# CURRICULUM VITAE SURENDRA SHARMA

Departments of Pediatrics and Pathology Women & Infants' Hospital of Rhode Island 101 Dudley Street Providence, RI 02905

Telephone: (401) 274-1122, ext 1289

Fax: (401) 453-7571 Email: ssharma@wihri.org

## **EDUCATION**

UNDERGRADUATE M.M. College Modinagar (U.P.), India, **B.S.**, 1968 GRADUATE & INTERNSHIP A. M. University, (UP), India, **M.B.B.S**, 1971

ADVANCED DEGREE Indian Institute of Technology, New Delhi, India, **Ph.D.**,

1975

HONORARY MEDICAL DEGREE Linkoping University, Faculty of Health Sciences,

Sweden, M.D., 2006

# POSTGRADUATE TRAINING

Fellowships Baylor College of Medicine, Houston, Texas, Department of

Virology, 1975-1977 (Infectious Disease)

Baylor College of Medicine, Houston, Texas, Department of

Cell Biology, 1977-1980 (Molecular Biology)

## POSTGRADUATE HONORS AND AWARDS

Robert Welch Postdoctoral Fellowship, 1977-1980 Honorary Doctor of Medicine Degree, Linkoping University, Sweden, 2006

# **MILITARY SERVICE**

None

## SOCIAL RESPONSIBILITIES

President, India Association of Rhode Island, 2000-2005

# ACADEMIC APPOINTMENTS

Instructor of Cell Biology, Baylor College of Medicine, Houston, Texas, 1981-1982

Assistant Professor of Pathology, University of Texas-MD Anderson Hospital and

Cancer Center, Houston, Texas, 1983-1986

Associate Professor of Pathology, Brown University, Providence, Rhode Island, 1987-1997

Associate Professor Pediatrics and Pathology, Brown University/Women and Infants' Hospital, Providence, Rhode Island, 1998-2000

Professor of Pediatrics and Pathology, Brown University/Women and Infants' Hospital, Providence, Rhode Island, 2000-Present

Deputy Director, NIH Center of Biomedical Research Excellence in Perinatal Biology, Women and Infants Hospital –Brown University, 2003-2008

# **HOSPITAL APPOINTMENTS**

Senior Scientist, Department of Pathology, Roger Williams Medical Center-Brown University, Providence, Rhode Island, 1987-1997

Director, Division of Experimental Pathology Roger Williams Medical Center-Brown University, Providence, Rhode Island, 1990-1997

Departments of Pediatrics and Pathology, Women & Infants' Hospital, Providence, Rhode Island, 1998-Present

## OTHER APPOINTMENTS

## Grant Review Responsibilities

Ad Hoc Member (NIH): Allergy & Immunology Study Section, 1988

Member (NIH): Special Study Section on Gene Therapy, 1992

Special Reviewer: NATO Grants for International Collaboration in Research, 1998

Reviewer: Brown University/American Cancer Society Research Grants, 1995-1999

Member: NICHD Study Section, June 2002

Reviewer: COBRE Center for Cancer Research Development, February 2, 2004

Member: NIH COBRE Study Section, March 3-4, 2004

Member (for three years): American Diabetes Association Review Committee, Oct. 2004-2007.

Member (for three years): NICHD, Pediatric Subcommittee, June 2005-2008.

## Editorial

Reviewer of Scientific Papers: Mol. Cell. Biol.; Proc. Natl; Acad., Sci., USA; Blood; J. Immunology, Cancer Research, FASEB Journal, Cellular Immunology, J Clin Endocrinology and Metabolism.

Associate Editor, Journal of Immunology, 2001-Present

Member, Editorial Board, American Journal of Reproductive Immunology, 2006-

Guest Editor: American Journal of Reproductive Immunology, 2004 and 2005

## CURRENT HOSPITAL COMMITTEES

Member, Lifespan Radiation Safety Committee, 2002-present

Member, Women and Infants' Hospital Long Term Planning and Genetics Committee, 2002-present

Member, Women and Infants' Hospital's Advisory Committee, 2003-present

Member, Lifespan Recombinant DNA Committee, 2006-Present

# UNIVERSITY COMMITTEES

Brown University Pathobiology Graduate Program Steering Committee, 1990-1993

Graduate Student Thesis Committees, 1989-present

Committee on Strategic Planning for Research Department of Pathology, Brown University, 1994

Dean Marsh's Committee to "Identify Core Technology", 1995

Medical Faculty Ad Hoc Committee, 1997-1998

Medical Faculty Executive Committee, 2001-2003

Member, Dean' Committee on Advanced Learning- Guidelines for Associate Dean of Graduate and Post-graduate Studies, 2005

## MEMBERSHIP AND ADMINISTRATIVE RESPONSIBILITIES IN SOCIETIES

Membership:

American Association of Immunologist, 1999-Present

American Society for Reproductive Immunology, 2001-Present

American Association for the Advancement of Science, 1999-Present

American Society for Reproductive Medicine, 2003-Present

## Administrative:

Counselor to the Board, American Society for Reproductive Immunology, 2003-2006

Treasurer, American Society for Reproductive Immunology, July 2006-

# ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 1. **Sharma, S.,** Biswal, N.: Studies on the <u>in vivo</u> methylation of replicating herpes simplex type 1 DNA. <u>Virology</u>, 82:265-274, 1977.
- 2. Biswal, N., **Sharma, S.**, Kahn, N.C., Cabral, G.A., Paterson, M.: Amplification of two Endo R. Hind III restricted fragments of the DNA of herpes simplex virus type 1. <u>Virology</u>, 85:568-586, 1978.
- 3. **Sharma, S.,** Moses, R.E.: The uvrC function is required for excision. <u>Trans Gulf Coast</u> Molecular Biology, 3:13-19, 1978.
- 4. **Sharma, S.**, and Moses, R.E.: The uvrC function in excision repair in toluene-treated E. coli. J. Bacteriology, 137:397-408, 1978.
- 5. Ross, S.L., **Sharma, S.,** Moses, R.E.: DNA polymerase III-dependent repair synthesis in response to Bleomycin in toluene-treated *E. coli*. Molec. Gen. Genetic, 179:595-7605, 1980.
- 6. **Sharma, S.,** Ohta, A., Dowhan, W., Moses, R.E.: Cloning of the uvrC gene of E. coli: Expression of a DNA repair gene. <u>Proc. Natl. Acad. Sci. USA</u>, 78:6033-6037, 1981.
- 7. **Sharma, S.,** Dowhan, W., Moses, R.E.: Molecular structure of the uvrC gene of E. coli: Identification of DNA sequences required for transcription of the uvrC gene. <u>Nucl. Acids Res.</u>, 10:5209-5221, 1982.
- 8. Schultz, R.A., Friedberg, E.C., Moses, R.E., Rupp, W.D., Sancar, A., **Sharma, S.**: A mutant strain of E. coli allows measurement of single-stranded AP endonuclease in crude extracts: Studies with untransformed cells and cells transformed with plasmids containing the uvrC gene. J. Bacteriology, 154:1459-1461, 1983.
- 9. **Sharma, S.,** Moses, R.E.: Distal regulatory functions for the uvrC gene of E. coli. <u>Nucl. Acids</u>

- Res., 15:5341-4354, 1984.
- 10. Shasrabuddhe, C.G., Morgan, J., **Sharma, S.**, Mehta, S., Martin B., Wright, D., Maizel, A.: Evidence for an intracellular precursor for human B cell growth factor. <u>Proc. Natl. Acad. Sci.</u> (USA), 81:7902-7906, 1985.
- 11. **Sharma, S.,** Mehta, S., Maizel, A.: Human B cell growth factor: Molecular cloning and expression in E. coli. Advances in gene technology, ISCU Report, 2:295-296, 1985.
- 12. **Sharma, S.,** Stark, T.F., Beattie, W.G., Moses, R.E.: Multiple control elements for the uvrC gene unit of E. coli. <u>Nucl. Acids Res.</u>, 14:2301-2318, 1986.
- 13. Mehta, S., Sandler, R., Ford, R., **Sharma, S.,** Maizel, A.: Cellular interaction between B and T lymphocytes: Enhanced release of B cell growth factor. <u>Lymph. Res.,</u> 5:49-56, 1986.
- 14. **Sharma, S.,** Mehta, S., Morgan, J., Maizel, A.: Molecular cloning and expression of human B cell growth factor in E. coli. Science, 235:1489-1492, 1987.
- 15. **Sharma, S.,** Mehta, S., Maizel, A.: Human B cell growth factor: Molecular cloning and expression in E. coli. Advances in gene technology, ISCU Report, 2:295-296, 1985.
- 16. Ennist, D.L., Greenblatt, D., Coffman, D., **Sharma, S.**, Maizel, A., Howard, M. A partially purified human BCGF and BCGF-II like activity in murine assays. <u>Cellular Immunol.</u>, 110:77-83, 1987.
- 17. Ford, R.J., Mehta, S.R., **Sharma, S.**: In vitro studies on leukemia cells and T lymphocytes in hairy cell leukemia. <u>Leukemia</u>, 1:386-390, 1987.
- 18. Gupta, R.C., Early, K., **Sharma, S.** Use of human lymphocytes to measure DNA binding capacity of chemical carcinogens. Proc. Natl. Acad. Sci. USA, 85:3513-3517, 1988.
- 19. Vazquez, A., Mills, S., **Sharma, S.**, Maizel, A. Expression of CD23 antigen is not necessary for BCGF-12kD induced B cell proliferation. <u>Eur. J. Immunol.</u>, 18:1647-1650, 1988.
- 20. Morgan, J., Roome, A., Maizel, A., **Sharma, S.** Negative modulation of EBV episomes by human BCGF-12kD. J. <u>Virol.</u>, 63:3190-3194, 1989.
- 21. Maizel, A., Mehta, S., Morgan, J., Vazquez, A., **Sharma, S.** Human B cell proliferation and differentiation: Control by defined cytokines. <u>Transplantation and Immunology Letters</u>, 5:5-7, 1989.
- 22. Flescher, E., Fossum, D., Ballester, A., Maizel, A., **Sharma, S.** Characterization of B cell growth in systemic lupus erythematosus: Effects of recombinant 12kD B cell growth factor, IL-4 and TGF-B. <u>Eur. J. Immunol.</u>, 20:2425-2430, 1990.
- 23. **Sharma, S.,** Morgan, J., Shrayer, D., Maizel, A., Kumar, A., Jackson, J. Human BCGF-12kD and its role in B cell neoplasia. Proceedings of 1st International Congress on Cytokines: Basic

- Principles and Clinical Application. <u>Eds. Romagnani and Abbas</u>, Raven Press 68:257-264, 1990.
- Kumar, A., Rogers, T., Maizel, A., Sharma, S. Loss of transforming growth factor β<sub>1</sub> (TGF-β<sub>1</sub>) receptors and its effects on the growth of Epstein-Barr virus transformed human B cells. <u>J. Immunol.</u>, 147:998-1006, 1991.
- 25. Vazquez, A., Auffredou, M.T., **Sharma, S.**, Galanaud, P., Leca, G. Differential inhibition of IL-2 and IL-4 mediated human B cell proliferation by ionomycin: A possible regulatory role for apoptosis. Eur. J. Immunol., 21:2311-2316, 1991.
- 26. Fournier, S., Jackson, J., Kumar, A., King, T., **Sharma, S.**, Delespesse, G., Sarfati, M. BCGF-12kD as an autocrine growth factor in B cell chronic lymphocytic leukemia. <u>Eur. J. Immunol.</u>, 22:927-930, 1992.
- 27. Yaseen, N.R, Maizel, A.L., Wang, F., **Sharma, S.** Comparative analysis of NFAT (nuclear factor of activated T cells) in human T and B cells. <u>J. Biol. Chem.</u>, 268:14285-14293, 1993.
- 28. Morgan, J.W., Reddy, G. S., Uskokovic, U.S., May, B.K., Omdahl, J.A., Maizel, A.L., **Sharma, S.** Functional block for 1α,25 dihydroxyvitamin D3 mediated gene regulation in human B lymphocytes. <u>J. Biol. Chem.</u>, 269:13437-13443, 1994.
- 29. Yaseen, N.R., Park, J., Kerppola, T., Curran, T., **Sharma, S.**. A central role for fos in human B and T cell NFAT (Nuclear factor of activated T cells): An acidic region is required for *in vitro* assembly. Mol. Cell. Biol., 14: 6886-6895, 1994.
- 30. Arvanitakis, L., Yaseen, N.R., **Sharma, S.** LMP-1 induces cyclin D2 expression, pRb hyperphosphorylation and loss of TGFβ<sub>1</sub>-mediated growth inhibition in EBV-positive cells. <u>J. Immunol.</u>, 155:1047-1056, 1995.
- 31. Park, J., Yaseen, N.R., Hogan, P., Rao, A., **Sharma, S.**: Phosphorylation of the transcription factor NFATp inhibits its DNA binding activity in cyclosporin A treated human B and T cells. J. Biol. Chem., 270:20653-20659, 1995.
- 32. Chaouchi, N., Arvanitakis, L., Auffredou, M.T., Blanchard, D., Vazquez, A., **Sharma S.**: Characterization of TGFβ1 induced apoptosis in normal human B cells and lymphoma B cell lines. <u>Oncogene</u>, 11:1615-1622, 1995.
- 33. Shaw, K.T-Y, Ho, A.M., Raghavan, A., Kim, J., Jain, J., Park, J., **Sharma, S.,** Rao, A., Hogan, P. Immunosuppressive drugs prevent a rapid dephosphorylation of the transcription factor NFATp in stimulated immune cells. <u>Proc. Natl. Acad. Sci. U.S.A</u>, 92:11205-11209, 1995.
- 34. Kumar, A., Kurl, R.N., Kryworuchko, M., Diaz-Mitoma, F., **Sharma, S.** Differential effect of heat shock on RNA metabolism in human Burkitt's Lymphoma B cell lines. <u>Leukemia</u> Research, 19:831-840, 1995.

- 35. Park, J., Takeuchi, A., **Sharma, S**. Characterization of a new isoform of the NFAT (Nuclear Factor of Activated T Cells) gene family member NFATc. <u>J. Biol. Chem</u>, 271:20914-20921, 1996.
- 36. Caldera, M-L. S., Clark, J.W., Moore, A.S., Peleg, S., Liu, Y.Y., Uskokovic, M.R., **Sharma, S.**, Reddy, G.S. 1α,25-dihydroxy-24-oxo-16-ene Vitamin D3, a metabolite of a synthetic Vitamin D3 analog, 1α,25-dihydroxy-16-ene Vitamin D3, is equipotent to its parent in modulating growth and differentiation of human leukemic cells. <u>J. Steroid Biochem. Molec. Biol</u>, 59:405-412, 1996.
- 37. Takeuchi, A., Reddy, G.S., **Sharma, S**. Nuclear Factor of Activated T Cells (NFAT) as a molecular target for 1α 25- Dihydroxyvitamin D<sub>3</sub>-mediated effects. <u>J. Immunol</u>, 160:209-218, 1998.
- 38. Wagner, E., Hleb, M., Hanna N., **Sharma, S**. A pivitol role for cyclin D3 and cyclin dependent kinase inhibitor p27<sup>kip1</sup> in the regulation of IL-2, IL-4, or IL-10-mediated human B cell proliferation. <u>J. Immunol.</u>, 161:1123-1131,1998.
- 39. Schrantz, N., Blanchard, DA., Auffredou, MT., **Sharma, S.,** Leca, G., Vazquez, A. Role of caspases and possible involvement of retinoblastoma protein during TCFbeta- mediated apoptosis of human B lymphocytes. Oncogene, 18:3511-3519, 1999.
- 40. Balkundi, D. R., Hanna, N., Hleb, M., Dougherty, J., **Sharma, S.** Labor-associated changes in Fas ligand expression and function in human placenta. Pediatric Res., 47: 301-308, 2000.
- 41. Hanna, N., Hanna, I., Hleb, M., J., Wagner, E., Dougherty, J., Padbury, J., **Sharma, S**. Gestational age-dependent expression of interleukin-10 and its receptor in human placental tissues and isolated cytotrophoblasts. <u>J. Immunol.</u>, 164: 5721-5728, 2000.
- 42. Wagner, E., Hanna, N., Fast, L., Kouttab, N., Shank, P., Vazquez, A., **Sharma, S.** Novel diversity in IL-4 mediated responses in resting human naive B cells versus germinal center/memory B cells. <u>J. Immunol.</u>, 165: 5573-5579, 2000.
- 43. Schrantz, N., Bourgeade, M. F., Leca, G., **Sharma, S.**, Vazquez, A. p-38-mediated regulation of a FADD-independent pathway leading to caspase-8 activation during TGFβ-induced apoptosis. Mol. Biol. Cell. 12: 3139-3151, 2001.
- 44. De Silva, F., Venturini, D., Wagner, E., Shank, P., **Sharma, S.** CD4-independent infection of human B cells by HIV type-1: Detection of unintegrated viral DNA. <u>AIDS Research and Human Retroviruses</u>, 17: 1585-1598, 2001.
- 45. Plevyak, M., Hanna, N., Mayer, S., Murphy, S. Pinar, H., Fast, L., Eckerfelt, C., Berg, G., Matthiesen, L., **Sharma, S**. Deficeiney of decidual IL-10 in first trimester missed abortion: A lack of correlation with the decidual immune cell profile. <u>Am. J. Reprod. Immunol</u>, 47: 242-250, 2002.

- 46. Ekerfelt, C., Lidstrom, C., Matthiesen, L., Berg, G., **Sharma, S**. Spontaneous secretion of interleukin-4, interleukin-10, and interferon-γ by first trimester decidual mononuclear cells. <u>Am. J. Reprod. Immunol</u>, 47: 159-166, 2002.
- 47. Oum, J., Han, J., Myung, H., Hleb, M., **Sharma, S.**, Park, J. Molecular mechanism of NFAT family proteins for differential regulation of IL-2 and TNF-α promoters. <u>Molecules and Cells</u>, 13(1): 77-84, 2002.
- 48. Bae S, Oum J, **Sharma S**, Park J, Lee S. In vitro selection of specific RNA inhibitors of NFATc. <u>Biochemical and Biophysical Research Communication</u>, 298: 486-92, 2002.
- 49. Chung MA, Luo Y, O'Donnell M, Rodriguez C, Heber W, **Sharma S**, Chang HR. Development and preclinical evaluation of a bacillus calmette-guerin-MUC1-based novel breast cancer vaccine. <u>Cancer Research</u>, 63(6): 1280-7, 2003.
- 50. Matthiesen L, Khademi M, Ekerfelt C, Berg G, **Sharma S**, Olsson T, Ernerudh J. In-situ detection of both inflammatory and anti-inflammatory cytokines in resting peripheral blood mononuclear cells during pregnancy. <u>J. Reprod. Immunol.</u>, 58(1): 49-59, 2003.
- 51. Lidstrom, C., Matthiesen, L., Berg, G., **Sharma, S**., Ernerudh, J., Ekerfelt, C., Cytokine secretion patterns of NK cells and macrophages in early human pregnancy decidua and blood: Implications for suppressor macrophages in decidua. <u>Am. J. Reprod. Immunol</u> 50(6): 444-452, 2003.
- 52. Hleb, M., Murphy, S., Wagner, E.F., Hanna, N.N., Sharma, N., Park, J., Li, X.C., Strom, T.B., Padbury, J.F., Tseng, Y.T., and **Sharma, S.** Evidence for cyclin D3 as a novel target of rapamycin in human T lymphocytes. J. Biol. Chem. 279: 31948-31955, 2004.
- 53. Hanna, N., Bonifacio, L., Reddy, P., Hanna, I., Weinberger, B., Murphy, S., Laskin, D., and **Sharma, S**. IFN-γ inhibits COX-2 expression in the placenta from preterm and spontaneous labor deliveries. Am. J. Reprod. Immunol, 51: 311-318, 2004.
- 54. Murphy, S., Fast, L., Hanna, N., and **Sharma, S**. Uterine NK cells mediate inflammation induced fetal demise in IL-10-null mice. J. Immunol. 175: 4084-4090, 2005.
- 55. Hanna, N., Bonifacio, L., Weinberger, B., Reddy, P., Murphy, S., Romero, R., **Sharma, S.** Evidence for Interleukin-10-mediated inhibition of cyclooxygenase-2 expression and prostaglandin production in preterm human placenta. Am J Reprod Immunol 55: 19-27, 2005.
- 56. De Paepe, M. E., Mao, Q., Chao, Y., Powell, J. L., Rubin, L. P., and **Sharma, S.** Hyperoxia-induced apoptosis and Fas/FasL expression in lung epithelial cells. Am J Physiol (Lung Cell Mol Physiol) 289: L647-659, 2005.
- 56. Clybouw, C., McHichi, B., Mouhamad, S., Auffredou, M., Bourgeade, M., and **Sharma, S.,** Vazquez, A. EBV infection of human B lymphocytes leads to down-regulation of Bim expression: relationship to resistance to apoptosis. J Immunol 175: 2968-2973, 2005.

- 57. **Sharma, S.,** Murphy, S., and Barnea, E. Genes regulating implantation and fetal development: a focus on mouse knockout models. Frontiers in Bioscience 11: 2123-2137, 2005.
- 58. Murphy, S., Hanna, N., Fast, L., Shaw, S., Padbury, J., Romero, R., and **Sharma, S**. IL-10 deficiency and uterine NK cell cytotoxic activation link inflammation to preterm birth. Nature Medicine (under review), 2006.
- 59. **Sharma, S.,** Kalkunte, S., Norris, W., Ernerudh, J., Matthiesen, L., and Shaw, S. Complement activation in pre-eclampsia and its inhibition by heparin and cross-linking of CD55 and CD59. Manuscript submitted, 2006

## BOOKS AND BOOK CHAPTERS

- 1. **Sharma, S.,** Moses, R.E.: Identification of the regulatory regions of the uvrC gene of E. coli in cellular responses to DNA damage. UCLA symposia on Molecular and Cellular Biology. <u>New Series</u>, Vol. II (eds. E.C. Friedberg and B.R. Bridges), (Liss Press) 2:145-151, 1984.
- 2. Ford, R.J., Mehta, S.R., **Sharma, S.**: Immunobiology of Hodgkin's Disease and non-Hodgkin's lymphomas. In: Hodgkin's disease and other lymphomas in adults and children. Eds. <u>Fuller, et al.</u> Raven Press p. 47-88, 1988.
- 3. Gupta, R.C., **Sharma, S.,** Earley, K., Nesnow, S. <sup>32</sup>P-Adduct assay: Principal and application to carcinogen exposed animal and human DNA. In: Short term bioassays in the analysis of complex environmental mixtures. Eds. Sandler et al., Plenum Press. P 127-141, 1987.
- 4. Flescher, E., Shrayer, D., Maizel, A., Fossum, D., Ballester, A., Dang, H., **Sharma, S.,** Talal, N. Cytokine regulation of the B cell response to r12kDa B cells growth factor in autoimmune diseases. <u>The Physiological and Pathological Effects of Ctyokines (Wiley-Liss, Inc.)</u> pp 117-122, 1990.
- 5. **Sharma, S.** Human B cell growth factor-12kD (BCGF-12kD) in the <u>Guidebook to Cytokines</u> and <u>Their Receptors</u> ed., Nicolas Nicola, Oxford University Press, pp97-99, 1994.
- 6. **Sharma, S.** and Murphy, S. IL-10 and Pregnancy. Ed. Gil Mor, "Immunolgy of Implantation:, publisher, Landers Bioscience, 2004.
- 7. Matthiesen, L., Berg, G., Ernerudh, J., Ekerfelt, C., Jonsson, Y., **Sharma, S.** Immunology of Preeclampsia. Ed. U. R. Markert, "Immunology of Pregnancy", Chemical Immunology and Allergy, Vol. 89, 49-61, 2005.

# **INVITED PRESENTATIONS**

## **DOMESTIC**

- 1. University of Southern California, Los Angles, CA (1991)
- 2. New York University School of Medicine, New York, NY (1991)

- 3. Immunology course, Pfizer Groton Connecticut, (1992)
- 4. Symposium on Gene Therapy, Rhode Island Hospital, Providence, RI (1993)
- 5. Brown University Pathobiology Seminar Series, (1993)
- 6. Brown University Symposium on Vitamin D (1994)
- 7. New York University Environmental Institute, New York, (1994)
- 8. Dartmouth Medical School, Lebanon, New Hampshire (1995)
- 9. Brown University Fourth Vitamin D Symposium (1996)
- 10. Pfizer, Inc., Groton, CT (1997)
- 11. American Association of Reproductive Immunology Conference, Jacksonville, Florida, (2000)
- 12. Rochester Trophoblast Meeting, Rochester, NY, (2000)
- 13. University of Rhode Island, RI, (2000)
- 14. National Institutes of Health (FDA), (2001)
- 15. Repromedix, Woburn, MA, (2001)
- 16. The First Brown-Linkoping International Conference on Basic and Clinical Aspects of Reproductive Immunology, Providence, RI (2002)
- 17. The 23<sup>rd</sup> Annual American Society for Reproductive Immunology Meeting at Yale, New Haven, CT (2003)
- 18. University of Florida, Gainsville, 2004
- 19. University of Medicine and Dentistry, New Brunsvick, NJ, 2004
- 20. Chair, Roundtable Discussion on Reproductive Immunology, American Society of Reproductive Medicine Annual Meeting, Philadelphia, 2004,
- 21. Organizing Chair and Speaker, 25<sup>th</sup> Anniversary Meeting of American Society for Reproductive Immunology, June 16-18, 2005.
- 22. Invited speaker, University of Florida, Gainesville, "Uterine NK cells control pregnancy outcome in IL-10 deficient mice", October, 3, 2005
- 23. Invited speaker, Perinatal Conference, Women and Infants Hospital, Providence, "Hypothermia: a double-edged sword", August 31, 2005.
- 24. Invited speaker, Pediatric Colloquium, Department of Pediatrics, Brown University, "Immune and genetic intervention of adverse pregnancy outcomes", September 9, 2005.
- 25. Invited speaker, Department of Pathology, Brown University, "Immune intervention for adverse pregnancy outcomes" November 30, 2005.

## **INTERNATIONAL**

- 1. 6th International Lymphokine Workshop. Evian, FRANCE, (1988).;
- 2. "The 25 years of Epstein-Barr Virus" Symposium, Oxford, ENGLAND, (1989);
- 3. 7th International Congress of Immunology, Berlin, WEST GERMANY, (1989).
- 4. French Immunology Society Autumn Meeting, Paris, FRANCE, (1989);
- 5. 1st International Congress on Cytokines, Florence, ITALY; (1990);
- 6. Indian Institute of Technology, New Delhi, INDIA (1992 and 1994);
- 7. International Workshop on the Vitamin D-Cascade, Sandoz Research Institute, Vienna, AUSTRIA (1997);
- 8. International Congress on Reproductive Immunology, New Delhi, INDIA (1998);
- 9. International Workshop on Current Advances in Molecular Biochemistry: Applications in Health, environment, and Agriculture, Lucknow, INDIA (2000);
- 10. International Conference on Experimental and Clinical Reproductive Immunology, Amsterdam,

# THE NETHERLANDS (2000);

- 11. Linkoping Lectures on Clinical Immunology, Linkoping, SWEDEN (2000);
- 12. 11<sup>th</sup> International Congress of Immunology, Stockholm, SWEDEN (July 22-July 27 2001),
- 13. The IV Indian Congress on Gyenecologic Endoscopy, Infertility, and ART, Jodhpur, INDIA (Dec. 19-22, 2002).
- 14. Children's Hospital, University of Ottawa, CANADA, 2003.
- 15. The V Indian Congress on Gyenecologic Endoscopy, Infertility, and ART, Khajuraho, INDIA, 2004.
- 16. Indian Institute of Science, Banglore, INDIA, February 16, 2006.
- 17. Jawahar Lal Nehru Institute of Advanced Studies, Banglore, INDIA, February 17, 2006.
- 18. The Honorary Doctor of Medicine Lecture to Faculty of Health Sciences, Linkoping University Hospital, SWEDEN, May 11, 2006.

## RECENT GRANTS

# **Ongoing Research Support**

RO1-HD41701-01

NIH/NICHD

Principal Investigator: Surendra Sharma 15%

Polymorphisms in IL-10 Locus Predispose to Preterm Birth Period: 09/01/02-08/31/2007 \$257,000/yr

The major goal of this project is to investigate the etiology of Preterm birth with a focus on the incidence in African American population. These studies will focus on the immunogenetic role of IL-10 in this pregnancy disorder.

#### RO 1-HL65719-01A1

NIH/NHLBI

Principal Investigator: Jack Nassau (S. Sharma; W&I Principal Investigator) 10%

Stress and Immunity in Pediatric Asthma

Period: 07/01/2002-06/30/2006 \$260,000/yr

The major goal of this project is to investigate the effect of stress on the immune function in pediatric asthma patients.

#### 1 P20 RR018728-01

NIH

Principal Investigator: James Padbury (S. Sharma, Deputy Director) 5%

COBRE for Perinatal Biology

Period: 10/01/2003-09/30/08 \$1,570,000/yr

The major goals of this project are to increase our understanding of cardiopulmonary development, immune programming of pregnancy, and help to develop strategies for new therapeutic interventions by defining how several of these events impact fetal and newborn development.

#### 1-04-TLG-14

American Diabetes Association

Principal Investigator: Surendra Sharma 10%

Immune Programming of Gestational Diabetes (1-04-TLG-14)

Period: 01/01/2004-12/31/2007 \$100,000/yr

The major goals of this project are to examine the mutually inclusive roles of placental development, IL-10, and glucose in normal and GDM pregnancy providing insights into the immune and cytokine programming of GDM.

P42ES013660-01

**NIEHS Superfund Projects** 

Project Leader: Surendra Sharma

State-based Approach to Complex Exposures (PI: Kim Boekelhiede) Sub Project: Genetic Stress and Toxicant-Induced Pregnancy Disruption

Period: 01/01/05-12/31/10 \$219,592/yr

This project focuses on the influence of environmental toxicants on pregnancy outcome in mice genetically disrupted at cytokine loci.

N0-1HD-2-3342, Sub-contract WSU05056, Perinatology Branch, NICHD, NIH and Detroit

PI: Surendra Sharma

Effect of Ascending Infections on Birth- A mouse Model

Period: 09/01/05-08/31/07 \$79,000/year

This project focuses on establishing a mouse model to study the role of ascending infections in the female genital tract on the incidence of preterm birth.

## UNIVERSITY TEACHING ROLES

Advanced Immunology course (Bio 253), Instructor, Brown University

Immunopathology course (Bio 284), Course Leader, Brown University

Introduction to Faculty (Bio 285), Instructor, Brown University

Lecturer, URI Pharmacology Course (2002-2003)

Organizer, Pathobiology Bio285, 2004

Training of Ob/Gyn and Neonatology Fellows, Women and Infants Hospital

Graduate students: Thesis mentor, 1989-present

First Year Medical Students, Brown University, Microbiology and Immunology, November 2006

# Visiting scientists:

1990-1992	Aime Vazquez, Ph.D., INSERM, Clamart, France
1993	Gerald Leca, Ph.D., INSERM, Clamart, France
1999	Leif Matthiesen, M.D., Ph.D., Linkoping, Sweden
2000	Jan Ernerudh, M.D., Ph.D., Linkoping, Sweden
2000	Leif Matthiesen, M.D., Ph.D., Linkoping, Sweden

2003	Sofie Becker, Medical Student, Linkoping, Sweden
2003	Anna Bergquist, Medical Student, Linkoping, Sweden
2006	Leif Matthiesen, M.D., Ph.D., Linkoping, Sweden

Post-graduate and graduate students who have completed their training in the Sharma lab: Eleven (8 Ph.D. Students + 6 Post-Doctoral Fellows)

Current post-graduate and graduate students: Seven

Organizer of the Brown University Pathobiology Seminar Series, 1993-1995, 1998, 2001

Organizer of the Brown University Seminar Series in Reproductive Biology, 2003- Present

## HOSPITAL TEACHING ROLES

Mentorship to Clinical Fellows:

Nazeeh Hanna, M.D., Department of Neonatology

Dhruv Balkundi, M.D., Department of Neonatology

Michael Plevyak, M.D., Department of Ob/Gyn, Division of Maternal-Fetal-Medicine Jay Bringman, M.D., Department of Ob/Gyn, Division of Maternal-Fetal-Medicine

Andrea DiLuigi, M.D., Department of Ob/Gyn, Division of Reproductive Endocrionology Alvie Richardson, M.D., Department of Ob/Gyn, Division of Maternal-Fetal-Medicine,

Current

Elizabeth McGowan, M.D., Department of Neonatology, Current Stefan Kostadinov, M.D., Department of Pathology, Current

Seminars in Perinatal Conferences and Pediatric Colloquium

## RECENT CONFERENCE ORGANIZATION RESPONSIBILITIES:

Session Chair, 22<sup>nd</sup> Annual Meeting of American Society for Reproductive Immunology, June 6-9, 2002, Chicago, IL, USA

Conference Chair, The First Brown-Linkoping International Conference on Basic and Clinical Aspects of Reproductive Immunology, Nov. 15-17, 2002, The Providence Marriott, Providence, RI, USA

Panel Member, Discussion on Repeated Implantation Failure, December 21, 2002, Jodhpur, INDIA.

Chair Scientific Committee, XXIII Annual Meeting of The American Society for Reproductive Immunology, June 18-22, 2003, Yale University, New Haven, CT, USA

# Conference Chair, 25<sup>th</sup> Annual Meeting of the American Society for Reproductive Immunology, Providence, RI, June, 2005

Member, International Program Committee, Annual Meeting of the American Society for Reproductive Immunology, Nashville, TN, 2006

Session Chair, 26<sup>th</sup> Annual Meeting of American Society for Reproductive Immunology, June 15-17, 2006, Nashville, TN