CURRICULUM VITAE
STEPHEN H. GREGORY, PH.D.

PERSONAL INFORMATION

Business Address: Department of Medicine
Rhode Island Hospital and
Brown Medical School
432 Pierre M. Galletti Building
55 Claverick St.
Providence, RI 02903

Telephone: (401) 444-7369

FAX: (401) 444-7524

Email: sgregory@lifespan.org or Stephen_Gregory@Brown.EDU

EDUCATION AND TRAINING

Undergraduate:

9/65-6/69	Ohio University Athens, OH	B.S. - Zoology (6/69)

Graduate:

9/69-12/71	West Virginia University Medical Center Morgantown, WV	M.S. - Medical Microbiology (5/72) (Dr. Bill E. Kirk, advisor)
9/72-9/76	St. Louis University School of Medicine St. Louis, MO	Ph.D. - Medical Microbiology (5/77) (Dr. Subir K. Bose, advisor)

Postdoctoral:

9/76 - 8/78	NIH Bethesda, MD	Staff Fellow Immunology (Dr. Milton Kern, PI)
9/78 - 8/80	NIH Bethesda, MD	Senior Staff Fellow Immunology (Dr. Milton, Kern, PI)

ACADEMIC APPOINTMENTS AND POSITIONS

8/80 - 9/88	Marquette University Milwaukee, WI	Assistant Professor of Microbiology. Department of Basic Sciences
10/88 - 6/94	University of Pittsburgh Pittsburgh, PA	Assistant Professor of Medicine Department of Medicine
7/94 - 3/99	University of Pittsburgh Pittsburgh, PA	Associate Professor of Medicine Department of Medicine
6/98 - 3/99	University of Pittsburgh Pittsburgh, PA	Faculty; Graduate Program in Molecular Virology and Microbiology
3/99 - present	Rhode Island Hospital and Brown Medical School (joint appointment) Providence, RI	Associate Professor of Medicine (Research) Department of Medicine
10/99 - present	Brown Medical School	Faculty; Graduate Program in Pathobiology

MEMBERSHIPS IN PROFESSIONAL SCIENTIFIC SOCIETIES: American Association of Immunologists; American Society for Microbiology; Society of Leukocyte Biology

OTHER APPOINTMENTS (current): Associate Editor: *Journal of Immunology*; **Rhode Island Hospital:** IACUC; **Panel Member:** NIH Vaccine Study Section ZRG1 IMM-G 12B; **Ad hoc Reviewer:** *Cytokine, Cellular Immunology, Infection and Immunity, Journal of Leukocyte Biology, Immunity, Journal of Infectious Diseases, Hepatology*

PUBLICATIONS (Peer reviewed)

1. **Gregory SH**, Kumari HL, Lakshmi V, Bose SK: Glycolytic enzyme activities in murine sarcoma virus-transformed cultures of Balb 3T3. Role of culture density. Arch Biochem Biophys 175:644-653, 1976.
2. **Gregory SH**, Bose SK: Density-dependent changes in hexose transport, glycolytic enzyme levels and glycolytic rate in uninfected and murine sarcoma virus-transformed rat kidney cells. Exp Cell Res 110:387-397, 1977.
3. Zimmerman DH, **Gregory SH**, Kern M: Differentiation of lymphoid cells; The preferential binding of the lipid A moiety of lipopolysaccharide to B lymphocyte populations. J Immunol 119:1018-1023, 1977.
4. **Gregory SH**, Kern M: Adenosine and adenine nucleotides are mitogenic for mouse thymocytes. Biochem Biophys Res Comm 83:1111-1116, 1978.
5. **Gregory SH**, Kern M: The heterogeneous distribution of 5'-nucleotidase among rabbit lymphocytes. J Immunol 123:1078-1082, 1979.
6. **Gregory SH**, Bose SK: Glycolytic enzyme activities in malignant cells grown *in vitro* and *in vivo*. Cancer Lett 7:319-324, 1979.
7. **Gregory SH**, Zimmerman DH, Kern M: The lipid A moiety of lipopolysaccharide is specifically bound to B cell subpopulations of responder and nonresponder animals. J Immunol 125:102-107, 1980.
8. Gollapudi S, **Gregory SH**, Kern M: A new phenotypic marker for lipopolysaccharide responsiveness. Infect Immun 29:1202-1204, 1980.
9. **Gregory SH**, Zimmerman DH, Kern M: 125I-Lipid A binding by individual macrophage cells: Cell purification, culture, and autoradiographic analysis on a single surface. Anal Biochem 107:246-250, 1980.
10. **Gregory SH**, Kern M: Mitogenic response of T cell subclasses to agarose-linked and to free ribonucleotides. Immunol 42:451-457, 1981.

11. **Gregory SH**: Nonspecific activation of the immune response and the pathogenesis of chronic adult periodontitis. Compend Contin Educ Dent VII:96-105, 1986.
12. **Gregory SH**: Endotoxin-stimulated mononuclear phagocytes secrete soluble factors with bone-resorbing activity. J Periodont Res 23:7-12, 1988.
13. **Gregory SH**: Substratum-dependent proliferation and survival of bone marrow-derived mononuclear phagocytes. J Leuk Biol 43:67-79, 1988.
14. **Gregory SH**: The viability of mononuclear phagocytes *in vitro* is diminished by the interaction of cells with serum proteins bound to the culture substratum. Immunol Letters 20:155-162, 1989.
15. **Gregory SH**, Wing EJ: Accessory function of Kupffer cells in the antigen-specific blastogenic response of an L3T4$^+$ T lymphocyte clone to *Listeria monocytogenes*. Infect Immun 58:2313-2319, 1990.
16. Cooper MH, **Gregory SH**, Thomson AW, Fung JJ, Starzl TE, Wing EJ: Evaluation of the influence of FK506, rapamycin, and cyclosporin on processing and presentation of particulate antigen by macrophages: Assessment of a drug "carry-over" effect. Transpl Proc 23:2957-2958, 1991.
17. **Gregory SH**, Magee DM, Wing EJ: The role of colony-stimulating factors in host defenses. Proc Soc Exp Biol Med 197:349-360, 1991.
18. **Gregory SH**, Wing EJ, Tweardy DJ, Shadduck RK, Lin H-S: Primary listerial infections are exacerbated in mice administered neutralizing antibody to macrophage colony-stimulating factor. J Immunol 149:188-193, 1992.
19. **Gregory SH**, Barczynski LK, Wing EJ: Effector function of hepatocytes and Kupffer cells in the resolution of systemic bacterial infections. J Leuk Biol 51:421-424, 1992.
20. **Gregory SH**, Wing EJ, Hoffman RA, and Simmons RL: Reactive nitrogen intermediates suppress the primary immunologic response to *Listeria*. J Immunol 150:2901-2909, 1993.
21. **Gregory SH**, Wing EJ: IFN-gamma inhibits the replication of *Listeria monocytogenes* in hepatocytes. J Immunol 151:1401-1409, 1993.
22. **Gregory SH**, Wing EJ: Macrophage colony-stimulating factor and the enhanced immigration of monocytes are essential in primary, by not secondary, host defenses to *Listeria*. J Infect Dis 168:934-942, 1993.
23. **Gregory SH**, Sagnimeni AJ, Wing EJ: Arginine analogues suppress antigen-specific and -nonspecific T lymphocyte proliferation. Cell Immunol 153:527-532, 1994.
24. Cooper MH, **Gregory SH**, Starzl TE, Wing EJ: Rapamycin but not FK506 inhibits the proliferation of mononuclear phagocytes induced by colony-stimulating factors. Transplantation 57:433-439, 1994.
25. Jiang X, **Gregory SH**, Wing EJ: Hepatocytes can serve as accessory cells in the response of immune T lymphocytes to heat-killed *Listeria*. Infect. Immun. 63:926-933, 1995.
26. **Gregory SH**, Sagnimeni AJ, Wing EJ: Bacteria in the bloodstream are trapped in the liver and killed by immigrating neutrophils. J Immunol 157:2514-2520, 1996.
27. **Gregory SH**, Sagnimeni AJ, Wing EJ: Expression of the *inlAB* operon by *Listeria monocytogenes* is not required for entry into hepatic cells *in vivo*. Infect Immun 64:3983-3986, 1996.
28. **Gregory SH**, Jiang X, Wing EJ: Lymphokine-activated killer cells lyse *Listeria*-infected hepatocytes and produce elevated quantities of IFN-γ. J Infect Dis 174:1073-1079, 1996.
29. Jiang X, **Gregory SH**, Wing EJ: Immune CD8$^+$ T lymphocytes lyse *Listeria*-infected hepatocytes by a classical MHC class I-restricted mechanism. J Immunol 158:287-293, 1997.
30. **Gregory SH**, Sagnimeni AJ, Wing EJ: Internalin B promotes the replication of *Listeria monocytogenes* in mouse hepatocytes. Infect Immun 65:5137-5141, 1997.
31. Bouwer HGA, Bai A, Forman J, **Gregory SH**, Wing EJ, Barry RA, Hinrichs DJ: *Listeria monocytogenes*-infected hepatocytes are targets of major histocompatibility complex class Ib-restricted antilisterial cytotoxic T lymphocytes. Infect Immun 66:2814-2817, 1998.
32. **Gregory SH**, Wing EJ, Danowski KL, van Rooijen N, Dyer KF, Tweardy, DJ: IL-6 produced by Kupffer cells induces STAT protein activation in hepatocytes early during the course of systemic listerial infections. J Immunol 160:6056-6061, 1998.
33. Jensen ER, Glass AA, Clark WR, Wing EJ, Miller JF, **Gregory SH**: Fas-dependent cell-mediated immunity to *Listeria monocytogenes*. Infect Immun 66:4143-4150, 1998.

34. **Gregory SH**, Wing EJ: Neutrophil-Kupffer cell interaction in host defenses to systemic infections. Immunol Today 19:507-510, 1998.
35. Wing EJ, **Gregory SH**: From hot dogs to $CD8^+$ T cells: *Listeria monocytogenes*. Trans Am Clin Climatol Assoc 111, 2000.
36. **Gregory SH**, Liu C-C: $CD8^+$ T cell-mediated response to *Listeria monocytogenes* taken up in the liver and replicating within hepatocytes. Immunol Rev 174: 112-122, 2000.
37. **Gregory SH**, Sagnimeni AJ, Zurowski NB, Thomson AW: Flt3 ligand promotes protective immunity to *Listeria monocytogenes*. Cytokines 13:202-208, 2001.
38. **Gregory SH**, Cousens LP, van Rooijen N, Döpp EA, Carlos TM, Wing EJ: Complementary adhesion molecules promote neutrophil-Kupffer cell interaction and the elimination of bacteria taken up by the liver. J Immunol 168:308-315, 2002.
39. Wing EJ, **Gregory SH**: *Listeria monocytogenes*: Clinical and Experimental Update. J Infect Dis 185:S18-S24, 2002.
40. **Gregory SH**, Wing EJ: Neutrophil-Kupffer cell interaction: a critical component of host defenses to systemic bacterial infections. J Leukoc Biol 72:239-248, 2002.
41. Ayala A, Chung C-S, Lomas JL, Song GY, Doughty LA, **Gregory SH,** Cioffi WG, LeBlanc, B.W., Reichner J, Simms HH, Grutkoski PS. Shock-induced neutrophil mediated priming for acute lung injury following sepsis in the mouse: divergent effects of TLR-4 opposed to combined TLR-4/FasL deficiency. Amer J Pathol 161:2283-2294, 2002.
42. Lomas JL, Chung C-S, Grutkoski PS, LeBlanc BW, Lavigne L, Reichner J, **Gregory SH,** Doughty LA, Cioffi WG, Ayala A. Differential effects of MIP-2 and KC on hemorrhage induced neutrophil priming for lung inflammation: assessment by adoptive transfer in mice. Shock 19:358-365, 2003
43. Wu H, Prince JE, Brayton CF, Shah C, Zeve D, Kaplan SL, **Gregory SH,** Smith CW, Ballantyne CM. Host resistance of CD18 knockout mice against systemic infection with *Listeria monocytogenes*. Infect Immun 71:5986-5993,2003.
44. Gehring S, **Gregory SH,** Kuzushita N, Wands JR. Type I interferon augments DNA-based vaccination against hepatitis C virus infection. J Med Virol 75:249-257, 2004.
45. Wesche-Soldato DE, Chung CS, Lomas-Neira J, Doughty LA, **Gregory SH,** Ayala A. *In vivo* delivery of Caspase 8 or Fas siRNA improves the survival of septic mice. Blood 106:2295-2301, 2005.
46. Harty MW, Huddleston HM, Papa EF, Puthawala M, Tracy AP, Ramm G, Gehring S, **Gregory SH,** Tracy TF, Jr.. Repair following cholestatic liver injury correlates with neutrophil infiltration and matrix metalloproteinase 8 activity. Surgery 138:313-320, 2005.
47. Lomas-Neira J, Chung CS, Perl, M, **Gregory SH,** Biffl W, Ayala A. Role of alveolar macrophage & migrating neutrophils in hemorrhage induced priming for ALI subsequent to septic challenge. Amer J Physiol 290:51-58, 2006.
48. Kuzushita N, **Gregory SH,** Monti NA, Gehring S, Wands JR. Vaccination with protein-transduced dendritic cells elicits a sustained response to hepatitis C viral antigens. Gastroenterology 130:453-464, 2006.
49. Gehring S, Dickson EM, San Martin ME, van Rooijen N, Papa E, Harty M, Tracy TF, Jr., **Gregory SH.** Kupffer cells abrogate cholestatic liver injury in mice. Gastroenterology 130:810-822, 2006.

ABSTRACTS:

1. **Gregory SH**, Bose SK: Enhanced lactate production by transformed rat kidney cells correlated with growth and hexose transport rates not glycolytic enzyme activity. Fed Proc Abst #3492, p. 933, 1977.
2. Zimmerman DH, **Gregory SH**, Kern M: Preferential binding of the lipid A moiety of lipopolysaccharide to bone marrow-derived cells. ASM E167, 1977.
3. Zimmerman DH, **Gregory SH**, Kern M: The preferential binding of the lipid A moiety of lipopolysaccharide to bone marrow-derived cells. Third International Congress of Immunology. Sidney, Australia, 1977.
4. **Gregory SH**, Kern M: Concanavalin A selectively enhances plasma membrane-associated nonspecific phosphodiesterase via a nonmitogenic mechanism. Fed Proc Abst #1536, 1978.

5. **Gregory SH**, Zimmerman DH, Kern M: Lipid A is specifically bound by a subpopulation of immunoglobulin-positive B cells. Fed Proc Abst #2849, p. 807, 1980.
6. **Gregory SH**: Genetic origin of antibody diversity. Marquette University School of Dentistry Faculty Continuing Education, 1981.
7. **Gregory SH**: Characterization of lymphocyte subpopulations capable of binding the lipid A moiety of lipopolysaccharide. Wisconsin Chapter of the Arthritis Foundation. Annual Meeting, Milwaukee, 1984.
8. **Gregory SH**: Immune aspects of periodontal disease. Marquette University Dental Scientific Day, 1985.
9. **Gregory SH**: Immunopathologic component of chronic adult periodontitis. Dental Abst. 31:332, 1986.
10. **Gregory SH**, Kos WL: Bacterial endotoxin-stimulated immune cell populations secrete soluble factors with bone-resorbing activity. American Association for Dental Research, Wisconsin Chapter. Spring Research Symposium, Milwaukee, 1988.
11. **Gregory SH**, Wing EJ: Accessory function of Kupffer cells in T cell blastogenesis. American Society for Biochemistry and Molecular Biology/American Association of Immunologists, New Orleans, LA, 1990.
12. **Gregory SH**, Wing EJ: Immune T lymphocytes modulate the trafficking of monocytes in *Listeria*-infected mice. 30th Interscience Conference on Antimicrobial Agents and Chemotherapy, Atlanta, GA, 1990.
13. **Gregory SH**, Barczynski LK, Wing EJ: Hepatocyte-mediated clearance of bacteria from the bloodstream. Annual Meeting American Association of Immunologists, Atlanta, GA, 1991.
14. **Gregory SH**, Barczynski LK, Wing EJ: Hepatocyte-mediated clearance of bacteria from the bloodstream. 31st Interscience Conference on Antimicrobial Agents and Chemotherapy, Chicago, IL, 1991.
15. Cooper MH, **Gregory SH**, Thomson AW, Fung JJ, Starzl TE, Wing EJ: The effect of FK506 on processing and presentation of particulate antigens by macrophages. First International Conference on FK506, Pittsburgh, PA, 1991.
16. Cooper MH, **Gregory SH**, Thomson AW, Fung JJ, Starzl TE, Wing EJ: FK506 and rapamycin exert different effects on the proliferative response of mononuclear phagocytes to macrophage colony-stimulating factor, Third International Workshop on Cytokines sponsored by The Society of Leukocyte Biology, Italy, 1991.
17. **Gregory SH**, Wing EJ: Arginine metabolites suppress the primary immunological response to *Listeria*. Annual Meeting American Association of Immunologists. Annaheim, CA, 1992
18. **Gregory SH**, Wing EJ: Reactive nitrogen intermediates suppress the primary immunological response to *Listeria*. 32nd Interscience Conference on Antimicrobial Agents and Chemotherapy, Anaheim, CA, 1992.
19. **Gregory SH**, Wing EJ: IFN-γ inhibits the replication of *Listeria monocytogenes* in hepatocytes. Annual Meeting Infectious Diseases Society of America, 1993.
20. Jiang X, **Gregory SH**, Wing EJ: Hepatocytes can serve as accessory cells in the biological response of immune T lymphocytes to listerial antigens. Experimental Biology 94, Anaheim, CA, 1994.
21. Jiang X, **Gregory SH**, Wing EJ: Immune $CD8^+$ T lymphocytes lyse *Listeria*-infected hepatocytes and produce IFN-γ. Experimental Biology 95, Atlanta, GA, 1995.
22. **Gregory SH**, Jiang X, Wing EJ: Lymphokine-activated killer cells lyse *Listeria*-infected hepatocytes and produce increased quantities of IFN-γ. 9th International Congress of Immunology, San Francisco, CA, 1995.
23. **Gregory SH**, Wing EJ: *Listeria* in the bloodstream are trapped in the liver and killed by immigrating neutrophils. American Association of Immunologists Annual Meeting, New Orleans, LA, 1996.
24. Jensen ER, Glass AA, Wing EJ, Miller JF, **Gregory SH**, Clark WR: The fas lytic pathway plays an important role in cell-mediated immunity against *Listeria*. 97th Annual Meeting ASM, Miami Beach, FL, 1997.
25. **Gregory SH**, Sagnimeni AJ, Steptoe RJ, Zurowski N, Thomson AW: Flt3 ligand pretreatment promotes immunity in mice infected with an avirulent, nonimmunogenic strain of *Listeria monocytogenes*. 5th

International Symposium on Dendritic Cells in Fundamental and Clinical Immunology, Pittsburgh, PA, 1998.

26. **Gregory SH**, Wing EJ, Liu CC: Evolution of MHC class I-restricted cytolytic T cells during the course of listerial infection. American Association of Immunologists Annual Meeting, Washington, DC, 1999.
27. Liu CC, **Gregory SH**: Differential involvement of perforin and Fas ligand in the cytolytic activity expressed by $CD8^+$ T cells during the course of listerial infection. American Association of Immunologists Annual Meeting, Washington, DC, 1999.
28. Cousens LP, Wing EJ, Liu C-C, **Gregory SH**: Expression of perforin- and Fas ligand-mediated cytolytic activity by CD8 T cells during infections with *Listeria monocytogenes*. American Association of Immunologists Annual Meeting, Orlando, FL, 2000.
29. Cousens LP, Mott S, Wing EJ, Liu C-C, **Gregory SH**: CD8 T cells shift from perforin- to Fas ligand-mediated cytolysis during primary listeriosis. 11th International Congress of Immunology, Stockholm, Sweden, 2001.
30. **Gregory SH,** van Rooijen N, Wing EJ: Neutrophil-Kupffer cell interaction facilitates innate host defenses to systemic bacterial infections. American Association of Immunologists Annual Meeting, New Orleans, LA, 2002.
31. Gehring S, Kuzushita N, **Gregory SH,** Wands J: Type 1 interferon augments DNA-based vaccination against hepatitis C virus core protein. American Association for the Study of Liver Diseases, 54th Annual Meeting, Boston, MA, October 2003. (Abstract 882)
32. Kuzushita N, Gehring S, **Gregory SH,** Wands J: The use of NS5 protein-transduced dendritic cells as a novel approach for vaccination against hepatitis C virus. American Association for the Study of Liver Diseases, 54th Annual Meeting, Boston, MA, October 2003. (Abstract 874)
33. Wesche D, Chung C-S, **Gregory S,** Ayala A. Fas siRNA knocks down death receptor-mediated apoptosis induced by septic challenge. 11th Annual Rhode Island Hospital Research Celebration, October 2003.
34. Gehring S, San Martin ME, Papa E, Harty M, Tracy TF, **Gregory SH.** Kupffer cell-dependent suppression of liver injury during cholestasis in bile duct ligated mice. Inflammation Symposium, Department of Surgery, Rhode Island Hospital, November 2003.
35. Gehring S, San Martin ME, Papa E, Harty M, Tracy TF, **Gregory SH.** Kupffer cell-dependent abrogation of the liver damage attending obstructive cholestasis. 12th International symposium of cells of the hepatic sinusoid. Bilbao, Spain, September 2004
36. Harty MW, Huddleston HM, Papa EF, Puthawala M, Tracy AP, **Gregory SH,** Tracy TF Jr. Matrix metalloproteinase (MMP) 8 activity and *in situ* localization during liver repair. 12th Annual Rhode Island Hospital Research Celebration, October 2004.
37. Wesche DE, Chung C-S, Lomas-Neira J, Doughty LA, **Gregory SH,** Ayala A. *In vivo* delivery of caspase 8 or Fas siRNA improves the survival of septic mice. 12th Annual Rhode Island Hospital Research Celebration, October 2004.
38. Young EE, Nazareth S, Papa EF, **Gregory SH,** Harty MW, Tracy TF Jr. Neutrophil, MMP8 and TIMP1 distribution during cholestatic liver injury and repair. 13th Annual Rhode Island Hospital Research Celebration, September 2005.
39. Papa EF, Harty MW, Huddleston HM, **Gregory SH,** Tracy TF Jr. Kupffer cell depletion alters collagen degradation, inflammatory cell infiltration and chemokine expression during repair from cholestatic liver injury. 13th Annual Rhode Island Hospital Research Celebration, September 2005.
40. Harty MW, Huddleston HM, Papa EF, **Gregory SH,** Tracy TF Jr. Kupffer cell depletion with gadolinium chloride alters matrix metalloproteinase 8 expression and activity during repair from cholestatic liver injury. 13th Annual Rhode Island Hospital Research Celebration, September 2005.
41. Nazareth S, Young EE, Papa EF, **Gregory SH,** Harty MW, Tracy TF Jr. Discrimination between type I collagenases during liver repair following cholestatic liver injury. 13th Annual Rhode Island Hospital Research Celebration, September 2005.

42. Kuzushita N, **Gregory SH,** Monti NA, Gehring S, Wands J: Protein-transduced dendritic cells as a novel approach for vaccination against hepatitis C virus infections. American Association for the Study of Liver Diseases, 55th Annual Meeting, Boston, MA, October 2004.
43. Gehring S, **Gregory SH,** Aloman C, San Martin ME, Kuzushita N, Wands JR. A novel immunization approach using splenic dendritic cells that have phagocytized HCV-NS5 coated magnetic beads. Keystone Symposium: Dendritic Cells at the Center of Innate and Adaptive Immunity: Eradication of Pathogens and Cancer and Control of Immunopathology. Vancouver, Canada, February 2005.
44. Gehring S, **Gregory SH,** Aloman C, Kuzushita N, Wands JR. Co-administration of non-primed dendritic cells strongly augments cellular and humoral immune responses to an HCV NS5 expressing plasmid. American Association for the Study of Liver Diseases, 55th Annual Meeting, Boston, MA, October 2004.
45. Gehring S, San Martin ME, Wesley JD, Brossay L, **Gregory SH.** CD1d-restricted (NK) T Cells Suppress Cholestatic Liver Injury. 2005 FASEB Meeting, San Diego, CA, April, 2005.
46. Wintermeyer P, Hoffmeister J, Dickson EM, Gehring S, Wesley J, Brossay L, **Gregory SH.** Kupffer cells elicit an NKT cell response and suppress cholestatic liver injury. 2006 FASEB Meeting, Boston, MA, May 2006.
47. Wintermeyer P, Hoffmeister J, Dickson EM, Gehring S, Wesley J, Brossay L, **Gregory SH.** Kupffer cells modulate the response of iNKT cells to post-hepatic cholestasis. 13th International symposium of cells of the hepatic sinusoid. Niigata, Japan, September 2006.

INVITED PRESENTATION

1. Gregory SH: Antimicrobial activity of hepatocytes. Division of Infectious Diseases Research Conference, University of Pittsburgh Medical Center (UPMC). (10/92)
2. Gregory SH: Antimicrobial activity of hepatocytes. Department of Surgery Research Conference, UPMC. (1/93)
3. Gregory SH: Effector function of hepatocytes in host defenses to systemic infections. Division of Infectious Diseases Research Conference, UPMC. (6/94)
4. Gregory SH: Effector function of hepatocytes in host defenses to systemic infections. Department of Surgery Research Conference, UPMC. (9/95)
5. Gregory SH: Bacteria in the bloodstream are trapped in the liver and killed by immigrating neutrophils. Division of Infectious Diseases Research Conference, UPMC. (2/96)
6. Gregory SH: Function of the liver in host resistance to systemic bacterial infections. Department of Microbiology and Immunology, West Virginia University School of Medicine. (11/96)
7. Gregory SH: Neutrophil-Kupffer cell interaction in host defenses to systemic bacterial infections. Division of Infectious Diseases Research Conference, UPMC. (1/98)
8. Gregory SH: Neutrophil-Kupffer cell interaction in host defenses to systemic listerial infections. 98th Annual Meeting ASM, Atlanta, GA, 1998.
9. Gregory SH: Neutrophil-Kupffer cell interaction in host defenses to systemic bacterial infections. Rheumatology Research Seminar, UPMC. (6/98)
10. Gregory SH: Effector function of $CD8^+$ T cells in host defenses to systemic bacterial infections expressed in the liver. Immunopathology Research Seminar, Rhode Island Hospital. (1/00)
11. Gregory SH: Host defenses to systemic infections expressed in the liver. Microbiology and Molecular Immunology Seminar Series, Brown University. (11/9/00)
12. Gregory SH: Neutrophil-Kupffer cell interaction facilitates host defenses to systemic infections. Department of Surgery Research Conference. (12/18/01)
13. Gregory SH: Neutrophil-Kupffer cell interaction: a critical factor in host defenses to systemic bacterial infections. Infectious Disease Conference, Brown University. (5/8/02)
14. Gregory SH: Kupffer cells abrogate cholestatic liver injury. Department of Surgery Research Conference, Rhode Island Hospital. (10/12/04)

GRANT SUPPORT:

Funded (last 3 years)

1. Title: ***Francisella tularensis*: innate resistance to inhalation**
   Role: Principal Investigator — Assignment: R21 AI055657
   Percent Effort: 30% — Support: $200,000/year direct costs
   Granting Agency: NIH/NIAID — Period: 9/15/03 – 09/14/05 (no cost extension until 09/2006)
   Aims: Determine the function of alveolar macrophages in innate host resistance to aerosolized *F. tularensis* using a mouse model.

2. Title: **Neutrophil-macrophage interactions govern liver immunity**
   Role: Principal Investigator — Assignment: 1R01 DK068097-02
   Percent Effort: 30% — Support: $180,000/year direct costs requested
   Granting Agency: NIH/NIDDKD — Period: 03/10/06 – 02/28/11
   Aims: Determine the consequences of neutrophil-Kupffer cell and neutrophil-inflammatory macrophage interactions relevant to innate host defenses to systemic bacterial infections.

3. Title: **A collaborative for vaccine research and development (Anne DeGroot, PI)**
   Role: Co-investigator — Assignment:
   Percent Effort: 5% — Support: $70,000/yr direct costs ($25,000 to Gregory/RIH)
   Granting Agency: Brown University — Period: 4/1/04-3/31/04
   Aims: Create a human MHC class I (HLA-A*0201)/MHC class II (DRB1*0101) double transgenic mouse colony. Vaccinate mice with a DNA construct that encodes immunodominant epitopes derived from *Francisella tularensis* and expressed by A*0201 or DRB1. Assess the humoral and cell mediated responses.

4. Title: **A genome-derived, epitope-driven tularemia vaccine (Anne De Groot, PI)**
   Role: Co-investigator — Assignment: 1 R43 AI058326
   Percent Effort: 15% — Support: $859,773 total costs/2 years ($438,433 direct + indirect costs subcontracted to Gregory/RIH for the 2-year period)
   Granting Agency: NIH/NIAID — Period: 10/01/04-9/30/06
   Aims: Develop a multi-epitope DNA vaccine against aerosolized *Francisella tularensis*

5. Title: **Regulatory mechanisms of acute lung injury: phagocyte apoptosis (Alfred Ayala, PI)**
   Role: Collaborator — Assignment: R01-HL073525
   Percent Effort: 3% — Support: $250,000/year direct costs
   Granting Agency: NIH/NIHLBI — Period: 9/1/03-8/31/07
   Aims: The global objective of this was to determine the contribution of the neutrophil apoptotic response to the development of acute lung injury induced by a salient two-hit model of hemorrhage (priming) followed by subsequent infectious polymicrobial septic challenge (triggering) in the mouse

6. Title: **Differential effects of sepsis on macrophage function (Alfred Ayala, PI)**
   Role: Collaborator — Assignment: R01-GM46354-11
   Percent Effort: 3% — Support: $250,000/year direct costs
   Granting Agency: NIH/GMS — Period: 9/1/03-8/31/07
   Aims: The objectives of this project are to determine how sepsis, as opposed to chronic low dose endotoxin infusion, alters various macrophage, lymphocyte and hepatocyte functional capacities in mice.

7. Title: **Programmed cell death: role in septic immune suppression (Alfred Ayala, PI)**
   Role: Collaborator — Assignment: R01GM053209
   Percent Effort: 1% — Support: $250,000/year direct costs
   Granting Agency: NIH/NIHLBI — Period: 10/01/04-9/30/09
   Aims: Determine the role of Fas ligand induced apoptosis of lymphocytes and macrophages in the aberrant response to septic stimuli and immune/nonimmune cell dysfunction.

Pending

1. Title: **Invariant NKT cells abrogate liver injury**
   Role: Principal Investigator — Assignment: 1R01 DK074560-01
   Percent Effort: 30% — Support: $225,000/year direct costs requested
   Granting Agency: NIH/NIDDKD — Period: 04/01/06 – 03/31/11
   Aims: Determine the mechanisms that underlie iNKT cell-dependent cholestatic liver injury in a mouse model (ligation of the common bile duct).

2. Title: **Generation of non-immunogenic viral vectors (L Marcon, PI)**
   Role: Collaborator — Assignment: R21 AI068505-01A1
   Percent Effort: 3% — Support: $160,467/year direct costs
   Granting Agency: NIH/NIAID — Period: 7/01/06 - 6/30/07
   Aims: This project aims to generate adenoviral vectors with reduced immunogenicity by using a novel approach.

3. Title: **Early Hepatitis C Infection and Immunity in Young Intravenous Drug Users (PT Losikoff, PI)**
   Role: Collaborator — Assignment:
   Percent Effort: 2% — Support: $50,000/year direct costs
   Granting Agency: NIAID — Period: 4/1/06 - 03/31/08
   Aims: Delineate the HCV-specific T cell responses of serological-positive and –negative adolescent drug users exposed to HCV.

4. Title: **Protective efficacy of an anti-core glycolipid LPS vaccine against pneumonic *Francisella tularensis* (SM Opal, PI)**
   Role: Co-investigator — Assignment:
   Percent Effort: 5% — Support:
   Granting Agency: **TRANS-RCE** — Period:
   Aims: Determine the level of protective immunity against pneumonic tularemia (*F. tularemia* LVS) afforded by vaccination with anti-core glycolipid LPS (J5 dLPS/OMP).

UNIVERSITY TEACHING:

Taught general microbiology and immunology to undergraduate biology, nursing and dental hygiene students, and to graduate and postgraduate dental students at Marquette University for the period 9/80 - 8/88. This entailed approximately 40 formal lecture hours and 60 laboratory hours/year; class size ranged from 12 students (immunology taught to postgraduate dental students) to 300-350 students (general microbiology course taught to undergraduate students).

Faculty Facilitator:

1. Host Defenses Course (Freshman Medical Students, UPMC). Spring Semesters 1993 and 1994.
2. Immunology and Inflammation Block (Freshman Medical Students, UPMC). Spring Semesters 1994 - 1998.
3. Molecular Pathogenesis of Infectious Disease (Freshman Medical Students, UPMC). Spring Semesters 1997 and 1998.

4. BIO264. Microbial Pathogenesis: intracellular bacterial pathogens (Brown Pathobiology Graduate Students). Fall Semester 2005.

Lectures and Seminars:

1. Gregory SH: Host defenses to intracellular bacterial pathogens: listeriosis in mice as an experimental model. in IDM 2003, Host Response to Microbial Pathogens (10 graduate students), 10/97.
2. Gregory SH: Humoral immune response. Immunology and Inflammation Block (Freshman Medical Students, UPMC), 2/98.
3. Gregory SH: B cell maturation, activation, differentiation. in BioSci 1760, 2070 Immunology (55 undergraduate students), 10/98.
4. Gregory SH: *Listeria monocytogenes* invasion. in Microbial Pathogenesis (15 graduate students), 10/98.

Supervise postdoctoral research:

1. Langkammer, Thomas G., D.D.S. The effect of lymphokines on bone resorption mediated by mononuclear phagocytes *in vitro*. (Master's Thesis, Marquette University School of Dentistry, 1983).
2. Sahutske, Daniel, D.D.S. Bacterial endotoxin stimulates bone resorption by mononuclear phagocytes. American Dental Association National Convention, Miami, FL, 1986.
3. Cooper, Mark H., M.D. Effects of FK506, rapamycin, and cyclosporin A on the proliferation of bone marrow-derived macrophages. Department of Surgery, University of Pittsburgh Medical Center, 1/1/90 - 7/1/93
4. Xaiosui Jiang, Ph.D. Accessory function of hepatocytes in host defenses to systemic listerial infections. Department of Medicine, University of Pittsburgh Medical Center, 10/1/92 - 8/31/95.
5. Cousens, Leslie P., Ph.D. Factors affecting the evolution and function of cytolytic T cells during the course of infection. Department of Medicine, Rhode Island Hospital and Brown Medical School, 6/99 - 7/01.
6. Kuzushita, Noriyoshi, MD. Immunotherapy and treatment of hepatitis C virus infections using dendritic cells. Department of Medicine, Rhode Island Hospital and Brown Medical School, 10/01 – 12/04.
7. Gehring, Stephan, MD. DNA-based immunization against hepatitis C virus. Department of Medicine, Rhode Island Hospital and Brown Medical School, 06/02 – 06/05.
8. Dickson, Elizabeth, Ph.D. Factors effecting innate and adaptive immunity against pneumonic tularemia. Department of Medicine, Rhode Island Hospital and Brown Medical School, 03/05 – present.
9. Wintermeyer, Philip, MD. iNKT cells suppress cholestatic liver injury. Department of Medicine, Rhode Island Hospital and Brown Medical School, 05/05 – present.