

# CURRICULUM VITAE

## BIOGRAPHY

Dr. Ian James Martins is an Editor/Reviewer for Open Access Pub/MDPI journals and various other international journals. Advisory Board Member for Photon Journal. Fellow of International Agency for Standards and Ratings (IASR). Conferred with the RICHARD KUHN RESEARCH AWARD-2015 ENDOCRINOLOGY AND METABOLISM. Chief Editor for International Journal of Diabetes Research (2014-2018), [Research and Reviews: Neuroscience](#) (2016-2018) and Journal of Diabetes and Clinical Studies (2017-2018). BIT Member (BIT Congress. Inc) with an *H-index* of 64, (ResearchGate STATs (27), Scopus Author ID: 7103152779/Mendeley STATs (21), UWA Research Repository (16). Scientist for The Science Advisory Board (USA) and an Academic with Academia.edu. The citations past 27 years have accumulated to >4584. [Ian James Martins - Semantic Scholar](#) <https://www.semanticscholar.org/author/Ian-James-Martins/5258067>. *Semantic Scholar* profile for Ian James Martins, with fewer than 50 highly influential citations **RESEARCHGATE ANALYSIS: Ian J Martins | Ph D | Centre of Excellence for Alzheimer's Disease ...**[https://www.researchgate.net/profile/Ian\\_Martins2](https://www.researchgate.net/profile/Ian_Martins2) under Ian James Martins' name places publication RG score (> 96%) of international SCIENTISTS. **ORCID** **CONNECTING** **RESEARCHER:** [Editorial Team](#) [www.macrothink.org/journal/index.php/jfs/about/editorialTeamBio/13511](http://www.macrothink.org/journal/index.php/jfs/about/editorialTeamBio/13511) Editorial Team. **Ian James Martins. Ian James Martins** Mail · <http://orcid.org/0000-0002-2390-1501>. Edith Cowan University, Australia. Prestigious Recognition of Lifetime Membership by International Agency for Standards and Ratings as Fellow for Diabetes, Medical Science (Nutrition). Winner (World Academic Championship -2017) in Diabetes and Medical Science (Nutrition). Certificates from various international conferences have been received in relation to anti-aging, health and disease. Keynote addresses at, Biomedicine 2018 (Osaka, Japan), Global Experts Meeting on Diabetes, Hypertension, Metabolic Syndrome 2018 (Melbourne, Australia), Immunology World 2018 (Amsterdam, Netherlands), Laboratory Medicine 2018 (Berlin, Germany), Innovate Pharma 2017 (Sydney, Australia), Innovate Neurology 2017(Sydney, Australia) World Diabetes and Endocrinology Summit-2017 (Dubai), Pharmacology and Ethnopharmacology 2016 (Chicago, USA) and AGHC 2016 (1<sup>st</sup> Plenary Speaker, Kaohsiung, Taiwan). Chair/Co-chair Sessions on Laboratory management, Cytogenetics, Clinical Microbiology, Diagnostic Laboratory Medicine etc, 13<sup>th</sup> Interantional Conference on Laboratory Medicine and Pathology, Berlin, Germany, June 25-26, 2018, Charing Sessions on Vaccinology, Immunopathology, Immunotherapy, Immune Proteomics, Cancer and Tumour Oncology, 7th World Congress on Immunology, Amsterdam, Netherlands, April 19-20, 2018, Chair, Pipeline 1: Biotherapeutics for Diseases, Bit's 2nd International Congress of Biotherapy-2018 (Programme Committee Member), Chair, Innovate Conferences 2017, Chair/Co-Chair at congress World Gene Convention-2016 (Shanghai, China, Pharmacology and Ethanopharmacology 2016 (Chicago, USA), Annual World Congress of Diabetes-2014 (Haikou, China), World Gene Convention-2014 (Haikou, China). Research Activity Statistics have been provided by **Publons** with comparison to other researchers. Ian James Martins is now in the 98th percentile as assessed for **Publons** users by merit. Dr Ian Martins is a reviewer for approx. 47 journals over the past 5 years.

## RESEARCH INTERESTS

Anti-Aging, Global Health and Chronic

Disease

**Key words:** Anti-Aging Genes, Appetite, Environment, Nutrition, Senescence

IMPACT OF PREVIOUS RESEARCH TO THE FIELD OF MEDICINE AND LABORATORY TECHNOLOGY THAT MAY **AVOID INADVERTENT ERRORS** AND MAY TRANSLATE TO COMMERCIALISATION OF MEDICAL RESEARCH THAT DETERMINE **CRITICAL** HEALTH OUTCOMES.

Development of a **BLOOD TEST** has been of critical interest to the **QUALITY CONTROL** of plasma/sera samples for metabolic disease with relevance to diabetes and neurodegenerative diseases. **RELEVANT PUBLICATIONS:** 1. Sirtuin 1, a Diagnostic Protein Marker and its Relevance to Chronic Disease and Therapeutic Drug Interventions". *EC Pharmacology and Toxicology* 6.4 (2018): 209-215. CERTIFICATE OF PUBLICATION. 2. Evaluation of diagnostic tests in human health and disease. *J Clin Path Lab Med*. 2018;2(1):13-15.

**SIRTUIN 1 ANALYSIS ON BLOOD/PLASMA SAMPLES SHOULD BE CONDUCTED IN APPROPRIATE PRESERVATIVE, UNDER FREEZE/THAW CONDITIONS, STORAGE CONDITIONS.** Bacterial LPS should be conducted (Sirtuin 1 repression) to avoid bacterial contamination with long term storage.

**ONLINE REFERENCES:** 1. The Future of Genomic Medicine Involves the Maintenance of Sirtuin 1 in Global Populations. *Int J Mol Biol*. 2017. 2. The Future of Biomarkers Tests and Genomic Medicine in Global Organ Disease. *Arch Infect Dis Ther*. 2017. 3. Bacterial Lipopolysaccharides Change Membrane Fluidity with Relevance to Phospholipid and Amyloid Beta Dynamics in Alzheimer's Disease. *J Microb Biochem Technol*. 2016. 4. The Role of Clinical Proteomics, Lipidomics, and Genomics in the Diagnosis of Alzheimer's Disease. *Proteomes*, 2016. 5. LPS Regulates Apolipoprotein E and A $\beta$  Interactions with Effects on Acute Phase Proteins and Amyloidosis. *Advances in Aging Research* 2015.

Dr Martins research with relevance to diet, diabetes and neurodegenerative diseases builds upon his past > 150 publications that generates outputs that will have relevant and significant impact to the global community. The incidence of diabetes and non alcoholic fatty liver disease (NAFLD) has been predicted to increase to 21% by 2050. Novel and critical elements of scholarly peer review provides information that the heat shock gene Sirtuin 1 is repressed with relevance to diabetes, neurological diseases and Alzheimer's disease. Major unsolved challenges to advances in biology may now provide evidence to reverse Sirtuin 1 dysfunction that is connected to primarily to heat shock protein metabolism and secondly to toxic amyloid beta metabolism with mitochondrial apoptosis in liver and brain cells. In the developing world increased levels of bacterial lipopolysaccharides repress the anti-aging gene Sirtuin 1 with the development of diabetes, neurodegenerative diseases and Alzheimer's disease. Unhealthy diets accelerate Type 3 diabetes with the induction of NAFLD in Global Populations. [Food and Nutrition cause liver and brain diseases with diabetes in the ...https://atlasofscience.org/food-and-nutrition-cause-liver-and-brain-diseases-with-diabe...](https://atlasofscience.org/food-and-nutrition-cause-liver-and-brain-diseases-with-diabe...) Mar11,2016

**61** **INTERNATIONAL CERTIFICATES PRESENTED TO DR IAN JAMES MARTINS**

1. CERTIFICATE, E-Poster participation, Insulin resistance and Cholesterol dyshomeostasis involve  $\alpha$ -Synuclein and Amyloid beta interactions in Neurodegenerative diseases, 4th World Congress on Parkinsons and Huntington Disease, August 29-30, 2018, Zurich, Switzerland, Editors of the Journal of Neurological Disorders, Conference Series.com
2. Certificate of Recognition, Keynote Speaker, Antimicrobial drugs and bacterial amyloid beta peptide induce toxic manifestations to medical biology and pharmacotherapy, Conference Series and the Editors, Journal of Clinical and Experimental Pharmacology, Journal of Analytical and Bioanalytical Techniques and Journal of Clinical Trials, International Conference on Biomedicine and Pharmacology, August 06-07, 2018
3. Certificate of Recognition, Keynote presentation, Transcriptional dysregulation of Sirtuin 1 is relevant to Diabetes and Global Chronic Disease, Conference Series and the Editors of Journal of Diabetes & Metabolism, Journal of Diabetic Complications & Medicine and Journal of Hypertension, Global Experts Meeting on Diabetes, Hypertension, Metabolic Syndrome”held during July 30-31, 2018 in Melbourne, Australia
4. Biomedical and Pharmacology Journal, REVIEWER OF THE MONTH, Outstanding reviewer for his enexplicable contribution in safeguarding the academic integrity of the Journal. July, 2018.
5. Publication Certificate, Diet, Drug and Inhibitor Therapy prevent toxic protein aggregation in various species, Acta Scientific Nutritional Health, July, 2018
6. Certificate of Recognition, Keynote Speaker, “The Limitations of Laboratory Medicine with relevance to Biomarker tests and Global Organ Disease”, 13<sup>th</sup> International Conference on Laboratory Medicine and Pathology, June 25-26, Berlin, Germany, Conference Series and the Editors of Diagnostic Pathology: Open Access, Journal of Clinical and Experimental Pathology and the Journal of Molecular and Genetic Medicine.
7. Certificate, Editorial Board Membership, Journal of Studies on Diabetes
8. Review Certificate, Acta Scientific Nutritional Health (ASNH), May 2018
9. Certificate of Editorial Board Membership, REFERENCE NUMBER, ESCIPUB/IJOAR/2018-0011, INTERNATIONAL JOURNAL OF AGING RESEARCH
10. Certificate of Reviewing, Awarded October 2017, Journal of Functional Foods, In cooperation with International Society for Nutraceuticals and Functional Foods

11. Certificate of Recognition, Keynote Speaker, Entitled " Appetite control is involved in Immunotherapy with relevance to cardiovascular disease, NAFLD and Diabetes, Pulsus and Editors of Journals of Immune Disorders and Therapy, Journal of Immunodiagnosics and Journal of Immunopatholgy, 7th World Congress on Immunology, Amsterdam, Netherlands, April 19-20, 2018
12. Certificate of Recognition, Chairing Sessions on Vaccinology, Immunopathology, Immunotherapy, Immune Proteomics, Cancer and Tumour Oncology, 7th World Congress on Immunology, Amsterdam, Netherlands, April 19-20, 2018
13. Certificate of Recognition for Workshop Presentation, Keynote Speaker, Entitled "Diagnosis and Management of Immunological Diseases requires Sirtuin 1 as a Diagnostic protein marker, Pulsus and Editors of Journals of Immune Disorders and Therapy, Journal of Immunodiagnosics and Journal of Immunopatholgy, 7th World Congress on Immunology, Amsterdam, Netherlands, April 19-20, 2018,
14. Review Confirmation Certificate, MDPI Journals, 2017-2018.
15. Publication Certificate: "Biotherapy and the Immune System in Ageing Science". Acta Scientific Nutritional Health 2.4 (2018): 29-31.
16. Certificate: Eminent Editor-in-chief for Journal of Diabetes and Clinical Studies
17. Publication Certificate, Sirtuin 1, a Diagnostic Protein Marker and its Relevance to Chronic Disease and Therapeutic Drug Interventions MINIREVEIW. 6.4 (2018): 209-215.
18. Publication Certificate Article ENTITLED "Antimicrobial Drugs and Bacterial Amyloid Peptide Induce Toxic Manifestations in Chronic Diseases. EC Pharmacology and Toxicology 6.1 (2018): 01-04.
19. Publication Certificate ENTITLED "Appetite control and nutrigenomic diets are connected to immune regulation and diabetes prevention" EC Nutrition 12.3 (2017): 120-123.
20. Certificate for Exceptional Effort for Presentation entitled"Caffeine with Links to NAFLD and Accelerated Brain Aging", November 13-15, Macau, China
21. Certificate for Exceptional Effort for Presentation entitled"Drug-Drug Interactions with Relevance to Drug Induced Mitochondrial Toxicity and Accelerated Global Chronic Diseases", November 13-15, Macau, China
22. Certificate of Recognition, Editors of Journal of Clinical Epigenetics, Journal of Cancer Science and Therapy and Journal of Carcinogenesis and Mutagenesis thank Ian James Martins for Oral Presentation, Entitled "Single gene Inactivation with implications to Diabetes and Multiple Organ Dysfunction Syndrome" 2nd International Congress on Epigenetics and Chromatin, Nov 6-8, Frankfurt, Germany.

23. Certificate, Fellow, Directorate of Endocrinology and Metabolism, International Agency for Standards and Ratings (Lifetime Membership)
24. Certificate, Fellow, Directorate of Medical Science, International Agency for Standards and Ratings, Article entitled: Caffeine consumption with Relevance to Type 3 diabetes and accelerated brain aging, Winner at World Academic Championship-2017 in Medical Science
25. Certificate, Fellow, Directorate of Diabetes and Health, International Agency for Standards and Ratings (Lifetime Membership) Article entitled: Nutrigenomic Diets and Caffeine Determines the Intelligence Quotient and Thinking in Developing Countries, Winner at World Academic Championship-2017 in Diabetes
26. Certificate of Invitation, Dr. Martins has been invited to participate in the book project under the working title "Non-Alcoholic Fatty Liver Disease - Molecular Bases, Prevention and Treatment", ISBN 978-953-51-5579-9. InTech - Open Science Open Minds | InTechOpen
27. CERTIFICATE: Nutritional diets accelerate amyloid beta metabolism and prevent the induction of chronic diseases and Alzheimer's disease. Photon ebooks. UBN: 015-A94510112017 Edition: I Impact Index: 4.1. **Dr Ian Martins is conferred with the RICHARD KUHN RESEARCH AWARD-2015 ENDOCRINOLOGY AND METABOLISM**, International Agency for Standards and Ratings
28. Certificate, Special Recognition, Pulsus WWW.PULSUS.COM, Organizing Committee Member, Microbiology and Pharmaceutical Microbiology 2017, 02-03, 2017, Atlanta, USA
29. Certificate of Recognition, Keynote Presentation, "Bacterial Lipopolysaccharides (LPS) accelerates Diabetes, Acute epilepsy and Neurodegenerative disease Pulsus and the Editors of Journal of Pharmacology and Medicinal Chemistry and Journal of Microbiology and Biotechnology Reports, 3rd International Congress on "Microbiology and Pharmaceutical Microbiology, 02-03,2017, Atlanta, USA
30. Certificate of Appreciation, Chairman, Sessions, Pulsus and the Editors of Journal of Pharmacology and Medicinal Chemistry and Journal of Microbiology and Biotechnology Reports, 3rd International Congress on "Microbiology and Pharmaceutical Microbiology, 02-03,2017, Atlanta, USA
31. Certificate of Recognition, ACS Publications Reveiwer, American Chemical Society
32. Certificate of Editorship, Open Access Pub, Editorial Board Member, Journal of Aging Research and Health Care
33. Certificate of Recognition, The Future of Biomarkers Tests and Genomic Medicine in Global organ disease, Global Summit on Clinical Research and Biomarkers, August 21-23,Dallas,USA, Scientific Federation Abode for Researchers

34. Publication Certificate, Calorie sensitive Anti-Aging gene regulates Hepatic amyloid beta clearance in Diabetes and Neurodegenerative diseases, Editor's Column Article, EC Nutrition
35. Publication Certificate, Heat shock Gene dysregulation and Inactivation of Drug Therapy, Editor's Column Article, EC Pharmacology and Toxicology
36. Certificate of Excellence in Reveiwng, Asian Journal of Medicine and Health 2017, SDI/HQ/PR/Cert/35265/Ian/
37. BEST SPEAKER, DUBAI HEALTH CARE SUMMIT-2017, DUBAI, UNITED ARAB EMIRATES Certificate of Appreciation for PANEL MEMBER at the DUBAI HEALTH CARE SUMMIT-2017, WORLD DIABETES AND ENDOCRINOLOGY SUMMIT, DUBAI, UNITED ARAB EMIRATES
38. Certificate of Appreciation for KEYNOTE SPEAKER at the DUBAI HEALTH CARE SUMMIT-2017, WORLD DIABETES AND ENDOCRINOLOGY SUMMIT, DUBAI, UNITED ARAB EMIRATES
39. Certificate of Appreciation for KeyNote Speaker, Session Chair and Advisory Board Member, Innovate Conferences,2017, Caffeine consumption with Relevance to Type 3 diabetes and accelerated brain aging, June 14th.
40. Certificate of Appreciation for KeyNote Speaker, Session Chair and Advisory Board Member, Innovate Conferences 2017 Links between drug metabolism and insulin resistance in Global Communities International Summit on Pharma, Vaccines, Immunology-Business and Clinical Trials, June 12-13th,2017, Sydney Australia
41. Certificate of Publication, Bacterial LPS overrides adenosine treatment of Epileptic Seizures. EC Microbiology, 7; 3: 83-86.
42. Certificate for Exceptional Effort at the 1st International Biotechnology Congress (IBC-2017), April 25-27, 2017, (Xi'an, China).
43. Certificate of Appreciation, Unhealthy Nutrigenomic Diets Accelerate NAFLD and Adiposity in Global Communities, International Conference on Genomic Medicine (Gene-Med 2017), Feb 22-24, Baltimore, MD, USA Certificate of Appreciation,
44. Certificate, Valuable Support Scientific Session Chairman, International Conference on Genomic Medicine (Gene-Med 2017), Feb 22-24, Baltimore, MD, USA
45. Elected Member of the European Centre for Research and Training and Development UK CERTIFICATE #5839
46. Certificate of Publication, "Drug-Drug interactions with relevance to drug induced mitochondrial toxicity and accelerated global chronic diseases" 2017, Vol 3;18-21.;EC Pharmacology and Toxicology

47. Certificate of Publication, “Early Diagnosis of Neuron Mitochondrial Dysfunction may Reverse Global Metabolic Neurodegenerative Disease”, World Global Journal of Medical Research, 16, 2, 2016, 33-40.
48. Certificate of Publication, “Diabetes and Organ Dysfunction in the Developing and Developed” World Global Journal of Medical Research: F Diseases Volume 15 Issue 1, 2015. INTERNATIONAL CERTIFICATES PRESENTED TO DR IAN JAMES MARTINS
49. Certificate for Invited Speaker at the World Gene Convention-2016, November 03-05, Shanghai, China, Overnutrition induced Neurotoxicity.
50. Certificate for Invited Speaker at the World Gene Convention-2016, November 03-05, Shanghai, China, Chylomicron remnant metabolism in human apo E transgenic mice.
51. Certificate of Recognition, 2nd International Conference and Expo on Lipids: Metabolism Nutrition and Health, October 03-05,2016, Orlando, USA Editorial Board Membership
52. CERTIFICATE, Research and REVIEWS: Neuroscience October, 2016 Certificate, 2nd Neurological Disorders Summit (NDS-2016) September 07-09, Baltimore, MD, USA
53. Certificate of Membership, Member of BIT Congress Inc
54. Certificate of Recognition, Key Note Speaker, 2nd International Conference and Exhibition on Pharmacology and Ethnopharmacology, 2016, Chicago,
55. The First Invited Notable (Principal Research Fellow) Speaker at the PLENARY FORUM at the 4th Annual Global Health Conference-2016, Kaohsiung, Taiwan. Plenary Forum Presentation Attached as Conference Presentation, Title: Nutritional diets accelerate amyloid beta metabolism and prevent the induction of chronic diseases and Alzheimer’s disease. This ORAL presentation at the AGHC-2016 is related to the scholarly publication in PHOTON but differ with relevance to the International Agency for Standards recognition of the written publication that is associated with the Richard Kuhn Research Award-2015 (Endocrinology and Metabolism) presented to Ian James Martins.
56. USA Strathmore’s Who's Who Certificate, Demonstrated Leadership and Achievement in their Occupation, Industry or Profession, SELECTED on the basis of the most INTELLIGENT children of the WORLD 1976-1980
57. Certificate, 6th World Gene Convention-2015, ORAL PRESENTATION Qingdao, China Certificate, 6th World Gene Convention-2015, POSTER PRESENTATION Qingdao, China
58. Certificate of Recognition, 6th Global Summit and Expo on Food and Beverages 2015, Orlando, USA

59. Certificate of Publication 2015, Global Journal of Medical Research, Global Journals Inc. USA
60. Certificate, Oral Presentation, 5th World Congress on Diabetes and Metabolism 2014, Embassy Suites Las Vegas, USA
61. Certificate, Poster Presentation, 5th World Congress on Diabetes and Metabolism 2014, Embassy Suites, Las Vegas, USA

Research Activity Statistics have been provided by Publons with comparison to other researchers. Ian James Martins is now in the 98th percentile as assessed for Publons users by merit. Dr Ian Martins is a reviewer for approx. 47 journals over the past 5 years.

#### **INVITED CHAIR FOR INTERNATIONAL MEETINGS**

Chair: Vaccinology, Immunopathology, Immunotherapy, Immune Proteomics, Cancer and Tumour Oncology, 7th World Congress on Immunology, Amsterdam, Netherlands, April 19-20, 2018, Chair, Pipeline 1: Biotherapeutics for Diseases, Bit's 2nd International Congress of Biotherapy-2018 (Programme Committee Member), Chair and Advisory Board Member, Innovate Conferences 2017, Chair/Co-Chair at congress and conference series at the World Gene Convention-2016 (Shanghai, China, Pharmacology and Ethanopharmacology 2016 (Chicago, USA), Annual World Congress of Diabetes-2014 (Haikou, China), World Gene Convention-2014 (Haikou, China).

## **Ian James Martins**

### **Editorships**

Updates in Nutritional Disorders and Therapy

Editorial Board Member

2017 - 2020(3 years)

Current Updates in Gerontology

Editorial Board Member

2017 - 2020(3 years)

EC Pharmacology and Toxicology

Editorial Board Member

2017 - 2020(3 years)

Journal of Ageing Research and HealthCare



EDITOR

2015 - 2020(5 years)

Annals of Neurodegenerative Disorders

Editor

2018 - Present

DISEASES, MDPI Journal (Neurosciences)

Editor

2018 - Present

Journal of Studies on Diabetes

Editor (Certificate)

2018 - Present

International Journal of Aging Research

Editor (Certificate)

2018 - Present

Journal of Psychiatry and Behavioral Health Forecas

Editor

2018 - Present

Neurology and Neurosugery

Editor

2018 - Present

Modern Clinical Medicine Research

Editor

2018 - Present

Journal of Clinical Nephrology

Editor

2018 - Present

EC Nutrition

Honourable Editorial Board member

2017 - Present

Novel Techniques in Nutrition and Food Sciences (NTNF)

Editor

2017 - Present

Global Journal of Endocrinology and Metabolism

Editor

2017 - Present

Research in Chronic Diseases

Editor

2017 - Present

Gerontology and Geriatrics Studies

Editor

2017 - Present

Journal of Genetic Disorders

Editor

2017 - Present

Journal of Diabetes and Clinical Studies

**Chief Editor** (CERTIFICATE)

2017 - Present

Degenerative Intellectual & Developmental Disabilities (DDID)

Editor

2017 - Present

Annals of Alzheimer's and Parkinson's Disease

Editor

2017 - Present

International Journal of Advances in Biology

EDITOR

2016 - Present

Annals of Obesity and Disorders

EDITOR

2016 - Present

SL Nutrition and Metabolism

EDITOR

2016 - Present

Research and Reveiws: Neuroscience

**Chief EDITOR** (CERTIFICATE PROVIDED)

2016 - Present

International Journal of Diabetes Research

**CHIEF EDITOR**

2014 - Present

Annals of Clinical Endocrinology and Metabolism

Editor

2018

World Journal of Psychiatry and Mental Health Research

Editorial Board Member

2017 - 2018(a year)

Journal of Food Studies

Editorial Board Member

2018-2021

Case Reports: Clinical, Medical and Surgical

Editorial Board Member

2018-2021

CPQ Nutrition

Editorial Board Member

2018-2021

Advancements in Case Studies

Editorial Board Member

2018-2021

Biomedical and Pharmacology Journal

### **Academic Qualifications**

B.Sc. 1984 University of Western Australia

M.Sc. 1986 University of Western Australia

Ph.D. 1989 University of Western Australia

### **PAST Professional History**

Dr Martins completed his undergraduate Science degree at the University of Western Australia in 1984, then completing a MSc in Clinical Biochemistry in 1986. In 1987 he commenced a Ph D studying the role of high density lipoprotein (HDL) in diabetes (Hackett Scholarship). In 1993 he was awarded a Saw fellowship from the University of Western Australia to conduct studies relating to the metabolism of chylomicrons and their remnants and the influence of size and composition on their clearance from blood and its importance to atherosclerosis.

The publications between 1988-2000 have shown that Dr Martins has made a valuable and solid contribution to the field of atherosclerosis and heart disease. His work has concentrated on understanding the role of dietary cholesterol rich particles and the subsequent clearance and metabolism from the blood plasma and their potential risk for the development of heart disease. These research studies have shown that the type of dietary fat and increased consumption are important risk factors for heart disease.

#### **Synopsis of Contribution to Research**

In Western countries a major current health problem is the high incidence of obesity and Type 2 diabetes and its associated risk for cardiovascular disease. Research studies conducted from the industry and medical research grants have shown that the type of dietary fat and increased consumption are important risk factors for heart disease. In 1994 as a Fellow and Consultant (UWA) working on a commercial grant from Inovax Ltd led to the development of a stable isotope breath test for dietary fat metabolism and assessment of the predictive value of the test for heart disease. International patents have been filed in various countries for the stable isotope breath test and oral Peptide delivery systems for the oral delivery of therapeutic peptides as treatments for various diseases. In 1998 he was awarded a Raine grant to continue with research studies in the Lipoprotein and Macromolecular research group relating to the development of the breath test for dietary fat metabolism in man which has led to many publications. Research at the Centre of Excellence for Alzheimer's Disease Research and Care (Edith Cowan University) and Psychiatry and Clinical Neurosciences (UWA) have led to a patent related to the interactions between apolipoprotein E and  $\beta$ -amyloid and its clearance by the liver and its role in Alzheimer's Disease. The interaction of apo E and  $\beta$  amyloid proteins are of considerable importance and have led to the association between coronary heart disease and Alzheimer's disease. Obese and diabetic individuals are at extreme risk for the development of atherosclerosis and studies indicate that these individuals are also at risk for the development of Alzheimer's Disease. High fat/high

cholesterol diets and oxidative stress in Western countries are risk factors for age related diseases and AD with other environmental factors such as exercise and cholesterol lowering drugs involved in regulating cholesterol metabolism as potential therapies for AD. Diet and fat intake are important when considering the risk for Alzheimer's disease and diet induced hypercholesterolemia was used as a model to assess the relationship between steatosis (hepatic dysfunction) and brain oxidative damage associated with neurodegeneration (Centre of Excellence for Alzheimer's Disease Research and Care at ECU). Drugs that lower cholesterol levels by preventing oxidative stress and hepatic steatosis are currently being considered and tested as potential therapies for the treatment of AD in collaboration with the international drug company Pfizer Ltd. Drugs such as Avasimibe that have been tested in vivo and improve the expression of specific Anti aging proteins and act as activators that improve the transport of vitamin E to the brain add to the growing body of evidence indicating that the lipid soluble vitamin E in the brain is responsible for maintenance of brain cholesterol homeostasis. These cholesterol lowering drugs may treat AD by the reversal of brain aging in various Western populations. Novel screening methods have been recently developed to identify peptides that selectively bind A $\beta$  and form the basis of a new class of drugs to treat AD.

## **PUBLICATIONS 2018-2012**

**INVITED: EDITORIALS, ARTICLES, REVEIWS and EBOOKS**

### **INTERNATIONAL CO-OPERATION**

1. Martins IJ. Advances in Aging and Health Research. Scientific Research Publishing, Inc. ISBN: 978-1-61896-569-1
2. Martins IJ. Scientific Nutritional Health and Global Chronic Disease. Scientific Media. New Distribution Report. 2018;443:1-3  
Martins IJ. Scientific Nutritional Health and Global Chronic Disease. Scientific Media. New Distribution Report. 2018;443:1-3
3. Martins IJ (2018) S Brain Stimulation Therapies in Neuropsychiatric and Neurodegenerative Diseases. Int J Genom Data Min: IJGD-127. Vol 2018, 02.
4. Martins IJ. Chapter 01. Increased Risk for Obesity and Diabetes with Neurodegeneration in Developing Countries. Top 10 Contribution on Genetics. Book Chapter. 2018. [www.avid.science.com](http://www.avid.science.com)
5. Martins IJ. Bacterial Lipopolysaccharides and Neuron Toxicity in Neurodegenerative Diseases. Neurology Research and Surgery. 2018; 1(1): 1-3.
6. Martins IJ. Heat shock protein aggregation and chronic kidney

- disease. *Research on Chronic Diseases*. 2018;2(1): 42-44.
7. Martins IJ. Diet, Drug and Inhibitor Therapy Prevent Toxic Protein Aggregation in Various Species. *Acta Scientific Nutritional Health*. 2(8);2018:01-03.
  8. Martins IJ. Genomic Medicine and Endocrine Autoimmunity as Key to Mitochondrial Disease. *Glob J Endocrinol Metab* .2(2). GJEM.000534.2018.
  9. Martins IJ. Anti-Aging Gene linked to Appetite Regulation Determines Longevity in Humans and Animals. *International Journal of Aging Research*. 2018,1(6): 1-4.
  10. Martins IJ. Heat Shock Gene Inactivation and Protein Aggregation with Links to Chronic Diseases. *Diseases*. 2018, 6;39:1-5.
  11. Martins IJ. Electroconvulsive Therapy and Heat Shock Gene Inactivation in Neurodegenerative Diseases. *Ann Neurodegener Dis*. 2018, 3(1): 1028.
  12. Martins IJ. Appetite Control and Biotherapy in the Management of Autoimmune Induced Global Chronic Diseases. *J Clin Immunol Res*. 2018; 2(1): 1-4.
  13. Martins, I.J. (2018) Indian Spices and Biotherapeutics in Health and Chronic Disease. *Health*, 10, 374-380.
  14. Martins IJ. Genomic Medicine and Acute Cardiovascular Disease Progression in Diabetes. *International Journal of Medical Studies*. 2018;3(1): 124-130.
  15. Martins IJ. Biotherapy and the Immune System in Ageing Science. *Acta Scientific Nutritional Health* 2.4 (2018): 29-31.
  16. Non-Alcoholic Fatty Liver Disease - Molecular Bases, Prevention and Treatment, InTech - open science | open minds ISBN 978-953-51-3924-9.
  17. Martins IJ. Sirtuin 1, a Diagnostic Protein Marker and its Relevance to Chronic Disease and Therapeutic Drug Interventions". *EC Pharmacology and Toxicology* 6.4 (2018): 209-215.
  18. Martins IJ. Advances in Biomarkers and Insulin Therapy with Relevance to Reversal of Diabetes. *Journal of Studies on*

Diabetes 2018; 1(1): 9-14.

19. Martins RN, Villemagne V, Sohrabi HR, Chatterjee P, Shah TM, Verdile G, Fraser P, Taddei K, Gupta VB, Rainey-Smith SR, Hone E, Pedrini S, Lim WL, Martins I, Frost S, Gupta S, O'Bryant S, Rembach A, Ames D, Ellis K, Fuller SJ, Brown B, Gardener SL, Fernando B, Bharadwaj P, Burnham S, Laws SM, Barron AM, Goozee K, Wahjoepramono EJ, Asih PR, Doecke JD, Salvado O, Bush AI, Rowe CC, Gandy SE, Masters CL. Alzheimer's Disease: A Journey from Amyloid Peptides and Oxidative Stress, to Biomarker Technologies and Disease Prevention Strategies-Gains from AIBL and DIAN Cohort Studies. *J Alzheimers Dis.* 2018;62(3):965-992
20. Martins IJ. Indian Spices and Insulin Therapy in Diabetes and Neurodegenerative Diseases. *J Diab Clin Stud.* 2018; Volume 1(1).
21. [Martins IJ. Regulation of Body Temperature and NAFLD in Global Population.](#) Feb 2018. Asian Hospital and Healthcare Management e-Newsletter.  
*<https://www.asianhbm.com/.../regulation-of-body-temperature-and-nafld-in-global-po...>*
22. Martins IJ. Evaluation of diagnostic tests in human health and disease. *J Clin Path Lab Med.* 2018;2(1):13-15.
23. Martins IJ. Indian spices and Caffeine treatment for Obesity and Cardiovascular disease. *Ann Clin Endocrinol Metabol.* 2018; 2: 010-014
24. Martins IJ. Food Quality and Advances in Pharmacological Management Prevent Mitochondrial Apoptosis and Epilepsy Induced Stroke. *Research and Reveiws: Neuroscience.* 2018;2:7-9.
25. Martins IJ. Genomic medicine and acute cardiovascular disease progression in diabetes. *Res Chron Dis* (2018) 2(1), 001–003.
26. Martins IJ. Indian Spices and Unhealthy Diets interfere with Drug Therapy in Diabetes and Neurodegenerative Diseases. *NAPDD 002* 2018; 3(4):555616.
27. Martins IJ. Antimicrobial Drugs and Bacterial Amyloid Peptide Induce Toxic Manifestations in Chronic Diseases. *EC Pharmacology and Toxicology* 6.1 (2018): 01-04.

28. Martins IJ. Appetite Control and Nutrigenomic Diets are Connected to Immune Regulation and Diabetes Prevention. *EC Nutrition* 12.3 (2017): 120-123.
29. Martins IJ. The Future of Biomarkers Tests and Genomic Medicine in Global Organ Disease. *Microbiology and Infectious Diseases*. 2017; 1(1): 1-6.
30. Martins IJ. Antibiotic Resistance Involves Antimicrobial Inactivation in Global Communities. *SAJ Pharma Pharmacol* 2017;2: 102.
31. Martins IJ. Insulin Therapy Inactivation is connected to NAFLD and Diabetes Severity Index. *J Diab Clin Stud*. 2017; 1: 001-003.
32. Martins IJ. The Limitations of Food Intake and Biomarkers in the Prevention of Chronic Diseases. *Nov Tech Nutri Food Sci*. 1(1).NTNF.000502. 2017.
33. Martins IJ. **Caffeine with Links to NAFLD and Accelerated Brain Aging**. Chapter: Non-Alcoholic Fatty Liver Disease - Molecular Bases, Prevention and Treatment. InTech - Open Science Open Minds | InTechOpen. 2017.
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#### **CERTIFICATE OF PUBLICATION**

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AWARD-2015 ENDOCRINOLOGY AND METABOLISM.

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- CERTIFICATE OF PUBLICATION**
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#### **Publications 2012-1989**

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**Publications 2009-1989**

visceral obesity: a study employing a new stable isotope breath test . J. Lipid Res. 43:706-712 (**Impact Factor = 4.4**)

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#### Publications 2009-1989

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the hepatic uptake of chylomicron remnants studied with genetically manipulated mice. *J. Biol. Chem.* 267: 105-107. (Impact Factor = 0.88)

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33. B.C. Mortimer, D.J.Holthouse, **I.J.Martins**, R.V. Stick and T.G. Redgrave. 1994. Effects of triacylglycerol saturated acyl chains on the clearance of chylomicron-like emulsions from the plasma of the rat. *Biochim. Biophys. Acta.* 1211: 111-118. (Impact Factor = 4.2 )

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39. **I.J. Martins**, N.P. Lenzo and T.G. Redgrave. 1988. Phosphatidylcholinemetabolism after transfer from lipid emulsions injected intravenously into rats. Implications for High Density lipoprotein metabolism. *J. Biol. Chem.* 263: 105-107. (Impact Factor = 0.88)

**Publications 2009-1989**



**Previous Research  
& Research  
Interests**

Chylomicron remnants (CR) are known to contribute to the development of atherosclerosis. In situations of extreme defects in CR metabolism it is clear that CR have the potential to contribute to the development of atherosclerosis. The capacity to metabolize cholesterol-rich remnant lipoprotein particles contributes to the risk of atherosclerosis in man, as measured by the progression of coronary atherosclerosis determined angiographically.

It is commonly assumed that in Western societies the high risk of atherosclerosis is mainly due to the presence in plasma of these atherogenic lipoproteins since most individuals are in the postprandial state for most of the day. Currently, there are limitations in the existing methods for assessing CR metabolism, which has hindered the understanding of the contribution of cholesterol-rich remnants to the development of coronary artery disease.

The emulsion technique for tracing CR clearance has been validated in man. In recent studies a breath test has been developed that has been shown to monitor CR clearance and metabolism. After clearance from plasma the lipid emulsions are removed by receptor-mediated endocytosis, the cholesteryl esters are subsequently degraded in lysosomes where the lipid components are hydrolyzed and fatty acids become available for oxidative metabolism, in particular metabolism to carbon dioxide. In experimental animals the clearance and metabolism of emulsion remnants was monitored by the appearance in breath of labeled  $^{14}\text{CO}_2$  after injection of lipid emulsions labeled with cholesteryl [ $1\text{-}^{14}\text{C}$ ]oleate.

A  $^{13}\text{C}$  breath test for CR metabolism has been developed. This procedure is extremely advantageous since the emulsion contains cholesteryl [ $1\text{-}^{13}\text{C}$ ]oleate and avoids the use of radioactive cholesteryl [ $1\text{-}^{14}\text{C}$ ]oleate. To determine the specificity and sensitivity of the  $^{13}\text{C}$  breath test in detecting changes in CR metabolism, experiments have been performed with different  $^{13}\text{C}$  labelled cholesteryl esters, with various transgenic mice, and the effects of feeding and of diurnal variation have been established. Measurements by the breath test provide an integrated assessment of capacity for clearance and subsequent metabolism of the CR of the triglyceride-rich lipoproteins. In man breath tests for CR metabolism have been conducted in obese individuals.

The results show that CR as assessed by the breath test was markedly decreased in obese individuals when compared with lean individuals.

**Patents**

Title of Invention: Screening Methods and the use of Identified Agents for Alzheimer's disease. PCT/AU02/01754 2002 (Current) Alzhyme Pty Ltd.

Title of Invention: Use of apolipoprotein or clearing beta amyloid protein from the periphery PS3056 2002 (Not continuing) Alzhyme Pty Ltd.

Title of Invention: Diagnostic AT Breath test International Patent application No. PCT/AU94/00663

Title of Invention: Labelled diagnostic compositions and method of their use **United States** Patent application No. 08/648080

Title of Invention: Oral Delivery of Peptides International Patent application No. PCT/AU97/00344

### Consultancies

Consultant to Inovax Ltd. (Scientific Advisor) Inovax (Australia) 1994-1999

### Other Academic Contributions

#### Reviewer for various International Journals (few examples)

International Journal of Diabetes Research  
Medical Science Monitor  
Arteriosclerosis Thrombosis and Vascular disease  
International Journal of Obesity and related metabolic disorders (Nature Publishing group)  
Free Radical Biology and Medicine (Elsevier Science Inc.)  
Journal of Nutrition

#### Reviewer for National Health and Medical Research Council

Assessor for NHMRC 1999/2000

### Research Grants Awarded

#### Chief/Associate Investigators:

NHMRC 595312 & NHMRC 595300 Prof. R.Martins, **Dr I. Martins**, D K.Taddei, Dr M. Ladu, Dr M. Sharman 2010-2012 \$938,775  
*The effect of human apo E isoforms and apo E receptors on the clearance of oligomeric abeta42 by hepatocytes in vitro*  
*Enhancing peripheral clearance of beta amyloid as a treatment for AD*

Prof. R.Martins, **Dr I. Martins**, Dr G Verdile, Dr J.Phillips. 2007-2009 Continuing.  
Alzheimer's Disease and Research Care \$327,890  
*Investigating beta amyloid clearance in vivo*

#### Chief Investigator:

NHMRC 324100 Prof. R.Martins, **Dr I. Martins**, A/Prof Nicola Lautenschlager 2005-2007 \$422,750  
*Molecular and Neuropsychological Predictive Markers of Cognitive Decline*

ECU Small Grant Chief Investigator: **Dr I. Martins** 2006 Current Status: Completed \$5000  
*Cholesterol, High fat diets, exercise and cholesterol lowering drugs on beta-amyloid Clearance and deposition in brains of Alzheimer's transgenic mice*

Hollywood Pvt Hospital Res Grant **Dr I. Martins** 2006 Current Status: Completed.  
\$10,000

Raine Research Foundation **Dr I. Martins** 1999-2000 Current Status: Completed  
\$169,000

*Metabolism of postprandial lipoproteins in mice and man*

Innovax Ltd. Co-Chief investigator on Industry Grant: 1994-1998 Current Status:  
Completed \$1,200,000

*Development of a breath test for chylomicron remnant metabolism in mice and man*

Athelstan and Saw grant Chief Investigator **Dr I Martins** 1994 Current Status:  
Completed \$50,000

*Effects of butterfats and oils on the clearance of chylomicron remnants*

NHMRC Co-investigator: **Dr I Martins** 1993-1995 Current Status: Completed  
\$150,000

*Binding and endocytosis of chylomicron remnants by low density lipoprotein  
receptors and proteoglycans to liver cells*