Supplemental References

S1. Bianchi, M.E., *HMGB1 loves company.* J Leukoc Biol, 2009. **86**(3): p. 573-6.

S2. Kazama, H., et al., *Induction of immunological tolerance by apoptotic cells requires caspase-dependent oxidation of high-mobility group box-1 protein.* Immunity, 2008. **29**(1): p. 21-32.

S3. Yang, H., et al., *Redox modification of cysteine residues regulates the cytokine activity of HMGB1.* Mol Med, 2011.

S4. Yang, H., et al., *A critical cysteine is required for HMGB1 binding to Toll-like receptor 4 and activation of macrophage cytokine release.* Proc Natl Acad Sci U S A, 2010. **107**(26): p. 11942-7.

S5. Andersson, U. and K.J. Tracey, *HMGB1 is a therapeutic target for sterile inflammation and infection.* Annu Rev Immunol, 2011. **29**: p. 139-62.

S6. Yang, H. and K.J. Tracey, *Targeting HMGB1 in inflammation.* Biochim Biophys Acta, 2010. **1799**(1-2): p. 149-56.

S7. Levy, R.M., et al., *Systemic inflammation and remote organ injury following trauma require HMGB1.* Am J Physiol Regul Integr Comp Physiol, 2007. **293**(4): p. R1538-44.

S8. Yang, R., et al., *Anti-HMGB1 neutralizing antibody ameliorates gut barrier dysfunction and improves survival after hemorrhagic shock.* Mol Med, 2006. **12**(4-6): p. 105-14.

S9. Kim, J.Y., et al., *HMGB1 contributes to the development of acute lung injury after hemorrhage.* Am J Physiol Lung Cell Mol Physiol, 2005. **288**(5): p. L958-65.

S10. Gibot, S., et al., *High-mobility group box 1 protein plasma concentrations during septic shock.* Intensive Care Med, 2007. **33**(8): p. 1347-53.

S11. Yang, H., et al., *Reversing established sepsis with antagonists of endogenous high-mobility group box 1.* Proc Natl Acad Sci U S A, 2004. **101**(1): p. 296-301.

S12. Wang, H., et al., *HMGB1 as a late mediator of lethal systemic inflammation.* Am J Respir Crit Care Med, 2001. **164**(10 Pt 1): p. 1768-73.

S13. Wang, H., et al., *HMG-1 as a late mediator of endotoxin lethality in mice.* Science, 1999. **285**(5425): p. 248-51.

S14. Muhammad, S., et al., *The HMGB1 receptor RAGE mediates ischemic brain damage.* J Neurosci, 2008. **28**(46): p. 12023-31.

S15. Liu, K., et al., *Anti-high mobility group box 1 monoclonal antibody ameliorates brain infarction induced by transient ischemia in rats.* FASEB J, 2007. **21**(14): p. 3904-16.

S16. Goldstein, R.S., et al., *Elevated high-mobility group box 1 levels in patients with cerebral and myocardial ischemia.* Shock, 2006. **25**(6): p. 571-4.

S17. Andrassy, M., et al., *High-mobility group box-1 in ischemia-reperfusion injury of the heart.* Circulation, 2008. **117**(25): p. 3216-26.
S18. Ilmakunnas, M., et al., *High mobility group box 1 protein as a marker of hepatocellular injury in human liver transplantation.* Liver Transpl, 2008. **14**(10): p. 1517-25.
S19. Tsung, A., et al., *HMGB1 release induced by liver ischemia involves Toll-like receptor 4 dependent reactive oxygen species production and calcium-mediated signaling.* J Exp Med, 2007. **204**(12): p. 2913-23.
S20. Tsung, A., et al., *The nuclear factor HMGB1 mediates hepatic injury after murine liver ischemia-reperfusion.* J Exp Med, 2005. **201**(7): p. 1135-43.
S21. Schierbeck, H., et al., *Monoclonal anti-HMGB1 antibody protection in two experimental arthritis models.* Mol Med, 2011.
S22. Ostberg, T., et al., *Protective targeting of high mobility group box chromosomal protein 1 in a spontaneous arthritis model.* Arthritis Rheum, 2010. **62**(10): p. 2963-72.
S23. Pisetsky, D.S., H. Erlandsson-Harris, and U. Andersson, *High-mobility group box protein 1 (HMGB1): an alarmin mediating the pathogenesis of rheumatic disease.* Arthritis Res Ther, 2008. **10**(3): p. 209.
S24. Urbonaviciute, V., et al., *Induction of inflammatory and immune responses by HMGB1-nucleosome complexes: implications for the pathogenesis of SLE.* J Exp Med, 2008. **205**(13): p. 3007-18.
S25. Andersson, A., et al., *Pivotal advance: HMGB1 expression in active lesions of human and experimental multiple sclerosis.* J Leukoc Biol, 2008. **84**(5): p. 1248-55.
S26. Zhang, S., et al., *HMGB1, an innate alarmin, in the pathogenesis of type 1 diabetes.* Int J Clin Exp Pathol, 2009. **3**(1): p. 24-38.
S27. Maroso, M., et al., *Toll-like receptor 4 and high-mobility group box-1 are involved in ictogenesis and can be targeted to reduce seizures.* Nat Med, 2010. **16**(4): p. 413-9.
S28. Taguchi, A., et al., *Blockade of RAGE-amphoterin signalling suppresses tumour growth and metastases.* Nature, 2000. **405**(6784): p. 354-60.
S29. Curtin, J.F., et al., *HMGB1 mediates endogenous TLR2 activation and brain tumor regression.* PLoS Med, 2009. **6**(1): p. e10.
S30. Apetoh, L., et al., *Toll-like receptor 4-dependent contribution of the immune system to anticancer chemotherapy and radiotherapy.* Nat Med, 2007. **13**(9): p. 1050-9.
S31. Limana, F., et al., *HMGB1 attenuates cardiac remodelling in the failing heart via enhanced cardiac regeneration and miR-206-mediated inhibition of TIMP-3.* PLoS One, 2011. **6**(6): p. e19845.
S32. Kohno, T., et al., *Role of high-mobility group box 1 protein in post-infarction healing process and left ventricular remodelling.* Cardiovasc Res, 2009. **81**(3): p. 565-73.

S33. Germani, A., F. Limana, and M.C. Capogrossi, *Pivotal advances: high-mobility group box 1 protein--a cytokine with a role in cardiac repair.* J Leukoc Biol, 2007. **81**(1): p. 41-5.
S34. Limana, F., et al., *Exogenous high-mobility group box 1 protein induces myocardial regeneration after infarction via enhanced cardiac C-kit+ cell proliferation and differentiation.* Circ Res, 2005. **97**(8): p. e73-83.
S35. Biscetti, F., et al., *High-mobility group box-1 protein promotes angiogenesis after peripheral ischemia in diabetic mice through a VEGF-dependent mechanism.* Diabetes, 2010. **59**(6): p. 1496-505.
S36. Straino, S., et al., *High-mobility group box 1 protein in human and murine skin: involvement in wound healing.* J Invest Dermatol, 2008. **128**(6): p. 1545-53.
S37. Yang, J., et al., *HMGB1 is a bone-active cytokine.* J Cell Physiol, 2008. **214**(3): p. 730-9.
S38. Taniguchi, N., et al., *Stage-specific secretion of HMGB1 in cartilage regulates endochondral ossification.* Mol Cell Biol, 2007. **27**(16): p. 5650-63.
S39. De Mori, R., et al., *Multiple effects of high mobility group box protein 1 in skeletal muscle regeneration.* Arterioscler Thromb Vasc Biol, 2007. **27**(11): p. 2377-83.
S40. Huttunen, H.J., et al., *Coregulation of neurite outgrowth and cell survival by amphoterin and S100 proteins through receptor for advanced glycation end products (RAGE) activation.* J Biol Chem, 2000. **275**(51): p. 40096-105.
S41. van Zoelen, M.A., et al., *Expression and role of myeloid-related protein-14 in clinical and experimental sepsis.* Am J Respir Crit Care Med, 2009. **180**(11): p. 1098-106.
S42. Vogl, T., et al., *Mrp8 and Mrp14 are endogenous activators of Toll-like receptor 4, promoting lethal, endotoxin-induced shock.* Nat Med, 2007. **13**(9): p. 1042-9.
S43. Wittkowski, H., et al., *Neutrophil-derived S100A12 in acute lung injury and respiratory distress syndrome.* Crit Care Med, 2007. **35**(5): p. 1369-75.
S44. Kikkawa, T., et al., *Significance of measuring S100A12 and sRAGE in the serum of sepsis patients with postoperative acute lung injury.* Dig Surg, 2010. **27**(4): p. 307-12.
S45. Yang, Z., et al., *S100A12 provokes mast cell activation: a potential amplification pathway in asthma and innate immunity.* J Allergy Clin Immunol, 2007. **119**(1): p. 106-14.
S46. Grevers, L.C., et al., *S100A8 enhances osteoclastic bone resorption in vitro through activation of Toll-like receptor 4: implications for bone destruction in murine antigen-induced arthritis.* Arthritis Rheum, 2011. **63**(5): p. 1365-75.
S47. Zreiqat, H., et al., *S100A8 and S100A9 in experimental osteoarthritis.* Arthritis Res Ther, 2010. **12**(1): p. R16.

S48. van Lent, P.L., et al., *S100A8 causes a shift toward expression of activatory Fcgamma receptors on macrophages via toll-like receptor 4 and regulates Fcgamma receptor expression in synovium during chronic experimental arthritis.* Arthritis Rheum, 2010. **62**(11): p. 3353-64.

S49. Hammer, H.B., et al., *Calprotectin (a major S100 leucocyte protein) predicts 10-year radiographic progression in patients with rheumatoid arthritis.* Ann Rheum Dis, 2010. **69**(1): p. 150-4.

S50. Foell, D., H. Wittkowski, and J. Roth, *Mechanisms of disease: a 'DAMP' view of inflammatory arthritis.* Nat Clin Pract Rheumatol, 2007. **3**(7): p. 382-90.

S51. Foell, D. and J. Roth, *Proinflammatory S100 proteins in arthritis and autoimmune disease.* Arthritis Rheum, 2004. **50**(12): p. 3762-71.

S52. Youssef, P., et al., *Expression of myeloid related proteins (MRP) 8 and 14 and the MRP8/14 heterodimer in rheumatoid arthritis synovial membrane.* J Rheumatol, 1999. **26**(12): p. 2523-8.

S53. Rouleau, P., et al., *The calcium-binding protein S100A12 induces neutrophil adhesion, migration, and release from bone marrow in mouse at concentrations similar to those found in human inflammatory arthritis.* Clin Immunol, 2003. **107**(1): p. 46-54.

S54. Wittkowski, H., et al., *S100A12 is a novel molecular marker differentiating systemic-onset juvenile idiopathic arthritis from other causes of fever of unknown origin.* Arthritis Rheum, 2008. **58**(12): p. 3924-31.

S55. Ryckman, C., et al., *Role of S100A8 and S100A9 in neutrophil recruitment in response to monosodium urate monohydrate crystals in the air-pouch model of acute gouty arthritis.* Arthritis Rheum, 2003. **48**(8): p. 2310-20.

S56. Croce, K., et al., *Myeloid-related protein-8/14 is critical for the biological response to vascular injury.* Circulation, 2009. **120**(5): p. 427-36.

S57. Foell, D., et al., *Early recruitment of phagocytes contributes to the vascular inflammation of giant cell arteritis.* J Pathol, 2004. **204**(3): p. 311-6.

S58. Hofmann Bowman, M.A., et al., *S100A12 in vascular smooth muscle accelerates vascular calcification in apolipoprotein E-null mice by activating an osteogenic gene regulatory program.* Arterioscler Thromb Vasc Biol, 2011. **31**(2): p. 337-44.

S59. Lorenz, E., et al., *Different expression ratio of S100A8/A9 and S100A12 in acute and chronic lung diseases.* Respir Med, 2008. **102**(4): p. 567-73.

S60. Seeliger, S., et al., *Expression of calcium-binding proteins MRP8 and MRP14 in inflammatory muscle diseases.* Am J Pathol, 2003. **163**(3): p. 947-56.

S61. Goova, M.T., et al., *Blockade of receptor for advanced glycation end-products restores effective wound healing in diabetic mice.* Am J Pathol, 2001. **159**(2): p. 513-25.

S62. Eming, S.A., et al., *Differential proteomic analysis distinguishes tissue repair biomarker signatures in wound exudates obtained from normal healing and chronic wounds.* J Proteome Res, 2010. **9**(9): p. 4758-66.
S63. Gebhardt, C., et al., *S100A8 and S100A9 in inflammation and cancer.* Biochem Pharmacol, 2006. **72**(11): p. 1622-31.
S64. Coffelt, S.B. and A.B. Scandurro, *Tumors sound the alarmin(s).* Cancer Res, 2008. **68**(16): p. 6482-5.
S65. Hiratsuka, S., et al., *The S100A8-serum amyloid A3-TLR4 paracrine cascade establishes a pre-metastatic phase.* Nat Cell Biol, 2008. **10**(11): p. 1349-55.
S66. Salama, I., et al., *A review of the S100 proteins in cancer.* Eur J Surg Oncol, 2008. **34**(4): p. 357-64.
S67. Caldwell, R.L., et al., *Tissue profiling MALDI mass spectrometry reveals prominent calcium-binding proteins in the proteome of regenerative MRL mouse wounds.* Wound Repair Regen, 2008. **16**(3): p. 442-9.
S68. Trostrup, H., et al., *S100A8/A9 deficiency in nonhealing venous leg ulcers uncovered by multiplexed antibody microarray profiling.* Br J Dermatol, 2011. **165**(2): p. 292-301.
S69. Wu, N. and J.M. Davidson, *Migration inhibitory factor-related protein (MRP)8 and MRP14 are differentially expressed in free-electron laser and scalpel incisions.* Wound Repair Regen, 2004. **12**(3): p. 327-36.
S70. Chiba, M., et al., *Elevation and characteristics of Rab30 and S100a8/S100a9 expression in an early phase of liver regeneration in the mouse.* Int J Mol Med, 2011. **27**(4): p. 567-74.
S71. Donato, R., et al., *S100B's double life: intracellular regulator and extracellular signal.* Biochim Biophys Acta, 2009. **1793**(6): p. 1008-22.
S72. Hu, J., et al., *S100 beta stimulates inducible nitric oxide synthase activity and mRNA levels in rat cortical astrocytes.* J Biol Chem, 1996. **271**(5): p. 2543-7.
S73. Kochanek, P.M., et al., *Biomarkers of primary and evolving damage in traumatic and ischemic brain injury: diagnosis, prognosis, probing mechanisms, and therapeutic decision making.* Curr Opin Crit Care, 2008. **14**(2): p. 135-41.
S74. Beer, C., et al., *Systemic markers of inflammation are independently associated with S100B concentration: results of an observational study in subjects with acute ischaemic stroke.* J Neuroinflammation, 2010. **7**: p. 71.
S75. Gruden, M.A., et al., *Differential neuroimmune markers to the onset of Alzheimer's disease neurodegeneration and dementia: autoantibodies to Abeta((25-35)) oligomers, S100b and neurotransmitters.* J Neuroimmunol, 2007. **186**(1-2): p. 181-92.
S76. Schroeter, M.L., et al., *Neuron-specific enolase is unaltered whereas S100B is elevated in serum of patients with schizophrenia--original research and meta-analysis.* Psychiatry Res, 2009. **167**(1-2): p. 66-72.
S77. Iwasaki, Y., T. Shiojima, and M. Kinoshita, *S100 beta prevents the death of motor neurons in newborn rats after sciatic nerve section.* J Neurol Sci, 1997. **151**(1): p. 7-12.

S78. Bangen, J.M., F.U. Schade, and S.B. Flohe, *Diverse regulatory activity of human heat shock proteins 60 and 70 on endotoxin-induced inflammation.* Biochem Biophys Res Commun, 2007. **359**(3): p. 709-15.
S79. Broere, F., R. van der Zee, and W. van Eden, *Heat shock proteins are no DAMPs, rather 'DAMPERs'.* Nat Rev Immunol, 2011. **11**(8): p. 565; author reply 565.
S80. Yang, D., et al., *Multiple roles of antimicrobial defensins, cathelicidins, and eosinophil-derived neurotoxin in host defense.* Annu Rev Immunol, 2004. **22**: p. 181-215.
S81. Doss, M., et al., *Human defensins and LL-37 in mucosal immunity.* J Leukoc Biol, 2010. **87**(1): p. 79-92.
S82. Heilborn, J.D., et al., *The cathelicidin anti-microbial peptide LL-37 is involved in re-epithelialization of human skin wounds and is lacking in chronic ulcer epithelium.* J Invest Dermatol, 2003. **120**(3): p. 379-89.
S83. Claus, R.A., et al., *Approaching clinical reality: markers for monitoring systemic inflammation and sepsis.* Curr Mol Med, 2010. **10**(2): p. 227-35.
S84. Wittkowski, H., et al., *Effects of intra-articular corticosteroids and anti-TNF therapy on neutrophil activation in rheumatoid arthritis.* Ann Rheum Dis, 2007. **66**(8): p. 1020-5.
S85. Hammer, H.B., et al., *Calprotectin (a major leucocyte protein) is strongly and independently correlated with joint inflammation and damage in rheumatoid arthritis.* Ann Rheum Dis, 2007. **66**(8): p. 1093-7.
S86. Prakken, B., S. Albani, and A. Martini, *Juvenile idiopathic arthritis.* Lancet, 2011. **377**(9783): p. 2138-49.
S87. Kane, D., et al., *Increased perivascular synovial membrane expression of myeloid-related proteins in psoriatic arthritis.* Arthritis Rheum, 2003. **48**(6): p. 1676-85.
S88. Brun, J.G., et al., *Sjogren's syndrome in inflammatory rheumatic diseases: analysis of the leukocyte protein calprotectin in plasma and saliva.* Scand J Rheumatol, 1994. **23**(3): p. 114-8.
S89. Wittkowski, H., et al., *MRP8 and MRP14, phagocyte-specific danger signals, are sensitive biomarkers of disease activity in cryopyrin-associated periodic syndromes.* Ann Rheum Dis, 2011.
S90. Kallinich, T., et al., *Neutrophil-derived S100A12 as novel biomarker of inflammation in familial Mediterranean fever.* Ann Rheum Dis, 2010. **69**(4): p. 677-82.
S91. Vince, R.V., et al., *Hypoxia mediated release of endothelial microparticles and increased association of S100A12 with circulating neutrophils.* Oxid Med Cell Longev, 2009. **2**(1): p. 2-6.
S92. Foell, D., et al., *S100A12 (EN-RAGE) in monitoring Kawasaki disease.* Lancet, 2003. **361**(9365): p. 1270-2.
S93. Foell, D., H. Wittkowski, and J. Roth, *Monitoring disease activity by stool analyses: from occult blood to molecular markers of intestinal inflammation and damage.* Gut, 2009. **58**(6): p. 859-68.

S94. Rosenberg, H.F., *HMGB1, a novel biomarker of inflammatory demyelinating disease: an interview with Dr. Robert A. Harris.* J Leukoc Biol, 2008. **84**(5): p. 1256-8.
S95. Barnay-Verdier, S., et al., *Emergence of autoantibodies to HMGB1 is associated with survival in patients with septic shock.* Intensive Care Med, 2011. **37**(6): p. 957-62.
S96. Huang, L.F., et al., *Association of high mobility group box-1 protein levels with sepsis and outcome of severely burned patients.* Cytokine, 2011. **53**(1): p. 29-34.
S97. Cohen, M.J., et al., *Early release of high mobility group box nuclear protein 1 after severe trauma in humans: role of injury severity and tissue hypoperfusion.* Crit Care, 2009. **13**(6): p. R174.
S98. Peltz, E.D., et al., *HMGB1 is markedly elevated within 6 hours of mechanical trauma in humans.* Shock, 2009. **32**(1): p. 17-22.
S99. Peter, K. and A. Bobik, *HMGB1 signals danger in acute coronary syndrome: Emergence of a new risk marker for cardiovascular death?* Atherosclerosis, 2011.