

Guangwen Ren, Ph.D.

The Jackson Laboratory

600 Main Street, Bar Harbor, ME 04609

E-mail: Gary.ren@jax.org; gwren2017@gmail.comGoogle scholar website: <https://scholar.google.com/citations?user=eHAyY64AAAAJ>**WORKING EXPERIENCE**

Oct 2016-	Assistant Professor, The Jackson Laboratory, Bar Harbor, Maine, USA
Dec 2012-Oct 2016	Postdoctoral Associate and Associate Research Scholar, Dr. Yibin Kang laboratory, Department of Molecular Biology, Princeton University, NJ, USA
Apr 2009-Nov 2012	Research Teaching Specialist III, Dr. Yufang Shi laboratory, Robert Wood Johnson Medical School, Rutgers University, NJ, USA
2003-2004	Deputy manager of proteomics department Shanghai Genecore Biotechnologies Co., Ltd., Shanghai, China
2002-2003	Deputy project manager, Shandong GeneLeuk Biopharmaceutical Co., Ltd., Jinan, Shandong, China

EDUCATION

2004-2009	Ph.D. in Immunology	Dr. Yufang Shi laboratory Rutgers University Robert Wood Johnson Medical School, NJ, USA
1999-2002	M.S. in Microbiology,	Shandong University, Jinan, China
1995-1999	B.S. in Microbiology,	Shandong University, Jinan, China

AWARDS/HONORS

2014	NIH/NCI K99/R00 Pathway to Independence Award
2013	DOD (United States Department of Defense) Breast Cancer Postdoctoral Fellowship Award
2012	Postdoctoral fellowship, F. M. Kirby Foundation
2011	Gallo Award for Scientific Excellence, New Jersey State Commission on Cancer Research
2011	AAI (American Association of Immunologists) Meeting Trainee Abstract Award
2010	Pharmacology Research Award for Outstanding Research, Rutgers, USA
2010	AAI (American Association of Immunologists) Meeting Trainee Abstract Award
2009	Best Poster Presentation Award for 5 th International Conference on Mesenchymal and non-Hematopoietic Stem Cells, Austin, TX, USA
2008	Holowczak Memorial Travel Award, Rutgers Robert Wood Johnson Medical School, USA.
2004-2009	Fellowship from Rutgers Robert Wood Johnson Medical School, NJ, USA
1999	Outstanding Youth of Shandong University, Shandong University, China
1995-1999	Excellent student scholarship for 5 times, Shandong University, China

GRANT AND FELLOWSHIPNIH/NCI K99/R00 Pathway to Independence Award (1K99CA188093-02)

Ren (PI) Priority Score: 11 (scoring range 10-90) 7/1/14-6/30/19

*Mesenchymal Stromal Cells and Stromal Fibroblasts in Radiotherapy Resistance*DOD Postdoctoral Fellowship Award (W81XWH-13-1-0260)

Ren (PI) Reviewing score: 1.0 (scoring range 1.0-5.0)

9/1/13-7/1/14 (Relinquished on 7/1/14 due to the acceptance of the K99/R00 award)

*Metastasis-associated Mesenchymal Stromal Cells in Organ-tropic Metastasis of Breast Cancer***PATENT**Shi Y, **Ren G**, Zhang L. Method for modulating immune responses using stem cells and cytokines. US Patent US20090202479 A1 (Aug 13, 2009).**EDITORIAL RESPONSIBILITIES:**Editorial board member: *World Journal of Stem Cells* (2010-2015); *World Journal of Hematology* (2012-2016); *Journal of Stem Cells and Regenerative Medicine* (2010-2011)**AD-HOC REVIEWERS:**

- Journals *Blood, Cancer Research, Stem Cells, Journal of Immunology, Oncogene, Journal of Biological Chemistry, Journal of Molecular Cell Biology, Cell Research, Stem Cells Translational Medicine, Journal of Autoimmunity, Journal of Leukocyte Biology, Stem Cells and Development, Immunology Letters, Tissue Engineering Part A, etc*
- Grant *Medical Research Council (MRC), UK*
European Research Council (ERC) Advanced Grant 6th Call - 2013
- Book *"Regenerative Medicine - from Protocol to Patient" by Gustav Steinhoff et al. Published by Springer Dordrecht Heidelberg London New York*

SELECTED CURRENT AND PENDING PUBLICATIONS (18 FROM TOTAL OF 35)**As a Postdoctoral Fellow**

1. **Ren G**, Zheng H, Shen M, Peng J, Jiang Y, Liu Y, Wei Y, Smith HA, Zheng B, Wu H, Schiff D, Shao C, Haffty B, and Kang Y. Mesenchymal stromal cells play a critical role in cancer resistance to radiotherapy. 2016. Submitted.
2. **Ren G**, Zhao X, Zheng B, Zheng H, Liu Y, Shen M, Sun G, Kane-Goldsmith N, Zhang C, Guo H, Liang L, Wei JJ, Qu X, Yang Q, Shi Y, Tischfield JA, Kang Y* and Shao C*. Interferon-gamma and Kit Ligand Drive Tumor-associated Splenic Myelopoiesis. 2016. Submitted.
3. **Ren G**, Esposito MB, Kang Y. Bone metastasis and the metastatic niche. *Journal of Molecular Medicine* (invited review). *J Mol Med (Berl)*. 2015 Nov;93(11):1203-12.
4. **Ren G***, Liu Y*, Zhao X, Zheng B, Yuan Z, Zhang L, Qu X, Tischfield JA, Shao C and Shi Y. Tumor Resident Mesenchymal Stromal Cells Endow Naïve Stromal Cells with Tumor-promoting Properties. *Oncogene*, 2014 Jul 24;33(30):4016-20.

5. **Ren G**, Kang Y. A one-two punch of miR-126/126* against metastasis (news and views). *Nature Cell Biology*. 2013 Mar 1;15(3):231-3.
6. **Ren G**, Zhao X, Wang Y, Zhang X, Chen X, Xu C, Yuan ZR, Roberts AI, Zhang L, Zheng B, Wen T, Han Y, Rabson AB, Tischfield JA, Shao C, Shi Y. CCR2-Dependent Recruitment of Macrophages by Tumor-Educated Mesenchymal Stromal Cells Promotes Tumor Development and Is Mimicked by TNF α . *Cell Stem Cell*. 2012 Dec 7;11(6):812-24.
Editorial by: Mantovani A. *Cell Stem Cell*. 11:730-32. 2012.
7. Shi Y*, Su J, Roberts AI, Shou P, Rabson AB, **Ren G*** (corresponding author). How mesenchymal stem cells interact with tissue immune responses. *Trends in Immunology* (invited review). 2012 Mar;33(3):136-43 (cover story).
8. **Ren G**, Chen X, Dong F, Li W, Ren X, Zhang Y, Shi Y. Concise review: mesenchymal stem cells and translational medicine: emerging issues. *Stem Cells Translational Medicine* (invited review). 2012 Jan;1(1):51-8 (Inaugural Issue).
9. Shi Y, Wei L, Wang Y, **Ren G**. Stem cells deployed for bone repair hijacked by T cells (preview). *Cell Stem Cell*. 2012 Jan 6;10(1):6-8.
10. **Ren G**, Roberts AI, Shi Y. Adhesion molecules: key players in Mesenchymal stem cell-mediated immunosuppression. *Cell Adhesion and Migration* (invited review). 2011 Jan-Feb;5(1):20-2.
11. Shi Y, Hu G, Su J, Li W, Chen Q, Shou P, Xu C, Chen X, Huang Y, Zhu Z, Huang X, Han X, Xie N, **Ren G**. Mesenchymal stem cells: a new strategy for immunosuppression and tissue repair. *Cell Research* (invited review). 2010 May;20(5):510-8.
12. **Ren G**, Zhao X, Zhang L, Zhang J, L'Huillier A, Ling W, Roberts AI, Le AD, Shi S, Shao C, Shi Y. Inflammatory cytokine-induced intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 in mesenchymal stem cells are critical for immunosuppression. *Journal of Immunology*. 2010 Mar 1;184(5):2321-8.
13. Zhao X*, **Ren G*** (co-first author), Liang L, Ai PZ, Zheng B, Tischfield JA, Shi Y, Shao C. Brief report: interferon-gamma induces expansion of Lin(-)Sca-1(+)C-Kit(+) Cells. *Stem Cells*. 2010 Jan;28(1):122-6.

As a Ph.D. student

14. **Ren G**, Su J, Zhang L, Zhao X, Ling W, L'hullie A, Zhang J, Lu Y, Roberts AI, Ji W, Zhang H, Rabson AB, Shi Y. Species variation in the mechanisms of mesenchymal stem cell-mediated immunosuppression. *Stem Cells*. 2009 Aug;27(8):1954-62.
15. Das J*, **Ren G*** (co-first author), Zhang L, Roberts AI, Zhao X, Bothwell AL, Van Kaer L, Shi Y, Das G. Transforming growth factor beta is dispensable for the molecular orchestration of Th17 cell differentiation. *The Journal of Experimental Medicine*. 2009 Oct 26;206(11):2407-16.
Editorial by: Maxmen A. *The Journal of Experimental Medicine*. 206: 2304. 2009.
16. **Ren G**, Zhang L, Zhao X, Xu G, Zhang Y, Roberts AI, Zhao RC, Shi Y. Mesenchymal stem cell-mediated immunosuppression occurs via concerted action of chemokines and nitric oxide. *Cell Stem Cell*. 2008 Feb 7;2(2):141-50. (Featured Article)
Editorial by: Fleming HE. *Cell*. 132: 507. 2008.
Bell E. *Nature Reviews Immunology*. 8: 165. 2008.
Keating A. *Cell Stem Cell*. 2:106-108. 2008.
17. **Ren G**, Su J, Zhao X, Zhang L, Zhang J, Roberts AI, Zhang H, Das G, Shi Y. Apoptotic cells induce immunosuppression through dendritic cells: critical roles of IFN-gamma and nitric oxide. *Journal of Immunology*. 2008 Sep 1;181(5):3277-84.

- Xu G*, Zhang L*, **Ren G*** (co-first author), Yuan Z, Zhang Y, Zhao RC, Shi Y. Immunosuppressive properties of cloned bone marrow mesenchymal stem cells. *Cell Research*. 2007 Mar;17(3):240-8.

OTHER CO-AUTHORED PUBLICATIONS

- Yang M, Liu Y, **Ren G**, Shao Q, Gao W, Sun J, Wang H, Ji C, Li X, Zhang Y, and Qu X. Increased expression of surface CD44 in hypoxia-DCs skews helper T cells toward a Th2 polarization. *Scientific Reports* 2015; Article number: 13674
- Zheng H, Shen M, Cha YL, Li W, Wei Y, **Ren G**, Zhou T, Wang HY, Kang Y. PKD1 phosphorylation-dependent degradation of SNAIL by SCF-FBXO11 regulates epithelial-mesenchymal transition and metastasis. *Cancer Cell*, 2014 Sep 8;26(3):358-73.
- Huang Y, Yu P, Li W, **Ren G**, Roberts AI, Cao W, Zhang X, Su J, Chen X, Chen Q, Shou P, Xu C, Du L, Lin L, Xie N, Zhang L, Wang Y, Shi Y. p53 regulates mesenchymal stem cell-mediated tumor suppression in a tumor microenvironment through immune modulation. *Oncogene*. 2014 Jul 17;33(29):3830-8.
- Ling W, Zhang J, Yuan Z, **Ren G**, Zhang L, Chen X, Rabson AB, Roberts AI, Wang Y, Shi Y. Humanized Murine Mesenchymal Stem Cells Reveal a Critical Role for IDO in Immunity to Tumor. *Cancer Research*, 2014 Mar 1;74(5):1576-87.
- Su J, Chen X, Huang Y, Li W, Li J, Cao K, Cao G, Zhang L, Li F, Roberts AI, Kang H, Yu P, **Ren G**, Ji W, Wang Y, Shi Y. Phylogenetic Distinction of iNOS and IDO Function in Mesenchymal Stem Cell-Mediated Immunosuppression in Mammalian Species. *Cell Death & Differentiation*. 2014 Mar;21(3):388-96.
- Chen Q, Shou P, Zhang L, Xu C, Zheng C, Han Y, Li W, Huang Y, Zhang X, Shao C, Roberts AI, Rabson AB, **Ren G**, Zhang Y, Wang Y, Denhardt D, Shi Y. Osteopontin Plays a Critical Role in Directing Adipogenesis and Osteogenesis of Mesenchymal Stem Cells. *Stem Cells*. 2014 Feb;32(2):327-37.
- Xu C, **Ren G**, Cao G, Chen Q, Shou P, Zheng C, Du L, Han X, Jiang M, Yang Q, Lin L, Wang G, Yu P, Zhang X, Cao W, Brewer G, Wang Y, Shi Y. MiR-155 Regulates Immune Modulatory Properties of Mesenchymal Stem Cells by Targeting TAK1-binding Protein 2. *J Biol Chem*. 2013 Apr 19;288(16):11074-9.
- Zhang J, Roberts AI, Liu C, **Ren G**, Xu G, Zhang L, Devadas S, Shi Y. A Novel Subset of Helper T Cells Promotes Immune Responses by Secreting GM-CSF. *Cell Death & Differentiation*. 2013 Dec;20(12):1731-41.
- Li W, **Ren G**, Huang Y, Su J, Han Y, Li J, Chen X, Cao K, Chen Q, Shou P, Zhang L, Yuan ZR, Roberts AI, Shi S, Le AD, Shi Y. Mesenchymal stem cells: a double-edged sword in regulating immune responses. *Cell Death & Differentiation*. 2012 Sep;19(9):1505-13.
- Shao Q, Ning H, Lv J, Liu Y, Zhao X, **Ren G**, Feng A, Xie Q, Sun J, Song B, Yang Y, Gao W, Ding K, Yang M, Hou M, Peng J, Qu X. Regulation of Th1/Th2 polarization by tissue inhibitor of metalloproteinase-3 via modulating dendritic cells. *Blood*. 2012 May 17;119(20):4636-44.
- L'Huillier A, **Ren G**, Shi Y, Zhang J. A two-hit model of autoimmunity: lymphopenia and unresponsiveness to TGF- β signaling. *Cell Mol Immunol* 2012 Sep;9(5):369-70.
- Hu G, **Ren G**, Shi Y. The putative cannabinoid receptor GPR55 promotes cancer cell proliferation. *Oncogene* (commentary). 2011 Jan 13;30(2):139-41.
- Yamaza T, **Ren G**, Akiyama K, Chen C, Shi Y, Shi S. Mouse mandible contains distinctive mesenchymal stem cells. *J Dent Res*. 2011 Mar;90(3):317-24.
- Krause CD, Izotova LS, **Ren G**, Yuan ZR, Shi Y, Chen CC, Ron Y, Pestka S. Efficient co-expression of bicistronic proteins in mesenchymal stem cells by development and optimization of a multifunctional plasmid. *Stem Cell Res*

Ther. 2011 Mar 14;2(2):15.

33. Xu G, Zhang Y, Zhang L, **Ren G**, Shi Y. Bone marrow stromal cells induce apoptosis of lymphoma cells in the presence of IFN γ and TNF by producing nitric oxide. *Biochem Biophys Res Commun*. 2008 Oct 31;375(4):666-70.
34. Xu G, Zhang Y, Zhang L, **Ren G**, Shi Y. The role of IL-6 in inhibition of lymphocyte apoptosis by mesenchymal stem cells. *Biochem Biophys Res Commun*. 2007 Sep 28;361(3):745-50.
35. Shi Y, Liu CH, Roberts AI, Das J, Xu G, **Ren G**, Zhang Y, Zhang L, Yuan ZR, Tan HS, Das G, Devadas S. Granulocyte-macrophage colony-stimulating factor (GM-CSF) and T-cell responses: what we do and don't know. *Cell Research* (review). 2006 Feb;16(2):126-33.

INVITED SEMINARS

1. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **The University of North Carolina at Chapel Hill** (faculty candidate talk). March 2016.
2. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **Sanford Burnham Prebys Medical Discovery Institute** (faculty candidate talk). March 2016.
3. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **Duke University** (faculty candidate talk). February 2016.
4. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **Fox Chase Cancer Center** (faculty candidate talk). February 2016.
5. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **New York University** (faculty candidate talk). February 2016.
6. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **Cancer Institute of New Jersey, Rutgers University** (faculty candidate talk). January 2016.
7. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **The Jackson Laboratory** (faculty candidate talk). January 2016.
8. **Ren G**. Stromal cell-immune cell interactions in tumor progression and therapy responses. **Dana Farber Cancer Institute, Harvard University** (faculty candidate talk). January 2016.
9. **Ren G**. Role of Mesenchymal Stromal Cells in Tumor Progression. **Cancer Pharmacology and Pre-Clinical Therapeutics Program Meeting, New Jersey, USA**. (Invited by Dr. Leroy F. Liu). April 2012.
10. **Ren G**. Mesenchymal Stem Cells and Immunomodulation. **Regenerative Medicine & Stem Cell Seminars of New Jersey, New Jersey, USA** (Invited by Dr. Joseph R. Bertino). June 2011.
11. **Ren G**. Mesenchymal Stem Cells and Immunomodulation. **Shandong University, China** (Invited by Dr. Changshun Shao). October 2010.
12. **Ren G**. Mesenchymal Stem Cells and the Immune System. **Hospital for Special Surgery, New York, USA** (Invited by Dr. Lionel B. Ivashkiv). July 2010.

ORAL PRESENTATIONS

1. **Ren G.** Turning the dark sides of MSCs into novel adjuvants for cancer immunotherapy. **Roadmap to Translation: Harvard Stem Cell Institute (HSCI)'s Mesenchymal Stem Cell Colloquium.** (Invited by Dr. Jeffery Karp). March 2016.
2. **Ren G.** Radiation modulates the tumor-promoting activity of mesenchymal stromal cells via osteopontin. **Annual Retreat of Department of Molecular Biology, Princeton University. Princeton, NJ, 2014.**
3. **Ren G.** Cancer Cells Induce A Self-amplifying Loop of Extramedullary Hematopoiesis through The SCF/KIT Pathway. **Princeton-Rutgers Cancer Institute of New Jersey Mini-Retreat: Tumor Microenvironment and Progression. Princeton, NJ, 2014.**
4. **Ren G.** Cancer cells induce a self-amplifying loop of splenic myelopoiesis in the mouse. **American Association of Immunologists Annual Meeting. San Francisco, CA, 2011.**
5. **Ren G.** Bidirectional Interactions between Mesenchymal Stem Cells and Immune Responses: Good Grace and Bad Influence. **The Chinese American Professionals Association of Metropolitan Washington, D.C. (CAPA) 2011 Annual Symposium. MD, USA, 2011.**
6. **Ren G.** Tumor-associated mesenchymal stem cells promote tumor development through CCR2-dependent recruitment of macrophages. **International Conference & Exhibition on Cell Science & Stem Cell Research. PA, USA, 2011.**
7. **Ren G.** Tumor-derived mesenchymal stem cells promote tumor progression through recruitment of macrophages. **The 2011 Annual Retreat on Cancer Research in New Jersey 2011.**
8. **Ren G.** Tumor Derived Mesenchymal Stem Cells Enhance Tumor Development via Nitric Oxide. **American Association of Immunologists Annual Meeting. Baltimore, US. 2010.**
9. **Ren G.** Type II Interferon and Expansion of Hematopoietic Stem Cells. **The First Annual Conference of Chinese Society for Stem Cell Biology, Shanghai, China. 2010.**
10. **Ren G.** Immunosuppression Induced by Inflammatory Cytokines in Mesenchymal Stem Cells. **NJ Stem Cell Research Symposium. New Jersey, US. 2009.**
11. **Ren G.** Apoptotic Cells Induce Immunosuppression through Dendritic Cells: Critical Roles of Interferon-gamma and Nitric Oxide. **American Association of Immunologists Annual Meeting. California, US. 2008.**