

# **COLLOQUIA IN PHYSIOLOGY AND VASCULAR BIOLOGY**

Venue: Medical University Vienna, Center for Physiology and Pharmacology,  
Department of Pharmacology, Währingerstraße 13a, 1090 Vienna,  
"Leseraum", Hochparterre

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Friday      23.11.2012 10:00 c.t.      **Philippe Georgel**  
(host: Gernot Schabbauer)

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***"MicroRNAs: fine-tuners of inflammatory responses"***

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Abstract.

Inflammation, a physiological response to noxious stimuli of variable origin, is characterized by the expression and release of numerous cytokines, whose uncontrolled synthesis can rapidly lead to severe pathologies such as autoimmunity. Therefore, a tight regulation must be achieved in order to ensure temporally and spatially accurate production of these molecules. Working in concert with regulatory proteins which have been described extensively, microRNAs appeared recently as novel actors in the network leading an inflammatory context. To analyze globally the impact of miRNA on inflammatory responses of infectious origin, we performed viral inoculation in Dicer-deficient mutant mice. In addition, we investigated the consequences of low miRNA production in the Dicer mutant mice on the initiation and development of experimental Rheumatoid Arthritis as a model of inflammatory conditions triggered under sterile conditions. Data obtained with these two models will be presented within the frame of miRNA-dependent regulation of Type I Interferon-Stimulated genes.