

## S33-4 Diesel exhaust particles as a disruptor of immune systems

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It is generally accepted that diesel exhaust particles (DEP), major constituents in atmospheric particulate matter, have disrupting potential on immune systems, which can, at least in part, explain recent increases in the number and/or the degree of allergic disorders. However, the distinct role of DEP components in the potential and detailed mechanisms remains to be clarified. In this session, we describe 1) our studies about the comparative impacts of organic chemical components and residual particles of DEP on allergic pathophysiology in vivo and 2) studies regarding the effects of quinones in DEP. Furthermore, we introduce our recent research about the effects of DEP on differentiation/maturation/dynamics of dendritic cells and primary and effector Th responses of T cells in vitro, in vivo, and ex vivo.