

## Biosketch Reinhold G. Erben, MD, DVM

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### Education

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March 1998:	M.D., Ludwig Maximilians University, Munich
1990 - 1991:	Studies in Human Medicine at the Ludwig Maximilians University, Munich, Practical Year
July 1990:	D.V.M., Ludwig Maximilians University, Munich
1986 - 1989:	Studies in Human and Veterinary Medicine (in parallel), Ludwig Maximilians University, Munich
1984 - 1986:	Studies in Veterinary Medicine, Ludwig Maximilians University, Munich
1982 - 1984:	Studies in Human Medicine, Ludwig Maximilians University, Munich

### Appointments

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2024 – present:	Research Group Leader at Ludwig Boltzmann Institute of Osteology, Vienna, Austria
2009 - 2023:	Full Professor of Physiology and Pathophysiology and Head of the Institute of Physiology, Pathophysiology, and Biophysics, Department of Biomedical Sciences, University of Veterinary Medicine, Vienna, Austria
2006 - 2009:	Full Professor of Pathophysiology and Head of the Institute of Pathophysiology, Department of Biomedical Sciences, University of Veterinary Medicine, Vienna, Austria
2004 - 2006:	Guest Professor of Pathophysiology and Head of the Institute of Pathophysiology, Department of Natural Sciences, University of Veterinary Medicine, Vienna, Austria
1998 - 2006:	Associate Professor of Physiology, Veterinary Faculty, Ludwig Maximilians University, Munich
1994 – 1998:	Scientific Assistant, Leader of Bone Biology Research Group, Institute of Physiology, Physiological Chemistry and Animal Nutrition, Ludwig Maximilians University, Munich
1992 - 1993:	Scientific Fellow, Institute of Physiology, Physiological Chemistry and Animal Nutrition, Ludwig Maximilians University, Munich

### Research Interests

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My current research interests are focused on the molecular endocrinology of bone and mineral metabolism as well as on the molecular mechanisms regulating bone remodeling.

### Selected Honors and Awards (5 most recent)

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2016 – 2019	Board of Directors of the Vitamin D Workshop
2012 - 2013	Chair of the European Science Foundation Research Networking Programme “Regenerative Medicine (REMEDI)”
2010 - present:	Member of the Advisory Board of the Center for Regenerative Medicine of the Technical University in Dresden (CRTD), Germany
2006 - 2009:	President of the International Society of Bone Morphometry
2005 – 2014:	Board member of the Austrian Science Fund

### Three selected funded projects, role Principal Investigator

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2014 – 2019	Role of FGF23 in acute myocardial infarction, Austrian Science Fund FWF P26534, € 306 148
2011 – 2016	Vitamin D independent functions of FGF23 and Klotho, Austrian Science Fund FWF P24186, € 423 833
2011 – 2016	The functional role of the EGFR/ErbB system for bone development and homeostasis, Austrian Science Fund FWF I 764-B13, € 173 733

### Patents (list from Espacenet)

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Inventor of patent no. WO2018210449; owned by Univ. of Veterinary Medicine, Vienna, Austria  
Inventor of patent no. WO2011042181; owned by Univ. of Veterinary Medicine, Vienna, Austria  
Inventor of patent no. WO2008017451; owned by Univ. of Veterinary Medicine, Vienna, Austria  
Inventor of patent no. US2008104720; owned by Univ. of Veterinary Medicine, Vienna, Austria  
Inventor of patent no. ES2251374; owned by Schering AG, Berlin, Germany

### Editorial Boards and Peer Review Panels

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Associate Editor for Scientific Reports and Frontiers in Endocrinology. During my career, I have performed peer reviews for over 70 different journals. During the last years, I have peer reviewed for example for Aging Cell, American Journal of Physiology, Frontiers in Endocrinology, Journal of Bone and Mineral Research, Endocrinology, iScience, Journal of Applied Physiology, Journal of the American Society of Nephrology, Journal of Clinical Investigation, Kidney International, Nature Reviews, Scientific Reports, Tissue Engineering. Grant evaluations for 6 international organizations in Germany, UK, Belgium, France, Israel, and Australia.

### Professional Societies

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Member of the American Society of Bone and Mineral Research, of the European Calcified Tissue Society, and of the International Society of Bone Morphometry.

### Publications/Supervised Thesis Works

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165 peer-reviewed publications, 23 review articles, 16 book chapters, 77 invited lectures or seminars (46 abroad), >10,000 citations, h-index 56 (ResearchGate), more than 45 already supervised D.V.M., M.D., and Ph.D. thesis works.

### Five most relevant collaboration partners

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Wenhan Chang, University of California, San Francisco, USA, field: FGF23/Klotho biology; Axel Walch, Helmholtz Center Munich, Germany, field: spatial metabolomics; Robert Fenton, Aarhus University, Aarhus, Denmark, field: renal physiology; Geert Carmeliet, Univ. of Leuven, Leuven, Belgium, field: vitamin D biology. Philippe Zysset, University of Bern, Switzerland, field: bone biomechanics.

### Five selected original publications Reinhold G. Erben

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1. Buck A, Prade VM, Kunzke T, **Erben RG**, Walch AK (2022, shared last authorship) Spatial metabolomics reveal upregulation of several pyrophosphate-producing pathways in cortical bone of *Hyp* mice. JCI insight 2022 Oct 24;7(20):e162138 (7 citations, Google Scholar, as of July 2024)
2. Streicher C, Heyny A, Andrukhova O, Haigl B, Slavic S, Schüler C, Kollmann K, Kantner I, Sexl V, Kleiter M, Hofbauer LC, Kostenuik P, **Erben RG** (2017) Estrogen regulates bone turnover by targeting RANKL expression in bone lining cells. Sci Rep 2017 Jul 25;7:6460 (226 citations)
3. Murali SK, Andrukhova O, Clinkenbeard E, White KE, **Erben RG** (2016) Excessive osteocytic Fgf23 secretion contributes to pyrophosphate accumulation and mineralization defect in *Hyp* mice. PLoS Biol 2016 Apr 1;14(4):e1002427 (123 citations)
4. Andrukhova O, Slavic S, Zeitz U, Riesen SC, Ambrisko TD, Markovic M, Kübler WM, **Erben RG** (2014) Vitamin D is a regulator of endothelial nitric oxide synthase and arterial stiffness in mice. Mol Endocrinol 28:53-64 (322 citations)
5. Andrukhova O, Slavic S, Smorodchenko A, Zeitz U, Shalhoub V, Lanske B, Pohl EE, **Erben RG** (2014) FGF23 is a regulator of sodium metabolism and blood pressure. EMBO Mol Med 6:744-59 (361 citations)