another agency or proposal
9. Ensure that the funding agency is acknowledged in all publications

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Institution** | **Signature** | **Date** |
| **Lead Investigator**  |  |  |  |  |
| **Co-Investigator** |  |  |  |  |

*Add rows as required.*

*Electronic signatures are acceptable.*