ZIBI Graduate School – Current Openings

Project Title:

Cofactors of anaphylaxis and underlying mechanisms

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Project Description:

Anaphylaxis is a mast cell dependent, potential life-threatening hypersensitivity reaction, where multiple organ systems can be involved. Pro-inflammatory mediators (e.g. histamine), predominantly released by mast cells determine the outcome of the response. Cofactors (e.g. drugs) can influence the severity of an anaphylactic reaction. The contribution of these cofactors and the underlying mechanisms are analyzed in vivo using a mouse model of passive systemic anaphylaxis. In vitro, cultured mast cells from human or mice are activated and histamine release is assessed prior to and after treatment with various cofactors. The data obtained here will lead to a better understanding of the complex mechanism of anaphylaxis and contribute to the identification of potential cofactors, thereby reducing the risk of an anaphylactic reaction for susceptible individuals. This project is supported by Deutsche Forschungsgesellschaft WO 541/16-1.

References