ICMR International Travel Support for Non-ICMR Scientist

No. 3/2/TG-48(4)/HRD-2013

❖ Name & Designation

Dr. Rajeshwar Nath Srivastava, Professor.

Address

: Dept. of Orthopaedic Surgery,

King George's Medical University, Lucknow-226003

❖ Name of the International Conference/ ☆ 60th Annual Meeting ORS-2014.

Seminar/Symposium/Workshop

Title of the abstract accepted

: Use of autologous bone marrow derived mononuclear cells as a synergetic aid in neurological recovery in

spinal cord injury.

❖ Date & Venue

: 15-18th March, 2014. New Orleans, Louisiana,.

Money sanctioned Money reimbursed

: Rs 1,00,000/-92,362/-: Rs

Participation Report

60th Annual Meeting of ORS provided attendees with educational offerings which included workshops, research interest group, concurrent and plenary sessions, abstract presentations (Oral and Poster) and industry supported satellite symposia. More than 7500 delegates from over 50 countries participated in this meeting. The structure of the conference was set with 34 sessions including 9 symposiums and 6 working summits covering a broad area of orthopedics research especially musculoskeletal research, translational of cell based therapies ,molecular mechanism in osteoarthritis, Tendon and ligament biology and repair bone regulation, knee kinematics, bone biology genetics, genomics and proteomics, cartilage development and homeostasis etc. A total of 2029 abstracts on bone biology- genetics, genomics and proteomics, cartilage development and homeostasis, cellular therapies, clinical genetics, complex genetic disorders, bone biology- osteocytes and mechanobiology, Stem cells and tissue engineering etc. were presented for poster discussions during the conference. The conference also provided 192 oral presentations.

Academic Highlights of the training/ workshops, including major recommendation and the following:

- (I) New Development presented at the Training/ Workshops. Annexure-1
- New development resulting from the Training/workshops (200 words) (II)

New development resulting from the conference –

60th Annual Meeting of ORS presented both research and clinical topics that promote the science and the practice of Orthopaedic Surgery. It focused on a broad area of orthopedics research especially musculoskeletal, translational of cell based therapies, molecular mechanism in osteoarthritis, tendon and ligament repair, bone biology and bone regulation, cartilage development and homeostasis, knee kinematics, genetics, genomics and proteomics etc.

In this conference we understood the related stem cell work on MSCs which has significant role in the promotion of bone formation as compared to mechanically induced model that provides power to my research on stem cell infusion for the management of SCI. This conference helped me to improve my knowledge on stem cell therapy in field of SCI and

conference provided me a platform to interact with a number of scientists/ researchers, whose experience helped me in interpretation of results in more scientific, accurate and concise manner, which will give me new insight in thinking and designing some novel plans for research work in my country.

- (III) Name of the publication in case your work is recommended for publications

 _Abstract available in the ORS online Abstract Library.
- \$. Participant's contribution to the Training/ Workshops (100 words)

Participant's contribution to the conference:

My poster on "Use Of Autologous Bone Marrow Derived Mononuclear Cells As A Synergetic Aid In Neurological Recovery In Spinal Cord Injury" was highly appreciated in 'spine therapeutics-clinical session (Poster number – 1608, 17 March 2014). In spite of tremendous efforts world over, the improvement in neurological status of spinal cord injury (SCI) is still unpredictable and a lot many resources continue to be invested in this aspect with little success. Due to inefficiency of all the conventional methods of SCI treatment the stem cell transplantation is becoming a promising therapeutic option. Thus presenting an abstract at this platform, generated the much needed attention towards the incurable disease. In this paper we presented our observations on the role of BM derived MNC's in SCI. We found a significant role of autologous transfusion of bone marrow derived mononuclear stem cells in terms of neurological recovery in spinal cord injury. This study not only establishes the safety of this intervention in our set up but also promises the efficacy of these autologous mononuclear bone marrow cells in the regeneration of neurons in acute spinal cord injury.