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# RMIT University

## partnership with

# MGC Pharmaceuticals

A/Prof Nitin Mantri  
School of Science

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CannaTech 2018

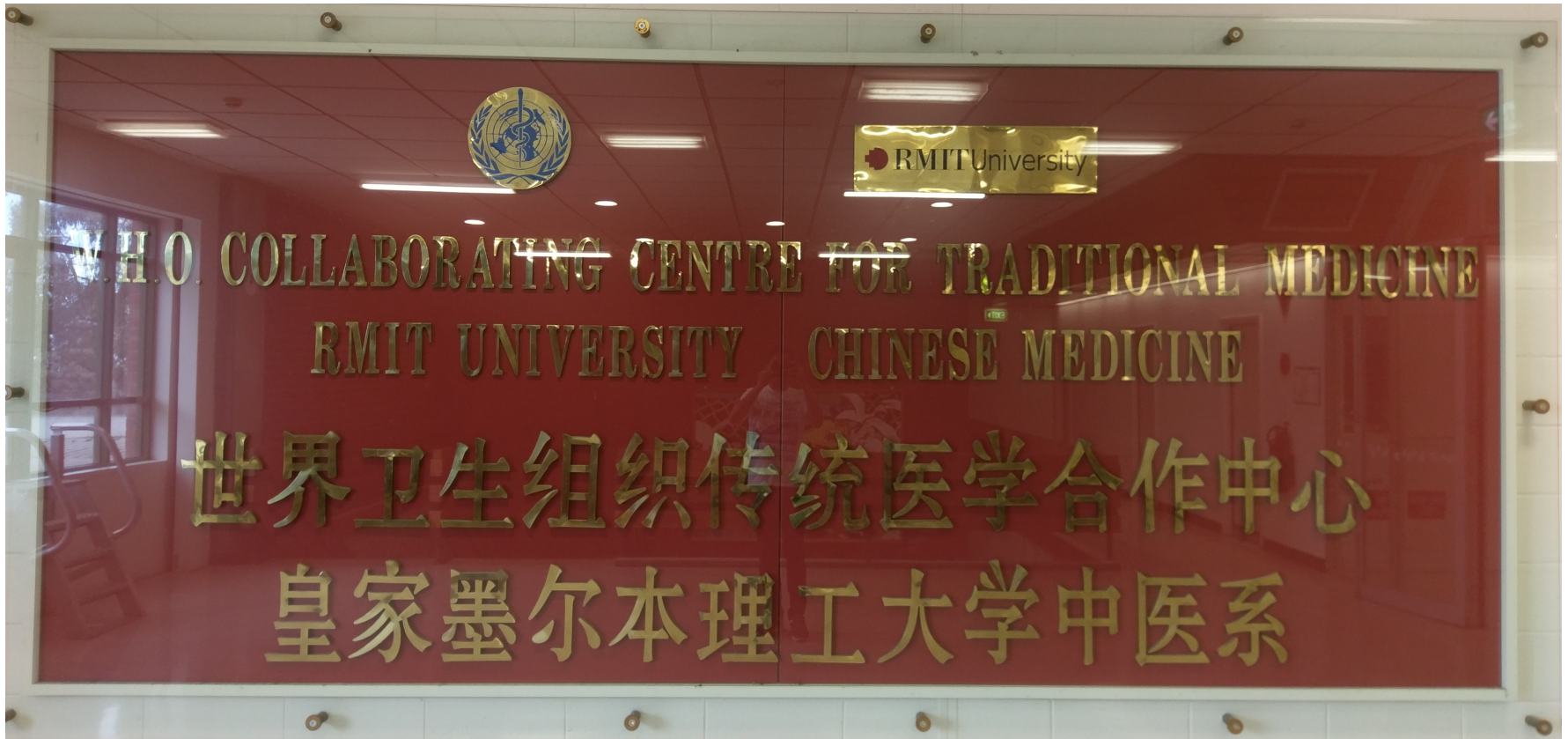
# About RMIT University

- Founded in 1887 as Working Men's College
- Largest tertiary education provider in Australia: 83,000 students
- Campuses in Melbourne, Bundoora, Brunswick, Hanoi, Ho Chi Minh and teaching partnerships in Singapore, China, Malaysia, Indonesia
- Europe coordination centre in Barcelona
- Strength: industry focused applied research and teaching

# WHO Centre for Traditional Medicine

- Over 25 years research in Traditional Medicine
- WHO centre established in 2005
- the centre supports the WHO Traditional Medicine Strategy 2014–2023, to strengthen the role traditional medicine in keeping populations healthy
- First public university outside mainland China to offer comprehensive training program for practitioners

# Photo of WHO Centre





# MGC Pharma and RMIT

- **Umbrella Agreement:**

## Collaborative Cannabis Research for

- Breeding and cultivation
- Genotyping and cannabinoid profiling
- Development of phytocannabinoid database
- Treatment of Melanoma and Prostate cancers
- including side effects of cancer treatment

# MGC's Cultivation Facility @ RMIT



# MGC Processing Lab @ RMIT



# Other facilities @ RMIT for MGC project

- RMIT Microscopy and Microanalysis Facility (\$12m)
- MicroNano Research Facility (\$30m)
- Animal House Facility (\$10m)
- Histopathological Analysis Facility (\$10m)
- Next Gen Sequencing Facility (\$5m)
- Analytical Chemistry Facility (\$10m)
- Advanced Manufacturing Precinct (\$20m)
- Food Research Innovation Centre (\$15m)

# Status of breeding and cultivation project

- Applied for Office of Drug Control (ODC) License
- 2 Letters for more information received
- Hope to have License and Permit by end of the year!

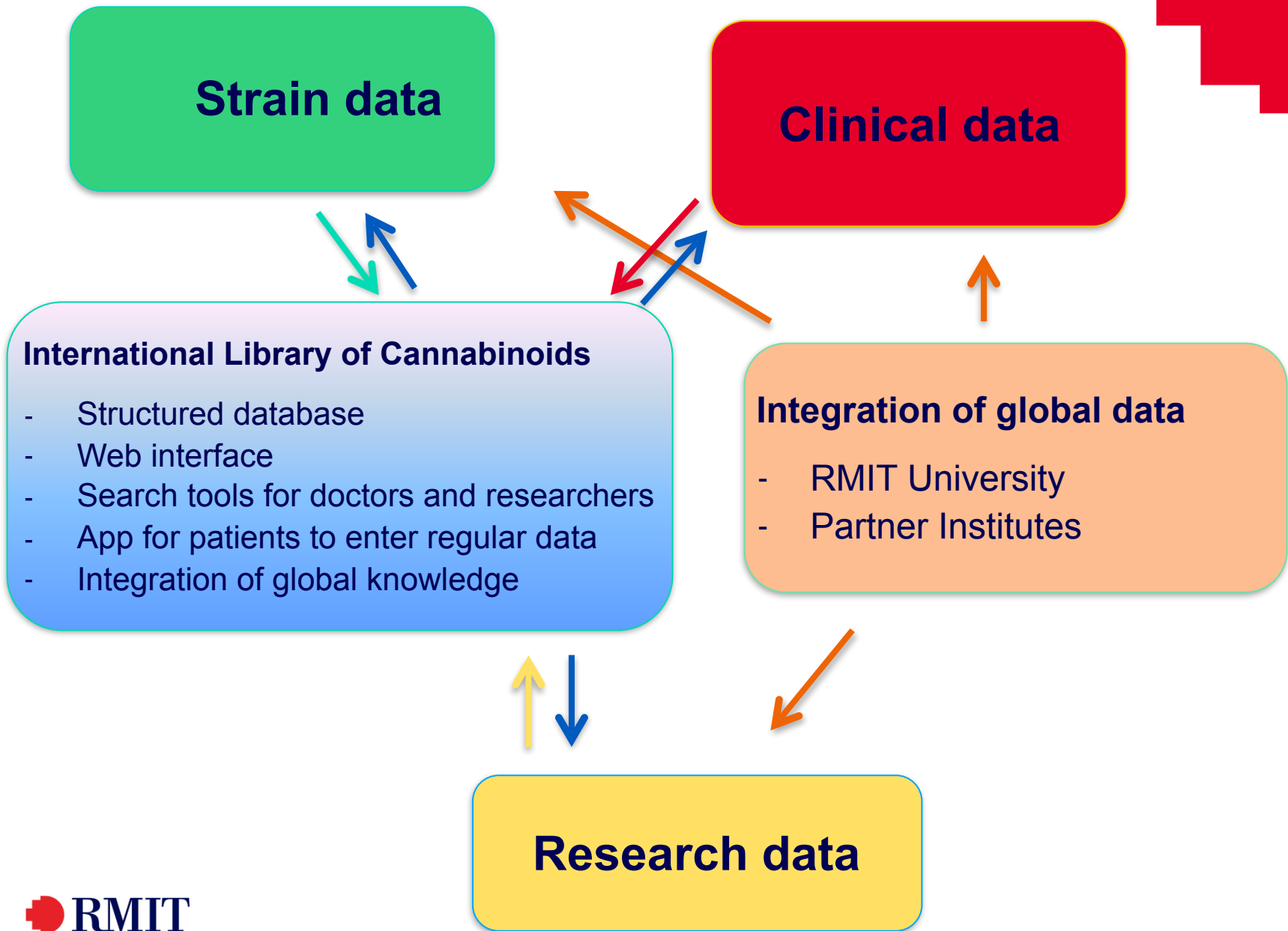
# International Library of Cannabinoids (ILC) project

- **Purpose:** This project aims to provide an integrated and open source platform for cannabinoid research/user data from academia, industry and clinicians.
- **Vision:** The vision is that all cannabinoid research/user data will be deposited in a common repository and overtime this repository will provide evidence for efficacy of cannabinoid treatment for various disorders, and help doctors, researchers and industry to choose the right cannabinoid profiles for various conditions.

# ILC Data Sources

- Clinical Case Studies: two types mainly, a randomised control study or an 'n of 1' trial
- Research Articles: trusted source. only the studies with enough replications and robust, clearly described research protocols will be chosen. Examples are: <http://www.greenmedinfo.com/substance/cannabis> and <http://www.cannabis-med.org/studies/study.php>





# International Library of Cannabinoids (ILC)

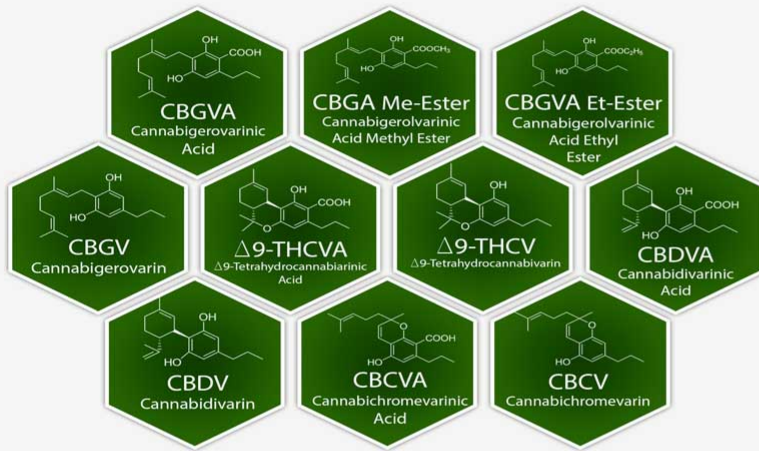
International Library of Cannabinoids

[Home](#)

[Login](#)

[Register](#)

## The Cannabinoid Varins



[Researcher](#)

[Doctor](#)

[Patient](#)

[Admin](#)

### Researcher function

Items	Descriptions
Search	Researchers who hold a valid certificate can search for comprehensive investigation of strain data and patient data, also includes advance search function.
Browse Patient Case	Researchers can browse any patient case to help their research.

[Login](#)

## About ILC

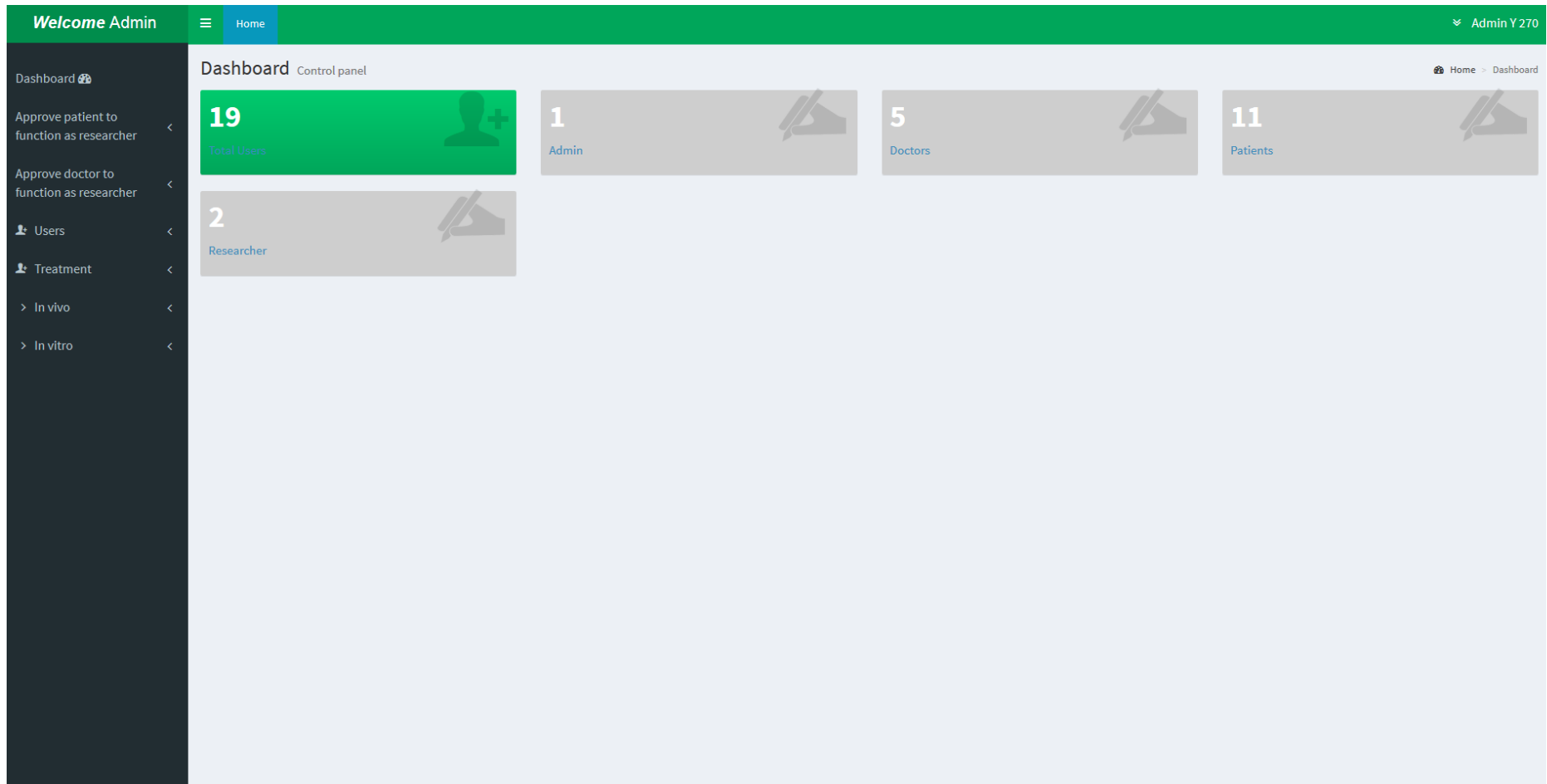
### Who We Are

This database has been created by RMIT University in collaboration with MGC Pharmaceuticals and BuddingTech Pty Ltd. It is designed to curate data cannabinoids. from growers, patients, doctors and researchers.

### Research Opportunities

### Website Features

# ILC: Admin Dashboard

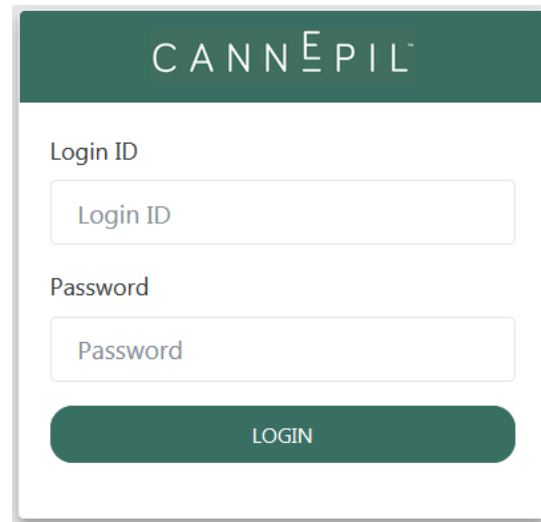


# CannEpi App

- developed for MGC Pharma to use in clinical trial at various hospitals (St Vincent's Hospital, Melbourne)
- Mobile app (Android/iOS) for patients to record daily seizure diary
- Web app for Doctors and Hospital Coordinators to check patient progress and conduct monthly follow up surveys



# CannEpil App



The image shows a login screen for the CannEpil app. It features a dark green header with the text 'CANN EPIL' in white. Below the header, there are two input fields: 'Login ID' and 'Password'. Each field has a light gray border and a placeholder text of the same name. At the bottom of the form is a dark green button with the text 'LOGIN' in white. The entire form is set against a white background with a subtle gray shadow.

CANN EPIL

Login ID

Login ID

Password

Password

LOGIN

# CannEpiL app: Doctor screen

CANNÉPIL<sup>™</sup>Manage PatientsAdd Patient

Hi, doctor1 ▾

Filter by

Patient List

+ Add User

#	LoginID	Type	User Status	
1	patient1	Patient	<input type="checkbox"/>	<div>Fill Forms</div> <div>View History</div> <div>Assigned Forms</div> <div>...</div>
2	patient3	Patient	<input type="checkbox"/>	<div>Fill Forms</div> <div>View History</div> <div>Assigned Forms</div> <div>...</div>

Items per page: 10 ▾1 - 2 of 2<>

# CannEpiL: Patient screen

### List Of Forms

Patient weighted Quality of life(Qolie-10-P)  
Oct. 11, 2018 Pending (0%)

Patient weighted Quality of life(Qolie-10-P)  
Oct. 10, 2018 Pending (0%)

Patient weighted Quality of life(Qolie-10-P)  
Oct. 09, 2018 Pending (0%)

Patient weighted Quality of life(Qolie-10-P)  
Oct. 19, 2018 Completed

Patient weighted Quality of life(Qolie-10-P)  
Oct. 18, 2018 Completed

← SAVE

0% 0 out of 10 questions answered

Question 1 of 10  
Did you have a lot of energy?  
☐ 1  
☐ 2  
☐ 3  
☐ 4  
☐ 5

BACK NEXT

← SAVE


20% 2 out of 10 questions answered


Question 3 of 10  
How much of the time during the past 4 weeks your epilepsy or anti-epileptic drugs have caused trouble with driving (or other transportation)  
☐ 1  
☐ 2  
☐ 3  
☐ 4  
☐ 5

BACK NEXT



# CannEpi App: Patient screen

 SAVE



70%

7 out of 10 questions answered

**Question 6 of 10**

How much do physical effects of antiepileptic drugs bother you?

☐ 1


☐ 2

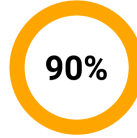
☒ 3

☐ 4

☐ 5

BACK NEXT





90%

9 out of 10 questions answered

**Question 10 of 10**

How has your QUALITY OF LIFE been during the past 4 weeks (that is, how have things been going for you)?

☐ 1


☐ 2


☐ 3

☐ 4


☒ 5

BACK SUBMIT





Thank you for your submission!

mgcpharma 

# **CannaHub:** ***from Hackathon to Commercialisation***

- Partnership between leading universities and industries wanting for R&I in cannabis medicine
- **Lead university partners:**  
RMIT University and The Hebrew University
- **Lead Industry Partners:**
  - MGC Pharmaceuticals
  - CPG Funds

# CannaHub Structure

**Hackathon**

*Generation of ideas*

**Ideation**

*Refinement of ideas*

**Application to Incubate**

*Project Approval Committee Review*

**Incubation**

*Research leading to product development*

**Acceleration**

*Prototype refinement, Consumer survey*

**Commercialisation**

*Licensing, Marketing strategy, Scale-up, Manufacturing*

# CannaHub: Current Projects

- ❑ Breeding and cultivation of Medical Cannabis for melanoma and prostate cancer treatment
- ❑ Development of International Library of Cannabinoids
- ❑ Development of CannEpilepsy app for epilepsy trial
- ❑ 3 other cannabis based pharmaceutical products projects with The Hebrew University of Jerusalem
- ❑ Hackathon in Melbourne in Feb-Mar 2019