Allergy-immunology glossary

Zeinab A. El-Sayed, Dalia H. El-Ghoneimy
Pediatric Department, Ain Shams University

Towards a clear designation of some of the terms used in allergology and immunology.

| **Fc receptor (FcR)** | A cell surface receptor specific for the carboxy terminal constant region of an immunoglobulin molecule. There are several types of FcRs such as FcγRs specific for each IgG subtype, FceR for IgE, etc.
1. They are expressed by different cell types having different biological activities. Immunoglobulins can regulate immune responses through interacting with Fc receptors (FcRs). 2. FcγRs provide a critical link between ligands and effector cells in type II and type III inflammation. The inhibitory FcR functions in the maintenance of peripheral tolerance, in regulating the threshold of activation responses, and ultimately in terminating IgG mediated effector stimulation.

| **G-protein-coupled receptors (GPCRs)** | GPCRs constitute a large and diverse family of proteins whose primary function is to transduce extracellular stimuli into intracellular signals. They are among the largest and most diverse protein families in mammalian genomes. On the basis of homology with rhodopsin, they are predicted to contain seven membrane-spanning helices, an extracellular N-terminus and an intracellular C-terminus. This gives rise to their other names, the 7-TM receptors or the heptahelical receptors.

| **Gene polymorphism** | Natural variations in a gene, DNA sequence, or chromosome that have no adverse effects on the individual and occur with fairly high frequency in the general population. Polymorphism involves one of two or more variants of a particular DNA sequence. The most common type of polymorphism involves variation at a single base pair. Polymorphisms can also be much larger in size and involve long stretches of DNA. Called a single nucleotide polymorphism, or SNP (pronounced "snip"), scientists are studying how SNPs in the human genome correlate with disease, drug response, and other phenotypes.

**REFERENCES:**