

## Curriculum Vitae

**Elizabeth (Beth) Rendina-Ruedy**

Assistant Professor of Medicine, Division of Clinical Pharmacology  
Vanderbilt University Medical Center



- Educational Background & Professional Experience**

- 2017–2019 Staff Scientist I; Maine Medical Center Research Institute, Scarborough, ME
- 2015–2017 Postdoctoral Training; Maine Medical Center Research Institute, Scarborough, ME; Mentor: Clifford J. Rosen M.D.
- 2014–2015 Postdoctoral Training; Vanderbilt University Medical Center, Nashville, TN; Mentor: Daniel Perrien, Ph.D.
- 2009–2014 Ph.D.; Oklahoma State University, Stillwater, OK; Dissertation Title: Dysregulation of Skeletal Metabolism During Type 2 Diabetes; Possible Role of Toll-like Receptor 4 and Autophagy
- 2007–2009 M.S.; Oklahoma State University, Stillwater, OK; Thesis Title: Reversal of Inflammation-Induced Bone Loss and Vascular Pathology by Dried Plum's Polyphenols
- 2003–2007 B.S.; Oklahoma State University, Stillwater, OK; Major: Biochemistry

- Research Interests**

The Rendina-Ruedy Lab is focused on developing a comprehensive understanding of how metabolic pathways impact bone health. Bone is an incredibly dynamic tissue that undergoes continuous remodeling involving bone resorbing osteoclasts, bone forming osteoblasts, and mechano-sensing osteocytes. Due to the high energetic demands of this process targeting metabolic pathways in bone cells is an incredibly provocative tool that can be applied to combat various conditions which lead to increased fracture incidence (i.e., post-menopausal osteoporosis, type 2 diabetes mellitus, and age-related osteoporosis). As such, the Rendina-Ruedy lab has ongoing projects aimed at understanding how bone cells, and cells within the bone marrow niche, store, mobilize, and utilize various metabolic substrates. In addition to understanding how these metabolic pathways impact bone health in a cell-autonomous manner, our lab is particularly interested in how alterations in bone cell bioenergetics modulates whole-body metabolism.

Elizabeth (Beth) Rendina-Ruedy, Ph.D. | Vanderbilt Center for Bone Biology (VCBB) ([vumc.org](http://vumc.org))

- Publications**

1. Rendina-Ruedy E and Rosen CJ. Parathyroid Hormone (PTH) Regulation of Metabolic Homeostasis: An Old Dog teaches New Us New Tricks. *Molec Metab*; epub ahead of print 03/2022.
2. Rendina-Ruedy E and Rosen CJ. Lipids in the Bone Marrow: An Evolving Perspective. *Cell Metab*. 2020;31(2):219–31.