

5/22/2018

CURRICULUM VITAE
SURENDRA SHARMA, MD, PhD

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EDUCATION

UNDERGRADUATE	M.M. College Modinagar (U.P.), India, B.S. , 1966
GRADUATE & INTERNSHIP	JN Medical College, AMU, UP, India- M.B.B.S. (MD) 1970
ADVANCED DEGREE	Indian Institute of Technology, New Delhi, India- Ph.D. , 1976
DOCTOR OF MEDICINE DEGREE	Linkoping University, Faculty of Health Sciences, Sweden- MD (Hon) , 2006

POSTGRADUATE TRAINING

Fellowships	Baylor College of Medicine, Houston, Texas, Departments of Virology, 1975-1977 and 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

MILITARY SERVICE

None

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 Pediatrics and 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 and Co-Director, NIH Center of Biomedical Research Excellence in Perinatal Biology, Women and Infants Hospital –Brown University, 2003-2016

Director, NIH Center of Biomedical Research Excellence for Reproductive Health, Women and Infants Hospital, 2017-Present

HOSPITAL APPOINTMENTS

Associate Professor, 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: American Diabetes Association Review Committee, Oct. 2004-present.

Member (for three years): NICHD, Pediatric Subcommittee, June 2004-2007.

Member: NICHD, Pregnancy and Neonatology Study Panel, October 2010.

Member: NICHD, Prevention of HIV transmission/acquisition and reproductive health (RFA-HD-12-198, 199), December, 2011.

Editorial

Reviewer of Scientific Papers: Journal of Immunology, Cancer Research, FASEB Journal, Journal of Clinical Endocrinology and Metabolism, Human Reproduction, Biology of Reproduction, American Journal of Obstetrics and Gynecology, Obstetrics and Gynecology, American Journal of Reproductive Immunology, Placenta, Reproductive Sciences, Journal of Reproductive Immunology, Science Translational Medicine, Journal of Cell Biology, Journal of Clinical Investigation, Proc Natl Acad Sci, USA and others

Associate Editor, Journal of Immunology, 2001-2006

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

Guest Editor: American Journal of Reproductive Immunology, 2004, 2005, 2012

CURRENT HOSPITAL COMMITTEES

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

Member, Department of Pediatrics Brochure Committee, 2005-2006

Member, Department of Pediatrics Faculty Recruitment Committee, 2005-Present

Member, Women and Infants Hospital Research Oversight Committee, 2011-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, 2006

Member, Pathobiology Graduate Program Steering Committee, 2006-present

MEMBERSHIP AND ADMINISTRATIVE RESPONSIBILITIES IN SOCIETIES

American Association of Immunologist, 1999-2010

American Society for Reproductive Immunology, 2001-Present

American Society for Reproductive Medicine, 2003-Present

European Society for Reproductive Immunology. 2008-Present

International Society for Reproductive Immunology, 2009-Present

Administrative:

Member of the Executive Board, American Society for Reproductive Immunology, 2003-2006

Treasurer, American Society for Reproductive Immunology, July 2006-2009

President, American Society for Reproductive Immunology, June 2010-2012

Co-Director, NIH-sponsored Center of Biomedical Research Excellence for Perinatal Biology, 2003-2015

Director, NIH-sponsored Center of Biomedical Research Excellence for Perinatal Biology and Reproductive Health, 2016-

Member of the Executive the Board, American Society for Reproductive Immunology, 2017-Present

Member of the Executive Council, International Society for Immunology of Reproduction, 2016-Present

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. **Sharma, S.**, Biswal, N.: Studies on the in vivo methylation of replicating herpes simplex type 1 DNA. Virology, 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. Virology, 85:568-586, 1978.
3. **Sharma, S.**, Moses, R.E.: The uvrC function is required for excision. Trans Gulf Coast 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. Proc. Natl. Acad. Sci. USA, 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. Nucl. Acids Res., 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*. Nucl. Acids 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. Proc. Natl. Acad. Sci. (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*. Nucl. Acids Res., 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. Lymph. Res., 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. Cellular Immunol., 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. Leukemia, 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. Eur. J. Immunol., 18:1647-1650, 1988.
20. Morgan, J., Roome, A., Maizel, A., **Sharma, S.** Negative modulation of EBV episomes by human BCGF-12kD. J. Virol., 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. Transplantation and Immunology Letters, 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- β . Eur. J. Immunol., 20:2425-2430, 1990.
23. **Sharma, S.**, Morgan, J., Shrayner, 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. Eds. Romagnani and Abbas, Raven Press 68:257-264, 1990.
24. Kumar, A., Rogers, T., Maizel, A., **Sharma, S.** Loss of transforming growth factor β_1 (TGF- β_1) receptors and its effects on the growth of Epstein-Barr virus transformed human B cells. J. Immunol., 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. Eur. J. Immunol., 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. J. Biol. Chem., 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 $1\alpha,25$ dihydroxyvitamin D₃ mediated gene regulation in human B lymphocytes. J. Biol. Chem., 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 TGF β ₁-mediated growth inhibition in EBV-positive cells. J. Immunol., 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 TGF β ₁ induced apoptosis in normal human B cells and lymphoma B cell lines. Oncogene, 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. Proc. Natl. Acad. Sci. U.S.A., 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. Leukemia 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. J. Biol. Chem, 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. $1\alpha,25$ -dihydroxy-24-oxo-16-ene Vitamin D₃, a metabolite of a synthetic Vitamin D₃ analog, $1\alpha,25$ -dihydroxy-16-ene Vitamin D₃, is equipotent to its parent in modulating growth and differentiation of human leukemic cells. J. Steroid Biochem. Molec. Biol, 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 D₃-mediated effects. J. Immunol, 160:209-218, 1998.

38. Wagner, E., Hleb, M., Hanna N., **Sharma, S.** A pivotal role for cyclin D3 and cyclin dependent kinase inhibitor p27^{kip1} in the regulation of IL-2, IL-4, or IL-10-mediated human B cell proliferation. J. Immunol., 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. J. Immunol., 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. J. Immunol., 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 TGF β -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. AIDS Research and Human Retroviruses, 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.** Deficiency of decidual IL-10 in first trimester missed abortion: A lack of correlation with the decidual immune cell profile. Am. J. Reprod. Immunol, 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. Am. J. Reprod. Immunol, 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. Molecules and Cells, 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. Biochemical and Biophysical Research Communication, 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. Cancer Research, 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. J. Reprod. Immunol., 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. Am. J. Reprod. Immunol 50(6): 444-452, 2003.
52. Jeschke, U., Richter, D.U., Walzel, W., Bergmann, C., Mylonas, I., **Sharma, S.**, Keil, C., Briese, V., Friese, K. Stimulation of hCG and inhibition of hPL in isolated human trophoblast cells in vitro by glycodelin A. Arch. Gynecol. Obstet. 268: 162-167, 2003.
53. 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.
54. 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.
55. 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.
56. 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.
57. 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.
58. 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.
59. **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, 2006.
60. Jonsson, Y., Ruber, M., Matthiesen, L., Berg, G., Nieminen, K., **Sharma, S.**, Ernerudh, J., and Ekerfelt, C. Cytokine mapping of sera from women with preeclampsia and normal pregnancies. J Reprod Immunol, 70: 83-91, 2006

61. Mondeesterin-Sorrentino, M., Smulian, J. N., Vintzileos, A. M., Sorrentino, D., Ananth, C. V., **Sharma, S.**, and Hanna, N. N. Variations in cervical and vaginal IL-10 and IL-8 concentrations throughout gestation in normal pregnancies. *Am J Reprod Immunol* 57: 482-487, 2007.
62. Lee, H-S., Wang, Y., Maciejewski, B. S., Esho, K., Fulton, C., **Sharma, S.**, and Sanchez-Esteban, J. IL-10 protects fetal type II epithelial cells from injury induced by mechanical stretch. *Am. J. Physiol. (Lung Cell Mol Physiol)*, 294: L225-L232, 2008.
63. Abrahams, V., Aldo, P. B., Murphy, S. P., Visintin, I., Romero, R., **Sharma, S.**, and Mor, G. TLR6 protects trophoblast cells from TLR2/TLR1-mediated apoptosis. *J. Immunol*, 180: 6035-6043, 2008.
64. Gotsch, F., Romero, R., Hassan, S., and **Sharma, S.** The anti-inflammatory limb of the immune response in preterm labor, intraamniotic infection/inflammation and spontaneous parturition: A role for IL-10. *J of Mat-Fetal and Neonat Med*, 17: 1-19, 2008.
65. Gustafsson, C., Mjosberg, J., Matussek, A., Matthiesen, L., Berg, G., **Sharma, S.**, and Ernerudh, J. Gene expression profiling of human decidual macrophages: evidence for immunosuppressive phenotype. *PLoS ONE* 3: e2078, 2008.
66. Kalkunte, S., Lai, Z, Tewari, N., Chichester, C., Romero, R., and Padbury, J, and **Sharma, S.** *In vitro* and *in vivo* evidence for lack of endovascular remodeling by third trimester trophoblasts. *Placenta*, 29: 871-878, 2008.
67. Kalkunte, S., Chichester, C., Sentman, C., Romero, R., and **Sharma, S.** Evolution of non-cytotoxic uterine Natural Killer (uNK) cells. *Am J Reprod Immunol*, 59: 445-432, 2008.
68. Tewari, N., Kalkunte, S., Thaxton, J., and **Sharma, S.** Polychlorinated biphenyls (PCBs) and female reproductive health: An enigmatic paradigm. *ISSRF*, 345-361, 2008.
69. Kalkunte, S., Wira, C., Sentman, C, and **Sharma, S.** VEGF C facilitates immune tolerance and endovascular activity of human uterine NK cells at the maternal-fetal interface. *J Immunol*, 182: 4085-4092, 2009.
70. Murphy, S., Hanna, N.N., Fast, L., Shaw, S.K., Berg, G., Padbury, G., Romero, R., and **Sharma, S.** Evidence for participation of uterine NK cells in the mechanisms responsible for spontaneous preterm labor and birth. *Am J Ob Gyn*, 200: 308e1-308e9 2009.
71. Lash, L. E., **Sharma, S.**, and others. Immunology of placenta. *IFPA Report, Placenta*, 2009.
72. Tewari, N., Kalkunte, S., and **Sharma, S.** The water channel aquaporin 1 is a novel molecular target of polychlorinated biphenyls for in utero anomalies. *J Biol Chem*, 284: 15224-15232, 2009.

73. Thaxton, J. E., Romero, R., and **Sharma, S.** TLR-9 activation coupled to IL-10 deficiency induces adverse pregnancy outcomes. *J Immunol*, 183: 1144-1154, 2009.
74. Kalkunte, S., Lai, Z., Norris, W., Pietras, L., Tewari, N., Boij, R., Neubeck, S., Markert, U., and **Sharma, S.** Novel approaches for mechanistic understanding and predicting preeclampsia. *J Reprod Immunol*, 83: 134-138, 2009.
75. McGowan, E.C., Kostadinov, S., McLean, K., Venturini, D., Romero, R., Laptook, A.R., and **Sharma, S.** Placental IL-10 dysregulation and association with bronchopulmonary dysplasia risk. *Pediatric Res*, 66: 455-460, 2009.
76. Bayraktarm M., Peltier, M., Vetrano, A., Arita, Y., Gurzenda, E., Joseph, A., Kazzaz, A., and **Sharma, S.** IL-10 modulates placental responses to TLR ligands. *Am J Reprod Immunol*, 62: 390-399, 2009.
77. **Sharma, S.**, Stabila, J., Pietras, L., Singh, A. R., McGonnigal, B., Ernerudh, J., Matthiesen, L., and Padbury, J. F. Haplotype-dependent differential activation of the human IL-10 gene promoter in macrophages and trophoblasts: Implications for placental IL-10 deficiency and pregnancy complications. *Am J Reprod Immunol*, 64: 179-187, 2010.
78. **Sharma, S.**, Norris, W., and Kalkunte, S. Beyond the threshold: an etiological bridge between hypoxia and immunity in preeclampsia. *J Reprod Immunol*, 85: 112-126, 2010.
79. Thaxton, J. and **Sharma, S.** Interleukin-10: A multi-faceted agent of pregnancy. *Am J Reprod Immunol*, 63: 482-491, 2010.
80. Kalkunte, S., Boij, R., Norris, W., Friedman, J., Lai, Z., Kurtis, J., Ham, K-H., Boij, R., Padbury, J., Matthiesen, L., and **Sharma, S.** Serum-based mouse model for preeclampsia and establishment of in vitro predictive assay. *Am J Pathol*, 177: 2387-2398, 2010.
81. Lai, Z., Kalkunte, S, and **Sharma, S.** IL-10 is critical for modulating hypoxia-induced preeclampsia-like disease in pregnant mice. *Hypertension*, 57: 505-514, 2011.
82. Robbins, J. C., Marsit, C.J., Padbury, J.F., and **Sharma, S.** Endocrine disruptors, environmental oxygen, epigenetics, and pregnancy. *Frontiers in Bioscience*, 3: 690-700, 2011.
83. Kalkunte, S., Nevers, T, Norris, W. and **Sharma, S.** Vascular IL-10: A protective role in preeclampsia. *J Reprod Immunol*, 88: 165-169, 2011.
84. Norris, W., Nevers, T., **Sharma, S.** and Kalkunte, S. hCG, Preeclampsia and Regulatory T cells. *Placenta*, 32 Suppl 2-S182-185, 2011.
85. Thaxton, J., Nevers, T., and **Sharma, S.** TLR-mediated preterm birth in response to pathogenic agents. *Infect Dis Obstet Gynecol*, doi: 10.1155/2010/378472. 2011.

86. Kurtis J. D., Higashi, A., Wu, H. W., Gundogan, F., McDonald, E. A., **Sharma, S.**, PondTor, S., Jarilla, B., Sagliba, M. J., Gonjal, A., Olveda, R., Acosta, L., and Friedman, J. F. Maternal Scistosomiasis japonica is associated with maternal, placental, and fetal inflammation. *Infect Immun*, 79: 1254-1261, 2011.
87. Hawwa, R.L., Hokenson, M.A, Wang, Y., Huang, Z., **Sharma, S.**, and Sanchez-Esteban, J. Differential expression of MMP-2 and MMP-9 and their inhibitors in fetal lung cells exposed to mechanical stretch: regulation by IL-10. *Lung*. 189: 341-349, 2011.
88. Hawwa, R.L., Hokenson, M.A., Huang, Z., **Sharma, S.**, and Sanchez-Esteban, J. IL-10 inhibits inflammatory cytokines released by fetal mouse lung fibroblasts exposed to mechanical stretch. *Pediatr Pulmonol*. 46: 640-649, 2011.
89. Nevers, T., Kalkunte S., and **Sharma, S.** Uterine regulatory T cells, IL-10 and hypertension. *Am J Reprod Immunol*. 66 Suppl 1: 88-92, 2011.
90. Padua, M.B., Lynch, V.J., Alvarez, N.V., Garthwaite, M.A., Golos, T.G., Bazer, F.W., Kalkunte, S., **Sharma, S.**, Wagner, G.P., Hansen, P.J., ACP5 (Uteroferrin): Phylogeny of an ancient and conserved gene expressed in the endometrium of mammals. *Biol Reprod*, 86: 123, 2012.
91. Uzun, A., Laliberte, A., Parker, J., Andrew, C., Winterrowd, E., **Sharma, S.**, Istrail, S., and Padbury, J.F. dbPTB: a database for preterm birth. Database, 2012; doi:10.1093/database/bar069
92. Uzun, A., **Sharma, S.**, and Padbury, J. A bioinformatics approach to preterm birth. *Am J Reprod Immunol*, 67: 273-277, 2012.
93. Matthiesen, L., Kalkunte, S., and **Sharma, S.** Multiple pregnancy failures: An immunological approach. *Am J Reprod Immunol*, 67: 334-340, 2012.
94. Sadowska, G.B., Threlkeld, S.W., Fkangini, A., Sharma, S., and Stonestreet, B. Ontogeny and the effects of in utero brain ischemia on interleukin-1 β and interleukin-6 protein expression in ovine cerebral cortex and white matter. *Int J Dev Neurosci*, 30: 457-463, 2012.
95. Hokensen, M.A., Wang, Y., Hawwa, R.L., Huang, Z., **Sharma, S.** and Sanchez-Esteban, J. Reduced IL-10 production in fetal type II epithelial cells exposed to mechanical stretch is mediated via activation of IL-6-SOCS3 signaling pathway. *PLoS One*, 8: e59598, 2013.
96. Chen, X., Threlkeld, S.W., Cummings, E.E., Sadowska, G.B., Lim, Y.P., Padbury, J.F., **Sharma, S.**, and Stonestreet, B. In-vitro validation of cytokine neutralizing antibodies by testing with ovine mononuclear splenocytes. *J Comp Pathol*, 148: 252-258, 2013.
97. Kalkunte, S., Neubeck, S., Norris, W., Kostadinov, S., Hoang, D.V., Ahmed, A, Shaikh, Z., Padbury, J., Berg, G., Olofsson, A., Markert, U., and **Sharma, S.** Transthyretin is

- dysregulated in preeclampsia and protects against the onset of disease in mice. *Am J Pathol*, 183: 1-12, 2013.
98. Thaxton, J., Saito, S., and **Sharma, S.** NKG2D Blockade inhibits poly(I:C)-triggered fetal loss in wild type but not IL-10^{-/-} mice. *J Immunol*, 190: 3639-3647, 2013.
 99. McDonald, E., Kurtis, J., Acosta, L., Gundogan, F., **Sharma, S.**, Pond-Tor, S., Hai-Wei, W., and Friedman, J. Schistosome egg antigens elicit a pro-inflammatory response by trophoblast cells of the human placenta. *Infection and Immunity*, 81: 704-712, 2013.
 100. Qin, X., Shan, B., Wang, M., Zhu, Q., **Sharma, S.**, Wu, J., and Lin, Y. Differential Effects of CpG-TLR9 Axis on Pregnancy Outcome in Non-obese Diabetic Mice and Wild-type Controls. *Fertility and Sterility*, 99: 1759-1767, 2013.
 101. Freitag, N., Tirado-Gonzalez, I., Barrientos, G., Herse, F., Thijssen, V.L., Weeden-Fekejaer, S.M., Schulz, H., Wallukat, G., Klapp, B.F., Nevers, T., **Sharma, S.**, Dechend, R., and Blois, S.M. Interfering with Gal-1-mediated angiogenesis contributes to the pathogenesis of preeclampsia. *Proc Natl Acad Sci USA* 110: 11451-11456, 2013.
 102. Quin, X., Liu, X., Shan, B., Shi, L., **Sharma, S.**, Wu, J., and Lin, Y. Inhibition of eIF5A results in aberrant uterine natural killer cell function and embryo loss in mice. *Am J Reprod Immunol* 71: 229-240, 2014.
 103. Lin, Y., Liu, X., Shan, B., Wu, J., **Sharma, S.**, and Sun, Y. Prevention of CpG-induced pregnancy disruption by adoptive transfer of in vitro-induced regulatory T cells. *PLoS One* 9: e94702, 2014.
 104. **Sharma, S.** Orchestrating the Organizers: Catechol-O-methyltransferase and endothelial nitric oxide synthase stress in preeclampsia. *Reprod Sci* 21: 442-444, 2014.
 105. **Sharma, S.** Natural Killer cells and regulatory T cells in early pregnancy loss. *Int J Dev Biol* 58: 219-229, 2014.
 106. Cheng, S., Nakashima, A., and **Sharma, S.** Understanding pre-eclampsia using Alzheimer's etiology: An intriguing viewpoint. *Am J Reprod Immunol* 75:372-381, 2016
 107. Cheng, S. and **Sharma, S.** Preeclampsia and health risks later in life: an immunological view. *Semin Immunopathol* 38:699-708, 2016.
 108. Shah, B.A., Miglioni, A., Kurihara, I., **Sharma, S.**, Lim, Y-P., and Padbury, J. Inter-alpha inhibitor protein distinguishes necrotizing enterocolitis from spontaneous intestinal perforation. *J Pediatr* 180:135-140.e1, 2016.
 109. Kalkunte, S., Huang, Z., Lippe, E., Kumar, S., Robertson, L., and **Sharma, S.** Polychlorinated biphenyls target the Notch/Dll and VEGF R2 signaling pathways in the mouse placenta and human trophoblast cells. *Nature Scientific Reports* 7:39885, 2017.

110. Blois, S.M., Freitag, N., Tirado-Gonzalez, I., Cheng, S., Heimesaat, M.M., Bereswill, S, Rose, M., Conrad, M.L., Barrientos, G., and **Sharma, S.** NK-cell-derived IL-10 is critical for DC-NK cell dialogue at the maternal-fetal interface. *Nature Scientific Reports*, 7(1): 2189, 2017.
111. Nakashima, A., **Sharma, S.**, and Saito, S. The role of autophagy in oocytogenesis, embryogenesis, implantation and pathophysiology of preeclampsia. *J Ob Gyn Res*, 2017.
112. Andolf, E., Sydsjo, G., Blad, M., Berg, G., and **Sharma, S.** Hypertensive disorders in pregnancy and later dementia: A Swedish National Study. *Acta Ob Gyn Scand*, 96: 464-471, 2017.
113. Nakashima A, Aoki T, Cheng S, **Sharma S**, Saito, S. Autophagy regulation in preeclampsia: Pros and Cons. *J Reprod Immunol* 123: 17-23, 2017.
114. Tong M, Cheng SB, Chen Q, DeSousa J, Stone PR, James JL, Chamley L, **Sharma S.** Aggregated transthyretin is specifically packaged into placental nano-vesicles in preeclampsia. *Nature Scientific Reports* 7(1): 6694, 2017.
115. Cheng S, Davis S, Sharma S. Maternal fetal cross-talk through cell-free fetal DNA, telomere shortening, microchimerism and inflammation. *Am J Reprod Immunol* (In Press), 2018.
116. Nakashima A, Cheng S, Fierce J, Yoshimori T, Huber WJ, Padbury JF, Sadovsky Y, Saito S, and **Sharma S.** Evidence for lysosomal biogenesis proteome defects and impaired autophagy in preeclampsia. *Nature Communications* (Revised), 2018.
117. Nevers T, Youngblood Y, Krueger P, Hughes B, Werner E, Ahmad R, **Sharma S.** Regulatory T cells acquire PD-1 expression and exhausted phenotype in gestational diabetes mellitus and may serve as a predictor of the disease. *Nature Medicine* (submitted), 2018.

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. New Series*, 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. Fuller, et al. Raven Press p. 47-88, 1988.
3. Gupta, R.C., **Sharma, S.**, Earley, K., Nesnow, S. ³²P-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., Shrayar, 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. The Physiological and Pathological Effects of Cytokines (Wiley-Liss, Inc.) pp 117-122, 1990.

5. **Sharma, S.** Human B cell growth factor-12kD (BCGF-12kD) in the Guidebook to Cytokines and Their Receptors ed., Nicolas Nicola, Oxford University Press, pp97-99, 1994.
6. **Sharma, S.** and Murphy, S. IL-10 and Pregnancy. Ed. Gil Mor, "Immunology 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.
8. Kalkunte, S., Padbury, J. F., and **Sharma, S.** The Immunological basis of placental function and diseases: The placenta, fetal membranes, and umbilical cord. Avery's Diseases of Newborn, 9th edition, Ed. Devaskar, S., 2010.
9. **Sharma, S.** Natural killer cells and regulatory T cells in early pregnancy loss. Implantation and Stem cells, Ed. Soares, M. The International Journal of Developmental Biology. 2014.
10. **Sharma, S.** Pregnancy Paradox: Could Your Mother Reject you? In Molecular Medicine: Bench to Bedside and Beyond. Eds. SK Gupta and NK Lohiya, published by ISSRF, 2018, p 49-56

INVITED PRESENTATIONS

DOMESTIC:

1. University of Southern California, Los Angeles, 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 23rd Annual American Society for Reproductive Immunology Meeting at Yale, New Haven, CT (2003)
18. University of Florida, Gainesville, 2004
19. University of Medicine and Dentistry, New Brunswick, NJ, 2004
20. Chair, Roundtable Discussion on Reproductive Immunology, American Society of Reproductive Medicine Annual Meeting, Philadelphia, 2004,
21. Organizing Chair and Speaker, 25th 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.
26. Invited speaker, Perinatal Conference, Women and Infants Hospital Providence, RI, "From Bench (Kilguss) to Bedside (W&I): Yes it may be possible to predict adverse pregnancy outcomes." October 4, 2006.
27. Invited speaker, Pediatric Colloquium, Department of Pediatrics, Brown University, "Genetic Stress and Toxicant-Induced Pregnancy Disruption." February 2007.
28. Invited speaker, Introduction to Faculty, MCB Graduate Program, Brown University, "Immunology of Pregnancy", September, 2007.
29. Invited speaker, NUTMEG Conference 2007, Woods Hole, MA. "PCB as inducers of premature birth: Association with genetic stress, angiogenesis and aquaporins". October 15, 2007.
30. Invited speaker, University of Kentucky, "PCBs as angiogenesis and term pregnancy disruptors: New mechanistic pathways based on aquaporins and angiogenic factors". November 5, 2007.
31. Invited speaker, Cardiovascular Multi Data Club, Group, Brown University, "'Hypertension disorder of pregnancy: Serum-based diagnosis and a humanized mouse model". December 12, 2007.
32. Invited Speaker, Pediatric Annual Retreat, Women and Infants Hospital, Human pregnancy disorders: Novel animal models for enigmatic conditions. March, 2008.
33. Chair, Session on Reproductive, developmental and cardiovascular effects of PCBs, Fifth PCB Workshop, May 18-22, 2008, Iowa City.
34. Invited Speaker, Fifth PCB Workshop, Iowa City, "Pregnancy and angiogenic disruption by PCBs", May 18-22, 2008.
35. Invited Speaker, Department of Pediatrics, Winthrop University Hospital, Mineola, NY, June 5, 2008
36. Invited Speaker, 28th Annual Meeting of American Society of Reproductive Immunology, "Angiogenic regulation of uterine NK cells and preeclampsia", Chicago, June 10-14, 2008.
37. Invited Speaker, Pediatric Colloquium, Women and Infants Hospital, "Latest news on preeclampsia", September 19, 2008.

38. Invited Speaker, New England Perinatal Conference, Chatham, Cape Cod, “VEGF C facilitates immune tolerance endovascular activity of uterine NK cells at the maternal-fetal interface, October 6-7, 2008.
39. Invited Speaker, Reproductive Biology Seminar Series, Women & Infants Hospital, January, 2009
40. Invited Speaker, Reproductive Biology Task Force, Brown University, March 30, 2009
41. Invited Speaker, Department of Medicine, Women and Infants Hospital, “Serum-based diagnosis and in vivo models for preeclampsia. May 26, 2009.
42. Chair and invited speaker, Post-graduate course, ASRI meeting, June 5-6, 2009, Orlando, FL.
43. Invited Speaker: 2009 Annual Meeting of the NIEHS Superfund Research Program, Columbia University, New York, NY, November 4, 2009.
43. Invited Speaker: Department of Ob/Gyn grand rounds, West Virginia University Medical School, Morgantown, November 12, 2009. Novel diagnostic and mechanistic approaches for preeclampsia
44. Invited Speaker: Institute of Maternal-Fetal Biology, Kansas University Medical School, April 6-7, 2010. Serum based analysis provides a blueprint for in vitro and in vivo models of preeclampsia.
45. Invited Speaker: Rosalind Franklin University of Medicine and Science, Chicago. “Serum-based analysis provides a blueprint for in vitro and in vivo models of preeclampsia” April 20, 2010
46. Invited Speaker: 30th Annual Meeting for Reproductive Immunology, Nemacon Woodlands Resort, Farmington, PA. “Comparative animal models of IUGR/pre-term birth. Mouse models for studying preeclampsia and preterm birth”, May 17, 2010
47. Invited Speaker: 30th Annual Meeting for Reproductive Immunology, Nemacon Woodlands Resorts, Farmington, PA. “The present and future 30 years of reproductive immunology: A personal statement”, May 18, 2010.
48. Invited Speaker: Department of Obstetrics and Gynecology, Washington University, St. Louis, “Novel animal models and approaches for preeclampsia”, April, 2011.
49. Keynote Speaker: Mead Johnson Perinatal Conference, Chatham, Cape Cod. Novel mechanisms and treatment modalities for preeclampsia. October, 2011.
50. Organizer and Speaker: First Clinical Reproductive Immunology Conference of ASRI, Providence, RI, November, 2011.
51. Invited Speaker: Department of Pediatrics, Women and Infants Hospital Brown University, Perinatal conference, “Preeclampsia and beyond”, January 2012.
52. Invited Speaker: Department of Pediatrics, Women and Infants Hospital Brown University, Pediatric Colloquium, “Novel approaches for gestational diabetes”, March, 2012.
53. Invited Speaker: The Annual SGI meeting, San Diego; Placenta Association of Americas Satellite meeting, “Human chorionic gonadotrophin inhibits onset of preeclampsia in a “humanized” mouse model and replenishes uterine regulatory T cells”, March, 2012.
54. Invited Speaker: Department of Pediatrics, Winthrop University Hospital, Mineola, New York, “Novel approaches and biomarkers for gestational diabetes”, August 10, 2012
55. Invited Speaker: The Rhode Island Hospital’s Alzheimer’s Disease and Memory Disorders Clinic, Providence, RI, “Transthyretin: An emerging link between pregnancy complication and AD”, August 29, 2012.
56. Invited Speaker, Florida International University, Miami, “Novel concept for the pathogenesis of preeclampsia”, April 4-8, 2013.

57. Invited Speaker and Chair, Annual Meeting of the American Society for Reproductive Immunology, “Transthyretin is dysregulated in preeclampsia: A novel concept”, May 31, 2013.
58. Invited Speaker, Mucosal Immunology meeting, Penn State University, University Park, “Toleregenic mediators and role of regulatory T cells in the uterus”, June 4-6, 2013.
59. Invited Speaker, Exclusive Tox Talx Retreat on Preeclampsia organized by Dr. James Roberts, Ralston White Retreat, San Francisco, June 22-June 25, 2013.
60. Invited Speaker, NICHD-sponsored conference on Gestational Diabetes, “Gestational Diabetes and regulatory T cells: A link between exhausted phenotype and risk of disease”, Washington, DC, October 27-28, 2013
61. Invited Speaker, Perinatal Research Society Annual Meeting, Itasca, IL, “Novel concepts for the pathogenesis of preeclampsia”, September 20-22, 2013.
62. Invited Speaker, Johns Hopkins Medical School, “Novel mechanistic/therapeutic options for preeclampsia, Baltimore, January 15, 2014
63. Invited Speaker, Annual Meeting of the American Society for Reproductive Immunology, GDM and regulatory T cells: A regulatory link between exhausted phenotype and disease risk, June 2-5, 2014.
64. Invited Speaker, Pediatric Colloquium Seminar, Women and Infants Hospital, Providence, RI, “Preeclampsia: Mechanistic similarities to Alzheimer’s disease”, September 7, 2014.
65. Invited Speaker, The eighth international PCB workshop, Woods Hole, MA, “Pregnancy disruption and anti-angiogenic effects of polychlorinated biphenyls”, October 5-9, 2014.
66. Invited Speaker, University of Iowa, Iowa City, “PCBs induce adverse pregnancy outcomes and impair angiogenesis: *In vivo* and *in vitro* studies”, November 6, 2014.
67. Invited Speaker, Brown University, Department of Pediatrics, “Autophagy, Exosomes and Preeclampsia: How Connected are They?, September 4, 2015
68. Raymond O. Berry Memorial Lecture Speaker, Texas A & M University, College Station, TX, “Orchestrating the regulators: Gestational diabetes mellitus (GDM) disease risk and exhausted phenotype of regulatory T cells, November 20, 2015.
69. Invited Speaker, Shire, MA, “Preeclampsia and Alzheimer’s Disease: Focus on Common Mechanistic and Functional Tools” December 23, 2015.
70. Invited Speaker, Johns Hopkins Medical Institute, Baltimore, “Understanding preeclampsia using Alzheimer’s insights”, September 21, 2016.
71. Invited Speaker, Brown University, Department of Pediatrics, Grand Rounds, “Novel concepts and findings on preeclampsia”, June 2017.
72. Invited speaker, Department of Pediatrics, Brown University-Women and Infants Hospital, “CTE and tauopathy-like symptoms in preeclampsia”, September 2017.
73. Invited Speaker, The Barron Lecture, The D. H. Barron Reproductive & Perinatal Biology Research Program and the Perinatal Outcome Research Center, University of Florida, Gainesville, Florida, “Novel Concepts of Tauopathy and Protein Toxicity in Preeclampsia: Mechanistic Similarities with Alzheimer’s Disease and CTE”, March 14, 2018.
74. Invited Speaker, Grand Rounds, Department of OB/GYN, University of Florida, Gainesville, Florida, “Gestational Diabetes Mellitus: New Concepts and Therapeutic Options” March 16, 2018.

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. 11th 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.
19. Invited Speaker, Varanasi India, "Role of NK cells in predicting pregnancy success in the IVF clinics" November 23-26, 2006.
20. Invited Speaker, Guru Nanak Dev University, India "All of in utero life is an immune fascination" December 5-6, 2006.
21. Invited Speaker, 17th Annual Meeting of ISSRF, New Delhi, India "Reproductive Consequences in Response to Environmental Toxicants: A Mouse Model for Adverse Pregnancy Outcomes within the World Trade Center Disaster Area", February 2007.
22. Chief Guest Lecture, National Science Day, "Planet earth and toxic invaders: Future of human procreation and health", Guru Nanak University, Amritsar, India, March 2007.
23. Debater, Annual American Society for Reproductive Immunology Meeting, "Do environmental toxicants cause adverse pregnancy outcome?", Toronto, Canada, May 14-17, 2007.
24. Invited speaker, International Society for Immunology of Reproduction Conference, "Non-cytotoxic uterine NK cells: Novel pathways involving angiogenesis", Opajtia, Croatia, June, 2007.
25. Invited Speaker, International Symposium on Gonadotropins, All India Institute of Medical Sciences, New Delhi, India, February, 6-9, 2008.
26. Invited Speaker and Co-Chair, International Symposium on Genetics, Development and Health in the Omics Age, Guru Nanak Dev University, Amritsar, India, February, 18-20, 2008.
27. Invited Speaker, VIth European Congress of Reproductive Immunology, Moscow, Russia, "Human pregnancy disorders: novel animal models to study great enigmas in reproductive biology", June 30-July 3, 2008.
28. Invited Speaker, and Co-Organizer, Berzilius Symposium on "Reproductive Biology,

- Infections, and Autoimmunity”, Linkoping, Sweden, September 4-6, 2008.
29. Invited Speaker and Chair, “Immunology of Placentation”, IFPA meeting, Saggau Castle, Austria, September 10-13, 2008.
 30. Invited Speaker, “Bio-immunoregulatory Mechanisms Associated with Reproductive Organs: Relevance in Fertility and in Sexually Transmitted Infections”, New Delhi, India, February 9-13, 2009.
 31. Invited Speaker: European Society for Reproductive Immunology Meeting, Marathon, Greece, September 17-20, 2009. Serum-based diagnostic and mechanistic approaches for preeclampsia.
 32. Invited Speaker: University of Campinas, Brazil, October 27-28, 2009. Immune programming of adverse pregnancy outcomes.
 33. Invited Speaker: 2nd Symposium of Reproductive Immunology, Rio De Janeiro, Brazil, October 29-31, 2009. Diagnostic and mechanistic approaches for preeclampsia.
 34. Invited Speaker: International Conference on Reproductive Health, Jaipur, India, February 8-10, 2010. hCG beyond first trimester: A therapeutic modality for preeclampsia.
 35. Invited Speaker: Frederic Shiller University, Jena, Germany, April 12-13, 2010. Serum based new approaches for in vitro and in vivo models of preeclampsia.
 35. Invited Speaker: Colloque de Cytokine, Le Croisic, France, May 9-12, 2010 “IL-10: A critical cytokine in Pregnancy”
 36. Invited Speaker: International Congress of Reproductive Immunology, Cairns, Australia, August 15-19, 2010. Mouse model of preeclampsia: role of IL-10.
 37. Invited Speaker: 6th International Workshop on PCBs, Visby, Sweden May 30-June 2, 2010 “PCBs target aquaporins at the maternal-fetal interface and induce anti-angiogenesis and preterm birth”
 38. Invited Speaker: V Seminars on Maternal-Fetal Interface, Basic and Clinical Biology of Reproduction, October 15-16, 2010 Sao Paulo, Brazil “ A mouse model hypoxia-induced preeclampsia: a critical role of IL-10 in limiting the onset of disease”
 39. Invited Speaker: Second International conference on Reproductive Immunology, Shanghai, China, “Placental Suceptibility to hypoxia and consequences for preeclampsia”, November, 2010.
 40. Invited Speaker: International Federation of Placenta Associations Meeting, Santiago, Chile October 19-22, 2010 “hCG, Regulatory T cells, and Preeclampsia”
 41. Invited Speaker: European Society for Reproductive Immunology, November 10-13, 2010 Munich, Germany “Predicting Preeclampsia”
 42. Invited Speaker and Chair: Reproductive Medicine and Diseases: International Conference on Frontiers in Reproductive Biotechnology, February 9-11, 2011, Karnal, India. Novel mechanisms and models for preeclampsia.
 43. Invited Speaker and Co-Organizer: A Marcus Wallenberg International Symposium “Immunology at the maternal-fetal interface: Basic science and Clinical applications”, Linkoping, Sweden, July, 2011.
 44. Invited speaker: Conference on Maternal-Fetal Interactions, University of Sao Paulo, Brazil, “Immune programming of gestational diabetes”, November, 2011.
 45. Invited Speaker and Co-Sponsor: First Latin American ASRI Satellite Symposium, “Novel approaches to preeclampsia” , Buenos Aires, Argentina, November, 2011.
 46. Invited Speaker and International Advisor: International Conference on Reproductive Health with Emphasis on Strategies for Family Planning, “Preeclampsia and beyond: A possible link between pregnancy and Alzheimer’s disease”, New Delhi, India, February, 2012.
 47. Invited Speaker: Joint ASRI-ESRI Annual meeting, Hamburg, Germany, Post-Graduate Course, “Regulatory T cells in gestational diabetes”, May 29, 2012.
 48. Invited Speaker: Department of Obstetrics and Gynecology, Renji Hospital, School of Medicine,

- Shanghai Jiao Tong University, Shanghai, China, “Immune programming of gestational diabetes”, June 29, 2012.
49. Invited Speaker and Session Chair: World Congress on Ovulation Induction and Ovarian Stimulation Protocols, Goa, India, “From implantation to pregnancy and beyond: Role of a novel protein”, September 15, 2012.
 50. Invited Speaker and Session Chair: SLIMP-Latin American Symposium on Maternal-Fetal Interaction and Placenta, Iguassu Falls, Brazil, Exhausted regulatory T cells and gestational diabetes mellitus , February 14-21, 2013.
 51. Invited Speaker and Session Chair: International conference on Repromics-Omics in reproduction, ISSRF meeting, Trivandrum, India, hCG and novel approaches for the pathogenesis and drug screening in preeclampsia, February 7-9, 2013.
 52. Invited Speaker, Conference on Advances in Reproductive Research, Kingston, Ontario, Novel Mechanistic/diagnostic options for preeclampsia, July 20, 2013.
 53. Invited Speaker and Session Chair, The 3rd International Conference on Reproductive Immunology, Shanghai, China, Immune Programming of Gestational Diabetes, September 27-30.
 54. Invited Keynote Speaker, Conference on Study of Hypertension in Pregnancy, Toyama, Japan, Novel Mechanistic and Therapeutic options for preeclampsia, October 2- 5, 2013.
 55. Invited Speaker and Session Chair, 24th Annual meeting of Indian Society for the Study of Reproduction and Fertility with a Focus on Reproductive Health: Issues and Strategies Under Changing Climate Scenario, Bareilly, India, Diabetes in Pregnancy, February 6-8, 2014.
 56. Invited Speaker, Department of Pathology, McMaster Immunology Research Center, McMaster University, Hamilton, Canada, “Protein misfolding and aggregation: A novel concept in preeclampsia:”, April 2, 2014.
 57. Invited Speaker, University of Jena, Jena, Germany, “Novel concepts in preeclampsia: Protein misfolding and aggregation”, September 29, 2014.
 58. Invited Speaker and Member of International Organizing Committee, Indian Society for the Study of Reproduction and Fertility (ISSRF), Mumbai, India, February 9-11, 2015.
 59. Invited Speaker, International Congress on Embryo Implantation & Pregnancy, New Delhi, India, March 9-11, 2015.
 60. Invited Speaker, Congress for International Society for Immunology of Reproduction, Erfurt, Germany, “Understanding Preeclampsia using Alzheimer’s etiology”, June 22-26, 2016.
 61. Invited Speaker, The 4th International Summit Forum on Reproductive Immunology-Shanghai, “Regulatory T cells in pregnancy: Viral infection and diabetes models”, December 9-11, 2016.
 62. Invited Speaker, ISSRF meeting, New Delhi, India, “Predictive models in IVF pregnancies”, February, 2017.
 63. Keynote Speaker, 5th International Summit on Reproductive Immunology, Shanghai, China, “Regulatory T cells in normal and adverse pregnancy outcomes”, October, 2017.

RECENT GRANTS

Recent Research Support

1 P30 GM114750

NIH

S. Sharma (PI/PD)

“COBRE for Perinatal Biology Type III”

Period: 04/01/2015-06/31/2017

The major goals of this project are to increase our understanding of cardiopulmonary development,

immune programming of pregnancy, and to help young investigators in their research endeavors through pilot project mechanism. **Because of funding of a new P20 multimillion dollar grant as the PI, Dr. Sharma relinquished the PI/PD position of this grant in late 2017.**

1P20 GM121298-01

NIH

S. Sharma (PI/PD)

“COBRE for Reproductive Health”

Period: 04/01/17-3/31/22

The major goals of this Center of Biomedical Research Excellence for Reproductive Health are to establish a Center for Women’s Reproductive Health. The projects focus on preterm birth, preeclampsia, and IVF pregnancies.

DEANS AWARD

Brown University

Role: Principal Investigator

Protein misfolding and aggregation in preeclampsia, a devastating pregnancy complication

Period: 2015-2018

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

Immunopathology, Pathobiology Graduate Program, 2008-2009

Faculty on Parade, Pathobiology Graduate Program, 2009

Introduction to Faculty, MCB Graduate program, 2009

Visiting scientists/clinicians:

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
2008	Boiz Roland, MD, Jonkoping, Sweden
2009	Mira Servin, Medical Student, Linkoping, Seden
2009	Charlotte Hermansson, Medical Student, Linkoping, Sweden
2011	Leif Matthiesen, MD, PhD, Linkoping, Sweden
2012	Sandra Blois, PhD, Berlin, Germany
2013-2015	Akitoshi Nakashima, MD, PhD, Toyama, Japan

Post-graduate and graduate students who have completed their training in the Sharma lab: 11 Ph.D. Students, 14 Post-Doctoral Fellows, 7 Clinical Fellows

Current post-graduate and graduate students: 6

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 and Junior Faculty:

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 Endocrinology

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

Elizabeth McGowan, M.D., Division of Neonatology

Stefan Kostadinov, M.D., Department of Pathology,

David Woo, M.D., Division of Neonatology

Nasreen Maari, MD, Department of Neonatology, Current

Jamie Fierce, MD, Neonatology Fellow, Current

Warren J Huber, MD, PhD, REI Fellow, Current

Sarah Davis, MD, Assistant Professor, OB/GYN, Current

Seminars in Perinatal Conferences and Pediatric Colloquium

RECENT CONFERENCE ORGANIZATION RESPONSIBILITIES:

Session Chair, 22nd 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, 25th 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, 26th Annual Meeting of American Society for Reproductive Immunology, June 15-17, 2006, Nashville, TN

Member, International Program Committee, Annual Meeting of American Society for Reproductive Immunology, May 14-16, 2007, Toronto, Canada

Co-Chair, International Symposium on Health, Genetics, and Diseases, February 18-20, 2008, Guru Nanak Dev University, Amritsar, India.

Member, International Program Committee, Annual Meeting of American Society for Reproductive Immunology, June 10-14, 2008, Chicago.

Co-Organizer, Berzelius Symposium on Reproductive Biology, Infections and Autoimmunity, September 4-6, 2008, Linkoping, Sweden.

Chair, Post-graduate Course, ASRI 2009 meeting, June 5-9, 2009, Orlando, Florida

President 2011-2012, American Society for Reproductive Immunology

Co-Sponsor, First Latin-American ASRI Satellite Conference, November 10-11, 2011, Buenos Aires, Argentina.

Chair, First Clinical Reproductive Immunology Meeting of ASRI, November 15-18, 2011, Providence, Rhode Island, USA

International Advisor and Speaker, International Conference on Reproductive Health with Emphasis on Strategies for Family Planning, February 19-21, 2012, New Delhi, India.

Presidential Chair, Annual Meeting of the American Society for Reproductive Immunology, June 5-8, 2012, Hamburg, Germany.

Organizing Chair, Annual Meeting of the American Society for Reproductive Immunology, May 28-June 1, 2013, Boston, MA.

Organizing Co-Chair, 36th Annual Meeting of the American Society for Reproductive Immunology, November 12-16, 2016, Baltimore.

Scientific Chair, 38th Annual Meeting of the American Society for Reproductive Immunology, June 28-July 1, 2018, Shanghai, China.