



SCUOLA
NORMALE
SUPERIORE
PISA

Colloqui Classe di Scienze

Mercoledì 16 marzo 2011

ore 15.00

Scuola Normale Superiore

Pisa

(Sala Stemmi)

Michael Neuberger

MRC Laboratory of Molecular Biology

Terrà un seminario dal titolo:

“The Generation of Diversity in the Immune System”

Abstract:

Microbial infection has traditionally provided one of the greatest threats to human survival. The immune system exists in order to combat such infection, but micro-organisms themselves mutate and evolve to bypass immunity. In order therefore to provide as broad a protection as possible, the immune system must generate an enormous diversity of weaponry (antibodies) to combat the vast array of micro-organisms. Recent work has revealed that the immune system contains a specific mutator protein whose job is to mutate the antibody genes themselves, allowing the generation of a vast array (> 1 billion) of antibodies from only a small number of antibody genes. This targeted mutation also allows the antibodies themselves to change during the course of an infection, so that they adjust to the evolving pathogen. I will review what we have recently learned about how antibody diversity is generated through targeted mutation of DNA and consider how such information can be useful in medicine and biotechnology.

Tutti gli interessati sono invitati a partecipare

Classe di Scienze