
SSIEM Newsletter

Number 26 August 1997

Prague 2001

Prague will be the site for the SSIEM annual symposium in 2001. Prague, built in a broad valley paralleling the banks of the Vltava River and on the surrounding hills, is one of Europe's most picturesque cities. The local organiser for the meeting will Dr Viktor Kozich who is based at the Institute for Inherited Metabolic Diseases, Charles University 1st Faculty of Medicine.



Secretary's column

The SSIEM is now in its 35th year and so can be said to be moving into early middle age. The society continues to grow in strength and influence with membership numbers increasing year on year. It has been suggested that the society might expand its role from solely organising symposia and publishing its journal, to attempting to influence more directly the speciality it represents. For example the provision of training programmes in inborn errors and the organisation of specialist clinical and laboratory services are both matters which are of importance to SSIEM members. Many individual countries have their own local inborn errors society, for example the British Inherited Metabolic Disease Group within the UK, and it may be more appropriate for these national bodies to make appropriate recommendations if asked to do so. However there may be occasions where an international, or at least European, response is required. Whether the SSIEM should become more actively involved in producing recommendations for training and service provision needs to be discussed. In this edition of the newsletter we report on the lack of training programmes.

Report from Council

The current members of council are as follows:

- | Dr Brian Fowler (Chairman)
- | Dr John Walter (Hon Sec)
- | Dr Jim Bonham (Hon Treasurer)
- | Dr Rodney Pollitt (Editor-in-Chief, JIMD)
- | Dr Garry Brown
- | Dr Peter Clayton
- | Prof Wolf Endres
- | Dr Jean Kirk
- | Dr Albert van Gennip
- | Professor Kim Bartlett

After 6 years on Council Wolf Endres and Garry Brown retire in September. We are very grateful for the time and effort they have devoted to the SSIEM. Nominations, which should be sent to me prior to the AGM, are sought for their replacements. Jim Bonham, and Jean Kirk are standing for re-election for a further 3 years.

Corresponding members are as follows:

- | Mr U Caruso, Italy
- | Dr W Sperl, Austria
- | Dr H Ogier, France
- | Dr K M Gibson, USA
- | Prof J Jaeken, Belgium
- | Dr C Jakobs, Netherlands
- | Dr V Kozich, Czech Rep
- | Dr E A Kvittingen, Norway
- | Prof C Scriver, Canada
- | Prof Y. Eto, Japan
- | Prof M Ugarte, Spain
- | Prof K Ullrich, Germany
- | Dr B Wilcken, Australia

Please contact your local corresponding member to express a view on any aspect of the Society.

The full addresses of Council and Corresponding members are in your members' handbook.

Material for the newsletter should be to me at:

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Royal Manchester Children's Hospital
Pendlebury
Manchester
Fax: + 44 161 727 2137
E-mail: John@willink.demon.co.uk

Membership Enquires to:

Dr JR Bonham
Hon Treasurer SSIEM
Dept of Chemical Pathology,

Children's Hospital
Sheffield
S10 2TH
Tel: (0)114 271 7404
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E-mail: ssiemjb@vip.solis.co.uk

Dr J H Walter, Honorary Secretary, July 1997

Training programmes in metabolic disease

We have been able to collect some information on training programmes in various countries from SSIEM members. It is no surprise that there is no consistency in the programmes for those wishing to train in metabolic medicine. In most countries the speciality is not recognised and within the EU it is not clear whether that will change, particularly for paediatric Metabolic Medicine. There is little or no organised clinical or biochemical training so that in general arrangements have to be negotiated locally. In Australia and the USA training in Metabolic Medicine (or Biochemical Genetics) is covered by Medical Genetics Programmes. In the USA the training programme is specified but not very detailed. Several countries are in the process of developing programmes, both for clinicians and biochemists.

The role of the SSIEM is not clear and it is not realistic for the Society to be involved in negotiations for recognition in member countries with the possible exception of the EU. However it could usefully agree a syllabus for both clinical and laboratory training. These could serve as benchmarks whilst acknowledging that there must be flexibility. Any comments would be most welcome.

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Our work in Moscow - by Professor Krasnopolskaya

Professor Krasnopolskaya (front right) with her team



Dear colleagues,

Our most heartfelt wishes from the Research Centre for Medical Genetics, Moscow, Russia. Our

Department of Inherited Metabolic Disease is the only one of this kind in Russia. Since the 1980s the main direction of our activity has become the diagnosis and prevention of inherited metabolic diseases. A special programme for clinical and biochemical diagnosis and prevention of lysosomal storage diseases (LSD) has been developed, based on the interaction of genetic counselling units in the former Soviet Union with our Department. Some advantages in our work - large population base, presence of many ethnic groups with diverse genetic structure, concentration of both clinical and biochemical investigations in one Department - permitted us to accumulate considerable experience in diagnosis of LSD. Partly these results were published (J.Inher.Metab.Dis., 1 6,(1 993),994-1002).

Up-date: 25 different LSD (including juvenile and adult forms) were postnatally diagnosed in 461 patients from 419 families; 112 fetuses were prenatally diagnosed in LSD affected families, 27 were found to be affected and pregnancy was terminated. In 1992 and 1995 we organised conferences for families affected with LSD; well known European professionals participated and held consultations with Russian patients. In 1993 we opened a specialised clinical unit (at the All-Russian Children Hospital) for patients with LSD and began symptomatic therapy.

Lack of education of Russian paediatricians in the field of inherited metabolic diseases results in a high incidence of false-positive and false-negative diagnoses (>50%). This stimulated us to undertake a task of detailed clinical and statistical analysis of patients with different types of mucopolysaccharidoses (MPS) whose incidence is much higher than that of any other LSD. So, 249 patients with MPS and their genocopies (from LSD group) have been statistically analysed on 167 symptoms and signs. It permitted us to describe the "unique" set of symptoms and signs for each syndrome and to determine the "phenotypical distance" between them. Besides clinical and biochemical approaches we have begun DNA analysis of "Russian" MPS (mainly on the basis of international co-operation). 13 new mutant alleles in ASB (MPS VI) gene and two new mutant alleles in IDUA (MPS I) gene have been found. Another interesting result concerns the distribution of the common IDUA mutations -Q70X d W402X - 44% and 4%, respectively. Populations of Russia are characterised with the highest frequency of Q70X among Caucasian populations. Genocline of Q70X within North-European populations has been postulated.

Similar programmes for biochemical diagnosis and prevention of mitochondrial and peroxisomal diseases started in 1994. More than 30 patients with lactic acidosis, "paradoxical" hyperketonaemia, lactate/pyruvate molar ratio >20 and diverse clinical phenotypes have been diagnosed. The activity of I-V respiratory chain complexes as well as mtDNA analysis are now in progress. 14 patients with peroxisomal diseases (Zellweger syndrome, Zellweger-like syndrome, X-linked adrenoleukodystrophy, Refsum disease) have been diagnosed on the level of pathological metabolites.

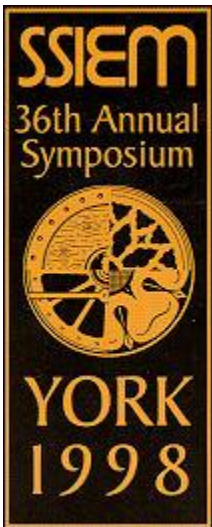
Keeping in mind the poor education of Russian paediatricians in this field we began to create a Database with full descriptions of inherited metabolic diseases including: clinical data, aetiology, genetics, pathogenesis, laboratory data, biochemical phenotype, paraclinical data, differential diagnosis, treatment and prevention. The first part of this Database, devoted to inherited metabolic diseases with early lethal outcome is complete.

We live in quite a different world from yours with quite different problems: how do we survive in the absence of subsidies? Our equipment includes one spectrophotometer, one spectrofluorimeter, one HPLC system and one GLC (presented to us by colleagues from Amsterdam Medical Centre - it no longer works because one board is out of order) and all these items are not new. We did not receive any salary for four months. The staff of our Department has been reduced by half since 1995. But Russians are mysterious people. The remaining 10 colleagues who are still working in our Department work even better than before and carry out all the necessary investigations for our patients and even some scientific work. We are going to start a new programme now - diagnosis and prevention of IMD. When the Ministry of Health stopped financing reagents for the LSD programme we began to produce ourselves the radiolabelled substrates for enzyme diagnosis of some LSD

The first substrate, for enzyme diagnosis of MPS type II, has been tested in many European laboratories (Dr. I Maire, Dr. O. v. Diggelen, Dr. R. Wevers, Dr. E. Young, Dr. A. Chabas) and was found to work very efficiently. Its price is much lower than that produced by Toronto Research Chemicals Inc. (Canada). If you need any of these substrates you are welcome. You will help us to survive. Unfortunately we have no hard currency for standard advertisements. So our Department is working more extensively than intensively in comparison with western biomedical groups. Due to the lack of equipment, financial and other problems I have spoken about we cannot afford to investigate each group of diseases or each disease thoroughly. But we have to cover as many groups of inherited metabolic diseases as possible in order to help our affected families.

Since 1991 when the doors of western laboratories and clinics opened for us many have helped us in different ways. I express our immense gratitude to all of them (in alphabetical order): Austria - Mrs M. Kraft, Dr. E. Paschke; Australia - Prof J.J. Hopwood; France - Dr. M. Vanier; Germany - Prof Ch. Peters, Prof. K. v. Figura, Mr. K. Fischer; Great Britain - Dr. J. Kirk, Dr. E. Wraith, Prof B. Winchester, Dr. E. Young, Mrs. C. Lavery, Mrs M. Pagett; Greece - Dr. H. Michelakakis; The Netherlands - Dr. R. Schutgens, Dr. A. van Gennip, Dr. R. Wanders, Dr. O. van Diggelen, Dr. W. Kleijer, Dr. W. Ruitenber; Norway - Prof O. Stokke, Dr. E. A. Kvittingen.

Prof X.D. Krasnopolskaya
Head of Dept. Inherited Metabolic Diseases
Research Centre for Medical Genetics RAMS



36th Annual Symposium, York, 1st-4th September 1998

The 36th Annual Symposium will be held at the University of York. The scientific programme will include a half day workshop on mass screening for metabolic disease and sessions on neurotransmitters and cerebral organic acidopathies, defects of fat oxidation and carnitine metabolism, new techniques in automated DNA analysis and the understanding of disease.

Millennium meeting - an update

Those of you who have attended the last SSIEM AGM or the 7th International congress of inborn errors of metabolism, will be aware that there is to be a joint symposium in the year 2000. It was initially planned to hold this in Oxford but we have been unable to find a suitable lecture theatre. Although the Apollo theatre was large enough for the plenary sessions, the theatre

King's College Chapel, Cambridge



management were unable to commit themselves so far in advance to a non-theatrical event. Although we could have changed the nature of the symposium to live costume drama, we looked instead for an alternative but equally popular venue. We have now decided to hold the millennium meeting in Cambridge. The conference facilities are excellent and the city's scientific and artistic heritage will ensure a large number of delegates. Unlike other SSIEM symposia we will organise the meeting along the lines of the International Congress with both plenary and parallel sessions. The scientific programme will be decided by representatives of the SSIEM, the International Congress, the Japanese Society for Inherited Metabolic Disease and the North American Society for Inherited Metabolic Disease (SIMD).

Meetings diary

Future SSIEM symposia 1998 to 2002

- | 1998 York (1st -4th Sept.)
- | 1999 Genoa (7th-10th Sept.)
- | 2000 Cambridge (13th-17th Sept)
- | 2001 Prague
- | 2002 Dublin

The 11th Annual Meeting of the Australasian Society for Inborn Errors of Metabolism (ASIEM) Perth, July 25th and 26th 1997

Further details from:

Dr Bridget Wilcken
Department of Biochemical Genetics
The New England Children's Hospital
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Parramatta 2124 NSW
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Fax +61 2 9845 3121, E-mail: bridgetw@mail.kids.usyd.edu.au

4th International Symposium on Brain Dysfunction - Neurogenetic Disease: From Molecule to Patient + International Prize on Brain Dysfunction Research, Troina, Sicily (Italy), September 24-26, 1997

For further details:

Tel. ++39-935-93611, Fax ++39-935-653327, E-mail hcerro@oasi.en.it

Research Trust For Metabolic Diseases In Children. Annual Conference

Stoke-on-Trent, UK
13th-15th September 1996
Stakis Hotel
Hanley

Stoke-on-Trent, UK

Further information from:

Mrs Lesley Greene
Research Trust for Metabolic Diseases in Children
Golden Gates Lodge
Weston Road
Crewe, UK,
CW1 1XN
Tel: (0)1270 250221. Fax: (0)1270 250244.

The Society for Mucopolysaccharide Diseases. 14th Annual Conference.

Stakis Country Court Hotel
Northampton
UK
20th-22nd September 1996

Further information from:

The Society for Mucopolysaccharide Diseases
55 Hill Avenue
Amersham
Buckinghamshire
HP6 5BX
Tel: (0)1494 434156. Fax: (0)1494 432252

Annual Conference of the German **Selbsthilfegruppe Glycogenose Deutschland e.V.** (Mutual Help Group for Glycogen Storage Disease)
Immenreuth (Barvaria), Oct 24th - 26th 1997

For further information contact:

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Gockelstr. 5
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7th International Congress on Neuronal Ceroid-Lipofuscinoses,

The University of Texas
Southwestern Medical Centre
Dallas
Texas
USA

Further information from:

Tel: +214 648 2166
Fax: 214 648 2317

Membership Support Scholarships

For many years, the SSIEM has supported a number of delegates attending the annual symposium by the award of scholarships. At a recent meeting of Council it was decided to extend this support to membership of the Society. This will allow workers in the inborn error of metabolism field, who are financially unable to join the society, to have access to the benefits of membership.

Successful applicants will become full members of the Society for one year. They will receive current mailings of the Journal of Inherited Metabolic Disease. This includes the Review and Short Communications issues from the previous year's symposium, and the Abstract book for the current year's symposium as well as the regular issues. They will also receive issues of the Newsletter, and a current members' handbook.

Applications should include the following:

1. a personal statement of not more than 250 words stating why you need financial support
2. a brief summary of your career and interests in inborn errors of metabolism
3. a letter of support from your Head of Department or Institution.

Send applications to:

Dr J M Kirk
Scholarship Treasurer
Dept Paediatric Biochemistry
Royal Hospital for Sick Children
Sciennes Road
Edinburgh EH9 1LF
UK
Fax + 44 131 536 0410, E-mail John@willink.demon.co.uk



Joe Ireland

J.T. Ireland, or Joe as he was fondly known, died earlier this year at the age of 83. He was a founder member of the SSIEM and is believed to have attended every Annual Symposium of the Society. Joe became a member of the first Committee of the SSIEM when its constitution was drafted at a meeting in Stockport, England in October 1963. Between 1972 and 1983 he was Secretary of the Society.

Both prior to, and during his time as Secretary, Joe was responsible for the organisation of many of the Annual Symposia. At this time in the history of the Society there was often little local input into the organisation of the Symposia, and Joe, with several of the staff from his department, would take complete responsibility for the efficient running of the meetings. In 1979, the many pressures of the Secretary's job were recognised and a post of Assistant Secretary was created. In addition to his administrative duties, in 1968 and 1973 Joe was joint editor of two of the Society's Monographs which were based on the proceedings of the 6th and 11th Symposia. In 1979 his contribution to the development and success of the

SSIEM was recognised when he was elected to Honorary Membership.

Joe was born in Liverpool on the 11th June 1913 and apart from a 4 year period of war service he was resident in the city throughout his life. In 1931 he was awarded a City Scholarship to Liverpool University and graduated in Biochemistry 3 years later. During the following 6 years he held Research Fellowships at the Liverpool Heart Hospital researching dietary factors which contributed to hypertension.

Following the break from his scientific career due to war service, Joe was attracted to a post in charge of the Biochemistry Department at Maelor General Hospital, Wrexham. In 1948, he moved to take on a further challenge, as head of a new Biochemistry Laboratory at Alder Hey Children's Hospital, Liverpool. At this time many graduate chemists and biochemists were being recruited into hospital laboratories in order to apply new technologies to patient investigation. These 'clinical biochemists' began meeting in local groups in order to discuss their common interests and Joe Ireland became extremely active in the formation of a group in the North-West of England. In 1953, a national organisation, the Association of Clinical Biochemists, was formed. Joe was Business Manager of the Association's News Sheet between 1961 - 70, thus combining this arduous duty with those in the SSIEM.

Joe held his post at Alder Hey for over 30 years and during this time he made many notable contributions within the hospital, and to clinical biochemistry and the inherited metabolic diseases in general. At the outset he was faced with problems which were common to all paediatric biochemistry departments at that time. It was difficult to obtain a good blood sample from babies and young children and most of the published analytical methods used far more blood than was available from these subjects. Joe first developed and taught his staff to use a safe method of obtaining a sample of blood from the heel or finger, and also set about producing methods for all the standard tests using 5 μ l volumes of blood. Many of these tests required equipment that was not readily available commercially, and in these circumstances Joe would turn his ingenuity to making the apparatus himself.

Joe's interest in the inherited metabolic diseases was first stimulated by the diagnosis of a case of phenylketonuria in the late 1950's. His contributions to the investigation of this patient included the development of a paper chromatographic technique to quantitate serum phenylalanine. This was long before amino acid analysers were readily available. Subsequently, a newborn screening method was introduced using cellulose acetate chromatography. As a result of the available expertise the Mersey Regional Neonatal Screening Laboratory was set up at Alder Hey in 1961.

Soon after the interest in phenylketonuria began at Alder Hey, Mr J Milner, a generous sponsor of the SSIEM in its formative years, sought the collaboration of Joe Ireland and Dr Freddie Hudson, a paediatrician at the hospital and a past Chairman of the SSIEM, in the production and clinical trial of a low phenylalanine protein hydrolysate starting from fish albumin. Facilities for the commercial manufacture of this product were obtained at a local firm which made chemicals for the brewing industry. A new firm, Scientific Hospital Supplies (SHS), was set up in 1960 in order to manufacture and market this new and successful product. On his retirement from Alder Hey Hospital, Joe was for a number of years a part-time Research Fellow in Coeliac Syndrome at Broadgreen Hospital, Liverpool and a Consultant to SHS, a position he held up to his death. When SHS were awarded the Queen's Award for Export Achievement, Joe was nominated to accept the reward on behalf of the company in recognition of his contributions to their work over many years.

Apart from his work and his family, Joe's main interest was supporting Liverpool Football Club. He was a regular attender at their matches with one of his grandsons, often travelling long distances to away fixtures, even in his latter years. He is survived by a daughter, 4 grandchildren and 4 great-grandchildren. Sadly, his familiar figure will be missing from future SSIEM meetings.

Dr John Holton
