Article

Parathyroid Hormone-Related Protein (PTHrP) Accelerates Soluble RANKL Signals for Downregulation of Osteogenesis of Bone Mesenchymal Stem Cells

Jeevithan Elango 1, Saeed Ur Rahman 2, Yves Henrotin 3, José Eduardo Maté Sánchez de Val 4, Bin Bao 1, Shujun Wang 5, Bailin Li 1 and Wenhui Wu 1,6,*

1 Department of Marine Bio-Pharmacology, College of Food Science and Technology, Shanghai Ocean University, Shanghai, 201306, China; srijeevithan@gmail.com (J.E.); bbao@shou.edu.cn (B.B.); blli@shou.edu.cn (B.L.)
2 Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS University Islamabad, Lahore Campus, Punjab, 54000, Pakistan; saeedbio80@gmail.com
3 Bone and Cartilage Research Unit, Arthropôle Liège, University of Liège, CHU Sart-Tilman 4000, Liege, Belgium; yhenrotin@ulg.ac.be
4 Department of Biomaterials Engineering, Universidad Católica San Antonio de Murcia, 30107 Guadalupe, Murcia, Spain, jemate@ucam.edu
5 Co-Innovation Center of Jiangsu Marine Bio-industry Technology, Huaihai Institute of Technology, Lianyungang, 222005, China; shujunwang86@163.com
6 National R&D Branch Center for Freshwater Aquatic Products Processing Technology (Shanghai), Shanghai 201306, China

* Correspondence: whwu@shou.edu.cn; Tel.: +86 21 61900364

Received: 17 April 2019; Accepted: 7 June 2019; Published: 12 June 2019

© 2019 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).

Figure S1. Phase contrast microscopic structure of mesenchymal stem cell harvested from BALB/c mouse compact bone. (A) 3 day culture (Bar-100 micrometer) (B) 10 day culture (Bar-50 micrometer).