

Mahendra Rao, MD, PhD Director, NIH Center for Regenerative Medicine / Senior Investigator, NIH/NIAMS

EDUCATION/TRAINING

INSTITUTION AND LOCATION		YEAR(s)	FIELD OF STUDY
Bombay University, India	Int./Residency	1982-1985	Medicine
Bombay University, India	MBBS (M.D.)	1985	Medicine
California Institute of Technology, Pasadena, CA	Ph.D.	1991	Dev. Neurobio.
Case Western Reserve University, Cleveland, OH	Postdoc.	1991-92	Dev. Neurobiol.
CalTech HHMI, Pasadena, CA	Res. Assoc.	1993	Dev. Neurobiol.

A. Positions and Honors

Recent Professional Experience (Academic)

Aug 2011 – present	Director, NIH Center for Regenerative Medicine / Senior Investigator, NIH/NIAMS
March 2008 - present	Professor (adjunct) - Buck Institute, Novato, CA
Jan 2006 – July 2011	VP, Regenerative Medicine - Invitrogen, Carlsbad, CA
May 2001 - Oct 2005	Section Chief (stem cell) / Senior Investigator - Laboratory of Neuroscience, NIA
May 2001 - present	Associate Professor, Neurosciences - JHU School of Medicine
1999 - present	Associate Professor - NCBS Bangalore, India
1999 - 2001	Associate Professor - University of Utah School of Medicine
1994 -1999	Assistant Professor - University of Utah School of Medicine

Awards and Honors (selected)

2004	Tenure, NIA/NIH
2004	NIA staff awards for service, and teaching
2000 - present	Associate Professor- Neurosciences - JHU School of Medicine
2000 - present	Adjunct Professor - NCBS Bangalore - India
1999	Early Tenure - University of Utah
1998	Herrick Award - Best Young Investigator - AAAS
1992 - present	Howard Hughes Postdoctoral Fellowship
1990 -1992	American Heart Association Postdoctoral Fellowship
1985 -1990	Markey Fellowship, Albert and Kate Crutcher Fellowship
	Best Graduating Student, Class of '78
	The Shah Gold Medal for Physiology
	The J.J. Gold Medal in Forensic Medicine and Toxicology
	The National Science Talent Scholarship (N.S.T.S.)

B. Other:

- i. **FDA:** Chair, Biological Response Modifiers Committee Member (BRMAC now CTAGT) –
- ii. **Patents:** Over twenty submitted and ten issued patents.

C. Research Support: Have been consistently funded by NIH and private foundations for the past twenty-five years

D. Students and teaching: Have trained medical students, postdocs, visiting faculty as well as high school and undergraduate students throughout academic career.

E. Publications (2010-11 only)

1. Rao MS. Funding translational work in cell-based therapy. *Cell Stem Cell*. 2011 Jul 8;9(1):7-10
2. Macarthur C, Xue H, Van Hoof D, Lieu PT, Dudas M, Fontes A, Swistowski A, Touboul T, Seerke R, Laurent LC, Loring JF, German MS, Zeng X, Rao MS, Lakshmiopathy U, Chesnut JD, Liu Y. Chromatin Insulator Elements Block Transgene Silencing in Engineered hESC Lines at a Defined Chromosome 13 Locus. *Stem Cells Dev*. 2011 Jun 23. [Epub ahead of print]
3. Lehmann HC, Chen W, Mi R, Wang S, Liu Y, Rao M, Hoke A. Human Schwann cells retain essential phenotype characteristics after immortalization. *Stem Cells Dev*. 2011 May 17.
4. Parameswaran S, Balasubramanian S, Rao MS, Ahmad I. Non-Cell Autonomous Reprogramming: A Nucleic Acid Free Approach to Induction of Pluripotency. *Stem Cells*. 2011 May 4.
5. Rao, Mahendra. Keeping Things Simple. *Nature Methods*. 2011. 8(5): 389-390.
6. Ruff D, Macarthur C, Tran HA, Bergseid J, Tian J, Shannon M, Chen SM, Fontes A, Laurent L, Swartzman E, Antje Taliana A, Rao M, Lieu P. Applications of Quantitative PCR Protein Assays During Reprogramming. *Stem Cells Dev*. 2011 Apr 8.
7. Vemuri MC, Chase LG, Rao MS. Mesenchymal stem cell assays and applications. *Methods Mol Biol*. 2011;698:3-8.
8. Lathia JD, Venere M, Rao MS, Rich JN. Seeing is Believing: Are Cancer Stem Cells the Loch Ness Monster of Tumor Biology? *Stem Cell Rev*. 2011 Jun;7(2):227-37.
9. Swistowski A, Peng J, Liu Q, Mali P, Rao MS, Cheng L, Zeng X. Efficient generation of functional dopaminergic neurons from human induced pluripotent stem cells under defined conditions. *Stem Cells*. 2010;28(10):1893-904.
10. Condic ML, Rao M. Alternative sources of pluripotent stem cells: Ethical and scientific issues revisited. *Stem Cells and Development*. 2010;19(8):1121-9.
11. Kuegler PB, Zimmer B, Waldmann T, Baudis B, Ilmjärv S, Hescheler J, Gaughwin P, Brundin P, Mundy W, Bal-Price AK, Schratzenholz A, Krause KH, van Thriel C, Rao MS, Kadereit S, Leist M. Markers of murine embryonic and neural stem cells, neurons and astrocytes: Reference points for developmental neurotoxicity testing. *ALTEX*. 2010;27(1):17-42.
12. Lensch MW, Rao M. Induced pluripotent stem cells: Opportunities and challenges. *Regenerative Medicine*. 2010;5(4):483-4.
13. Sandrock RW, Wheatley W, Levinthal C, Lawson J, Hashimoto B, Rao M, Campanelli JT. Isolation, characterization and preclinical development of human glial-restricted progenitor cells for treatment of neurological disorders. *Regenerative Medicine*. 2010;5(3):381-94.
14. Swistowska AM, Da Cruz AB, Han Y, Swistowski A, Liu Y, Shin S, Zhan M, Rao MS, Zeng X. Stage-specific role for shh in dopaminergic differentiation of human embryonic stem cells induced by stromal cells. *Stem Cells and Development*. 2010;19(1):71-82.