



**Molecular Biotechnology Programme  
Uppsala University School of Engineering**

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Author <b>Maria Ekoff</b>			
Title (English) <b>Mast cell activation through co-aggregation of Fc-receptors and its impact on survival</b>			
Title (Swedish)			
Abstract <p>The aggregation of high affinity IgE receptor FcεRI on a mast cell, activates the cell, leading to the release of inflammatory mediators contributing to acute and late phase allergic responses. Co-aggregating FcεRI with FcγRIIB, a low affinity receptor for IgG, have been shown to inhibit IgE induced release of inflammatory mediators. The hypothesis that the co-aggregation of receptors FcεRI and FcγRIIB initiates mast cell apoptosis was investigated. The activation and induction of Akt, FKHRL1, Bim and A1 protein, all associated with the regulation of mast cell survival were also studied. The hypothesis that co-aggregation of FcεRI and FcγRIIB would induce apoptosis in mast cells could not be proven but there were differences seen in the activation and induction of some of the signal proteins investigated.</p>			
Keywords Mast cell activation, FcεRI, FcγRIIB, Mast cell apoptosis, Pro and anti-apoptotic proteins			
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