Journal of Medical Genetics
January 1993 Vol 30 No 1

Contents

Review article
The morbid anatomy of the human genome: chromosomal location of mutations causing disease V A McKusick, J S Amberger 1

Original articles
The clinical features of spondyloepiphyseal dysplasia congenita resulting from the substitution of glycine 997 by serine in the α1(I) chain of type II collagen W G Cole, R K Hall, J G Rogers 27
Holoprosencephaly: a family showing dominant inheritance and variable expression A L Collins, P W Lunt, C Garrett, N R Dennis 36
Variability of expression in tuberous sclerosis H Northrup, J W Wheless, T K Bertin, R A Lewis 41
Parental age, genetic mutation, and cerebral palsy N A Fletcher, J Foley 44
Exclusion of familiar dysautonomia from more than 60% of the genome A Blumenfeld, F B Axelrod, J A Trofatter, C Maayan, D E Lucente, S A Slaugenhaupt, C B Liebert, L J Ozelius, J L Haines, X O Breakefield, J F Gusella 47

Syndrome of the month
Incontinentia pigmenti (Bloch-Sulzberger syndrome) S J Landy, D Donnai 53

Technical note
The rapid analysis of dystrophin gene deletions shows variable electrophoretic mobility B A Neiian, D A Leigh, B L McDonald 60

Short reports
Limb/pelvis-hypoplasia/aplasia syndrome (Al-Awadi/Raas-Rothschild syndrome): report of two Italian sibs and further confirmation of autosomal recessive inheritance G Camera, G Ferraiolo, D Leo, A Spaziale, S Pozzolo 65
Mosaicism for duplication 12q (12q13→q24.2) in a dysmorphic male infant J W Dixon, T Costa, I E Teshima 70
Reproductive possibilities for balanced translocation (14) carriers in families with partial trisomy of proximal 14q G Valkova, M Stefanova 73
Delayed speech development, facial asymmetry, strabismus, and transverse ear lobe creases: a new syndrome K Mihes 76
Arthrogryposis, ophthalmomelgia, and retinopathy: confirmation of a new type of arthrogryposis C T R M Scharder-Stumpel, C J Hoving, A B A Reekers, N M A F De Smet, J G Hall, J-P Fryns 78
Humeroradioulnar synostosis in a patient with lambloid synostosis T J C Edwards, E A Haan, I J Humphrey 81
Waardenburg syndrome and myelomeningocele in a family S Chatkupt, S Chatkupt, W G Johnson 83

Abstracts
Medical genetics: advances in brief 85

Letters to the Editor
Another example favouring the location of BPES at 3q2 J C Cabral de Almeida, J C Llerena Jr, J B G Neto, M Jung, R R Martins 86
A new approach to prenatal cystic fibrosis carrier screening Z Miedzybrodzka, N Haites, J Dean 86

Book reviews 87

Notices 88
Contents

No 1 January 1993

Review article
The morbid anatomy of the human genome: chromosomal location of mutations causing disease
V A McKusick, J S Amberger

Original articles
The clinical features of spondyloepiphyseal dysplasia congenita resulting from the substitution of glycine 997 by serine in the α(I) chain of type II collagen W G Cole, R K Hall, J G Rogers

Holoprosencephaly: a family showing dominant inheritance and variable expression
A L Collins, P W Lunt, C Garrett, N R Dennis

Variability of expression in tuberous sclerosis H Northrup, J W Wheless, T K Bertin, R A Lewis

Parental age, genetic mutation, and cerebral palsy N A Fletcher, J Foley

Exclusion of familial dysautonomia from more than 60% of the genome A Blumenfeld, F B Axelrad, J A Trotter, C Masyan, D E Lucente, S A Slaugenhaupt, C B Liebert, L J Ozellus, J L Haines, X O Breakefield, J F Gusella

Syndrome of the month
Incontinentia pigmenti (Bloch-Sulzberger syndrome) S J Landy, D Donnai

Technical note
The rapid analysis of dystrophin gene deletions shows variable electrophoretic mobility
B A NeiIan, D A Leigh, B L McDonald

Case reports
The newly recognised limb/pelvis-hypoplasia/aplasia syndrome: report of a Bedouin patient and review
T I Farag, S A Al-Awadi, M J Marafie, L Bastaki, S A Al-Othman, F M Mohammed, I S AlSuilman, D S Krishna Murthy

Limb/pelvis-hypoplasia/aplasia syndrome (Al-Awadi/Raas-Rothschild syndrome): report of two Italian sibs and further confirmation of autosomal recessive inheritance G Camera, G Ferraiolo, D Leo, A Spaziale, S Pozzolo

Mosaicism for duplication 12q (12q13—q24.2) in a dysmorphic male infant J W Dixon, T Costa, I E Teshima

Reproductive possibilities for balanced translocation (14) carriers in families with partial trisomy of proximal 14q G Valkova, M Stefanova

Delayed speech development, facial asymmetry, strabismus, and transverse ear lobe creases: a new syndrome? K Mefes

Arthrogryposis, ophthalmoptlelaea, and retinopathy: confirmation of a new type of arthrogryposis C T R M Schrander-Stumpel, C J Höweler, A B A Reekers, N M A F A De Smet, J G Hall, J-P Fryns

Humeroradioulnar synostosis in a patient with lambdoid synostosis T J C Edwards, E A Haan, I J Humphrey

Waardenburg syndrome and myelomeningocele in a family S Chatkupt, S Chatkupt, W G Johnson

Abstracts
Medical genetics: advances in brief

Letters to the Editor
Another example favouring the location of BPES at 3q2 J C Cabral de Almeida, J C Llerena Jr, J B C Neto, M Jung, R R Martins
A new approach to prenatal cystic fibrosis carrier screening Z Miedzybrodzka, N Naites, J Dean

Book reviews

Notices
Review article
The genetics of malignant hyperthermia  S P Ball, K J Johnson 89

Original articles
Identification of the FRAXE fragile site in two families ascertained for X linked mental retardation  G A Flynn, M C Hirst, S J L Knight, J N Macpherson, J C K Barber, A V Flannery, K E Davies, V J Buckle 97
Imprinting in Albright's hereditary osteodystrophy  S J Davies, H E Hughes 101
Detailed genetic mapping of the von Hippel-Lindau disease tumour suppressor gene  F M Richards, E R Mahe, F Latif, M E Phipps, K Tory, M Lush, P A Croessey, B Oostra, K H Gustavson, J Green, G Turner, J R W Yates, W M Linehan, N A Affara, M Lerman, B Zbar, M A Ferguson-Smith 104
On the genetics of mandibular prognathism: analysis of large European noble families  G Wolff, T F Wienker, H Sander 112
A transthyretin variant (alanine 49) associated with familial amyloidotic polyneuropathy in a French family  M D Benson II, J Julien, J Liepniesks, S Zeldenrust, M D Benson 117
A trabantrhietin variant (alanine 71) associated with familial amyloidotic polyneuropathy in a French family  M D Benson II, J C Turpin, G Lucotte, S Zeldenrust, B Le Chevalier, M D Benson 120
Two new mutations in a late infantile Tay-Sachs patients are both in exon 1 of the β-hexosaminidase α subunit gene  D L Harmon, D Gardner-Medwin, J L Stirling 123
Mutation analysis in Turkish phenylketonuria patients  M Özgüç, I Özalp, T Coşkun, E Yılmaz, H Erdem, S Ayter 129
Cosegregation of schizophrenia with Becker muscular dystrophy: susceptibility locus for schizophrenia at Xp21 or an effect of the dystrophin gene in the brain  M Zatz, H Vallada, M S Melo, M R Passos-Bueno, A H G Vieira, M Vainzol, M Gill, V Gentil 131
A family showing no evidence of linkage between the ataxia telangiectasia gene and chromosome 11q22-23  D Hernandez, C M McConville, M Stacey, C G Woods, M M Brown, P Shutt, G Rysiecki, A M R Taylor 135

Medical genetics around the world
Molecular diagnosis of some common genetic diseases in Russia and the former USSR: present and future  V S Baranov 141

Genetics in clinical practice
The specialty of clinical genetics: European Society of Human Genetics survey  R Harris, J A Rhind 147

Technical note
Rapid and efficient PCR/StyI test for identification of common mutation R408W in phenylketonuria patients  T Ivaschenko, V S Baranov 153

Short reports
A lethal skeletal dysplasia with generalised sclerosis and advanced skeletal maturation: Blomstrand chondrodysplasia? I D Young, J M Zuccollo, N J Broderick 155
Brachymorphism-onychodysplasia-dysphalangism syndrome  A Verloes, D Bonneau, O Guidi, M Berthier, D Oriot, L Van Maldergem, L Koulischer 158
Rapid diagnosis of infantile spinal muscular atrophy by direct amplification of amniocyte and CVS DNA  A MacKenzie, A Besner, N Roy 162
Absence of cystic fibrosis mutations in a large Asian population sample and occurrence of a homozygous S549N mutation in an inbred Pakistani family  A Curtis, R J Richardson, J Booth, A Jackson, R Nelson, S S Bhattacharya 164
Complex chromosome rearrangement with ankylolobpharon filiforme odnatum  B G Kousseff, P Papenhausen, Y-P Essig, M P Torres 167
Chromosome 20 long arm deletion in an elderly malformed man  F Shabtai, E Ben-Sasson, S Arieli, J Grimbilat 171

Abstracts
Medical genetics: advances in brief 174

Letter to the Editor
Hydrocephalus in Hadju-Cheney syndrome  L C Adès, L L Morris, E A Haan 175

Book reviews

Original articles
X chromosome inactivation and the diagnosis of X linked disease in females  R M Brown, G K Brown 177
Age at onset in Huntington’s disease and methylation at D4S95  W Reik, E R Maher, P J Morrison, A E Harding, S A Simpson 185
A study of DNA methylation in myotonic dystrophy  D J Shaw, S Chaudhary, S A Rundle, S Crow, J D Brook, P S Harper, H G Harley 189
Direct versus indirect molecular diagnosis of fragile X mental retardation in 40 German families at risk  O Knooblock, F Pelz, U Wick, D L Nelson, B Zoll 193
Mutations of the androgen receptor gene identified in perineal hypospadias  J A Batch, B A J Evans, I A Hughes, M N Patterson 198
Mapping of the X linked form of hyper IgM syndrome (HIGM1)  M Padayachee, R J Levinsky, C Kimon, A Finn, C McKeown, C Feighery, L D Notarangelo, R W Hendriks, A P Read, S Malcolm 202
Alternative splicing of dystrophin mRNA complicates carrier determination: report of a DMD family  U Lenk, S Demuth, U Kräft, R Hanke, A Speer 206
Carrier detection of Hunter syndrome (MPS II) by biochemical and DNA techniques in families at risk  W Schröder, L Petruschka, M Wehnert, M Zschiesche, G Seidlitz, J J Hopwood, F H Herrmann 210
Refining the genetic location of the gene for X linked hydrocephalus within Xq28  M Jouet, E Feldman, J Yates, D Donnai, J Paterson, D Siggers, S Kenrick 214
A 5’ splice site mutation in fucosidosis  M Williamson, H Cragg, J Grant, K Kretz, J O’Brien, P J Willems, E Young, B Winchester 218
Identification of markers flanking the tuberous sclerosis locus on chromosome 9 (TSCI)  M Nellist, P T Brook-Carter, J M Connor, D J Kwiatkowski, P Johnson, J R Sampson 224
Molecular analysis of contiguous exons of the phenylalanine hydroxylase gene: identification of a new PKU mutation  I Dianzani, C Camaschella, G Saglia, G B Ferrero, S Ramus, A Ponzzone, R G H Cotton 228
Genetic background of clinical homogeneity of phenylketonuria in Poland  J Jaruzeleska, R Matuszak, S Lyonnet, F Rey, J Rey, J Filipowicz, K Borski, A Munnich 232
Hereditary anaemias in Portugal: epidemiology, public health significance, and control  M C Martins, G Olim, J Melo, H A Magalhães, M O Rodrigues 235
Filipino β thalassaemia: a high Hb A2, β thalassaemia resulting from a large deletion of the 5′ β globin gene region  P I Motum, A Kearney, T J Hamilton, R J Trent 240

Short reports
Hyphodontic ectodermal dysplasia, central nervous system malformation, and distinct facial features: confirmation of a distinct entity?  D Soekarman, J P Frys 245
A case of deletion 14q22.1→q22.3 associated with anophthalmia and pituitary abnormalities  J Elliott, E L Maltby, B Reynolds 251
Usher syndrome type I associated with bronchiectasis and immotile nasal cilia in two brothers  D Bonneau, F Raymond, C Kremer, J-M Klossek, J Kaplan, F Patte 253
Parental consanguinity in the blepharophimosis, heart defect, hypothyroidism, mental retardation syndrome (Young-Simpson syndrome)  D T Bonthron, K M Barlow, A M Burt, D G D Barr 255

Conference report
Workshop of the Commission of the European Communities on Ethics of Human Genome Analysis: Survey of the European Discussion  O de Dinechin, R Harris, M Kettnner, L Koch, E Zwierlein 257

Abstracts
Medical genetics: advances in brief  261

Letters to the Editor
Aphasia, deafness, or mental retardation  A G Gordon 262
Reply  G N Wilson 262
Sex differences in the location of a spina bifida lesion  H S Cuckle, N J Wald, R Althouse 262

Book reviews
  263
No 4 April 1993

Original articles

Prenatal diagnosis of diastrophic dysplasia with polymorphic DNA markers J Hästbacka, R Salonen, P Laurila, A de la Chapelle, I Kaitila 265
Possible X linked congenital mitochondrial cardiomyopathy in three families K H Örstavik, F Skjørtøen, M Hellebostad, P Hågå, A Langslet 269
Six DNA polymorphisms in the low density lipoprotein receptor gene: their genetic relationship and an example of their use for identifying affected relatives of patients with familial hypercholeste‌rolaemia S Humphries, L King-Underwood, V Gudnason, M Seed, S Delattre, V Clavey, J-C Fruchart 273
Gaucho's disease in the United Kingdom: screening non-Jewish patients for the two common mutations A J Walley, M L Barth, I Ellis, A H Fensom, A Harris 280
Phenylketonuria: variable phenotypic outcomes of the R261Q mutation and maternal PKU in the offspring of a healthy homozygote S Kleiman, L Vanagaite, J Bernstein, G Schwartz, N Brand, A Elitzur, S L C Woo, Y Shiloh 284
Onset symptoms in 510 patients with Huntington's disease L Di Maio, F Squitieri, G Napolitano, G Campanella, J A Trofatter, P M Conneally 289
Suicide risk in Huntington's disease L Di Maio, F Squitieri, G Napolitano, G Campanella, J A Trofatter, P M Conneally 293
Polyactyly: a study of a five generation Indian family U Radhakrishna, A S Multani, J V Solanki, V C Shah, N J Chinoy 296
Characterisation of a highly polymorphic microsatellite at the DXS207 locus: confirmation of very close linkage to the retinoschisis disease gene C Oudet, C Weber, J Kaplan, B Segues, M-P Croquette, E O Roman, A Hanauer 300
An improved, non-isotopic method of screening cells from patients with abnormalities of sexual differentiation for Y chromosomal DNA content M Witt, K Michalczak, A Latos-Bielsinska, J Jaruzelska, I Kuczora, M Lopez 304
The dopamine D3 receptor gene: no association with bipolar affective disorder S Shaikh, D Ball, N Craddock, D Castle, N Hunt, R Mant, M Owen, D Collier, M Gill 308

Syndrome of the month

Otopalatodigital syndrome type II S E Holder, R M Winter 310

Short reports

A cytogenetic survey in Menkes disease: implications for the detection of chromosomal rearrangements in X linked disorders N Tommerup, Z Tümer, T Tannessen, N Horn 314
Prevalence of cystic fibrosis mutations in the Grampian region of Scotland Z H Miedzybrodzka, J C S Dean, G Russell, J A R Friend, K F Kelly, N E Haïtes 316
Absence of linkage between chromosome 21 loci and familial amyotrophic lateral sclerosis A King, H Houlden, J Hardy, R Lane, A Chancellor, J de Belleroce 318
Profound mental retardation, characteristic facies with midfacial hypoplasia and premature frontotemporal balding, muscular hypotrophy, and small patellae in two unrelated male patients J-P Frys, P Thiery, J Geutjens, E Sneuts, L Vinken, H Van den Berghhe 319
Short limbed dwarfism, genital hypoplasia, sparse hair, and vertebral anomalies: a variant of Ellis-van Creveld syndrome? J-P Frys, P Moerman 322
Consanguinity, cardiac arrest, hearing impairment, and ECG abnormalities: counselling pitfalls in the Romano-Ward syndrome W Reardon, N Lewis, H E Hughes 325
Cocartation of the aorta, interrupted aortic arch, and hypoplastic left heart syndrome in three generations S Gerboni, G Sabatino, R Mingarelli, B Dallopinicola 328
Simultaneous de novo interstitial deletion of 16q21 and intercalary duplication of 19q in a retarded infant with minor dysmorphic features U Trautmann, R A Pfeiffer, U Seufert-Salomi, H U Tietze 330

Abstracts

Abstracts of the British Medical Genetics Conference held in Nottingham on 23 to 25 September 1992 (sponsored by the Clinical Genetics Society and the Clinical Molecular Genetics Society) 332
Medical genetics: advances in brief 349

Spring book reviews

350
Original articles

Parental allele specific methylation of the human insulin-like growth factor II gene and Beckwith-Wiedemann syndrome  H Schneid, D Seurin, M-P Vazquez, M Gourmelon, S Cabrol, Y Le Bouc  353


Two cases of 5q deletions in patients with familial adenomatous polyposis: possible link with Caroll's disease  S V Hodgson, A S Coonar, P J V Hanson, S Cottrell, P N Scriven, T Jones, P R Hawley, M L Wilkinson  369

A T to C mutation in the donor splice site of COL3A1 IVS7 causes exon skipping and results in Ehlers-Danlos syndrome type IV  J Lloyd, P Narcisi, A Richards, F M Pope  376

X linked spastic paraplegia (SPG2): clinical heterogeneity at a single gene locus  D Bonneau, J-M Rozet, C Bulteau, M Berthier, R Mettey, R Gil, A Munnich, M Le Merrer  381


Familial amyloidotic polyneuropathy in Sweden: a pedigree analysis  U Drugg, R Andersson, F Chizari, M Danielsson, G Holmgren, O Sandgren, A Sousa  388

Linkage analysis of infantile pyloric stenosis and markers from chromosome 9q11–q33: no evidence for a major gene in this candidate region  E Chung, R Coffey, K Parker, P Tam, M E Pembrey, R M Gardiner  393

Frequency and clinical significance of erythrocyte genetic abnormalities in Omanis  J M White, B S Christie, D Nam, S Daar, D R Higgs  396

Comparison of genotype and intellectual phenotype in untreated PKU patients  S J Ramus, S M Forrest, D B Pitt, J A Saleeba, R G H Cotton  401

Portraits in medical genetics

George Huntington: the man behind the eponym  N Durbach, M R Hayden  406

Genetics in clinical practice


Short reports

Elucidation of the centromere involvement in an inversion (13) by fluorescent in situ hybridisation  P L Gordon, J D Dalton, P R Martens, A T Therapoul, R S Witroy  414

A balanced whole arm reciprocal translocation resulting in three different adverse pregnancy outcomes  P J Cooper, C Towe, J A Crolla  417

Molecular genetic diagnosis of autosomal dominant polycystic kidney disease in a newborn with bilateral cystic kidneys detected prenatally and multiple skeletal malformations  A E Turco, E M Padovani, G P Chiaffoni, B Peissel, S Rossetti, A Marcolongo, L Gammaro, G Maschio, P F Pignatti  419

Poland anomaly with contralateral ulnar ray defect  C V E Powell, R C Coombs, T J David  423

Iris coloboma, ptosis, hypertelorism, and mental retardation: Baraitser-Winter syndrome or Noonan syndrome? A Verloes  425

Syndromic association of cleft palate, bilateral choanal atresia, curly hair, and congenital hypothyroidism  I M Buntinex, B Van Overmeire, K Desager, J Van Hauwaert  427

ICF syndrome with variable expression in sibs  G Gimelli, P Varone, A Pezzolo, M Lerone, V Pistoia  429

Trisomy 9 mosaicism in two girls with multiple congenital malformations and mental retardation  C Stall, D Chagnot, A Halb, J C Luckel  433


Acrocephalopolysyndactyly, pentalogy of Fallot, and hypoplasia of the lungs in a patient with a de novo reciprocal translocation involving the short arm of chromosome 1 and the long arm of chromosome 18: 46,XX(t1;18)[p31;q11] J Ward, E Vieta, D Lee, G Arsenomena  438

Conference report

Reticuloblastoma: a possible link with low level radiation  J A Morris, J K Cowell, C A Stillier, A Barratt  440

Abstracts

Medical genetics: advances in brief  443

Letters to the Editor

Continuation of a case report  G E Holmes, R N Schimke, K Goertz, L Mattioli, W Richardson  445

Absent fibula and craniosynostosis: a 25 year follow up  R B Lowry  445

Mild pulmonary, but severe hepatic disease in a cystic fibrosis patient homozygous for a frameshift mutation in the regulatory domain of the CFTR  W Lissens, S Desmytere, M Bonduelle, I Dab, I Lieberers, B Mercier, M P Audrezet, C Ferec  446

The combinations of the sexes of familial cases of neural tube defect  W H James  447

Book reviews
Annotations

Low segregation ratios in autosomal recessive disorders  S Bundey, I D Young  449
Isolation of the defective gene in X linked agammaglobulinaemia  D Vetrie  452

Original articles

Complications of the naevoid basal cell carcinoma syndrome: results of a population based study  D G R Evans, E J Lodusans, S Rimmer, J D Burnell, N Thakker, P A Farndon  460
Two new mutations in the dihydropteridine reductase gene in patients with tetrahydrobiopterin deficiency  I Dianzani, D W Howells, A Ponzone, J A Saleebro, P M Smooker, R G H Cotton  465
A syndrome of insulin resistance resembling leprechaunism in five sibs of consanguineous parents  L J Al-Gazzoli, M Khalil, K Devadas  470
RFLP analysis for APP 717 mutations associated with Alzheimer's disease  S R Zeldenrust, J Murrell, M Farlow, B Ghetti, A D Roses, M D Benson  476
Further investigation of the HEXA gene intron 9 donor splice site mutation frequently found in non-Jewish Tay-Sachs disease patients from the British Isles  E C Landels, P M Green, I H Ellis, A H Fensom, M M Kaback, J Lim-Steele, K Zeiger, N Levy, M Bobrow  479
Three patients with ring (X) chromosomes and a severe phenotype  N R Dennis, A L Collins, J A Crolla, A E Cockwell, A M Fisher, P A Jacobs  482
Osteogenesis imperfecta type III: mutations in the type I collagen structural genes, COL1A1 and COL1A2, are not necessarily responsible  G A Wallis, B Sykes, P H Byers, C G Mathew, D Viljoen, P Beighton  492
Interaction of incontinentia pigmenti and factor VIII mutations in a female with biased X inactivation, resulting in haemophilia  R Coleman, S A Genet, J J Harper, A O M Wilkie  497
Frequency of ΔF508 in a Mexican sample of cystic fibrosis patients  L Orozco, M Salcedo, J L Lezana, M Chavez, H Valdez, M Moreno, A Carnevale  501
A large family with patent ductus arteriosus and unusual face  H R Davidson  503

Portraits in medical genetics

Edward Meryon (1809–1880) and muscular dystrophy  A E H Emery, M L H Emery  506

Short reports

A new restriction fragment length polymorphism at the DXS101 locus allows carrier detection in a family with X linked agammaglobulinaemia  A Sweatman, R Lovering, H Middleton-Price, A Jones, G Morgan, R Levinsky, C Kinnon  512
Cerebellar ataxia and ectodermal dysplasia in brothers  M Baraitser, W Reardon, A McShane, J Wilson  515
Deletion 9p and sex reversal  C P Bennett, Z Docherty, S A Robb, P Ramani, J R Hawkins, D Grant  518
Holoprosencephaly and sacral agenesis in a fetus with a terminal deletion 7q36→7qter  N Marichon-Delvallez, A-L Delezioide, M Vokemons  521
Congenital nystagmus cosegregating with a balanced 7;15 translocation  M A Patton, S Jeffery, N Lee, C Hogg  526
Duplication of chromosome 15 in the region 15q11–13 in a patient with developmental delay and ataxia with similarities to Angelman syndrome  J Clayton-Smith, T Webb, X J Cheng, M E Pembrey, S Malcolm  529

Abstracts

Medical genetics: advances in brief  532

Letters to the Editor

Molecular diagnosis of myotonic dystrophy  R M Winter  533
Reply  G K Suthers, K E Davies, S M Huson  533
Weyers' ulnar ray/oligodactyly syndrome  M S Lungarotti, A Calabro  533
The contribution of genetic factors to the pathogenesis of type I (insulin dependent) diabetes mellitus  F J Grundbacher  533

Book reviews  536

Notices  536
Editorial
Psychosocial genetics: an emerging scientific discipline  P S Harper

Original articles
What young people think and do when the option for cystic fibrosis carrier testing is available  J Mitchell, C R Scrivner, C L Clow, F Kaplan
Prenatal screening for cystic fibrosis: psychological effects on carriers and their partners  M E Mennie, M E Compton, A Giffihlan, W A Liston, J Pullen, D A Whyte, D J H Brock
Perception of predictive testing for Huntington’s disease by young women: preferring uncertainty to certainty?  M Decruyenaere, G Evers-Kiebooms, H Von den Berghhe
Genetic risk: women’s understanding of carrier risks in Duchenne muscular dystrophy  E P Parsons, A J Clarke
Neurofibromatosis type 1 (NF1): knowledge, experience, and reproductive decisions of affected patients and families  C M Benjamin, A Colley, D Donnai, H Kingston, R Harris, L Kerzin-Storrar
Psychosocial issues raised by a familial ovarian cancer register  J Green, F Murphy, H Statham
‘Inside-out’, back-to-front: a model for clinical population genetic screening  D Shickle, I Harvey
Childhood onset autosomal dominant polycystic kidney disease in sibs: clinical picture and recurrence risk  K Zerres, S Rudnik-Schöneborn, F Deget, and members of the German working group on paediatric nephrology (Arbeitsgemeinschaft für Pädiatrische Nephrologie)
Facioscapulohumeral muscular dystrophy: aspects of genetic counselling, acceptance of preclinical diagnosis, and fitness  S Eggers, M R Passos-Bueno, M Zatz

Short reports
Second polar body incorporation into a blastomere results in 46,XX/69,XXX mixoploidy  U Müller, J L Weber, P Berry, K G Kupke
Trisomy 10qter confirmed by in situ hybridisation  V Brisciolini, G Floridia, E Rossi, A Selicorni, F Laterza, O Zuffardi
Two sibs with unbalanced translocations in the Waardenburg gene region  L I Al Gazzali, R Quafie
Mild phenotypic manifestation of a 7p15.3p21.2 deletion  C Wang, S Maynard, T W Glover, L G Biesecker
Extra G positive band on the long arm of chromosome 9  L A Knight, G M Soon, M Tan
Triple structural mosaicism of chromosome 18 in a child with MR/MCA syndrome and abnormal skin pigmentation  E Bocian, T Mazurczak, E Bulawa, H Stanicz, G Rowicka
Presymptomatic testing for autosomal dominant spinocerebellar ataxia type 1  A E Shrimpton, R Davidson, N MacDonald, D J H Brock
Dyskeratosis congenita: three additional families show linkage to a locus in Xq28  R Arngrimsson, I Dokal, L Luzzatto, J M Connor

Abstracts
Medical genetics: advances in brief 620

Letters to the Editor
Cystic fibrosis and deafness  J C Llerena Jr, W Degrave, A de Miranda, P Suffys
Approaches to prenatal cystic fibrosis carrier screening  D Brock
Reply  Z Miedzybrodzka, N Haines, J Dean
Severe cystic fibrosis in a child homozygous for the G542 nonsense mutation in the CFTR gene  T Bienvenu, C Beldjord, N Fanknecht, J C Kaplan, G Lenaor
Cutis laxa and the Costello syndrome  M A Patton, M Baraitser

Book reviews
Notices

537 538 543 549 557 562 567 575 580 583 589 593 597 601 604 607 610 613 614 616 618 620 621 621 621 622 623 624
Review article
Forensic medicine and the polymerase chain reaction technique  R Decorte, J-J Cassiman 625

Annotation
Association versus linkage studies in psychosis genetics  M M Nöthen, P Propping, R Fimmers 634

Comment
Association and linkage: complementary strategies for complex disorders  M J Owen, P McGuigan 638

Original articles
Genetic transmission of Alzheimer’s disease among families in a Dutch population based study  C M van Duijn, L A Farrer, L A Cupples, A Hofman 640
Origins of the fragile X syndrome mutation  M C Hirst, S J L Knight, Z Christodoulou, P K Grewal, J P Fryns, K E Davies 647
Is skewed X inactivation responsible for symptoms in female carriers for adrenoleucodystrophy?  E Watkiss, T Webb, S Bundle 651
A new de novo mutation (A113T) in HMG box of the SRY gene leads to XY gonadal dysgenesis  Y-T Zeng, Z-R Ren, M-L Zhang, Y Huang, F-Y Zeng, S-Z Huang 655
Sequence variations in the first exon of α-galactosidase A  J P Davies, B G Winchester, S Malcolm 658
Classification of microphthalmos and coloboma  M Warburg 664
Impact of genetic counselling after neonatal screening for Duchenne muscular dystrophy  E Hilites, H K Jacobs, A Cameron, S S Seshia, F Booth, J A Evans, K Wrogemann, C R Greenberg 670
Cockayne’s syndrome: correlation of clinical features with cellular sensitivity of RNA synthesis to UV irradiation  A R Lehmann, A F Thompson, S A Harcourt, M Stefanidou, P G Norris 679

Brief papers
Campomelic dysplasia: evidence of autosomal dominant inheritance  S A Lynch, M L Gaunt, A M B Minford 683
A three generation family with fibrodysplasia ossificans progressiva  J M Connor, H Skirton, P W Lunt 687
The substitution of glycine 661 by arginine in type III collagen produces mutant molecules with different thermal stabilities and causes Ehlers-Danlos syndrome type IV  A Richards, P Narcisi, J Lloyd, C Ferguson, F M Pope 690
A new form of familial ataxia, deafness, and mental retardation  W Reardon, J Wilson, N Cavanagh, M Baraitser 694
A new stable human dicentric chromosome, tdic(4;21)(p16;q22), in a woman with first trimester abortion  F Wang, Y Li 696
A new case of partial trisomy 19q (q13.2→qter) owing to an unusual maternal translocation  D Valerio, F Lavorgna, M Scalano, A Conte 697
Split hand/split foot deformity and LADD syndrome in a family: overlap between the EEC and LADD syndromes  D Lacombe, F Servelle, D Marchand, J Battin 700
Dominant carpotarsal osteochondromatosis  P Maroteaux, M Le Merrer, H Bensahel, P Freisinger 704

Abstracts
Medical genetics: advances in brief 707

Letters to the Editor
Excess of homozygosity at the dopamine D3 receptor gene in schizophrenia not confirmed  M M Nöthen, S Chiron, P Propping, R Fimmers, S G Schwab, D B Wildenauer 708
Association between schizophrenia and homozygosity at the dopamine D3 receptor gene  R Morell 708
Reply  M J Owen, J Williams, R Mant, P Asherson, P McGuigan, M A Crocq, T Wienker 708
Severity of chest disease in CF patients in relation to their genotypes  G E Pack, Z H Miedzybrodzka, J C S Dean 709
Reply  L N Al-Jader, H C Ryley, S Maguire, G Owen, S Elborn, M C Goodchild 709

Book reviews 710
Original articles
Integrated study of 100 patients with Xp21 linked muscular dystrophy using clinical, genetic, immunohistochemical, and histopathological data. Part 1. Trends across the clinical groups

Integrated study of 100 patients with Xp21 linked muscular dystrophy using clinical, genetic, immunohistochemical, and histopathological data. Part 2. Correlations within individual patients

Integrated study of 100 patients with Xp21 linked muscular dystrophy using clinical, genetic, immunohistochemical, and histopathological data. Part 3. Differential diagnosis and prognosis

Epidermal mosaicism and Blaschko’s lines
C Moss, S Larkins, M Stacey, A Blight, P A Farndon, E V Davison

Syndrome of the month
Nager acrofacial dysostosis
M T McDonald, J L Gorski

Brief papers
Hypomelanosis of Ito associated with mosaicism for trisomy 7 and apparent ‘pseudomosaicism’ at amniocentesis
D Jenkins, K Martin, I D Young

Prenatal diagnosis of a hypermethylated full fragile X mutation in chorionic villi of a male fetus
K Suzumori, M Yamauchi, N Seki, I Kondo, T A Hori

Congenital heart malformation in Yunis-Varon syndrome
L C Adès, L L Morris, M Richardson, C Pearson, E A Hoan

Two sibs with cleft palate, ankyloblepharon, alveolar synchiae, and ectodermal defects: a new recessive syndrome?
A Seres-Santamaría, J L Arimany, F Muñiz

Abstracts
Medical genetics: advances in brief

Letters to the Editor
Male infertility: the only presenting sign of cystic fibrosis when homozygous for the mild mutation R117H
T Bienvenu, C Beldjord, M Adjamian, J C Kaplan

Limb/pelvis/uterus-hypoplasia/aplasia syndrome
A S Teebi

Molecular characterisation of ß-thalassaemia heterozygotes in Brazil
C S B Martins, A S Ramalho, M F Sonarti, M S Gonçalves, F F Costa

Autosomal recessive disorders
R F Mueller, D T Bishop

Book reviews

Notices
Editorial
CATCH 22 J G Hall 801

Review article
DiGeorge syndrome: an historical review of clinical and cytogenetic features F Greenberg 803

Original articles
Microdeletions of chromosomal region 22q11 in patients with congenital conotruncal cardiac defects E Goldmuntz, D Driscoll, M L Budarf, E H Zackai, D M McDonald-McGinn, J A Biegel, B S Emanuel 807

Prevalence of 22q11 microdeletions in DiGeorge and velocardiofacial syndromes: implications for genetic counselling and prenatal diagnosis D A Driscoll, J Savlin, B Sellinger, M L Budarf, D M McDonald-McGinn, E H Zackai, B S Emanuel 813

Isolation of a new marker and conserved sequences close to the DiGeorge syndrome marker HP500 (D22S134) R Wadey, S Daw, A Wickremasinghe, C Roberts, D Wilson, J Goodship, J Burn, S Halford, P J Scambler 818

Conotruncal anomaly face syndrome is associated with a deletion within chromosome 22q11 J Burn, A Takao, D Wilson, I Cross, K Momma, R Wadey, P Scambler, J Goodship 822

Velocardiofacial syndrome in a mother and daughter: variability of the clinical phenotype S E Holder, R M Winter, S Kamath, P J Scambler 825

High resolution mapping of interstitial long arm deletions of chromosome 16: relationship to phenotype D F Callen, H Eyre, S Lane, Y Shen, I Hansmann, N Spinner, E Zackai, D McDonald-McGinn, S Schuffenhauer, J Wauters, M-N Van Thiemen, B Van Roy, G R Sutherland, E A Haan 828

CFTR transcripts are undetectable in lymphocytes and respiratory epithelial cells of a CF patient homozygous for the nonsense mutation R553X K Will, J Reiss, M Dean, M Schlösser, R Slomski, J Schmidtke, M Stuhrmann 833

Analysis of a terminal Xp22.3 deletion in a patient with six monogenic disorders: implications for the mapping of X linked ocular albinism A Meindl, D Rosenfeld, W Brückl, S Schuffenhauer, J Jenderny, A Backsulin, H-C Oppermann, O Svensson, P Bouloux, T Meitinger 838

Genetic heterogeneity of Usher syndrome type II S Pieke Dahl, W J Kimberly, M B Gorin, M D Weston, J M R Furman, A Pikus, C Möller 843

Upper and lower neural tube defects: an alternate hypothesis B H Garabedian, F C Fraser 849

Syndrome of the month
DiGeorge syndrome: part of CATCH 22 D I Wilson, J Burn, P Scambler, J Goodship 852

Medical genetics around the world
Disease gene mapping in isolated human populations: the example of Finland A de la Chapelle 857

Brief papers
Mapping of a gene for non-specific X linked mental retardation: evidence for linkage to chromosomal region Xp21.1-Xp22.3 L Kozok, P Chiurazzi, M Genuardi, M G Pomponi, M Zollino, G Neri 866

Orofaciodigital syndrome type III in two sibs R A Smith, D Gardner-Medwin 870

Sex linked valvular dysplasia R A Newbury-Ecob, J M Zuccollo, N Rutter, I D Young 873

Airway abnormalities in Jarcho-Levin syndrome: a report of two cases M Schultman, M T Gonzalez, M R Bye 875

Long survival of a patient with Marshall-Smith syndrome without respiratory complications D Sperli, D Concolino, C Barbato, P Strisciuglio, G Andria 877

Prenatal diagnosis of a giant intracranial teratoma associated with pulmonary hypoplasia I K Weyerts, V Catanzariti, M C Jones, A Mendoza 880

Short report
Severe developmental delay and multiple strawberry naevi: a new syndrome? C J Upton, I D Young 883

Abstracts
Medical genetics: advances in brief 885

Letters to the Editor
Chromosome abnormalities in Williams-Beuren syndrome A Goscich, R Pankau 886

Counselling pitfalls in Romano-Ward syndrome J C S Dean, S Cross, K Jennings 886

Book reviews
887
No 11 November 1993

Review article
The glucocerebrosidase locus in Gaucher's disease: molecular analysis of a lysosomal enzyme  P K Mistry, T M Cox

Original articles
Development and validation of laboratory procedures for preimplantation diagnosis of Duchenne muscular dystrophy  C Holding, D Bentley, R Roberts, M Bobrow, C Mathew
Chromosomal localisation of a gene(s) for Turner stigmata on Yp  T Ogata, C Tyler-Smith, S Purvis-Smith, G Turner
Genetic mapping of the Kallmann syndrome and X linked ocular albinism gene loci  Y Zhang, R McMahon, S J Charles, J S Green, A T Moore, D E Barton, J R W Yates...
Editorial
A specific mutation for Huntington's disease  P S Harper 975

Review article
Dynamic mutations on the move  G R Sutherland, R I Richards 978

Original articles

Familial predisposition to recurrent mutations causing Huntington's disease: genetic risk to sibs of sporadic cases  Y P Goldberg, S E Andrew, J Theilmann, B Kremer, F Squitieri, H Telenius, J D Brown, M R Hayden 982

Molecular analysis of late onset Huntington's disease  B Kremer, F Squitieri, H Telenius, S E Andrew, J Theilmann, N Spence, Y P Goldberg, M R Hayden

Dynamic mutation in Dutch Huntington's disease patients: increased paternal repeat instability extending to within the normal size range  K E De Rooij, P A M De Koning Gans, M I Skraastad, R D M Belfroid, M Vegter-Van Der Vlis, R A C Roos, E Bakker, G J B Van Ommen, J T Den Dunnen, M Losekoot


Mutation size and age at onset in Huntington's disease  D Craufurd, A Dodge

Identification of an expanded CAG repeat in the Huntington's disease gene (IT15) in a family reported to have benign hereditary chorea  J C MacMillan, P J Morrison, N C Nevin, D J Shaw, P S Harper, O W J Quarrell, R G Snell

Huntington's disease in Grampian region: correlation of the CAG repeat number and the age of onset of the disease  S A Simpson, M J Davidson, L H Barron

Significant linkage disequilibrium between the Huntington's disease locus and markers at loci D4S10, D4S95, and D4S111 in Northern Ireland  P J Morrison, C A Graham, N C Nevin

Presymptomatic testing for Huntington's disease: a world wide survey  The World Federation of Neurology Research Group on Huntington's Disease

Attitudes of neurologists, psychiatrists, and psychotherapists towards predictive testing for Huntington's disease in Germany  U Thies, B Bockel, V Bochdalowsky

Ethical and social issues in presymptomatic testing for Huntington's disease: a European Community collaborative study  European Community Huntington's Disease Collaborative Study Group

Clinical practice in medical genetics
Predictive testing for Huntington's disease: after the gene  S A Simpson, A E Harding, on behalf of the United Kingdom Huntington's Disease Prediction Consortium 1036

Conference report
15th International World Federation of Neurology Workshop on Huntington's Disease, 31 August–3 September 1993, Boston, Massachusetts, USA  J C MacMillan, N P Quinn 1039

Letters to the Editor
George Huntington: the man behind the eponym  R M F Van der Weiden 1042

DNA storage and duplicate sampling: lessons learnt from testing for Huntington's disease  P J Morrison, C A Graham, N C Nevin

Book review
1043

Editor's note
1043

Other original articles
Genetic mapping of a cone and rod dysfunction (Åland Island eye disease) to the proximal short arm of the human X chromosome  I A Glass, P Good, M P Coleman, P Fullwood, M G Giles, S Lindsay, A H Nemeth, K E Davies, H A Willshaw, A Fielder, M Kilpatrick, P A Farnon

Prenatal diagnosis from maternal blood: simultaneous immunophenotyping and FISH of fetal nucleated erythrocytes isolated by negative magnetic cell sorting  Y-L Zheng, N P Carter, C M Price, S M Colman, P J Milton, G A Hackett, M F Greaves, M A Ferguson-Smith 1051

Index
1057