

Position Description

Group of research topics: Liver Gut and Kidney Disorders

Position is funded by	<ul style="list-style-type: none"> - COFUND, Marie Skłodowska-Curie Actions (MSCA), Horizon 2020, European Union - MGC Pharmaceuticals Ltd, Australia - RMIT University (RMIT), Australia
Research Host	The Hebrew University of Jerusalem (HUJI), Israel
Industry Partner	MGC Pharmaceuticals Ltd, Australia
PhD awarding institution/s:	Dual PhD awarded by HUJI and RMIT
Locations	<ul style="list-style-type: none"> - Primary: Jerusalem, Israel - Secondary: Melbourne, Australia - Annual workshops in Barcelona, Spain
Contract	Full time, fixed term (48 months)
Gross annual salary	125,000 ILS per year (approx. 32,000 EUR per year)
Preferred start date	3/10/2022
Deadline for applications	30/04/2022 (Reference: HUJI-DC2)

Your choice of research topics (only one of these projects will be funded):

Project 1: Nanodelivery of cannabinoids for treating NAFLD	Project 2: Nanodelivery of cannabinoids for kidney disorders	Project 3: Nanodelivery of cannabinoids for Gut disorders
<p>Obesity is a chronic disease that has been described as a catalyst for a number of conditions, most notably is nonalcoholic fatty liver disease (NAFLD). The endocannabinoid (eCB) system, involved in the development NAFLD, has been shown to regulate hepatic glucose production, insulin resistance and de novo lipogenesis. Accordingly, targeting the diseased liver by using cannabinoids encapsulated in nano delivery system can be a therapeutic approach to ameliorate NAFLD. <i>Further information may be obtained from the Supervisors.</i></p>	<p>Kidney diseases represent a global concern due to their elevated and rapidly growing incidence. Over the past two decades, the incidence of chronic kidney disease (CKD) and acute kidney injury (AKI) has dramatically increased, with limited available therapy. Targeting the diseased kidney with nano encapsulated cannabinoids could be therapeutically relevant as the endocannabinoid system is known to modulate kidney function in health and disease. <i>Further information may be obtained from the Supervisors.</i></p>	<p>We will develop nanoparticulate systems for oral delivery of cannabinoids and study their impact on gut microbiome metabolism. The gut microbiota synthesizes a variety of chemical compounds, acting as a functional complement to host metabolism. Changes in gut microbiota metabolism can cause or cure various inflammatory disorders of the gut. We will map the distribution of cannabinoids along the GI tract and evaluate their impact on spatial microbiome metabolism using mass spectrometry imaging. <i>Further information may be obtained from the Supervisors.</i></p>

Supervisors: <u>Prof. Yossi (Joseph) Tam (HUJI) and A/Prof Nitin Mantri, A/Prof Charlotte Conn (RMIT) and M.D. Jonathan Grunfeld (MGC Pharma)</u>	Supervisors: <u>Dr. Katy Margulis (HUJI) and A/Prof Nitin Mantri, A/Prof Charlotte Conn (RMIT) and M.D. Jonathan Grunfeld (MGC Pharma)</u>
Research Fields: Biomedical Sciences, Nanotechnology, Applied science and Pharmacy	Research Fields: Chemistry, Nanotechnology and Pharmacy

REDI

The REDI (RMIT European Doctoral Innovators) program is a unique opportunity offering excellent PhD conditions including enviable international experience, top-class research discipline and transversal skills training as well as networking with-academic and industry leaders across 60+ supporting partners and 12 countries.

As a REDI researcher you will be:

- enrolled by two entities, with the chance to be awarded dual doctorates and gain alumni status from multiple institutions, including the Marie Curie Alumni Association.
- seeing the world and spending a year at RMIT University in Melbourne, Australia (ranked in the top 20 of universities under 50 years old in the world).
- part of a rich multidisciplinary network of researchers and supervisors who come together in annual, week-long training events in Barcelona.
- working closely with industry and gaining experience with the 40+ leading companies supporting the program.
- earning a salary above national standards for doctoral positions with full social security benefits (with further support available for eligible researchers with additional needs).
- receiving support and guidance from two highest-calibre, experienced supervisors with high PhD completion rates.
- enhancing your career prospects through comprehensive technical and transversal skills training from leading institutions, intersectoral and international experience and mentoring.
- working on innovative and exciting projects of high commercial and societal value with up to four years to complete your research.

For more information visit: rediprogram.eu

Are you REDI? (Expected Profile)

Your background and skills: You should have a Bachelor (Honours) or Master in the fields of Endocrinology, Biotechnology, Chemistry, Biomedicine, Nanotechnology, Pharmacy or related fields. You should also have great communication skills, teamwork capabilities, scientific writing skills. A great advantage would be taking initiative, leading the project and demonstrate thought originality.

Your work experience: You should be familiar with basic laboratory skills and tasks. A high advantage would be proficiency in specific methods, including biochemistry, molecular biology, cell culture, animal handling.

Your research experience: If you have completed M.Sc. through coursework, you should demonstrate 25% research experience during your degree.

Employment Benefits and Conditions

HUJI offers a 48-month full-time work contract (also named "type A"), indicatively starting on 03/10/2022. The position will be based in Jerusalem (Israel). International travel is foreseen, including to Australia (up to 12 months) and Spain (one week per year). At HUJI, there is a probation period of three (3) months and there are 35 working hours per week.

The remuneration, in line with the European Commission rules for Marie Skłodowska-Curie grant holders, will consist of a gross annual salary of 125,000 ILS (est. 32,000 EUR gross per year). Of this amount, the estimated net salary to be perceived by the Researcher is 107.000 ILS per year (est. 27.000 EUR gross per year) equivalent to an estimate



monthly net salary* of 9.000 ILS (est. 2.300 EUR net per month). However, the definite amount to be received by the Researcher is subject to national tax legislation.

**Net salaries can fluctuate in accordance with an individual's personal circumstances (marital status, age, disability, family and dependents, etc. The above indicative net salaries offer an approximation of what a single person in their early 20s could expect to receive in their bank account after taxes.*

Benefits include:

- 12 days of paid annual leave and 18 days of sick leave per year
- insurance for work-related accidents, work disability and other provisions subject to the conditions and stipulations specified in the Social Security legislation in Israel.
- Pension and compensation fund
- 1,000€ yearly travel allowance to cover flights and accommodation to participate in the annual workshop at RMIT Europe in Barcelona (Spain)
- 10,000€ allowance to cover flights and living expenses for up to 12 months in Australia

For more details, please see:

https://academic-secretary.huji.ac.il/sites/default/files/acs/files/talmidei_mehkar_eng_2018.pdf

REDI to apply? First a little more about us...

HUJI

The Hebrew University of Jerusalem is consistently ranked as the top university in Israel and among the top 100 worldwide. Its student body numbers 23,500 students from Israel and 90 other countries. The University is actively engaged in international cooperation for research and teaching and joint projects with 320 other universities, and more than 208 student exchange programs with 95 academic institutions in 27 countries.

The Hebrew University is a leader in bringing about change in the global community in many fields, including science, economics, agriculture, environmental quality and public health. Students carry out advanced studies at the University and return to their home countries where they apply the knowledge they gained to improve the lives of their local communities.

HUJI university offers to their Doctoral Students a wide range of benefits, including:

- **Mentoring program:** High scientific level of academic staff, Individual supervision on basis of frequent meetings. Faculty members advisors; an Advisory Committee; Doctoral Field Committees; Additional reviewer in Experimental Sciences.
- **Courses and training opportunities:** The Teaching and Learning Center at The Hebrew University of Jerusalem encourage the increase of courses and full degree programs offered in English and promote the creation of joint and double degrees.
- **Language courses:** As part of the support services, Hebrew classes are offered for all international students. A basic level of Hebrew (beginners and advanced classes) is subsidized and suggested for a nominal price. More advanced levels are available as part of Rothberg's Ulpan classes in a discounted price.
- **Relocation support:** The Office of Student Life at the Rothberg International School provides support services for international students and fellows in pre arrival matters such as visa, accommodation, health insurance, local bank account, transportation etc.
- **Cultural and social activities:** Support Services coordinators organize social activities at least once a month, trying to arrange the most varied and enriching social program that will suite the student community they serve. They send once a week a "weekly email" with the most recommended events happening in Jerusalem and their own social events. There are a few medias to contact the students: email, Facebook groups and WhatsApp groups.
- **Further benefits:** The Adviser to the President for the Advancement of Women in Science at the Hebrew University of Jerusalem is responsible for taking steps to encourage female students to enroll in doctoral studies by supporting and assisting them with scholarships, and also mentorship by senior female academic staff.

For more information, visit: <https://en.huji.ac.il/en>



RMIT

RMIT is a global university of technology, design and enterprise, ranked in the top 20 of universities under 50 years old in the world. World-class people, leading edge resources, collaboration with industry partners and multi-disciplinary approaches are just a few of the trademarks of research at RMIT, which boasts almost 90,000 students and campuses in Australia, Vietnam, a centre in Barcelona, Spain and research and industry partners on every continent.

As Doctoral Student at RMIT you will be able to benefit from a wide range of training and mentoring opportunities including:

- **The PhD Up** program offering a huge range of workshops, seminars and short courses to build research knowledge and skills, including research writing, publishing, research methods, ethics, project management and careers (see more at: <https://www.rmit.edu.au/students/student-essentials/information-for/research-candidates/enriching-your-candidature/phd-up-program>)
- **RMIT PhD Online Modules**, designed specifically for PhD students, including *Researching your literature review*, *Writing a research proposal*, *Choosing where to publish*, *Writing for Publication*, *Research Integrity*, etc.
- **RMIT Creds**, RMIT's Digital Credentials Platform, which includes over 80 credentials covering a wide range of topics such as *Understanding Responsible Research and Innovation*, *Academic Integrity Awareness*, *Emotional Intelligence*, *Diversity Matters*, *Agile Ways of Working*, *Why Gender Matters*, *Cross Cultural Communications*, etc. (see more at: <https://www.rmit.edu.au/study-with-us/levels-of-study/short-courses>);
- **The e-Grad School**, the online learning modules of the Australian Technology Network (ATN) of Universities' covering a multitude of transferrable skills such as *Critical and Creative Thinking*, *Leadership and Communication*, *Entrepreneurship*, *Research Commercialisation*, *Public Policy*, etc.
- **The RMIT Mentoring platform** also gives you access to mentoring from trained professionals and experts, including:
 - o *Career Mentoring* - career guidance from industry professionals from all disciplines and global locations.
 - o *Women@RMIT Mentoring* - career guidance from industry professionals who are committed to gender diversity and equality in the workplace (especially for female students in male dominated industries)
 - o *Pride Mentoring* - a chance for students who identify as LGBTIQ+ to receive professional and social guidance from industry professionals who also identify as LGBTIQ+ or are familiar with the additional challenges these groups face in the workforce.

Find out more: rmit.edu.au

MGC Pharmaceuticals

MGC Pharmaceuticals is a biopharma company with a "Nature to Medicine" core strategy. It is at the forefront of the emerging phytocannabinoid and plant-derived medicine markets. The company's mission is to build an innovative, global bio-pharma company providing standardised, affordable plant derived medicines of the highest regulatory compliance for targeted global markets. MGC Pharmaceuticals is able to help diverse groups of people through the research and development of pharmaceutical products that increase patients' quality of life. Through its successful research focus MGC has developed an efficient production pipeline of phytocannabinoid-derived medications, with multiple products currently being prescribed to patients, and products currently in clinical development and testing. It has facilities all over the world, including Australia, Slovenia and the UK and REDI researchers will have extensive interaction with company staff throughout the development of their projects.

The Doctoral Student will work closely with MGC Pharma in the selected research project where the company will provide input into designing the project, analysis and utilisation of results.

Find out more: <https://mgcpharma.com.au/>

A little more about you...

Eligibility

You need to fulfil criteria of the REDI program and both universities to be recruited.



To apply for REDI, you must comply with the MSCA-COFUND general eligibility criteria:

- **Be in the first four years** (Full-Time Equivalent (FTE) research experience) **of your research career** and not yet have been awarded a doctoral degree. FTE Research Experience is measured from the date when a researcher obtained the degree entitling him/her to embark on a doctorate, **AND**
- **Not have resided or carried out your main activity** (work, studies, etc.) in the country of your research host for more than 12 months in the 3 years immediately before this call's deadline. Time spent as part of a procedure for obtaining refugee status under the Geneva Convention (1951 Refugee Convention and 1967 Protocol), compulsory national service and/or short stays such as holidays is not taken into account.

AND the following criteria:

- **Hold a four-year bachelor's degree requiring at least 4 years of full-time study** in a relevant discipline awarded with honours and including a research component; **OR**
- **Hold a master's degree that includes a research component** or a master's degree without a research component with at least a high distinction average; **OR**
- **Have evidence of appropriate academic qualifications and/or professional experience** demonstrating that the applicant has developed knowledge of the field of study or cognate field and the potential for research sufficient to undertake the chosen project.

AND

- Have **English level C1 language proficiency**

In addition to the above, if your application is successful, you will be required to:

- Apply for a working visa in Israel (More information: <https://international.huji.ac.il/book/general-student-and-visitor-information>)
- Apply for a student visa in Australia (More information: <https://www.rmit.edu.au/study-with-us/international-students/apply-to-rmit-international-students/student-visas/apply-for-a-visa>)
- Acquire health/ travel insurance.

In addition to meeting the eligibility criteria for the REDI Program, you will also need to meet the admission criteria of both institutions:

Admission at HUJI

You will be enrolled as Doctoral Student at HUJI for the entire duration of the assignment. At admission, you will need to supply:

- Bachelor's official transcript and diploma; Master's with thesis - official transcript and diploma. The documents should be submitted in English (or have an official translation).
- Recommendation letters
- To hold interviews
- Letters indicating intentions of research
- A prerequisite for applying is finding a supervisor
- Proof of English language level C1: TOEFL, IELTS, AMIR/AMIRAM. The Hebrew University of Jerusalem also considers admission based on official confirmation that the language of instruction in previous studies was in English only. European standards B2 allows provisional acceptance, exemption level should be reached within the first 1-2 years of studies.

The Hebrew University of Jerusalem requires original documents from EU and non-EU Universities or notarized copies.

More information: <http://www.research-students.huji.ac.il/en/candidates-non-israeli-institutes>

Admission at RMIT

You will also be enrolled as Doctoral Student at RMIT for the entire duration of the assignment. At admission, you will need to supply:

- CV
- Complete transcripts for all academic qualifications
- Research proposal or statement of interest in an available research project
- Language certificates
- List of referees

More information: <https://www.rmit.edu.au/research/research-degrees/how-to-apply>

Apply now (<https://www.rediprogram.eu>)