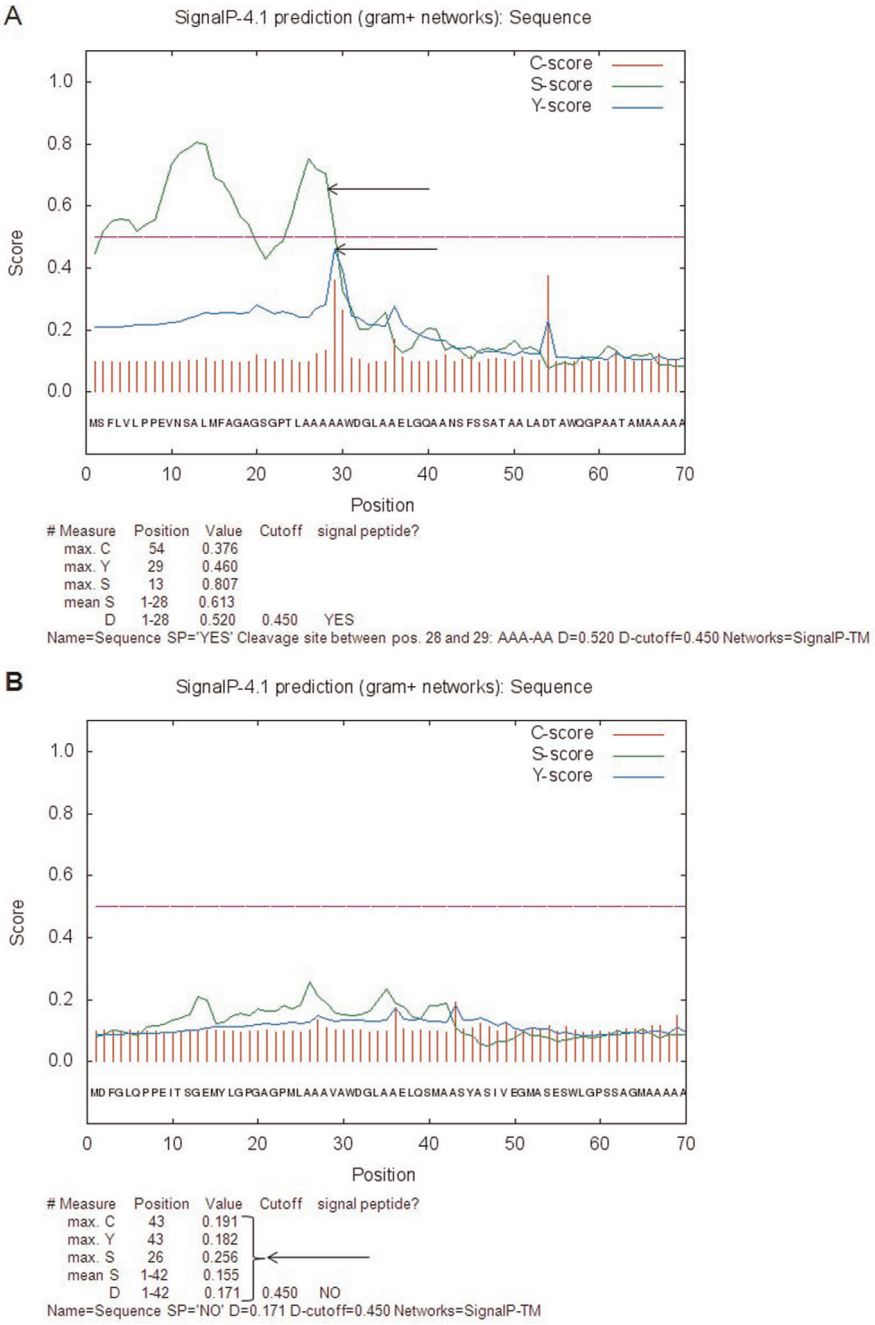

Abstract PS-328 Figure 1 Signal peptide prediction. (A)The presence of a signal peptide in protein PPE16, where S-mean indicates the amino acids that are most likely to compose the signal peptide, and Y-max indicates the cleavage site. (B) No signal peptide was found in protein PPE33, as indicated by arrow.

Conclusions Prediction analysis showed that these promiscuous epitope peptides presented here may be important targets in the search for subunit vaccines or diagnostic antigens against Mycobacterium tuberculosis. Additionally, we suggest that these peptides may be used in immunological assays to evaluate the level of protection, the effect on pathology reduction and the profile of cytokines and antibodies induced by them.

Note: 1 represents the total number of the epitopes of each protein; 2 the left of the solidus represents the number of strong-bind epitopes; the right represents the number of weak-bind epitopes.

PS-329 TLR3 MEDIATED EXPRESSIONS OF CYTOKINES AND SOCS1 IN RESPIRATORY SYNCYTIAL VIRUS PERSISTENT CELLS

J Zheng, PU Yang, D Zhao. *Pediatrics, Zhongnan Hospital of Wuhan University, Wuhan, China*

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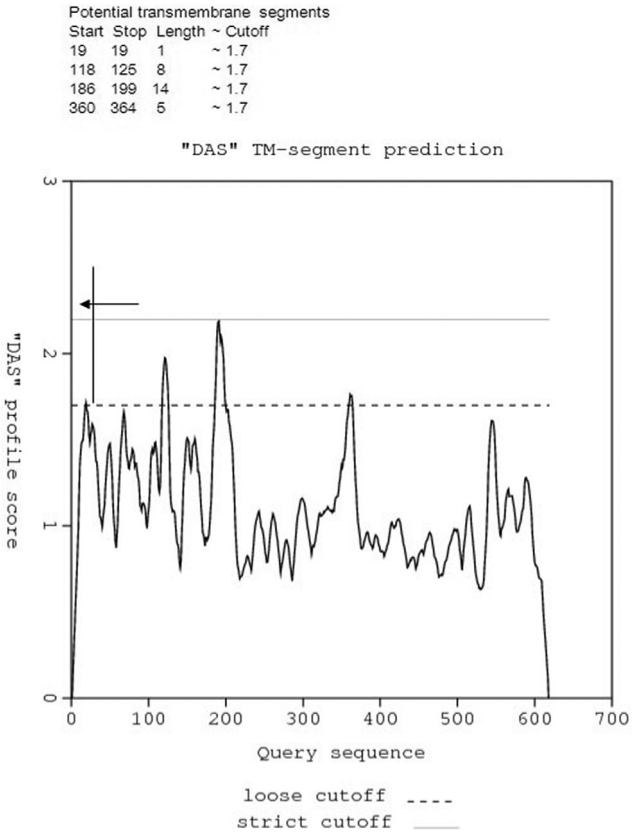
Background Respiratory syncytial virus (RSV) persistent HEp-2 cells are a heterogeneous mixture of viral antigen-positive and -negative variants, and the mechanism through which viral



Abstract PS-328 Figure 2 Analysis of transmembrane helices. No transmembrane helice was found in protein PPE16 between the cleavage site (P29) and the N-terminus, as indicated by arrow.

replication evades the innate immune response and becomes latent remains unclear.

Materials and methods RSV persistently infected HEp-2 cells were isolated and the clones were passaged. By using siRNA silence of RIG-I or TRL3, protein levels of SOCS1, SOCS3 and STAT1/2 in the viral persistent cells were checked by western blot, cytokines concentrations in the supernatant of were determined by ELISA, and antiviral genes expression was detected by RT-PCR.

Results The RSV persistent cells always differentiated into two distinct populations characterised by viral permission or resistance respectively. The viral persistent cells produced a low viral titer, resisted wild-type RSV superinfection, and secreted high levels of IFN-β, Mip-α, IL-8 and Rantes. TLR3, RIG-I and SOCS1 were found to be upregulated. The silence of TLR3 decreased the expression of SOCS1 and the secretion of cytokines.

Conclusion RSV persistent cells are in an inflammatory state that the upregulation of SOCS1 is related to the TLR3 induced signalling pathway, which could be associated with viral persistence.

PS-330 EVALUATION OF DENGUE IGA AND NS1 RAPID TEST AS AN EARLY DIAGNOSTIC TEST FOR DENGUE VIRUS INFECTION

[1]C Irianto, [2]G Go. *[1]Pediatrics, Mary Chiles General Hospital, Surabaya, Indonesia; [2]Pediatrics, Mary Chiles General Hospital, Manila, Philippines*

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Background Dengue is a major health problem. The lack of consensus on excellent rapid diagnostic test for early detection of dengue infection has generated interest to determine the validity of dengue IgA versus NS1 as rapid test in the early diagnosis of dengue with hemagglutination inhibition (HI) as standard reference among paediatric patients up to < 19 years old seen a private hospital from March, 1, 2012 to October, 30, 2012.

Methods Paired serum samples were examined from 51 patients suspected of dengue with fever of not more than 7 days. There were 29 males and 22 females. Initial blood samples were collected on the first day of consult and tested for IgA, NS1, and HI. Second blood samples for HI were collected 7 days after the initial extraction.

Results From 51 samples, sensitivity of dengue IgA was 80% with 95% CI (70–90) while specificity was at 50% with 95% CI (36–64) versus NS1 which showed sensitivity of 27% with 95% CI (15–39) and specificity of 67% with 95% CI (54–86). IgA rapid test demonstrated 71% positivity in detecting acute primary dengue infection and 82% for acute secondary dengue infection. NS1 detected 43% of primary dengue infection and 24% of secondary dengue infection.

Conclusions Dengue IgA was more sensitive for early diagnosis of dengue and had better performance in detecting primary and secondary of dengue than NS1.

Preterm Brain Injury – Experimental

PS-331 SERIAL CRANIAL ULTRASONOGRAPHY OR EARLY MRI FOR DETECTING PRETERM BRAIN INJURY?

[1]MMA Raets, [1]A Plaisier, [1]GM Ecury-Goossen, [1]P Govaert, [1]M Feijen-Roon, [1]IM Reiss, [1]LS Smit, [2]M Lequin, [1]J Dudink. *[1]Neonatology, Erasmus University Medical Center – Sophia Children's Hospital, Rotterdam, Netherlands; [2]Radiology, Erasmus University Medical Center – Sophia Children's Hospital, Rotterdam, Netherlands*

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Background and aims Magnetic resonance imaging (MRI) is considered imaging method of choice for high-risk preterm infants to assess brain injury. However, MRI scanning in preterm infants is particularly challenging due to safety, logistical and quality issues that limit clinical feasibility. Meanwhile, due to ongoing technical developments and by using additional acoustic windows, advanced serial cranial ultrasonography (CUS) has acquired great clinical value. We hypothesised that dedicated serial CUS is equally effective in diagnosing preterm brain damage as a routine MRI scan at 30 weeks postmenstrual age and excels in clinical feasibility.

Methods We prospectively collected data of 307 infants born <29 weeks gestational age. Serial CUS and MRI were performed according to standard clinical protocol. In case of instability, MRI was postponed or cancelled. Brain images were assessed by independent experts and compared between modalities.

Results Serial CUS was performed in all infants, MRI was often postponed (n = 58) or cancelled (n = 127). Injury was found in 146 infants (47.6%). Clinical characteristics differed significantly between groups that were subdivided according to timing of MRI. 61 discrepant imaging findings were found. MRI was superior in identifying cerebellar haemorrhages; CUS in detection of acute intraventricular haemorrhage and cerebral sinovenous thrombosis.

Conclusion Advanced serial CUS seems highly effective in diagnosing preterm brain injury, but may miss cerebellar