

Symposium 1 – 2

Inflammatory bone destruction and osteoimmunology

김낙성 교수

전남대학교 의과대학 약리학교실



Research into the bone destruction associated with inflammatory diseases such as periodontal disease and rheumatoid arthritis has highlighted the importance of the interplay of the immune and skeletal systems. Study of bone and the immune system have converged in recent years under the banner of ‘osteoimmunology’. The immune system is spawned in the bone marrow reservoir and it is now recognized that important niches also exist there for memory lymphocytes. At the same time, various factors produced during immune responses are capable of profoundly effecting regulation of bone. There are also developmental links, or parallels, between bone and the immune system. Cells which regulate bone turnover share a common precursor with inflammatory immune cells, and may restrict themselves anatomically, in part, by utilizing a signaling network analogous to lymphocyte costimulation.

Although osteoimmunology started with the study of the immune regulation of osteoclasts, its scope has been extended to encompass a wide range of molecular and cellular interactions, including those between osteoblasts and osteoclasts, lymphocytes and osteoclasts, and osteoblasts and haematopoietic cells. here–fore, the two systems should be understood to be integrated and operating in the context of the ‘osteoimmune’ system, a heuristic concept that provides not only a framework for obtaining new insights by basic research, but also a scientific basis for the discovery of novel treatments for diseases related to both systems.

주요 학력 및 경력 :

전남대학교 의과대학 약리학교실 부교수

서울대학교 자연대학 미생물학과 졸업 및 석·박사

미국 테네시대학교, Rockefeller 대학, UPENN대학 박사 후 연수