**P009** Expression of heat shock protein 70 and heat shock protein 90 in membrane microdomains

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Heat shock proteins (HSPs) are a family of highly conserved proteins found in cells. HSPs are constitutively expressed intracellularly and act as molecular chaperones by binding nascent polypeptides in order to assist proper folding, assembly and intracellular trafficking. Although HSPs are found in different intracellular compartments, some have also been found to be expressed on the cell surface. They have been detected on the cell surface of tumour cells as well as on apoptotic cells. The origin of membrane-associated HSPs still remains elusive. Membrane-associated Hsps have been shown to play a role in the immune response, and particularly in LPS-recognition. In this study we aimed to look at the cellular distribution of heat shock proteins in stressed and unstressed cells. Biochemical as well as fluorescent imaging techniques were employed in order to determine heat shock protein expression before and after different stresses. Overall our data demonstrate that HSP70 and HSP90 are targeted to the cell surface in response to heat, chemical or inflammatory stresses and to form clusters within membrane microdomains.