

Abstract of Lecture in Ahmedabad by Prof. Rolf Zinkernagel

A Nobel Prize by Chance!

The role of chance observations leading to key discoveries versus the rational of careful analysis of hypotheses is analysed. Once we know all details from the molecular to the physiological level of all things knowable, we will be able to ask reasonable questions and get answers that can be properly placed. Until then we probably have to rely heavily on observations that yield unexpected results. A few examples will be presented, including MHC restricted T cell recognition, the lack of an immune response against many self antigens without T cells or B cells having been eliminated by classical tolerance mechanisms, the role of immunopathology in explaining not only chronic or degenerative types of diseases, but also of so called autoimmune diseases, or so called immunological memory. Which is in fact antigen-driven.

These examples illustrate, that reasonable questions trigger experimental analyses with distinct potential outcomes: Either the hypothesis is supported - i.e. the result is not very interesting - or something unexpected can be observed, that often opens up truly new insights.

Zurich, November 1, 2010