

COLLOQUIA IN PHYSIOLOGY AND VASCULAR BIOLOGY

Venue: Medical University Vienna, Center for Physiology and Pharmacology,
Institute of Pharmacology, Waehringstrasse 13a, 1090 Vienna,

"Big Lecture Hall Pharmacology"

(Johannes Schmid, Tel.: (01) 40160 31155, johannes.schmid@meduniwien.ac.at,

Harald Sitte, Tel.: (01) 40160 31323, harald.sitte@meduniwien.ac.at)

Friday 25.1.2013 11:00 c.t.

Rudi Beyaert

(host: Johannes Schmid)

VIB Department for Molecular Biomedical
ResearchUGent
VIB Research Building
FSVMTechnologiepark
927 9052 GENT

"A20: a versatile regulator of ubiquitin-dependent signalling and immunity"

Rudi Beyaert (Rudi.Beyaert@dibr.vib-UGent.be)

Abstract:

A20 (also known as TNFAIP3) is a potent anti-inflammatory signaling molecule that restricts multiple intracellular signaling cascades. More specifically, A20 restricts the duration and intensity of signaling by several molecules involved in the NF- κ B pathway. In addition, A20 can also exert anti-apoptotic activities. Human genetic studies have strongly linked polymorphisms and mutations in the A20 gene to inflammatory, autoimmune and malignant diseases. I will discuss our biochemical and molecular studies that have unveiled complex mechanisms by which A20 regulates ubiquitin-dependent NF- κ B and cell-survival signals. In a second part I will describe our studies in gene-targeted mice, showing that A20 regulates multiple immune cell functions and prevents experimental diseases that closely mimic human conditions.