

of organ transplantation in this population. Their care is complex and requires expertise. Issues of graft survival, opportunistic infections, an increase in comorbidities, and the various interactions between the immunosuppressive drugs and the antiretrovirals, are all situations that present a challenge to the infectious diseases practitioner. In this lecture, Dr. Brito will review the most common indications for liver and kidney transplants, the epidemiology, post surgical outcomes, and some special management scenarios encountered in clinical practice.

<http://dx.doi.org/10.1016/j.ijid.2012.05.144>

#### Type: Invited Presentation

Final Abstract Number: 34.004

Session: *Infectious Issues in Transplantation*

Date: Saturday, June 16, 2012

Time: 10:15-12:15

Room: Lotus 5-7

#### Common respiratory viral infections

L. Kaiser

*Laboratoire de Virologie, Geneva, Switzerland*

Respiratory viruses are certainly the most common viruses infecting humans. Thanks to the availability of modern molecular screening these viruses are frequently recovered in the upper or the lower respiratory tract of hospitalized patients. It is thus important to understand not only the epidemiology but also the potential clinical impact of these agents. Across all population studied the most frequent viruses are the so-called common cold viruses like rhinoviruses and coronaviruses. What is the real impact of these viruses, are they innocent bystanders? Are these viruses causing respiratory symptoms and lower respiratory tract infections? The biological and clinical diversity of viral respiratory diseases will be reviewed as well as the epidemiology and the clinical consequences of these infections in transplant recipients. Large cohorts studies conducted in lung transplant recipients will be presented. The potential available treatment interventions in transplant recipients will also be discussed.

<http://dx.doi.org/10.1016/j.ijid.2012.05.145>

#### Type: Invited Presentation

Final Abstract Number: 35.001

Session: *Plenary Lecture VI*

Date: Saturday, June 16, 2012

Time: 14:30-15:15

Room: Plenary Hall

#### Confronting tuberculosis in the era of HIV

S. Lawn

*University of Cape Town, Cape Town, South Africa*

The HIV-associated tuberculosis (TB) epidemic remains a huge challenge to TB control in countries with high prevalence of HIV and is a substantial obstacle to progress towards attainment of the Millennium Development Goals and associated STOP TB targets for TB control. This talk will summarize the current approach to control of this epidemic and then will focus in detail on two key issues.

review the very promising developments in TB diagnostics that for the first time permit rapid and point-of-care diagnosis of sputum smear-negative TB in patients with advanced immunodeficiency. (ii) It is abundantly clear that we cannot treat our way out of this epidemic using the DOTS TB control strategy and additional TB preventive intervention are needed. This talk will highlight the impact of ART to serve as the key TB preventive intervention, describing in detail its impact on individual risk as well as the impact at the community level. The preventive potential of ART is largely being squandered at present and the potential for the 'Test and Treat' strategy to have a much greater impact will be discussed.

<http://dx.doi.org/10.1016/j.ijid.2012.05.146>

#### Type: Invited Presentation

Final Abstract Number: 36.001

Session: *Innate Immunity and Infectious Diseases*

Date: Saturday, June 16, 2012

Time: 15:45-17:45

Room: Ballroom A

#### Innate immune recognition and response to pathogens

S. Akira

*Osaka University, Osaka, Japan*

Our laboratory studies mechanisms of innate immunity. Through generation of knockout mice, we have demonstrated that a family of Toll-like receptors (TLR) recognizes a variety of PAMPs such as lipopolysaccharide, lipoprotein and nucleic acids derived from bacteria, viruses and protozoa to elicit innate immune responses. We have also demonstrated that a family of RIG-I-like RNA helicases (RLR) including RIG-I and MDA5 participates in TLR-independent recognition of nucleic acids derived from different types of RNA viruses in the cytoplasm. NOD-like receptors (NLR) also sense microbial components in the cytoplasm of cells. Several C-type lectin receptors (CLR) are shown to recognize the carbohydrates from pathogens. Here I will talk about the anti-viral response by neutrophil extracellular DNA trap (NET) and ZAP.

<http://dx.doi.org/10.1016/j.ijid.2012.05.147>

#### Type: Invited Presentation

Final Abstract Number: 36.002

Session: *Innate Immunity and Infectious Diseases*

Date: Saturday, June 16, 2012

Time: 15:45-17:45

Room: Ballroom A

#### Innate immune recognition of an AT-rich stem-loop DNA motif in the *Plasmodium falciparum* genome

D. Golenbock

*University Massachusetts Medical School, Worcester, MA, USA*

Malarial infections lead to significant morbidity and mortality worldwide. The genome of *Plasmodium falciparum* is the most AT-rich of any genome studied; it has over 6000 ATTTTAC ("AT-rich") motifs, which we now show activate human and murine cells to produce inflammatory cytokines and type I Interferons. Induction of type I IFNs by *Plasmodium*-derived AT-rich DNA is