

## Cluster Lecture Series

# Dr. Rayk Behrendt

Institute for Immunology, Technical University Dresden



Rayk Behrendt

## “Molecular mechanisms and therapy of nucleic acid-driven inflammation”

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AG Behrendt particularly focus on detection of nucleic acids by intracellular nucleic acid sensors, which largely fail to discriminate between foreign and endogenous nucleic acids. Thus, these receptors engage endogenous nucleic acid ligands and initiate a spontaneous antiviral immune response causing systemic inflammation and autoimmunity. They genetically disturb the cellular nucleic acid homeostasis to study the resulting aberrant immune- and cell physiological responses. In particular, they uncovered

a central role of the cytoplasmic cGAS-STING pathway in systemic autoimmunity in response to endogenous DNA and investigated strategies to interfere with the spontaneous activation as potential therapeutic approaches for these conditions. Besides the interest in innate immune sensing, AG Behrendt have a strong interest in the identification of physiological processes that lead to the accumulation of endogenous immune-stimulatory nucleic acids.

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### WHERE

Lecture Hall, Building 10 (Lehrgebäude)  
Venusberg-Campus 1, 53127 Bonn

### WHEN

Tuesday, November 19, 2019 at 12:00 p.m.

### HOST

Prof. Hiroki Kato