Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Case description: A 39-year-old Ugandan man was diagnosed HIV-1 positive in 1996 (baseline CD4 count 130/uL, viral load (VL) 235,678 copies/ml), and was commenced on Zidovudine, Lamivudine and Nevirapine therapy.
Ten years later the patient presented with sharp, right-sided chest pain. He did not describe any symptoms suggesting infection, nor relating to eyes, skin or joints.
Auscultation of the chest was unremarkable. He had tenderness on palpation over the right anterior chest wall. Chest radiograph revealed bilateral hilar lymphadenopathy (BHL). Blood tests showed CD4 count 385 with an undetectable viral load. Full blood count, renal, liver and bone profile were unremarkable. Serum angiotensin-converting enzyme was raised at 119 U/ml (normal range <67 U/ml).
Computed tomography of the chest confirmed extensive mediastinal lymphadenopathy, with bilateral hilar, pretracheal, right para-tracheal, pre-aortic and subcarinal nodes involved.
The differential diagnoses included tuberculosis and lymphoma. The patient underwent left anterior mediastinoscopy and mediastinal lymph node biopsy.
Microbiology cultures of the biopsy were negative and no acid-fast bacilli were seen. Histopathology showed the normal lymph node architecture was effaced by confluent non-necrotising granulomas, with lymphocytes interspersed between the granulomas. There were no micro-organisms on special stains and no evidence of malignancy.
The findings were consistent with sarcoidosis. As this patient had BHL only, he did not require steroid treatment, and has remained well.

OL-041 Apoptosis of CD8+ T-cells in HIV-1-infected typical progressors, but not in long-term non-progressors

Y.M. Jiao[1]*, J.L. Fu[2], S.J. Xing[2], Z. Zhang[2], X.C. Wang[1], J.Y. Zhang[2], B.Y. Fu[2], L. Jin[2], F.B. Kang[2], H. Wu[1], F.S. Wang[2]. *[1]Department of Infectious Diseases, Beijing You-An Hospital Affiliated to Capital University of Medical Science, 100054, China, [2]Research Center of Biological Therapy, Beijing Institute of Infectious Diseases, Beijing 302 Hospital, Beijing 100039, China*

CD4+CD25+ Regulatory T-cells (Tregs) have been demonstrated to down-regulate immune activation in HIV-1 infection. However, persistent HIV infection results in a decrease of Treg absolute counts. Whether the decreased Treg also play an important role in the regulation of excessive activation and apoptosis of CD8+ T-cells in HIV-1-infected patients remains undefined. To address this issue in the cross-sectional study, we characterized Treg among 83 HIV-1 infected individuals, including 19 long-term non-progressors (LTNPs), 51 typical progerssors (TPs) who were treatment naive, and 13 HAART treated AIDS patients, 9 of whom produced complete responses (CRs) to antiviral therapy and 4 of whom were non-responders (NRs) to the treatment. TP but not LTNP patients had significantly decreased absolute counts of circulating Tregs, which inversely correlated with up-regulated activation of CD8+ T-cells. Isolated Treg could significantly inhibit the spontaneous and anti-CD3-induced apoptosis of total and peptide-stimulated HIV-specific CD8+ T-cells in vitro. More importantly, CR patients to antiviral treatment exhibited an increase in circulating total CD4+ T-cells and Treg counts that were associated with reduced activation and apoptosis of CD8+ T-cells compared with NR patients. Thus, our findings indicate that decreases in Treg correlate with disease progression, and increases in Treg in CR patients efficiently blocked excessive activation and apoptosis of CD8+ T-cells.

OL-042 Specific T-cell responses to CFP-10 antigens of *Mycobacterium tuberculosis* in Chinese HIV positive individuals

B. Zhang*, W.H. Lun, N. Han, J. Cheng, T.X. Xiang, X.W. Li, H.X. Zhao, H. Zeng, Y. Mao. *The STD and AIDS Clinic, the Beijing Ditan Hospital, Beijing 100011, China*

Tuberculosis (TB) is still a major public health problem around world, especially in China, which is the second largest TB patient population in the world. AIDS epidemic have make TB infection more complex than that before, it is especially very difficult to make a diagnosis when an AIDS patient combined with extra-pulmonary TB diseases. Traditional methods for diagnosis of TB infection such as TSTs are not sufficient for confirmation of TB infection in AIDS patients.Here, we use use the recombinant CFP-10 protein as stimulus to detect TB specific T-cell responses in Chinese HIV (+) patients.
Methods: CFP-10 was cloned into prokaryotic expression vector pET-32a (+) and transfected into *E. coli* BL21(DE3) to produce the recombinant CFP-10 protein, and use CFP-10 protein as stimulus to detect specific T-cell responses in HIV(+) persons with or without clinical manifestation of TB diseases.

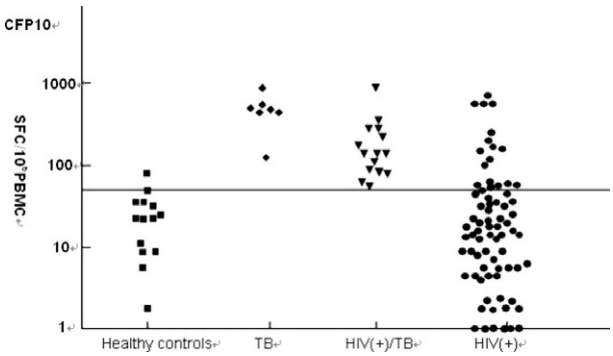

Fig. 1. The result of the IFN-γ responses detected in ELISpot assays: Numbers of antigen-specific T cells in the 4 groups: Healthy controls, TB patients (TB) and HIV infected patients with TB diseases (HIV(+)/TB), and HIV positive without clinical TB diseases (HIV(+)), measured by ELISpot IFN-γ assay after stimulation with CFP-10. A logarithmic scale is used and horizontal bars indicate positive values.

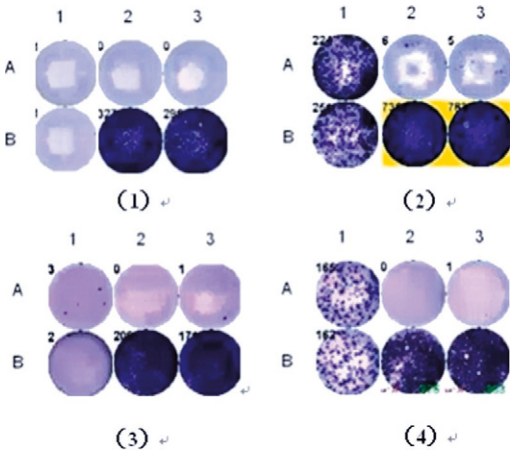

Fig. 2. The results of colored spots counted by an automated ELISpot reader: (1) Healthy controls, (2) TB patients (TB), (3) HIV positive without clinical TB diseases (HIV(+)), (4) HIV infected patients with TB diseases (HIV(+)/TB). A1,B1 consisted of cells cultured with fusion protein

CFP10 (25 μg/mL); A2,A3 negative controls consisted of cells cultured with medium alone; B2,B3 positive controls consisted of cells cultured with Con A (25 μg/mL).

Results: The CFP-10 recombinant protein were obtained and purified, In-house ELISPOT–IFN-γ assay using recombinant CFP-10 antigen show significant high frequencies TB specific T-cell responses in patients of active TB with or without HIV infection. there was 100% consistency to the clinical manifestation, in the HIV(+) group without clinical TB disease, the rate of positive tests results was 24.7%.
Our results proved that it is indeed true that some of HIV positive patient have high frequencies of TB specific T-cell responses, it could be used in diagnosis of TB diseases, and it maybe provide a clue to find latent TB infection in Chinese HIV(+) population.

OL-043 Mechanism and therapeutic efficacy of peroxisome proliferator activated receptor agonist for virus-associated hemophagocytic syndrome

Y.L. Chen[1], W.C. Hsieh[1], B.S. Lan[2], I.J. Su[1]*. [1]*Division of Clinical Research, National Health Research Institutes,* [2]*Graduate Institutes of Clinical Medicine and Basic Medicine, National Cheng Kung University College of Medicine, Tainan, Taiwan*

Background and Aims: Hemophagocytic syndrome (HPS) is a fatal complication of severe viral infections such as Epstein-Barr virus (EBV) and recently, SARS CoV, and H5N1 influenza. The pathogenesis of HPS is presumed to result from an enhanced proinflammatory cytokine secretion and systemic macrophage activation. Previously, we demonstrated that EBV LMP-1 can activate T-cells and upregulate tumor necrosis factor-alpha and interferon-gamma, mediated through the NFkB/ATF5/SAP/ERK signaling, to activate macrophages. Since peroxisome proliferators activated receptor (PPAR) agonists, regulators of cholesterol metabolism, have been shown to exhibit profound effects on the inhibition of proinflammatory cytokines and macrophage activation through NFkB and AP-1 signaling, we adopted a PPAR-γ agonist, rosiglitazone, for the potential therapy of HPS using a rabbit model of Herpesvirus papio (HVP, an EBV homologue)-associated HPS.
Materials and Results: In vitro, rosiglitazone was shown to inhibit macrophage activation and secretion of tumor necrosis factor-alpha (TNF-α) through inhibition of NFkB signaling in THP1 cell line. Different doses of rosiglitazone were then fed to rabbits after intravenous injection of 5×107 copies of HVP virus at different time courses (7 days and 20 days, respectively) of infection. As compared to the control group which succumbed consistently at around one month, the 4 mg rosiglitazone-treated group showed significant improvement of survival when fed at early stage (7 days) of infection ($p < 0.01$), while a higher dosage (8 mg) is needed to achieve therapeutic effect at advanced stage (20 days) of infection ($p < 0.05$). The viral load, TNFα cytokine levels, and laboratory parameters also showed significant improvement in the rosiglitazone-treated group.
Conclusion: PPAR agonist, in addition to its therapeutic effect for metabolic syndrome, appears to represent a potential regimen of new concept for the control of HPS associated with severe virus infections.

OL-044 HAV seroprevalence among children with 10–24 month ages in Ulaanbaatar

G. Sarangua[1]*, S. Anand[1], Ts. Selenge[1], A. Bayasgalan[1], D. Naranzul[1], B. Bolor[1], N. Naranbat[1], Y. Dahgwahdorj[2], P. Nyamdawa[1]. [1]*Center for Communicable Diseases of Mongolia,* [2]*Health Sciences University of Mongolia, Mongolia*

Background: HAV infection is high endemicity in Mongolia. The outbreak of acute HAV infection is regular and wide outbreak usually within 3–4 years interval. Recently, Mongolian and Japanese researchers established the seroprevalence of HAV infection in Mongolian adults almost 100%. So, there is urgently needed the HAV vaccination program in Mongolia.
Aim of study: To determine the age (month) of start for universal HAV vaccination.
Method and Subjects: In July and August 2008, there were selected 953 children ages 11–24 months from Chingiltei district, Ulaanbaatar. More 600 of them were living in the Mongolian ger (nomad's tent – less comfortable and sanitary condition than city's apartment). In all children had not manifested acute viral hepatitis. In all serum of selected children were tested anti-HAV-IgG.
Results: There was detected positive of anti-HAV in 20 children of 951. 19 of them living in ger. The table shows the results by age and sex.

Age	Male		Female		Total	
(months)	N	Anti-HAV+	N	Anti-HAV+	N	Anti-HAV+
11–12	71		59		130	**0**
13–14	104	2	94	2	202	**4**
15–16	74	1	68		143	**1**
17–18	70	3	58	1	132	**4**
19–20	57	1	57	2	117	**3**
21–22	57	2	48	1	108	**2**
23–24	77	5	59		141	**5**
Total	510	14	443	6	953	**20**

Conclusions: 1. The incidence of HAV infection occurred from 13 month's age, after wide outbreak. 2. There is recommended to start HAV vaccination for children, who living in uncomfortable hygiene condition, before 13 month's age.

OL-045 Clinical significance of beta-herpesvirus infections in HIV/AIDS and chronic fatigue syndrome patients in Latvia

A. Krumina[1]*, M. Murovska[2], S. Chapenko[2], S. Kozireva[2], A. Sultanova[2], L. Viksna[1]. [1]*Infectology Chair and* [2]*August Kirchenstein Institute of Microbiology and Virology, Riga Stradins University, Riga, Latvia*

The aim of this study was to investigate the prevalence of beta-herpesvirus (HHV-6 and HHV-7) infections among the HIV/AIDS, chronic fatigue sindrome (CFS) patients in comparison with blood donors (BD).
Materials and Methods: 52 patients with HIV/AIDS, 49 CFS and 150 healthy BD were enrolled in the study. Active and latent/persistent viral infections determined by nPCR: the presence of viral genomic sequences in PBL DNA only was defined as latent/persistent infection; sequences in PBL DNA and blood plasma DNA was defined as active infection. Concurrent infection with both HHV-6 and HHV-7 was defined as simultaneous presence of both virus genomic sequences in DNA sample of patient (isolated from PBL or blood plasma).
Results: PCR analysis did not reveal a significant diference in the prevalence of latent/persistent HHV-7 infection