NAME: **RODRIGO MARON CARLESSI**

DATE OF BIRTH: December 30 1982
WORK ADDRESS: Curtin University, Kent St, Bentley WA 6102, Building 305, Room 008.
Email: rodrigo.carlessi@curtin.edu.au

NATIONALITY: Brazilian, Australian

EDUCATION: Federal University of Rio Grande do Sul, (UFRGS), Brazil, 2012-15
Weizmann Institute of Science, Israel, 2008-2011
UFRGS 2003-2007

QUALIFICATIONS: PhD 2016 (Molecular Endocrinology)
M.Sc. 2011 (Biochemistry)
B.Sc. 2007 (Cellular and Molecular Biology)

BIO

Dr. Rodrigo Carlessi is a Cancer Council of Western Australia (CCWA) Postdoctoral Fellow, leading the *Advanced Genomics* platform within the Liver Cancer Research Program at the Curtin Health Innovation Research Institute. Boasting seven years of postdoctoral experience, Dr. Carlessi possesses a wealth of knowledge in advanced genomics technologies and computational biology. His international research career spans across Australia, Brazil, and Israel, resulting in 34 peer-reviewed publications, three book chapters, and over 1,900 citations.

In 2007, Dr. Carlessi earned his B.Sc. in Cellular and Molecular Biology from the Federal University of Rio Grande do Sul (UFRGS), Brazil. He subsequently joined the Department of Molecular Genetics at the Weizmann Institute of Science, Israel, obtaining an M.Sc. in Biochemistry in 2011. He went on to receive his Ph.D. in Molecular Endocrinology from UFRGS in 2016 before joining Curtin University. Initially, Dr. Carlessi focused on postdoctoral training in pancreatic beta cell biology, receiving accolades from the Australian Diabetes Society and the Heart Foundation. Later, he was strategically recruited to the Liver Disease & Regeneration Group at the Curtin Medical School, bringing his unique expertise on metabolic drivers of carcinogenesis.

Utilising single nucleus RNA sequencing (snRNA-seq), spatial transcriptomics, and long-read sequencing technologies, Dr. Carlessi's research investigates mechanisms, biomarkers, and therapeutic targets in liver disease. His ground-breaking work has identified a transcriptomic liver disease signature with significant clinical potential for predicting the risk of liver cancer development. This achievement has garnered national and international recognition, including a presentation award at the Australian Liver Cancer Gallipoli Meeting, an invited presentation at Oz Single Cell, the 2021 Overall Winner Curtinnovation Award, and the establishment of new research collaborations with research teams at The University of Edinburgh, University of California, Monash University, and The University of New South Wales.

Dedicated to enhancing surveillance programs and treatment options for patients with chronic liver diseases, Dr. Carlessi's primary research objective is to identify novel biomarkers for early liver cancer risk prediction approaches. His investigations involve tissue and circulating cell-free DNA (cfDNA) methylation changes during disease progression, utilising long-read sequencing technologies to examine epigenetic markers for non-invasive methods.

RESEARCH CAREER

2019 – current	Research Fellow, Curtin Medical School, Curtin University, WA.
2016 – 2018	Postdoctoral Researcher, School of Pharmacy and Biomedical Sciences, Curtin University, WA.
2014 – 2015	Associate Researcher, Biomedical Sciences, Curtin University, WA.
2012 – 2015	PhD student, Endocrinology, UFRGS, Brazil.
2011	Staff Scientist, Weizmann Institute of Science, Israel.
2008-2011	M. Sc. Student (Biochemistry), Weizmann Institute of Science, Israel.
2003-2007	B. Sc. Student (Cellular and Molecular Biology), UFRGS, Brazil.

CITATIONS TRACK RECORD

Summary of my citation metrics (*current as of June 2023*):

Indicator	*Scopus*	*Google Scholar*
Total citations	**1,419**	**1,933**
h-index	**15**	**16**

PUBLICATION LIST

1. **Carlessi, R**., Denisenko, E., Boslem, E., Kohn-Gaone, J., Main, N., Abu Bakar, N.D.B., Shirolkar, G.D., Jones, M., Beasley, A.B., Poppe, D., et al. (2023). Single-nucleus RNA sequencing of pre-malignant liver reveals disease-associated hepatocyte state with HCC prognostic potential. Cell Genom 3, 100301. 10.1016/j.xgen.2023.100301.

2. Cabanes-Creus, M., Navarro, R.G., Liao, S.H.Y., Scott, S., **Carlessi, R**., Roca-Pinilla, R., Knight, M., Baltazar, G., Zhu, E., Jones, M., et al. (2023). Characterization of the humanized FRG mouse model and development of an AAV-LK03 variant with improved liver lobular biodistribution. Mol Ther Methods Clin Dev 28, 220-237. 10.1016/j.omtm.2022.12.014.

3. Abu Bakar, N.D.B., **Carlessi, R**., Gogoi-Tiwari, J., Kohn-Gaone, J., Williams, V., Falasca, M., Olynyk, J.K., Ramm, G.A., and Tirnitz-Parker, J.E.E. (2023). TWEAK/Fn14 Signalling Regulates the Tissue Microenvironment in Chronic Pancreatitis. Cancers (Basel) 15. 10.3390/cancers15061807.

4. Passman, A.M., Strauss, R.P., McSpadden, S.B., Finch-Edmondson, M., Andrewartha, N., Woo, K.H., Diepeveen, L.A., Zhao, W., Fernandez-Irigoyen, J., Santamaria, E., **Carlessi, R**., et al. (2021). Maraviroc Prevents HCC Development by Suppressing Macrophages and the Liver Progenitor Cell Response in a Murine Chronic Liver Disease Model. Cancers (Basel) 13. 10.3390/cancers13194935.

5. Gratte, F.D., Pasic, S., Abu Bakar, N.D.B., Gogoi-Tiwari, J., Liu, X., **Carlessi, R**., Kisseleva, T., Brenner, D.A., Ramm, G.A., Olynyk, J.K., and Tirnitz-Parker, J.E.E. (2021). Previous liver regeneration induces fibro-protective mechanisms during thioacetamide-induced chronic liver injury. Int J Biochem Cell Biol 134, 105933. 10.1016/j.biocel.2021.105933.

6. **Carlessi, R**., Cruzat, V., Chen, Y., and Newsholme, P. (2020). Nitric Oxide and Redox State Measurements in Pancreatic Beta Cells. Methods Mol Biol 2076, 241-253. 10.1007/978-1-4939-9882-1_14.

7. Tapadia, M., **Carlessi, R**., Johnson, S., Utikar, R., and Newsholme, P. (2019). Lupin seed hydrolysate promotes G-protein-coupled receptor, intracellular Ca(2+) and enhanced glycolytic metabolism-mediated insulin secretion from BRIN-BD11 pancreatic beta cells. Mol Cell Endocrinol 480, 83-96. 10.1016/j.mce.2018.10.015.

8. Rowlands, J., Walz, N., Rowles, J.E., Keane, K.N., **Carlessi, R**., and Newsholme, P. (2019). Method Protocols for Metabolic and Functional Analysis of the BRIN-BD11 beta-Cell Line: A Preclinical Model for Type 2 Diabetes. Methods Mol Biol 1916, 329-340. 10.1007/978-1-4939-8994-2_32.

9. Romeu Montenegro, K., **Carlessi, R**., Cruzat, V., and Newsholme, P. (2019). Effects of vitamin D on primary human skeletal muscle cell proliferation, differentiation, protein synthesis and bioenergetics. J Steroid Biochem Mol Biol 193, 105423. 10.1016/j.jsbmb.2019.105423.

10. Newsholme, P., Keane, K.N., **Carlessi, R**., and Cruzat, V. (2019). Oxidative stress pathways in pancreatic beta-cells and insulin-sensitive cells and tissues: importance to cell metabolism, function, and dysfunction. Am J Physiol Cell Physiol 317, C420-C433. 10.1152/ajpcell.00141.2019.

11. Montenegro, K.R., Cruzat, V., **Carlessi, R**., and Newsholme, P. (2019). Mechanisms of vitamin D action in skeletal muscle. Nutr Res Rev 32, 192-204. 10.1017/S0954422419000064.

12. Lemos, N.E., Dieter, C., **Carlessi, R**., Rheinheimer, J., Brondani, L.A., Leitao, C.B., Bauer, A.C., and Crispim, D. (2019). Renal effects of exendin-4 in an animal model of brain death. Mol Biol Rep 46, 2197-2207. 10.1007/s11033-019-04674-1.

13. Crispim, D., Rodrigues, M., da Silva, L.P.A., Boucas, A.P., Canani, L.H., **Carlessi, R**., and de Souza, B.M. (2019). The A allele of the UCP2 -866G/A polymorphism changes UCP2 promoter activity in HUVECs treated with high glucose. Mol Biol Rep 46, 4735-4741. 10.1007/s11033-019-04918-0.

14. **Carlessi, R**., Rowlands, J., Ellison, G., Helena de Oliveira Alves, H., Newsholme, P., and Mamotte, C. (2019). Glutamine deprivation induces metabolic adaptations associated with beta cell dysfunction and exacerbate lipotoxicity. Mol Cell Endocrinol 491, 110433. 10.1016/j.mce.2019.04.013.

15. **Carlessi, R**., Kohn-Gaone, J., Olynyk, J.K., and Tirnitz-Parker, J.E.E. (2019). Mouse Models of Hepatocellular Carcinoma. In Hepatocellular Carcinoma, J.E.E. Tirnitz-Parker, ed. 10.15586/hepatocellularcarcinoma.2019.ch4.

16. Rowlands, J., Heng, J., Newsholme, P., and **Carlessi, R**. (2018). Pleiotropic Effects of GLP-1 and Analogs on Cell Signaling, Metabolism, and Function. Front Endocrinol (Lausanne) 9, 672. 10.3389/fendo.2018.00672.

17. Rowlands, J., Cruzat, V., **Carlessi, R**., and Newsholme, P. (2018). Insulin and IGF-1 receptor autocrine loops are not required for Exendin-4 induced changes to pancreatic beta-cell bioenergetic parameters and metabolism in BRIN-BD11 cells. Peptides 100, 140-149. 10.1016/j.peptides.2017.11.015.

18. Arifin, S.A., Paternoster, S., **Carlessi, R**., Casari, I., Ekberg, J.H., Maffucci, T., Newsholme, P., Rosenkilde, M.M., and Falasca, M. (2018). Oleoyl-lysophosphatidylinositol enhances glucagon-like

peptide-1 secretion from enteroendocrine L-cells through GPR119. Biochim Biophys Acta Mol Cell Biol Lipids 1863, 1132-1141. 10.1016/j.bbalip.2018.06.007.

19. Keane, K.N., Calton, E.K., **Carlessi, R**., Hart, P.H., and Newsholme, P. (2017). The bioenergetics of inflammation: insights into obesity and type 2 diabetes. Eur J Clin Nutr 71, 904-912. 10.1038/ejcn.2017.45.

20. **Carlessi, R**., Keane, K.N., Mamotte, C., and Newsholme, P. (2017). Nutrient regulation of beta-cell function: what do islet cell/animal studies tell us? Eur J Clin Nutr 71, 890-895. 10.1038/ejcn.2017.49.

21. **Carlessi, R**., Chen, Y., Rowlands, J., Cruzat, V.F., Keane, K.N., Egan, L., Mamotte, C., Stokes, R., Gunton, J.E., Bittencourt, P.I.H., and Newsholme, P. (2017). GLP-1 receptor signalling promotes beta-cell glucose metabolism via mTOR-dependent HIF-1alpha activation. Sci Rep 7, 2661. 10.1038/s41598-017-02838-2.

22. Newsholme, P., Cruzat, V.F., Keane, K.N., **Carlessi, R**., and de Bittencourt, P.I., Jr. (2016). Molecular mechanisms of ROS production and oxidative stress in diabetes. Biochem J 473, 4527-4550. 10.1042/BCJ20160503C.

23. Chen, Y., **Carlessi, R**., Walz, N., Cruzat, V.F., Keane, K., John, A.N., Jiang, F.X., Carnagarin, R., Dass, C.R., and Newsholme, P. (2016). Pigment epithelium-derived factor (PEDF) regulates metabolism and insulin secretion from a clonal rat pancreatic beta cell line BRIN-BD11 and mouse islets. Mol Cell Endocrinol 426, 50-60. 10.1016/j.mce.2016.02.004.

24. Carnagarin, R., **Carlessi, R**., Newsholme, P., Dharmarajan, A.M., and Dass, C.R. (2016). Pigment epithelium-derived factor stimulates skeletal muscle glycolytic activity through NADPH oxidase-dependent reactive oxygen species production. Int J Biochem Cell Biol 78, 229-236. 10.1016/j.biocel.2016.06.013.

25. Buffon, M.P., Carpena, M.P., Sortica, D.A., Santer, A., **Carlessi, R**., de Souza, B.M., Edelweiss, M.I., Berger, M., Crispim, D., and Canani, L.H. (2016). rs1888747 polymorphism in the FRMD3 gene, gene and protein expression: role in diabetic kidney disease. Diabetol Metab Syndr 8, 3. 10.1186/s13098-015-0121-5.

26. Rheinheimer, J., Bauer, A.C., Silveiro, S.P., Estivalet, A.A., Boucas, A.P., Rosa, A.R., Souza, B.M., Oliveira, F.S., Cruz, L.A., Brondani, L.A., **Carlessi, R**., et al. (2015). Human pancreatic islet transplantation: an update and description of the establishment of a pancreatic islet isolation laboratory. Arch Endocrinol Metab 59, 161-170. 10.1590/2359-3997000000030.

27. Keane, K.N., Cruzat, V.F., **Carlessi, R**., de Bittencourt, P.I., Jr., and Newsholme, P. (2015). Molecular Events Linking Oxidative Stress and Inflammation to Insulin Resistance and beta-Cell Dysfunction. Oxid Med Cell Longev 2015, 181643. 10.1155/2015/181643.

28. **Carlessi, R**., Lemos, N.E., Dias, A.L., Oliveira, F.S., Brondani, L.A., Canani, L.H., Bauer, A.C., Leitao, C.B., and Crispim, D. (2015). Exendin-4 protects rat islets against loss of viability and function induced by brain death. Mol Cell Endocrinol 412, 239-250. 10.1016/j.mce.2015.05.009.

29. **Carlessi, R**., Lemos, N.E., Dias, A.L., Brondani, L.A., Oliveira, J.R., Bauer, A.C., Leitao, C.B., and Crispim, D. (2015). Exendin-4 attenuates brain death-induced liver damage in the rat. Liver Transpl 21, 1410-1418. 10.1002/lt.24317.

30. Rheinheimer, J., Ziegelmann, P.K., **Carlessi, R**., Reck, L.R., Bauer, A.C., Leitao, C.B., and Crispim, D. (2014). Different digestion enzymes used for human pancreatic islet isolation: a mixed treatment comparison (MTC) meta-analysis. Islets 6, e977118. 10.4161/19382014.2014.977118.

31. Mor, I., **Carlessi, R**., Ast, T., Feinstein, E., and Kimchi, A. (2012). Death-associated protein kinase increases glycolytic rate through binding and activation of pyruvate kinase. Oncogene 31, 683-693. 10.1038/onc.2011.264.

32. **Carlessi, R**., Levin-Salomon, V., Ciprut, S., Bialik, S., Berissi, H., Albeck, S., Peleg, Y., and Kimchi, A. (2011). GTP binding to the ROC domain of DAP-kinase regulates its function through intramolecular signalling. EMBO Rep 12, 917-923. 10.1038/embor.2011.126.

33. Simionatto, S., Marchioro, S.B., Galli, V., Hartwig, D.D., **Carlessi, R**.M., Munari, F.M., Laurino, J.P., Conceicao, F.R., and Dellagostin, O.A. (2010). Cloning and purification of recombinant proteins of Mycoplasma hyopneumoniae expressed in Escherichia coli. Protein Expr Purif 69, 132-136. 10.1016/j.pep.2009.09.001.

34. Crispim, D., Canani, L.H., Gross, J.L., **Carlessi, R**.M., Tschiedel, B., Souto, K.E., and Roisenberg, I. (2005). The G1888A variant in the mitochondrial 16S rRNA gene may be associated with Type 2 diabetes in Caucasian-Brazilian patients from southern Brazil. Diabet Med 22, 1683-1689. 10.1111/j.1464-5491.2005.01702.x.

CURRENT AND PREVIOUS GRANTS

- **NHMRC 2022 Standard Equipment Grant. $30,603.00.** "*Oxford Nanopore PromethION 2 Sequencing Unit Solo*" **(CIA) Rodrigo Carlessi**.
- **Spinnaker Health Research Foundation, SEED GRANTS 2023. $19,962.00.** "*Validating novel biomarkers to predict future hepatocellular carcinoma in chronic liver disease patients*" **(CIA) Rodrigo Carlessi,** (CIB) Nina Tirnitz-Parker, (CIC) John Olynyk.
- **Gastroenterological Society of Australia (GESA), 2021, Project Grants. $30,000.** "*Methylation signature of precancerous hepatocytes in circulating free DNA (cfDNA) as a novel biomarker to predict hepatocellular carcinoma prior to its development.*" **(CIA) Rodrigo Carlessi,** (CIB) Nina Tirnitz-Parker, (CIC) Elin Gray.
- **Cancer Council WA, 2021, COLLABORATIVE CANCER GRANT SCHEME. $64,718.** "Exploring therapeutic targets for the treatment of metastatic uveal melanoma". Dr Weitao Lin, Dr Elena Denisenko, A/Prof Nima Mesbah Ardakani, **Dr Rodrigo Carlessi**.
- **Cancer Council WA, 2021-2024, Postdoctoral Fellowship. $225,000. "**Predicting liver cancer before its appearance to improve detection of individuals at high-risk". **Dr Rodrigo Carlessi (CIA).**
- **Production Phase Grant of the WA Cancer Single Cell Consortium, 2020. $240,000.** "*Single nucleus sequencing of early hepatocellular carcinoma development*". **Dr Rodrigo Carlessi (CIA)**, A/Prof Nina Tirnitz-Parker, Prof John Olynyk, Prof George Yeoh, Prof Mark Febbraio.
- **Cancer Research Trust $5M, (and funding partners Minderoo Foundation, Curtin University, Harry Perkins Institute, UWA, Department of Health WA, Charlies Foundation, McCusker Foundation, $5.8M), Collaborative Cancer Research Grant, 2020-2025. Total $10.8 million.**

"*Defeating Primary Liver Cancer*". Co-CIs Prof Nina Tirnitz-Parker and Prof Peter Leedman, **Dr Rodrigo Carlessi (EMCR-AI),** *et al*.

- **Gastroenterological Society of Australia (GESA), 2019, Project Grants. $25,000.** "*Single nucleus sequencing of matched chronically injured liver tissue - A ground-breaking new opportunity for biomarker discovery in liver cancer research*". Prof John Olynyk, **Dr Rodrigo Carlessi**, Prof Geoff McCaughan, A/Prof Nina Tirnitz-Parker, Prof Nicholas Shackel, Prof George Yeoh.
- **Cancer Council WA, 2019 (APP1163396). $100,000.** "*Investigating immune dysregulation during ageing and the impact on cancer immunotherapy*". Dr Connie Jackaman, Prof Delia Nelson, **Dr Rodrigo Carlessi**, Prof Philip Newsholme.
- **National Heart Foundation (WA Division), 2017, Miles Award. $10,000. "***Mechanisms driving cell dysfunction in diabetes*". **Dr Rodrigo Carlessi.**
- **School of Biomedical Sciences, Curtin University, 2015. Strategic Research Funding. $54,000. "***The role of Glucagon-Like Peptide-1 (GLP-1) in the regulation of pancreatic beta cell bioenergetics*". Prof Philip Newsholme, Prof Marco Falasca, Prof Paulo Ivo Homem de Bittencourt Jr., **Dr Rodrigo Carlessi**.

PRESENTATIONS

I have published over **30 abstracts in conference proceedings in Brazil, Australia and Europe**, and was awarded '**best poster prize' three times throughout my career**.

I have recently given **<u>invited presentations</u>** in local and national Research Symposia and Seminar Series in Australia, as highlighted below.

- "***Novel hepatocyte phenotype precedes hepatocarcinogenesis and predicts HCC risk*"** (Liver Cancer Collaborative, Annual Scientific Meeting, December 2022, Perth Australia).
- "***Newly identified disease-associated hepatocytes: can they be the future of HCC surveillance?"*** (Abstract of Merit - GESA Research Workshop, September 2022, Gold Coast, Australia).
- "***Predicting Liver Cancer Before its Appearance to Improve Survival*"** (Cancer Council WA Research Excellence Awards Day 2021, Perth Australia).
- **"*The Single Cell Transcriptome of the Pre-Malignant Liver*"** (Oz Single Cell 2021, Harry Perkins Institute of Medical Research, Perth WA, August 2020).
- "***Single nucleus RNA sequencing of the chronically injured liver reveals molecular signature that correlates with and predicts disease stage***" (3rd & 4th Dec 2020, Australian Experimental Liver Cancer Research Network, Virtual Meeting, Gallipoli Medical Research Foundation).
- "***Single nucleus RNA sequencing reveals cellular dynamics and molecular signatures of the healthy and chronically injured liver***" (Nov 6th 2020, Baker Institute, EMCR Round Robin Seminars, Melbourne VIC).
- "***Single nucleus profiling of liver carcinogenesis***" (CRT Single Cell Cancer Consortium - Annual General Meeting (AGM), Harry Perkins Institute of Medical Research, Perth WA, August 2020).
- "'***Therapeutically targeting cellular crosstalk to inhibit hepatic carcinogenesis***" (Australian Experimental Liver Cancer Workshop - Gallipoli Medical Research Foundation, Brisbane QLD, November 2019) - <u>flights and accommodation fully funded by the meeting organisers</u>.

- "***A novel approach to tackle diabetes and CVD***". (The 2017 Heart Foundation Research Awards Ceremony, Council House, City of Perth WA, 2017).
- "***GLP-1 receptor signalling promotes β-cell glucose metabolism via mTOR-dependent HIF-1α activation***" (Cell Signalling WA - Curtin University, Perth WA, 2017).

PATENTS

- Kimchi A, **Carlessi R**. Compositions and methods for treating cancer and neurodegenerative diseases. US Patent 9,149,523; 2015.

PRIZES AND AWARDS

- Curtinnovation Awards 2021 – OVERALL WINNER – Test to detect early signs of liver cancer. Team lead, **$15,000.**
- Postdoctoral Fellowship (Cancer Council WA), 2021-2024, **$225,000**.
- Best presentation award - 4th National Experimental HCC Meeting 2020, **$400.**
- Curtin Commercial Innovation Award 2017 - Health Sciences Prize - Extraction of anti-diabetic from lupin. Team member, **$5,000.**
- Basic Science Poster Award, Australian Diabetes Society (ADS) annual meeting, 2017, Perth, WA, **$500.**
- Miles Award, National Heart Foundation (WA Division), 2017, **$10,000.**
- Best Poster Award, Australian Islet Study Group Meeting, RMIT, 2016, Melbourne VIC.
- International Postdoctoral Research Fellowship (CNPq), 2016, **$50,760** (declined due to acceptance of my first postdoc position at Curtin University).
- Highest Impact Factor Adjunct Researcher Publication Award, 2015, Faculty of Health Sciences, Curtin University, **$200**.
- Best Poster Award, Science on the Swan, 2015, Perth WA**, $500.**
- International PhD Scholarship (Science Without Boarders - CNPq), 2014-2015, **$33,210.**
- Best Poster Award, 33th Science Week Hospital de Clínicas de Porto Alegre, Brazil, 2013.
- PhD Scholarship (CNPq), 2012-2014 (living stipend in Brazilian currency, equivalent to about **$20,000** AUD over three years).
- M.Sc. Scholarship, Weizmann Institute of Science, Israel, 2008-2011 (living stipend in Israeli currency, equivalent to about **$60,000** AUD over two years).
- Graduation as 2nd best student (B.Sc. Cellular and Molecular Biology, final GPA 9.6), 2007, UFRGS, Brazil.
- Scientific Initiation Scholarship (CNPq), 2004-2006 (living stipend in Brazilian currency equivalent to about **$3,750** AUD over three years).

EVENTS ORGANISATION

- 2023 CMS Research Symposium
- CHIRI Vascular & Metabolic Symposium, Curtin University, December 2016.

- Australian Islet Study Group (AISG) meeting 2017, 1st and 2nd of September, 2017, at Harry Perkins Institute.

COMMITTEE MEMBERSHIPS

- Curtin Medical School Research Committee – (2023-present).
- Cancer Council of Western Australia Pre-Doctoral Research Grants Subcommittee – (2021-present).
- Curtin University Institutional Biosafety Committee (IBC) – (2019-2023).

MEMBERSHIPS OF PROFESSIONAL SOCIETIES

- Gastroenterological Society of Australia (GESA) – (2019-present).
- Australian Diabetes Society (ADS) – (2017-2019).

PEER-REVIEW ACTIVITY

- Science Advances
- Nature Scientific Reports
- Molecular and Cellular Endocrinology
- Biochimica et Biophysica Acta
- Oncology Signalling
- Clinical and Translational Medicine
- Endocrine
- European Journal of Clinical Nutrition
- International Journal of Biochemistry & Cell Biology
- Drug Development Research
- Essays in Biochemistry
- Diabetology and Metabolic Syndrome
- Journal of Immunological Methods

PHD THESIS EXAMINATION

- **Raji Baidya, PhD, 2021, The University of Queensland**. "Improving Graft Outcomes in Liver Transplantation: Necroptosis in Steatotic Liver Ischaemia Reperfusion Injury".
- **Christine Wai-Yin Yee, PhD, 2021, The University of Sydney**. "DETERMINANTS OF FIBROTIC INJURY IN MOUSE MODELS OF LIVER DISEASE".
- **Jie Gao, 2021, PhD, Monash University**. "Characterizing the influence of receptor co-expression on incretin receptor function".

PHD STUDENT SUPERVISION

- M. Lewkowicz, 2023-present (**primary supervisor**). PhD, Curtin Medical School, Curtin University. "The role of hepatocyte senescence in hepatocarcinogenesis".
- A. Ghimire, 2022-present (**primary supervisor**). PhD, Curtin Medical School, Curtin University. "Predicting liver cancer prior to its development to improve early detection and survival".
- N.D.A. Bakar, 2021-present **(co-supervisor**). PhD, Curtin Medical School, Curtin University. "The role of Aspirin in reducing the risk of hepatocellular carcinoma formation during chronic liver disease".
- N. Pulyani, 2021-present (**adjunct-supervisor**). PhD, School of Medical and Health Sciences, Edith Cowan university. "Role of CD44 in metastatic Uveal Melanoma"
- J. Rowlands, 2017-2021 (**co-supervisor**). PhD, Pharmacy and Biomedical Sciences, Curtin University. "The role of the microtubule biosynthesis enzyme TBCD in neuronal development and brain disorder".
- K. Montenegro, 2017-2021 (**co-supervisor**). PhD, Pharmacy and Biomedical Sciences, Curtin University. "The role of vitamin D in muscle metabolism and bioenergetics".
- S. Paternoster, 2017-2020 (**co-supervisor**). PhD, Pharmacy and Biomedical Sciences, Curtin University.
- M. Tapadia, 2016-2019 (**co-supervisor**). PhD, Chemical Engineering, Curtin University. "Study of anti-diabetic action of lupin (Lupinus angustifolius) seed proteins and peptides".

UNDERGRADUATE STUDENT SUPERVISION

- K. Peterson, 2022. Honours student, Curtin Medical School, Curtin University. **Finished in 1st class**. "In vitro characterisation of disease-associated hepatocytes (daHep) and their interaction with macrophages".
- W. Khei Lim, 2018. Honours student, Pharmacy and Biomedical Sciences, Curtin University. **Finished in 1st class**. "The role of tumour derived factors in dendritic cell metabolism and function".
- J. Rowlands, 2016. Honours student, Biomedical Sciences, Curtin University. **Finished 1st of class**. "The role of Glucagon-Like Peptide-1 and its signal transduction in the regulation of pancreatic β-cell bioenergetics".

TEACHING EXPERIENCE

I have contributed guest lectures and regular course lectures to the following Curtin University's units.

- GENE3002 Human Genetic Disease
- MEDI3016 Immunometabolism
- GENE6001 Stem Cell Biology and Regenerative Medicine
- GENE3001 Molecular Genetics Research
- GMED2008 Medicine 2