

Name: Krishan Gopal Jain

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Research Area: Worked on the tissue engineering of bone defects. The research work involved the isolation, expansion and characterization of Mesenchymal stem cell from human bone marrow, preparation of 3 dimensional biodegradable scaffolds, culture of MSCs on biodegradable scaffolds, differentiation of MSCs into osteoblasts, expression level of bone specific genes in differentiated stem cell, understand the role of biocomposite scaffold and mesenchymal stem cells in bone like tissue formation in rat models. The prepared scaffold exhibited properties very close to trabecular bone. I also studied the fate of these stem cell-scaffold constructs in rat models and the histopathology results showed bone like tissue formation *in vivo*.

LIST OF PUBLISHED PAPERS

1. **Krishan G Jain**, Sujata Mohanty, Alok R Ray, Balram Airan. Culture and Differentiation of Mesenchymal Stem Cell into osteoblast on Degradable Biomedical Composite Scaffold: *In Vitro* Study. **IJMR (Accepted)**
ISSN: 0971-5916

Role in public health: Regeneration of bone tissue damaged by tumour, fracture etc

Impact of contribution of the candidate: First author

2. Amol Raheja, Vaishali Suri, Ashish Suri, Chitra Sarkar, Arti Srivastava, Sujata Mohanty, **Krishan G Jain**, Meher C Sharma, Hruda N Mallick, Pradeep K Yadav, Mani Kalaivani, and Ravindra M Pandey. Dose dependent facilitation of peripheral nerve regeneration by bone marrow derived mononuclear cells - A Randomised control study". **Journal of Neurosurgery** 2012 Dec;117(6):1170-81
(Impact Factor 1.2) citation index 8
Print ISSN: 0022-3085 Online ISSN: 1933-0693

Role in public health: Regeneration of nerves damaged by trauma and other
Diseases

Impact of contribution of the candidate: Co-author

3. Sujata Mohanty, Sushmita Bose, **Krishan Gopal Jain**, Balram Bhargava, Balram Airan. TGF β 1 contributes to cardiomyogenic-like differentiation of human bone marrow Mesenchymal Stem Cells. **International Journal of Cardiology** 2013 Feb 10;163(1):93-9 **(Impact Factor 6.8) citation index 17 ISSN: 0167-5273**

Role in public health: Regeneration of cardiac muscles damaged by myocardial infarction

Impact of contribution of the candidate: Co-author

4. Maneesh Jaiswal, Veena Koul, Amit K. Dinda, Sujata Mohanty, **Krishan Gopal Jain**. Cell adhesion and proliferation studies on semi-interpenetrating polymeric networks (semi-IPNs) of polyacrylamide and gelatine. **Inc. J Biomed Mater Res Part B: Appl Biomater 98B (2):342–350, 2011. (Impact Factor 2.5) citation index 17**
Print ISSN: 1552-4973 Online ISSN: 1552-4981

Role in public health: Dressing of skin for rapid wound healing

Impact of contribution of the candidate: Co-author

5. Bhuvanesh Gupta, Navdeep Grover, Sujata Mohanty, **Krishan Gopal Jain**, Harpreet Singh. Radiation grafting of acrylic acid/N-vinyl pyrrolidone binary mixture onto poly (ethylene terephthalate) fabric and growth of human mesenchymal stem cell. **Journal of Applied Polymer Sciences, Vol.115, 116-126, 2010. (Impact Factor 1.2) citation index 7 Print ISSN: 0021-8995**
Online ISSN: 1097-4628
Role in public health: Substitute for urinary bladder

Impact of contribution of the candidate: Co-author

6. Sujata Mohanty, **KG Jain**, Rajesh Malhotra. Articular cartilage defect: Cell based therapy. **Orthopaedics Today. 2007, Vol. IX, No 4, 184-89**
Role in public health: Regeneration of cartilage

Impact of contribution of the candidate: Co-author