International Society for Twin Studies

10th INTERNATIONAL CONGRESS ON TWIN STUDIES

4th - 7th July 2001
at
Imperial College of Science, Technology & Medicine
South Kensington
London SW7 1LU

Supported by
Multiple Births Foundation
Twins and Multiple Births Association
Twin Research and Genetic Epidemiology Unit
Acknowledgements

Many people have been generous with advice, encouragement and practical help. We are very grateful to them all.
We particularly thank members of the Multiple Births Foundation, the Twins and Multiple Births Association and the Twin Research Unit at St. Thomas’s Hospital, London for their consistent support throughout.

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Jane Gardiner, Stephen Hawkins, Clare Owen, Cathy Phillipps, Carole Sweetland (Administration)
Katherine Kirk (Website Manager)
Pat Preedy (Volunteer Coordinator)
Jane Ellison (Tamba Help Desk)
Jane Ellison (Tamba Help Desk)
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Alison MacDonald and Jacob Orlebeke (Abstract sorting)
Michael Dooley, Dee Hoseason, Alastair Sutcliffe (Fundraising)
Lynn Molloy (Publicity)
Eileen Aris, Jay Buckler, Christine Burton (Flowers)
Lizzie Hingley (Photography)
Angela Boon, Gerald Corney, Jacky Gordon, Ronald Higgins, Camilla Sim

We also thank the many other volunteers who will be helping at the Congress itself.

Elizabeth Bryan
President
Judy Gowing
Administrative Organiser

Endorsed by

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Finnish Multiple Births Foundation
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Nederlands Tweelingvereniging
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Twin Services Consulting (USA)
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Twin Studies Center (USA)
Worldwide Twins & Multiple Births Foundation Inc (Nigeria)
Zwillingselter-Club (Switzerland)

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Serono Benelux
The British Academy
The Center for the Study of Multiple Births
From the Patron

As Patron of this Congress I offer a warm welcome to everyone of you.

My personal interest in twins started over 30 years ago with the birth of my fifth and sixth children, identical twin boys. I am therefore especially pleased to be involved in an event where twins are the common interest of every participant. This three-yearly international congress provides a wonderful opportunity for scientists and clinicians from different fields of interest both to meet each other and to learn from those who personally experience the pleasures, fascinations and, not uncommonly, the stresses of parenting twins or indeed of being a twin.

As a mother of twins myself, I am well aware that they can bring not only enormous extra joy but also extra problems. Sadly, I have also seen the very special sorrow of a child whose twin dies, when one of my twins was killed, aged 14, by the IRA bomb which killed my father and also my mother-in-law. I am therefore glad that, for the first time, the problems of bereavement in multiple birth families will be addressed in an international symposium.

That so many of you have gathered here from all over the world clearly shows the growing importance of twins and twin studies. I am sure you will find your participation in this Congress profoundly rewarding as well as enjoyable.

From the President

It is a real privilege and a great pleasure to welcome you all to London for the 10th International Congress on Twin Studies - the first in the new millennium.

We are delighted to see large numbers of longstanding friends and just as pleased to greet many of you for the first time. At least thirty countries are represented here and we particularly welcome the many who have travelled long distances from Asia Pacific.

As we all know, the numbers of twins and triplet births are rapidly increasing worldwide. At the same time exciting developments in the field of genetics make twin studies even more important. With the publication of the map of the human genome, twin studies are increasingly being used to assess the genetic influences of diseases. They will help pinpoint the role of the 30,000 genes that are now believed to be involved.

We have introduced some new topics to the programme this year such as bereavement and will focus on a much broader range of human traits and diseases than ever before. We have also included various controversial issues including the often underestimated financial and social costs of multiple births following infertility treatment. The Congress will pursue these and other subjects with vigour. It will take full advantage of the wealth of experience of the scientific researchers, clinicians and other professional carers but also of the many parents of twins who have joined us again from around the world.

We hope that you will find your time and contacts here so rewarding that you will not only join the International Society for Twin Studies but encourage others to do so.

The Scientific Programme is very full but there are plenty of social events too including the Concert at St James’s Piccadilly, the Reception at the House of Lords and the 'Flight' on the London Eye. I hope you and those who accompany you will enjoy all these to the full.
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  - 10.00 - 5.00 Saturday
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**FULL PROGRAMME**

Programme Committee: Elizabeth Bryan (chair), Isaac Blickstein, Nicholas Martin, Pat Preedy, Tim Spector

The figures after each title refer to the Abstracts printed in Twin Research Vol 4, Issue 3

**WEDNESDAY, 4TH JULY 2001**

08.30 ISTS Board meeting

**PRE-CONGRESS EVENTS**

**PC1** Symposium on Multiple Pregnancy in honour of Professor Ian MacGillivray
Sponsored by Ferring

09.30 Welcome by Louis Keith and Isaac Blickstein
Chaired by Louis Keith
09.45 Epidemiology of multiple births: Alison Macfarlane* (UK)
10.15 Twinning and zygosity – when, why and how? Robert Derom (Belgium)
10.45 Coffee
Chaired by Isaac Blickstein
11.15 Spontaneous and induced preterm birth in multiple pregnancies: Emile Papiernik (France)
11.45 The role of ultrasound: Birgit Arabin (The Netherlands)
12.15 The management of maternal complications: Doris Campbell (UK)
13.00 Lunch
Chaired by Elizabeth Bryan
14.00 A tribute to Ian MacGillivray: Naren Patel (UK)
14.15 Role of placenta and cord in outcomes of twin pregnancies: Geoffrey Machin (USA)
14.45 How should twins be delivered? Hakan Rydstroem (Sweden)
15.15 Tea
Chaired by Naren Patel
15.45 The Ten Commandments in Multiple Pregnancy: Gian Carlo di Renzo (Italy)
16.15 Controversial issues: Isaac Blickstein (Israel)
17.00 End
*see Kiely paper

**PC2** Symposium on The Loss of a Twin
Sponsored by Department of Postgraduate General Practice Education, North Thames (West)

13.00 Welcome by Patricia Swanson and Barbara Read
Bereavement in the Arts
Chaired by Barbara Read
14.00 How families cope with perinatal loss of a twin: Patricia Swanson (Australia) 240
14.30 The context and long-term impacts of a multiple birth loss: Jean Kollamai (USA) 128
15.00 Tea with Poster and Art Display
Chaired by Patricia Swanson
15.30 Loss in higher multiple pregnancy and multifetal reduction: Elizabeth Bryan (UK) 031
16.00 When twins lose twins: implications for theory and practice: Nancy Segal (USA) 219
A Celebration of Twins: video and discussion with twin artists
moderator: COMBO

A twin approach: a study of twins discordant for PC3

16.30 Panel:
16.30 Panel: Patricia Swanson (Chairman) with Countess Mountbatten of Burma, Jim Brockbank, Judith Houghton, Barbara Read, Alistair Ross and Joan Woodward

End

PC3 Workshop on Twin Registers
Chaired by Andreas Busjahn and Beverley Botting

14.00 Introduction

14.05 (S) Behavioural data in volunteer and population-based twin registers: David Hay (Australia) 099

14.25 (S) Starting from scratch in Sri Lanka: Athula Sumathipala (Sri Lanka) 235

14.45 (F) The Korean Twin Registry: Joohon Sung (South Korea) 236

15.00 (F) The Mid-Atlantic Twin Registry: Lisa Anderson (USA) 006

15.15 (F) The Italian Twin Registry: Antonia Stazi (Italy) 221

15.30 Tea

16.00 (F) Development and representativeness of a population-based cohort of twins: Myles Cockburn (USA) 043

16.15 (F) Establishment of a new population-based twin registry in Washington State: Jack Goldberg (USA) 001

16.30 (F) How representative is the Western Australia Twin Register? Janice Hansen (Australia) 097

16.45 (F) Systematic ascertainment of twins with clinically apparent disease in British general practices: a pilot study: David Strachan (UK) 230

End

PC4 Open Session – A Celebration of Twins:
Chaired by Elizabeth Bryan and Faith Halflett

17.00 End

17.00 End

19.00-21.00 Welcoming Reception at Imperial College

21.00 Bode Lawal and members of the Sakoba Dance Theatre

THURSDAY, 5TH JULY 2001

09.00 Opening Ceremony
Welcome by Elizabeth Bryan
Twins in 21st century Robert Winston
A tribute to Luigi Gedda by Paolo Parisi

P11 A - Plenary Session
Chaired by Nicholas Martin and Tim Spector

09.30 (S) The Roche Lecture - Genetics of behavioural development - new questions need new models: Lindon Eaves (USA) 069

10.00 (S) The biological and social origins of coronary heart disease: David Barker (UK) 015

10.30 End

C1 B - COMBO
Chaired by Pat Preedy

09.30 COMBO Development Plan – evaluation (new projects/new COMBO Directors)

10.00 (F) The universal dilemma: the educational needs of twins: Pattie Beemer (USA) 019

10.15 (F) Tambo financial needs campaign for families of two or more children born of a single pregnancy: Jane Ellison (UK) 072

10.30 (F) Multiple birth families: their needs and experiences: Hilary Collins (UK) 045

10.45 End

S1 A - Behaviour Genetics
Chaired by Richard Rose and Richard Viken

11.00 (S) Genetic correlation between inspection time and IQ: Danielle Posthuma (The Netherlands) 203

11.15 (S) Genetic structure of working memory and its relationship to brain function: Juko Ando (Japan) 007

11.30 (F) Genetic and environmental influences on individual differences in developmental of cognitive styles in children from 6 to 16 years: Marina Egorova (Russia) 070

11.45 (S) Current directions in personality research with twins: Robert Krueger (USA) 130

12.00 (F) Genetic and environmental influences on problem behaviours in 5-year-old Dutch twins: Toos van Beijsterveldt (The Netherlands) 252

12.15 (S) Patterns of family transmission in personality: Richard Viken (USA) 259

12.30 (F) The covariance structure of neuroticism and agreeableness: a twin and molecular genetic analysis of the role of the serotonin transporter gene: Kerry Jang (Canada) 117

12.45 General Discussion – moderator: Richard Rose (USA)

13.00 End

S2 B - Epidemiology
Chaired by Alison Macfarlane

11.00 (S) Trends in twinning, triplet, and other multiple births in developed countries: Yoko Imaiuzumi (Japan) 115

11.15 (S) The contribution of assisted reproductive technology to the rise in multiple births: Laura Schieve (USA) 214

11.35 (S) The impact of the increasing number of multiple births on the indicator of pregnancy outcome: Béatrice Blondel (France) 026

11.55 (F) Secular and spatial differences in twinning rates in Sweden, 1750-1970: Aldur W Eriksson (Finland) 074

12.10 (F) A retrospective population based study of twin birth weight discordancy: Christine Conner (UK) 046

12.25 (F) Neonatal mortality in like and unlike sex twins and cerebral palsy in the co-twin survivor of an infant death: Peter Pharoah (UK) 195

12.40 (F) Rates of hospital admission for childhood asthma among Australian twins and singletons: Nicholas de Klerk (Australia) 056

12.55 General Discussion

13.00 End

S3 C - Fetal programming
Chaired by David Phillips and Robert Vlietinck

11.00 (S) Introduction: David Phillips (UK)

11.10 (S) Diabetes and semi-starvation during rat pregnancy and lactation: consequences for the female offspring: Kathleen Holemans (Belgium) 115

11.35 (S) Fetal growth and the insulin-like growth factor (IGF) system: Johan Verhaeghe (Belgium) 256

12.00 (S) The fetal origins of adult disease – a twin approach: Ruth Loos (Belgium) 147

12.25 (F) Fetal growth and systolic blood pressure in Swedish male twins in young adulthood: Finn Rasmussen (Sweden) 208

12.35 (F) Birth weight, early environment, and genetics – a study of twins discordant for acute myocardial infarction: Anna Hübni ette (Sweden) 112
12.55 Summary: *Robert Vlietinck (Belgium)*
13.00 End

**13.00 Twin Research Editorial Board Meeting**

**S4 A - Advances in Twin and Sib-pair study methodology**

Chaired by *Harold Snieder and Tim Spector*

14.00  (S) Combined linkage and association analysis in gene discovery: *Lon Cardon (UK)* 038
14.20  (S) The use of cluster analysis in multivariate models: *Alex MacGregor (UK)* 154
14.35  (S) Including quantitative trait loci in statistical models to study the interplay of multiple factors affecting complex traits: *Harold Snieder (USA)* 253
14.50  (S) Gene-by-environment interaction in twin and sib-pair analysis: *Shaun Purcell (UK)* 207
15.10  (S) Virtual twins and what they tell us about human behaviour: *Nancy Segal (USA)* 220
15.30  (F) A new MZ-only design: X chromosome inactivation and the female survival advantage: *Kaare Christensen (Denmark)* 041
15.45  (F) Distinguishing causal from non-causal associations using random effects regression models for twin data: *Jack Goldberg (USA)* 010
16.00 End

**S5 B - Twinship**

Chaired by *Alison Macdonald and Barbara Read*

14.00  (S) Social relationships: twins reared together, twins reared apart and twins without partners: *Nancy Segal (USA)* 218
14.20  (S) One and one make(s) three: A grounded theory study of twinship and the needs of twins in psychological counselling: *Alison Macdonald (UK)* 153
14.40  (S) Double bind: anorexia nervosa in monozygotic twins: *Patricia Marsden (UK)* 164
15.00  (F) Twins at puberty — A follow-up study of 32 twin pairs: *Brita Alin Åkerman (Sweden)* 003
15.15  (F) Inter-twin relationships and mental health: *Irma Moilanen (Finland)* 174
15.30  (F) Inter-twin relations and inter-twin dependence: *Varpu Penninkilampi (Finland)* 192
15.45 General Discussion
16.00 End

**S6 C - Neonatology and Child Development**

Chaired by *Manuel Carrapato and John Buckler*

14.00  (S) Perinatal steroids in multiples: *Manuel Carrapato (Portugal)* 040
14.20  (S) Neonatal care of multiples: *Janusz Gadowski (Poland)* 082
14.40  (F) Twin infant sleeping arrangements and implications for SIDS: *Helen L Ball (UK)* 011
14.50  (S) Cerebral palsy in twins: does it have a different aetiology? *Malcolm Levene (UK)* 140
15.10  (S) Growth and development of twins: *John Buckler (UK)* 034
15.30  (F) Stability and change in perceived autonomy during early adolescence: *Ruth Gutman Israel* 093
15.40  (F) Associations between triplet etiology and child behaviour problems at school age: *Suus van Hekken (The Netherlands)* 254
15.50 General Discussion
16.00 End

**S7 A - Complex Diseases and their Genetic Epidemiology I**

Chaired by *Jaakkko Kaprio and Kristian Tambs*

16.30  (S) Finding genes for common human diseases: *Nicholas Martin (Australia)* 166
16.45  (C) A study of asthma and allergies in 5-year-old Dutch twins: *Dorret Boomsma (The Netherlands)* 028

**Wednesday 4th July 2001**

**PRE-CONGRESS EVENTS**

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<td>PC3: Twin Registers</td>
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<td>19.00 - 21.00 Welcoming Reception</td>
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<td>21.00 - 22.00 Yoruba singer Bode Lawe and Sekoba Dance Theatre</td>
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### Thursday 5th July 2001

#### SCHEDULE OF EVENTS

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<td>S3: Fetal Programming</td>
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<td>S5: Twinship</td>
<td>S6: Neonatology and Child Development</td>
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<td>S7: Complex diseases and their genetic epidemiology</td>
<td>S8: Multiple Pregnancy</td>
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<td>19.45</td>
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17.00  (S) Genetic and environmental factors in asthma and hay fever: Markku Koskenvuo (Finland) 129
17.15  (S) Back-neck pain and symptoms of anxiety and depression: a population-based twin study: Ted Reichborn-Kjennerud (Norway) 210
17.30  (S) A Twin study of low back symptoms: Jaakko Kaprio* (Finland) 017
17.45  (F) Genetic factors account for the co-occurrence of Raynaud's and migraine: Alex MacGregor (UK) 156
17.55  (F) Genetic epidemiology of cardiovascular reactivity in adolescence: Hermine Maes (USA) 188
18.05  (F) Issues in the biometrical genetic analysis of MRI brain volume data: Michael Neale (USA) 176
18.15  (F) Status Epilepticus in a Virginia Twin Sample: Linda Corey (USA) 047
18.25  Discussion
18.30  End

*see Battle abstract

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### FRIDAY, 6TH JULY 2001

#### PI2  A - Plenary Session

Chaired by Jaakko Kaprio and Jacob Orlebeke

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<td>09.00</td>
<td>(S) Genetic and environmental influences on social attitudes, values, interests and personality: Thomas Bouchard (USA) 029</td>
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<td>09.00</td>
<td>(S) Genetics and cognitive abilities and disabilities: Robert Plomin (UK) 201</td>
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09.30 (S) What have twin studies taught us about aging? Nancy Pedersen (Sweden) 190
10.00 (F) The relative importance of genetic and environmental factors to death prior to age 65 years: Axel Skytte (Denmark) 223
10.15 General Discussion
10.30 End

S10 B - Discordant Twins
Chaired by Ricardo Laurini (Twin Placenta Club) and Nicholas Fisk
08.30 Introduction: Ricardo Laurini
08.35 (S) Characterisation of anastomotic anatomy in twin-twin transfusion syndrome: Ling Wei (UK) 262
09.05 (S) Functional studies of monochorionic vascular anastomoses in vivo: Myles Taylor (UK) 243
09.35 (S) Blood flow changes in discordant twins: Peter Malcus (Sweden) 162
10.05 (S) Placental pathology in discordant twins: Ricardo Laurini (Portugal) 137
10.30 End

S11 A - Complex Diseases and their Genetic Epidemiology II
Chaired by David Leslie and Kirsten Kyvik
11.00 (S) Are disease discordant identical twins the perfect device to study autoimmunity? Marco Londei (UK) 146
11.30 (F) A population based study of multiple sclerosis in twins from continental Italy and Sardinia: Stefania Cannoni (Italy) 037
11.37 (F) Cyclo-oxygenase-2 (COX-2) expression in identical twins discordant for Type 1 Diabetes: Huriya Beyan (UK) 023
11.44 (F) Genetic and environmental influences on acne in adolescent twins: Katherine Kirk (Australia) 124
11.51 Discussion
12.00 (S) Twin studies in metabolic disease: Type 2 Diabetes and the metabolic syndrome: Henning Beck-Nielsen (Denmark) 018
12.30 (F) Is post-traumatic stress a risk factor for coronary heart disease? Jack Goldberg (USA) 090
12.37 (F) Evidence for shared genes between insulin resistance and haemostasis: Marlies de Lange (UK) 057
12.44 (F) Primary osteoarthritis of the hip in monozygotic and dizygotic male twins: William Page (USA) 188
12.51 General Discussion
13.00 End

S12 B - Education
Chaired by Pat Preedy
11.00 Launch of education website: Introduction by Michael Rutter (UK)
11.15 (S) Developing the Multiples in School website: David Hay (Australia) 100
11.40 (S) Myths and reality in decisions about multiples in school: David Hay (Australia) 101
11.55 (S) Meeting the educational needs of multiple birth children on school entry: Pat Preedy (UK) 204
12.10 (S) Monitoring the educational achievements of twins and higher multiples from entry to school at age 4: Peter Tymms (UK) 250
12.30 (F) Higher multiples in school and preschool: Diane Galloway (UK) 083
12.45 (F) Equity issues and educational concerns of twin siblings: John Mascamine (USA) 167
13.00 End

S13 C - Assisted Reproduction: Counting the Costs
Sponsored by Organon
Chaired by Jane Denton and Isaac Blickstein
11.00 (S) Reproductive medicine, multiple births and the sequelae for the children: Nicholas Fisk* (UK) 143
11.20 (S) Assisted reproduction – counting the cost. Economic implications of multiple births: Jane Henderson (UK) 107
11.40 (S) Looking beyond the technology: coping with higher order multiples: Donna Launslager (Canada) 136
12.00 (F) The effects of assisted reproduction in the trends and zygosity of multiple births: England and Wales 1974-99: Peter Pharoah (UK) 198
12.15 (F) Multiple pregnancy and perinatal deaths after assisted conception: Paul Lancaster (Australia) 134
12.30 (F) Projections of population-based triplet birth ratios throughout the next decade – is the epidemic uncontrollable? Jaroslaw Oleszczuk (Poland) 183
12.45 (F) The cost-effectiveness of in vitro fertilisation: Christopher Jones (UK) 119
13.00 End
*see Lieberman abstract

13.45 A - ISTS Business Meeting (ISTS Members only)

15.00 Tea

S14 A - The Genetics of Psychopathology
Chaired by Jack Goldberg
15.15 (S) A twin study of chronic fatigue: Jack Goldberg (USA) 032
15.30 (S) Chronic fatigue syndrome in the Swedish Twin Registry: Nancy L Pedersen (Sweden) 191
15.45 (S) Psychiatric comorbidity in chronic fatigue syndrome: a co-twin control study: Dedra Buchwald (USA) 109
16.00 (F) Concordance for major depressive disorder controlling for birth weight differences in the Missouri Adolescent Female Twin Study: Anne Glowinski (USA) 089
16.15 (S) Navigating the cultural universe of genetic research among American Indians: Spero Manson (USA) 163
16.30 (F) The specificity of familial risk for mania versus alcoholism: Courtney Lynch (USA) 151
16.45 (F) Schizophrenia in twins: Cassandra Smith (USA) 225
17.00 (F) "Self-medication" with nicotine: twin pairs discordant for schizophrenia: Michael Lyons (USA) 152
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S15 B - The Etiobiology of Monozygotic and Dizygotic twinning
Sponsored by Serono Benelux
Chaired by Cornelis Lambalk and Catherine Derom
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15.45 (S) Monozygotic twinning and assisted reproduction: Alastair Sutcliffe (UK) 237
16.05 (S) Monozygotic twinning rate after ovulation induction: Catherine Derom (Belgium) 059
16.20 (S) The endocrinology of dizygotic twinning in the human: Cornelis Lambalk (The Netherlands) 133
16.45 (S) The genetics of dizygotic twinning: Grant Montgomery (Australia) 175
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Chaired by Judi Linney, Donna Launsler
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15.40  (F) Twin parenting patterns: Audrey Sandbank (UK) 213
15.50  (F) Parenting stress among parents of twins: IVF vs. spontaneous: Liora Baor (Israel) 012
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16.35  (F) Parenting multiple births: a grounded theory: Arnette Anderson (Canada) 005
16.45  (F) Playing God: a phenomenological study of women's decision-making regarding multifetal reduction: Kate Sullivan Collopy (USA) 234
16.55  (F) Twins - the particular issues for children born as a result of donor-assisted conception: Julia Feast (UK) 076
17.05  (F) The social reality of twinship: Elizabeth Stewart (UK) 229
17.15  End

17.15 – 18.00 Poster Presentations
Judges:  A: Dorret Boomsma, Nick Martin and Michael Neale;
         B: Isaac Blickstein, Manuel Carrapato and Hakan Rydhstrom;
         C: Britta Alin Åkerman, David Hay and Rachel Hudson.

GALA EVENING
18.15 & 18.30 Coaches leave Imperial College
19.00 – 21.00 Reception at the House of Lords
21.00 & 21.30 Flight on the London Eye
20.00 - 22.30 Refreshments available in ICTS room at Bar Med, County Hall
21.45 - 22.30 Coaches return to Imperial College

SATURDAY, 7TH JULY 2001
P14  A - Plenary Session
Chaired by Elizabeth Bryan and Nancy Segal
08.30  (S) Human clones: which side are you on? John Burn (UK) 035
09.00  (S) The Bertarelli Foundation Lecture - Using twinning to monitor human fertility: Roger Short (Australia) 221
09.30  (F) Mechanism of natural dizygotic twinning: Charles Boklage (USA) 027
09.45  (S) Twins: what they might teach us about the development of sexual identity? Milton Diamond (USA) 063
10.15 Presentation of poster prizes and the James Shields Memorial Award for twin research in behavioural genetics
10.30  End

C2  B - COMBO
Chaired by Pat Preedy
08.30  (F) Early breast feeding of multiple newborns: Ilidiko Nyirati (Hungary) 180
08.45  (F) Why a national parent and user group is essential to improve the quality of health and social care: Judi Linney (UK) 145
09.00  (F) Twin festivals to facilitate twin research: Donald M Keith (USA) 122
09.15  (F) Assessing need and developing a strategy for a national voluntary organisation: David Stern (UK) 228
09.30  (F) Iceland: setting up an antenatal class for parents expecting twins: Karitas Halldorsdottir (Iceland) 095
09.45 Election of COMBO Directors
10.00 General Discussion – new COMBO projects
10.30  End

S17  A - Controversial Issues: Sexual Reassignment, Conjoined Twins and Constitutionality of School Separation
Chaired by Nancy Segal
11.00  (S) Sex reassignment in MZ male twins (the John/Joan case) and what this might tell us about sexual identity: Milton Diamond (USA) 062
11.30  (S) Examining the legality of mandatory twin separation: Lana Larson Dean (USA) 135
12.00  (S) What would it mean to think of conjoined twins as individuals? Ethical problems in the management of conjoined twinning: Alice Domurat Dreger (USA) 068
12.30  (S) Conjoined twins – whether to separate: James O'Neil Jr (USA) 186
13.00  End

S18  B - Substance Abuse
Chaired by Wendy Slutske
11.00  (S) Secular change and gene-environment interaction effects in alcoholism: results from the Young Adult Australian Twin Cohort: Andrew Heath (USA) 103
11.25  (S) Gene-environment interaction in alcohol use and abuse: data from Finnish twin studies: Danielle Dick (USA) 064
11.50  (S) Sex-specific genetic influences on the comorbidity of alcoholism and major depression in a population-based sample of US twins: Carol Prescott (USA) 205
12.15  (F) Genetic and environmental influences on the relationships between antisocial behavior and alcohol abuse and dependence in male twins: Kristen Jacobson (USA) 116
12.40 General Discussion
13.00  End

S19  C - Understanding Cancer Development by using Twin Studies
Chaired by Paul Lichtenstein with Nicholas Martin (Australia)
11.00  (S) Heritability for cancer, comparison between twin and family studies: Paul Lichtenstein (Sweden) 142
11.15  (S) Epidemiological studies of cancer in twins in England and Wales: Anthony Swerdlow (UK) 242
11.30  (S) Understanding cancer development by using twin studies: Anders Ekbom (Sweden) 071
11.45  (S) Molecular analysis of breast cancer in MZ twins: Kari Hemminki (Sweden) 106
12.00  (F) Phenotype of heritable breast cancer according to the occurrence in twins: Thomas Mack (USA) 157
12.15 General Discussion with Nicholas Martin (Australia)
13.00  End

END OF CONGRESS
13.15 Meeting of New ISTS Board

SATURDAY AFTERNOON 13.30 - 17.00
Meeting for parents organised by Tamba (Twins and Multiple Births Association).
Keynote speakers: Nancy Segal and Donna Launsler.
Details and registration form from Jane Ellison at the Tamba Help Desk.
CONGRESS NOTES:

Badges will be issued on registration and should be worn visibly at all times at the Congress.

Bar: Alcoholic drinks and alcohol-free drinks can be bought from:
Southside Bar in Princes Gardens, off Exhibition Road (18:00 - 23:00) - College residents only.
Senior Common Room in the Sherfield Building (Opening hours are 11.00-15.00,18.00-20.00)

Bookshop: Waterstones Bookshop will be in the Ante Room to the Dining Hall with a variety of publications ranging from medical text books to fiction.

Buses & Underground: (for those unfamiliar with travelling in London)

Buses: Most buses will only stop at designated bus stops, which will either be 'Fare Stage' or 'Request Stop'. The bus should automatically stop at all Fare Stages but will only stop at Request Stops if hailed (with an outstretched arm). Fares are £1 for a journey of any length within central London, 70p outside the centre. On buses entered from the back, the conductor will collect the fares while the bus is moving. Some buses are one-man operated and fares should be paid to the driver on entry.

Underground (The Tube): Tickets must be bought before starting the journey from automated machines or ticket offices at the stations. Travel cards are convenient and good value @ £4.00 per day (for Zones 1 & 2: Central London), if more than 2 or 3 journeys are necessary. They can be used on all buses and tubes after 09.30 and are purchased at newsagents displaying the London Transport logo as well as at Bus and Tube stations.

Cloakroom: for coats/baggage etc is situated on the lower ground floor in the Sherfield Building (below the Registration Desk). However the Halls of Residence all have luggage storage facilities.

CME credits: The Royal College of Paediatrics & Child Health has accredited the Congress with 14 CPD credits. All those wishing to claim the credits need to sign the Congress register, at the Registration Desk.

Coach transport to the House of Lords on Friday evening will leave from Exhibition Road outside the Mechanical Engineering Building.

Congress Rooms: On the programme, sessions are listed as either A, B or C. These letters refer to the rooms in which the sessions will take place.

A = The Great Hall, Sherfield Building
B = Mechanical Engineering Building Lecture theatre 342
C = Mechanical Engineering Building Lecture theatre 542

If any changes of rooms are necessary, these will be announced on the notice board near the Registration Desk

Lunches, teas & coffees are served in the Dining Hall in the Sherfield Building
Teas & coffees are served in the foyer of Mechanical Engineering Building
Posters are displayed in the foyer of Mechanical Engineering Building
The Welcoming Reception, on Wednesday evening, is in the Dining Hall.
Exhibitions/displays are in the Ante Room to the Dining Hall

Dress code: The only occasions during the week when a form of dress is prescribed are the Concert at St James' Palace on Thursday evening and the Reception at the House of Lords on Friday evening. For these two events, the dress should be 'smart informal', which could be translated as 'shorts, tracksuits and trainers would not be appropriate'.

Emergency Messages may be left for delegates at the Registration Desk.
Tel no: +44 (0)20 7594 9503.

First Aid / Medical Assistance: The security staff (on the ground floor of the Sherfield Building) are all trained first aiders (available 24 hrs) and will help with any minor injuries. More serious cases will be escorted to the College Health Centre.

Fire Alarms: If a fire alarm sounds for more than 30 seconds, all delegates should leave the building by the nearest fire exit and assemble in front of that building. Do not use lifts!

Halls of Residence: Check-in 14.00; Check-out 10.00. Luggage storage is available. Emergency telephone number for residential delegates: 020 7594 9495 (24hrs)

Invitations and Tickets: In the Registration envelope will be found tickets or invitations to chosen Social Events. Please keep them safe, as they will be required to gain access to the events. The invitations to the Reception at the House of Lords are non-transferable. Tickets for the London Eye are transferable but ticket holders can only join the flight at the time stated on the ticket. Tickets for the concert at St James's Piccadilly can be bought at the registration desk. Pre-ordered tickets should be collected and paid for by lunchtime on Thursday 5th July.

Laundry Facilities: Washing machines and tumble driers are available in all the Halls of Residence free of charge. Delegates need to provide their own washing powder and fabric conditioner. These are on sale at Southside Shop, Princes Gardens (other side of Exhibition Road).

Photographs will be taken during the Congress and Social events and will be displayed in the Ante Room to the Dining Hall in the Sherfield Building. Delegates may buy copies of their chosen pictures.

Post Office is situated in Imperial College Road on the way to South Kensington Underground station.

Public telephones are situated in the Sherfield Building ground floor (next to the Security Desk) - 2 coin operated and 2 card operated, and in the Mechanical Engineering Building on entrance level - 2 card operated and 1 coin operated. Phone cards may be bought from the Registration Desk (price £3).

Smoking policy: All departments at Imperial College operate a no-smoking policy and smoking is not permitted in any building.

Sports Centre offering swimming, Jacuzzi, fitness gym, sauna and steam suite and squash is open to all; residential delegates qualify for a discount. For more details and rates, please phone the Centre on 020 7594 8964. The centre is open Monday-Friday 07.00-22.00, Saturday & Sunday 08.00-18.00.

Snacks and light meals can be bought from the following places within Imperial College: Junior Common Room on first floor of Sherfield Building;
Senior Common Room on first floor of Sherfield Building;
NewsAgent on first floor of Sherfield Building (sandwiches, snacks & newspapers);
Southside Shop, off Watts Way, Princes Gardens (the other side of Exhibition Road);
Basics Pizzeria, Watts Way, as above
Sir Alexander Fleming Café, ground floor of Alexander Fleming Building, diagonally across the lawn from the Sherfield Building.

Toilets are situated on all floors of the Sherfield Building with disabled facilities on 2nd floor, and on Floors 2, 3 & 4 of the Mechanical Engineering Building with disabled facilities on Floors 3 & 4.
THE MULTIPLE BIRTHS FOUNDATION

MBF

Guidelines for Professionals: Multiple Births and their Impact on Families by Elizabeth Bryan MD FRCP FRCPC, Jane Denton RGN RM and Faith Hallett.

The Multiple Births Foundation has produced the first written guidelines for the care of families with multiple births. These are aimed at the wide spectrum of healthcare, teaching, social and work professionals. All guidelines include a glossary, further reading suggestions and useful addresses.

- Facts about Multiple Births
- Multiple Pregnancy
- Bereavement
- Special Needs in Twins
- The First Five Years

Each book can be ordered individually or order as a whole set of 5 Guidelines for the special price of £25.00.

Available from:
The MBF Congress stand or The Multiple Births Foundation
Hammersmith House - Level 4 Queen Charlotte's and Chelsea Hospital Du Cane Road London W12 0HS
Telephone: +44 (020) 8383 3519 Fax: +44 (020) 8383 3041 e-mail: mbf@ic.ac.uk www.multiplebirths.org.uk

USEFUL INFORMATION

An Information and Help Desk, run by Tamba, is available throughout the Congress including a travel and event booking service by Ian Allan Travel

Tamba Hospitality Room

Tamba welcome all members of COMBO to join them in a special area set aside (in the ante room to the Dining Hall) for COMBO members' use throughout Congress. A place to relax and meet colleagues and friends from around the world. Pop in when you are free!

Friday 6th July 2001

SCHEDULE OF EVENTS

<table>
<thead>
<tr>
<th>Room A</th>
<th>Room B</th>
<th>Room C</th>
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</thead>
<tbody>
<tr>
<td>08.30</td>
<td>P1.2: Plenary Session</td>
<td>S10: Discordant twins</td>
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<tr>
<td>10.30</td>
<td>COFFEE / TEA</td>
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<tr>
<td>11.00</td>
<td>S11: Complex diseases and their genetic epidemiology</td>
<td>S12: Education</td>
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<tr>
<td>13.00</td>
<td>LUNCH</td>
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<tr>
<td>13.45</td>
<td>ISTS Business Meeting - members only</td>
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<tr>
<td>14.30</td>
<td>Presidential Address</td>
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<tr>
<td>15.00</td>
<td>COFFEE / TEA</td>
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<tr>
<td>15.15</td>
<td>S14: The genetics of psychopathy</td>
<td>S15: The etiology of monozygotic and dizygotic twinning</td>
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<tr>
<td>17.15 -18.00</td>
<td>POSTER PRESENTATIONS</td>
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<tr>
<td>18.15 &amp; 18.30</td>
<td>GALA EVENING</td>
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<tr>
<td>19.00</td>
<td>Coaches leave Imperial College</td>
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<tr>
<td>21.00 and 21.30</td>
<td>Reception at the House of Lords</td>
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<tr>
<td>21.45 - 22.30</td>
<td>Flight on the London Eye</td>
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<tr>
<td>21.45 - 22.30</td>
<td>Coaches return to Imperial College</td>
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### Saturday 7th July 2001

#### SCHEDULE OF EVENTS

<table>
<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room B</th>
<th>Room C</th>
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<tbody>
<tr>
<td>08.30</td>
<td>P1.3: Plenary Session</td>
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<tr>
<td>10.15</td>
<td>Presentation of Prizes</td>
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<td>COFFEE / TEA</td>
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<tr>
<td>11.00</td>
<td>S17: Controversial issues</td>
<td>S18: Substance abuse</td>
<td>S19: Understanding cancer development</td>
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<td>End of Congress</td>
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<tr>
<td>13.00</td>
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<td>LUNCH (13:15 New ISTS Board Meeting)</td>
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<td>13.30 - 17.00</td>
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#### SOCIAL PROGRAMME
for all delegates and registered accompanying persons

**WEDNESDAY 4th JULY 2001**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17.30</td>
<td>A Celebration of Twins</td>
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<tr>
<td>17.40</td>
<td>Songs by twins Alexander and Graham Miller</td>
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<tr>
<td>18.15</td>
<td>Alone Together – Video and Discussion with twin artists Amrit and Rabindra Singh</td>
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<tr>
<td>18.50</td>
<td>The Parthenon Publishing Lecture: Studio dei Gemelli: tribute to the late Professor Luigi Gedda by Louis Keith (USA) with photographic exhibition by David Teplica (USA)</td>
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<tr>
<td>19.00 - 21.00</td>
<td>RECEPTION at Imperial College</td>
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<tr>
<td>21.00</td>
<td>Sakoba Dance Theatre with Yoruba songs by Bode Lawal</td>
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**THURSDAY, 5 JULY 2001**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>19.45</td>
<td>CONCERT at St James's Church, Piccadilly organized by The Multiple Births Foundation (tickets available at the Registration Desk)</td>
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<tr>
<td></td>
<td>Travel directions on the Underground: 4 stops Eastbound on (blue) Piccadilly Line to Piccadilly Circus, followed by a 3 minute walk along Piccadilly.</td>
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<tr>
<td></td>
<td>Light meals can be purchased before the concert at the Aroma Café in the church. There are many other eating places open before and after the concert within easy walking distance.</td>
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**FRIDAY, 6 JULY 2001**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>18.15</td>
<td>Tours of the Houses of Parliament. (Tickets available at the Registration Desk)</td>
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<tr>
<td>18.15 &amp; 18.30</td>
<td>Coaches leave Imperial College</td>
</tr>
<tr>
<td>19.00 - 21.00</td>
<td>Reception at the House of Lords at the invitation of Lord (Naren) Patel * and hosted by Lord Craigavon</td>
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<tr>
<td>20.00 - 23.00</td>
<td>Refreshments available at the ICTS Room, Bar Med, County Hall (150m south of the London Eye)</td>
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<tr>
<td>21.00 and 21.30</td>
<td>Flight on the London Eye</td>
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<tr>
<td>21.45 - 22.30</td>
<td>Coaches return to Imperial College</td>
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* Lord Patel has unavoidably to be away as he is receiving an honorary degree of the University of Aberdeen.
POSTERS
(in alphabetical order of presenters)
All Posters will be displayed in the Mechanical Engineering Building.

Key:
A1 = Genetic and environmental effects on the inter-relationship of lymphocyte subset levels: Kourosh Ahmadi (UK) - 002
A2 = Activities in the last 3 years of JATM: Yukiko Arai (Japan) - 004
B = Amniocentesis in natural and IVF twin pregnancies: Aris Antsaklis (Greece) - 008
C = Type A behavior in male twin pairs: the Vietnam Era Twin Registry Jessica Bar (USA) - 013
A1 = Abnormal amniotic fluid volume in twin gestations is associated with higher rates of peripartum complications: Jury Bar-David (Israel) - 014
A1 = Grandmultiparity in twin gestation: is it really a problem? Zahi Ben-Aroya (Israel) - 020
A1 = The use of oxytocin for augmentation of labor in twin pregnancies: is it safe? Zahi Ben-Aroya (Israel) - 022
B = Ripening of uterine cervix in parturients with twin gestation: PGE, vs. intracervical Foley catheter: Zahi Ben-Aroya (Israel) - 021
B = Early postnatal growth in preterm twins: John Buckler (UK) - 033
A1 = Disease concordance and genetic susceptibility to type 1 diabetes in Italian twins: Raffaella Buzzetti (Italy) - 036
A1 = The effect of losing the twin and losing the partner on mortality: Kaare Christensen (UK) - 246
C = Multimethod assessment of the twin relationship: Francesca Cimino (USA) - 042
A1 = Effects of prenatal exposure to testosterone on cognitive performance and behaviour: a twin study: Celina Cohen (The Netherlands) - 044
A1 = Progression to celiac disease in Italian twins: Rodolfo Cotichini (Italy) - 048
A1 = Susceptible HD cytokine phenotypes in twins: Wendy Cozen (USA) - 050
A1 = Effect of tobacco smoke on cytokines in twins: Wendy Cozen (USA) - 049
B = Ascertainment of twins in the Western Australian Twin Register using record linkage: Maxine Croft (Australia) - 051
A2 = Twins in Maya mythology: David Czukerberg (USA) - 052
A2 = Zygosity determination: why is it so important? Margie Davies (UK) - 053
A2 = Feasibility of using birth records for recruiting older twins for the Sri Lankan Twin Registry: Rohana Dayaratne (Sri Lanka) - 054

10 - A1
10 - A1
49 - A2
50 - A2
11 - A1
63 - B
12 - A1
13 - A1
64 - B
65 - B
51 - A2
101 - C
14 - A1
66 - B
247
15 - A1
67 - B
52 - A2
68 - B
102 - C
16 - A1
17 - A1
69 - B
70 - B
103 - C

The genetics of tune deafness. Don't blame the piano teacher: Marlies de Lange (UK) - 058
Standardized population-based vital statistics of twin births: Robert Derom (Belgium) - 060
Early report on the availability of island wide twin data in the central birth registration department: Nimai de Silva (Sri Lanka) - 061
Twin study of mammographic breast density for age as a risk factor for breast cancer: Gillian Dite (Australia) - 065
Extra risk of transferring 3 embryos: Michael Dooley (UK) - 067
Do genetic factors contribute to variation in insulin and glucose levels? Bircan Erbas (Australia) - 073
Asthma and respiratory symptoms in Italian schoolchildren twins: a structural equation modelling approach: Corrado Fagnani (Italy) - 075
Impact of magnetic resonance imaging of the fetal brain in twin pregnancies: Vickie Feldstein (USA) - 077
Selective termination of acardiac/acephalic twin by radiofrequency ablation: Vickie Feldstein (USA) - 247
On the standardisation of the twinning rate: Johan Fellman (Finland) - 078
The heritability of hand grip strength – a study of 1824 Danish twin pairs aged 45-96: Henrik Frederiksen (Denmark) - 081
Dizygotic twins in a monochorionic placenta: Norman Ginsberg (USA) - 084
Genetic epidemiology of Alzheimer disease in Italian twins: Franco Giubilei (Italy) - 085
Fetal and infant death in twin pregnancy: consequence for the survivor: Svetlana Glinianaia (UK) - 086
Multiple pregnancy register in the North of England: 1998-99 results: Svetlana Glinianaia (UK) - 088
Management of a dichorionic twin discordant for intrauterine growth restriction: Ahmet Gul (Turkey) - 092
Helping helpers to help – guidelines for professionals working with multiple birth families: Faith Hallett (UK) - 094
Factors related to smoking behavior and exposure in California twins: Ann Hamilton (USA) - 096
Factors affecting concordance rates for Type 1 diabetes in identical twins: Mohammed Hauwa (UK) - 098
Discordancy and catch-up growth in twins: Mary Hediger (USA) - 104
Serum ferritin and twin fetal growth: Mary Hediger (USA) - 105
Romande Association of Help, Exchanges and Information concerning the twins, triplets and more: Sabine Herbener (Switzerland) - 108
Digital postnatal angiography of the placenta in TTTS: Monique Huisman (The Netherlands) - 113

Birth weight and serum lipids in twins: Richard Ijzerman (The Netherlands) - 114

Genetic influence on marital status: Beth Jerseky (USA) - 118

Birthweight references for supertwins: Noriko Kato (Japan) - 120

Perinatal mortality of twins in recent Japan: Noriko Kato (Japan) - 121

The role of NHS multiple births clinics in the United Kingdom: Anne Kelly (UK) - 123

Genes and environment in febrile seizures: a population-based twin study: Marianne Kjeldsen (Denmark) - 125

Genetic epidemiology of alcohol dependence in a heavy drinking national twin cohort: Valene Knopik (USA) - 126

A twin study of genetic and environmental factors in the relationship between asthma and behaviour in four-year-olds: Gesina Koeppen-Schomerus (USA) - 127

Delivery of previable twins: success rates in attempted delay of delivery of the second twin: Richard Kurzel (USA) - 131

HLA haplotypes in dizygotic twin pairs: Kirsten Kyvik (Denmark) - 132

Subjective reactions to acute nicotine: effects of gender and family history of nicotine and alcohol consumption: Christina Lessov (USA) - 139

Twins in psychoanalytic work: Vivienne Lewin (UK) - 141

Genetic and environmental influences on self-reported life events in women of the Finnish Twin Cohort: KirsI Lillberg (Finland) - 144

Opposite-sex twins: Olivia Lousada (UK) - 148

Prenatal interventions to improve twin pregnancies outcomes: Barbara Luke (USA) - 149

The mental and motor development of twins: the role of placentation: Barbara Luke (USA) - 150

Genetic factors determine the liability to back pain reporting: results of a population based MRI study of twins: Alex MacGregor (UK) - 155

Genetic and environmental influences on self perceptions in childhood and puberty: Kazumi Maeshiro (Japan) - 159

Twins and leisure time physical activity. A univariate study: José Maia (Portugal) - 161

The matched multiple birth data set: a new data file from the U.S. National Center for Health Statistics: Joyce Martin (USA) - 165

Hyperphenylalaninemia in male-male twins: Sophia Maximova (Russia) - 169

Management and outcome of triplet pregnancies related to origin and chorionicity: Ashley Merien (The Netherlands) - 170

Genetic and environmental influences on lipids, lipoproteins and apolipoproteins: effects of the menopause: Rita Middelkoop (UK) - 171

The naming of twins: Medeia Mkheidze (Russia) - 172

The angiotensin converting-enzyme (ACE) genopolymorphism, twins and practical genetic counselling: Medeia Mkheidze (Russia) - 173

Neonatal outcomes of preterm twins: Dorota Nowakowska (Poland) - 177

No risk of coagulopathy after single intrauterine death in twin pregnancy: Dorota Nowakowska (Poland) - 178

Examination of intrapartum cardiotocograms and sleep-awake periods in singleton and twin fetuses during the second stage of labour: Ildiko Nyirati (Hungary) - 179

Evaluation of various fetal growth curves for the assessment of IU GR in twins: Jaroslaw Oleszczuk (Poland) - 184

Evaluation of venous Doppler for assessing fetal well-being in twin pregnancy: Jaroslaw Oleszczuk (Poland) - 182

Monoamniotic twin pregnancy - 4 case reports and review of the literature: Jaroslaw Oleszczuk (Poland) - 181

Congenital hypothyroidism in twins (Italy, 1989-1999): Antonella Olivieri (Italy) - 185

Physical growth, motor development and language development standards of Japanese twin infancy: Syuichi Ooki (Japan) - 187

National birthweight standards by gestational age for twins and multiples (Italy 1981-1995): Valeria Patrini (Italy) - 189

Errors in birth registration and coding of multiple births in national statistics: Peter Pharoah (UK) - 194

Sudden infant death syndrome (SIDS) in twins: Peter Pharoah (UK) - 196

Epidemiology of the vanishing twin: Peter Pharoah (UK) - 197

Verbal fluency in twins with schizophrenia: an fMRI study: Marco Picchioni (UK) - 199

Genes and environment in the tracking of body size from birth to late adolescence: Kirsi Pietilainen (Finland) - 200

Twin brothers with continuous oxaluria and respiratory oxalosis: Galina Pospekhova (Russia) - 202

Infant zygosity can be assigned by parental report questionnaire data: Thomas Price (UK) - 206

The MBF Telephone Service reveals the need for educating professionals: Barbara Read (UK) - 209

Comparative rating measures of health and environmental exposures: how well do twins agree? Chandra Reynolds (USA) - 248

Twins' trust in mothers in childhood and puberty: a human behavior genetics perspective: Atsushi Sakai (Japan) - 212
The relative importance of genetic and environmental factors on variation in fat percent – the impact of fitness: Karoline Schousboe (Denmark) - 215

IVF/ART twin pregnancies carries higher risk for cesarean section: David Segal (Israel) - 216

Nulliparous parturients with twins pregnancies are exposed to increased rates of cesarean sections: David Segal (Israel) - 217

Feasibility of using different approaches for recruiting younger twins for Sri Lankan Twin Registry: Sisira Siribaddana (Sri Lanka) - 222

Discordant anomalies in monozygotic twins: Karin Sheets (The Netherlands) - 224

Heritability of blood pressure in black and white youth, The Georgia Twin Study: Camilla Stoltenberg (Norway) - 160

Does zygosity and sex in twin pairs influence risk of pre-eclampsia in the mother? Masumi Sugawara (Japan) - 231

Developmental psychopathology: a behavioural genetic approach: Daniel Wahl (Israel) - 136

Higher order multiple births in the United States: a snapshot at the turn of the century: Patent Svensson (Sweden) - 239

Computer Assisted Telephone Interviews with 26,000+ Twins: A New Update of the Swedish Twin Registry: Pia Svedberg (Sweden) - 238

Genetic and environmental contributions to recurrent headache: Dan Svensson (Sweden) - 239

The perinatal outcome of the co-twin of monochorionic twins when one fetus died in utero: Noriyuki Suehara (Japan) - 239

Differential heritability of IQ across ability levels in adolescents: Yulia Tkachukova (Russia) - 244

Birth order and adult size and blood pressure in twins: Chuluuntulga Tuya (UK) - 249

Genetic influences on Piagetian conservation ability in seven year old twins: Caroline van Baal (The Netherlands) - 251

Vulnerability to depressiveness among 12,063 adults – effect of life events, social support and somatic health: Jyrki Vanonen (Finland) - 255

Gender differences in genetic and environmental effects on aggression: Elina Vierikko (Finland) - 258

Tamba survey of women's experiences of a multiple birth in the NHS: Jill Walton (UK) - 260

Multifetal pregnancy: Achieving successful outcomes: Kelly Willenberg (USA) - 263

Social alienation in adolescent Finnish twins: Torsten Winter (Finland) - 264

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