

# Alexander J. Rodríguez <sup>PhD</sup>

Email: [aj.rodriquez.schimizzi@gmail.com](mailto:aj.rodriquez.schimizzi@gmail.com)

Office phone: +61 3 8572 2919

Citizenship status: Dual - Australian & Spanish

## Education

Institution	Year	Degree	Thesis
Griffith University	Current	MD	n/a
Monash University	2019	PhD (Medicine)	Musculoskeletal and vascular ageing: Points of intersection

## Academic appointments

2018	Visiting Fellow, Odense Patient data Exploratory Network (OPEN), Odense (Denmark)
2017	ANZBMS Early Career Investigator Committee (Career Development officer)
2016	Member – Taskforce on Vertebral Augmentation, ASBMR

## Invited Lectures

2018	“Brittle bone and <i>boney</i> arteries” – Amgen® Bone Academy, Melbourne
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## Publications

- **Rodríguez AJ**, Scott D, Khan B, et al “High calcium intake in men not women is associated with all-cause mortality risk: Melbourne Collaborative Cohort Study.” *Arch Osteoporos* (2018) 13:101. doi: 10.1007/s11657-018-0518-5
- **Rodríguez AJ**, Scott D, Ebeling PR. “Exploring the Links Between Common Diseases of Ageing—Osteoporosis, Sarcopenia and Vascular Calcification”. *Clin Rev Bone Miner Metab* (2018); 1–23.
- Aleksova J, **Rodríguez AJ**, McLachlan R, Kerr P, Milat F, Ebeling PR. “Gonadal Hormones in the Pathogenesis and Treatment of Bone Health in Patients with Chronic Kidney Disease: a Systematic Review and Meta-Analysis”. *Curr Osteoporos Rep* (2018); **16**: 674–92.
- **Rodríguez AJ**, Lewis JR, Scott DS, Schousboe JT, Kiel DP, Ebeling PR, Prince RL “Aortic calcification is associated with five-year decline in handgrip strength in older women.” *Calcif Tissue Int* (2018) doi: 10.1007/s00223-018-0458-5
- **Rodríguez AJ**, Fink HA, Mirigian L, Guañabens N, Eastell R, Akesson K, Bauer DC, Ebeling PR. "Pain, quality of life and safety outcomes of kyphoplasty for vertebral compression fractures: report of a task force of the American Society for Bone and Mineral Research." *J Bone Mineral Res* (2017) May 17. doi: 10.1002/jbmr.3170.
- **Rodríguez AJ**, Ebeling PR “At what price decreased mortality risk?” *Osteoporos Int* (2018) 1–2. doi: 10.1007/s00198-018-4550-5
- **Rodríguez AJ**, Mousa A, Ebeling PR, Scott D, de Courten B. Effects of vitamin D supplementation on inflammatory markers in heart failure: a systematic review and meta-analysis of randomized controlled trials. *Sci Rep* (2018); **8**: 1169.

- **Rodríguez AJ**, Scott D, Ebeling PR. Comments on Li et al.: Meta-analysis of hypertension and osteoporotic fracture risk in women and men. *Osteoporos Int* (2017); published online Oct 6. DOI:10.1007/s00198-017-4246-2.
- **Rodríguez AJ**, et al. "Associations between hip bone mineral density, aortic calcification and cardiac workload in community-dwelling older Australians." *Osteoporos Int.* (2017). doi: 10.1007/s00198-017-4024-1
- **Rodríguez AJ**, Karim Nazmul MD, Srikanth V, Ebeling PR, Scott D "Lower muscle tissue is associated with higher pulse wave velocity: a systematic review and meta-analysis" *Clin. Exp. Pharmacol. Physiol.* (2017) Jun 28. doi: 10.1111/1440-1681.12805.
- **Rodríguez AJ**, et al. "Low relative lean mass is associated with increased likelihood of abdominal aortic calcification in community-dwelling older Australians." *Calcif. Tissue Int.* (2016) doi: 10.1007/s00223-016-0157-z
- **Rodríguez AJ**, Scott D, Ebeling P "Effect of weight loss induced by energy restriction on measures of arterial compliance: A systematic review and meta-analysis" *Atherosclerosis* (2016), doi: 10.1016/j.atherosclerosis.2016.06.043
- **Rodríguez AJ**, Scott D, Ebeling P & Abrahamsen B "Reply to: systematic review and meta-analysis for the association of bone mineral density and osteoporosis/osteopenia with vascular calcification in women". *Int J Rheum Dis* (2016), doi:10.1111/1756-185X.12942
- **Rodríguez AJ** "Vascular risk in familial Mediterranean fever" *Anatol. J. Cardiol.* (2016), doi: 10.14744/AnatolJCardiol.2016.22571
- Morton SK, **Rodríguez AJ**, Morris DR, Bhandari AP, Moxon JV, et al. "A Systematic Review and Meta-Analysis of Circulating Biomarkers Associated with Failure of Arteriovenous Fistulae for Haemodialysis" *PLoS ONE* (2016) 11(7): e0159963. doi: 10.1371/journal.pone.0159963
- **Rodríguez AJ**, Mastronardi C, Neeman T, Paz-Filho G, Nunes V "Association between circulating adipocytokines concentrations and microvascular complications in patients with type 2 diabetes mellitus: a systematic review and meta-analysis of controlled cross-sectional studies" *J Diabetes Complications* (2015) Nov 7. pii: S1056-8727(15)00441-9. doi: 10.1016/j.jdiacomp.2015.11.004
- **Rodríguez AJ**, Scott D, Srikanth V, Ebeling PR "Effect of vitamin D supplementation on measures of arterial stiffness: a systematic review and meta-analysis of randomised controlled trials" *Clin Endocrinol (Oxf)* (2016) May;84(5):645-657. doi: 10.1111/cen.13031.
- **Rodríguez AJ**, Mastronardi CA, Paz-Filho G. "New advances in the treatment of lipodystrophy: role of metreleptin", *Ther Clin Risk Manag* (2015);11:1391-1400 [www.youtube.com/watch?v=iat8NjmlvXM](http://www.youtube.com/watch?v=iat8NjmlvXM)
- **Rodríguez AJ**, Ebeling PR, Scott D. "Sarcopenia and physical activity in older Australians". *Australasian Epidemiologist* (2015) 22(1):11-14
- **Rodríguez AJ**, Mastronardi CA, Paz-Filho G. "Clinical perspectives: leptin replacement therapy for the treatment of lipodystrophy-associated non-alcoholic fatty liver disease." *Transl Gastrointest Cancer* (2015) 4(1):98-107. doi: 10.3978/j.issn.2224-4778.2014.09.06
- **Rodríguez AJ**, Neeman T, Giles AG, Mastronardi C, Paz-Filho G. "Leptin replacement therapy for the treatment of non-HAART associated lipodystrophy syndromes: a meta-analysis into the effects of leptin on metabolic and hepatic endpoints" *Arq Bras Endocrinol Metabol.* (2014) Nov;58(8):783-97 [journal now called *Archives of Endocrinology and Metabolism*]
- Morris, D R., **Rodríguez AJ**, et al. "Association of lower extremity performance with cardiovascular and all-cause mortality in patients with peripheral artery disease: a systematic review and meta-analysis." *J Am Heart Assoc* 3.4 (2014): e001105.
- **Rodríguez AJ**, Mastronardi C, Paz-Filho G. "Leptin as a risk factor for the development of colorectal cancer". *Transl Gastrointest Cancer* (2013) 2(4):211-222. doi: 10.3978/j.issn.2224-4778.2013.10.04

**Competitive grants, scholarships & funding**

- 2018 Barbara Mawer Travelling Fellowship, BRS (£1,900 ~\$3,300)
- 2017 Christine & T. Jack Martin Research Grant, ANZBMS (\$12,900)
- 2015 Australian Postgraduate Award (\$26,000 p.a. until 2018)
- 2015 Monash University, Department of Medicine, Faculty top-up Scholarship (\$5,000 p.a. until 2018)

**Honours & awards**

- 2018 ANZBMS Christopher and Margie Nordin Young Investigator Poster Prize (\$1000)
- 2018 ASBMR Young Investigator Award (US\$1000 ~ \$1380)
- 2018 Australian and New Zealand Bone and Mineral Society Travel Grant (\$500)
- 2017 ENDO Outstanding Abstract Award (\$250)
- 2017 ENDO Early Career Forum (\$500)
- 2017 Australian and New Zealand Bone and Mineral Society Travel Grant (\$300)
- 2016 ESA-IPSEN International Travel Award (\$3,500)
- 2016 WCO-IOF- ESCEO-AgNovos Healthcare Young Investigator Award (€2,500 ~\$4,000)
- 2016 School of Clinical Sciences (Monash University) 3-Minute Thesis – First Prize (\$100)
- 2015 Asian Association for the Study of Diabetes International Travel Grant (\$1,500)
- 2015 Australian and New Zealand Bone and Mineral Society Travel Grant (\$250)
- 2015 Endocrine Society of Australia Travel Grant (\$310)
- 2014 5<sup>th</sup> Annual Bootes Course on Translational Medicine, Canberra, Australia
- 2013 4<sup>th</sup> Annual Bootes Course on Translational Medicine, Canberra, Australia
- 2012 Best Oral Presentation - Queensland Festival of Life Sciences, Townsville, Australia (\$2,500)

**Editorial experience**

*Completed at least one peer-review for the following journals (rank):*

BMJ Open (Q1); PLoS ONE (Q1); Diabetic Medicine (Q1); Nutrients (Q1); Nutrition, Metabolism & Cardiovascular Diseases (Q1); International Journal of Molecular Science (Q1); Journal of Human Nutrition and Dietetics (Q1); Clinical Interventions in Ageing (Q1); Aging Clinical and Experimental Research (Q2); Diabetology and Metabolic Syndrome (Q2); Anatolian Journal of Cardiology (Q3); Kidney and Blood Pressure Research (Q3); International Journal of Rheumatic Diseases (Q3); Journal of Nutrition and Intermediary Metabolism (Q4)

**Professional experience**

- 2018 Mentor – Scholarly Select student (University of Melbourne)
- 2017 Mentor – B.MedSc. Honours student (Monash University)
- 2016 Member – Cochrane Prospective Meta-Analysis (Cochrane Collaboration)
- 2015 Tutorial Leader – Monash University biomedical science undergraduate course (BMS3042)
- 2013-2014 Research Assistant – Translational Medicine Group, Australian National University

## Conference proceedings

### Oral presentations

- ECTS 2018 “*Evidence supporting a vascular disease – muscle function relationship*” **Rodríguez AJ**, Lewis JR, Scott D, Kiel DP, Schousboe JT, Ebeling PR, Prince RL. Oral abstract #PO25. Valencia, Spain
- ENDO 2017 “*Lower bone mineral density in the femoral neck is associated with greater abdominal aortic calcification and rate pressure product in healthy older Australians*” **Rodríguez AJ**, Scott D, Hodge A, English D, Giles G, Ebeling PR. Oral abstract #29968. Orlando, USA
- WCO-IOF-ESCEO 2017 “*Balloon kyphoplasty compared to percutaneous vertebroplasty: What is the evidence?*” P. R. Ebeling, **A. J. Rodríguez**, H. A. Fink, L. Mirigian, N. Guañabens, R. Eastell, K. Akesson, D. Bauer Oral abstract #2264. Florence, Italy
- ESA/SRB/ANZBMS 2016 “*Relationship between low lean tissue and arterial stiffness: a systematic review and meta-analysis of observational data*” **Rodríguez AJ**, Scott D, MD Nazmul Karim, Srikanth V, Ebeling PR. Oral abstract #36926. Gold Coast, Australia
- AASD 2015 “*Association between circulating adipocytokine concentrations and microvascular complications in patients with type 2 diabetes mellitus: a systematic review and meta-analysis of controlled cross-sectional studies*” **Rodríguez AJ**, Paz-Filho G, Mastronardi CA, Neeman T, Nunes V. Oral abstract #Ab0045. Hong Kong SAR, China
- ESA 2015 “*Circulating adipocytokine concentrations are associated with microvascular complications in patients with type 2 diabetes mellitus: a systematic review and meta-analysis*” **Rodríguez AJ**, Paz-Filho G, Mastronardi CA, Neeman T, Nunes V. Oral abstract #197. Adelaide, Australia.
- ESA 2014 “*Metreleptin improves metabolic and hepatic endpoints in the treatment of non-HAART associated lipodystrophy syndromes: a meta-analysis into the effects of leptin replacement therapy*” **Rodríguez AJ**, Neeman T, Giles A, Mastronardi CA, Paz-Filho G. Oral abstract. Melbourne, Australia

### Poster presentations

- ASBMR 2018 “*High dietary calcium intake in men, not women, are associated with increased all-cause mortality: the Melbourne Collaborative Cohort Study*” **Rodríguez AJ**, Scott D, Khan B, Hodge A, English D, Giles G, Abrahamsen B, Ebeling PR. Plenary Poster #0829. Montreal, Canada
- ANZBMS 2018 “*Prevalence of cardiovascular risk factors in a population-based cohort of Danish bisphosphonate users: The Odense Bisphosphonate Safety Study*” **Rodríguez AJ**, Ernst MT, Nybo M, Prieto-Alhambra D, Hermann P, Abrahamsen B. Poster #81. Queenstown, New Zealand
- BRS 2018 “*Bone geometry is correlated with oscillometric arterial stiffness in overweight older adults with low vitamin D*” **Rodríguez AJ**, Xu CLH, McMillan LB, Srikanth V, Scott D, Ebeling PR. Poster #27 Winchester, England
- WCO-IOF-ESCEO 2018 “*Increased mortality risk in men with high dietary calcium intake but not women*” **Rodríguez AJ**, Scott D, Khan B, Hodge A, English D, Giles G, Abrahamsen B, Ebeling PR. Poster #188. Krakow, Poland
- ANZBMS-JSBMR-IFMRS 2017 “*Effect of long-term leptin replacement therapy on bone mass in a pre-menopausal woman with genetic leptin deficiency*” **Rodríguez AJ**, Paz-Filho GJ, Delibasi T, Ebeling PR, Wong M-L, Licinio J. Poster #199. Brisbane, Australia.
- WCO-IOF-ESCEO 2016 “*A systematic review and meta-analysis of randomised controlled trials on the effect of vitamin D supplementation on measures of arterial stiffness*” **Rodríguez AJ**, Scott D, Srikanth V, Ebeling PR. Poster #236. Malaga, Spain
- ASBMR 2016 “*Pain, safety and quality of life outcome of kyphoplasty for vertebral compression fractures*” **Rodríguez AJ**, Fink HA, Mirigian L, Guañabens N, Eastell R, Akesson K, Bauer D, & Ebeling PR. Poster #LA-SA0378. Atlanta, USA
- ANZBMS 2015 “*Low relative muscle mass is associated with increased presence and severity of aortic calcification*” **Rodríguez AJ**, Scott D, Khan B, Khan N, Hodge A, English D, Giles G, Ebeling PR. Poster #P2. Hobart, Australia

- ENDO 2015 “*Association between leptin and diabetic microvascular complications: a meta-analysis of cross-sectional data*” Paz-Filho G, Mastronardi CA, Neeman T, Nunes V, **Rodríguez AJ**. Poster THR-610. San Diego, USA
- ICE/ENDO 2014 “*A meta-analysis into the effects of leptin replacement therapy on metabolic and hepatic endpoints on patients with lipodystrophy syndromes not associated with the use of HIV protease inhibitors*” Paz-Filho G, Neeman T, Giles A, Mastronardi CA, **Rodríguez AJ**. Poster presentation SUN-0877. Chicago, USA

### Professional affiliations

Endocrine Society of Australia – Student Member (year joined, 2014)

Australian New Zealand Bone and Mineral Society – Student Member (2015)

American Society for Bone and Mineral Research – In-Training Associate Member (2015)

The Endocrine Society – In-Training Associate Member (2015)

Asian Society for the Study of Diabetes – Professional II Member (2015)

International Bone and Mineral Society – Student Member (2016)

Bone Research Society (UK) – Student Member (2017)

European Society for Endocrinology – In-Training Member (2017)

Civil Liberties Australia (ACT) – Member (2012)

### Other skills

Bone Densitometry	ANZBMS accredited in patient handling and image acquisition and interpretation using peripheral quantitative computed tomography (pQCT) [Stratec XT3000], dual-energy x-ray absorptiometry (DXA) [Hologic Horizon A] and high-resolution peripheral quantitative computed tomography (HR-pQCT) [Scanco Xtreme CT2]
Statistics & Epidemiology	Comprehensive knowledge and confidence in many aspects of epidemiology and biostatistics including trial design; survival analysis; meta-analysis and meta-regression; cross-sectional and longitudinal analyses; large cohort studies and randomised controlled trials. Preferred platform: STATA.
Language	Professional competency in Spanish and am conversational in Italian and Portuguese. Previously tutored and mentored non-English speakers in improving their English language skills for IELTS exams
Clinical trials	Experience in the design, administration and monitoring of clinical trials including human ethics applications for interventional trials, securing full regulatory approvals (ANZCTR), liaising with private pharmaceutical firms in securing commercial agreements for drug supply.
Teaching	Tutorial leader for a third-year medical student course, acting as a studies consultant for students throughout the course and also mentor students when they commence a 6-month research project. They seek guidance in learning how to editorialise research, develop research ideas, maintain highest ethical practice and learn scholarly writing including literature appraisal and research proposals.

Mentoring

Acted as mentor and academic support for two Bachelor of Medical Science (Honours) student and one first year PhD student

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### **Media**

- Interview with Spanish print and online media outlet “La Region” regarding my presentation at WCO-IOF-ESCEO 2016 - <http://www.laregioninternacional.com/articulo/protagonistas/siento-australiano-corazon-espanol/20160501224418250078.html> [03/05/2016]
- Podcast “Bone Group Banter” dedicated to discussing, debating and sharing all things musculoskeletal. The target audience is the general public and podcasts include news, views and interviews on many different topics related to musculoskeletal health <https://itunes.apple.com/us/podcast/bone-banter/id1247703778?mt=2>

### **Referees**

Professor Peter R. Ebeling AO MBBS MD FRACP (PhD Supervisor)

Professor of Medicine, School of Clinical Sciences at Monash Health

Chair - Division of Medicine, Monash Health

Head - Bone and Muscle Health Research Group, Monash University, Clayton, VIC, Australia

Phone: +61 (03) 8572 2570

Email: [peter.ebeling@monash.edu](mailto:peter.ebeling@monash.edu)

Doctor Gilberto J. Paz-Filho MD (Masters Supervisor/Employer)

Senior Medical Affairs Associate, Janssen-Cilag Australia, Sydney, Australia

(Ret.) Senior Research Fellow (Translational Endocrinology), John Curtin School of Medical Research, Australian National University, ACT, Australia

Phone: +61 (02) 9815 3333

Email: [gpazfilh@its.jnj.com](mailto:gpazfilh@its.jnj.com)

### **Statistics**

*h*-index: 6; Citations: 134

ORCID: 0000-0002-2955-0642

Scopus ID: 56452099100

Twitter: @Sandroppa

[https://www.researchgate.net/profile/Alexander\\_Rodriguez5](https://www.researchgate.net/profile/Alexander_Rodriguez5)