



MedChem
AUSTRALIA

Introducing MedChem Australia, a new initiative to help translate Australia's biomedical research excellence into new medicines

MedChem Australia Information Session

Updated 14th Dec 2023

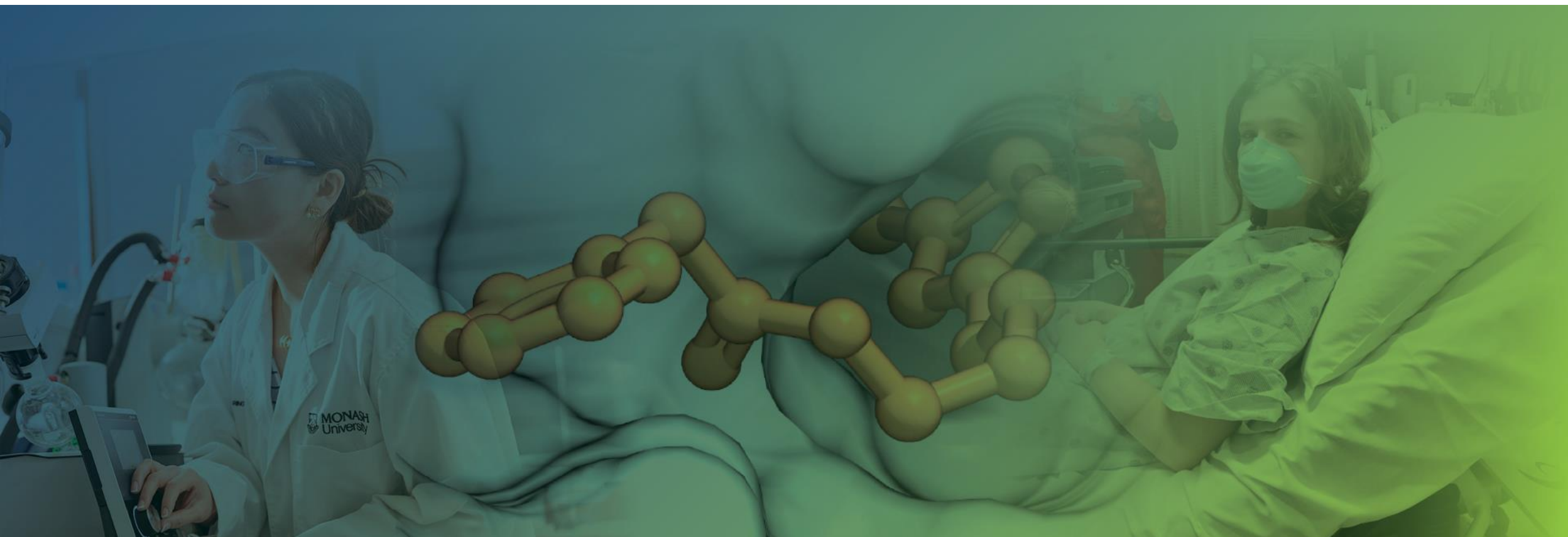


Information session outline

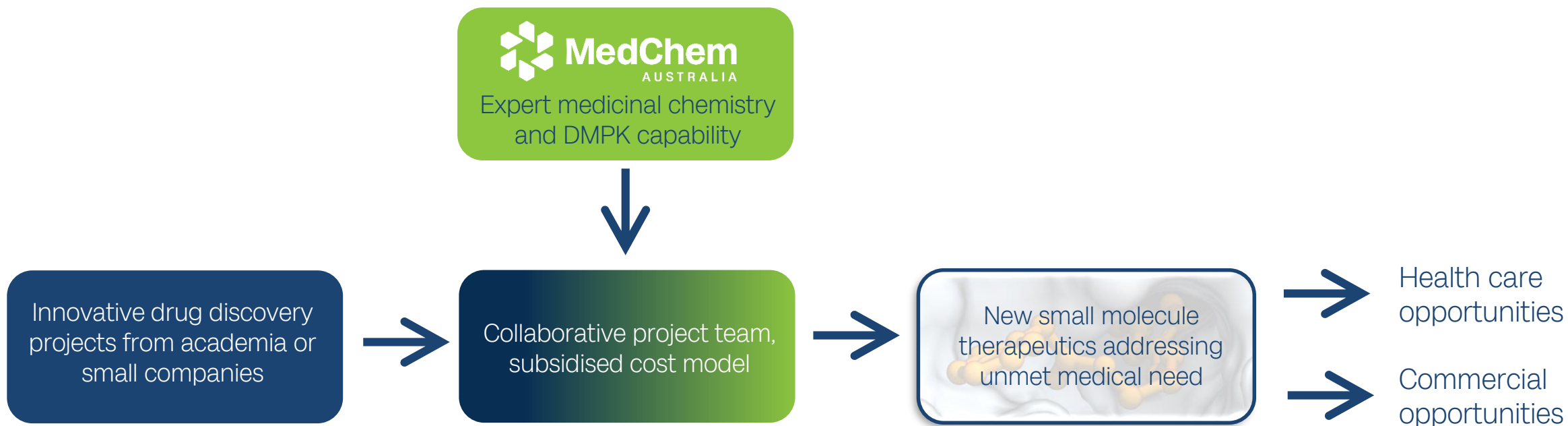
- General introduction to MedChem Australia
- Project requirements
- Working with MedChem Australia
- Application and project selection process
- Questions



MedChem Australia's mission is to work with the Australian biomedical research and biotech community to develop new medicines through creativity and collaboration.



MedChem Australia is a new nationally-focused initiative providing and growing medicinal chemistry capability in Australia



- We help researchers and small companies overcome a critical capability barrier by providing medicinal chemistry & DMPK resources, plus expertise, at subsidised cost to aid progression and enhance value.
- Projects selected through an independent and competitive application process

MedChem Australia operates in the lead generation and lead optimisation stages of Drug Discovery



- Collaborative drug discovery program planning
- Target Product Profile (TPP)
- Target Candidate Profile (TCP)
- Multi-dimensional data analysis
- Compound design
- Compound Synthesis
- Screening cascade design
- Structure-activity relationship study design
- Potency, selectivity and in vivo efficacy strategies
- Advanced chemistry skills to produce novel scaffolds
- Drug Metabolism and Pharmacokinetics (DMPK)
- Creation of novel IP: IP positioning and IP strategy

MedChem Australia is a partnership between Monash University, WEHI, and the University of Sydney



- MedChem Australia will comprise identical scale Nodes of activity at Monash, WEHI, and the University of Sydney.
- Each Node contains state-of-the-art facilities for drug design and synthesis
- DMPK profiling of compounds will be done at the Centre for Drug Candidate Optimisation (CDCO) at Monash

MedChem Australia science leadership team



Brendon Monahan
Director



Susan Charman
DMPK Head



Paul Stuppel
Monash Node Head



Guillaume Lessene
WEHI Node Heads



Jeff Mitchell



Michael Kassiou
USYD Node Head

Collectively:

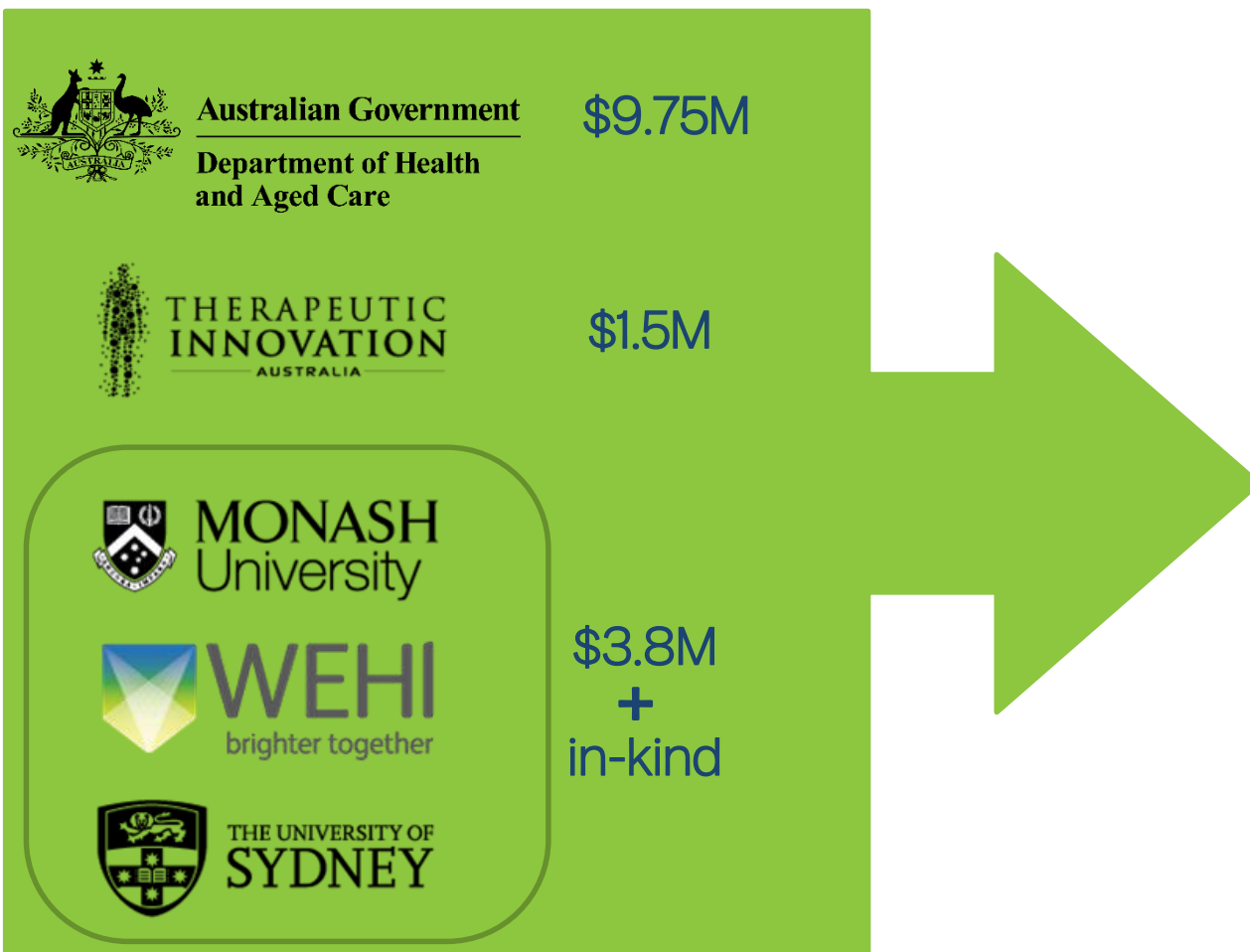
>100
years drug discovery
experience

>50
Small molecule
therapeutics into
human clinical trials

>200
Collaborative drug
discovery projects
with academic groups

>\$2B
Total headline value of
license deals arising
from projects

MedChem Australia thanks its funding partners. Initial budget of \$15.1 million over 5 years



Supporting 15 medicinal chemists at peak
(5 chemists at each node)

DMPK resource for all projects

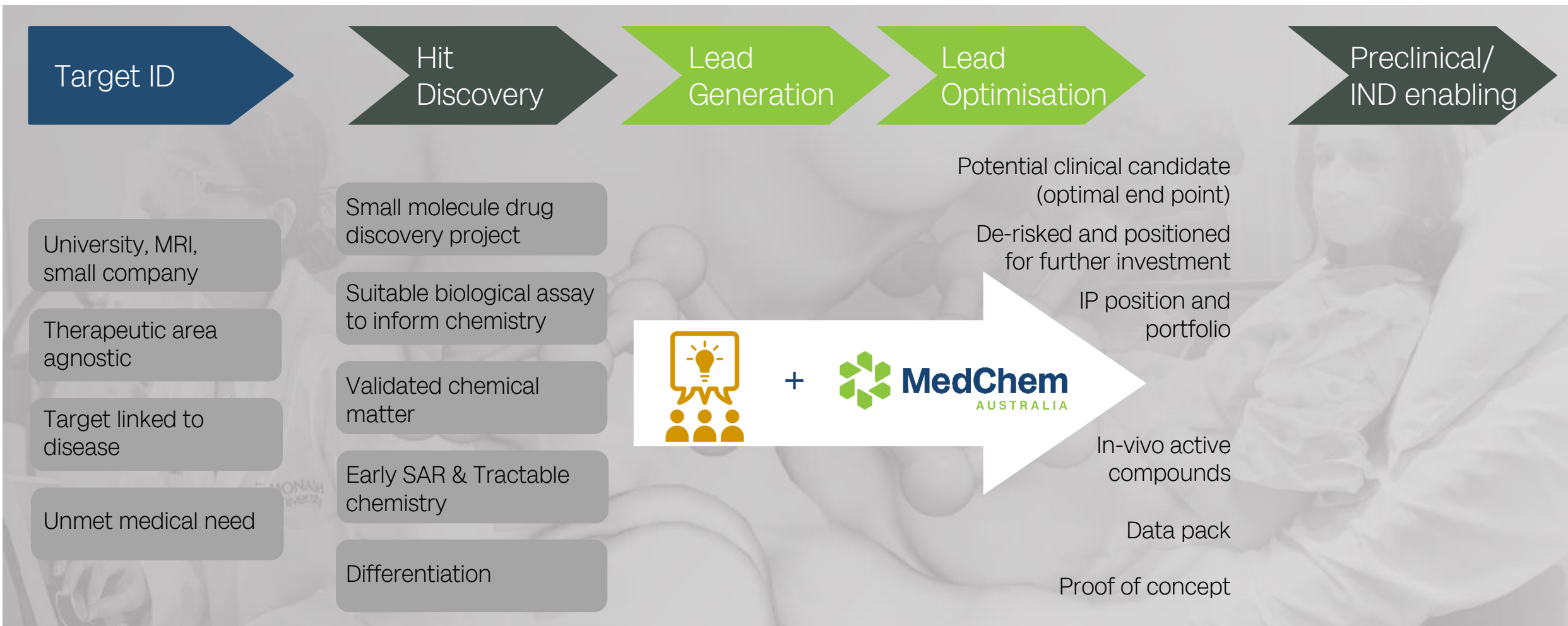
80% subsidy to successful applicants

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Project requirements and objectives overview



Examples of additional data that may strengthen project

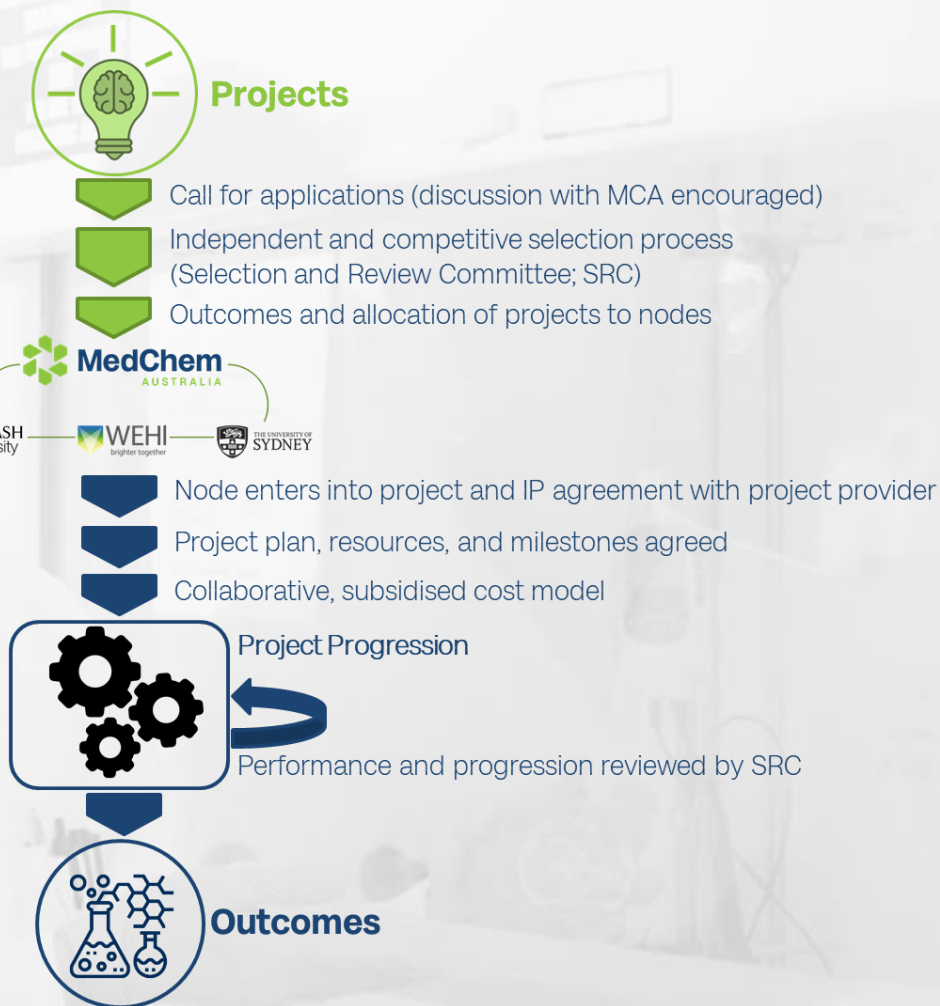
Required		Desirable		Advanced	
Evidence linking target to disease	<input checked="" type="checkbox"/>	Multiple series with compounds $IC_{50} < 10 \mu M$	<input type="checkbox"/>	Established screening cascade	<input type="checkbox"/>
Small molecule drug discovery project	<input checked="" type="checkbox"/>	Biophysical validation	<input type="checkbox"/>	Crystal structures of target with compound	<input type="checkbox"/>
Suitable biological assay to inform chemistry (+ reagents)	<input checked="" type="checkbox"/>	Cell-based assays and evidence of cellular activity	<input type="checkbox"/>	PK (pharmacokinetics) data	<input type="checkbox"/>
Validated chemical matter with drug-like features	<input checked="" type="checkbox"/>	Evidence of cellular target engagement	<input type="checkbox"/>	Pharmacological proof of concept	<input type="checkbox"/>
Early SAR and tractable chemistry	<input checked="" type="checkbox"/>	Selectivity position defined and early data obtained	<input type="checkbox"/>	IP position created (not patents)	<input type="checkbox"/>
Differentiation	<input checked="" type="checkbox"/>	Understanding of physicochemical properties and in vitro metabolic stability	<input type="checkbox"/>	Early safety profiling	<input type="checkbox"/>

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General overview of working with MedChem Australia



A true collaboration with an integrated project team and key contributions from each

Project Provider

Project idea, know-how, and background IP

Chemical matter


Leadership and expertise

Active involvement and participation

Ongoing biological assay(s) to support medicinal chemistry

Disease models

20% of the MedChem Australia chemistry & DMPK costs



Collaborative drug discovery
Multidisciplinary project team



Expert medicinal chemistry and DMPK personnel assigned to project

Leadership and expertise

Advanced chemistry skills to produce novel scaffolds and IP

Compound design and synthesis

DMPK profiling

Strategic planning

80% subsidy of MedChem Australia chemistry & DMPK costs

Projects will run collaboratively with shared IP as the default model

	Project provider	IP Model	Cost model
Default model	<ul style="list-style-type: none"> Australian University, Research Institute, small company 	<ul style="list-style-type: none"> Shared new IP Shared benefits (revenue share) negotiated Commercialisation lead negotiated in good faith at appropriate time. 	<ul style="list-style-type: none"> Subsidised cost model (project provider receives 80% subsidy from “internal” FTE rates)
Negotiated model	<ul style="list-style-type: none"> For-profits 	<ul style="list-style-type: none"> IP assigned to SME Shared benefits (revenue share) Additional obligations including shared project information and shared recognition 	<ul style="list-style-type: none"> Subsidised cost model

What are the expected costs?

- Applicants / Project providers will be obligated to a 20% cash contribution of the total MedChem Australia project costs (estimates based on project and resource plan will be agreed to in the project agreement)
- Additional support such as supervision and senior leadership input will be provided to projects in-kind

Resource Level	Example resource allocation (exact resource allocations will be dependent upon project requirements)	Example cost
Level A	1 Medicinal Chemist FTE + consumables + DMPK / year	~\$30 - 43K including consumables & DMPK
Level B	2.5 Medicinal Chemistry FTE + consumables + DMPK / year	\$75 - 109K including consumables & DMPK
Level C	4 Medicinal Chemistry FTE + consumables + DMPK / year	\$120 - 174K including consumables & DMPK

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How to apply

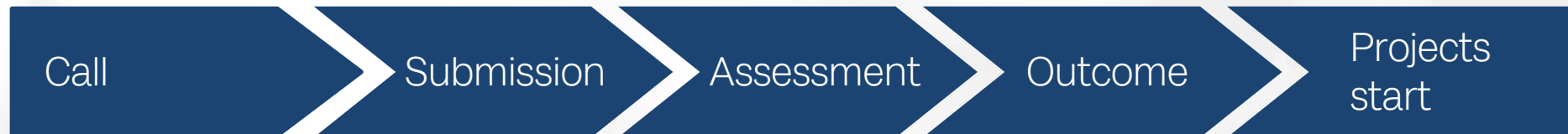
MedChem Australia projects will be selected by an independent and competitive selection process. There will be at least one call for new projects each year.

To apply, please:

1. Review the [working with us](#) and [project requirements](#) information on our website.
2. [Request an account](#) to enable access to our secure application portal
3. Complete an online application form available on our [secure application portal](#)

We welcome discussions about potential projects and applications. If you would like to meet with MedChem Australia, please [submit a meeting request](#).

Project application and selection process overview



Call for applications

Dec 2023

Application submission

Due 19 April 2024

Application assessment

*SRC meeting
late May/ early
June 2024*

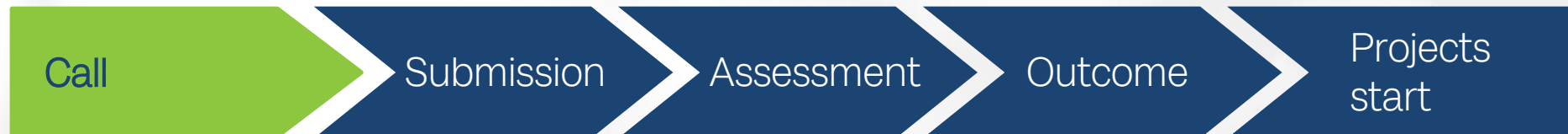
Outcomes announced

June 2024

Project agreements and project start

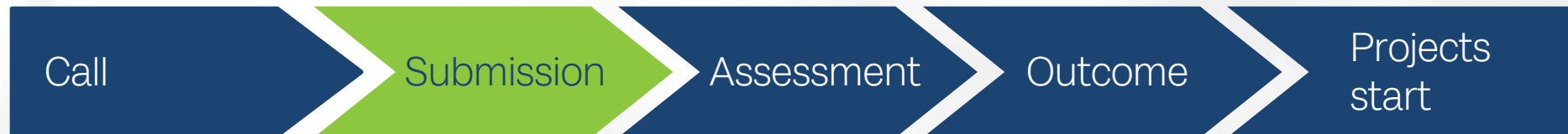
July 2024

Call for applications



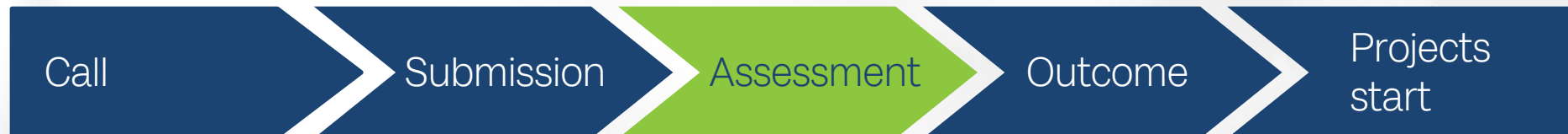
- First call for applications will be made following roadshow; Dec 2023
- Non-confidential discussion of application with MedChem Australia prior to submission is encouraged
- Details of the application form and submission guidelines will be made available on our website around time of the call
- Applicant will be able to nominate MedChem Australia Node they wish to be assigned to. This will be considered but is non-binding.

Application submission



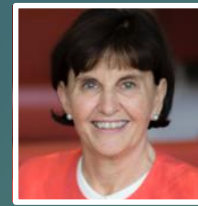
- First round applications close 5 pm Friday 19th April 2024
- Application will be completed and submitted online. Please see <https://medchemaustralia.org/working-with-us/how-to-apply/>
- A simple confidentiality agreement will be required as part of the submission process (one per organisation)
- No limit on number of applications from an organisation
- Appropriate organisational approval/consultation should be obtained prior to application
- **No compound structures to be shown** in the application form

Application assessment



- Applications will be competitively and independently assessed.
- Project applications assessment will be done by the independent Selection and Review Committee (SRC).
- In general, the SRC will be an expert panel comprised of 13 members; 1 chair, 4 medicinal chemists, 2 members with commercialisation and/or IP experience, and 6 biologists across a range of therapeutic areas.
- The SRC will meet to consider first round applications in late May/ early June 2024.
- Two step process
 - Primary SRC assessment and short-listing of projects (no chemical structures reviewed)
 - Diligence step on short-listed projects where review of compound structures is undertaken

Selection & Review Committee



Dr. Susan Pond AM, FRSN FTSE FAHMS
President, Royal Society of New South Wales

SRC Chair



Dr. Chris Burns (VIC)
CEO and Managing Director
Amplia Therapeutics



Dr. Brian Dymock (QLD)
Head of QEDDI
UniQuest



Dr. Shea Carter (QLD)
Business Development Portfolio
Manager,
QIMR Berghofer



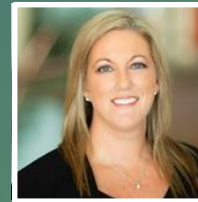
Prof. Philip Hogg (NSW)
Professor of Protein Science,
University of Technology Sydney
Head, ACRF Centenary Cancer
Research Centre, Centenary Institute



Dr. Martine Keenan (WA)
Chief Innovation Officer,
SYNthesis Research
COO, Anaxis Pharma



Dr. Gabriel Kremmidiotis (SA)
Chief Scientific Officer
Avance Clinical



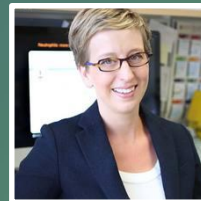
Angela Luttick (VIC)
Executive VP, Commercial
360biolabs



Dr. Lorna Mitchell (NZ)
VP, Drug Discovery
Certa Therapeutics



Dr. Amy Prawira (NSW)
CEO, Obatica
Head, Cancer Trials & Research Unit,
Prince of Wales Hospital



Prof. Kate Schroder (QLD)
Director, Centre for Inflammation &
Disease Research,
IMB, University of Queensland

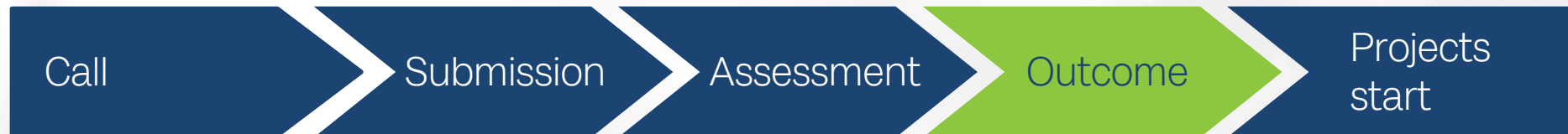


Dr. Damian Slizys (VIC)
Director of Intellectual Property, Telix,
Managing Director, Kobold Capital



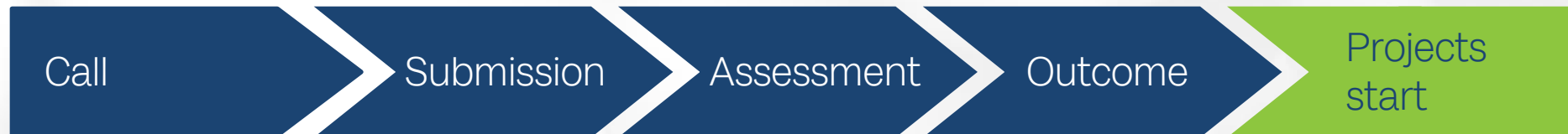
Dr. Tracey Wilkinson (WA)
Director, Stakeholder Engagement, WA
MTPConnect

Announcement of successful projects



- Projects not short-listed by the SRC will be notified of outcome directly. Feedback will be provided. Unsuccessful applicants are able to apply in later rounds
- Projects will be allocated to a MedChem Australia node
- Outcomes will be publicly announced once finalised

Project agreements and project start



- Formal contractual arrangements entered into between the project provider and the MedChem Australia node (MedChem Australia is not a separate legal entity)
- Project starts with agreed project plan, resource levels and approximate cost in place
- Initial duration of projects in MedChem Australia is for ~ 1 year. Project performance and progression will be reviewed by the SRC with decisions made around project future
- Frequency of calls for projects will be determined following outcomes of first round

Summary

- Collaborative model with applicants actively contributing
- MCA contributes medicinal chemistry and DMPK capability + drug discovery expertise
- >80% subsidised cost savings
- Applicants retain IP stake
- Actively seeking applications from across Australia
- Monitor our website over the coming weeks for further information

Contact

Website:

<https://medchemaustralia.org/>

LinkedIn (please follow us):

<https://www.linkedin.com/company/98801565/>

General enquiries:

admin@medchemaustralia.org

Brendon Monahan:

brendon.Monahan@monash.edu

Questions

