

PERSONAL DETAILS

Name: Sandra Bermeo

E-mail: bermeos@hotmail.com

Key Skills:

- * As a Medical scientist: tests execution and analysis (hematology, biochemistry, parasites, immunology, blood bank, microbiology, and histology). Development of the quality management program according to ISO 9001
- * As a postdoctoral researcher: I am a team leader with strong foundations in project development meeting deadlines, and creating networks and collaborations. Design and preparation of grant proposal, scientific papers and presentations. Implementation and analysis of tests in cellular and molecular biology.

Profile in web sites:

Colombian government:

http://scienti.colciencias.gov.co:8081/cvlac/visualizador/generarCurriculoCv.do?cod_rh=0000299227

Google scholar: <https://scholar.google.com/citations?user=jHRa42QAAAAJ&hl=es&oi=ao>

ResearcherID: <http://www.researcherid.com/rid/L-9886-2016>

ORCID: <http://orcid.org/0000-0002-4524-5381>

Research gate: https://www.researchgate.net/profile/Sandra_Bermeo

Linkedin: <https://co.linkedin.com/in/sandra-bermeo-serrato-9b280755>

EDUCATIONAL HISTORY

Postgraduate

1. **PhD in Science**, University of Sydney, Sydney Australia, March 7th 2016.
[http://sydney.edu.au/courses/?detail=1&course_sef_id=Doctor of Philosophy 531](http://sydney.edu.au/courses/?detail=1&course_sef_id=Doctor_of_Philosophy_531)
<https://oatd.org/oatd/record?record=handle%5C%3A2123%5C%2F14373>
2. **Master in Science with Emphasis in Human Genetics**, Universidad del Rosario, Bogotá Colombia, December 7th 2007.
<http://www.urosario.edu.co/escuela-de-medicina/inicio/maestrias-y-doctorados/Maestria-en-Genetica-Humana/>

Undergraduate

Bacteriologist and Clinic Laboratorist (Medical Scientist), Colegio Mayor de Cundinamarca University, Bogotá, Colombia, 23rd June 2000.

www.unicolmayor.edu.co

Certificate III in Pathology, Adept training, Sydney - Australia 1st June 2012.

High School, Bolívar High School, Soacha, Cundinamarca, Colombia, 1994.

<http://colegiobolivarsoacha.edu.co/>

EMPLOYMENT HISTORY

- 1. Simón Bolívar University**, Barranquilla, Atlántico, Colombia. July 1st 2016 up to date. <http://www.unisimon.edu.co>
 - A. Post-doctoral researcher in genetics.
 - B. Master's course coordinator: Master in Genetics

- 2. University of Sydney**
 - A. Skeletal Endocrine Laboratory, School of Medical Sciences & Bosch Institute, Sydney Medical School. Dr Tara Brennan-Speranza
<http://sydney.edu.au/medicine/people/academics/profiles/tara.speranza.php>
 - B. Musculoskeletal Ageing Research Program, Sydney Medical School Nepean. Professor Gustavo Duque

<http://sydney.edu.au/medicine/nepean/musculoskeletal-ageing/>

- 3. Surcolombiana University**, Neiva, Huila, Colombia. www.usco.edu.co
 - A. Associate investigator in the Genomic Medicine Laboratory,
http://scienti.colciencias.gov.co:8080/gruplac/jsp/visualiza/visualizagr.jsp?nr_o=00000000001774
 - B. Professor of Genetic practice, Medicine Faculty, department of Basic Sciences.
 - C. Professor of Molecular Biology and Genetics, Basic Education Program with Emphasis in Natural Sciences

- 4. Universidad de Ciencias Ambientales y Aplicadas**, Bogotá, Colombia.. www.udca.edu.co

- 5. Manuela Beltrán University**, Bogotá, Colombia. www.umb.edu.co

- 6. Santa Bárbara Hospital**, Timbiquí, Cauca, Colombia. Rural social service.

SCIENTIFIC PRODUCTION

Book chapter (In Spanish).

Book name: Tratado de Medicina Geriátrica

Authors: **Sandra Bermeo Serrato** and Gustavo Duque Naranjo

Editors: Pedro Abizanda Soler and Leocadio Rodríguez Mañas

Chapter 84 - section IX: El anciano con osteoporosis

Pages: 670-678. Editorial Elsevier, Spain, 2015. ISBN: 9788490221204

<http://www.studentconsult.es/bookportal/tratado-medicina-geriatria/abizanda-soler/obra/9788490221204/500/6234.html>

Papers * <https://www.ncbi.nlm.nih.gov/pubmed/?term=bermeo+s>

* Kruk JS, **Bermeo S**, Skarratt KK, Fuller SJ, Duque G. The Effect of Antidepressants on Mesenchymal Stem Cell Differentiation. J Bone Metab. 2018 Feb;25(1):43-51. doi: 10.11005/jbm.2018.25.1.43

* Al Saedi A, Gunawardene P, **Bermeo S**, Vogrin S, Boersma D, Phu S, Singh L, Suriyaarachchi P, Duque G. Lamin A expression in circulating osteoprogenitors as a potential biomarker for frailty: The Nepean Osteoporosis and Frailty (NOF) Study. Exp Gerontol. 2017 Dec 1;102:69-75.

* Gunawardene P, Al Saedi A, Singh L, **Bermeo S**, Vogrin S, Phu S, Suriyaarachchi P, Pignolo RJ, Duque G. Age, gender, and percentage of circulating osteoprogenitor (COP) cells: The COP Study. Exp Gerontol. 2017 Oct 1;96:68-72.

* **Bermeo S**, Al-Saedi A, Kassem M, Vidal C, Duque G. The Role of the Nuclear Envelope Protein MAN1 in Mesenchymal Stem Cell Differentiation. J Cell Biochem. 2017 Apr 27.

- * Perez-Siles G, Grant A, Ellis M, Ly C, Kidambi A, Khalil M, Llanos RM, Fontaine SL, Strickland AV, Züchner S, **Bermeo S**, Neist E, Brennan-Speranza TC, Takata RI, Speck-Martins CE, Mercer JF, Nicholson GA, Kennerson ML. Characterizing the molecular phenotype of an Atp7a(T985I) conditional knock in mouse model for X-linked distal hereditary motor neuropathy (dHMNX). *Metallomics*. 2016 Sep 1;8(9):981-92.
- * Hassan BH, Hewitt J, Keogh JW, **Bermeo S**, Duque G, Henwood TR. Impact of resistance training on sarcopenia in nursing care facilities: A pilot study. *Geriatr Nurs*. 2015 Dec 13. pii: S0197-4572(15)00415-2.
- * Gunawardene P, **Bermeo S**, Vidal C, Al-Saedi A, Chung P, Boersma D, Phu S, Pokorski I, Suriyaarachchi P, Demontiero O, Duque G. Association Between Circulating Osteogenic Progenitor Cells and Disability and Frailty in Older Persons: The Nepean Osteoporosis and Frailty Study. *J Gerontol A Biol Sci Med Sci*. 2015 Nov 2.
- * **Bermeo S**, Vidal C, Zhou H, Duque G. Lamin A/C Acts as an Essential Factor in Mesenchymal Stem Cell Differentiation through the Regulation of the Dynamics of the Wnt/ β -Catenin Pathway. *J Cell Biochem*. 2015 Apr 3. doi: 10.1002/jcb.25185.
- * **Bermeo S**, Gunaratnam K, Duque G. Fat and bone interactions. *Curr Osteoporos Rep*. 2014 Jun;12(2):235-42.
- * Duque G, Li W, Vidal C, **Bermeo S**, Rivas D, and Henderson J. Pharmacological Inhibition of PPAR γ Increases Osteoblastogenesis and Bone Mass in Male C57BL/6 Mice. *J Bone Miner Res* 2013 Mar; 28(3):639-648.
- * Vidal C, **Bermeo S**, Li W, Huang DC, Kremer R, Duque G. Interferon gamma inhibits adipogenesis in vitro and prevents marrow fat infiltration in oophorectomized mice. *Stem Cells* 2012 May;30 (5):1042-8.
- * Vidal C, **Bermeo S**, Fatkin D, Duque G. Role of the nuclear envelope in the pathogenesis of age-related bone loss and osteoporosis. *BoneKEy Rep* 2012;1(5).
- Bermeo S**, Ostos H, Guerra M. Frequencies of HLA-A, B and DRB1 in a population of Huila-Colombia. *Revista facultad de salud* ISSN 2145-1362 2010; 2(1):9-19. <http://journalusco.edu.co/index.php/RFS/article/view/524/1062>

Bermeo S, Ostos H, Cubillos J. Organ transplant: Organ Transplants: Brief history and possible alternatives. Revista facultad de salud ISSN 2145-1362 2009; 1(2): 63-71. <http://journalusco.edu.co/index.php/RFS/article/view/522/1060>

Bermeo S, Silva C, Fonseca D, Restrepo C. Hemophilia A: Molecular diagnosis and alternative treatments. Colomb med 2007; 38:308-15. <http://colombiamedica.univalle.edu.co/index.php/comedica/article/view/515/997>

Oral presentations

Bermeo S. Silencing of Mouse Protein Tyrosine Kinase 7 (Ptk7) *in vitro* and its Role During Osteoblast Differentiation. Nepean Scientific day, Sydney Medical School Nepean. Oral presentation, October 31st 2014. Australia

Bermeo S, Vidal C, Li W, Duque G. The role of the proteins of the nuclear envelope in age-related bone loss. ERA (Emerging researchers in ageing) 2013, University of Sydney, November 25th 2013. Oral presentation. Sydney – Australia,

Bermeo S, Vidal C, Li W, Duque G. Role of Lamin A, MAN1 and Emerin during osteoblast and adipocyte differentiation. Nepean Scientific day, Sydney Medical School Nepean. Oral presentation, November 8th 2013. Australia

Bermeo S, Li W, Vidal C, Cultrone D, Khalil M, Duque G. Cerulenin an Inhibitor of Fatty Acid Synthase Reverses Bone Loss in Ovariectomized mice. Nepean Scientific day, Sydney Medical School Nepean. Oral presentation, November 9th 2012. Australia

Bermeo S, Vidal C, Li W, Huang DC, Kremer R, Duque G. Interferon γ Inhibits Adipocyte Differentiation by Bone Marrow Stromal Cells. Nepean Scientific day, Sydney Medical School Nepean. Oral presentation, November 4th 2011. Australia

Poster presentations

Gunawardene P, **Bermeo S**, Vidal C, Gunaratnam K, Buckland G, Boersma D, Demontiero O, Duque G. Lamin A Expression in Circulating Osteoprogenitors of Frail Older Persons: The Nepean Osteoporosis and Frailty (NOF) Study. GSA Annual Scientific Meeting, Orlando, FL, USA, November 22nd 2015.

Bermeo S, Vidal C, Li W, Duque G. Emerin Role during Osteoblastogenesis and Adipogenesis. Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, Maryland, USA, October 2013.

Bermeo S, Vidal C, Li W, Fatkin D, Duque G. The Role of the Proteins of the Nuclear Envelope in the Pathophysiology of Osteosarcopenia. Topical Meeting on Bone and Skeletal Muscle Interactions of the American Society of Bone and Mineral Research, Kansas City, Missouri, USA, July 17-18 2012.

Bermeo S, Li W, Vidal C, Cultrone D, Khalil M, Duque G. Treatment with an Inhibitor of Fatty Acid Synthase Reverses Bone Loss in Ovariectomized mice. Annual Meeting of the American Society of Bone and Mineral Research, Minneapolis, Minnesota, USA, October 2012.

Vidal C, **Bermeo S**, Zhou H, Duque G. Lamin A/C Acts as an Essential Transcriptional Regulator of Mesenchymal Stem Cell Differentiation by Controlling the Dynamics of the Wnt/ β -catenin Pathway. Annual Meeting of the American Society of Bone and Mineral Research, Minneapolis, Minnesota, USA, October 2012.

Bermeo S, Vidal C, Li W, Huang DC, Kremer R, Duque G. Interferon γ Inhibits Adipocyte Differentiation by Bone Marrow Stromal Cells. Annual meeting of the American Society of Bone and Mineral Research, San Diego, CA, USA, September 2011.

LANGUAGES (English)

IELTS 7.0 (C1)

Center for English teaching (CET), University of Sydney, Sydney, Australia:
Academic English, Advanced Level, January – July 2011. <http://sydney.edu.au/cet/>

PROFESSIONAL MEMBERSHIP

Current:

Grupo de investigación en genética G=I=G, Universidad Simón Bolívar

<http://scienti.colciencias.gov.co:8080/gruplac/jsp/visualiza/visualizagr.jsp?nro=000000009567>

Colombian Association of Human Genetics <http://www.acgh.com.co/miembros/>

International Society for Stem Cell Research <http://www.isscr.org>

Previous associations:

American Society for Bone and Mineral Research
<http://www.asbmr.org/Default.aspx>

Australian and New Zealand Bone and Mineral Society. <http://www.anzbms.org.au/>

International Bone and Mineral Society (IBMS) <http://www.ibmsonline.org>

Australian Society of Stem Cell Research ASSCR. <http://www.asscr.org/>

PRIZES AND AWARDS

Quality award 2015, NSW government - Health - Nepean Blue Mountains Local Health District. (1) Certificate of acknowledgement and (2) Chief executive's award. Penrith 23rd July 2015, Nepean hospital.
<http://www.nbmlhd.health.nsw.gov.au/news-stories/research-program-that-improves-independence-and-quality-of-life-for-older-people-winner-of-prestigious-award-at-the-quality-awards-2015>

<https://www.youtube.com/watch?v=-C2vSZ7P38Y>

Grant award, Nepean Medical research Foundation 2013. Project: Age-related changes in circulating osteogenic progenitor cells in an Australian population. \$10.000AUD

Travel fellowship by the Company of Biologists for a 3-month training in molecular biology at Southern Denmark University in Odense, KMEB laboratory, Feb-May 2014. <http://www.biologists.com/stories/a-learning-experience/>

One out of four best postgraduate students 2012, Sydney Medical School, University of Sydney, March 2013.

Best emerging researcher award at the 2012 annual Nepean Scientific Day, November 9th 2012. Prize supported by Bateman Battersby, John Bateman.
http://sydney.edu.au/medicine/nepean/news/2012scientific_day_winners.pdf

People's choice poster award at the 2012 annual Nepean Scientific Day, November 9th 2012. Prize supported by Penrith Business Alliance.

2012 President's poster competition award at the ASBMR 2012 annual meeting, October 12-15 2012, Minneapolis, Minnesota, USA.
http://www.anzbms.org.au/downloads/anzbms_news_dec12v3.pdf

SANDRA BERMEO, CURRICULUM VITAE

Young investigator award at the ASBMR topical meeting on bone and skeletal muscle interactions. July 17, 2012. Kansas City, Missouri, USA.
<http://sydney.edu.au/medicine/nepean/news/NepClinSchOct12News.pdf>

NON-SCIENTIFIC INTERESTS

SPORTS: Basketball, table tennis, swimming, billiard, weight lifting, soccer.

MUSIC: Listening and dancing latin rhythms such as salsa, merengue and vallenato.

ART: Pyrography and applique on chamois, quilling.

Volunteer: KidSave program, Instituto Colombiano de Bienestar Familiar ICBF

<http://www.kidsave.org.co/plansuperamigos.shtml>

REFEREES

Gustavo Duque, MD, PhD, FRACP. Director - Australian Institute for Musculoskeletal Science (AIMSS). MELBOURNE MEDICAL SCHOOL-WESTERN CAMPUS, THE UNIVERSITY OF MELBOURNE.
gustavo.duque@unimelb.edu.au

Christopher Vidal, Research Scientist, ImmunoPathology, PaLMS Level 5, ASB, Royal North Shore Hospital, St Leonards, NSW, 2065, Australia. Tel: 0451140695. christophervid@gmail.com

SANDRA MILENA BERMEO SERRATO

Sandra Bermeo

