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**(To be submitted in 5 copies for each project)**



**APPLICATION FORM FOR RESEARCH GRANT**

**INTERNATIONAL MEDICAL UNIVERSITY**

I. Project Identification

|  |
| --- |
| A. Project Title (Please indicate the title of the project; the title should be short and concise) |
| B. Project Leader (Name& Department)  Name :  Title :  Department/ Section :  Date Signature  **Protected Time Required: Yes / No**  **IMU-Research Lab Bench Space Required: Yes / No**  **[If ‘Yes’ please fill in the Appendix 2(a)]**  Date Signature |
| C. Key words (Please provide a maximum of 5 key words that describe the research of the project. The key words will be incorporated in a database on Malaysian research) |

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| II. Objectives of the Project and Hypothesis | Page 2 of 9 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A1. Specific objective of the project (Please describe the measurable objectives of the project and define the expected results. Use results-oriented wording with verbs such as "to define ...", "to determine ...", "to identify ...")  **A2. Research hypothesis of project** | | | | | | | | | | | |
| **B. Research background of the project** (Please indicate if the project is new, modified or extended. Give a summary of your literature review to indicate the originality of the proposed research, and describe related research to assist in assessing the research rationale and the potential for success) | | | | | | | | | | | |
|  | Project status (please indicate) | | | | |  | New |  | Modification to |  | Extension of | |
|  |  | | | | |  |  |  | previous project |  | existing project | |
|  |  | | | | |  |  |  |  |  |  | |
|  | | Literature review summary  Related research | | | | | | | | | |
| C. Type of research (Please indicate the type of research, one only; see definition of terms in the Guidelines) | | | | | | | | | | | |
|  | | |  | 1. | Scientific research (fundamental research) | | | | | | |
|  | | |  |  |  | | | | | | |
|  | | |  | 2. | Technology development (applied research) | | | | | | |
|  | | |  |  |  | | | | | | |
|  | | |  | 3. | Product/process development (design end engineering) | | | | | | |
|  | | |  |  |  | | | | | | |
|  | | |  | 4. | Social/policy research | | | | | | |
|  | | |  |  |  | | | | | | |

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| III. Benefits of the Project | Page 3 of 9 |

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| A. Outputs expected from the project (Please refer to the list of outputs in the Guidelines and give further details) |

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| --- | --- |
| IV. Project Team |  |

|  |  |
| --- | --- |
| **Name** | **Organisation/Dept/Section** |
| **Project Leader** (Please provide name) |  |
| **Researchers** (Please provide names or numbers of researchers) |  |
| **Support Staff** (Please indicate how many) |  |
| **Contract Staff** (Please indicate how many) |  |

|  |  |  |  |  |  |  |  |  |
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| 1. Research Approach | | | | | Page 4 of 9 | | | |
| A. Research methodology (Please describe the research methodology to be followed. Identify specialised  equipment, facilities and infrastructure which are required for the project, and indicate which are new) | | | | | | | | |
| B. Project activities (Please list and describe the main project activities, including those associated with the transfer of the research results to customers/beneficiaries. The timing and duration of these activities are to be shown in the Gantt chart in Form VI) | | | | | | | | |
|  | | | | |  | | | |
| Page 5 of 9 | | | | | | | | |
| C. Key milestones (Please list and describe the principal milestones of the project. The timing of milestones is to be shown in the Gantt chart on Form VI. A key milestone is reached when a significant phase in the project is concluded, e.g. completion of test, review, commissioning of equipment, etc) | | | | | | | | |
| **D. Risks of the project** (Please describe factors the that may cause delays in, or prevent implementation of, the project as proposed above; estimate the degree of risk) | | | | | | | | |
|  | Factors: |  |  |  | |  |  |  |
| Low Medium High | | | | | | | | |
|  | Technical risk: |  |  |  | |  |  |  |
|  |  |  |  |  | |  |  |  |
|  | Timing risk: |  |  |  | |  |  |  |
|  |  |  |  |  | |  |  |  |
|  | Budget risk: |  |  |  | |  |  |  |
|  |  |  |  |  | |  |  |  |
| **E. Duration** **(State the planned starting date of the project and the duration, in months and expected completion date to complete this project; technology transfer activities should** be excluded from elapsed time)  Starting date:  Expected Completion Date/Duration: | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 200\_ | | | | | | | | | | | | 200\_ | | | | | | | | | | | | 200\_ | | 200\_ | | 200\_ | |
| Research Activities | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | S1 | S2 | S1 | S2 | S1 | S2 |
| Application to research committee  Initiation of the research  Students record interview videos  Students self-assess and peer assessment  Assessment of videos by Faculty  Analysis of Data  Completion of Research  Application of the results to the students learning – to review continue usage of peer assessment |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Technology Transfer Activities**  **(if applicable)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| FORM VI | Page 6 of 9 |

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| --- | --- |
| VII. Project Costs | Page 7 of 9 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A. Staff costs (Please include the yearly staff costs of the project. Numbers in parentheses refer to expense codes) | | | | | | | | | | | | | | |
|  | **Staff Category** | | | **Total RM** | | **Year 1** | | | | | | **Year 2** | **Year 3** |  |
|  | Salaried personnel (11000)  Temporary and contract personnel (J 400) | | |  | |  | | | | | |  |  |  |
|  | Sub-total staff costs | | |  | |  | | | | | |  |  |  |
|  |  |  |  | |  | | |  | | |  | | | |
| B. Direct project expenses (Please include the yearly direct expenses of the project. Numbers in parentheses refer to expense codes) | | | | | | | | | | | | | | |
|  | **Expense Category** | | | **Total RM** | | **Year 1**  **200\_** | | | | | | **Year 2**  **200\_** | **Year 3**  **200\_** |  |
|  | Travel and transportation (J 500)  Rentals (J 600)  Research materials and supplies (J 700)  Minor modifications and repairs (J 800)  Special services (J 900)  Special equipment and accessories (J 1000) | | | 500 | |  | | | | | |  |  |  |
|  | Sub-total direct expenses | | |  | |  | | | | | |  |  |  |
|  |  | | |  | | |  | | | | | | | |
| C. Total cost (Please add the sub-totals of A and B) | | | | | | | | | | | | | | |
|  |  | | | **RM 500** | | | | | |  | | | | |
| VIII. Expenses Estimation | | | | | | | | | Page 8 of 9 | | | | | |
| Special Equipment and Accessories (Please describe and provide justification for major purchases)  1. Description:  2. Justification:  3. Estimated Cost: | | | | | | | | | | | | | | |
| Special Equipment and Accessories (Please describe and provide justification for major purchases )  1. Description:  2. Justification:  3. Estimated Cost: | | | | | | | | | | | | | | |
| Special Equipment and Accessories (Please describe and provide justification for major purchases)  1. Description:  2. Justification:  3. Estimated Cost: | | | | | | | | | | | | | | |

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**IX. Biosafety containment level (BSL) and safety measures**

Does this project involve manipulation of an infectious agent(s) (i.e. bacteria, viruses, prions or viroids) or clinical specimens with the potential to contain an infectious agent(s) ?

No

Yes

If you have answered yes to the above, state the risk group of the known microorganism(s) or the potential microorganism(s) that you will be manipulating.

|  |  |
| --- | --- |
| Known Infectious Agent / Potential Infectious Agent | Risk Group (1, 2 or 3) |
|  |  |
|  |  |

**NOTE :** IMU facilities are able to accommodate infectious agents of Risk Groups 1 and 2 only. Please indicate Personal Protective Equipment (PPE) and safety measures that will be utilised for containment.

|  |  |
| --- | --- |
| Personal Protective Equipment (PPE) | Safety Measures |
|  |  |
|  |  |

**X. Biosafety Act 2007 and Biosafety Regulations 2010 Compliance**

1. Does this projectinvolve the contained use or import for contained use of a living modified organism (LMO) other than that exempted in the Biosafety Regulations 2010, First Schedule, Regulation 2 ? (refer L drive, Biosafety)

No

Yes

If you have answered yes to 1, you are required to notify the National Biosafety Board (NBB) of your activities. Please fill in :

**NBB / N / CU / 10 / FORM E** : **NOTIFICATION FOR CONTAINED USE AND IMPORT FOR CONTAINED USE ACTIVITIES INVOLVING A LIVING MODIFIED ORGANISM (LMO) FOR BIOSAFETY LEVELS 1, 2, 3 AND 4** (refer L drive, Biosafety)

2. Does this projectinvolve the export of a living modified organism (LMO) ?

No

Yes

If you have answered yes to 2, you are required to notify the National Biosafety Board (NBB) of your activities. Please fill in :

**NBB / N / Ex / 10 / FORM F** : **NOTIFICATION FOR EXPORT OF LIVING MODIFIED ORGANISM (LMO)** (refer L drive, Biosafety)

3. Does this project involve the release of a living modified organism (LMO) or importation of an LMO that is a higher plant (not for contained use activities) ?

Yes

No

If you have answered yes to 3, you are required to request approval from the National Biosafety Board (NBB) for your activities. Please fill in :

**NBB / A / ER / 10 / FORM A : APPROVAL FOR RELEASE ACTIVITIES OF LIVING MODIFIED ORGANISM (LMO) (RESEARCH AND** **DEVELOPMENT PURPOSES IN ALL FIELD EXPERIMENTS) OR IMPORTATION OF AN LMO THAT IS** **A** **HIGHER PLANT** (refer L drive, Biosafety)

4. Does this project involve the release of a living modified organism (LMO) or importation of an LMO that is other than a higher plant (not for contained use activities) ?

Yes

No

If you have answered yes to 4, you are required to request approval from the National Biosafety Board (NBB) for your activities. Please fill in :

**NBB / A / ER / 10 / FORM B : APPROVAL FOR RELEASE ACTIVITIES OF LIVING MODIIFED ORGANISM (LMO) (RESEARCH AND DEVELOPMENT PURPOSES IN ALL FIELD EXPERIMENTS) OR IMPORTATION OF LMO OTHER THAN HIGHER PLANTS** (refer L drive, Biosafety)

5. Does this project involve the release of a living modified organism (LMO) or importation of an LMO that is a higher plant and product of such an organism ?

Yes

No

If you have answered yes to 5, you are required to request approval from the National Biosafety Board (NBB) for your activities. Please fill in :

**NBB/A/ER/10/FORM C : APPROVAL FOR RELEASE ACTIVITIES (SECOND SCHEDULE 2-6) OR IMPORTATION OF LIVING MODIFIED ORGANISM (LMO) THAT IS A HIGHER PLANT AND PRODUCT OF SUCH ORGANISM** (refer L drive, Biosafety)

6. Does this project involve the release of a living modified organism (LMO) or importation of an LMO that is other than a higher plant and product of such an organism ?

Yes

No

If you have answered yes to 6, you are required to request approval from the National Biosafety Board (NBB) for your activities. Please fill in :

**NBB/A/ER/10/FORM D : APPROVAL FOR RELEASE ACTIVITIES (SECOND SCHEDULE 2-6) OF LIVING MODIFIED ORGANISM (LMO) OTHER THAN A HIGHER PLANT AND PRODUCT OF SUCH ORGANISM** (refer L drive, Biosafety)

**NOTE** that if **NBB/N/CU/10/FORM E, NBB/N/Ex/10/FORM F, NBB/A/ER/10/FORM A, NBB/A/ER/10/ FORM B, NBB/A/ER/10/FORM C** or **NBB/A/ER/10/FORM D** are submitted along with this research proposal application form to the IMU Research & Ethics Committee, these NBB forms will be submitted by the IMU Research & Ethics Committee to the IMU Institutional Biosafety Committee (IBC) for review. If the project is approved by the IMU Research & Ethics Committee and the NBB forms have been completely and correctly filled in, the NBB forms will be submitted by the IMU IBC (on behalf of the applicant) to the NBB for review.

In the case of notification to the NBB for the contained use or import for contained use of a living modified organism (LMO) (other than that exempted in the Biosafety Regulations 2010), or the export of a living modified organism (LMO), upon receipt of the completed NBB forms, the NBB will issue an acknowledgement which will be conveyed to the applicant via the IMU IBC. The applicant may then commence with activities. In parallel, the NBB will refer the application to the Genetic Modification Advisory Committee (GMAC) and other government agencies for assessment. A decision will be made i.e. no order / cessation order / impose terms / rectification order / other orders, within 90 days of notification to the NBB. The decision will be communicated to the applicant via the IMU IBC.

In the case of application to the NBB for release of a living modified organism (LMO) or importation of an LMO that is a higher plant (not for contained use activities), or release of a living modified organism (LMO) or importation of an LMO that is other than a higher plant (not for contained use activities), or release of a living modified organism (LMO) or importation of an LMO that is a higher plant and product of such an organism, or release of a living modified organism (LMO) or importation of an LMO that is other than a higher plant and product of such an organism, upon receipt of the completed NBB forms, the NBB will refer the application to the Genetic Modification Advisory Committee (GMAC), other government agencies and the public for assessment. A decision will be made i.e. approval / impose terms / rectification order / other orders, within 180 days of notification to the NBB. The decision will be communicated to the applicant via the IMU IBC. Activities may commence only upon receiving the Certificate of Approval from the NBB. Note that applications for release activities are subject to fees (Biosafety Regulations 2010 Third Schedule Regulation 4, L drive, Biosafety).

**Guidelines:**

# Type of research

The definitions of the terms Scientific Research, Technology Development and Product/ Process Development are based on those of the OECD Frascati Manual.

1. ***Scientific research (fundamental research)*** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.
2. ***Technology development (applied research)*** is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.
3. ***Product/ process development (experimental development)*** is systematic work drawing on existing knowledge gained from research and practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.
4. Social/ policy research: Original investigation undertaken in order to acquire new knowledge in the area of social sciences and public policy.

# Outputs Expected from the Project

Project outputs reflect the direct benefits of the project. These benefits vary amongst the different types of research.

1. For ***scientific research (fundamental research)*** projects please use the following list of outputs:
   1. Algorithm
   2. Structure
   3. Data
   4. Other (please specify)
2. For t***echnology development (applied research)*** projects please use the following list of outputs:
   1. Method/ technique
   2. Demonstrator/ prototype
   3. Other (please specify)
3. For ***product/ process development (design and engineering)*** projects please use the following list of outputs:
   1. New/ improved product/ device
   2. New/ improved process
   3. New/ improved software
   4. New/ improved material
   5. New/ improved service
   6. Others (please specify)
4. For ***social research***  projects please use the following list of outputs
   1. Measurement
   2. Policy recommendation
   3. Other (please specify)
5. For ***public policy research***  projects use the following list of outputs:
   1. Technical policy advice
   2. Contribution of a code of practice
   3. Tools to help with enforcement
   4. Contribution to standards definition
   5. Other (Please specify

*\*Guidelines for the applications of R&D Funding under IRPA RM7*

**Attachment (A)**

**Project Title:**

**Name of Principal Investigator:**

|  |  |  |
| --- | --- | --- |
|  | | **Cost (RM)** |
|  | **Staff Costs** |  |
| 1. (11000) |  |  |
| 2. (J 400) |  |  |
|  |  |  |
|  | **Travel and Transportation Claim** |  |
| (J 500) |  |  |
| 2. (J 500) |  |  |
|  |  |  |
| **Description of Research Materials** | | |
| 3. (J 700) |  |  |
| 4. (J 700) |  |  |
| 5. (J 700) |  |  |
| 6. (J 700) |  |  |
| 7. (J 700) |  |  |
| 8. (J 700) |  |  |
|  |  |  |
| **Minor Modifications and Repairs** | | |
| 9. (J 800) |  |  |
| 10. (J 800) |  |  |
| **Special Services** | | |
| 11. (J 900) |  |  |
| 12. (J 900) |  |  |
| **Special Equipment and Accessories** | | |
| 13. (J 1000) |  |  |
| 14. (J 1000) |  |  |
| **TOTAL** | |  |

IMU/SOP/PGSR/02 [Appendix 1]

PGSR/Management of Research Projects