



**UNIVERSITI  
MALAYA**

**RESEARCH CLUSTER OFFICE**

**IMPACT ORIENTED  
INTERDISCIPLINARY RESEARCH  
GRANT PROGRAMME (IIRG)  
CYCLE 4/2021**


**PROFESSOR DR. SAIFUL ANUAR KARSAN**


Acting Coordinator, Research Cluster Office  
Dean Frontiers of the Natural World Research Cluster  
5<sup>TH</sup> July 2020 (MONDAY)


# RESEARCH CLUSTER AREAS NICHE & THRUST

To be the preferred partner in research & champions in leading interdisciplinary research. To focus on research areas with promising performances & experts-ready with critical mass (Niche) and emerging areas (Thrust).


## NICHE AREAS

Cultural, Heritage and Civilization 

Behavioral Studies 

Cancer 

Active Ageing 


Nature-inspired Technology  
(Drug Discovery) 

Energy 


Materials 



## THRUST AREAS


 Education for the Future

 Smart Society

 Innovative Health

 Mental Well-Being

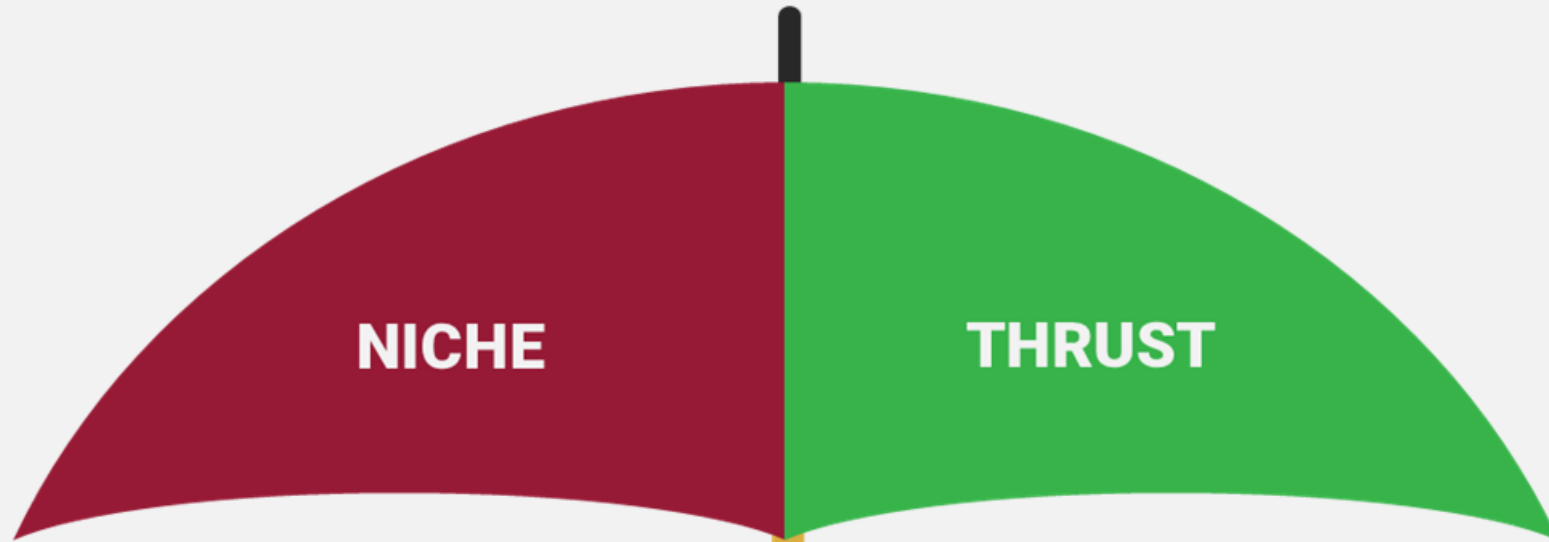
 Lifestyle Diseases

 Curiosity-driven Fundamental Research

 IR4.0

 Water & Environment

 Sustainable living



## NICHE

specialised research areas with strong foundation already existing in the university

### Characteristics:-

- With strength (volume of research, visibility, recognised expertise)
- Critical mass (sustainability)
- Centre of research (as referral point, management) - preferred
- impact (social economy, academic)

## THRUST

an area that the university would like to push an area of importance in the future  
current thrust could be niche in the future

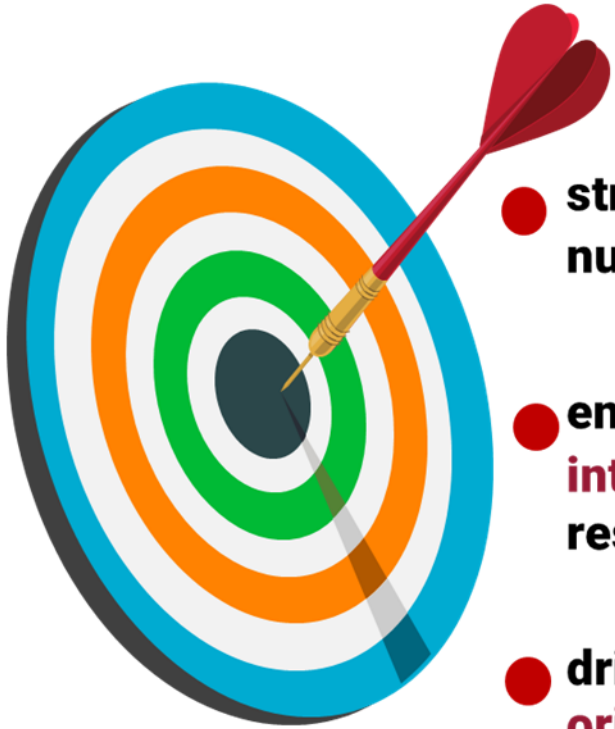
### Characteristics:-

- Emerging
- Potentially impactful research
- Innovative

“To develop **impactful research projects** that **address real world issues** relevant to **the society and industry**. It is at these interfaces between different disciplines that **creativity** and **innovation thrive**”

## INTERDISCIPLINARY?

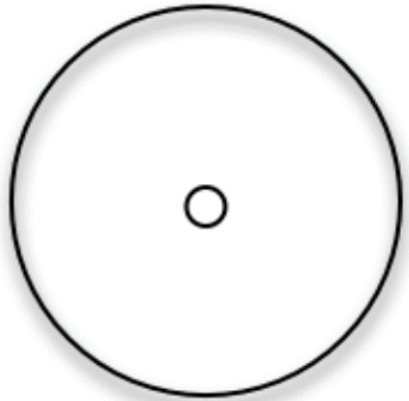
a mode of research by teams or individuals that **integrates information, data, techniques, tools, perspectives, concepts and/or theories** from **TWO** or **more disciplines** or bodies of specialized knowledge **to advance fundamental understanding** or **to solve problems** whose solutions are beyond the scope of a single discipline or area of research practice.\*



**AIMS**

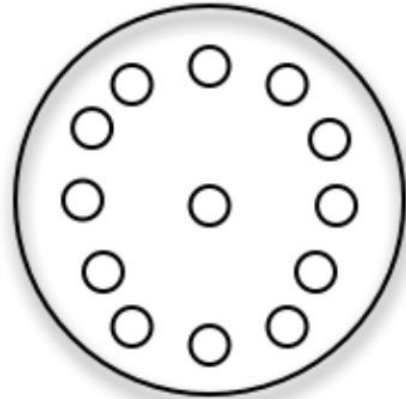
- **strengthen niche & nurture thrust areas**
- **encourage interdisciplinary research**
- **drive impact oriented research**

# Single, Multi, Inter and Trans-disciplinary Research



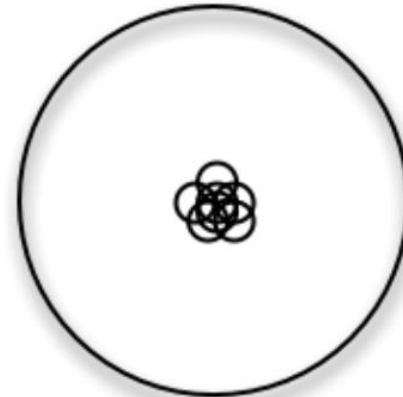
## Within

Looking at a problem within the frame of a **single, recognised discipline**. For example, dental research project focusing on bonding agent will mostly include dental material or material scientists and collaborators will publish in similar journals.



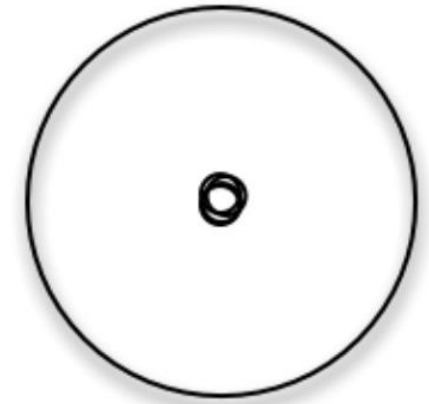
## Add, Multiply

Looking at one problem by **adding multiple** perspectives and disciplines. Participants exchange knowledge and compare results, but stop short of integrating them. The disciplines maintain their distinctiveness and the results remain grounded in the framework of the root discipline



## Integrate, Synthesis

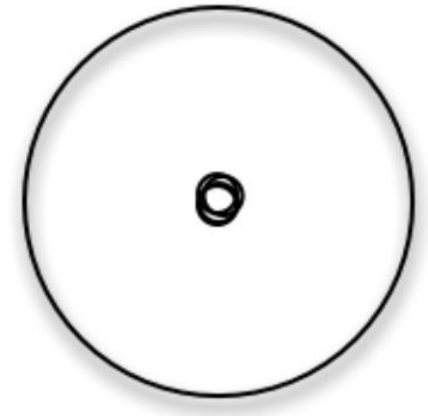
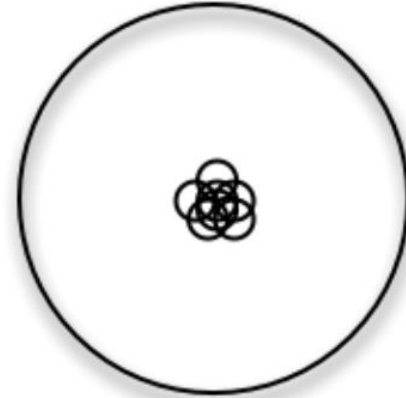
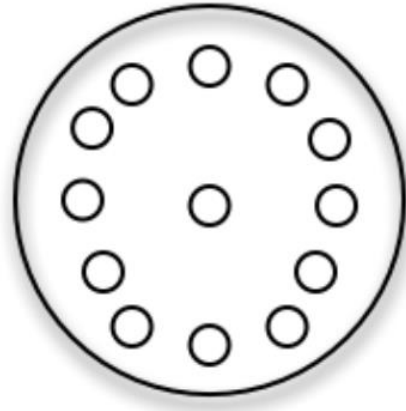
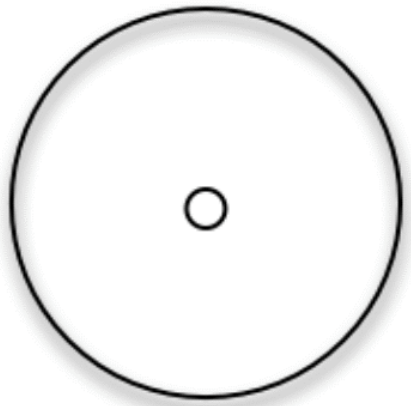
“among, between, in the midst” — **integrating knowledge and methods** from different disciplines using a synthesis of approaches. Interdisciplinary concerns collaborations between contrasting academic disciplines or research methods for new applications, new analyses, or the creation of entirely new disciplines (Nicolescu 1997).  
e.g. drug discovery



## Transcend, Whole

“across, over, beyond” — emergence of a **new discipline transcending the boundaries of disciplinary** perspective. Transdisciplinarity combines interdisciplinarity with a participatory approach. The research paradigms involve non-academic participants as (equal) participants in the process to reach a common goal — usually a solution to a problem of society at large. It can be considered as the culmination of interdisciplinary efforts. The field of ‘sustainability’ in essence<sup>6</sup> is a transdisciplinary one. — e.g. Proteomics

# Single, Multi, Inter and Trans-disciplinary Research



## ANALOGY



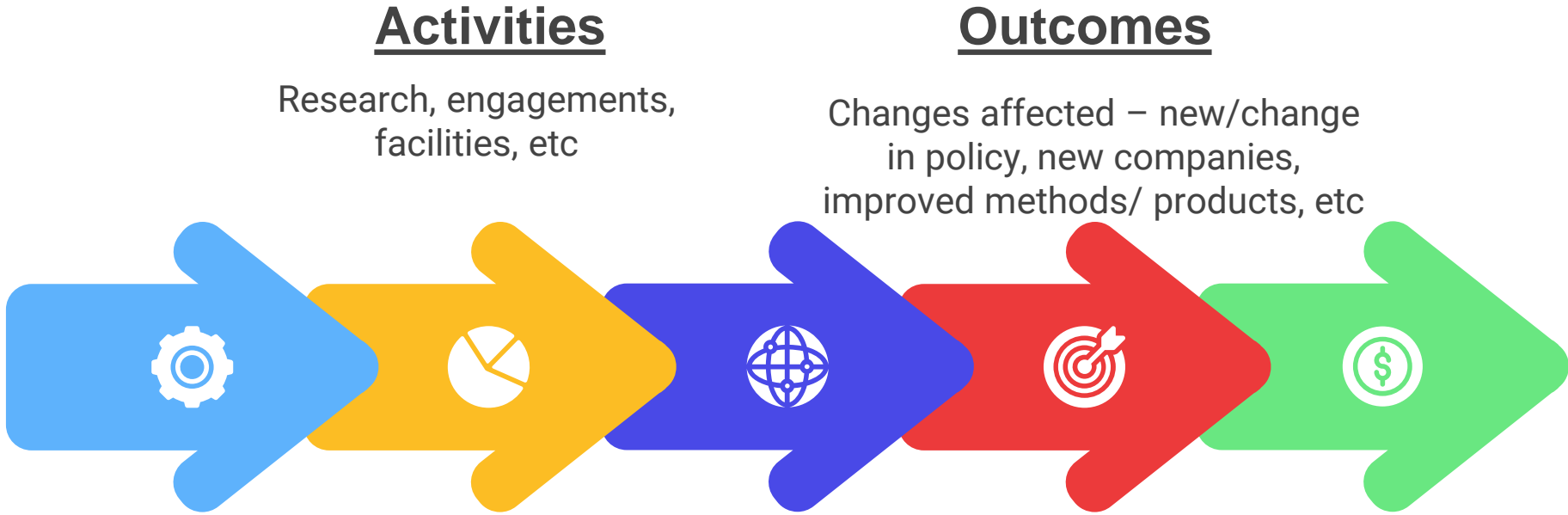
# IMPACT ORIENTED?

Clear from the  
outset





# Pathway to impact



## Activities

Research, engagements, facilities, etc

## Outcomes

Changes affected – new/change in policy, new companies, improved methods/ products, etc

## Input

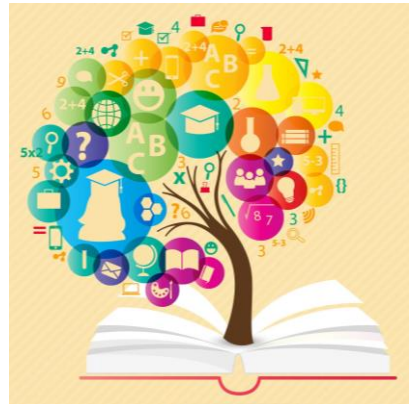
Proposals  
Programmes/projects, etc.

## Outputs

Project deliverables - publications, IP, patents, policy briefings, etc

## Impact

Measurable change that occurs – lower unemployment, increased quality of life, reduced accidents



Narration



# For researchers

Sowing  
Seeds



Equip  
applicants with  
skills and  
confidence

Intiate  
engagement



Collaborators  
and  
stakeholders

More  
egagement



Interdisciplinarity

GO BIG



LRGS, TRGS,  
MOSTI,  
International,  
Etc.



## SPECIFIC CRITERIA

### NO OF SUB-PROGRAM

$\geq 3$

researchers must come from at least  
2 different disciplines &  
2 different faculties



### DURATION

**24**

**MONTHS**



### MAXIMUM CEILING / PROGRAM

**RM 300,000**

**SCIENCE**

**RM 200,000**

**NON-SCIENCE**



APPLICATION FORM

UNIVERSITI MALAYA IMPACT-ORIENTED INTERDISCIPLINARY RESEARCH GRANT PROGRAMME (IIRG) CYCLE 4/2021

PROGRAMME SUMMARY : PART A [Incomplete Form will be rejected]

Table with 3 columns: PROGRAMME LEADER, PROGRAMME TITLE, SUB-PROGRAMME TITLE & LEADERS (with sub-rows 1, 2, 3), SUB-PROGRAMME TITLE, SUB-PROGRAMME LEADER

A. Research Programme [Please tick (v) only ONE (1) Niche OR Thrust area]

Table with 4 columns: RESEARCH CLUSTER, NICHE AREAS, THRUST AREAS. Rows include Frontiers of the Natural World, Health & Well Being, Innovative Industry & Sustainability Science, and Social Advancement & Happiness.

B. EXECUTIVE SUMMARY (max. 300 words: Should include, but not limited to background of research, objectives, problem statement (needs, approach, benefits, competition) and brief methodology)

Large empty box for Executive Summary.

C. LINKAGES BETWEEN SUB-PROGRAMME (max. 300 words)

Large empty box for Linkages Between Sub-Programme.

D. QUALITY OF RESEARCHERS

i. Research Team Track Record

Table with 7 columns: No., Name, Faculty, H-Index, Citations, No. of Publications\*\*, Role/Contribution. Rows 1, 2, 3.

\*\* For the past 5 years and MUST be relevant to the proposed programme

ii. International Collaborations/External Collaborator and Stakeholders (MUST be relevant to the proposed programme)

Table with 4 columns: No., Institution, Name of Researcher, Role/Contribution. Rows 1, 2, 3.

**E. TARGETTED RESEARCH OUTPUT (Please select at least 1 (ONE) from each category)**

**i. ACADEMIC OUTPUT**

No.	Details	Output
1.	ISI	
2.	IPR/Copyright	
3.	Human Capital Developments	
4.	Book (s)/Chapters in book (s)	
5.	Scopus / Peer reviewed journal articles (for non-science only & journal category A & B)	
6.	Policy	

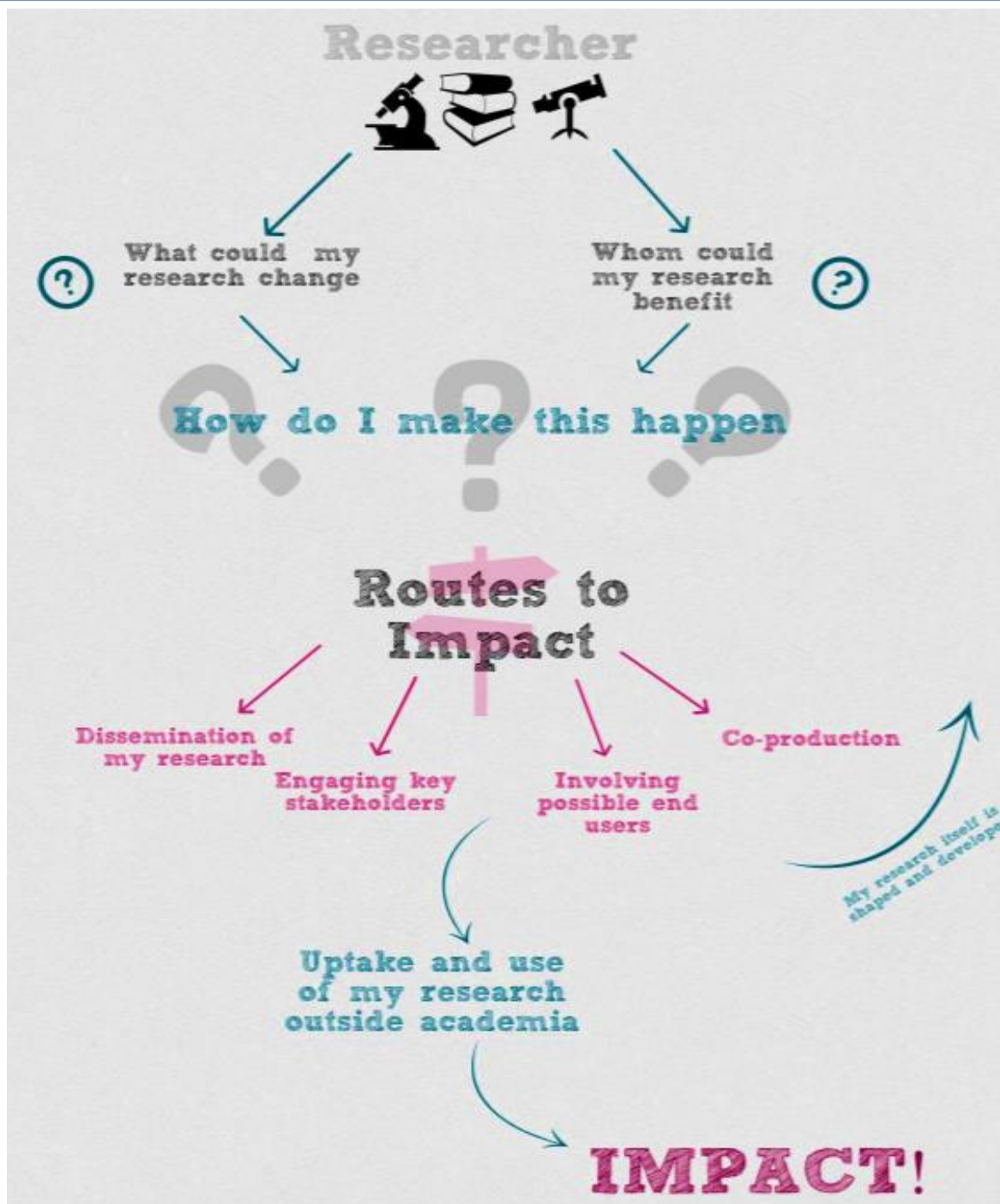
**ii. NON-ACADEMIC OUTPUT**

No.	Details	Output
1.	Commercialization	
2.	Media Articles	
3.	Website	
4.	Software/Applications	
5.	Societal Engagement	
6.	Others: Please specify	

**Select at least  
ONE (1) from  
each category**



# IMPACT NARRATIVE





# ADDITIONAL INFORMATION

B(viii)	<p><b>Latest CV &amp; Researchers' Profile (maximum 1 page each- Please use attached template for the profile and enclose in the Appendix)</b>  <i>CV Terkini &amp; Profile Penyelidik (maksimum 1 muka surat bagi setiap dokumen - Sila gunakan template yang telah disediakan bagi profil penyelidik dan lampirkan di bahagian Apendiks)</i></p>
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D	RESEARCH DETAILS / BUTIRAN PENYELIDIKAN
Di)	<p><b>Detailed Proposal of Research Sub-Programme :</b>  <i>Maklumat cadangan sub-program penyelidikan secara terperinci:</i></p> <p>(a) <b>Abstract (maximum 150 words)</b> <i>Abstrak (maksimum 150 patah perkataan)</i></p> <p>(b) <b>Graphical Abstract (maximum 1 page-A4)(Please use attached template and enclose in the Appendix)</b> <i>Abstrak grafik (maksimum 1 muka surat-A4)(Sila gunakan template dan lampirkan di bahagian Apendiks)</i></p> <p>(c) <b>Research background including Introduction /Hypothesis /Research Questions and Literature Reviews.</b> <i>Keterangan latar belakang penyelidikan termasuk Pengenalan/kenyataan hipotesis / persoalan penyelidikan dan kajian literatur.</i></p> <p>(d) <b>SMART Objective (s) of the Research/ SMART Objektif Penyelidikan**</b></p> <p><b>SMART</b> i.e. specific, measurable, achievable, realistic and timely</p> <p><b>SPECIFIC:</b> outline in a clear statement precisely what is required.</p> <p><b>MEASURABLE:</b> include a measure to enable you to monitor progress and to know when the objective has been achieved.</p> <p><b>ACHIEVABLE:</b> objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.</p> <p><b>REALISTIC:</b> focus on outcomes rather than the means of achieving them</p> <p><b>TIMELY(or time-bound):</b> agree the date by which the outcome must be achieved.</p>





<b>S</b>	<b>Specific, Significant, Stretching</b> Outline in a clear statement precisely what is required.
<b>M</b>	<b>Measurable, Meaningful, Motivational</b> Include a measure to enable you to monitor progress and to know when the objective has been achieved.
<b>A</b>	<b>Agreed upon, Attainable, Achievable, Acceptable, Action-Oriented</b> Objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.
<b>R</b>	<b>Realistic, Relevant, Reasonable, Rewarding, Results-Oriented</b> Focus on outcomes rather than the means of achieving them
<b>T</b>	<b>Time-based, Time-bound, Timely, Tangible, Trackable</b> Agree the date by which the outcome must be achieved

## Allocation

- salary & wages: max = **RM 30,000/year**. Each SP must hire at least 1RA
- Travel = **fieldwork ONLY**
- **X equipment**

## Research output will be ONLY accepted if:

- **after** the grant is being **awarded**.
- **relevant** to the project/programme approved.



# ADDITIONAL REQUIREMENTS



## 1. Compulsory Promotional and Visibility Requirement

All programmes are **required to produce videos** related to the research programme (**one- minute video and three- minutes video**).

## 2. Research continuity

Must **show evidence** that a **proposal** is ready for submission for **external funding application** as a **continuation** of the **work** in **IIRG** (at month 21)

### Note:

**Researchers who fail to produce the required research outputs may not be considered for any new UM internal grant applications for a period of up to 3 years.**



# HIGHLIGHTS
















## UM Safety & Research Handbook

- Applications are subjected to all requirements stated in **UM Safety & Research Handbook**. **DISQUALIFIED** if failed to do so.
- Proof of submission of **Notice of Intent [NOI]** to IBBC must be attach with your proposal for research involving use of **infectious & potentially infectious agents/materials & biological toxins**.

## Research Ethics

- Research involving **human participants** and the **use of vertebrate animal subjects** must be referred to the appropriate ethics committee
- If you are successful, please be reminded that **proof of ethics application must be submitted prior to the activation of research account**

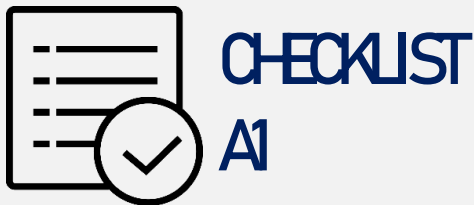


Types of Documents	Download
Internal Grant Opportunity: IIRG Cycle 4/2021 Briefing Session - 5th July 2021	 <a href="#">DOWNLOAD</a>
IIRG 2021 Guideline	 <a href="#">DOWNLOAD</a>
A1 Checklist Form	 <a href="#">DOWNLOAD</a>
A1 Programme Summary Application Form	 <a href="#">DOWNLOAD</a>
A2 Checklist Form	 <a href="#">DOWNLOAD</a>
A2 Sub-Programme Summary Application Form	 <a href="#">DOWNLOAD</a>
Biography	 <a href="#">DOWNLOAD</a>
UM Profile	 <a href="#">DOWNLOAD</a>
Graphical Abstract	 <a href="#">DOWNLOAD</a>
Code of Research Ethics	 <a href="#">DOWNLOAD</a>
IBC Guidelines	 <a href="#">DOWNLOAD</a>
Malaysia Laboratory Biosafety Biosecurity Policy and Guideline	 <a href="#">DOWNLOAD</a>
UM Safety Handbook	 <a href="#">DOWNLOAD</a>
UM Animal Care and Use Policy	 <a href="#">DOWNLOAD</a>
University Malaya Policy and Procedure on Laboratory Biosafety and Biosecurity	 <a href="#">DOWNLOAD</a>

ALL RELATED DOCUMENTS ARE AVAILABLE AT



UM  
RESEARCH  
CLUSTER



**NOTE**

- The Programme Leader must ensure all documents in the checklist are submitted
- **Incomplete applications will not be processed.**

No.	DETAILS (Please tick ([v]))	Programme Leader	RC Office
1.	<b>A1 Form - Programme Summary Application Form</b>		
2.	<b>CV</b> (For the past 5 years and <b>MUST</b> be relevant to the proposed programme) - maximum 5 pages		
	i. <b>Programme Leader &amp; Sub- Programme Leader</b> ii. <b>Co-researcher(s) (Internal &amp; External)</b>		
3.	<b>Biography</b> (maximum 1 page)		
	i. <b>Programme Leader</b> ii. <b>Sub- Programme Leader</b>		
4.	<b>Researchers' Profile</b> (maximum 1 page)		
	i. <b>Programme Leader</b> ii. <b>Sub- Programme Leader</b>		
5.	<b>Commitment Letter</b> for External Co-Researcher/s (if any)		
6.	Document related to <b>engagement with stakeholder (if any)</b>		
7.	<b>Graphical Abstract</b> (maximum 1 page)- <b>Programme Summary</b>		
8.	<b>Gantt Chart</b> of Research Activities including <b>Milestones- Programme Summary</b>		
9.	<b>Flow Chart</b> of Research Activities - <b>Programme Summary</b>		
10.	<b>Softcopy of proposal-with attachments</b> (Programme & Sub-programme) to RC		

**Note:**

1. **The Programme Leader must ensure all documents in the checklist are submitted. Applications that are not complete will not be processed.**





# CHECKLIST

## A2

No.	DETAILS (Please tick ([v]))	Sub-Programme Leader	RC Office
1.	A2 Form- Sub-Programme		
2.	Graphical Abstract (maximum 1 page)- Sub-Programme		
3.	Gantt Chart of Research Activities including Milestones		
4.	Flow Chart of Research Activities		
5.	Justification/ Details of Proposed Budget		

### NOTE

1.The Sub-Programme Leader must ensure all documents in the checklist are submitted. **Incomplete applications will not be processed.**

2.Does this research need **BIOSAFETY APPROVAL?** (if yes, proof of submission Notice of Intent [NOI] to IBEC must be submitted prior to proposal evaluation session)

3.Does this research need **ETHIC APPROVAL?** (if yes and your application is successful, please be reminded that proof of ethics application must be submitted prior to the activation of research account)



# FLOW: ANNOUNCEMENT TO AWARD





1<sup>st</sup> round based on

- Executive Summary
- Linkages between sub-programmes
- Quality of Researchers
- Research Impact



# INVITATION TO IIRG CYCLE 4/2021 PROPOSAL CLINIC

26-28 July 2021; 9.00 am – 12.00 pm

**The aim of the workshop is to facilitate researchers in preparing proposal for applying IIRG with interdisciplinary elements & research impact.**

<input type="checkbox"/> Nature-inspired Technology (Driving Drug Discovery)	<input type="checkbox"/> Cancer	<input type="checkbox"/> Cultural, heritage & civilization	<input type="checkbox"/> IR 4.0
<input type="checkbox"/> Curiosity-driven Fundamental Research	<input type="checkbox"/> Active Ageing	<input type="checkbox"/> Behavioral studies	<input type="checkbox"/> Water & environment
	<input type="checkbox"/> Innovative Health	<input type="checkbox"/> Education for the future	<input type="checkbox"/> Sustainable living
	<input type="checkbox"/> Mental Well-being	<input type="checkbox"/> Smart society	<input type="checkbox"/> Energy
	<input type="checkbox"/> Lifestyle Diseases		<input type="checkbox"/> Material

**Venue: Online Platform**

Slots are limited and based on first come first served basis.

Please also bring your program proposal and limit to 3 participants per session



## RULES FOR PARTICIPANTS

A single static  
PowerPoint slide.

Presentations are not  
limited to spoken word

Duration: 3 minutes

Presentations -commence  
from the stage

(8-10 Nov 2021)

**PYP**

- 1 questions/  
session
- The judging  
panel's decision is  
final

## JUDGING CRITERIA

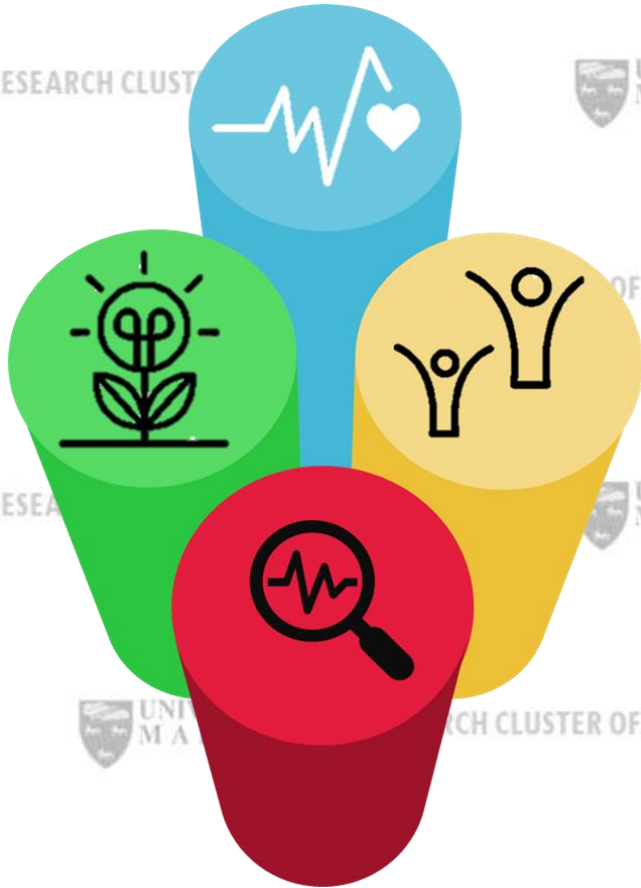
Content

Delivery



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Visit Us!



Thank you!

- Email: [researchcluster@um.edu.my](mailto:researchcluster@um.edu.my)
- Contact No. : 03-7967 7801/ 7802/ 7804/ 7805/ 7809