

Joanne L. Lomas-Neira, MS, PhD

Instructor of Surgery (Research)

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Primary Research Field

Inflammation/Immunology, Acute Lung Injury, Immune dysfunction in critical illness

Education

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| 2006 | Ph. D. in Molecular & Cell Biology, Department of Cell and Molecular Biology, University of Rhode Island, Kingston, RI |
| 1999 | M.S. in Clinical Laboratory Science-Cytopathology, Department of Microbiology, University of Rhode Island, Kingston, RI |
| 1997 | B.S. in Microbiology, University of Rhode Island, Kingston, RI |

Professional Experience

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| 2009-present | Instructor of Surgery (Research) – Div. Surg. Res./ Dept. Surgery, Rhode Island Hospital-Brown Univ. Sch. Med., Providence, RI, U.S.A. |
| 2006-2009 | Post-Doctoral Fellow / Research Associate – Div. Surg. Res./ Dept. Surgery, Rhode Island Hospital-Brown Univ. Sch. Med., Providence, RI, U.S.A. |
| 1999 - 2006 | Senior Research Assistant – Div. Surg. Res./ Dept. Surgery, Rhode Island Hospital-Brown Univ. Sch. Med., Providence, RI, U.S.A. |
| 1998 - 1999 | Research Assistant, Dept. Mol. Cell. Biol. & Biochem., Brown Univ. Sch. Med., Providence, RI |
| 1997 - 1998 | Clinical Intern./ Sch. Cytology, Woman & Infant's Hospital, Providence, RI. |

Awards, Fellowships, Grants

- Soc. Leuko. Biol. (SLB) Travel Award, 2001, 2003, 2004, 2008.
- Finalist in the SLB Presidential Students Awards Competition, 2001.
- Finalist in the Shock Society New Investigator Competition, 2002.
- Amer. Soc. Invest. Pathol. (ASIP) Travel Award, 2003.
- Shock Soc. Travel Award, 2002, 2003, 2004.

- A.D. Sobel- ASIP Education Fund Scholar Award, 2008.
- ASIP-Experimental Pathologist-in-Training 'Merit' Award (EPIT), 2009.

Membership In Societies

American Society of Investigative Pathology

- *ASIP*-Education Committee-member 2009-present

International Cytokine Society

Shock Society

- *Shock Society*-Laboratory Animal Issue Committee-*Shock Society*, member 2009-present
- Society of Leukocyte Biology

Communications/Presentations (Invited)

Local/Regional:

1. Presentation entitled: "In Vivo Silencing (with siRNA) of Pulmonary Expression of MIP-2 vs. KC Results in Divergent Effects on Hemorrhage Induced Neutrophil Mediated Septic Acute Lung Injury" as a part of as a portion of the 12th Annual Hospitals Research Celebration's Young Investigator Award Competition on paper, held at the George Auditorium in the Rhode Island Hospital, Providence, RI, October 27th, 2004.
2. Seminar speaker on topic entitled: "Biomedical Research & the Curious Mind", as a part of 58th Annual Clinical Laboratory Science Convention sponsored by the American Society for Clinical Laboratory Science (ASCLS), held at the Providence Convention Center, Providence, RI, May 8th, 2006.
3. Seminar speaker on topic entitled: TNF- α Priming for the Development of Shock Induced Acute Lung Injury (ALI): Mediation by Local Tissue Not Circulating Cells", as a part of Division of Surgical Research Seminar Series/Department of Surgery, held at the Rhode Island Hospital, Providence, RI, November 6th, 2007
4. Seminar speaker on topic entitled: TNF- α Priming for the Development of Shock Induced Acute Lung Injury (ALI): Mediation by Local Tissue Not Circulating Cells", Brown University Pulmonary Research Conference, at Rhode Island Hospital. November, 2007.

National/International:

1. Speaker in Symposia I entitled: 'Acute Lung Injury: Sepsis'. Presentation entitled: "siRNA and the treatment of acute lung injury/sepsis". As a part of joint British Association for Lung Research, British Inflammation Research Association & British Pharmacology Society spring 2006 meeting at Griton College in Cambridge, England, United Kingdom, April 6, 2006.
2. Oral & Poster presentation in Session #43 (free communications) on 'Cellular Mechanism in Airway Inflammation', presentation entitled: "The Murine Pulmonary Endothelial Cell's Response to Pro-inflammatory Stimuli Associated with Traumatic Shock" at 7th International Congress on the

Immune Consequences of Trauma, Shock and Sepsis, Munich, Germany, March 13-17, 2007

3. Invited seminar/presentation entitled: "TNF- α Priming for the Development of Shock Induced Acute Lung Injury (ALI): Mediation by Local Tissue Not Circulating Cells" at Pfizer Pharmaceuticals, Inc. in Groton, CT, August 17, 2007
4. Oral & Poster presentation as a part of Session: 'Acute and Chronic Lung Injury and Inflammation', presentation entitled: "Endothelial not epithelial-cell expression of TNF-alpha is critical for the development of shock-induced acute lung injury: I.T. vs. I.V. siRNA." at the Experimental Biology conference in San Diego, CA, April 5, 2008.
5. Oral presentation as a part of 'Symposium 1: Leukocytes in Vascular Disease', presentation entitled: "Neutrophils mediate pulmonary endothelial activation (Ang-2 release) during shock/sepsis induced ALI." at the 41st Society of Leukocyte Biology (SLB) meeting held in Denver, CO, November 8, 2008.
6. Oral presentation as a part of Session: 'Pathogenic Mechanisms of Infectious Disease', presentation entitled: "Suppression of Angiopoietin-2 using siRNA following hemorrhagic shock ameliorates acute lung injury in murine shock/sepsis model." at the Experimental Biology conference in New Orleans, LA, April 22, 2009.

Publications

PEER-REVIEWED PUBLICATIONS

1. Joshi, A.R.T., Chung, C.S., Song, G.Y., Lomas, J., Priester, R.A., Ayala, A. 2002. NF-kB activation has tissue specific effects on immune cell apoptosis during polymicrobial sepsis. *Shock* 18:380-386.
2. Ayala, A., Chung, C.S., Lomas, J.L., Song, G.Y., Doughty, L.A., Gregory, S.H., Cioffi, W.G., LeBlanc, B.W., Reichner, J., Simms, H.H., Grutkoski, P.S. 2002. Shock induced neutrophil mediated priming for acute lung injury in mice: divergent effects of TLR-4 and TLR-4/FasL deficiency. *Amer. J. Pathology* 161:2283-2294.
3. Chung, C.S., Song, G.Y., Lomas, J., Simms, H.H., Chaudry, I.H., Ayala, A. 2003. Inhibition of Fas/Fas ligand (FasL) signaling during sepsis has tissue specific effects on macrophage apoptotic and functional capacity. *J. Leukocyte Biol.* 74:344-351.
4. Lomas, J.L., Chung, C.S., Grutkoski, P.S., LeBlanc, B.W., Lavigne, L., Reichner, J., Gregory, S.H., Doughty, L.A., Cioffi, W.G., Ayala, A. 2003. Differential effects of MIP-2 and KC on hemorrhage induced neutrophil priming for lung inflammation: assessment by adoptive cell transfer in mice. *Shock* 19:358-365.

5. Rhee, R.J., Carlton, S., **Lomas, J.L.**, Lane, C., Brossay, L., Ayala, A. 2003. Inhibition of CD1d activation suppresses septic mortality: a role for NK-T cells in septic immune dysfunction. *J. Surg. Res.* 115:74-81.
6. **Lomas-Neira, J.L.**, Chung, C.S., Grutkoski, P.S., Miller, E.J., Ayala, A. 2004. CXCR2 inhibition suppresses hemorrhage induced priming for acute lung injury in mice. *J. Leukoc. Biol.* 76:58-64.
7. Newton, S., Ding, Y., Chung, C.S., Chen, Y., **Lomas-Neira, J.L.**, Ayala, A. 2004. Sepsis induced changes in macrophage co-stimulatory molecule expression: CD86 as a regulator of anti-inflammatory IL-10 response. *Surg. Infect.* 5:375-383.
8. **Lomas-Neira, J.**, Chung, C.S., Grutkoski, P.S., Carlton, S., Dunican, A., Simms, H.H., Cioffi, W.G., Ayala, A. 2005. Divergent roles of the murine neutrophil chemokines in hemorrhage induced priming for acute lung injury. *Cytokine* 31:169-179.
9. **Lomas-Neira, J.L.**, Chung, C.S., Wesche, D.E., Perl, M., Ayala, A. 2005. In vivo gene silencing (with siRNA) of pulmonary expression of MIP-2 vs. KC results in divergent effects on hemorrhage induced neutrophil mediated septic acute lung injury. *J. Leukocyte Biol.* 77:846-853.
10. Wesche, D.E., Chung, C.S., **Lomas-Neira, J.**, Doughty, L.A., Gregory S. H., Ayala, A. 2005. In vivo delivery of caspase 8 or FAS siRNA improves the survival of septic mice. *Blood.* 106:2295-2301.
11. Perl, M., Chung, C.S., **Lomas-Neira, J.**, Rachel, T.M., Biffi, W.L., Cioffi, W.G., Ayala, A. 2005. Silencing of Fas- but not caspase-8 in lung epithelial cells ameliorates experimental acute lung injury. *Amer. J. Pathol.* 167:1545-559.
12. **Lomas-Neira, J.**, Chung, C.S., Perl, M., Gregory, S., Biffi, W., Ayala, A. 2006. Role of alveolar macrophage & migrating neutrophils in hemorrhage induced priming for ALI subsequent to septic challenge. *Amer. J. Physiol.* 290:51-58.
13. Chung, C.S., Watkins, L., Song, G.Y., **Lomas-Neira, J.**, Cahoon, E.V., Cioffi, W.G., Ayala, A. 2006. Deficiency in $\gamma\delta$ T-lymphocytes compromises the ability of mice to survive polymicrobial sepsis. *Amer. J. Physiol.* 291:R1338-1343.
14. Perl, M., Chung, C.S., Perl, U., **Lomas-Neira, J.L.**, De Paepe, M., Cioffi, W.G., Ayala, A. 2007. Fas induced pulmonary apoptosis and inflammation during extrapulmonary acute lung injury. *Amer. J. Resp. & Crit. Care.* 176:591-601.
15. Venet, F., Chung, C.S., Huang, X., **Lomas-Neira, J.**, Chen, Y., Ayala, A. 2009. Indirect lung injury: a role for regulatory T lymphocytes in the development of pulmonary inflammation. *J. Immunol.* (in revision).
16. Perl, M., Chung, C.S., Perl, U., **Lomas-Neira, J.**, Ayala, A. 2009. Therapeutic accessibility of caspase mediated cell death as a key patho-mechanism in indirect acute lung injury. *Crit. Care. Med.* (Submitted).

OTHER PEER-REVIEWED PUBLICATIONS

Reviews:

1. Ayala, A., Lomas, J.L., Grutkoski, P.S., Chung, C.S. 2002. Pathological aspects of apoptosis in severe sepsis and septic shock. *Int. J. Biochem. & Cell Biol.* 35:7-15.
2. Ayala, A., Lomas, J.L., Grutkoski, P.S., Chung, C.S. 2003. Fas-Ligand Mediated Apoptosis in Severe Sepsis and Shock. *Scand. J. Infect. Dis.* 35:593-600.
3. Wesche, D.E., Lomas-Neira, J.L., Perl, M., Jones, L., Chung, C.S., Ayala, A. 2005. The role and regulation of apoptosis in sepsis. *J. Etx. Res.* 11:375-382.
4. Wesche, D.E., Lomas-Neira, J.L., Perl, M., Chung, C.S., Ayala, A. 2005. Leukocyte apoptosis and its significance in sepsis and shock. *J. Leukocyte Biol.* 78:325-337.
5. Lomas-Neira, J., Ayala, A. 2005. Pepducins: an effective means to inhibit G-protein Coupled Receptor Signaling by neutrophils? *Trends in Immunology.* 26:619-621.
6. Lomas-Neira, J.L., Perl, M., Chung, C.S., Ayala, A. 2005. Shock and hemorrhage: An overview of animal models. *Shock* 24 (Suplt. 1):33-39.
7. Huang, X., Venet, F., Lomas-Neira, J.L., Chung, C.S., Ayala, A. 2007. Changes in Dendritic Cell Function in the Immune Response to Sepsis. *Expert Opin. Biol. Ther.* 7:929-938.
8. Lomas-Neira, J.L., Ayala, A. 2007. CXCL2 Polymorphism in Sepsis and ARDS: Pathological Significance Lost in Translation. *Crit. Care Med.* 35:2439-2440.
9. Lomas-Neira, J.L., Chung, C.S., Ayala, A. 2008. RNA interference as a potential therapeutic treatment for inflammation associated lung injury. *Inter. J. CLin. Exp. Med.* 1:154-160.
10. Perl, M., Lomas-Neira, J., Chung, C.S., Ayala, A. 2008. Epithelial Apoptosis and Neutrophil Recruitment in Acute Lung Injury - A Unifying Hypothesis? What we have learned from small interfering RNAs. *Mol. Med.* 14:465-475.
11. Ayala, A., Perl, M., Venet, F., Lomas-Neira, J., Swan, R., Chung, C.S. 2008. Apoptosis in Sepsis: Mechanisms, Clinical Impact and Potential Therapeutic Targets. *Curr. Pharm. Ther.* 14:1853-1859.

Books and Book Chapters:

1. Ayala, A., Wesche-Soldato, D.E., Perl, M., **Lomas-Neira, J.L.**, Swan, R., Chung, C.S. 2007. Novartis Foundation Symposium No. 280 on Sepsis-New Insights, New Therapies. Chapter: Blockade of apoptosis as a rational therapeutic strategy for the treatment of sepsis. Wiley Press Chichester, U.K., pg. 37-52.
2. Wesche-Soldato, D.E., **Lomas-Neira, J.**, Perl, M., Chung, C.S., Ayala, A. 2008. Hydrodynamic Delivery of siRNA in a Mouse Model of Sepsis. Chapter 5 in: Methods in Molecular Biology, volume 442: RNAi: Design and Application. Editors: S. Barik. Human Press Inc., Totowa, NJ, pg 67-73.

Abstracts (Published)

1. Ayala, A., Chung, C.S., Song, G.Y., **Lomas, J.**, Chaudry, I.H. 2000. Apoptosis in polymicrobial sepsis: dysregulation of activation induced apoptotic response. *Shock* 13:(Suplt 1) 111.
2. Chung, C.S., Song, G.Y., **Lomas, J.**, Simms, H.H., Chaudry, I.H., Ayala, A. 2000. Delayed blockade of FasL restores lymphoid immune function, suppresses apoptosis and improves survival in sepsis. *Shock* 13:(Suplt 2) 29.
3. Cahoone, E.V., Chung, C.S., **Lomas, J.**, Ayala, A. 2000. Deficiency in CD8 T-lymphocytes compromises the ability of mice to survive sepsis. *Shock* 13:(Suplt. 2) 11.
4. Ayala, A., Chung, C.S., **Lomas, J.**, Grutkoski, P.S., Doughty, L.A., Cahoone, E.V., Simms, H.H. 2001. Hemorrhagic (HEM) shock serves as a "priming stimulus" for acute lung injury but is not sufficient to "trigger" it alone. *FASEB J* 15:A244.
5. Chung, C.S., Song, G.Y., **Lomas, J.**, Simms, H.H., Chaudry, I.H., Ayala, A. 2001. Inhibition of Fas/Fas ligand (FasL) signaling during sepsis has tissue specific effects on apoptotic and functional capacity. *Surgical Infections* 2:74.
6. Chung, C.S., Song, G.Y., **Lomas, J.**, Wang, W., Ayala, A. 2001. Blockade of Fas/FasL signaling prevents increased intestinal permeability during sepsis. *Shock* 15:(Suplt 1)70.
7. Ayala, A., C.S. Chung, **Lomas, J.**, Grutkoski, P.S., Doughty, L.A., Simms, H.H. 2001. A mouse model of priming for acute lung injury following shock. *Shock* 15:(Suplt 1)82.
8. Doughty, L., Chung, C.S., **Lomas, J.**, Nguyen, K., Biron, C., Ayala, A. 2001. Mechanism of viral potentiation of inflammation: IFN-alpha modulation of the cytokine response to sepsis. *Shock* 15:(Suplt 1)35.
9. **Lomas, J.L.**, Chung, C.S., Song, G.Y., Grutkoski, P.S., Dunican, A.L., Simms, H.H., Ayala, A. 2001. Role of MIP-2 in suppression of neutrophil apoptosis. *Shock* 15:(Suplt 1)74.

10. Watkins, L., Chung, C.S., Song, G.Y., Lomas, J., Cahoone, E.V., Ayala, A. 2001. Deficiency in $\gamma\delta$ T-lymphocytes compromises the ability of mice to survive sepsis. *J. Surg. Res.* 100:282.
11. Lomas, J.L., Chung, C.S., Song, G.Y., Grutkoski, P.S., Dunican, A.L., Simms, H.H. and Ayala, A.. 2001. Mechanisms of hemorrhage (HEM) induced neutrophil priming for acute lung injury (ALI): A role for Mip-2. *J. Leukocyte Biol.* 70:82 (suppl).
12. Ayala, A., C.S. Chung, Lomas, J.L., Doughty, L.A., Grutkoski, P.S. 2002. Differential effect of endotoxin insensitivity and/or FasL deficiency on local pulmonary inflammatory response to sequential shock and septic insult. *FASEB J.* 16:A20.
13. Rhee, R.J., Carlton, S., Chung, C.S., Lomas, J.L., Lane, C., Ayala, A. 2001. NK-T cells as potential contributors to the immune dysfunction seen in sepsis. *FASEB J.* 16:A1228.
14. Lomas, J.L., Chung, C.S., Grutkoski, P.S., Carlton, S., Dunican, A.L., Simms, H.H., Cioffi, W.G., Ayala, A. 2002. Divergent roles of the murine homologues of IL-8 in the pathogenesis of acute lung injury. *Surg. Infect.* 3:78.
15. Rhee, R.J., Carlton, S., Chung, C.S., Lomas, J.L., Ayala, A. 2002. Immune dysfunction in sepsis: the contribution of CD1d mediated NK-T cell activation. *Shock* 17: 44S.
16. Lomas, J.L., Chung, C.S., Grutkoski, P.S., Doughty, L., Ayala, A. 2002. Differential effects of MIP-2 and KC on hemorrhage induced neutrophil priming for lung inflammation. *Shock* 17:21S.
17. Chung, C.S., Song, G.Y., Lomas, J., Grutkoski, P.S., Doughty, L., Ayala, A. 2002. Neutrophil sequestration in lung is a transient event during polymicrobial sepsis. *Shock* 17:30S.
18. Doughty, L., Chung, C., Carlton, S., Grutkoski, P., Lomas, J., Ayala, A. 2002. dsRNA-activated protein kinase (PKR) mediates viral priming of lethality in polymicrobial sepsis. *Shock* 17:30S.
19. Rhee, R.J., Carlton, S., Chung, C., Lomas, J.L., Cioffi, W.G., Ayala, A. 2002. Inhibition of CD1d activation suppresses septic mortality: a role for NK-T cells in septic immune dysfunction. *J. Surg. Res.* 107:268.
20. Chung, C.S., Watkins, L., Song, G.Y., Lomas, J.L., Grutkoski, P.S., Cioffi, W.G., Ayala, A. 2003. Role of gamma-delta T-cells in immunoregulatory effects in sepsis. *Surg. Infect.* 4:97.
21. Lomas, J.L., Chung, C.S., Grutkoski, P.S., Gregory, S.H., Doughty, L.A. Biffl, W.L., Ayala, A. 2003. Hemorrhage induced priming for acute lung injury

resultant from subsequent septic challenge: what is the neutrophil's contribution? *Faseb J.* 17:A245.

22. Ayala, A., Lomas, J.L., Chung, C.S., Gregory, S.H., Doughty, L.A., Grutkoski, P.S. 2003. FasL or Fas gene deficiency potentiates PMN priming for lung inflammation resultant from sequential shock and sepsis *Faseb J.* 17:A655.
23. Chung, C.S., Watkins, L., Song, G.Y., Lomas, J., Grutkoski, P.S., W.G.Cioffi, Ayala, A. 2003. Immunoregulatory effects of gamma-delta T-cells in response to sepsis. *Faseb J.* 17:C319.
24. Lomas, J.L., Chung, C.S., Grutkoski, P.S., Gregory, S.H., Biffi, W.L., Ayala, A. 2003. PMN depletion attenuates lung injury resultant from combined insults of hemorrhage followed by sepsis independent of ICAM-1 expression. *Shock* 19:67A.
25. Lomas-Neira, J.L., Chung, C.S., Grutkoski, P.S., Miller, E.J., Ayala, A. 2003. CXCR2 inhibition suppresses hemorrhage induced priming for ALI. *J. Leuko. Biol.* 74:133 suppl.
26. Ayala, A., Chung, C.S., Wesche, D., Lomas-Niera, J.L. 2004. Extrinsic events in the apoptotic response to sepsis/shock. *Shock* 21:53A.
27. Lomas-Neira, J., Chung, C.S., Wesche, D., Albina, J., Ayala, A. 2004. Hemorrhage induced priming for acute lung injury is abrogated by TNF- α gene deficiency. *FASEB J.*, 18:A1117.
28. Newton, S., Ding, Y., Chung, C.S., Chen, Y., Lomas-Neira, J.L., Cioffi, W.G., Ayala, A. 2004. Sepsis induced changes in macrophage co-stimulatory molecule expression: CD86 as a regulator of anti-inflammatory IL-10 response. *Surg. Infect.* 5:104 (Abst).
29. Wesche, D.E., Chung, C.S., Lomas-Neira, J., Gregory, S.H., Ayala, A. 2004. In vivo delivery of caspase 8 siRNA improves survival of septic mice. *Shock* 21:23 Suppl. 2.
30. Lomas-Neira, J., Chung, C.S., Wesche, D.E., Ayala, A. 2004. Local chemokine suppression reduces shock induced lung injury: in vivo siRNA silencing of pulmonary MIP-2. *Shock* 21:78 Suppl. 2.
31. Ayala, A., Wesche, D.E., Lomas-Neira, J.L., Perl, M., Chung, C.S. 2004. Leukocyte apoptosis and its significance during sepsis. *J. Leukocyte Biol.* 76:20 Suppl.
32. Lomas-Neira, J.L., Chung C.S., Wesche D.E., Perl M., Ayala A. 2004. In vivo Gene Silencing (with siRNA) of Pulmonary Expression of MIP-2 vs. KC Results in Divergent Effects on Hemorrhage Induced Neutrophil Mediated Septic Acute Lung Injury. *J. Leukocyte Biol.* 76:61 Suppl.

33. Ayala, A., Wesche, D.E., **Lomas-Neira, J.J.**, Perl, M., Jones, L., Chung, C.S. 2004. The role and regulation of apoptosis in sepsis. *J. Endotoxin Res.* 10:304.
34. **Lomas-Neira, J.**, Chung, C.S., Perl, M., Chen, Y., Ayala, A. 2005. MIP-2 and KC differentially contribute to the neutrophil activational/phosphoprotein status resultant from hemorrhage. *Shock.* 23:40 Suppl. 3.
35. Perl, M., Chung, C.S., **Lomas-Neira, J.**, Rachel, T.M., Biffi, W.L., Cioffi, W.G., Ayala, A. 2005. Pulmonary instillation of Fas- but not caspase-8 small interfering RNA (siRNA) into lung epithelial cells ameliorates acute lung injury. *Shock.* 23:3 Suppl. 3.
36. **Lomas-Neira, J.**, Chung, C.S., Perl, M., Ayala, A. 2005. Divergent Effects of Murine Chemokines KC and MIP-2 on Phosphorylation Status of Proteins involved in PMN Activation Following Hemorrhage. *J. Leukocyte Biol.* 78:34 suppl.
37. Perl, M., Perl, U., **Lomas-Neira, J.**, van Rooijen, N., Chung, C.S., Ayala, A. 2006; The Myeloid Immune Response In Sepsis: A Case For 'What Doesn't Kill Us Makes Us Stronger'! *Surg. Infect.* 7:190-191.
38. Perl, M., **Lomas-Neira, J.**, Perl, U., Biffi, W.L., Cioffi, W.G., Chung, C.S., Ayala, A. 2006. Contribution of non-apoptotic Fas signaling to the pathology of extrapulmonary acute lung injury. *Shock.* 25:1 suppl
39. **Lomas-Neira, J.**, Chung, C.S., Perl, M., Chen, Y., Ayala, A. 2006. Neutralization of KC and MIP-2: divergent effects on activation pathways in mouse pro-myelocytic cell-line (MPRO)-consistent with mouse blood PMN. *Shock.* 25:29 suppl.
40. Perl, M., Chung, C.S., Perl, U., van Rooijen, N., **Lomas-Neira, J.**, Gregory, S., Ayala, A. 2006. Decreasing neutrophil but not monocyte apoptosis *in vivo* improves septic survival by modulating innate immune functions. *Shock.* 26:4 suppl 1.
41. Perl, M., Chung, C.S., **Lomas-Neira, J.**, Perl, U., Biffi, W.L., Cioffi, W.G., Ayala, A. 2007. Role of lung epithelial cells in Fas mediated inflammation during extra-pulmonary acute lung injury. *Inflam. Res.* 56:S70 suppl. 2
42. Ayala, A., Wesche-Soldato, D.E., Perl, M., **Lomas-Neira, J.L.**, Chung, C.S. 2007. Manipulating apoptosis for therapeutic gain: novel therapeutic approach III, siRNA. *Inflam. Res.* 56:S259 suppl. 2
43. **Lomas-Neira, J.L.**, Wesche-Soldato, D.E., Chung, C.S., Venet, F., Perl, M., Ayala, A. 2007. The Murine Pulmonary Endothelial Cell's Response to Pro-inflammatory Stimuli Associated with Traumatic Shock. *Inflam. Res.* 56:S259 suppl. 2

44. Venet, F., Chung, C.S., Lomas-Neira, J.L., Ayala, A. 2007. Lymphocytes as an anti-apoptotic / anti-inflammatory regulator of extrapulmonary acute lung injury? *Shock* 27:6 suppl. 1
45. Perl, M., Chung, C.S., Perl, U., Lomas-Neira, J.L., Ayala, A. 2007. In vivo silencing of caspase-3 in lung epithelial cells ameliorates extrapulmonary acute lung injury (ALI) induced by hemorrhagic shock & sepsis. *Shock* 27:6 suppl. 1
46. Venet, F., Lomas-Neira, J., Chung, C.S., Ayala, A. 2007. Mechanisms of extrapulmonary acute lung injury: lymphocytes as anti-apoptotic / anti-inflammatory regulators. *J. Leukocyte Biol.* 82:27 suppl.
47. Lomas-Neira, J., Perl, M., Soldato, D., Venet, F., Chung, C.S., Ayala, A. 2007. TNF- α priming for the development of shock induced acute lung injury (ALI) is mediated by local tissue not circulating cells *J. Leukocyte Biol.* 82:30 suppl.
48. Lomas-Neira, J., Perl, M., Soldato, D., Venet, F., Chung, C.S., Ayala, A. 2008. Endothelial not epithelial-cell expression of TNF-alpha is critical for the development of shock-induced acute lung injury: I.T. vs. I.V. siRNA. *FASEB J.* 22:47.12.
49. Venet, F., Lomas-Neira, J., Chen, Y., Chung, C.S., Ayala, A. 2008. Dendritic cells as anti-inflammatory regulators of extra-pulmonary acute lung injury. *FASEB J.* 22:848.9.
50. Casserly, B., Grinnell, K.L., Lomas-Neira, J.L., Chung, C.S., Ayala, A., Rounds, S., Klinger, J.R., Harrington, E.O. 2008. Genetic disruption of protein kinase C δ (PKC δ) reduces sepsis-induced lung injury. *Proc. Amer. Thorac. Soc.* (in press)
51. Venet, F., Lomas-Neira, J., Chen, Y., Chung, C.S., Ayala, A. 2008. Mechanisms of extra-pulmonary acute lung injury: the dendritic cell as a regulator of the macrophage's inflammatory response. *Shock* 29:47 (Suppl. 1).
52. Perl, M., Chung, C.S., Perl, U., Lomas-Neira, J.L., Ayala, A. 2008. Regulation of Inflammatory Mediators through Fas Induced Apoptosis in Indirect Acute Lung Injury (ALI). *Shock* 29:46 (Suppl. 1).
53. Lomas-Neira, J., Venet, F., Chung, C.S., Ayala, A. 2008. Neutrophils mediate pulmonary endothelial activation (Ang-2 release) during shock/sepsis induced ALI. *J. Leukocyte Biol.* 84:36 suppl.
54. Venet, F., Lomas-Neira, J., Huang, X., Chen, Y., Chung, C.S., Ayala, A. 2008. Mechanisms of extra-pulmonary acute lung injury: the dendritic cell as a regulator of macrophage's recruitment and inflammatory response. *J. Leukocyte Biol.* 84:59 suppl.

55. **Lomas-Neira, J., Venet, F., Chung, C.S., Ayala, A.** 2009. Suppression of angiotensin-2 using in vivo siRNA following hemorrhagic shock ameliorates acute lung injury in murine shock/sepsis model. *FASEB J.* 22:439.3

OTHER APPOINTMENTS

Ad Hoc Reviewer

- Critical Care Medicine
- American J. Respiratory & Critical Care Medicine
- PLoS one
- Infection & Immunity
- Immunology
- Shock
- Pharmacogenomics
- Biochimica Biophysica ACTA-Molecular Basis of Disease

Study Section Appointments/Grant Review Panelist

- Grant Application reviewed for the Israel Science Foundation, June 9th, 2006

UNIVERSITY TEACHING ROLES

at Community College of Rhode Island, Warwick, RI:

- Non-majors Introductory Biology, May-July, 2007
- Undergraduate Anatomy, Sept-Oct, 2008

at Brown University/Rhode Island Hospital:

Mentor Student Trainees:

- *Nicholas Carter:* Summer medical student-research experience; Project: "The role of pulmonary endothelial cell (EC) growth factor, Angiotensin-2 (Ang-2), in the development of hemorrhage/sepsis associated (indirect) ALI in mice.", June-August, 2009.

Educational Activities:

at Rhode Island Hospital/ Brown University School of Medicine

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