

Curriculum Vitae

Dr. Rashmi Bhardwaj
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Expertise: Stem Cells Biology, Flowcytometry, Human/Mouse genomics, Animal cell culture and biotechnology

A. Education

Ph. D. – Dept. of Medical Oncology, Institute Rotary Cancer Hospital (IRCH), All India Institute of Medical Sciences(AIIMS),Delhi, India. Thesis awarded in September 2010 with Title: “**To elucidate the cytokine profile and feasibility of immortalization of human fetal liver hematopoietic stem cells**”.

M. Sc. – **Biotechnology**, Maharshi Dayanand University, Rohtak, India, First Div. (2001-2003).

B. Sc. - Maharshi Dayanand University, Rohtak, India, First Div. (1998-2001)

B. Postdoctoral Training:

Post Doctoral Research Fellow (Department of Defense USA fellowship, 1 among 3 awardees across USA), Human Oncology and Pathogenesis Program, Memorial Sloan-Kettering Cancer Center, New York, NY, USA. (Feb 2010-Nov. 2013). I was involved in understanding the changes that underlie developmental alteration of hematopoietic stem cells and progenitor populations in bone marrow failures caused by reduced dosage of one or more ribosomal protein genes.

C. Positions and appointments

Positions:

Nov. 2013-Present: Assistant Professor, Centre for Medical Biotechnology, MDU

Nov.2010-No. 2013 : Research Fellow, Human Oncology and Pathogenesis Program,
Memorial Sloan Kettering Cancer Center, New York, USA

Feb 2010- Oct.2010 : Graduate Research Assistant, Human Oncology and Pathogenesis Program, MSKCC

2006-2009 : Research Officer, Dept. of Medical Oncology, IRCH, AIIMS, Delhi, India

2005-2006: Senior Research Fellow, Indian Council of Medical Research, AIIMS, India

2003-2005: Junior Research Fellow, Indian Council of Medical Research, AIIMS, India

Awards and Honors

- 2012: Postdoctoral Fellowship Award from Department of Defense, USA to conduct Research on Bone marrow failure pathogenesis. (selected 1 among 3 across USA)
- 2007 : Travel Award from New York Society of Stem cell Foundation (NYSCF) to attend 5th Annual Meeting of International Society of Stem Cell Research in Cairns, Australia
- 2003 : Award of Junior Research Fellow (JRF) from Indian Council of Medical Research (ICMR), Govt. of India
- 2003 : Graduate Aptitude Talent Examination (GATE) conducted by Indian Institute of Technology, Madras, India. Score 95.27 Percentile
- 2002 : Award of National Eligibility (NET) for Lectureship from Council of Scientific and Industrial Research (CSIR), Govt. of India

- D. Membership:** International Society of Stem Cell Research
The Indian Science Congress Association
National Academy of Biological Sciences
Advisory Committee, DBT sponsored Medical Biotechnology program, MDU

E: Project Undertaken:

Elucidation of KIT signaling pathway alterations by membrane bound and soluble isoform variants of stem cell factor. Start up Grant funded by University Grant Commission, New Delhi between July 2015 - Dec 2017.

- F. Lecture Delivered:** CET, IILM academy of Higher Learning, greater Noida, April,2017 on "Stem Cells and their applications in healthcare".

G. Publications

1. **Rashmi Bhardwaj**, Kelly A. McGowan, Wendy W. Pang, Gregory S. Barsh, Irving L. Weissman and Christopher Y. Park. *Alterations in Hematopoietic stem and Progenitor cells are via c-Kit downregulation in ribosomal helpoinsufficiencies leading to bone marrow failure syndrome*. Manuscript in preparation to be submitted in Journal Blood.
2. Agnieszka Czechowicz, **Rashmi Bhardwaj**, , Irving L. Weissman, MD and Christopher Y. Park. Inhibition of Scf Signaling by SR-1 and Clearance of Human Hematopoietic Stem Cell Niches. submitted in *Sciecn Translational Medicine*. **March 2017**
3. Kelly A. McGowan, Wendy W. Pang, **Rashmi Bhardwaj**, Marcelina G. Perez, John V. Pluvinae, Bertil E. Glader, Reem Malek, Susan M. Mendrysa, Irving L. Weissman, Christopher Y. Park and Gregory S. Barsh. *Reduced ribosomal protein gene dosage and p53 activation in low risk myelodysplastic syndrome*. Blood. 2011;118(13):3622-3633)
4. Agnieszka Czechowicz, **Rashmi Bhardwaj**, Christopher Y. Park and Irving L. Weissman, MD. Targeted Clearance of Human Hematopoietic Stem Cell Niches Via

Inhibition of Scf Signaling Using Monoclonal Antibody Sr-1". *Biology of blood and marrow transplantation*.2011; (1083-8791), 17 (2 suppl.), p. S187.

5. **Bhardwaj R**, Kumar L, Kochupillai V. Immortalization of human fetal liver hematopoietic stem cell. (Manuscript under preparation for Stem Cell).
6. Vinod Kochupillai, **Rashmi Bhardwaj**, Lalit Kumar (2008) Fetal liver cytokines: potential therapeutic value. *Annals of National Academy of Medical Sciences (India)* 44(3) 177-183.
7. Vinod Kochupillai, Lalit Kumar, **Rashmi Bhardwaj**, Sujata Mohanty, Manju Sengar (2006) Stem Cell: Its evolving role in cancer management and research. *Annals of National Academy of Medical Sciences (India)* 42(4) 235-243.

Abstracts

1. International Conference on Sustainable Agriculture, Energy, Environment and Technology (Icsaeet-2018) February 24-25, 2018. Evaluation of anti-cancerous and anti-proliferative activity of phytochemicals from medicinal plants.
2. International Conference on Bio and Nano Technologies for Sustainable Agriculture, Food, Health, Energy and Industry , February 21-23, **2018** , Phytochemical - Chlorogenic Acid: potent anticancerous and anti-proliferative drug for Leukemia and Cervical cancer
3. Geoffrey Beene Cancer Research Retreat, 2012, Philedelphia : **Rashmi Bhardwaj** and Christopher Y Park Human Oncology and Pathogenesis Program, MSKCC Decreased Expression of the Ribosomal Protein, RPS6 is a Hallmark of Acquired Bone Marrow Failure Syndromes.
4. AACR International Conference on New Horizons in Cancer Research: Biology to Prevention to Therapy. December 13-16, 2011, India The role of ribosomal protein deficiency in the pathogenesis of bone marrow failure syndromes. **Rashmi Bhardwaj** and Christopher Y Park
5. Geoffrey Beene Cancer Research Retreat, 2011, Philedelphia : **Rashmi Bhardwaj** and Christopher Y Park Human Oncology and Pathogenesis Program, MSKCC Decreased Expression of the Ribosomal Protein, RPS6, is a Hallmark of Acquired Bone Marrow Failure Syndromes
6. American Society of Hematology, Annual Meeting, 2011: Agnieszka Czechowicz, PhD, **Rashmi Bhardwaj, PhD**, Christopher Y. Park, MD, PhD and Irving L. Weissman, MD. Trageted Clearance of Human Hematopoietic Stem Cell Niches Vai Inhibition of SCF Signaling Using Monoclonal Antibody SR-1.
7. Geoffrey Beene Cancer Research Retreat, 2010, Philedelphia : **Rashmi Bhardwaj**, Kelly McGowan, Wendy Pang, Irving L. Weissman, Gregory Barsh, Christopher Y. Park Evaluation of Purified Hematopoietic Stem Cells in Myelodysplastic Syndromes Reveals Roles for RPS6 and p53 in Disease Pathogenesis.
8. International Society of Stem Cell Research, Annual Meeting, 2007: **Rashmi Bhardwaj, MSc**, Nitin Mathur, MSc, Lalit Kumar, MD, Vinod Kochupillai, FRCP. Human fetal liver stem cells cytokine profile elucidation.
9. Stem cell research foundation of India, Annual Meeting, 2007: **Rashmi Bhardwaj, MSc**, Sujata Mohanty., PhD, Nitin Mathur, MSc, Lalit Kumar, MD, Vinod Kochupillai, FRCP. Cytokine profile Elucidation in Human fetal liver stem cells.

10. International Society of Stem Cell Research, Annual Meeting, 2005: Sujata Mohanty S., **Rashmi Bhardwaj**, Nitin Mathur, Pratibha Sharma, bShutunuma Guha, Lalit Kumar, Vinod Kochupillai. Detection of growth factors in fetal liver stem cells responsible for bone marrow recovery
11. Mohanty S., **Bhardwaj R.** , Mathur N., Sharma P. , Guha S. , Kumar L , Kochupillai V. Detection of growth factors in fetal liver stem cells responsible for bone marrow recovery : (Abstract No1099 : Accepted in 3rd annual meeting of International Society of Stem Cell Research held on June 23-25, 2005,at San Francisco, California USA
12. Mohanty S, Kumar L, Mathur N, Thomas M, **Bhardwaj R**, Sharma P, Selvam C, Kochupillai V. Long Term storage of hematopoietic stem Cells –Stem cell Banking: IRCH experience. International symposium on Stem cells (Sept 2005)
13. Sharma P, Mohanty S, Kumar L, **Bhardwaj R**, Mathur N, Seth T, Sharma A, Raina V, Kochupillai V. “Frequency of various BCR-ABL Transcripts in Indian Patients with chronic Myeloid leukemia” Abstract No. 55 in 6th “Annual meeting of International Network for Cancer Treatment and Research INCTR”
14. Mohanty S, Sharma P, Kumar L, **Bhardwaj R**, Mathur N, Seth T, Sharma A, Raina V, Kochupillai V. “Hematological and cytogenetic responses to Imatinib Mesylate in Chronic myeloid leukemia patients: IRCH experience” 6th “Annual meeting of International Network for Cancer Treatment and Research INCTR”

G. Conference/Symposiums/ Workshops attended

1. **State of Science Symposium** - Myelodysplastic Syndromes (MDS), September 7-8, 2011 Lister Hill Conference Center, NIH, Bethesda, MD, USA.
2. **International Society of Stem Cell Research**, 5th Annual Meeting, June 17-20, 2007, Cairns, Australia
3. 1st annual meeting of **stem cell research foundation of India (SCRFI)** and **international conference on stem cells**. 29th January -1st February 2007 in Bangalore
4. International Symposium on stem cell therapy & research held in Delhi on 8th January, 2006.
5. One Month (October 2006) Training at Stem cell Laboratory, National Center for Cell Sciences (NCCS), Pune to learn various Lab and stem cell culture Techniques
6. International Symposium on STEM Cells: Premises & Promises for Research & Therapeutics held in Mumbai, India, from 18-21 September 2005.
7. CME on stem cell Therapy at AIIMS held on 26-27th November, 2005
8. National workshop on Hematopoietic Stem Cell Transplantation-2004 at IRCH, AIIMS.
9. National workshop on Hematopoietic Stem Cell Transplantation-2003 at IRCH, AIIMS.

I hereby declare that the information furnished above is true to the best of my knowledge.

Rashmi Bhardwaj