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## Letter from the Editor

Kate Rittenhouse-Olson

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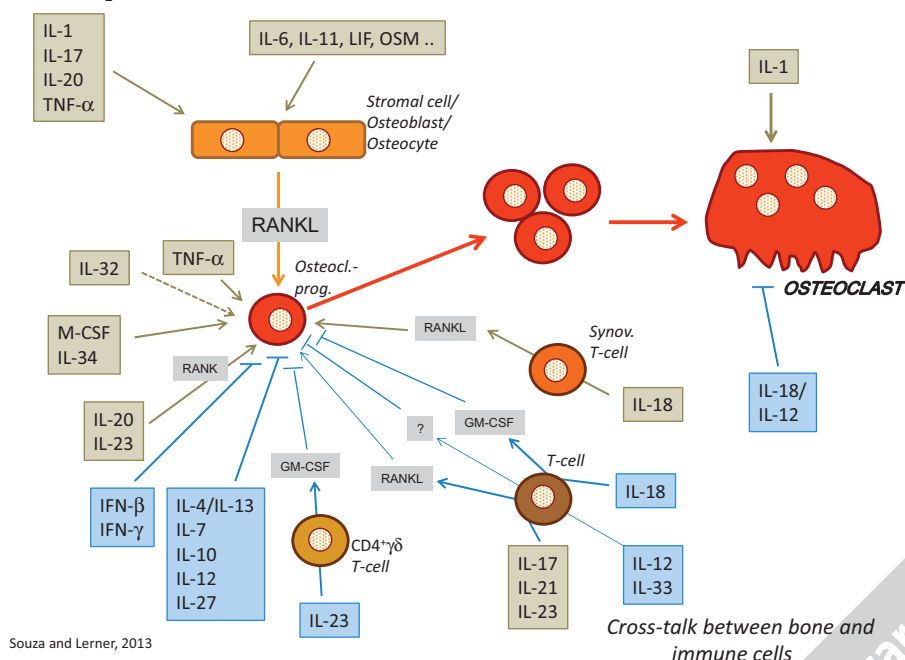


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## EDITORIAL

# Letter from the Editor

This issue is the 10th of the *Immunological Investigations*' thematic issues, and is entitled, "Osteoimmunology: Cross-talk between Bone and Immune cells." Dr. Rosemary Dziak is the guest editor of this issue and has provided a brief review article on this topic and invited a selection of additional authors for this issue. The illustration shown depicts the communication that occurs between bone cells and immune cells and proteins, which results in the production of bone growth or resorption, from Souza and Lerner (2013). This topic was chosen to highlight the importance of bone-immune cell cross-talk and its impact on health.



In the four years prior to this thematic, five articles which discuss bone or inflammation and periodontal disease were published in *Immunological Investigations*: Development of a high-specificity enzyme-linked immunosorbent assay (ELISA) system for the quantification and validation of intact rat osteocalcin (Funaoka et al., 2010); The clinical significance of OPG/sRANKL ratio in thalassemia patients suffering from osteopenia or osteoporosis in Egyptian patients (Salah, 2010); Myeloperoxidase as inflammatory marker of periodontal disease: experimental study in rats (Gomes et al., 2009); IL-17 gene polymorphism is associated with chronic periodontitis and peri-implantitis in Iranian patients: A cross-sectional study (Kadkhodazadeh et al., 2013); and TLR4 and IL-18 gene variants in chronic periodontitis: impact on

disease susceptibility and severity (Noack et al., 2009). These articles have whet our appetite for understanding the puzzle of the array of interactions of bone cells with cells and factors of both the innate and the acquired immune system.

In addition, several manuscripts focusing on IL-1 (Ban et al., 2012, Cruz-Robles et al., 2009; Latella et al., 2009; Rafferty et al., 2010), TH<sub>2</sub> cells (Durrant & Metzger, 2010; Zoghi et al., 2011), and Toll-like receptors (Cohen et al., 2012, Cordeau et al., 2012, Jha et al., 2011; Negrini et al., 2013), which are some of the players of this immune interaction have been published recently in *Immunological Investigations*, and these authors may be well served to be alerted to the interaction that these molecules and cells have with bone growth and resorption.

The guest editor, Dr. Rosemary Dziak, Ph.D., Professor, Department of Oral Biology at The University at Buffalo, State University of New York, has had a long-term interest in immunity and bone. She received her Ph.D. in Radiation Biology, from the University at Rochester in 1973, and did her Postdoctoral Fellowship at the Department of Pharmacology, Northwestern University Medical School, Chicago, Illinois. Studies by Dr. Dziak focused on signal transduction and proliferation and differentiation of bone cells, isolation and culturing of human osteoblastic cells, which advanced to studies in tissue engineering and to her current collaborative design of new materials for bone regeneration. She has a career total of 74 research publications. The widespread importance of Dr. Dziak's knowledge and research in bone and immunity can be seen in the selection of Dr. Dziak to grant review committees for NASA, for NIH study sections of General Medicine, Orthopedic Studies, Physiology, Ortho and Musculoskeletal, National Institute of Dental and Cranofacial Research, National Cancer Institute Cancer Biology and finally for the NIH Special Section K awards.

Dr. Dziak is also well known at the University of Buffalo for the many mentoring roles that she plays. Beginning from the youngest that she has mentored, she has been a speaker in Buffalo City middle schools and high schools to help turn-on excitement for science. She was the P.I. on an NSF grant for young scholars and NIH grant for research opportunities for minorities; she was associate chair of Oral Biology for 8 years and Interim chair for 2 years in recognition of her leadership and mentoring skills; and she was co-director for the Institute for Research and Education on Women and Gender for 6 years. Not leaving out the oldest of the population, she has also informed and mentored the elderly with talks about exercise, calcium and osteoporosis.

This talented guest editor has invited an outstanding group of scientists to showcase for *Immunological Investigations* the current state of the art in interplay between bone growth and loss with the immune system. I am sure that you will enjoy the summary by Dziak (2013) and the very exciting and thought-provoking articles on this theme.

I hope that you enjoy this issue, the 10th thematic, which coincides with my 10th anniversary as editor of *Immunological Investigations*. Along with celebrating my 10th year as an editor, certain milestones for *Immunological Investigations* are worth celebrating. This year our impact factor increased to

1.731 from last year's 1.164. Important articles appearing last year have received a large number of downloads already; 6 of the top 10 downloaded 2012 articles have been downloaded over 100 times. The remaining 4 have been downloaded over 70 times. The 2012 top 10 articles are:

Immune suppression: The hallmark of myeloid derived suppressor cells (Haile et al., 2012);

PGE(2)-driven induction and maintenance of cancer-associated myeloid-derived suppressor cells (Obermajer et al., 2012);

Myeloid-derived suppressor cells adhere to physiologic STAT3- vs STAT5-dependent hematopoietic programming, establishing diverse tumor-mediated mechanisms of immunologic escape (Cohen et al., 2012);

Myeloid-derived suppressor cells and anti-tumor T cells: A complex relationship (Monu & Frey, 2012); Highlights on molecular mechanisms of MDSC-mediated immune suppression: Paving the way for new working hypotheses (Solito et al., 2012);

Phenotypic plasticity of MDSC in cancers (Manjili, 2012);

Indoleamine 2,3-dioxygenase and dendritic cell tolerogenicity (Harden & Egilmez, 2012);

Myeloid-derived suppressor cells (MDSCs) in gliomas and glioma-development (Kohanbash & Okada, 2012);

*Saccharomyces* as a vaccine against systemic Candidiasis (Liu et al., 2012).

In 2013, Age-associated changes in MicroRNA expression in bone marrow derived dendritic cells (Park et al., 2013) has already been downloaded almost 100 times. In addition, popular articles in 2013 include:

CD8+ T cell exhaustion during persistent viral infection is regulated independently of the virus-specific T cell receptor (Jackson et al., 2013);

Measurement of suppressor activity of T CD4+CD25+ T reg cells using bromodeoxyuridine incorporation assay (Avalos-Martin, 2013);

IL-17 gene polymorphism is associated with chronic periodontitis and peri-implantitis in Iranian Patients: A cross-sectional study (Kadkhodazadeh et al., 2013);

Biomarkers of lung injury in critical care medicine: Past, present, and future (Tunceroglu et al., 2013);

Reconstitution and phenotype of tregs in CMV reactivating patients following allogeneic hematopoietic stem cell transplantation (Velaga et al., 2013);

Immunological studies of reactive oxygen species damaged catalase in patients with Systemic Lupus Erythematosus: Correlation with Disease Activity Index (Al-Shobaili et al., 2013);

Role of TLR-2 and fungal surface antigens on innate immune response against *Sporothrix schenckii* (Negrini et al., 2013);

Intracellular CTLA4 and regulatory T cells in patients with laryngeal squamous cell carcinoma (Erfani et al., 2013);

Protection Against Cyclophosphamide-Induced Myelosuppression by ZPDC Glycoprotein (24 kDa) (Lee & Lim, 2013).

I would like to thank Dr. Ernesto DeNardin for helping in all problem areas as associate editor, Dr. Rosemary Dziak for working so hard on the thematic issue and the editorial board for helping to review 136 papers in the last year with a 37% acceptance rate.

Regards,  
Kate Rittenhouse-Olsen  
Editor

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