

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

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NAME <b>Singh, Amar V.</b>		POSITION TITLE	
eRA COMMONS USER NAME		Research Scientist	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Yuvaraja's College, Mysore India	B.S.	1993	Botany/Biochem/Zool.
University of Mysore, Mysore India	M.S.	1995	Biotechnology
University of Louisville, Louisville, KY US	Certificate	2006	Project Management
CCS University, Meerut India	PhD	2009	Botany (Bioinformatics)

**A. POSITIONS AND HONORS** (In chronological order)**Research and Professional Experience:**

1995-96 Assistant Manager, Jayson's Agritech Pvt. Ltd., Mysore, India  
 1996-97 Project Assistant, Central Food Technological Research Institute, Mysore, India  
 1997-99 Research Fellow, Department of Biotechnology, University of Mysore, Mysore, India  
 1999-00 Clinical Data Reviewer, Clinical Data Management Center, GSK, Bangalore, India  
 2000-01 Research Scientist in Bioinformatics, Avestha Gengraine Technologies Pvt. Ltd., India  
 2001-02 Group Leader, Bioinformatics, Avestha Gengraine Technologies Pvt. Ltd., India  
 2002-03 Manager, Bioinformatics, Mascon Global Ltd., Princeton NJ  
 2003-03 Research Asst. Thomas Jefferson University, Philadelphia PA  
 2003-05 Research Associate, Systems Analysis Laboratory, U of Louisville Birth Defects Center, Louisville KY  
 2005-07 Research Scientist, Birth Defects Center, U of Louisville Birth Defects Center, Louisville KY USA  
 2005-07 Bioinformatics Manager, Systems Analysis Laboratory, U of Louisville, Louisville KY  
 2006-07 Operation Manager, Center for Environmental Genomics and Integrative Biology, UoL Louisville KY  
 2007-pres Scientific Systems Analyst, Lockheed Martin Contractor at National Center for Computational Toxicology (NCCT) US EPA, RTP Durham NC

**Professional Societies and Affiliations:**

2000- Present Professional Member, International Society of Computational Biologists (ISCB)  
 2004- Present Associate Member, Teratology Society  
 2002- Present Planning Committee & Society Management Member, Bioinformatics Society of India (Inbios)  
 2000- Present Member, Asia Pacific Bioinformatics Network (ApBioNET)  
 2004- Present Member, African Society for Bioinformatics and Computational Biology (ASBCB)

**Honors and Awards:**

1997 Lady Tata Memorial Fellowship (Lady Tata Memorial Trust, Mumbai India).  
 1998 Senior Research Fellowship (Central Scientific and Industrial Research, Govt of India New Delhi, India)  
 2006 Young Investigator Travel Awards, 46th Annual Meeting of The Teratology Society Meeting at Tucson, Arizona.

**Special Recognition:** Elected to Inbios Management Group, Bioinformatics Society of India (INBIOS) (2002-pres) ; Research!Louisville: 3rd place, Innovation in Biotechnology (2004); Committee Co-Chair, Issues and Protocols in Bioinformatics Education, Bioinformatics Society of India(2005-pres). Member, Web Site Committee Teratology Society (2005-pres; Chair of the Committee 2007-2008)

**B. SELECTED PEER-REVIEWED PUBLICATIONS (in chronological order).**

1. S. Ahuja, S. K. Bagga\*, R. Keith, G. G. Nair, **A. V. Singh** and R. V. S. V. Vadlamudi. (2002) Intellectual Property Rights, Indian Journal of Pharmaceutical Sciences AI-PEAR-GP Discussion of the month, Nov-Dec 2002 Issue.
2. Dr. S. Bagga, **A.V.Singh** and S. Goswami. (2002) Gene Prediction: A New Frontier in Pharmaceutical Research, II Anniversary Chronicle Pharmabiz Specials Dec 26 2002.
3. S. K. Bagga\*, Laura Mccarthy, S. Z. Rahman, K. Jhawar, S. Ahuja, N.Udupa, **A. V. Singh** and R. V. S. V. Vadlamudi (2003). Power Plants: Green Pharmacy, Indian Journal of Pharmaceutical Sciences, May-June 2003.
4. S. K. Bagga\*, **A. V. Singh**, Vibhav Garg, Sulip Goswami and R. V. S. V. Vadlamudi. (2003) Computer Aided versus Wet Lab Drug Discovery, Indian Journal of Pharmaceutical Sciences, Jan-Feb 2003.
5. **Singh AV**, Knudsen KB and Knudsen TB (2005) Computational systems analysis of developmental toxicity: design, development and implementation of a birth defects systems manager (BDSM). Reprod. Toxicol. 19: 421-439.
6. Nemeth KA, **Singh AV** and Knudsen TB (2005) Searching for biomarkers of developmental toxicity with microarrays: normal eye morphogenesis in rodent embryos. Toxicol Appl Pharmacol 206(2):219-28.
7. Knudsen KB, **Singh AV** and Knudsen TB (2005) Data input module for Birth Defects Systems Manager Reprod. Toxicol. 20(3):369-75.
8. Kinane DF, Shiba H, Stathopoulou PG, Zhao H, Lappin DF, **Singh AV**, Eskan MA, Beckers S, Weigel S, Alpert B and Knudsen TB (2006) Gingival epithelial cells heterozygous for Toll-like receptor 4 polymorphisms Asp299Gly and Thr399Ile are hypo-responsive to Porphyromonas gingivalis. Genes & Immunity Apr;7(3):190-200.
9. Maia L. Green, **Amar V. Singh**, Yihzi Zhang, Kimberly A. Nemeth, Kathleen K. Sulik, and Thomas B. Knudsen. (2007) Reprogramming of genetic networks During Initiation of the Fetal Alcohol Syndrome. Dev Dyn. Feb;236(2):613-31.
10. **Amar V Singh**, Kenneth B Knudsen and Thomas B Knudsen. (2007) Integrative Analysis of the mouse embryonic Transcriptome. Bioinformatics, 1(10), 406-413.
11. **Amar V Singh**, Eric Rouchka, Greg Rempala, Caleb Bastian and Thomas B Knudsen. (2007) Integrative Database Management for Mouse Development: Systems and Concepts Review. Birth Defects Research (Part C) 81:1-19.
12. Deaciuc IV, Song Z, Peng X, Barve SS, Song M, He Q, Knudsen TB, **Singh AV**, and McClain CJ (2008) Genome-wide transcriptome expression in the liver of a mouse model of high carbohydrate diet-induced liver steatosis and its significance for the disease. Hepatology International, Volume 2, Number 1(March, 2008) 2 :39-49
13. Barthold JS, McCahan, **Singh AV**, Knudsen TB, Si X, Campion L and Akins RE (2008) Altered expression of muscle and cytoskeleton-related genes in a rat strain with inherited cryptorchidism. J. Androl. cryptorchidism. J Androl. 29: 352-366
14. Rouchka EC, Phatak AW, and **Singh AV**. (2008), Effect of single nucleotide polymorphisms on Affymetrix® match-mismatch probe pairs Bioinformatics 2(9):405-11.
15. Benakanakere MR, Li Q, Eskan MA, **Singh AV**, Zhao J, Galicia JC, Stathopoulou P, Knudsen TB, Kinane DF (2009) MicroRNA hsa-miR-105 modulates TLR-2 responses in oral keratinocytes. J Biol Chem. 2009 Jun 9. [Epub ahead of print]
16. Knudsen TB, Martin MT, Kavlock RJ, Judson RS, Dix DJ, and **Singh AV** (2009). Profiling the activity of environmental chemicals in prenatal developmental toxicity studies using the U.S. EPA's ToxRefDB. Reprod Toxicol. 2009 Apr 10. [Epub ahead of print]