Replacement – Replacing Animal Testing for Assessing Consumer Safety

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Assuring consumer safety without the generation of new animal data is a considerable challenge. However, through the application of new technologies, the development of new experimental models and the further development of risk-based approaches for safety assessment, we remain confident it is ultimately achievable.

To tackle this challenge a substantial research programme was initiated by Unilever in 2004, to critically evaluate the feasibility of a new conceptual approach for consumer safety risk assessment [1]. Today our research efforts cover the priority areas of skin allergy, cancer and general toxicity (including inhalation toxicity). In each of these areas, a long-term investment is essential to increase the scientific understanding of the underlying biology and molecular mechanisms that we believe will ultimately form a sound basis for novel risk assessment approaches. For example, within the Skin allergy programme w e are currently evaluating four non-animal predictive models and developing a prototype probabilistic model to better predict the factors that drive the prevalence of skin allergy in a consumer population [2].

Here we share our progress to date as well as highlighting where we believe the key challenges for the future exist.

References:

Fentem J. et al. (2008). AATEX; **14**. 15-20 Maxwell G. et al. (2008). ATLA; **36**. 557-568