

**1. Personal Information**

Name: **Patrick John Manning**  
 DoB: 27/ 9/ 61

**2. Qualifications**

(a) Qualification name:	Institution:	Date of Graduation:
BHB	Auckland University	1982
MBChB	Auckland University	1985
MMedSc	Auckland University	1991
FRACP	Royal Australasian College of Physicians	1991

**3. Professional Affiliations/Memberships**

Fellow of the Royal Australasian College of Physicians  
 New Zealand Endocrine Society  
 New Zealand Society for the Study of Diabetes  
 American Endocrine Society  
 American Diabetes Association  
 American Association of Clinical Endocrinologists

**4. Employment History**

- (a) Present Position  
 Clinical Associate Professor of Medicine and Consultant  
 Endocrinologist  
 Southern District Health Board and University of Otago,  
 Dunedin, New Zealand
- (b) Employment History
- |                            |                            |              |
|----------------------------|----------------------------|--------------|
| House Surgeon              | Auckland Hospital          | 1986-1988    |
| Medical Registrar          | Auckland Hospital          | 1988-1991    |
| Senior Registrar           | Middlesex Hospital, London | 1991-1992    |
| Consultant Endocrinologist | SDHB, Dunedin              | 1993-present |

**5. Other Relevant Experience**

- (a) Experience Working in an Overseas Country  
 As above: Senior Registrar in Endocrinology  
 Middlesex Hospital, London, UK 1991-1992
- (b) National/ International Collaborations
- Collaborative Study Group member – carried out the pivotal Irbesartan in Diabetic Nephropathy trial. Resulted in 8 publications between 1998 and 2004 (see publication list below).
  - NHMRC Clinical Trials Centre Sydney Australia collaboration to undertake the Fenofibrate in Diabetes (FIELD) studies. This has resulted in 7 publications between 2009 and 2016 (see publication list below). This is an on-going collaboration.

3. Cochrane Collaboration for Metabolic Disorders  
Between 2000-2005 I was on the international steering group of the Cochrane Collaboration group for Metabolic Disorders and appointed as an editor.
4. TRILANET Consortium 2005 – 2016  
This consortium consists of international diabetologists and endocrinologists identifying individuals at risk of developing Type 1 diabetes to enter both natural history studies and also intervention studies for prevention. Multiple publications have arisen from this initiative which I have not included in my publication list however they can be viewed at:  
[https:// www.niddkrepository.org/ publications/](https://www.niddkrepository.org/publications/). This is an ongoing collaboration.
5. Diabetes Trials Unit, University of Oxford  
Between 2009 and 2015 I was a member of the TECOS study group that investigated the use of Sitagliptin in the treatment of Type 2 diabetes and cardiovascular outcomes. This study was reported in the New England Journal of Medicine in 2015 (publication listed below).
6. TIMI Study Group Harvard Medical School  
The Camellia-TIMI study is an international collaboration to investigate the effect of Lorcaserin on cardiovascular outcomes in obesity. This is an on-going collaborative research project.

## 6. Research Activities

### (a) Research Expertise

Extensive research experience in the fields of obesity, endocrinology, diabetes, osteoporosis and lipidology.

In the past 24 years I have been involved in clinical research, predominantly clinical trial research, within the Department of Medicine of the Dunedin School of Medicine. I have been involved in many self-initiated clinical trials but also multiple collaborative international multicenter clinical trials as a co-investigator.

### Self-Initiated Clinical Research

1. The use of hormone replacement therapy in postmenopausal women with Type 2 diabetes
2. Vitamin E treatment in obesity and its effects on insulin resistance.
3. The effects of meal composition on inflammatory markers in normal, overweight and Type 2 diabetic people.
4. The use of the thiazoladinedione Avandia (rosiglitazone) in overweight insulin resistant subjects on inflammatory markers.
5. Effect of Lipoic acid and/ or Vitamin E in the Metabolic Syndrome
6. Cabergoline for the prevention of weight regain in obesity (on-going)
7. Brain imaging in Obesity (on-going)

8. The effect of GLP-1 infusion on circulating and adipose tissue inflammation (on-going)
9. The effect of neuromodulation as a treatment for obesity (on-going)

In addition I have on-going collaborative research underway with other researchers on the Dunedin Campus:

	Project	Principal Investigator
1.	Implantable neurostimulator treatment for alcohol addiction	Professor Dirk De Ridder Dept of Surgery
2.	Investigation of different neuromodulation stimulation designs of the nucleus accumbens and habenula in rats	Professor John Reynolds Dept of Anatomy
3.	Circulating microRNA's in patients with Type 2 diabetes	A/ Professor Rajesh Katare Dept of Physiology
4.	Circulating microRNA's in obesity and changes with weight loss	A/ Professor Rajesh Katare Dept of Physiology
5.	Serum thyroglobulin as a measure of iodine status	Dr Sheila Skeiff Dept of Human Nutrition
6.	Neurofeedback in Mild Cognitive Impairment	Dr Nick Cutfield Dept of medicine

Collaborative international multicenter clinical trials as a Co-investigator:

**Completed studies in which I was a Principal Investigator:**

1. The use of Irbesastan in diabetic nephropathy.
2. Raloxifene in postmenopausal osteoporosis.
3. Alendronate once weekly administration in osteoporosis.
4. Fenofibrate in Type 2 diabetes (FIELD Study Investigators)
5. Risedronate in postmenopausal osteoporosis.
6. Bazedoxifene in postmenopausal osteoporosis (Bazedoxifene Study Group).
7. Combined BZE/ E2 in postmenopausal women
8. TRIALNET Consortium in Type 1 Diabetes
9. Alogliptin in Type 2 diabetes
10. Sitagliptin in Type 2 diabetes (TECOS Study Group)

**On-going studies in which I am a Principal Investigator:**

1. Lorcaserin in people with high cardiovascular risk (Camellia TIMI Study)
2. SGLT2 Inhibitor treatment in Type 1 Diabetes
3. Complement Study – first in man study of metabolic neuromodulation using hepatic artery denervation in Type 2 diabetes.

**Journal Referee**

I have acted as a referee for the following journals:

Obesity (IF3.5); Diabetes Research and Clinical Practice (IF 2.13); Clinical Endocrinology (IF 3.32); Neuroendocrinology (IF 3.37); New Zealand Medical Journal.

- (b) Experience in Applied R & D, contract research, consultancies, patents.

In 2009 I was awarded a Health Research Council District Health Board Research Fund grant to investigate whether “a virtual Specialist Diabetes Clinic improve linkages with primary care and reduce the demand on secondary care diabetes

specialist services”.

<http://www.hrc.govt.nz/sites/default/files/HRC%20News%20-%20June%202010.pdf>

(c) Research Grants

- (1) Research grants you have received where you are the first named principal or joint principal investigator.

Note: The research resulting from the successful HRC project grant (2011) has only just been completed. This has been a very large randomized controlled trial that required all of our research team resources. As a result no further research funding has been applied for since 2014. With the completion of the HRC project further applications are now being planned.

	Funding Body	Project	Amount	Year
1.	University of Otago Research Grant	Investigating Brain activity in obesity using qEEG	\$25,241	2014
2.	Lotteries	Alterations in circulating Appetite Hormones in obesity	\$23,822	2014
3.	University of Otago Research Grant	The effect of an infusion of GLP-1 on adipose tissue inflammation	\$30,440	2013
4.	Health Research Council	The effect of Cabergoline on weight regain in obesity	\$1,192,020	2011
5.	National Heart Foundation Research Grant	Oral v IV glucose on circulating inflammatory markers	\$30,828	2011
6.	National Heart Foundation Research Grant	The effect of thermally oxidized polyunsaturated fat on markers of inflammation	\$64,886	2009
7.	Otago Medical Research Foundation	Does insulin have an anti-inflammatory effect	\$22,930	2009
8.	HCO Charitable Trust	The effect of glucose on circulating inflammatory markers	\$25,181	2009
9.	Health Research Council	Antioxidant treatment and the Metabolic Syndrome	\$562,693	2004
10.	Novo Nordisk Clinical Research Grant	The effect of protein intake on postprandial inflammatory markers	\$17,778	2004
	TOTAL		\$1,995,819	

- (2) Please list below any research grant on which you are a named contributing researcher.

	Funding Source	Principal Investigator	Amount	Year
1.	New Zealand Society for the Study of Diabetes	C. Baldi	\$20,000	2014
3.	Lotteries Health	L. Wilson	\$50,000	2014
2.	National Heart Foundation	C. Baldi	\$15,000	2013
4.	Anderson Charitable Trust	C Baldi	\$60,524	2012
5.	HealthCare Otago Charitable Trust	C. Baldi	\$24,750	2011
	TOTAL		\$170,274	

**Total Research Grants = \$2,166,093**

(d) Supervision of Research Students

Degree	Student	Supervisors	%	Commencement	Completion
PhD	Samantha Ross	<b>Patrick Manning</b> , Dirk De Ridder, Wayne Sutherland	100	2014	Due 2017
PhD	Timothy Galt	<b>Nicolas Cutfield</b> , Patrick Manning, Dirk De Ridder	10	2015	On-going
BSc Hons	Briar Nesbitt-Greedus	<b>Patrick Manning</b> , Dirk De Ridder	100	2016	2016
MDiet	Emma Cummack	<b>Lisa Te Morenga</b> , Rachel McLean, Patrick Manning	20	2017	2017
MDiet	Libby Stuart	<b>Caroline Horwath</b> , Patrick Manning	20	2015	2015
Studentship	Anna Manning	<b>Patrick Manning</b>	100	2010	2011
Studentship	Helen Slade	<b>Robert Walker</b> , <b>Patrick Manning</b>	50	2010	2011
Studentship	Anna Choi	<b>Patrick Manning</b>	100	2008	2009

## 7. Distinctions

1. WE Henley Prize in Clinical Medicine, University of Auckland 1985
2. TWJ Johnson Prize in Clinical Medicine  
University of Auckland 1990
3. Registrars Prize, Auckland Hospital 1990
4. Maurice and Phyllis Paykel Teaching Fellowship  
University of Auckland 1991
5. Nuffield Postgraduate Travelling Fellowship 1991

## 8. Teaching Activities

### (a) Range and level of Teaching in the last 3 years

I teach at all levels of the medical curriculum and in a wide variety of settings. For example, I currently teach in a small group setting Clinical Skills to the students in their first year of medical school, through to whole class lecturing in ELM3, bed side teaching in ALM4 and in the ambulatory setting in ALM5. In addition, I teach at the postgraduate level to individuals embarking on specialist training as well as

providing continuing medical education to general practitioners and specialists. In addition I teach allied health programmes within the University

	Level	Course	Teaching Type and Frequency
1.	Early Learning in Medicine (ELM2)	Clinical Skills	Weekly 2 hour small group teaching
2.	ELM 3	Patient Presentation and Clinical Overview	Whole Class lectures – two case presentations per year. One related to diabetes and the other endocrinology
3.	Advanced Learning in Medicine (ALM4)	Bedside Teaching	Small group teaching of examination skills at the bedside weekly for 1 hour
4.	ALM5	Ambulatory Teaching Programme	Full day teaching 4 times per year
5.	Postgraduate training	Endocrinology teaching to Registrars undertaking physician Training	Small Group – 4 times per year
6.	Postgraduate Training	RACP Part 1 course – Endocrinology Component	Whole Class – once per year
7.	Postgraduate Training	Clinical Course for Part 1 Examination	Small Group – once per year
8.	Specialist Training	Queenstown Course in Internal Medicine	Large Group (Physicians) – every 2 years
9.	Allied Health	Pharmacy Students	Whole Class once per year
10.	Allied Health	Dietitian	Small group once per year

### **(b) Innovations in Teaching and Publications related to teaching**

My most significant impact that I have had on medical teaching in my career has been the development of the Ambulatory Teaching programme within the Department of Medicine Advanced Learning in Medicine programme. I had been running such a programme within the endocrinology service for many years previously. When chairing the committee to oversee changes to the ALM4 programme in 2010 I took the opportunity to implement an ambulatory teaching programme into the Medicine component of the ALM4/ 5 programme. This involved having patients with classic presentations and/ or clinical signs being invited into small group sessions to assist with teaching. This has been an extremely successful programme and is now embedded in ALM4 and ALM5 Medicine teaching. It is highly valued and rated by students. This programme was formerly evaluated and published in a peer review journal on medical teaching as well as presented verbally at the International Association for Medical Education in Europe (AMEE) Conference.

#### **Publications:**

1. Latta L, Tordoff D, Manning P, Dent J. Enhancing clinical skill development through an Ambulatory Medicine Teaching Programme: an evaluation study. Med Teach. 2013 Aug;35(8):648-54.
2. Latta, L., Manning, P., Tordoff, D., & Dent, J. (2011). Teaching and learning in an integrated ambulatory medicine programme for undergraduate medical students in Dunedin, New Zealand. Proceedings of the International Association for Medical Education in Europe (AMEE) Conference. (pp. 81-82).

### **(c) Teaching administration and Leadership**

I have held a number of teaching administrator leadership positions in my time within the Department of Medicine including:

**1. Director of Postgraduate Education 1999-2013**

I held this position in the Department of Medicine for over 10 years. It involved organizing and contributing to the teaching programme for medical registrars within Dunedin Hospital. This was formerly delivered by the Department of Medicine. Over this time I implemented numerous changes to the programme including telelinking it to other hospitals and recording it for distribution. In addition, I commenced the biannual Queenstown Course in Internal Medicine to deliver continuing medical education to trained physicians in New Zealand. I was also responsible for convening the annual RACP Part 1 Teaching Course in Dunedin which doubled in registrations during my time in this position.

**2. Chair of the 4<sup>th</sup> Year Medical Programme Review Committee 2010**

In 2010 the Dean of the Faculty of Medicine invited me to chair the 4<sup>th</sup> Year Medical Review Committee. This was at a time of significant curriculum change. This review included implementing changes to the teaching programmes of the Departments of Medicine, Psychiatry, surgery and General Practice. This review was successfully completed and the changes implemented over a 12 month period.

**3. Convenor of the ALM4 Teaching programme in Medicine 2010-2015**

Between 2010 and 2015 I was the convenor of the ALM4 programme within the Department of Medicine. This involved being responsible for the content, delivery and assessment of teaching to 4<sup>th</sup> year medical students within the Department of Medicine.

**9. Student Evaluation of Teaching**

Included in Otago Teaching Profile

**10. Publications**

**Total publications listed on MyResearch = 120.**

**(a) Book chapter**

1. De Ridder, D., **Manning, P.**, Cape, G., Vanneste, S., Langguth, B., & Glue, P. (2016). Pathophysiology-based neuromodulation for addictions: An overview. In V. R. Preedy (Ed.), *Neuropathology of drug addictions and substance misuse* (Vol. 1). (pp. 14-24). London: Elsevier. doi: 10.1016/B978-0-12-800213-1.00002-X

**(b) Refereed Journal Articles**

1. Rawal S, Munasinghe PE, Thevakar P, Lew JK, Jones GT, Willams MJ, Davis P, Bunton RW, Galvin IF, **Manning P**, Lamberts RR, Katare RG. Downregulation of miR-15a/b accelerates fibrotic remodelling in the type-2 diabetic human and

- mouse heart. Clin Sci (Lond). 2017 Mar 13. pii: CS20160916. doi: 10.1042/CS20160916.
2. Ma ZF, Venn BJ, **Manning PJ**, Cameron CM, Skeaff SA. The sensitivity and specificity of thyroglobulin concentration using repeated measures of urinary iodine excretion. Eur J Nutr. 2017 Mar 11. doi: 10.1007/s00394-017-1410-6
  3. Rawal S, Munasinghe PE, Shindikar A, Paulin J, Cameron V, **Manning P**, Williams MJ, Jones GT, Bunton R, Galvin I, Katare R. Down-regulation of proangiogenic microRNA-126 and microRNA-132 are early modulators of diabetic cardiac microangiopathy. Cardiovasc Res. 2017 Jan;113(1):90-101. doi: 10.1093/cvr/cvw235.
  4. De Ridder D, **Manning P**, Leong SL, Ross S, Vanneste S. Allostasis in health and food addiction. Sci Rep. 2016 Nov 23
  5. De Ridder D, Leong SL, **Manning P**, Vanneste S, Glue P. Anterior Cingulate Implant for Obsessive-Compulsive Disorder. World Neurosurg. 2016 Oct 15. pii: S1878-8750(16)31034-8.
  6. De Ridder D, **Manning P**, Leong SL, Ross S, Sutherland W, Horwath C, Vanneste S. The brain, obesity and addiction: an EEG neuroimaging study. Sci Rep. 2016 Sep 23;6:34122
  7. De Ridder D, Manning P, Glue P, Cape G, Langguth B, Vanneste S. Anterior Cingulate Implant for Alcohol Dependence: Case Report. Neurosurgery. 2016 Jun;78(6):E883-93.
  8. Ma ZF, Venn BJ, Manning PJ, Cameron CM, Skeaff SA. Iodine Supplementation of Mildly Iodine-Deficient Adults Lowers Thyroglobulin: A Randomized Controlled Trial. J Clin Endocrinol Metab. 2016 Apr;101(4):1737-44.
  9. De Ridder D, Vanneste S, Gillett G, Manning P, Glue P, Langguth B. Psychosurgery Reduces Uncertainty and Increases Free Will? A Review. Neuromodulation. 2016 Apr;19(3):239-48.
  10. Evans MC, Clark VW, **Manning PJ**, De Ridder D, Reynolds JN. Optimizing Deep Brain Stimulation of the Nucleus Accumbens in a Reward Preference Rat Model. Neuromodulation. 2015 Oct;18(7):531-41.



11. Holdaway IM, Hunt P, **Manning P**, Cutfield W, Gamble G, Ninow N, Staples-Moon D, Moodie P, Metcalfe S. Three-year experience with access to nationally funded growth hormone (GH) replacement for GH-deficient adults. *Clin Endocrinol (Oxf)*. 2015 Jul;83(1):85-90.
12. Green JB, Bethel MA, Armstrong PW, Buse JB, Engel SS, Garg J, Josse R, Kaufman KD, Koglin J, Korn S, Lachin JM, McGuire DK, Pencina MJ, Standl E, Stein PP, Suryawanshi S, Van de Werf F, Peterson ED, Holman RR; **TECOS Study Group**. Effect of Sitagliptin on Cardiovascular Outcomes in Type 2 Diabetes. *N Engl J Med*. 2015 Jul 16;373(3):232-42
13. Manning TE, Manning AE, **Manning PJ**. Systemic Capillary Leak Syndrome – a case report. *N Z Med J*. 2015 May 29;128(1415):51-3
14. Manning TE, Manning AE, **Manning PJ**. Hepatic Solitary Fibrous Tumor Presenting as Severe Hypoglycaemia: A Case-Report. *Case Reports in Clinical Medicine*, 2015, 4, 60-62
15. Francois ME, Baldi JC, **Manning PJ**, Lucas SJ, Hawley JA, Williams MJ, Cotter JD. 'Exercise snacks' before meals: a novel strategy to improve glycaemic control in individuals with insulin resistance. *Diabetologia*. 2014 Jul;57(7):1437-45. doi: 10.1007/s00125-014-3244-6. Epub 2014 May 10. PMID: 24817675
16. Rawal S, **Manning P**, Katare R. Cardiovascular microRNAs: as modulators and diagnostic biomarkers of diabetic heart disease *Cardiovasc Diabetol*. 2014 Feb 14;13(1):44.
17. Latta L, Tordoff D, **Manning P**, Dent J. Enhancing clinical skill development through an Ambulatory Medicine Teaching Programme: an evaluation study. *Med Teach*. 2013 Aug;35(8):648-54.
18. Wheeler BJ, Patterson N, Love DR, Prosser D, Tomlinson P, Taylor BJ, **Manning P**. Frequency and genetic spectrum of maturity-onset diabetes of the young (MODY) in southern New Zealand. *J Diabetes Metab Disord*. 2013 Dec 19;12(1):46.
19. Baldi JC, **Manning PJ**, Hofman PL, Walker RJ. Comment on: TODAY Study Group. Effects of metformin, metformin plus rosiglitazone, and metformin plus lifestyle on insulin sensitivity and  $\beta$ -cell function in TODAY. *Diabetes Care* 2013;36:1749-1757. *Diabetes Care*. 2013 Dec;36(12):e223.

20. **Manning PJ**, Sutherland WH, Manning AE, de Jong SA, Berry EA. Ingestion of thermally oxidized sunflower oil decreases postprandial lipemia mainly in younger individuals. *Nutr Res*. 2013 Sep;33(9):711-8.
21. **Manning PJ**, Sutherland WH, Williams SM, Walker RJ, Berry EA, De Jong SA, Ryalls AR. The effect of lipoic acid and vitamin E therapies in individuals with the metabolic syndrome. *Nutr Metab Cardiovasc Dis*. 2013 Jun;23(6):543-9.
22. **Manning PJ**, Sutherland WH, Williams SM, de Jong SA, Hendry GP. Oral but not intravenous glucose acutely decreases circulating interleukin-6 concentrations in overweight individuals. *PLoS One*. 2013 Jun 12;8(6):e66395
23. **Manning PJ**, Jong SA, Ryalls AR, Sutherland WH. Paraoxonase 1 activity in chylomicrons and VLDL: the effect of type 2 diabetes and meals rich in saturated fat and oleic acid. *Lipids*. 2012 Mar;47(3):259-67.
24. Vos FE, Schollum JB, Coulter CV, **Manning PJ**, Duffull SB, Walker RJ. Assessment of markers of glycaemic control in diabetic patients with chronic kidney disease using continuous glucose monitoring. *Nephrology (Carlton)*. 2012 Feb;17(2):182-8.
25. Silverman SL, Chines AA, Kendler DL, Kung AW, Teglbjærg CS, Felsenberg D, Mairon N, Constantine GD, Adachi JD; **Bazedoxifene Study Group**. Sustained efficacy and safety of bazedoxifene in preventing fractures in postmenopausal women with osteoporosis: results of a 5-year, randomized, placebo-controlled study. *Osteoporos Int*. 2012 Jan;23(1):351-63.
26. Slade H, Williams SM, **Manning PJ**, Walker RJ. High-risk diabetic nephropathy patients: The outcome of evidence-based clinical practice in an outpatient clinic. *Diabetes Res Clin Pract*. 2011 Mar 14
27. Vos FE, **Manning PJ**, Sutherland WH, Schollum JB, Walker RJ. Anti-inflammatory effect of an insulin infusion in patients on maintenance haemodialysis: a randomized controlled pilot study. *Nephrology (Carlton)*. 2011 Jan;16(1):68-75.
28. Taylor RW, Brooking L, Williams SM, **Manning PJ**, Sutherland WH, Coppel KJ, Tipene-Leach D, Dale KS, McAuley KA, Mann JI. Body mass index and waist circumference cutoffs to define obesity in indigenous New Zealanders. *Am J Clin Nutr*. 2010 Aug;92(2):390-7

29. Choi AR, **Manning P**. Overshooting the mark: subclinical hyperthyroidism secondary to excess thyroid hormone treatment may be more prevalent than we realise. *N Z Med J*. 2009 Feb 13; 122(1289):93-4.
30. **Manning PJ**, Sutherland WH, McGrath MM, de Jong SA, Walker RJ, Williams MJ. Postprandial cytokine concentrations and meal composition in obese and lean women. *Obesity (Silver Spring)*. 2008 Sep;16(9):2046-52.
31. **Manning PJ**, Sutherland WH, Walker RJ, de Jong SA, Berry EA. The effect of glucose ingestion on inflammation and oxidative stress in obese individuals. *Metabolism*. 2008 Oct;57(10):1345-9.
32. **Manning PJ**, Sutherland WH, McGrath MM, de Jong SA, Walker RJ, Williams MJ. Postprandial Cytokine Concentrations and Meal Composition in Obese and Lean Women. *Obesity (Silver Spring)*. 2008 Jun 26
33. **Manning PJ**, Sutherland WH, Walker RJ, Williams SM, de Jong SA, Berry EA. The effect of rosiglitazone on oxidative stress and insulin resistance in overweight individuals. *Diabetes Res Clin Pract*. 2008 Aug;81(2):209-15.
34. Sutherland WH, **Manning PJ**, Walker RJ, de Jong SA, Ryalls AR, Berry EA. Vitamin e supplementation and plasma 8-isoprostane and adiponectin in overweight subjects. *Obesity* . 2007 Feb;15(2):386-91.
35. Florkowski CM, Brownlie BE, Croxson MS, **Manning P**, Farrand S, Smith G, Potter HC, George PM. Thyroid hormone resistance: the role of mutational analysis. *Intern Med J*. 2006 Nov;36(11):738-41.
36. Astwood D, Yoon HS, **Manning P**. Hyperandrogenism in a patient with previous colorectal cancer. *Intern Med J*. 2006 Nov;36(11):751-2.
37. Adams DD, Knight JG, **Manning P**, Smith G. An informative case of Graves Disease with implications for schizophrenia. *J Clin. Lab. Immunol*. 2005; 53:13-25.

#### **The FIELD Study Group Papers**

38. Williams KH, Sullivan DR, Nicholson GC, George J, Jenkins AJ, Januszewski AS, Gebiski VJ, **Manning P**, Tan YM, Donoghoe MW, Ehnholm C, Young S, O'Brien R, Buizen L, Twigg SM, Keech AC. Opposite associations between alanine aminotransferase and  $\gamma$ -glutamyl transferase levels and all-cause mortality in type 2 diabetes: Analysis of the Fenofibrate Intervention and

Event Lowering in Diabetes (FIELD) study. Metabolism. 2016 May;65(5):783-93.

39. Ting RD, Keech AC, Drury PL, Donoghoe MW, Hedley J, Jenkins AJ, Davis TM, Lehto S, Celermajer D, Simes RJ, Rajamani K, Stanton K; FIELD Study Investigators. Diabetes Care. 2012 Feb;35(2):218-25. Benefits and safety of long-term fenofibrate therapy in people with type 2 diabetes and renal impairment: the FIELD Study.
40. Scott R, Donoghoe M, Watts GF, O'Brien R, Pardy C, Taskinen MR, Davis TM, Colman PG, **Manning P**, Fulcher G, Keech AC; FIELD Study Investigators. Impact of metabolic syndrome and its components on cardiovascular disease event rates in 4900 patients with type 2 diabetes assigned to placebo in the FIELD randomised trial. Cardiovasc Diabetol. 2011 Nov 21;10:102.
41. The **FIELD Study Investigators**. The effects of long-term fenofibrate on cardiovascular events in 9795 people with type 2 diabetes mellitus (the FIELD study): randomized controlled trial. The Lancet, Nov 2005.
42. Scott R et al. on behalf of the **FIELD Study Investigators**. Effects of Fenofibrate treatment on cardiovascular disease in 9,795 individuals with type 2 diabetes and various components of the metabolic syndrome. Diabetes Care. 2009 32(3): 493-498.
43. Rajamani K et al. on behalf of the **FIELD Study Investigators**. Effect of Fenofibrate on amputation events in people with type 2 diabetes mellitus (FIELD Study): a prespecified analysis of a randomised controlled trial. Lancet. 2009; 373 May 23: 1780
44. Burgess DC et al. on behalf of the **FIELD Study Investigators**. Incidence and predictors of silent myocardial infarction in type 2 diabetes and the effect of Fenofibrate: an analysis from the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study. European Heart Journal. 2009
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45. O,Connell R, Bell D, **Manning P**, Parkin L, Herbison P, Holmes J. A cluster of thyrotoxicosis associated with consumption of a soy milk product. Aust NZJ Public Health 2005;29:511-12.

46. Coppel KJ, Anderson K, Williams S, **Manning P**, Mann J. Evaluation of diabetes care in the Otago region using a diabetes register, 1998-2003. *Diabetes Res Clin Pract.* 2005 Sep 22
47. The **FIELD Study Investigators**. Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study, a randomized, placebo-controlled trial: baseline characteristics and short-term effects of fenofibrate. *Cardiovasc Diabetol.* 2005 Aug 22; 4(1):13
48. Stott V, **Manning P**, Hung N. Idiopathic granulomatous hypophysitis. *N Z Med J.* 2005 Mar 11;118(1211):U1355.
49. Markou A, **Manning P**, Kaya B, Datta SN, Bomanji JB, Conway GS. [18F]fluoro-2-deoxy-D-glucose ([18F]FDG) positron emission tomography imaging of thymic carcinoid tumor presenting with recurrent Cushing's syndrome. *Eur J Endocrinol.* 2005 Apr;152(4):521-5.
50. Chan MC, **Manning PJ**. A case of Graves Disease and thymic hyperplasia. *NZMSJ* 2005 (2): 13-14.
51. Goulding A, Jones IE, Williams SM, Grant AM, Taylor RW, **Manning PJ**, Langley J. First fracture is associated with increased risk of new fractures during growth. *J Pediatr.* 2005 Feb;146(2):286-8.
52. **Manning PJ**, Sutherland WH, Walker RJ. Effect of high-dose vitamin E on insulin resistance and associated parameters in overweight subjects (letter). *Diabetes Care.* 2005; 28(1): 230-1.
53. The **FIELD Study Investigators**. The need for a large-scale trial of fibrate therapy in diabetes: the rationale and design of the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study. *Cardiovasc Diabetol.* 2004 Dec 1;3:9.
54. **Manning PJ**, Sutherland WH, Hendry G, de Jong SA, McGrath M, Williams SM. Changes in circulating postprandial proinflammatory cytokine concentrations in diet-controlled type 2 diabetes and the effect of ingested fat. *Diabetes Care.* 2004 Oct;27(10):2509-11.
55. **Manning PJ**, Sutherland WH, Walker RJ, Williams SM, De Jong SA, Ryalls AR, Berry EA. Effect of high-dose vitamin E on insulin resistance and associated parameters in overweight subjects. *Diabetes Care.* 2004 Sep; 27(9):2166-71.

56. **Manning PJ**, Espiner EA, Yoon K, Drury PL, Holdaway IM, Bowers A. An unusual cause of hyperinsulinaemic hypoglycaemia syndrome. *Diabetic Medicine* 2003;20(9):772.
57. **Manning PJ**, Sutherland WH, Allum AR, De Jong SA, Jones SD. HRT does not improve urinary albumin excretion in postmenopausal diabetic women. *Diabetes Res Clin Pract* 2003;60(1):22-9.
58. Goulding A, Taylor RW, Jones I.E., **Manning PJ**, Williams SM. Spinal Overload: a concern for obese children and adolescents? *Osteoporos Int* 2002 13: 835-840
59. **Manning PJ**, Sutherland WH, Allum AR, De Jong SA, Jones SD. Effect of hormone replacement therapy on inflammation-sensitive proteins in post-menopausal women with Type 2 diabetes. *Diabet Med.* 2002 Oct;19(10): 847-52
60. Coppel K, **Manning PJ** for the Otago Diabetes Team. Establishing a regional diabetes register and a description of the registered population after one year. *NZMJ* 2002 115; 1160:
61. Jones IE, Taylor RW, Williams SM, **Manning PJ**, Goulding A. Four-year gain in bone mineral in girls with and without past forearm fractures: a DXA study. Dual energy X-ray absorptiometry. *J Bone Miner Res.* 2002 Jun;17(6):1065-72.
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**Collaborative Study Group Papers:**

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**(c) Non-Refereed Journal Articles**

1. **Manning PJ.** Hypoglycaemia in Type 1 Diabetes. NZ MED J. 1999, June 25; 112(1090):219-21
2. Walker, R.J. and **Manning, P.J.** Diabetic nephropathy: Assessment and management. New Ethicals 2(7):49-55 (1999)

**(d) Refereed Conference Proceedings**

1. Leong, S. L., de Ridder, D., Vanneste, S., Ross, S., Sutherland, W., & **Manning, P.** (2017). Effect of transcranial pink noise stimulation of anterior cingulate cortex on food craving. *Brain Stimulation*, 10(2), (pp. 351). doi: 10.1016/j.brs.2017.01.028
2. Ross, S., **Manning, P.**, De Ridder, D., Sutherland, W., Leong, S., Ryalls, A., ... Berry, E., Hendry, G., ... Horwath, C. (2016). Post-weight loss changes in brain activity after a very low calorie diet. In B. Leitch (Ed.), *Proceedings of the 34th International Australasian Winter Conference on Brain Research*. (pp. 53).
3. Rawal, S., Munasinghe, E., **Manning, P.**, & Katare, R. (2015). Cardiovascular microRNAs in diagnosis and therapeutic intervention of diabetic heart disease. *New Zealand Medical Journal*, 128(1425).
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5. Skeaff, S., Ma, Z. F., Venn, B., **Manning, P.**, & Cameron, C. (2015). Effect of iodine supplementation on thyroglobulin concentration in adults: A randomised, double-blind, placebo-controlled intervention trial. *Annals of Nutrition & Metabolism*, 67(Suppl. 1), (pp. 175-176).
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7. Rawal, S., Paulin, J., Munasinghe, E., **Manning, P.**, & Katare, R. (2014). Circulating cardiovascular microRNAs as diagnostic biomarkers for early diagnosis of diabetic heart disease. *Heart, Lung & Circulation*, 23(Suppl. 1), (pp. e38-e39)
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  15. Stott, V., **Manning, P.**, Astwood, D., & Farrand, S. (2008). Are insulin-like growth factor-1 levels affected by the presence of Type 2 diabetes mellitus? *Diabetes Research and Clinical Practice*. 79(Suppl. 1), (pp. S62).
  16. Coppel, K., Anderson, K., Williams, S., **Manning, P.**, & Mann, J. (2005). Changes in diabetes care over a 6-year period in the Otago region, New Zealand. *Proceedings of the New Zealand Society for the Study of Diabetes 29th Annual Meeting*. (pp. 19). Rotorua, New Zealand: NZSSD.
  17. Cotter, J. D., Rehner, N. J., **Manning, P.**, Lucas, S. J. E., Gerrard, D. F., & Helge, J. W. (2005). The metabolism of adventure racing. In I. Holmér, K. Kuklane & C. Gao (Eds.), *Proceedings of the 11th International Conference on Environmental Ergonomics*. (pp. 29).
  18. Coppel, K., **Manning, P.**, Medlicott, T., McBride, K., Gillies, J., Mann, J., & for the Otago Diabetes Team. (2003). The Otago Diabetes Project: Improvement in diabetes care after 4 years. *Proceedings of the 9th Meeting of the International Diabetes Epidemiology Group and the 38th Annual Meeting of the European Diabetes Epidemiology Group*. (OC20).
  19. Merriman, T. R., Hall, R. H., Merriman, M. E., Cundy, T., Darlow, B. A., Highton, J., ... Mann, J., **Manning, P. J.**, ... Scott, R. S., Taylor, B., & Willis, J. (2001). Deleted in colorectal carcinoma (DCC): A candidate autoimmune susceptibility gene on chromosome 18. *Internal Medicine Journal*. 31(Supplement), (pp. A5).
  20. Bolter, C. J., **Manning, P. J.**, & Fleming, J. S. (1999). Expression of growth hormone receptor messenger RNA in human pituitary adenomas. *Proceedings of the NZ Society of Endocrinology 1999*. 42, (pp. NZ21, 225-NZ21,225). Melbourne: The Endocrine Society of Australia.
  21. Clow, O. M., **Manning, P. J.**, & Fleming, J. S. (1999). Expression of activin subunits and activin receptors in human pituitary adenomas. *Proceedings of the New Zealand Society of Endocrinology*. 42, (pp. NZ14, 243). Melbourne, Australia: The Endocrine Society of Australia.
  22. Goulding, A., Taylor, R. W., Jones, I. E., McAuley, K., & **Manning, P. J.** (1998). Fractures: are overweight children at increased risk? In J. Jensen (Ed.), *Proceedings of New Zealand Dietetic Association*. 3, (pp. 68-70). Christchurch: New Zealand Dietetic Association.

**(e) Other Conference Related Involvement****Verbal Presentations in last 3 years**

1. Manning, P. (2016, August). Development of a NZSE position on complementary medicine. Verbal presentation at the New Zealand Society of Endocrinology (NZSE) Conference, Nelson, New Zealand.
2. Manning, P. (2016, August). Diagnosis of Cushing's syndrome. Verbal presentation at the New Zealand Society of Endocrinology (NZSE) Conference, Nelson, New Zealand.
3. Manning, P. (2016, March-April). Diabetes complications. Workshop presentation at the New Zealand Rural General Practice Network (NZRGPN) National Rural Health Conference, Dunedin, New Zealand.
4. Manning, P. (2016, March-April). Starting insulin in primary care. Workshop presentation at the New Zealand Rural General Practice Network (NZRGPN) National Rural Health Conference, Dunedin, New Zealand.
5. Sandlands, S., & Manning, P. (2016, March-April). Improving outcomes in diabetes care in rural New Zealand. Verbal presentation at the New Zealand Rural General Practice Network (NZRGPN) National Rural Health Conference, Dunedin, New Zealand.
6. Manning, P. (2014, August). Obesity and the brain. Verbal presentation at the Queenstown Molecular Biology (QMB) Meetings, Queenstown, New Zealand.
7. Manning, P. J., Ross, S., Vanneste, S., & De Ridder, D. (2014, May). The differences in brain activity in lean and obese individuals. Verbal presentation at the New Zealand Society for the Study of Diabetes (NZSSD) Annual Scientific Meeting, Queenstown, New Zealand.

**Poster Presentations in last 3 years**

1. Rawal, S., Munasinghe, P. E., Cameron, V., Manning, P., Williams, M. J. A., Jones, G. T., Bunton, R., Galvin, I., & Katare, R. (2016, August). microRNA-126 and microRNA-132 are the early modulators of diabetic microangiopathy in heart. Poster session presented at the Medical Sciences Congress (MedSci), Nelson, New Zealand.
2. Ma, Z. F., Venn, B., Manning, P., Cameron, C., & Skeaff, S. A. (2015, October). Effect of iodine supplementation on serum thyroglobulin concentration in mildly iodine deficient adults. Poster session presented at the Potsdam Summer School of International Nutrition: Future Food, Potsdam, Germany.
3. Rawal, S., Manning, P., Munasinghe, P., & Katare, R. (2013, August). Circulating cardiac-specific microRNAs as diagnostic biomarkers for early diagnosis of diabetic heart disease. Poster session presented at the Medical Sciences Congress (MedSci), Queenstown, New Zealand.

**11. University Service**

1. Department of Medicine Executive      2010-2014

2. Chair of the 4th Year Medical Programme Review Committee 2010

**12. Professional Activities**

1. Chairperson: New Zealand Guidelines Group developing Diabetes Management Guidelines - completed 2003
2. President of the New Zealand Society for the Study of Diabetes 2006-2009
3. Health Research Council Biomedical Research Assessment Committee: 2009, 2010, 2011, 2012, 2015, 2016, 2017
3. HRC IIOF Assessing Committee 2009
4. HRC Data Monitoring Group: Co-opted member 2011
5. Expert opinion for World Anti-Doping Agency (WADA) regarding Therapeutic Use Exemption applications.
6. Expert opinion for World Anti-Doping Agency (WADA) regarding diabetes treatments in athletes.
7. Chief Examiner for New Zealand, Royal Australasian College of Physicians 2010 – 2013
8. Appointed to Senior Examiners Panel (Australia Branch), Royal Australasian College of Physicians 2014 – present
9. Appointed to Biomedical Research Committee of HRC – 2015 - present
10. Health Research Council College of Experts 2010- present
11. Health and Disability Commissioner, Expert for Endocrinology 2010- present
12. Chairperson of the Royal Australasian College of Physicians Specialist Training Committee (New Zealand) for Endocrinology 2017- present
13. 2010, Invited Book Review. Examination Medicine - A guide to Physician Training. Talley N and O'Connor S. 6th Edition. ISBN: 978 0 7295 39111
14. Panel member of the New Zealand Adult Growth Hormone Committee for PHARMAC 2010-2015
15. Invited Lectures
  - (a) National:
    - New Zealand Endocrine Society 2014, 2016
    - Queenstown Molecular Biology Conference 2015
    - New Zealand Society for the Study of Diabetes 2008, 2009, 2014
    - Gastroenterology Society of New Zealand 2011
    - Australasian Nephrology Society 2006
  - (b) International:
    - Department of Endocrinology, Sienna Hospital, Sienna, 2012

- Department of Diabetes and Metabolism, Karolinska Institute, Sweden, 2012
- Department of Endocrinology, University of Antwerp, Belgium, 2012

### 13. Community Service

#### 1. Otago Diabetes Team

I was the founder of the Otago Diabetes Team in 1995. This Team completely reviewed diabetes services in Otago and implemented a continuing education programme for general practitioners and practice nurses; a local diabetes annual review programme for people with diabetes with an associated audit programme; and diabetes management guidelines. The success of this local programme led to many aspects being rolled out nationwide and are still in place today e.g. annual diabetes reviews.

#### 2. President of New Zealand Society for the Study of Diabetes 2006-9

The New Zealand Society for the Study of Diabetes is the scientific society representing medical specialists and allied health workers in New Zealand. It is responsible for the academic meetings and scientific statements related to diabetes nationally.

#### 3. Clinical Leader Endocrinology 1995-2012

Head of the Department of Endocrinology clinical services for the Southern District Health Board,

#### 4. Chairperson NZ Diabetes Guidelines Group 2003.

This group was tasked to write the first ever national evidence-based diabetes management guidelines for New Zealand.

#### 5. Committee Member Diabetes Otago – lay organisation for Diabetes in the Otago region 2000

#### 6. Chairperson, General Medical Staff, Dunedin Hospital

Was selected by my peers to be the chairperson of the General Medical Staff at Dunedin Hospital. In this position I represented the interests of all medical specialist staff within the hospital for 3 years.

#### 7. Continuing Medical Education

General Practitioners – multiple CME sessions to general practitioners both in the urban and rural settings. These are mainly related to the management of aspects of diabetes.

#### 8. Public Lectures and Media

- Multiple lectures at public forums in Dunedin on diabetes as part of the Otago Diabetes Team initiative between 1995-2000
- Public lecture at Men's Health Forum Dunedin 2012
- Television appearance on Paul Henry show debating "Adrenal Fatigue" with overseas expert.

- Presentation at Future Face of Healthcare public forum 2016 organized by the Dean of Medicine, Dunedin School of Medicine.