

Mohan C. Vemuri, Ph.D, MBA. ---

EXPERTISE

Thermo Fisher Scientific: Director, R&D, Cell Sciences Solutions – Jan 2014 - Present

Life Technologies (Invitrogen & Applied Bio systems) Director, R&D, Stem Cells – Regenerative Medicine, PSCS, Frederick, MD, June 2006 – Dec 2013. Life technologies was acquired by Thermo Fisher Scientific

- Led 15 person global R&D team across multiple sites focused on product development in FDA compliant GMP conditions for stem cells, cell therapy and immune therapy to create pipeline of cell therapy reagents through 510(k) FDA Regulatory compliance.
- Develop business unit strategy, identify and pursue opportunities of growth through internal development/manufacturing and OEM for GMP stem cells and cell therapy products.
- Establish strong collaborations with thought leaders in the field of stem cells and cell therapy; present in scientific industry/customer forums, publish in peer-reviewed scientific journals of international repute and support clients on product end-use.
- Responsible for introducing several new products (hESC, MSC, NSC, HSC and immune cell reagents) in GMP with relevant regulatory compliance (FDA, EMEA) with an AOP ~\$45 M (2013).
- Edited and Authored several books and book chapters in the area of stem cells and cell therapy.

Reprogenetics, LLC Principal Scientist, Stem Cells, NY, May 2004 – June 2006

- Directed laboratory and technical operations for new human ES cell line derivation with ~25 IVF clinics in a consortium.
- Derived new RG –human ES cell lines, disease specific lines, created stem cell bank and repository for commercialization that eventually resulted in ~ \$1 M revenue.

Children's Hospital of Philadelphia Staff Scientist, Stem Cells, Philadelphia, PA, March 2003 – May 2004

- Developed efficient retroviral gene delivery for targeted expansion of hematopoietic and mesenchymal stem cells.
- Introduced innovative gene delivery methods into stem cells (HSC) for fetal gene therapy aimed at immunological and hematopoietic reconstitution.
- Trained 3 clinical staff associates in HSC transplantation methods in experimental animal models in GLC settings.

Thomas Jefferson University Research Assistant Professor, Philadelphia, PA, March 2000 – Feb 2003

- Developed validated cell based assays for use in Parkinson's disease drug discovery with dopaminergic neural cell culture systems, neural stem cells, and cortical cells.
- Using HTS and semi-automated technology screened 150 small molecular chemical libraries. Completed small molecular screening that resulted in Phase 1 clinical trials.

Wesleyan University *Research Associate Scientist, Middletown, CT, July 1998 – Feb 2000*

- Identification and characterization of DNA repair proteins, DNA-PK, PARP and ATM in gene knockdown SCID model.

University of Hyderabad *Research Scientist and Faculty, Hyderabad, India, October 1985 – June 1998*

- Signal transduction pathways in cell culture disease models. Mentored doctoral students.

National Institutes of Health *Post doctoral Scientist, Bethesda, MD, September 1984 – October 1985*

- Developed 2DE gel electrophoresis as a tool for protein separation and identified new nuclear proteins specific to C6 glioma cancers.

EDUCATION

SUNY at Buffalo, Buffalo, NY

- Jacob's School of Management, Executive MBA (May 2009)

Wesleyan University, Middletown, CT

- School of Mathematics, Programming Courses in C++ and Java, (July, 1999)

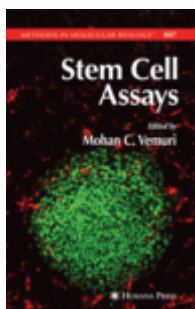
Sri Venkateswara University, Tirupati, India

- Ph.D, Biological Sciences: Cell Biology (December 1982)

HONORS/AWARDS

- Award within Thermo Fisher for most notable publication for 2013
- National Institutes of Health Postdoctoral Fellowship
- Technology Excellence Award -American Society for Reproductive Medicine, 2005
- Patents with Life Technologies/Thermo Fisher Scientific

PUBLICATIONS- BOOKS



<http://www.springer.com/978-1-58829-744-0>

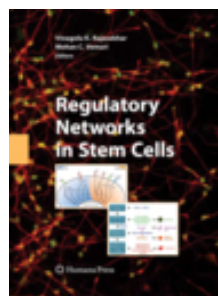
Stem Cell Assays

Series: [Methods in Molecular Biology](#)

Vol. 407

Vemuri, Mohan C. (Ed.) 2007

ISBN: 978-1-58829-744-0



<http://www.springer.com/west/home/humana+pre?SGWID=4-146902-22-173742718-0>

Regulatory Networks in Stem Cells

Series: [Stem Cell Biology and Regenerative Medicine](#)

Raj, Vinagolu K.; Vemuri, Mohan C. (Eds.)

2009, Approx. 1125 p. 146 Hardcover

ISBN: 978-1-60327-226-1



<http://www.springer.com>

Neural Development and Stem Cells

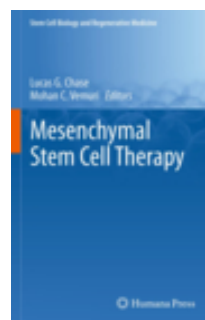
Series: [Stem Cell Biology and Regenerative Medicine](#)

[Regenerative Medicine](#)

Rao, Mahendra S.; Carpenter, Melissa;

Vemuri, Mohan C. (Eds.) 2012

ISBN 978-1-4614-3800-7



<http://www.springer.com>

Mesenchymal Stem Cell Therapy

Lucas G Chase, Vemuri, Mohan C, (Eds.)

2013, Approx. 450 p. 20 illu

ISBN 978-1-62703-200-1

PUBLICATIONS- PEER REVIEWED JOURNALS (>50)

1. [Critical steps in the isolation and expansion of adipose-derived stem cells for translational therapy.](#) Riis S, Zachar V, Boucher S, **Vemuri MC**, Pennisi CP, Fink T. *Expert Rev Mol Med.* 2015 Jun 8;17:e11. doi: 10.1017/erm.2015.10.
2. [Extracellular vesicles from bone marrow mesenchymal stem/stromal cells transport tumor regulatory microRNA, proteins, and metabolites.](#) Vallabhaneni KC, Penforinis P, Dhule S, Guillonneau F, Adams KV, Mo YY, Xu R, Liu Y, Watabe K, **Vemuri MC**, Pochampally R. *Oncotarget.* 2015 Mar 10;6(7):4953-67.
3. [Mesenchymal stromal cells: novel methods for characterization, understanding differentiation, and function.](#) Tanavde V, **Vemuri MC**, Pochampally R. *Stem Cells Int.* 2014;2014:630936. doi: 10.1155/2014/630936.
4. [A xenogeneic-free bioreactor system for the clinical-scale expansion of human mesenchymal stem/stromal cells.](#) Dos Santos F, Campbell A, Fernandes-Platzgummer A, Andrade PZ, Gimble JM, Wen Y, Boucher S, **Vemuri MC**, da Silva CL, Cabral JM. *Biotechnol Bioeng.* 2014 Jun;111(6):1116-27.
5. [Efficient and rapid derivation of primitive neural stem cells and generation of brain subtype neurons from human pluripotent stem cells.](#) Yan Y, Shin S, Jha BS, Liu Q, Sheng J, Li F, Zhan M, Davis J, Bharti K, Zeng X, Rao M, Malik N, **Vemuri MC**. *Stem Cells Transl Med.* 2013 Nov;2(11):862-70.
6. [Generation of human-induced pluripotent stem cells \(hiPSCs\) using episomal vectors on defined Essential 8™ Medium conditions.](#) Fontes A, Macarthur CC, Lieu PT, **Vemuri MC**. *Methods Mol Biol.* 2013;997:57-72.
7. [Generation of induced pluripotent stem cells with CytoTune, a non-integrating Sendai virus.](#) Lieu PT, Fontes A, **Vemuri MC**, Macarthur CC. *Methods Mol Biol.* 2013;997:45-56.
8. [Development of fully defined xeno-free culture system for the preparation and propagation of cell therapy-compliant human adipose stem cells.](#) Patrikoski M, Juntunen M, Boucher S, Campbell A, **Vemuri MC**, Mannerström B, Miettinen S. *Stem Cell Res Ther.* 2013 Mar 7;4(2):27(early PUB)
9. [Development and characterization of a clinically compliant xeno-free culture medium in good manufacturing practice for human multipotent mesenchymal stem cells.](#) Chase LG, Yang S, Zachar V, Yang Z, Lakshmipathy U, Bradford J, Boucher SE, **Vemuri MC**. *Stem Cells Transl Med.* 2012 Oct;1(10):750-8.
10. [Biochemistry of epidermal stem cells.](#) Eckert RL, Adhikary G, Balasubramanian S, Rorke EA, **Vemuri MC**, Boucher SE, Bickenbach JR, Kerr C. *Biochim Biophys Acta.* 2012 Jul 20.
11. [Advances in Induced Pluripotent Stem Cell Technologies.](#) Pal R, Rao M, **Vemuri MC**, Verma P, Dinnyes A. *Stem Cells Int.* 2012:850201.
12. [Generation of human-induced pluripotent stem cells by a nonintegrating RNA sendai virus vector in feeder-free or xeno-free conditions.](#) Macarthur CC, Fontes A, Ravinder N, Kuninger D, Kaur J, Bailey M, Taliana A, **Vemuri MC**, Lieu PT. *Stem Cells Int.* 2012;2012: 564612. Epub 2012 Mar 22.
13. [Defined Xenogeneic-Free and Hypoxic Environment Provides Superior Conditions for Long-Term Expansion of Human Adipose-Derived Stem Cells.](#) Yang S, Pilgaard L, Chase LG, Boucher S, **Vemuri MC**, Fink T, Zachar V. *Tissue Eng Part C Methods.* 2012 Epub 18(8):593-602.
14. [Toward a Clinical-Grade Expansion of Mesenchymal Stem Cells from Human Sources: A Microcarrier-Based Culture System Under Xeno-Free Conditions.](#) Santos FD, Andrade PZ, Abecasis MM, Gimble JM, Chase LG, Campbell AM, Boucher S, **Vemuri MC**, Silva CL, Cabral JM. *Tissue Eng Part C Methods.* 2011 Dec;17(12):1201-10.