

Thomas L. Clemens

Professor

Department of Orthopaedics, University of Maryland School of Medicine, USA

Curriculum Vitae



● Educational Background & Professional Experience

2022–Present	Department of Orthopaedics, University of Maryland School of Medicine
2009–2022	Professor Department of Orthopaedic Surgery, Johns Hopkins University
1980–1982	Postdoctoral Fellowship: Massachusetts General Hospital
1980	PhD Biochemistry, University of London, London, UK
1975	MS Pharmacology, Pennsylvania State Univ.
1973	Biology, Goshen College

● Research Interests

Bone development and repair

● Publications

1. Dirckx N, Zhang Q, Chu EY, Tower RJ, Li Z, Guo S, Yuan S, Khare PA, Zhang C, Verardo A, Alejandro LO, Park A, Faugere MC, Helfand SL, Somerman MJ, Riddle RC, de Cabo R, Le A, Schmidt-Rohr K, Clemens TL. A specialized metabolic pathway partitions citrate in hydroxyapatite to impact mineralization of bones and teeth. *Proc Natl Acad Sci U S A*. 2022 Nov 8;119(45):e2212178119.
2. Tower RJ, Li Z, Cheng YH, Wang XW, Rajbhandari L, Zhang Q, Negri S, Uytingco CR, Venkatesan A, Zhou FQ, Cahan P, James AW, Clemens TL. Spatial transcriptomics reveals a role for sensory nerves in preserving cranial suture patency through modulation of BMP/TGF- β . *Proc Natl Acad Sci USA*. 2021, 118(42):e2103087118.
3. Fulzele K, Riddle RC, DiGirolamo DJ, Cao X, Wan C, Chen D, Faugere M-C, Hussain MA, Brüning J, and Clemens, TL. Insulin receptor signaling in osteoblasts regulates postnatal bone acquisition and body composition. *Cell*. 2010, 142:309–19.
4. Wang Y, Wan C, Deng L, Liu X, Cao X, Gilbert SR, Bouxsein ML, Faugere MC, Guldberg RE, Gerstenfeld LC, Haase VH, Johnson RS, Schipani E, Clemens TL. The hypoxia-inducible factor α pathway couples angiogenesis to Osteogenesis during skeletal development. *J Clin Invest* 2007;117,1616–1626.
5. Clemens TL, Adams JS, Henderson SL, Holick MF. Increased skin pigment reduces the capacity of the skin and synthesizes vitamin D3. *Lancet* 1982;1:74–76.