## G74 Expression of Heat Shock Protein (hsp) 70 in Tissue of Different Human Organs After Burn Fatalities

*Heike Klotzbach, MD, PhD*, and Johanna Preuss, MD, Institute for Legal Medicine, Stiftsplatz 12, Bonn, 53111, Germany; Eberhard Lignitz, MD, PhD, Institute for Legal Medicine, Kuhstrasse 30, Greifswald, 17489, Germany; and Burkhard Madea, MD, PhD,*
*Institute for Legal Medicine, Stiftsplatz 12, Bonn, 53111, Germany*

After attending this presentation, attendees will gain some understanding of the regulation of the early inflammatory response in humans, specifically regarding the initial response of heat shock proteins (hsp).

This presentation will impact the forensic community and/or humanity by providing some understanding of the regulation of the early inflammatory response in the human organism after burning fatalities, and contributing to the clinical understanding of the development of the serious septic or sepsis-like processes in these cases.

Heat shock proteins play an important role in the early response to various physical or chemical alterations and contribute to the up-regulation of numerous other stress-related mediators such as cytokines. To enhance the knowledge regarding the complex regulation of these inflammatory mediators, 18 cases of burn fatalities were evaluated immunohistologically after autopsy. Paraffin embedded tissues were investigated for expression of hsp 70 on the protein level related to survival time and further complications, such as pneumonia or sepsis). A tendency toward the early expression of hsp 70 in respiratory epithelium, inflammatory cells, and in the epithelium of renal tubuli was revealed. In the cases with longer survival time, hsp was increasingly expressed in other organs.

**Heat Shock Proteins, Burn Fatalities, Inflammatory Response**

 ** Presenting Author*