

Funding Opportunities 2023



Institute for Research, Development & Innovation

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Deputy Director, IRDI

Research funding – How?

- ✓ **Idea**
 - identify the gaps with thorough literature review
 - Research question(s)
 - Research objectives
- ✓ **Execution – researchers' effort, infrastructure for research**
- ✓ **Internal & external funding sources**



Research Proposal



- ❖ **Shall be ready before the call for proposal**
- ❖ **Identify the prospective grant – opening, specific requirement, budget etc.**
- ❖ **Formulate appropriate research question(s)**
- ❖ **Should be feasible, interesting, novel, ethical and relevant to the funding agencies requirement/focus areas**
- ❖ **Research design & methodology – type of study, sample size, inclusion/exclusion criteria, randomisation, timeline/Gantt chart, measurable outcomes, statistical analysis**
- ❖ **Budget: max quantum, scope of funding e.g., consumables, equipment?, personnel, travel?, publication, professional services?**
- ❖ **Collaboration: inter-departmental, inter-institutional (subject expertise & infrastructure)**
- ❖ **Scientific & ethical approval: Institutional ethical committee (IMU-JC)**

Source of External Funders

- ✓ Ministry of Higher Education
- ✓ Ministry of Science, Technology & Innovation
- ✓ Merck, Sharpe and Dohme (MSD)
- ✓ MAKNA
- ✓ Yayasan Penyelidikan Antartika Sultan Mizan (YPASM)
- ✓ International Centre for Genetic Engineering & Biotechnology (ICGEB)



Funding Schemes

- ❖ Fundamental Research Grant Scheme (FRGS)
- ❖ Exploratory Research Grant Scheme (ERGS)
- ❖ Prototype Development Research Grant Scheme (PRGS)
- ❖ Trans Disciplinary Research Grant Scheme (TRGS)
- ❖ Long Term Research Grant Scheme (LRGS)

- ❖ Mosti Combating Covid-18 Fund (MCCOF) Guideline
- ❖ Applied Innovation Fund (AIF)
- ❖ Technology Development Fund 1 (TED-1)
- ❖ Technology Development Fund 2 (TED-2)
- ❖ Strategic Research Fund (SRF-APP)

- ❖ YPASM Research Grant
- ❖ YPASM Fellowship Scheme
- ❖ Berth Support to Antarctica

Ministry of Higher Education (MOHE)

FRGS

- RM 250k
- Fundamental research to generate theory, concept, new idea, model, new process
- 2-3 years
- Open: Closed
- Deadline: 15 April 2023
- ≥1 PhD or 2 MSc (3 yrs)
- ≥1 MSc (2 yrs)
- ≥2 publications

PRGS

- RM 500k
- Development of research prototypes
- < 2 years
- Open: 15/3/2023
- Deadline: 14/5/2023
- ≥1 prototype
- ≥1 IP
- Submit to JC: 30/4/2023

TRGS

- RM 1.5 million
- Fundamental & exploratory research
- < 3 years
- Open: TBD
- Deadline: ?
- ≥ 4 PhD or 8 MSc
- ≥ 8 indexed publications
- ≥2 publications in Tier 1
- ≥ 1 IP

LRGS

- RM 15 million
- Generate theories in niche areas
- 3-5 years
- Open: TBD
- Deadline: ?
- ≥10 PhD
- ≥50 indexed publications
- ≥10 publications in Tier 1
- ≥ 3 IP

Guidelines

1. FRGS

<https://mygrants.gov.my/csp/sys/bi/work/mygrant/manual/GARIS%20PANDUAN%20FRGS%20%28PINDAAN%20TAHUN%202022%29.pdf>

2. PRGS

<https://mygrants.gov.my/csp/sys/bi/work/mygrant/manual/GARIS%20PANDUAN%20PRGS%20%28PINDAAN%20TAHUN%202022%29.pdf>

3. TRGS

<https://mygrants.gov.my/csp/sys/bi/work/mygrant/manual/GARIS%20PANDUAN%20TRGS%20%282022%29.pdf>

4. LRGS

<https://mygrants.gov.my/csp/sys/bi/work/mygrant/manual/GARIS%20PANDUAN%20LRGS%20%28TAHUN%202020%29.pdf>

Fundamental Research Grant Scheme

- Eligibility
 - Academic staff of **Public & Private Institution**
 - **Malaysian citizen**. For **non-Malaysian citizen**, must have a Malaysian citizen & permanent staff as co-researcher (Next Appointed Leader)
 - Must have **at least 2 researchers** from host institution (1 PI & 1 as Next Appointed Leader)
 - Grant must be **used within Malaysia** only
 - An applicant is allowed to be the PI for **One project only**
 - If a PI of previous cycles wishes to apply for the new cycle, must complete **75%** of the previous project
 - Max no of researchers per project (excl PI): **4**

Fundamental Research Grant Scheme

- Eligibility
 - Encourage to collaborate with industry (to include **letter of intent**)
 - Perform **patent search**
 - Provide **risk assessment**
 - PI must have at least **ONE year contract** with the institute from due date of application
 - Need to append **Ethics Approval** involving **human or animal research**

Fundamental Research Grant Scheme

- **Research Domain**

- **Sains Tulen dan Gunaan (Pure and Applied Sciences)**
- **Teknologi dan Kejuruteraan (Technology and Engineering)**
- **Sains Kesihatan dan Klinikal (Clinical and Health Sciences)**
- **Sains Sosial (Social Sciences)**
- **Sastera dan Sastera Ikhtisas (Arts and Applied Arts)**
- **Warisan Alam dan Budaya (Natural and Cultural Heritage)**
- **Teknologi Maklumat dan Komunikasi (Information and Communication Technology)**

Fundamental Research Grant Scheme

- **Research Cluster**
 - **Sekuriti dan Keselamatan Makanan (Food Safety and Security)**
 - **Infrastruktur Asas (Basic Infrastructure)**
 - **Perubahan Iklim dan Alam Sekitar (Climate Change and Environment)**
 - **Kesihatan (Health)**
 - **Pendidikan dan Masyarakat Madani Celik Ilmu (Education and Knowledgeable Civil Society)**
 - **Keselamatan Negara (National Security)**
 - **Kesejahteraan Sosial dan Ekonomi (Social and Economic Wellbeing)**
 - **Teknologi Terkehadapan dan Pembuatan Termaju (Frontier Technologies and Advanced Manufacturing)**

Fundamental Research Grant Scheme

- **MySTIE - Malaysian Science, Technology, Innovation and Economy – Socio-economic Driver**
 - Tenaga (Energy)
 - Perkhidmatan Perniagaan dan Kewangan (Business and Financial Services)
 - Kebudayaan, Kesenian dan Pelancongan (Culture, Arts and Tourism)
 - Perubatan dan Penjagaan Kesihatan (Medical and Healthcare)
 - Teknologi dan Sistem Pintar (Kejuruteraan dan Pembuatan Generasi Baharu) (Smart Technology and Systems (Next Generation Engineering and Manufacturing))
 - Bandar Pintar dan Pengangkutan (Smart Cities and Transportation)
 - Air dan Makanan (Water and Food)
 - Pertanian dan Perhutanan (Agriculture and Forestry)
 - Pendidikan (Education)
 - Alam Sekitar dan Biodiversiti (Environment and Biodiversity)

Ministry of Higher Education (MOHE)

- Tips - FRGS
- <https://www.youtube.com/watch?v=W-2olef6K8I>
- https://drive.google.com/file/d/1g3GRDbBB_yrsmeNeflhmq0M0kSvAaLNR/view

Ministry of Science, Technology & Innovation (MOSTI)



KEMENTERIAN SAINS,
TEKNOLOGI DAN INOVASI

SISTEM DANA BERSEPADU (SDB)

Kementerian Sains, Teknologi dan
Inovasi (MOSTI)

DAFTAR

LOG MASUK

PENGUMUMAN PENTING

eDANA → **SDB**

Bagi pengguna yang telah berdaftar di dalam sistem eDana, anda perlu **set semula kata laluan baharu** dan melakukan pengemaskinian maklumat profil atau permohonan.

Sebarang pertanyaan dan maklumbalas boleh disalurkan kepada meja bantuan Dana

TED 1	03-8885 8316 / 8703 / 8318 / 8186 / 8324	urusetia.ted1@mosti.gov.my
AIF/MCCOF	03-8885 8309 / 8367 / 8077 / 8552	urusetia.aif@mosti.gov.my
BGF/TED 2	03-8885 8315 / 8320 / 8322 / 8556	urusetia.bgf@mosti.gov.my urusetia.ted2@mosti.gov.my
SRF	03-8885 8544 / 8704 / 8258 / 8327	urusetia.srf@mosti.gov.my
SISTEM TEKNIKAL	03-8885 8160 / 8628	helpdesk-sdb@mosti.gov.my

<https://sdb.mosti.gov.my/sdbcms/ms/>

EVOLUTION OF R&D FUNDING RMKE-7 TO RMKE-12

R&D Funding has evolved from fundamental (IRPA/ ScienceFund) to pre-commercialisation stage (AIF/TeD1/TeD2/BGF/SRF)

**RMKe
7 & 8**

IRPA

- Enhance socio economic development
- Strengthen capacity & capability building
- Accelerate commercialisation

**RMKe
9**

**ScienceFund/
TechnoFund/
InnoFund**

- Reprioritise of research to focus on agriculture, biotech, ICT, advance material and industry
- Strengthening industrial commitment
- Accelerate commercialisation
- Competitive bidding for prioritised project

**RMKe
10**

**ScienceFund/
TechnoFund/
InnoFund**

- Knowledge Generation, Wealth Generation & Societal Well-being
- Extension of focus area nanotech, biotech, ICT, Sea to Space, S&T core and industry
- To fund more on projects at applied research (Science Fund) and pre-com (Techno fund / Inno fund) stages.

**RMKe
11**

**InnoFund/ ICF/
SMARTFund/
MOSTI R&D Fund**

- Economic Growth & Societal Well-being
- Reprioritise focus area of pre-com into (i) Medical & Healthcare, (ii) Green Growth for Sustainable Development, (iii) Water, Food & Energy Nexus
- Expand to international R&D
- Improved access to Pre-com funding for Universities / Research Institution

**RMKe
12**

**AIF/ TeD1/ TeD2/
BGF/ SRF**

- Focus on Experimental Development
- Focus area according to 10-10 MySTIE framework
- Grand Challenges
- Improved access to Startup, MNC
- Fast track:
 - i. TeD1 → TeD2
 - ii. TeD2 → BGF
- Streamlining process between funding agencies under MOSTI



SISTEM DANA BERSEPADU (SDB)

Kementerian Sains, Teknologi dan
Inovasi (MOSTI)

Ministry of Science & Technology

<https://sdb.mosti.gov.my/sdbcms/ms/>

1. Mosti Combating Covid-18 Fund (MCCOF) Guideline

<https://sdb.mosti.gov.my/sdbcms/wp-content/uploads/2022/03/mccof112020.pdf>

2. Applied Innovation Fund (AIF)

<https://sdb.mosti.gov.my/sdbcms/wp-content/uploads/2022/06/GARIS-PANDUAN-AIF-PLUS-220622.pdf>

3. Technology Development Fund 1 (TED-1)

https://sdb.mosti.gov.my/sdbcms/wp-content/uploads/2022/08/2.-GARIS-PANDUAN-TED1_01.06.2021_pindaan-19082022.pdf

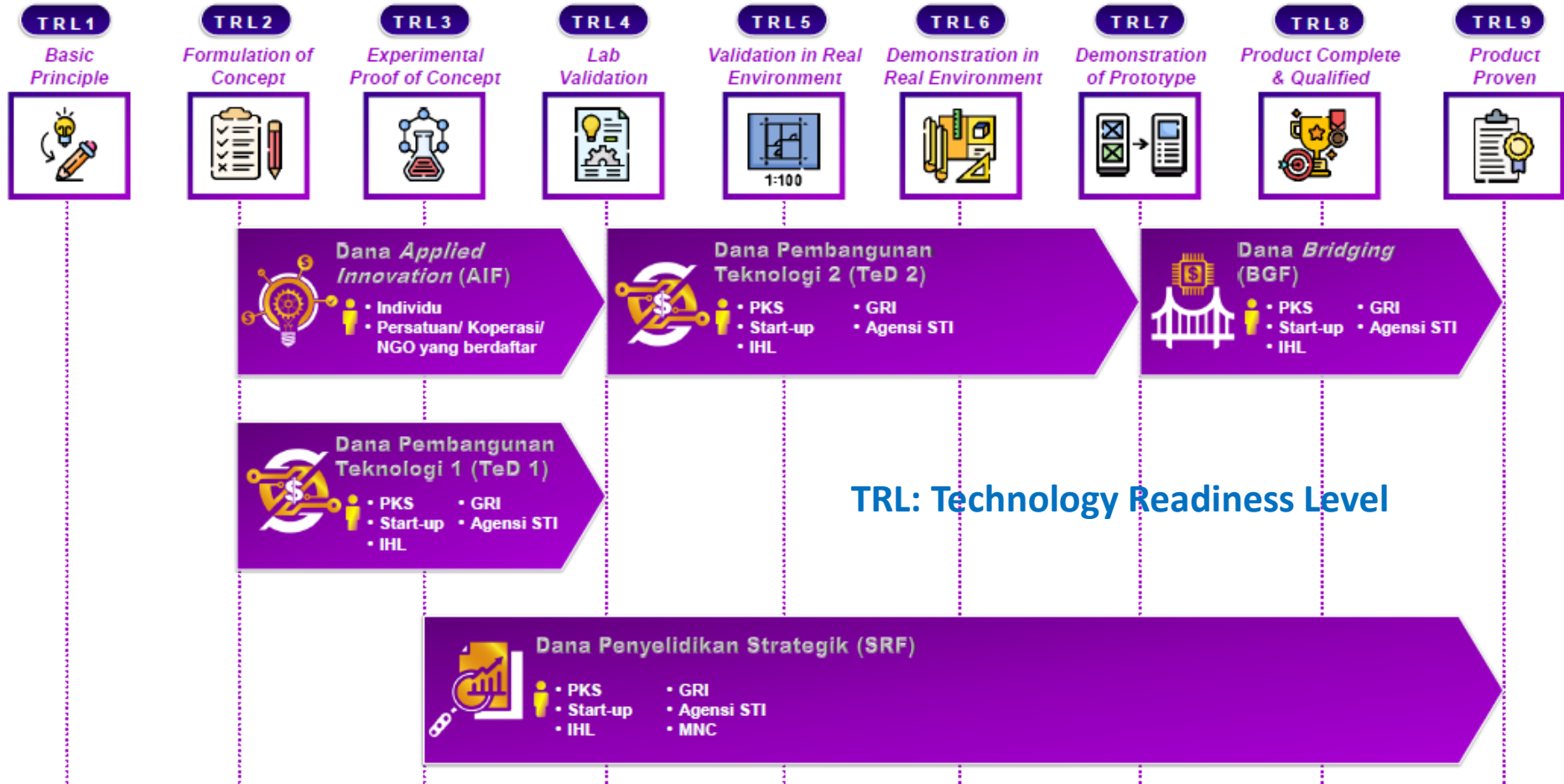
4. Technology Development Fund 2 (TED-2)

https://sdb.mosti.gov.my/sdbcms/wp-content/uploads/2022/07/GARIS-PANDUAN-TED2_01.06.2021_pindaan-19072022.pdf

5. Strategic Research Fund (SRF-APP)

<https://sdb.mosti.gov.my/sdbcms/wp-content/uploads/2022/07/GARIS-PANDUAN-SRFAPP-PINDAAN-19072022.pdf>

MOSTI R&D&C&I STAGES AND FUNDING FACILITIES FRAMEWORK



TRL: Technology Readiness Level



Individu/
Persatuan/
Koperasi/ NGO
yang berdaftar



RM500,000.00



12 - 18
bulan

Start-up/ PKS/
IHL/ GRI/
Agensi STI

RM1,000,000.00

24 bulan

Start-up/ PKS/ IHL/
GRI/ Agensi STI
(Termasuk Bukan
Warganegara)

RM3,000,000.00

36 bulan

Start-up/ PKS/
IHL/ GRI/
Agensi STI

RM4,000,000.00

36 bulan



Start-up/ PKS/ MNC/ IHL/ GRI/ Agensi STI
(Termasuk Bukan Warganegara)



RM15,000,000.00



36 bulan

<https://edana.mosti.gov.my/edana/>

Ministry of Science, Technology & Innovation (MOSTI)

AIF/AIF plus

- RM 500k
- Increase innovation for wealth creation, social well-being, Government needs to encourage innovative ideas in creating scientific and innovative society
- 12-18 months
- ≥ 1 IP registration
- New product, process of IP right

TED1

- RM 1.0 million
- Experimental development that can be commercialised
- 2 years
- Tangible & measurable results, products, technology, process
- ≥ 1 IP
- ≥ 1 publication (Q1/Q2 ISI /WoS)
- ≥ 1 GRA
- Infographic/video (EOPR)

TED2

- RM 3.0 million
- Produce new commercialised process / product / technology in solving problems & reducing valley of death in sustainable & holistic manner
- 3 years
- Tangible & measurable results, products, technology, process
- ≥ 1 viable product / prototype / IP
- ≥ 1 publication (Q1/Q2 ISI /WoS)
- ≥ 2 GRA
- Infographic/video (EOPR)

SRF

- RM 15 million
- Implement high impact programmes / strategies in producing solutions to Malaysian Grand Challenges (MGC)
- 3 years
- Tangible & measurable results, products, technology, process
- ≥ 1 viable product / prototype / IP
- ≥ 1 publication (Q1/Q2 ISI /WoS)
- ≥ 2 GRA
- Infographic/video (EOPR)

10-10 Science Framework of the Malaysian Academy of Sciences (ASM) Technology, Innovation & Economy (MySTIE)

- 1. Energy**
- 2. Education**
- 3. Water and Food**
- 4. Agriculture and Forestry**
- 5. Environment and Biodiversity**
- 6. Smart Cities and Transportation**
- 7. Medicine and Health Care**
- 8. Culture, Arts and Tourism**
- 9. Business and financial services**
- 10. Intelligent Technology and Systems (Engineering and New Product Manufacturing)**

Scopes of Funding

G01: Pilot plant / prototype: Equipment and infrastructure support that are directly related with the development of a pilot plant or up-scaling of prototype, Engineering activities and design (man-hour) excluding employee wages under the supervision of the applicant, Rental /Minor repairs of the equipment (up to maximum of 40% of total funding)

G02: Preclinical testing/ Clinical testing / non-clinical testing / field test / pressure test / user test acceptance: Preliminary test, Sample test, Payment for volunteer / subject, Data analysis (manhour - maximum 20% of total funding)

G03: IP: For registration at Malaysia only, including service drafting, Generated IP from the project such as Patent, Design, Industry, incentives

G04: Market survey & assessment: Sample/product market development cost, Data analysis (manhour), Market validation worth up to RM15,000, Payment for enumerator (charge /sample) (maximum 10% of total funding)

G05: Compliance to rules & standards: Certification registration, Standard compliance (local /international), Product testing for Certification, GMP, HALAL and HACCP

Scopes of Funding

G06: Special services: Consultation (agreement / letter of intent must be submitted together with suggestions for the project, details the specified consultancy), Consultant for testing and market valuation, publication fee (maximum 20% of total funding)

G07: Raw material / consumables that are related directly with the project: raw materials, consumables (up to maximum of 20% of total funding)

G08: Administration: Appointment of Research Officer (RO)/GRA who is involved directly in the project, RO/GRA allowance rate is according to academic qualifications as follows: a) Master: RM 3,000 b) Doctorate: RM 3,200 (include PERKESO / KWSP), Travel expenses & transportation for at domestic level to attend meetings or visiting sessions that directed by MOSTI, Limited to economy class travel at the shortest direct route provided by the flight service provider except during urgent situation. The entity shall apply for approval MOSTI if claiming any other travel and transportation stated above. (maximum 10% of total funding)

G09: Technology Acquisition / IP: Inside and outside of the country, Potential for upgrade, Need to prepare procurement agreement / technology details & Obtained IP, Relevant training for technology transfer made in the country (maximum 50% of total funding)

Applied Innovation Fund (AIF)



MALAYSIA
GRAND CHALLENGE

AIF Dana *Applied Innovation*

Meningkatkan penyertaan inovator dalam aktiviti inovasi

PEMOHON
Individu (termasuk belia, ibu tunggal dan OKU) | Syarikat Pemula (start-up) | Syarikat Perusahaan Kecil dan Sederhana (PKS) | Persatuan | Koperasi | Badan Bukan Kerajaan (NGO) yang berdaftar

KUANTUM
Pembiayaan sehingga RM500,000.00
(Tertakluk kepada syarat permohonan yang ditetapkan dalam Garis Panduan Skim Pembiayaan AIF)

TEMPOH PROJEK
12 - 18 Bulan

TAHAP KESEDIAAN TEKNOLOGI
(TRL) 2 - 9

urusetia.aif@mosti.gov.my
03 8885 8309 | 8367 | 8077 | 8552

<https://sdb.mosti.gov.my/>

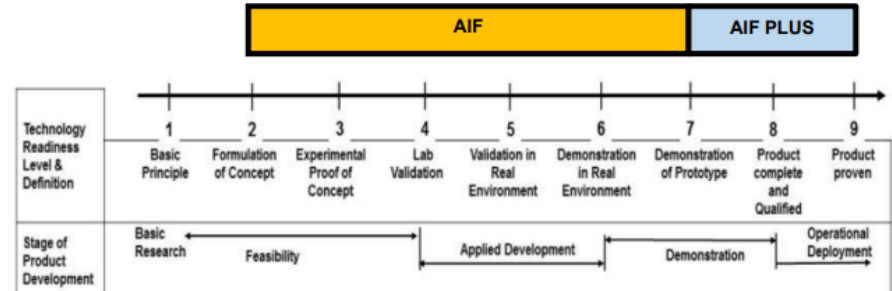


Applied Innovation Fund (AIF)

- **Objective:** Increase **innovation** which drives technological innovation of **new products, processes, systems or services** with **commercial potential**

- **Eligibility**

- **Individual** (\leq RM 50K)
- **Start up, SME or NGO** (\leq RM 500K)
- **Technology Readiness Level (TLR) 2-9**
- **SME – matching fund of \geq 30% of total project cost**



- **2 Stages:**

1. **AIF: TLR 2 (concept formulation) - TLR 6 (innovative prototype development)** (encourage collaborative work with IPT, IPS, S&T Research Institutes/ Agency (to include letter of acceptance, LOA)
2. **AIF Plus: TLR 7 (innovative product with proven workability) - TLR 9 (innovative product that is ready to be developed for commercial use)** (must collaborate with the above)

Applied Innovation Fund (AIF)

- Eligibility
 - **All applicants** must register in Malaysia
 - **Not eligible:** Applicants from Research Institute (RI), Institute of Higher (IPT), Public and Private and Science, Technology and Innovation Organizations (STIs) but can act as a collaborator in AIF PLUS
 - **Malaysian citizen.** For **non-Malaysian citizen**, can participate as co-researcher
 - PI is only allowed to lead **ONE project** at any one time
 - **Project team:** consist of qualified and competent members (each member needs to provide **resume/CV** with research field, experience and achievement)
 - Appointment of Research Officer (RO) is allowed for Sole Proprietorship/Partnership/Limited Liability Partnership and the applicant must collaborate with IPT
 - Project-related transportation expenses are allowed but not exceed 10% of the total funds approved by MOSTI

Strategic Research Fund (SRF-APP)



SRF Dana Penyelidikan Strategik *Strategic Research Fund*

Selain permohonan melalui Agensi Pelaksana & Pemantau (APP), Skim Pembiayaan SRF kini boleh **dimohon secara terus kepada Bahagian Dana MOSTI.**

 urusetia.srf@mosti.gov.my
 03 8885 8704 | 8258 | 8327 | 8544 | 8319

Pertanyaan Lanjut Sila Hubungi:



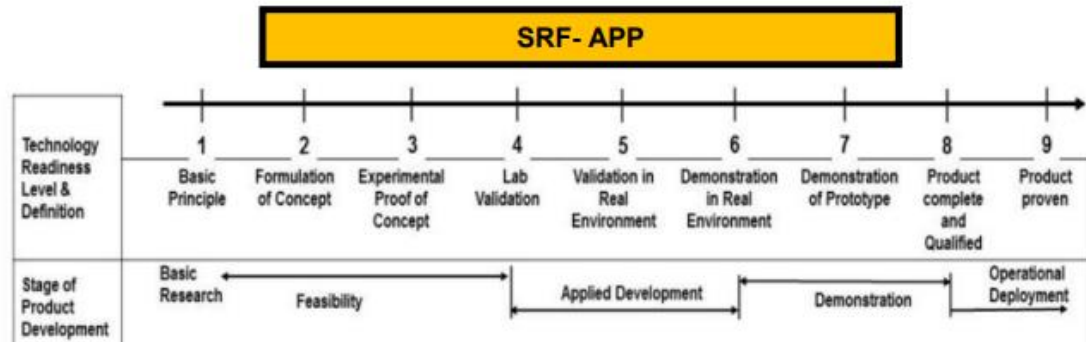
Strategic Research Fund (SRF-APP)

Objectives:

1. To support the **development of Science, Technology, Innovation and Economy (STIE)** including research, new technologies, processes, innovative products or value added to existing technologies / products that have a high impact for society, economy and national concerns as outlined in the **National Science, Technology and Innovation Policy (DSTIN)**
2. To implement high impact programmes which aim at producing solutions to current challenges as stated in the **Malaysian Grand Challenges (MGC)** and the country's current strategic issues

• Eligibility

- Science, Technology and Innovation Agencies
 - Private and Public Higher Education Institution (IPTS, IPTA)
 - Government Research Institute
 - SME
 - Start up
 - Multinational companies
 - Large companies
-
- Technology Readiness Level (TLR) 3-9



Strategic Research Fund (SRF-APP)

- Eligibility

- **PI: Malaysian citizen** while **non-Malaysian citizen**, can participate as co-researcher
- If **PI is non-Malaysian**, the work permit must be valid throughout the duration of project and co-researchers must consist of Malaysian citizens who have the same field of expertise at the same institution
- PI can lead **ONE project** only at any one time
- Applicant is allowed to submit **several applications** for different projects provided the applicant has strong human and financial resources
- For application under priority areas, proposed projects need to be at the **pre-commercialisation stage** with at least **proof of concept or working prototype**
- Project team: consist of qualified and competent members (each member needs to provide resume/CV with research field, experience and achievement)
- Appointment of Research Officer (RO) is allowed for Sole Proprietorship/Partnership/Limited Liability Partnership and the applicant must collaborate with IPT
- Project-related transportation expenses are allowed but not exceed 10% of the total funds approved by MOSTI

SRF - Evaluation Criteria

<p><u>Teknikal</u></p> <ul style="list-style-type: none"> i. Pembuktian konsep / Prototaip berfungsi ii. Keunikan / Inovasi / daya cipta teknologi iii. Kebolehpercayaan objektif & Kesesuaian metodologi iv. Potensi berskala/ Kemampuan Pembuatan v. Pematuhan Standard dan pengawalseliaan 		<p><u>Impak Ekonomi</u></p> <ul style="list-style-type: none"> i. Pengurangan kos ii. Penggunaan sumber yang optimum iii. Potensi eksport iv. Meningkatkan produktiviti dan kualiti produk / perkhidmatan 		
<p><u>Komersial</u></p> <ul style="list-style-type: none"> i. Kelebihan persaingan ii. Potensi dan permintaan pasaran iii. Kesesuaian masa untuk dipasarkan iv. Kelestarian v. Penyebaran vi. Keberkesanan kos vii. Strategi pasaran / Model Perniagaan viii. Sijil dan Standard (jika berkenaan) 	<p><u>Impak Sosial</u></p> <ul style="list-style-type: none"> i. Kemampuan ii. Penciptaan Pekerjaan mahir dan pekerja perpengetahuan iii. Penyelesaian masalah iv. Peningkatan keselamatan v. Persekitaran tempat tinggal dan kerja yang kondusif 	<p><u>Impak Alam Sekitar</u></p> <ul style="list-style-type: none"> i. Kesan Ekologi/ Karbon ii. Ekonomi Sekular iii. Pematuhan terhadap akta kualiti alam sekitar iv. Penggunaan sumber yang optimum 	<p><u>Kewangan</u></p> <ul style="list-style-type: none"> i. Berpotensi menjana pulangan pelaburan ii. Nilai terhadap wang iii. Kelestarian Kewangan 	<p><u>Pengurusan</u></p> <ul style="list-style-type: none"> i. Kelayakan profesional / Pengalaman ketua projek & Ahli Pasukan ii. Kesesuaian <i>milestone</i> iii. Pengurusan risiko

Technology Development Fund 1 (TED-1)



 **MALAYSIA**
GRAND CHALLENGE

TeD1 Dana Technology Development Fund 1

Membangunkan konsep yang berkaitan dengan reka bentuk teknologi, proses atau produk yang berpotensi untuk dikomersialkan

PEMOHON
Syarikat Pemula (Start-up) | Syarikat Perusahaan Kecil dan Sederhana (PKS) | Institusi Pengajian Tinggi (IPT) Awam dan Swasta | Institut Penyelidikan Kerajaan (GRI) *(termasuk bukan Warganegara)*

KUANTUM & TEMPOH PROJEK
RM1,000,000.00 | 24 Bulan

TAHAP KESEDIAAN TEKNOLOGI
(TRL) 2 - 4

urusetia.ted1@mosti.gov.my
03 8885 8316 | 8703 | 8318 | 8186 | 8324

<https://sdb.mosti.gov.my/>

Technology Development Fund 1 (TED-1)

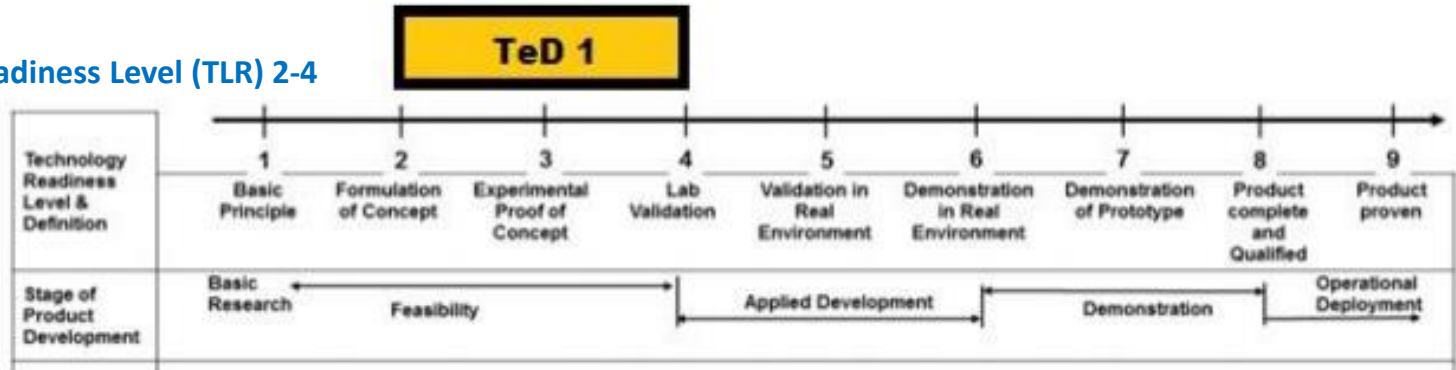
Objectives:

1. To develop **existing concepts** related to **design technologies, processes or products** with **commercial potential**
2. To stimulate the **growth of research and technology development** among Government Research Institutes, STI Agencies, Institutions Higher Education, and industry

• Eligibility

- Private and Public Higher Education Institution (IPTS, IPTA)
- Government Research Institute
- Science, Technology and Innovation Agencies
- Start up
- SME

- Technology Readiness Level (TLR) 2-4



Technology Development Fund 1 (TED-1)

- Eligibility
 - **PI: Malaysian citizen** while **non-Malaysian citizen**, can participate as co-researcher
 - If **PI is non-Malaysian**, the work permit must be valid throughout the duration of project and co-researchers must consist of Malaysian citizens who have the same field of expertise at the same institution
 - PI can **lead ONE project** only at any one time
 - Applicant is allowed to submit **several applications** for different projects provided the applicant has strong human and financial resources
 - Project must be conduct in Malaysia
 - Project team: consist of qualified and competent members (each member needs to provide resume/CV with research field, experience and achievement)

TED1 - Evaluation Criteria

Skim Dana	Kriteria Permarkahan			
	Teknikal	Komersial	Impak (Sosial/ Ekonomi/ Alam Sekitar)	Kewangan dan Pengurusan
<p>TeD 1 (TRL 2 - 4)</p>	<ol style="list-style-type: none"> 1. Formulasi konsep 2. Keunikan/ Inovasi/ Daya Cipta Teknologi / <i>Disruptive / Game Changer</i> 3. Kebolehlaksanaan Objektif 4. Kesesuaian metodologi 5. Disokong melalui kajian asal/data saintifik 6. Pematuhan standard dan pengawalseliaan 7. Kesesuaian perancangan (milestone) (aktiviti, kos dan masa) 	<ol style="list-style-type: none"> 1. Kelebihan persaingan 2. Permintaan dan potensi pasaran (keperluan, saiz, pertumbuhan, sasaran, nic, penetration) 3. Kelestarian 4. Strategi Pasaran/ Model Perniagaan (Rangkaian dan Perancangan) 5. <i>Diffusion</i> (teknologi yang dicadangkan bersesuaian dengan situasi semasa) 6. Keberkesanan Kos 	<p>Impak Sosial</p> <ol style="list-style-type: none"> 1. Kemampuan 2. Mewujudkan pekerja mahir dan berpengetahuan 3. Penyelesaian kepada permasalahan (keperluan kepada pengguna, industri dan negara) seperti keselamatan, kesihatan dan polisi) 4. Peningkatan taraf hidup <p>Impak Ekonomi</p> <ol style="list-style-type: none"> 1. Sedia untuk dipasarkan 2. Pengurangan kos 3. Berpotensi untuk dieksport 4. Meningkatkan produktiviti dan kualiti produk/ perkhidmatan <p>Impak Alam Sekitar</p> <ol style="list-style-type: none"> 1. Kesan terhadap alam sekitar 2. Penggunaan sumber yang optimum 	<p>Kewangan</p> <ol style="list-style-type: none"> 1. Berpotensi menjana pulangan pelaburan (ROI) 2. Kelestarian kewangan <p>Pengurusan Projek</p> <ol style="list-style-type: none"> 1. Kelayakan profesional/ pengalaman ketua projek dan ahli pasukan projek 2. Pengurusan risiko

Technology Development Fund 2 (TED-2)

 **MALAYSIA**
GRAND CHALLENGE

TeD2 Dana Technology Development Fund 2

Meneruskan pembangunan konsep yang berkaitan dengan reka bentuk teknologi, proses atau produk ke arah pengkomersialan bagi mengurangkan jurang kegagalan (valley of death)

PEMOHON
Syarikat Pemula (Start-up) | Syarikat Perusahaan Kecil dan Sederhana (PKS) | Institusi Pengajian Tinggi (IPT) Awam dan Swasta | Institut Penyelidikan Kerajaan (GRI) *(termasuk bukan Warganegara)*

KUANTUM & TEMPOH PROJEK
RM3,000,000.00 (PKS - Secara Padanan) | 36 Bulan

TAHAP KESEDIAAN TEKNOLOGI
(TRL) 4 - 7

<https://sdb.mosti.gov.my/>  urusetia.ted2@mosti.gov.my
 03 8885 8315 | 8320 | 8322 | 8556

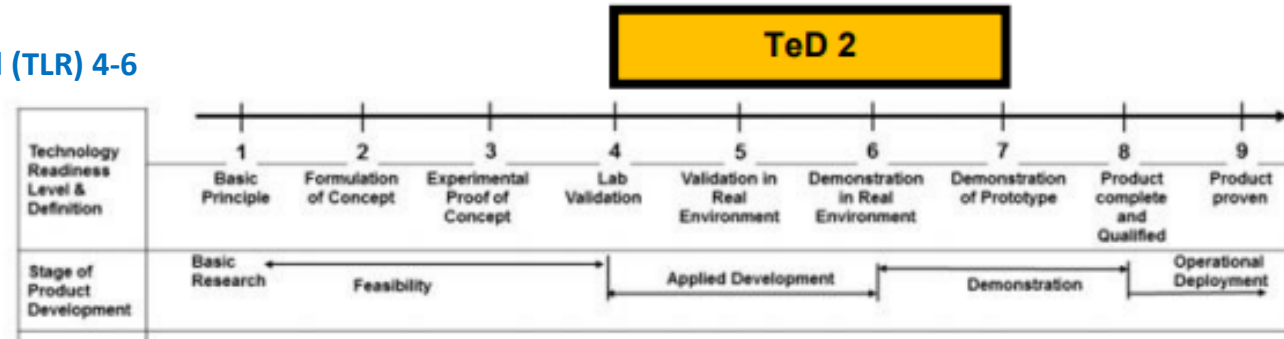
Technology Development Fund 2 (TED-2)

Objectives:

1. To develop/improve **existing concepts** in term of **technology, process or product** towards **commercialisation** in reducing the valley of death
2. To stimulate the **growth of research and technological development** through a network of collaborations between Government Research Institutes, Government STI Agency, Institute of Higher Education, and industry

• Eligibility

- Start up
 - SME
 - Private and Public Higher Education Institution (IPTS, IPTA)
 - Government Research Institute
 - Science, Technology and Innovation Agencies
-
- Technology Readiness Level (TLR) 4-6



Technology Development Fund 2 (TED-2)

- Eligibility

- **PI: Malaysian citizen** while **non-Malaysian citizen**, can participate as co-researcher
- If **PI is non-Malaysian**, the work permit must be valid throughout the duration of project and co-researchers must consist of Malaysian citizens who have the same field of expertise at the same institution
- PI can **lead ONE project** only at any one time
- Applicant is allowed to submit **several applications** for different projects provided the applicant has strong human and financial resources
- Project must be conduct in Malaysia
- Project must involve **experimental development** which leads to **commercialisation**
- Have **proof of concept (POC) or working prototype** with good design, proven in practice scientifically and competitively with today's technology and research
- Funding for **innovative technologies, processes, and products** at the pre-commercialisation stage is expected to be translated into outputs that can be marketed in driving the economy and providing benefits to society
- Project team: consist of qualified and competent members (each member needs to provide resume/CV with research field, experience and achievement)

TED2 - Evaluation Criteria

Skim Dana	Kriteria Permarkahan			
	Teknikal	Komersial	Impak (Sosial/ Ekonomi/ Alam Sekitar)	Kewangan dan Pengurusan
TeD 2 (TRL 4 - 7)	<ol style="list-style-type: none"> Pembuktian konsep/ prototaip yang berfungsi/ prototaip sedia untuk dikomersialkan Keunikan/ Inovasi/ Daya Cipta Teknologi/ <i>Disruptive/Game Changer</i> Jangkaan hasil: <ul style="list-style-type: none"> Kebolehlaksanaan mengikut objektif projek Kesesuaian metodologi Berskala mengikut potensi/ kemampuan pembuatan (tenaga kerja, bahan, kaedah, peralatan) Pematuhan standard dan pengawalseliaan 	<ol style="list-style-type: none"> Kelebihan persaingan Permintaan dan potensi pasaran (keperluan, saiz, pertumbuhan, sasaran, nic, <i>penetration</i>) Kesesuaian masa untuk dipasarkan Kelestarian <i>Diffusion</i> (teknologi yang dicadangkan bersesuaian dengan situasi semasa) Kos efektif Strategi pasaran/ model Perniagaan (Rangkaian dan Perancangan) Pematuhan standard dan pensijilan (jika berkaitan) 	<p>Impak Sosial</p> <ol style="list-style-type: none"> Kemampuan Mewujudkan pekerja mahir dan berpengetahuan Penyelesaian kepada permasalahan (keperluan kepada pengguna, industri dan negara) seperti keselamatan, kesihatan dan polisi) Peningkatan taraf hidup <p>Impak Ekonomi</p> <ol style="list-style-type: none"> Sedia untuk dipasarkan Pengurangan kos Berpotensi untuk dieksport Meningkatkan produktiviti dan kualiti produk/ perkhidmatan <p>Impak Alam Sekitar</p> <ol style="list-style-type: none"> Kesan terhadap alam sekitar Penggunaan sumber yang optimun 	<p>Kewangan</p> <ol style="list-style-type: none"> Berpotensi menjana pulangan pelaburan (ROI) Kelestarian kewangan <p>Pengurusan Projek</p> <ol style="list-style-type: none"> Kelayakan profesional/ pengalaman ketua projek dan ahli pasukan projek Pengurusan risiko

Business Growth Fund (BGF)

MALAYSIA
GRAND CHALLENGE

BGF Dana Bridging

Meningkatkan tahap kesediaan (*readiness*) produk-produk hasil R&D supaya dapat menembusi pasaran

PEMOHON
Syarikat Pemula (Start-up) | Syarikat Perusahaan Kecil dan Sederhana (PKS) | Institusi Pengajian Tinggi (IPT) Awam dan Swasta | Institut Penyelidikan Kerajaan (GRI) *(termasuk bukan Warganegara)*

KUANTUM & TEMPOH PROJEK
RM4,000,000.00 (PKS - Secara Padanan) | 36 Bulan

TAHAP KESEDIAAN TEKNOLOGI
(TRL) 7 - 9

PEMAKLUMAN:
SKIM PEMBIAYAAN DANA BRIDGING (BGF) KINI DIBUKA UNTUK PERMOHONAN

<https://sdb.mosti.gov.my/>
urusetia.bgf@mosti.gov.my
03 8885 8315 | 8320 | 8322 | 8556

Business Growth Fund (BGF)

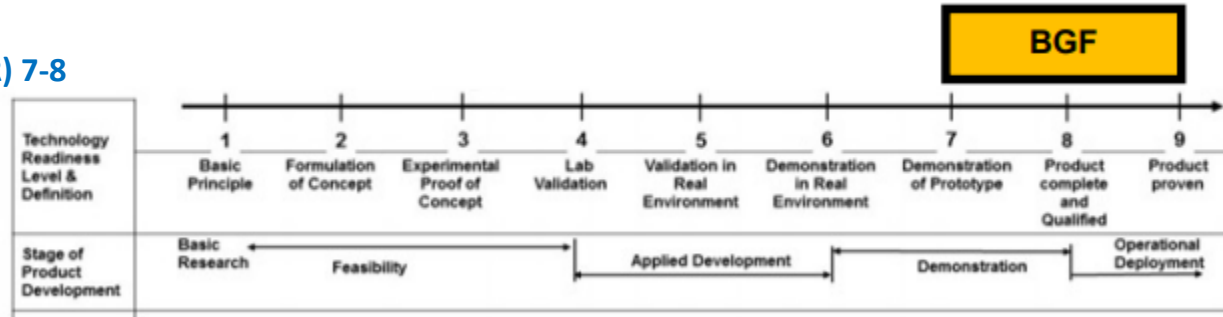
Objectives:

1. To bridge the **financing gap** between the **early stage of commercialisation** and **venture capital financing** for high tech products with an initial allocation of 150 million ringgit
2. To support these companies until they can generate sufficient commercial value to attract venture capital financing and other forms of financing
3. To **reduce the valley of death** between **pre-commercialisation to commercialization** phase
4. To **increase the level of readiness** of R&D products for the **market penetration**

• Eligibility

- Private and Public Higher Education Institution (IPTS, IPTA)
- Government Research Institute
- Science, Technology and Innovation Agencies
- Start up
- SME

- Technology Readiness Level (TLR) 7-8



BGF - Evaluation Criteria

<p><u>Komersial</u></p> <ul style="list-style-type: none"> i. Kelebihan Persaingan ii. Permintaan dan Potensi Pasaran iii. Kesesuaian masa untuk dipasarkan iv. Kelestarian v. Penyebaran vi. Keberkesanan kos vii. Strategi pasaran/ model perniagaan viii. Sijil dan Standard (sekiranya berkaitan) 		<p><u>Teknikal</u></p> <ul style="list-style-type: none"> i. Pembuktian konsep/ Prototaip Berfungsi ii. Keunikan/ Inovasi/ daya cipta teknologi iii. Kebolehjayaan objektif dan kesesuaian metodologi iv. Potensi berskala/ Kemampuan Pembuatan v. Pematuhan standard dan pengawalseliaan 		
<p><u>Impak Sosial</u></p> <ul style="list-style-type: none"> i. Kemampuan ii. Penciptaan pekerjaan mahir dan pekerja berpengetahuan iii. Menyelesaikan masalah iv. Peningkatan keselamatan v. Persekitaran tempat tinggal dan kerja yang kondusif 	<p><u>Impak Ekonomi</u></p> <ul style="list-style-type: none"> i. Pengurangan kos ii. Penggunaan sumber yang optimum iii. Potensi eksport iv. Meningkatkan produktiviti dan kualiti produk/ perkhidmatan 	<p><u>Impak Alam Sekitar</u></p> <ul style="list-style-type: none"> i. Kesan ekologi/ karbon ii. Ekonomi secular iii. Kepatuhan dengan akta kualiti alam sekitar iv. Penggunaan sumber yang optimum 	<p><u>Kewangan</u></p> <ul style="list-style-type: none"> i. Potensi membina return on investment ii. Nilai terhadap wang iii. Kelestarian kewangan 	<p><u>Pengurusan</u></p> <ul style="list-style-type: none"> i. Kelayakan professional/ pengalaman Ketua Projek dan Ahli ii. Relevan perbatuan utama iii. Pengurusan risiko

Pneumococcus Investigator Studies Program (MISP) Area of Interest (AOI) year 2023

1. Disease, epidemiology, sero-epidemiology, antimicrobial resistance (AMR) and molecular aspects

- Evaluate the epidemiology, including sero-epidemiology, molecular epidemiology, burden-of-disease, and health economic impact of infections and diseases caused by *Streptococcus pneumoniae*, including
 - Characterization of breakthrough disease (eg understanding the mechanism, its extent, individual/public health impact, etc)
 - Also consider breakthrough disease in partially or fully vaccinated infants/children based upon age at the time of IPD, number of doses and which PCV given at what ages, and serotype of the IPD
- Epidemiology and infection models for serotypes 15A, 15C, 16F, 23A, 23B, 24F, 31, 35B
- Incidence / prevalence / molecular characterization of *Streptococcus pneumoniae* serotype 3
- Comparison of pneumococcal disease incidence in at-risk populations (for example, HIV, HSCT, chronic renal disease, asplenia, those receiving immunomodulators etc), comparing incidence in those who had received pneumococcal vaccination and those who had not
- The impact of culture enrichment techniques on pneumococcal surveillance
- Molecular detection of *S. pneumoniae* especially in surveillance networks
- Carriage and disease manifestations of interest include:
 - Nasopharyngeal carriage and oro-pharyngeal carriage in children
 - Adult carriage and transmission; transmission dynamics
 - Acute otitis media and chronic suppurative otitis media in children
 - Non-bacteraemic pneumonia and all-cause pneumonia in children and adults
 - Invasive pneumococcal disease (IPD) including pneumococcal pneumonia and empyema
- Antimicrobial resistance (AMR) of both vaccine and non-vaccine serotypes
- Identify disease-causing pneumococcal serotypes in adults using our Company's serotype-specific urinary antigen detection (SSUAD) and/or other assays including salivary testing
- Examine the inter-relationship between *Streptococcus pneumoniae* and respiratory viruses including SARS-CoV-2, hMPV and RSV
 - Including disease severity, seasonality, the respiratory microbiome, secondary bacterial infections and antimicrobial use



Merck, Sharpe and Dohme (MSD) Grant

Pneumococcus Investigator Studies Program (MISP) Area of Interest (AOI) year 2023

2. Vaccine related and Immunology

- Immunogenicity of PCVs in high risk populations
- Immunologic characterization of antibody responses
- Measuring, characterizing and understanding responses to pneumococcal exposure and vaccination:
 - Including antibody characterization, B cell memory evaluation, methods to determine the persistence of immune memory, correlates of protection, role of agglutinating antibodies
- Additional immunological endpoints of interest
- Impact of pneumococcal vaccination programmes on serotype distribution in both the pediatric and adult populations
 - Including serotype replacement
- Evaluation of the effectiveness, population-level impact and health economic impact of pneumococcal vaccination
- Advancement of the understanding of the immunology and vaccine response(s) with respect to immune correlates of protection with a special emphasis on OPA and IgG responses
 - Consider especially serotype 3
- Human challenge studies
- Measurement of immunological memory and durability of protective immune responses
- Antibody measurement by broncho-alveolar lavage
- B cells sourcing through tonsillectomy, adenoidectomy, lymph node aspiration, bone marrow aspiration
- The potential role of pneumococcal vaccines in reducing antimicrobial consumption and/or antimicrobial resistance, and their potential role in antimicrobial stewardship
- Future vaccine development; Approaches to overcome reduction of immune responses with higher valent vaccines, role of adjuvants in pneumococcal immune responses; Protein antigens

Merck, Sharpe and Dohme (MSD) Grant

Pneumococcus Investigator Studies Program (MISP) Area of Interest (AOI) year 2023

3. Vaccine program implementation / vaccine policy- could include barriers / facilitators to vaccination, VCR studies

- Barriers to and facilitators of pneumococcal vaccination
- Implementation science-based studies that help facilitate understanding of how best to implement multiple different PCVs in the recently/in the future changing landscape of vaccine product availability
- Prevention of pneumococcal disease in LMICs, hard-to-reach populations, indigenous populations, and emerging risk populations
- Consideration of barriers to vaccination and vaccine hesitancy; health disparities and equity
- Epidemiological studies that include social determinants related to both disease risk and pneumococcal vaccine uptake

Activity	Review Cycle
Protocol Submission with Detailed Budget	March 27, 2023
Final Comments to Investigator	June 16, 2023

Merck, Sharpe and Dohme (MSD) Grant

MSD's 2023 Oncology Research Grant initiative Area of Interest (AOI) year 2023

- fund **SIX one-time grants in 2023 across 10 selected countries**
 - Valued up to \$50,000 (USD)
 - **Themes: fund health policy projects and opportunities to encourage dialogue and dissemination of findings as they relate to access to cancer care.**
- 1. What is the impact of cancer policies on cancer outcomes?** - Assessing the full valuation, including clinical, economical and societal benefits, and the implementation
 - 2. How can new approaches improve financing of & access to cancer care?** - Exploring the impact of various health financing mechanisms on access
 - 3. How can cancer policies enable health equity in cancer care?** - Ensuring every person has an equal opportunity to prevent, screen, detect, treat, and survive cancer

Merck, Sharpe and Dohme (MSD) Grant

MSD's 2023 Oncology Research Grant initiative Area of Interest (AOI) year 2023

The program objective is to **activate researchers in Malaysia to initiate multi-stakeholder, well-rounded, and impactful dialogues on access, budget headroom, long term value, and health equity.** This includes identifying forward-looking and evidence-based health policy recommendations, and creating a community of discourse between MSD teams, policymakers, payers, patient groups and other stakeholders. Grantees are **expected to identify evidence-based and forward-looking health policy recommendations to achieve improved health benefits for cancer patients in the long-term.**

Programme design and requirements include:

- 1 local seminar for peer review
- 1 opinion piece in the lay media
- 1 peer-reviewed publication
- 1 global event to disseminate findings
- 4 all grantee calls to share progress learnings

Activity	Review Cycle
Protocol Submission	18 May 2023

2023 MAKNA Cancer Research Award (MCRA)

MAKNA Cancer Research Award

Objective: to promote **cancer research** among **young scientists** in advancing knowledge that is geared towards helping cancer patients and discovering potential cures for the disease



MAKNA
Majlis Kanser Nasional
National Cancer Council

A Meaning to Life

- 3 research awards per year, ≤ RM 50,000
- Duration: ≤ 2 years
- Young researchers: all Malaysian citizens **below 40 years** (include postgrad)
- The award cannot be used to purchase equipment, to employ salaried personnel or related expenses, to attend conference or to pay for publication fee
- The project must be carried out in Malaysia
- Closing date: **31 March 2023, Friday, 11.59 pm**



KEMENTERIAN SUMBER ASLI, ALAM SEKITAR
DAN PERUBAHAN IKLIM



Yayasan Penyelidikan Antartika Sultan Mizan (YPASM) Research Grant

45

Objectives:

1. Promote and support **scientific research in polar regions**
2. Foster research activities that **create broader beneficial impacts** to the YPASM, nation and mankind
3. Nurture and develop local expertise and **human capital in polar research**
4. Promote good governance of Polar Regions

Duration: **≤ 36 months**

Amount: **≤ RM150,000**

Deadline of Application : **31 March 2023**

- Projects must be related to **scientific research in polar regions**
- Applicants must possess a **PhD** in any related field
- Applicants will only be allowed to hold **one (1) YPASM Research Grant** at a time
- Applicants are only allowed to submit **one (1) project application** at each phase
- Applicants must have **at least three (3) years experience** in related field/ programme/ research project
- Application is open to **Malaysian citizen** and Permanent Resident (MyKad holders) from universities participating in **YPASM Smart Partnership initiative** only (UM, UiTM, USM, UMS, UPM, UKM, IMU, UMT, UMK and UMP)



ICGEB

ICGEB Research Grants 2023
CRP - Collaborative Research Programme

46

International Centre for Genetic Engineering & Biotechnology (ICGEB)

Objectives:

1. To stimulate **collaborative research** between ICGEB Member States and with the ICGEB Component laboratories
2. To promote the training of **young scientists**
3. To facilitate the **creation** of appropriate **research facilities**
4. To provide support for research activities in **basic life sciences, human healthcare, industrial and agricultural biotechnology and bioenergy**

Duration: \leq 36 months

Amount: \leq Euro 25000 (~RM115560)

Deadline of Application : 30 April 2023

Funds cover the purchase of consumable items, scientific literature and basic standard laboratory equipment. Travel and training costs can also be covered. Salaries of the Principal Investigators and infrastructural support are not cover.

Principal Investigators must submit their applications online via the dedicated portal

(<https://www.icgeb.org/activities/grants/>)



ICGEB

ICGEB Research Grants 2023
CRP - Collaborative Research Programme

47

International Centre for Genetic Engineering & Biotechnology (ICGEB)

- **Each country** may endorse a **maximum of three (3) project proposals** for standard research grant applications, plus **two (2) additional Early Career Return Grant** applications
- **International collaboration** is an essential feature of all ICGEB grants and must be fully integrated into the project
- A special category of CRP-ICGEB **Early Career Return Grants** is intended to fund **young researchers (not over 40 years old at the time of application)** with an **outstanding track record**, who have spent a minimum of 2 years abroad and have recently returned to an ICGEB Member State to establish their own independent laboratories
- Applicants for Early Career Return Grants should have **taken up, or be about to take up, a position as an Independent Investigator in an ICGEB Member State (except Italy)**. Applicants who have been in the country for more than two years prior to the deadline for submission are not eligible to apply for Early Career Return Grants.

2023 DR RANJEET BHAGWAN SINGH MEDICAL RESEARCH GRANT

CALL FOR APPLICATIONS



Objective: Seed funding to help the researcher develop a novel idea that will go on to form part of larger grant applications

- 1 research award per year, ≤ RM 50,000
- Duration: ≤ 2 years
- Young Malaysian scientist to undertake medical/biomedical research (**below 40 years**)
- The awarded grant must be used only for research materials
- Grant cannot be used for travel, equipment purchasing (e.g. personal computer, laptop, printer, server, scanner etc.) and wages or allowance for temporary and contract personnel
- The project must be carried out in Malaysia
- Closing date: **18 February 2023**

Assessment Criteria

2023 DR RANJEET BHAGWAN SINGH

1. Research Quality (50%):

- Strength of medical or scientific case;
- Feasibility of experimental plans, statistics, methodology and design, including provision of sample size calculations; and
- How risks have been identified, and will be mitigated.

2. Impact (20%):

- Identification of potential impacts of the research findings for Malaysia and plans to deliver these.

3. Innovation (20%):

- Level of innovation and whether that is likely to lead to significant new understanding.

4. Value for Money (10%):

- Whether funds requested are essential and justified by the importance and scientific potential of the research.



MERDEKA
AWARD

THE MERDEKA AWARD GRANT

FOR INTERNATIONAL ATTACHMENT

Objectives:

1. To help the deserving **young Malaysians** build on his or her expertise by undergoing a **learning experience** in an institution or organisation of international repute, and improving the Grantee's body of work and achievements
 2. To promote thought **leadership and innovation**, foster a **culture of excellence** and encourage a world-view.
- Offer qualified and deserving Malaysians, between the ages 22-35 to engage in short-term collaborative projects/programmes of up to three months, at an internationally-recognised host institution in select disciplines (education, arts, sports, community/social work, environment, health, science and technology)
 - **Closing date: 1 May 2023**

<https://www.merdekaaward.my/the-grant/criteria.aspx>

