Movement Disorders Society Conference

Conference details: 16-20 June 2013, Sydney, Australia  Report by: Dr Thomas Foltynie, Consultant Neurologist, National Hospital for Neurology & Neurosurgery, & UCL Institute of Neurology, and Dr Alastair Noyce, Parkinson’s UK Doctoral Research Fellow, UCL Institute of Neurology.

As far as conference locations go, Darling Harbour in Sydney, Australia, is straight out of the top drawer. Even in the ‘dead of winter’, clear skies and an average temperature of 18 degrees, might tempt the most dedicated delegate away to admire the many wonderful sights on offer. That is, if the schedule itself were not equally enticing. We were welcomed on Sunday evening with a memorable performance by the aboriginal dance group Descendance. This special show, which included traditional welcome and kangaroo dances, was brought to us by one of Australia’s best-known aboriginal dance groups. After the formal welcome messages by the committee, we were further treated to a drinks and canapés reception, complete with up close and personal encounters with koalas, wombats and snakes.

The Movement Disorders Society meeting kicked off formally on Monday with a session on experimental therapeutics involving presentations by two pioneering neurosurgeons – Professor Stefano Palić on cell and gene therapy approaches for Parkinson’s disease (PD), and Professor Tom Freeman on cell repair approaches for Huntington’s disease (HD). This was followed by Dr Tom Foltynie’s updates on a variety of experimental approaches for PD currently undergoing trials – both symptomatic (Neuroderm’s subcutaneous L-dopa, Atoroxetine for PD dementia, Varenicline for gait freezing, Pitolisant for excessive daytime somnolence) as well as potential disease modifying approaches (namely Creatine, Inosine and Bradipine, as well as the two licensed diabetes drugs – Pioglitazone and Exenatide).

The Deep Brain Stimulation (DBS) update featured Dr Elena Moro who highlighted the uncertainties surrounding the future of the pedunculopontine nucleus (PPN) as a DBS target. Dr Jill Ostrem showed that DBS of the subthalamic nucleus (STN) is perhaps equally as good as the globus pallidus interna (GPi) target for dystonia patients, perhaps also without the risk of akinesia as a side effect. Lastly, Professor Jean-Luc Houeto updated us on DBS for Tourette’s syndrome and Obsessive Compulsive Disorder (OCD). It was a cautionary note to see violent dyskinesias provoked by STN DBS in a patient with OCD, reminiscent of the hemiballismus provoked by STN infarction.

In the next session, Professor Beom Jeon delivered a comprehensive presentation on our knowledge of the influence of genotype on PD phenotype together with a touching thank-you to Australians for their assistance to Korea during the Korean war. Professor Carl Clarke presented the PD MED data suggesting that L-dopa may perhaps be an appropriate first treatment for all PD patients (although acknowledging that young onset patients are largely underrepresented in the trial) and Janis Miyasaki highlighted the importance of the palliative care approach in advanced PD patients.

One particular highlight on the Monday, was the update on Dystonia. Professor Albanese described the process through which a panel of experts have sought to improve our approach to classifying dystonia (soon to be published in Movement Disorders), now including Axis 1 describing clinical characteristics and Axis 2 referring to the underlying anatomy and aetiology Professor Bhatia then reminded us of the range of paroxysmal movement disorders, recent genetic discoveries and the overlap between movement disorders and rare epileptic seizure presentations e.g. faciobrachial seizures associated with V1GK antibodies.

The Tuesday morning plenary sessions offered excellent talks on therapeutics in Parkinson’s, typical Parkinsonism and hyperkinetic/ataxic movement disorders. The new clinico-pathologically-themed ‘Challenge the Experts’ afternoon session saw renowned neurologists pitting their wits in the differential diagnosis of cases that included Fahr’s disease, pallido-lusian atrophy and progressive supranuclear palsy/chronic traumatic encaphelopathy overlap. An equally excellent panel of pathologists was present to discuss the pathological findings in great detail.

Wednesday morning brought the annual presidential award lectures. Recipient Philip Thomson gave an interesting Stanley Fahn lecture with the title ‘The Signs of a Neurologist’, and Peter Jenner from King’s College London then gave an excellent C. David Marsden lecture entitled ‘Parkinson’s disease: the Windmills of your Mind’. Alison Yarnall, from Newcastle, spoke beautifully on mild cognitive impairment in Parkinson’s. She won the junior award alongside two Korean candidates.

The newly named ‘Video Challenge’ took place on the Wednesday evening. This event was formerly known as the ‘Video Olympics’, until a formal challenge from the official Olympic Committee two years ago, and the name was revised to the ‘Video Games’. However this was felt to be insensitive to the plight of the patients in the cases, and the ‘Games’ element has now been dropped. There was a new look panel as well. Traditionally the Video Challenge saw two panels of four international experts go head-to-head in the diagnosis of difficult cases. This year there was a single panel of five experts including Professor Bhatia from Queen Square. The cases were as follows:

**Case 1** – Episodic ecoclyria – aromatic amino acid decarboxylase deficiency (AADC)

**Case 2** – Dystonia and mineralization of the basal ganglia – Neuronal Ceroid-Lipofuscinoses (INCL)

**Case 3** – Primary progressive aphasia and extra-pyramidal disorder – CSFIR gene mutation leading to Hereditary diffuse leukoencephalopathy with Sphoroids.

**Case 4** – Exercise induced ataxia with areflexia – Leukencephalopathy of brainstem and spinal cord involvement and increased lactate (DAR52 mutation)

**Case 5** – Progressive hyperkinetic movement disorder & choreoriinits – subacute sclerosing panencephalitis (SSPE)

**Case 6** – Progressive dystonia & cognitive impairment, strong family history – Gerstmann–Sträussler–Schenker disease

**Case 7** – Myoclonus and dystonia – Klinefelter’s syndrome

**Case 8** – Generalised myoclonus (Ramsay Hunt picture) & ataxia – mutations in SCA6 and MRE11 (Ataxia telangiectasia like syndrome)

**Case 9** – Progressive pyramidal dysfunction, strong family history – SPAX1 mutation

**Case 10** – Acute alien limb in hypotensive patient – intracerebral haemorrhage

**Case 11** – Parkinsonism, dysmorphic facies – 22q11.2 deletion syndrome

**Case 12** – Acute haemolysis, movement disorder and X-linked inheritance – phosphoglycerate kinase deficiency

**Cases 5, 1 and 6 won the bronze, silver and gold medals respectively.**

The Blue ribbon highlights session took place on the final morning of the Congress. The members of the panel presented the best abstracts from the week. Abstract categories included: basic science (including models and biomarker exploration), clinical aspects of movement disorders (neurobehavioural problems, developing at-risk cohorts, deep brain stimulation, mobile technologies, dopaminergic therapeutic strategies and PD in Africa). Further parallel sessions on Thursday afternoon brought the conclusion of an excellent meeting in an equally excellent city. Roll on MDS Congress 18 in Stockholm! ☘