

CURRICULUM VITAE

1. Personal data:

Nicolas Bonnet, PhD PD

Male, Born in Tours, 07th September 1979

Nationality: French

2 children

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Written and spoken languages : French & english

Professionnal: Service des Maladies Osseuses

Department of Internal Medicine Specialties

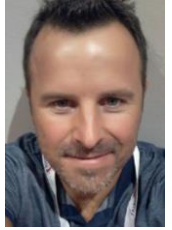
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2. Present position :

- Senior lecturer (Suppliant MER, Privat Docent, Faculty of Medicine, Geneva University, UNIGE)

3. Diplomas

2002 Master M1, Bachelo's degree in animal physiology, Faculty of Science, Tours University

2003 Master M2 in Ageing biology, Faculty of Science, Paris V University

2006 PhD Doctor in Science, Title: "Beta agonist and antagonist, physical exercise and bone : changes in bone architecture, density, biomechanics and bone metabolism in ovariectomized and non ovariectomized rats". In the laboratory of Dr. Benhamou, inserm U658, Orleans & in the laboratory of Dr. Vico, inserm E366, St-Etienne, France.

2015 Lecturer (Privat Docent), Faculty of Medicine, Geneva University

4. Training and education since secondary school diploma

09.1999-09.2001 Licence of animal physiology, Faculty of Science, university of Tours

09.2001-06.2002 Master M1, Biology and cellular physiology, Faculty of Science, university of Tours

06.2002-09.2002 Visiting Scientist and Research Fellow, WHO Collaborating Center for Metabolic Bone Diseases, Sheffield, UK

09.2002-06.2003 Master M2, Ageing biology, Faculty of Science, Paris V University

09.2003-09.2006 PhD Student, Faculty of Science, university of Orléans

01.2004-06.2004 Visiting Scientist for histomorphometry formation, *Inserm E0366*, Faculty of medicine, university St Etienne

06.2004-01.2005 Visiting Scientist for behavior study formation, Greenpharma&key-obs industry, Orléans

06.2005 Training for Animals Ethics and Handling, Module1, university of Tours

12.2005 Inserm training for "quantitative PCR"

10.2006-10.2009 Junior Post-Doctoral Researcher (assistant), In the Bone Diseases Laboratory, Geneva, Switzerland, supervisor: Pr Rizzoli

10.2009-10.2015 Senior Post-Doctoral Scientist (Maître assistant): In the Bone Diseases Laboratory, Geneva, Switzerland, supervisor Pr Ferrari

09.2012-09.2013 Follow clinical courses, ASCO foundation (equivalent to 144h)

09.2012 Accredited for module 2 (Persons responsible for directing animal experiments)

09.2015-this day Members of the Faculty Diabetes Center

09.2015 Certification as a "Privat Docent"

10.2015-this day Suppliant "Maitre d'enseignement et de recherché" sMER

5. Professional activities (Post-Graduate)

09.2009... Responsible for quality assurance of x ray device

09.2009... Member of different society: American Society for Bone and Mineral Research (ASBMR), International Bone and Mineral Society (IBMS), European Calcified Tissue Society (ECTS), Swiss Bone Mineral Society (SBMS)

04.2013... Editor for World Journal of Rheumatology

05.2015... ECTS new investigator committee

05.2016... Founding member of the European Calcified Tissue Society academy

09.2015... Head of the lab meeting, supervise one laboratory technician

09.2015... Board directors of the Swiss Bone Mineral Society (SBMS)

05.2016-05.2021 European Calcified Tissue Society academy elected member

09.2017-09.2019 Elected IFMRS future global leaders, International Federation of Musculoskeletal Research Societies

05.2018-05.2019 Co-chair of the ECTS academy society

7. Research

- Pathophysiology of bone fragility in type II diabetes mellitus
- Fat, muscle liver and bone interaction, role in glucose homeostasis in the ageing process (genetic mouse models of type 2 diabetes & proof of concept in humans)
- Gut microbiota and bone orchestrate energy metabolism in response to temperature.
- Molecular mechanisms of bone modelling and remodelling in response to physical activity and mechanical loading
- Validation of circulating periostin levels as a marker of cortical bone structure and fracture in humans

9. Honours and Awards

2002	Leonardo Grant (6 weeks): English training In the laboratory of John Kanis, England (Sheffield)
2004	Award by the JFBTM “Journée Francaise des Tissus Minéralisés”
2005	Distinction by inserm magazine N°191 “Osteoporose to doping?” http://www.inserm-actualites.com
2007	Award for 1 years of postdoctoral: GRIO “Groupe de recherche et d’information sur l’ostéoporose »
2008	Award for the best communication at the Swiss Bone Mineral Society (SBMS) meeting
2008	New investigator award at the 35th ECTS meeting “European Calcified Tissue Society”
2008	New investigator award at the 30th ASBMR meeting “American Society for Bone and Mineral Research”
2009	Swiss Bone Mineral Society basic research MSD award for a publication in <i>J Biol Chem</i>
2012	American Society for Bone and Mineral Research president research award
2013	Swiss Bone Mineral Society basic research award
2015	ECTS Iain T Boyle Award, for having significantly contribute to the bone mineral tissue
2016	European Calcified Tissue Society academy award
2016	1st Winner 2016 innovation of the University Geneva Hospital for the development of a new ELISA assay
2017	ESCEO-Eli Lilly Scholarship “European Society for Clinical and Economic Aspects of Osteoporosis”
2018	Prix “Alex Muller de physiopathologie Clinique” of the faculty of medicine of Geneva
2018	Prix “Viollier” of Société Suisse de Médecine Interne Générale (SSMIG) & FAMH

10. Members

American Society for Bone and Mineral Research (ASBMR), European Foundation for the Study of Diabetes (EFSD), European Calcified Tissue Society (ECTS), Société Suisse d’Endocrinologie et de Diabétologie (SGED-SSED), Swiss Bone Mineral Society (SBMS)

12. Grants

09.2003-09.2006	« Research grant Merit » from the French minister for Research (PI: Nicolas Bonnet, 120’000€)
09.2006-09.2007	Fellowship from French Society of rheumatology (PI: Nicolas Bonnet, 12 000€)
04.2009-04.2011	Industry support, “Periostin a specific marker of periosteal bone formation?” (PI: Serge Ferrari, Co-PI: Nicolas Bonnet, 80 000\$)
03.2011-09.2013	Industry support, “Role of RANKL-mediated bone remodeling in the skeletal response to fatigue loading”, (PI: Serge Ferrari, Co-PI: Nicolas Bonnet, 270 000\$)
09.2011-09.2014	European Calcified Tissue Society Bone Biology Fellowship, “Regulation of sclerostin-dependent bone modeling and remodeling responses by the matricellular protein periostin”, (PI: Nicolas Bonnet, 100 000€)
05.2012-05.2013	ESCEO-IOF foundation Fellowship (translational application), “Association of periostin serum levels and gene polymorphisms with cortical porosity in healthy elderly and hyperparathyroidism”, (PI: Nicolas Bonnet, 50’000\$)
06.2012-06.2014	Industry support, “Role of Periostin in the Periosteal Bone Response to Cathepsin K Inhibition» (PI: Serge Ferrari, Co-PI : Nicolas Bonnet, 109 500\$)
06.2013-06.2015	Fellowship Novartis, formerly Ciba-Geigy-Jubilee-Foundation. (PI: Nicolas Bonnet, 59’000CHF)
08.2013-08.2016	Industry support, «Effects and mechanisms of action of micronutrient supplements in a rodent model of bone loss» (PI: Serge Ferrari, Co-PI: Nicolas Bonnet, 140’000CHF)
04.2014-04.2015	Foundation support, «Effects of bisphosphonates on bone damage and repair in response to fatigue loading” (PI: Nicolas Bonnet, 60’000CHF).
06.2014-06.2016	Industry support, “Role of Periostin in the Periosteal Bone Response to Cathepsin K Inhibitor» (PI: Serge Ferrari, Co-PI: Nicolas Bonnet, 172’700\$)
03.2016-03.2017	Foundation support Bo and Kerstin Hjelt Foundation, “PPAR γ signaling in bone cells controls glucose homeostasis implication in diabetes and osteoporosis” (PI: Nicolas Bonnet, 58 940CHF)
09.2015-09.2017	Foundation support Sir Jules Thorn, “PPAR γ signaling in bone cells controls glucose homeostasis implication in diabetes and osteoporosis” (PI: Nicolas Bonnet, 137 000CHF)
06.2017-06.2018	Industry support, “Osteokine new target opportunity for type2 diabetes: effects of periostin and sclerostin on glucose metabolism” (PI: Nicolas Bonnet, 40 732CHF)
06.2017-12.2018	European Foundation for the Study of Diabetes fellowship, “Osteokine new target opportunity for type2 diabetes: effects of periostin and sclerostin on glucose metabolism” (PI: Nicolas Bonnet, 100 000€)
08.2017-08.2018	University of Geneva & University of Sydney - Joint International Program Development Fund (JIPDF) (PI: Nicolas Bonnet, 20 000\$)
02.2018-02.2019	Innogap grant “Validate that K-Postn ELISA provides accurate and reproducible measurements to predicts changes in bone structure, low trauma fracture and evaluate treatment efficacy (PI: Nicolas Bonnet, 30 000CHF)
03.2018-03.2020	Industry support “Effects of Denosumab and Alendronate on diabetoporosis model, i.e huRANKL mice. (PI: Nicolas Bonnet, 175.000\$)

13. Patents

2016 N°62/238.901 “Periostin fragments and use thereof”

Publications list

30 publications in first authors, 4 publications in last authors, 9 publications as 2nd authors, 9 publications in co-authors. H factors: 24, total impact points: 253.86. Five most important publications:

- Brun J, Berthou F, Trajkovski M, Maechler P, Foti M, **Bonnet N**. Bone regulates browning and energy metabolism through mature osteoblast/osteocyte PPAR γ . *Diabetes*, 2017, In press (IF 2017, 8.78).
- Fu H, Desvergne B, Ferrari S, **Bonnet N**. Impaired Musculoskeletal Response to Age and Exercise in PPAR beta $-/-$ Diabetic Mice. *Endocrinology*, 2014, 155: 4686-96 (IF 2010, 4,993)
- **Bonnet N**, Conway S, Ferrari S. Regulation of beta catenin signaling and parathyroid hormone anabolic effects in bone by the matricellular protein periostin. *Proc Natl Acad Sci U S A*, 2012, 109(37):15048-53. (IF 2010, 9.711).
- **Bonnet N**, Pierroz D, Bianchi E, Bouxsein ML, Baldock PA, Rizzoli R, Ferrari SL. Deletion of β -adrenergic receptor 1, 2 or both leads to different bone phenotypes and response to mechanical stimulation. *J Bone Miner Res.*, 2012, 27(6):1252-62 (IF 2010, 7.059).
- **Bonnet N**, Standley N, Bianchi E, Conway S, Ferrari S. The matricellular protein periostin mediates SOST inhibition and skeletal response to mechanical loading and physical activity. *J Biol Chem*, 2009, 18;284(51):35939-50 (IF 2009, 5.5).

