

Role of Novel Interleukin-12 Family Members in Intracellular Infection Models

» Prof. Dr. Gottfried Alber

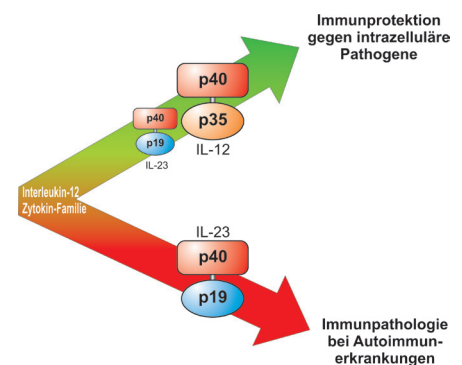
Keywords

- Immunity
- IL-12/IL-23
- Salmonella
- Cryptococcus

Interleukin-12 (IL-12) has a key role in protection against intracellular protozoan, fungal and bacterial infections. The group of Prof. Dr. Gottfried Alber has characterized the role of IL-12 in a murine model of infection with *Cryptococcus neoformans* which is an opportunistic pathogen in AIDS patients. They found evidence for the involvement of other, more recently discovered members of the IL-12 family such as IL-23.

Likewise, in a murine model of salmonellosis other members of the

IL-12 family which share the IL-12 p40 subunit are protective especially after low-dose infection. To further characterize the protective function of the individual members of the IL-12 family in these two models experimentally infected gene-deficient mice were used and methods of cellular immunology, molecular biology (e. g. real-time PCR), and histopathology were applied for their analysis.



BROMBACHER, F.; KASTELEIN, R. A.; ALBER, G.

Novel IL-12 family members shed light on orchestration of Th1 responses. Trends Immunol. 24 (2003), 207–212.

KLEINSCHEK, M. A.; MÜLLER, U.; BRODIE, S. J.; STENZEL, W.; KÖHLER, G.; BLUMENSCHEN, W. M.; STRAUBINGER, R. K.; McCLANAHAN, T.; KASTELEIN, R. A.; ALBER, G.

IL-23 enhances the inflammatory cell response in *Cryptococcus neoformans* infection and induces a cytokine pattern distinct from IL-12. J. Immunol. 176 (2006), 1098–1106.

SCHULZ, S. M.; KÖHLER, G.; SCHÜTZE, N.; KNAUER, J.; STRAUBINGER, R. K.; CHACKERIAN, A. A.; WITTE, E.; WOLK, K.; SABAT, R.; IWAKURA, Y.; HÖLSCHER, C.; MÜLLER, U.; KASTELEIN, R. A.; ALBER, G.

Protective immunity to systemic infection with attenuated *Salmonella enterica* serovar Enteritidis in the absence of IL-12 is associated with IL-23-dependent IL-22, but not IL-17. J. Immunol. (2008)

Contact

Prof. Dr. Gottfried Alber
Professur für Immunologie

Veterinärmedizinische Fakultät
Institut für Immunologie
An den Tierkliniken 11
04103 Leipzig

fon +49 341 97-38328
fax +49 341 97-38147
alber@rz.uni-leipzig.de
www.vetmed.uni-leipzig.de/ik/
wimmunologie