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49. **A. De Maio**, M.P. McCluskey and N. G. Theodorakis. Degradation of hsp70 mRNA in naive and thermotolerant cells after heat shock. Stress of Life. Stress and Adaptation from Molecules to Man, Budapest, Hungary, 1997.
50. **A. De Maio** and M. Fernandez-Cobo. The expression of Cx43 in kidneys increases during inflammation: effect of proinflammatory mediators on the activity of the Cx43 promoter. 1997 International Gap Junction Conference, Key West, Florida, USA. 1997.
51. **A. De Maio** and M. Fernandez-Cobo. Connexin 43 promoter activity is reduced in myoblast cells by administration of TNF. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.
52. M. Fernandez-Cobo and **A. De Maio**. Analysis of connexin 43 promoter in normal rat kidney cells. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.
53. M.P. McCluskey, N. G. Theodorakis and **A. De Maio**. Regulation of hsp70 mRNA stability. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.
54. N. G. Theodorakis and **A. De Maio**. Control of hsp70 expression in thermotolerant cells. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.
55. M.L. Mooney , C.N. Paidas, N. G. Theodorakis and **A. De Maio**. The decline of phosphoenolpyruvate carboxykinase expression during inflammation could be reverted by heat shock pretreatment. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.
56. D. Drujan, F. Dagger and **A. De Maio**. Expression of heat shock genes by macrophages after phagocytosis of *Leishmania mexicana*. Thirty-seventh Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 1997.

57. M. Mendoza-Sagaon, M. F. Kutka, M.A. Talamini, E. J. Hanly, C.A. Gitzelmann, C.N. Paidas and **A. De Maio**. Gene expression of the acute phase proteins during laparoscopic and open cholecystectomy. Society of American Gastrointestinal Endoscopic Surgeons, Seattle, Washington, USA, 1998.
58. R. Moesinger, S. Ahmad, M.A. Talamini, C.A. Gitzelmann, M. Mendoza-Sagaon, M. McCluskey and **A. De Maio**. Expression of acute phase proteins during laparoscopic surgery. Society of American Gastrointestinal Endoscopic Surgeons, Seattle, Washington, USA, 1998.
59. L. Cornivelli and **A. De Maio**. Protection of protein synthesis in thermotolerant cells. interaction of hsp70 with the 40s subunit of ribosomes. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 1998.
60. D. Drujan and **A. De Maio**. Expression of hsp70 is reduced in mouse neuroblastoma cells by a mechanism independent of transcription. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 1998.
61. C. N. Paidas, M. L. Mooney and **A. De Maio**. Heat shock pretreatment accelerates the recovery of mice from an inflammatory condition induced by the administration of bacterial endotoxin. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 1998.
62. N. G. Theodorakis, D. Drujan and **A. De Maio**. The expression of hsp70 is attenuated in thermotolerant human hepatoblastoma cells after heat shock. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 1998.
63. **A. De Maio**, M.L. Mooney, L. Matesic, R.H. Reeves and C.N. Paidas. Genetic contribution to the inflammatory response. Twenty-first Annual Conference on Shock, San Antonio, Texas, USA, 1998.
64. L. Matesic, **A. De Maio** and R.H. Reeves. Combinatorial genotypes produce extreme inflammatory response phenotypes in RI strains. Twelfth Annual International Mouse Genome Conference, 1998.
65. L. Cornivelli, and **A. De Maio**. Interaction of Hsp70 with the 40S ribosomal subunit during translation. FASEB Research Conference, Copper Mountain, Colorado, USA, 1999.
66. J. Sanchez, C.N. Paidas, R.H. Reeves, and **A. De Maio**. Genetic influence on the response to sepsis. Fourth International Shock Congress, Philadelphia, Pennsylvania, USA, 1999.
67. L.E. Matesic, E.L. Niemitz, **A. De Maio** and R.H. Reeves. Mapping of genes that modulate the inflammatory response induced by endotoxin. Fourth International Shock Congress, Philadelphia, Pennsylvania, USA, 1999.

68. E.J. Hanly, M. Mendoza-Sagaon, K. Murata, J.M. Hardacre, M.A. Talamini, and **A. De Maio**. Analysis of the inflammatory response induced by laparoscopic cecal ligation and puncture. Fourth International Shock Congress. Philadelphia, Pennsylvania, USA, 1999.
69. L. Cornivelli, and **A. De Maio**. The interaction of Hsp70 with ribosomes is involved in the protection of protein synthesis during heat shock in stress tolerant cells. Fourth International Shock Congress, Philadelphia, Pennsylvania, USA, 1999.
70. L. Matesic, **A. De Maio** and R.H. Reeves. Analysis of quantitative trait loci involved in inflammation identifies unique phenotypes in recombinant inbred strains. Forty-eight Annual Meeting of The American Society for Human Genetics, Denver, Colorado, 1999.
71. F. D. Stewart, M. Fernandez-Cobo, D. Drujan and **A. De Maio**. Characterization of the Cx43 promoter in rat normal kidney cells. 1999 International Gap Junction Conference, Gwatt, Switzerland. 1999.
72. L. Matesic, E.L. Niemitz, **A. De Maio** and R.H. Reeves. Genetic and functional analysis of QTL that modulate the endotoxin-induced inflammatory response. Thirteenth Annual International Mouse Genome Conference, Philadelphia, Pennsylvania, USA, 1999.
73. N. Arispe, M. Doh and **A. De Maio**. Differential liposome aggregation by two members of the heat shock 70 family of proteins. Biophysical Society, New Orleans, Louisiana, USA, 2000.
74. N. Arispe and **A. De Maio**. Hsc70 forms a stable ion conductive channel in artificial lipid membranes. Molecular Chaperones and the Heat Shock Response, Cold Spring Harbor, New York, USA. 2000.
75. **A. De Maio**, M. Doh and N. Arispe. Differential liposome aggregation by Hsp70 and Hsc70. Molecular Chaperones and the Heat Shock Response, Cold Spring Harbor, New York, USA. 2000.
76. **A. De Maio**, W. B. Fulton, F. D. Stewart, C.N. Paidas and R.H. Reeves. Mapping of genes involved in tumor necrosis factor- α expression during endotoxic shock. American Pediatric Surgical Association, Orlando, Florida, USA, 2000.
77. W. B. Fulton, D. Stewart, C.N. Paidas, R.H. Reeves and **A. De Maio**. Identification of genes modulating the expression of tumor necrosis factor α in mice during endotoxemia. Twenty-third Annual Conference on Shock, Snowbird, Utah, 2000
78. D. Stewart, W. B. Fulton, R.H. Reeves, C.N. Paidas and **A. De Maio**. Genetic and gender components in the expression of tumor necrosis factor α in mice during endotoxemia. Twenty-third Annual Conference on Shock, Snowbird, Utah, 2000

79. D. Stewart, W. B. Fulton, C.N. Paidas, D. Drujan, R.H. Reeves and **A. De Maio**. Genetics contribution to the septic response in a mouse model. The Fifth International Conference on Pediatric Surgery, Colorado Springs, Colorado, USA, 2000.
80. W. B. Fulton, F. D. Stewart, C.N. Paidas, R.H. Reeves, and **A. De Maio**. Mapping genes that modulate the inflammatory response induced by endotoxin. Sixth Conference of the International Endotoxin Society, Paris, France, 2000.
81. F. D. Stewart, H. Trentzsch, W.B. Fulton, C.N. Paidas, and **A. De Maio**. Increase in interleukin 10 plasma levels after administration of estrogen in a mouse model of endotoxemia. Sixty-Second Annual Meeting of the Society of University Surgeons. Residents' Conference. Chicago, Illinois, 2001.
82. V.L. Vega and **A. De Maio**. Genetic Differences in the response to LPS by peritoneal macrophages. Twenty-Fourth Annual Conference on Shock, Marco Island, Florida, 2001.
83. F. D. Stewart, H. Trentzsch and **A. De Maio**. Estrogen enhances circulating IL-10 plasma levels after injection of LPS. Twenty-Fourth Annual Conference on Shock, Marco Island, Florida, 2001.
84. H. Trentzsch, F. D. Stewart, and **A. De Maio**. The effect of sex-steroids in the inflammatory response is genetically modulated. Twenty-Fourth Annual Conference on Shock, Marco Island, Florida, 2001.
85. W. B. Fulton, C.N. Paidas, R. Reeves and **A. De Maio**. Mapping of genes involved in the LPS induced IL-10 expression. Twenty-Fourth Annual Conference on Shock, Marco Island, Florida, 2001.
86. M. Ferlito and **A. De Maio**. Effect of recovery time after heat shock on LPS stimulation. Twenty-Fourth Annual Conference on Shock, Marco Island, Florida, 2001.
87. **A. De Maio**, V. Vega, M. Ferlito, J. Karolat, H. Trentzsch and C.N. Paidas. The effect of heat shock on the inflammatory response. Third International Workshop Molecular Biology of Stress Responses. Mendoza, Argentina. October, 2001.
88. N.J. Arispe, M. Doh and **A. De Maio**. Extracellular interaction of the heat shock protein Hsc70 and Hsp70 with PC12 cells leads to a reduction in viability. Forty-First Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 2001.
89. J. A. Karolat, M. Ferlito and **A. De Maio**. Decreased CD14 cell surface levels after heat shock in mouse macrophage cell line J774. Forty-First Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 2001.
90. V. L. Vega and **A. De Maio**. Geldanamycin blocks cell surface expression of CD14. Forty-First Annual Meeting of the American Society for Cell Biology, Washington, DC, USA. 2001.

91. N. Arispe, M. Doh and **A. De Maio**. Interaction of the heat shock proteins Hsc70 and Hsp70 with artificial and natural membranes is modulated by phosphatidyl serine and nucleotides. Biophysical Society, San Francisco, California, USA, 2002. *Biophysical J.* 2002. 82(1): 619a
92. N. Arispe, J. Karolat, M. Doh and **A. De Maio**. Addition of Hsc70 and Hsp70 to PC12 cells results in a reduction of viability, which depends on the availability of phosphatidyl serine on the cell surface. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 2002.
93. M. Ferlito and **A. De Maio**. The recovery time after heat shock modulates the response to lipopolysaccharide. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 2002.
94. V. Vega and **A. De Maio**. CD14 arrest in the ER results in a reduction of the response to LPS by macrophages. *Molecular Chaperones and the Heat Shock Response*, Cold Spring Harbor, New York, USA. 2002.
95. D.F. Saad, M. Bedri, V.L. Vega, H. Trentzsch, C.N. Paidas and **A. De Maio**. Interleukin 10 is elevated in splenectomized mice injected with endotoxin.. Twenty-Fifth Annual Conference on Shock, Big Sky, Montana, 2002. *Shock* 17:45, 2002.
96. H. Trentzsch, F. D. Stewart, C.N. Paidas and **A. De Maio**. The combination of polymicrobial sepsis and endotoxin results in an inflammatory process that could not be predicted based on the independent insults. Twenty-Fifth Annual Conference on Shock, Big Sky, Montana, 2002. *Shock* 17:47, 2002.
97. V. L. Vega, and **A. De Maio**. Reduced response to LPS by murine macrophages after geldanamycin treatment is due to arrested CD14 within the endoplasmic reticulum. Seventh International Endotoxin Society Conference, Washington, D.C., USA, 2002. *J. Endo. Res.* 8: 180, 2002
98. S. Rodriguez, V. L. Vega, H. Trentzsch, C. N. Paidas, R. H. Reeves and **A. De Maio**. Different levels of TNF- α after administration of LPS are observed in various mouse strains. Seventh International Endotoxin Society Conference, Washington, D.C., USA, 2002. *J. Endo. Res.* 8: 209, 2002.
99. M. Bedri, D.F. Saad, H. Trentzsch, V. L. Vega, C.N. Paidas and **A. De Maio**. Splenectomy results in elevated response to LPS at the level of IL-10. Seventh International Endotoxin Society Conference, Washington, D.C., USA, 2002. *J. Endo. Res.* 8: 210, 2002.
100. V. L. Vega, W. B. Fulton, R. H. Reeves and **A. De Maio**. Abnormal distribution of IL-10 receptor in macrophages derived from C57BL/6J mice correlated with lower response to IL-10. Seventh International Endotoxin Society Conference, Washington, D.C., USA, 2002. *J. Endo. Res.* 8: 210, 2002.

101. M Ferlito and **A. De Maio**. The effect of heat shock on the response to LPS is different between differentiated and non-differentiated human monocytes. Seventh International Endotoxin Society Conference, Washington, D.C., USA, 2002. *J. Endo. Res.* 8: 210, 2002.
102. H. Trentzsch, D.F. Saad and **A. De Maio**. Protective effect of surgical testosterone depletion requires a suitable genetic make up. *Surgical Forum*, 88th Annual Clinical Congress of The American College of Surgeons, San Francisco, California, 2002.
103. V. L. Vega, R. de Cabo, D.K. Ingram and **A. De Maio**. Ageing and caloric restriction diet are confounding factors that alter the response to LPS by peritoneal macrophages from C57BL/6 mice. Twenty-Sixth Annual Conference on Shock, Phoenix, Arizona, USA, 2003. *Shock* 19:26, 2003.
104. M.B. Torres, H. Trentzsch, D.F. Saad, V. Vega and **A. De Maio**. Protection from LPS by castration is associated with heritable trait in A/J mice. Twenty-Sixth Annual Conference on Shock, Phoenix, Arizona, USA, 2003. *Shock* 19:41, 2003.
105. V. L. Vega, D. K. Ecklund and **A. De Maio**. Inhibition of Hsp90 by geldanamycin results in an increase of transferring endocytosis in a macrophage line. First International Congress on Stress Responses in Biology and Medicine, Quebec City, Canada, 2003.
106. V. L. Vega, R. de Cabo, D.K. Ingram and **A. De Maio**. Response to LPS by murine peritoneal macrophages is modulated by age and calorie restricted diet. Workshop on innate immunity and aging. 36th Annual Meeting of the Society for Leukocyte Biology, Philadelphia, PA, USA, 2003.
107. N. Arispe, O. Simakova, M. Doh, J. Diaz and **A. De Maio**. Toxic extracellular interaction of Heat Shock Proteins with cells is mediated by phosphatidylserine. Biophysical Society, Baltimore, Maryland, USA, 2004. *Biophysical J.* 2004.
108. **A. De Maio**, Heiko Trentzsch, Manuel B. Torres. Genetic background conditions: the effect of sex steroids on the inflammatory response. 6th World Congress on Trauma, Shock, Inflammation and Sepsis, Munich, Germany, 2004.
109. M.B. Torres, R.H. Reeves, and **A. De Maio**. Cytokine production during sepsis depends on the severity of the insult and the genetic background. 6th World Congress on Trauma, Shock, Inflammation and Sepsis, Munich, Germany, 2004.
110. V.L. Vega, D.K. Ecklund, and **A. De Maio**. Increase of *E. coli* phagocytosis by macrophages after treatment with geldanamycin. 6th World Congress on Trauma, Shock, Inflammation and Sepsis, Munich, Germany, 2004.

111. T. Frey, V.L. Vega, R.H. Reeves, and **A. De Maio**. Characterization of interleukin 10 receptor distribution on murine macrophages. 6th World Congress on Trauma, Shock, Inflammation and Sepsis, Munich, Germany, 2004.
112. J. M. Fuentes, M.A. Talamini, A. Aurora, T. Edwards, M. B. Torres, E. Hanly, and **A. De Maio**. Impairment of LPS-induced cytokine release in anesthetized mice. 26th Annual Conference on Shock, Halifax, Nova Scotia, Canada, 2004.
113. W.B. Fulton, R.H. Reeves, J. Karolat, M Takeya, and **A. De Maio**. Macrophage scavenger receptor, a candidate gene for differences in the inflammatory response among mouse strains. 26th Annual Conference on Shock, Halifax, Nova Scotia, Canada, 2004.

Research Funding History:

Active

Mechanism of Cytoprotection Induced by Stress Proteins. PI, NIH 4-R01-GM50878-10, 2005-2009, \$765,000 (Direct Cost).

Mouse QTL in Endotoxic Shock. Co-PI (R. Reeves, PI), NIH 4-R01GM62599-2, 2001-2005, \$750,000 (Direct Cost).

Reduced inflammatory response during laparoscopy. Co-PI (M. Talamini, PI), NIH 4-R01 GM62899-1, 2002-2006, \$ 781,567 (Direct Cost).

Experimental animal core for the study of the injury biology by a multidisciplinary research group. PI, Johns Hopkins Fund for Medical Discovery (internal), 2005, \$50,000 (Direct Cost)

Completed

Genetic Contribution to the Stress Response. PI, NIH 4-RO1-GM57317-4, 1999-2004, \$ 770,652 (Direct Cost).

Laparoscopic Splenectomy in a Rodent Model: Further Evaluation of CO2 pneumoperitoneum Biology. Co-PI (Mark A. Talamini, PI), SAGES 2003-2004, \$15,000 (Direct Cost).

Mechanisms of Heat Shock Protection From Inflammation. NIH KO8, Mentor (Charles N. Paidas, PI) 1997-2001, \$ 337,500 (Direct Cost).

Quantitative trait loci mediating endotoxin-induced inflammatory response in mice. Co-PI (Roger H. Reeves, PI), Marshfield Medical Research Foundation, 2000-2001, \$ 25,000 (Total Cost).

Gap Junctions in Regulation of Hepatic Metabolic Response. Co-PI (Mark G. Clemens, PI) Johns Hopkins University Internal Grant, 1992-1993, \$ 10,519 (Total Cost).

Genetic Basis for Multiple Organ Dysfunction Syndrome. Co-PI (Roger H. Reeves, PI) Johns Hopkins University Internal Grant, 1996-1997, \$ 12,000 (Total Cost).

Training Grants:

NIH-NRSA Training Grant (GM16201), Cynthia Gingalewski, M.D., 1993-1995.

NIH-NRSA Training Grant (GM20026), F. Dylan Stewart, M.D., 1999-2000.

Howard Hughes Fellowship, Karthik Balakrishnan (Medical student, JHU), 2003-2004.

Teaching:

Central University of Venezuela, Department of Cell Biology, Caracas, Venezuela, 1992. Graduate course: "Biochemistry of Parasites." Topic: Gene regulation of heat shock proteins.

New Jersey Medical School, Department of Anatomy, Cell Biology and Injury Sciences. Newark, New Jersey, USA, 1997, 1999, 2001, 2003. Graduate course: "Cell Biology of the Host Response to Injury." Topic: Heat shock proteins in sepsis and injury.

Johns Hopkins University School of Medicine, Baltimore, Maryland, USA. Graduate Program in Cellular and Molecular Medicine, 1998-2003. Currents Topics: Molecular mechanisms in the response to injury.

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, 1999. "International course on molecular biology techniques." Topic: Gene regulation and function of heat shock proteins.

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, 1999. Graduate Course: "Molecular basis in the response to injury."

Central University of Venezuela, Institute of Tropical Medicine, Caracas, Venezuela. March 2001. Graduate Course: "Biology of heat shock proteins".

Mentoring:

Kasper Wang, M.D. (Johns Hopkins University, Baltimore, MD, USA); Medical Student, 1992-1993. Regulation of gap junctional gene expression in the liver during acute inflammation. NIH-NRSA Training Grant, 1997-1999, Department of Surgery, Stanford University, CA, USA. Present position: Assistant Professor, University of California at Los Angeles, USA.

Stephen C. Beck, M. S. (Johns Hopkins University, Baltimore, MD, USA); Technician/ Master student, Program of Interdisciplinary Science Studies, Johns Hopkins University, 1992-1994. Stabilization of protein synthesis in thermotolerant cells during heat shock. Present position: Research Assistant, Merck, Philadelphia, PA, USA.

Cynthia Gingalewski, M.D. (University of Syracuse, Syracuse, NY, USA); Postdoctoral Research Fellow, 1993-1995. NIH-NRSA Training Grant (GM16201), 1993-1995. Hepatic cell-cell communication in endotoxic shock. Present position: Associate Professor, University of Massachusetts, Medical Center, Worcester, Massachusetts, USA.

Ute Schäfer, Ph.D.(Max Planck Institut für Molekulare Genetik/Berlin, Germany); Postdoctoral Research Fellow, 1994- 1995. Remote organ response to injury. Present position: Instructor, University of Cologne, Cologne, Germany.

Jay Yang, BA (Johns Hopkins University, Baltimore, MD, USA). Undergraduate Student, 1993-1994. Gene expression during stress.

Henry Tan, M.D. (New York University). Undergraduate Student, 1993-1994 (Johns Hopkins University, Baltimore, MD, USA). Expression of heat shock proteins in different rat organs.

Sara R. Davis-Hayman, Ph.D. (The University of Mississippi Medical Center, Jackson, MS, USA); Postdoctoral Research Fellow, 1995-1997. Structure and function of heat shock proteins. Present position: Postdoctoral Research Fellow, NIH, Bethesda, MD, USA.

Mariana Fernandez-Cobo, Ph.D. (University of Buenos Aires, Buenos Aires, Argentina); Postdoctoral Research Fellow, 1995-1997. Regulation of connexin 43 gene expression. Present position: Laboratory Director, ANLIS “Dr. Carlos G. Malbran”, Buenos Aires, Argentina.

Nicholas G. Theodorakis, Ph.D. (Northwestern University, Chicago, IL, USA); Postdoctoral Research Fellow, 1995-1997. Stability of connexin 32 and Hsp70 mRNA. Present position: Assistant Professor, University of Rochester, Department of Surgery, Rochester, N.Y. USA.

M. Mendoza-Sagaon, MD (Universidad Nacional Autonoma de Mexico, Mexico). Postdoctoral Fellow 1997-present. The stress response during laparoscopy surgery (C. N. Paidas and M.A. Talamini Co-PI). Present position: Chef de Clinique, Service de Chirurgie Pediatrique, Centre Hospitalier Universitaire Vaudoise (CHUV), 1010 Lausanne, Switzerland.

Wakenda Tyler, BA (Millersville University, PA, USA); Medical Student, Johns Hopkins University, Baltimore, MD, USA), 1998. Isolation of recombinant heat shock proteins.

Doreen Drujan, “Licenciado en Biología” (Central University of Venezuela, School of Biology, Caracas, Venezuela); Undergraduate student, 1996-1997. Expression of heat shock genes by macrophages after phagocytosis of *Leishmania mexicana*. Trainee, 1997-1999. Mechanisms of Hsp70 gene regulation. Present position: Laboratory Technician, New York University, Medical School, New York, USA.

Lizbeth Cornivelli, “Licenciado en Biología” (Central University of Venezuela, Caracas, Venezuela), Research Fellow, 1997-2000. Interaction of heat shock proteins with ribosomal subunits. Present position: Research Fellow, Mount Sinai Medical Institution, New York, USA.

Dylan Stewart, MD. (University of Michigan, Michigan, USA), Postdoctoral Research Fellow, 1998-2000. NIH-NRSA Training Grant (GM20026), 1999-2000. Down-regulation of connexin 43 expression during inflammation. Present position: Pediatric Surgery Fellow, Johns Hopkins University School of Medicine, Baltimore , MD, USA.

Nunciada Salma, “Licenciado en Biología” (Central University of Venezuela, School of Biology, Caracas, Venezuela), 1989. Ph.D. candidate (rotation), Central University of Venezuela Faculty of Science, Program in Cell Biology, 1999-2000. Role of heat shock proteins in thermotolerance.

Chad T. Wilson, B.S. (University of Texas, Austin, TX, USA), Medical Student, Johns Hopkins University, Baltimore, MD, USA), 2001. Genetic influence in the response to injury. Present position: Surgical Clinical Fellow (PGY-4), Department of Surgery, Massachusetts General Hospital, Boston, MA, USA.

Jenny Campos, “Licenciado en Biología” (Central University of Venezuela, School of Biology, Caracas, Venezuela), 2000. Ph.D. candidate (rotation), Central University of Venezuela Faculty of Science, Program in Cell Biology, 2001. Role of heat shock proteins in thermotolerance.

Monique Farquharson, B.S. candidate (Virginia Polytechnic Institute and State University, Blacksburg, VA, USA), Minority Summer Internship Program, Johns Hopkins University, Baltimore, MD, USA), 2001. Role of heat shock proteins in the inflammatory response. Present position: Student, Science Program in Microbiology, Thomas Jefferson University.

Mazen Bedri, B.S. (University of Pennsylvania, Philadelphia, PA, USA), Medical Student, Johns Hopkins University, Baltimore, MD, USA), 2001. Genetic influence in the response to injury. Present position: Surgical Clinical Fellow (PGY-1), Department of Surgery, Johns Hopkins University, Baltimore, MD, USA.

Changrakanth Are, M.D. (University of London, UK), Postdoctoral Research Fellow 1999-2001. Comparison of the stress response between laparoscopy and open surgery (M.A. Talamini Co-PI). Present position: Surgical Clinical Fellow, Department of Surgery, Johns Hopkins University, Baltimore, MD, USA.

Heiko Trentzsch, MD (Ludwig-Maximilians University, Munich, Germany), Postdoctoral Research Fellow, 2000-2001. Genetic and gender influence in the response to injury. Present position: Surgical Clinical Fellow (PGY-3), Department of Surgery, Ludwig-Maximilians University, Munich, Germany

Daniel F. Saad, MD. (Medical University of South Carolina, Charleston, South Carolina, USA). Postdoctoral Research Fellow, 2001-2002. Genetic influence in the response to injury. Present position: Pediatric Surgery Fellow, Arkansas Children's Hospital, Little Rock, AK USA.

Silvia Rodriguez, “Licenciado en Farmacia” (University of Alcala, Spain), Trainee, 2001-2002. Genetic influence in the response to injury. Present position: Lilly Pharmaceuticals, Madrid, Spain.

Marissa Riqueros, Undergraduate Student, (Universidad Gallenano Heredia, Lima, Peru), Summer rotation, 2003. Role of heat shock proteins in the inflammatory response.

Sharon L. Bachman, MD. (University of Massachusetts Medical School, Worcester, MA, USA). Postdoctoral Research Fellow, 2001-2003. Stress response during laparoscopic surgery. Present

position: Surgical Clinical Fellow (PGY-5), Department of Surgery, University of Connecticut, Hartford, CT, USA.

Rudy Murillo, B.A. (Baruch College, CUNY), Student of the Post-baccalaureate Research Education Program (PREP). 2002-2003. Interaction of Hsp70 with lipids. Present Position: Medical Student, University of California, San Diego, CA, USA.

Carlo Maullu, Ph.D. (University of Cagliari, Italy), Postdoctoral Research Fellow, 2001-2003. Genetic modulation of the inflammatory response.

Marcella Ferlito, Ph.D. (University of Messina, Italy), Postdoctoral Research Fellow, 2000-2004. Role of heat shock proteins in the inflammatory response. Present Position: Postdoctoral Research Fellow, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD.

Manuel Torres, MD. (University of California, Los Angeles, USA), Postdoctoral Research Fellow, 2002-2004. Genetic influence in the response to injury. Present position: Surgical Clinical Fellow (PGY-5), Department of Surgery, University of Maryland, Baltimore, MD, USA

Diane Ecklund, BA Undergraduate Student, (Johns Hopkins University, Baltimore, MD, USA). 2002-2004. Interaction of heat shock proteins with membranes. Present position: Graduate student, University of Chicago, IL.

Jorg A. Karolat, Ph.D. (Institute of Biochemistry Medical Faculty, University of Cologne, Germany), Postdoctoral Research Fellow, 2000-2002; 2003-2004. Role of heat shock proteins in thermotolerance. Present Position: Postdoctoral Research Fellow, University of South Florida, Tampa, FL.

Eric J. Hanly, BS (University of Wyoming, WY, USA); Medical Student, Johns Hopkins University (Baltimore, MD, USA), 1997-present. Postdoctoral Research Fellow, 2001-present. Comparison of the stress response between laparoscopy and open surgery (M.A. Talamini Co-PI).

Virginia L. Vega, Ph.D. (University of Concepcion, Chile), Postdoctoral Research Fellow, 2000-present. Genetic modulation of the inflammatory response.

Tiffany Frey, B.S. (Pennsylvania State University) Ph.D. candidate, Program in Cellular and Molecular Medicine, Johns Hopkins University (Baltimore, MD, USA), 2003-present. Genetic influence in the response to injury.

Quira Zeidan, "Licenciado en Biología" (Central University of Venezuela, School of Biology, Caracas, Venezuela), 2001. Trainee, 2002-2004. Role of heat shock proteins in thermotolerance. Ph.D. candidate, Department of Biological Chemistry (G. Hart, co-adviser), Johns Hopkins University School of Medicine, Baltimore, MD, USA, 2004-present. Role of o-glycosylation during inflammation.

Karthik Balakrishnan, B.S. (Harvard University, Cambridge MA, USA), Medical Student, Johns Hopkins University (Baltimore, MD, USA) Howard Hughes Fellow), 2003-2004. Intern, University of Seattle, 2005. Mechanisms of Hsp70 mRNA degradation.

James D' Ambola, B.S. (Rutgers University, NJ) Ph.D. candidate (rotation), Program in cellular and Molecular Medicine, 2003. Characterization of Msr1 promoter.

Joseph Fuentes, M.D. (University Autonomous of Guadalajara, Mexico), Postdoctoral Research Fellow, 2003-present. Effect of anesthetics on the inflammatory response.

Uchenna Emeche, B.S. candidate (Johns Hopkins University, MD), 2004-2005. Study of cytokine receptors.

Ian Kaplan, B.S., Ph.D. candidate (rotation), Program in cellular and Molecular Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA, 2005. Genetic influence on the response to injury.

Robert Drummond, B.S. (Morehouse University), M.D./Ph.D. candidate (rotation). Johns Hopkins University School of Medicine, Baltimore, MD, USA, 2005-present. Genetic influence on the response to injury.

Fellows' Awards:

1999. ACS, Committee on Trauma, State of Maryland Residents Competition. The best Basic Science paper: Julie Sanchez, M.D. "Genetic influence on the response to sepsis."

2001. ACS, Committee on Trauma, State of Maryland Residents Competition. The best Basic Science paper: Dylan Stewart, M.D. "The evolving role of sex-differences in the inflammatory response: estrogen enhancement of interleukin-10 plasma levels during endotoxic shock is independent of gender but modulated by genetic background."

2002. ACS, Committee on Trauma, State of Maryland Residents Competition. The best Basic Science paper: Sharon Bachman, M.D. Decreased TNF response to pneumoperitoneum: the role of metabolic versus mechanical effects in a rodent model of endotoxemia

2002. ACS, Committee on Trauma, Region III Residents Competition. The best Basic Science paper: Sharon Bachman, M.D. Decreased TNF response to pneumoperitoneum: the role of metabolic versus mechanical effects in a rodent model of endotoxemia

2003. New Investigator Competition, Twenty-Sixth Annual Conference on Shock, Phoenix, Arizona, USA: V. L. Vega, Ph.D. Ageing and caloric restriction diet are confounding factors that alter the response to LPS by peritoneal macrophages from C57BL/6 mice.

2003. ACS, Committee on Trauma, State of Maryland Residents Competition. Best Basic Science paper: Manuel B. Torres, M.D. "Protection from lethal endotoxic shock after testosterone depletion is linked to chromosome X."

2004. ACS, Committee on Trauma, Region III Residents Competition. Best Basic Science paper: Manuel B. Torres, M.D. "Protection from lethal endotoxic shock after testosterone depletion is linked to chromosome X."

2004. ACS, Committee on Trauma, National Residents Competition, Second Place Basic Science Paper: Manuel B. Torres, M.D. "Protection from lethal endotoxic shock after testosterone depletion is linked to chromosome X."

2004. W. Barry Wood Student Award, Johns Hopkins University School of Medicine: Karthik Balakrishnan. "Post-transcriptional regulation of *Hsp70* expression."

Thesis committees:

Lydia Matesic, Ph.D. candidate, Program in Human Genetics, Johns Hopkins University, 1998-2000 (co-Advisor and reader; Roger H. Reeves, Advisor).

Heiko Trentzsch, Doctor in Medicine, Ludwig-Maximilians University, Munich, Germany (Advisor), 2002. Thesis: Genetic and gender influence in the response to endotoxin.

Tiffany Frey, Ph.D. candidate, Program in cellular and Molecular Medicine, Johns Hopkins University School of Medicine, 2003-present (Advisor). Genetic influence on the response to injury.

Johns Hopkins University Committees:

Committee for the Recruitment of Unrepresented Minorities to Graduate Programs of Johns Hopkins University School of Medicine.

Graduate Program in Cellular and Molecular Medicine, Johns Hopkins University School of Medicine, Policy committee, Coordinator of first year student rotations.

PREP Advisory Board

Editorial Boards:

Shock. 1996-present.

Critical Care Medicine: 2005-present

Referee:

Journals Shock, Hepatology, American Journal of Physiology, FASEB Journal, Genomics, Infection and Immunity, Critical Care Medicine, Inflammatory Research, Journal of Neurochemistry, Surgery, Liver, Investigacion Clinicas, Environmental Research, Journal of Endotoxin Research, Journal of Vascular Surgery, Journal of Surgical Research, Molecular Biology of the Cell, Journal of Infectious Diseases, Journal of Leukocyte Biology, Respiratory Research, Journal of Immunology, Human Genomics, Cellular Physiology and Biochemistry

Grants Department of Veterans Affairs (USA); National Institutes of Health (USA); Health Research Board (Ireland); The Wellcome Trust (England); Swiss National Science Foundation (Switzerland); The Netherlands Organization for Scientific Research (The Netherlands); FONCyT (Argentina).

Scientific Societies:

American Association for the Advancement of Science
American Society for Cell Biology
Cell Stress Society International
International Endotoxin Society
Panamerican Society of Trauma
Shock Society (Council Member)
Society for Advancement of Chicanos and Native Americas in Science (SACNAS)
Society of Critical Care Medicine

Congress and Session Chairs:

3rd International Congress on The Immune Consequences of Trauma, Shock and Sepsis. Mechanisms and Therapeutic Approaches. Munich, Germany. March, 1994. Molecular tools for research in trauma, shock and related areas (Chairman). “Analysis of cellular transcripts” (International invited speaker). Scientific Program Committee.

4th International Congress on The Immune Consequences of Trauma, Shock and Sepsis. Mechanisms and Therapeutic Approaches. Munich, Germany. March, 1997. Molecular and genetic aspects of the inflammatory response (Chairman). “Renal, pulmonary and hepatic response to inflammation. The connexin connection” (International invited speaker). Scientific Program Committee.

20th Annual Conference on Shock. Indian Wells, California, USA. June 1997. Scientific Program Committee. Minisymposium I: Molecular Mechanisms in Shock (Chairman).

XII Panamerican Congress of Trauma, Isla de Margarita, Venezuela, November, 1999. Plenary conference “Systemic response to trauma” (International invited speaker).

5th World Congress on Trauma, Shock, Inflammation and Sepsis. Pathophysiology, Immune Consequences and Therapy. February-March, 2000. Genetic determinants on the inflammatory response (Chairman). Is there a genetic predisposition in the response to injury? (International invited speaker). Scientific Program Committee.

23rd Annual Conference on Shock. Snow Bird, Utah, USA. June 2000. Genetic diversity in the response to canonical inflammatory stimuli. Symposium “Signal transduction and genetic regulation of inflammation.”

86th Annual Clinical Congress of the American College of Surgeons. Chicago, Illinois, October 2000. Molecular Genetic Factors and the Acute Metabolic Stress Response. Postgraduate course “Metabolic Support on the Pediatric Surgical Patient”

3rd International Workshop Molecular Biology of Stress Responses. Mendoza, Argentina. October, 2001. “The heat shock response, heat shock proteins and chaperones: an introduction and a brief overview.” “The effect of heat shock on the inflammatory response.”

25th Annual Conference on Shock. Big Sky, Montana, MT, USA. June 2002. Plenary I: Insights into the mechanisms of burn, sepsis and shock induced organ injury (Chairman).

33rd Critical Care Congress. Orlando, Florida, USA. February 2004. Overview of HSP-70 Biology.

6th World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany, March 2004. Symposium XVIII: Genetic predisposition in the response to injury (Moderator). The analysis of candidate genes that modulate the inflammatory process (Speaker).

6th World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany, March 2004. Genetic background conditions: The effect of sex steroids on the inflammatory response (Speaker).

26th Annual Conference on Shock. Halifax, Nova Scotia, Canada, June 2004. Plenary Session: “Immune Modulation.” Antonio De Maio (Moderator).

5th International Workshop on the Molecular Biology of Stress Responses, Concepcion, Chile, March 2006. Head, Organizing Committee.

Honors:

The Feinberg Graduate School Doctoral Fellowship. 1982-1987.

Selected Presentations:

State University of New York, Health Science Center, Syracuse, N.Y. Department of Surgery, October, 1992. “The heat shock response during injury.”

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, January, 1994. “Changes in gene expression during injury.”

Friedrich-Alexander-Universität. Institut für Mikrobiologie, Biochemie und Genetik. Erlangen, Germany, February, 1994. “Modulation of gene expression of liver and kidneys in response to local and remote injury.”

Dibit-Hospitale San Raffaele. Department of Genetica Molecolare. Milano, Italy, February, 1994. “Mechanisms of translational thermotolerance.”

University of Chicago, Department of Surgery. Chicago, Illinois, May, 1994. “Mechanisms of gene expression regulation in response to organ injury.”

University of Pittsburgh, Medical Center, Division of Critical Care Medicine. Pittsburgh, Pennsylvania, May, 1995. Grand Rounds. "The heat shock response."

Georgetown University, Department of Surgery. Washington, D.C, January, 1996. "Mechanism of thermotolerance mediated by heat shock proteins."

University of Essen, Institute of Anatomy. Essen, Germany, February 1997. "Regulation of connexin 43 expression during inflammation."

University of Milan, Institute of General Pathology. Milan, Italy, March 1997. "Changes in gene expression in liver and kidney during inflammation."

University of Pavia, Department of Genetics. Pavia, Italy, March 1997. "Gene expression in liver and kidney during inflammation."

Stratagene, La Jolla, California, USA, June 1997. "Regulation and function of heat shock proteins."

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, October 1997. "Regulation of heat shock genes."

Instituto de Biomedicina, Facultad de Medicina, Universidad Central de Venezuela, Caracas, Venezuela, October 1997. "Regulation of heat shock genes."

Johns Hopkins University, Division of Pediatric GI, Baltimore, MD, USA, February 1998. "Heat shock proteins. Facts, thoughts, and dreams."

New Jersey Medical School, Department of Surgery, Newark, New Jersey, USA, July 1998. "Molecular and genetic components of the inflammatory response."

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, March 1999. "Genetic component in the response to trauma."

Penn State College of Medicine, Department of Cellular and Molecular Physiology, Hershey, PA, USA, November 2000. "Genetic Determinant in the response to injury."

Universidad Ponticia Catolica de Chile, Santiago, Chile, October 2001. "Genetic contribution to the endotoxic shock."

Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela, October, 2001. "Genetic contribution to the endotoxic shock."

Washington University, Division of Trauma and Critical Care Medicine, St Louis, MI, April 2003. "Genetic contribution to the response to injury."

Université de Montreal, Department of Pathology and cellular Biology, Montreal, Canada, September 2003. "Genetic component in the response of macrophages to LPS."

Johns Hopkins University, Department of Biological Chemistry, April 2004. "Genetic Modulation of the Inflammatory Response."