S. Karger • Medical and Scientific Publishers • Basel • München • Paris • London • New York • Tokyo • Sydney

Drug Dosage
The authors and the publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.

All rights reserved.
No part of this publication may be translated into other languages, reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, microcopying, or by any information storage and retrieval system, without permission in writing from the publisher or, in the case of photocopying, direct payment of a specified fee to the Copyright Clearance Center (see ‘Information for Readers and Subscribers’).

© Copyright 1983 by S. Karger AG, P.O. Box, CH-4009 Basel (Switzerland) Printed in Switzerland by Buchdruckerei Schüler AG, Biel

Contents Vol. 35, 1983

No. 1

Editorial Notes
Gene mapping data – recommendations for more efficient dissemination ................................................................. 1
Increase in space allotment .................................................................

Original Articles
Nucleoli, micronucleoli, and nucleolus-like structures in human oocytes at meiotic prophase I studied by the silver-NOR technique Hartung, M.; Keeling, J.W.; Patel, C; Bobrow, M.; Stahl, A. 2
Mapping of the human gene for epidermal growth factor receptor (EGFR) on the pl3-»q22 region of chromosome 7 Kondo, I.; Shimizu, N................................................................. 9
Provisional assignment of TP, GP, and PEPD to Chinese hamster autosomes 8 and 9: a cytogenetic basis for functional haploidy of an autosomal linkage group in CHO cells Siciliano, M.J.; Stallings, R.L.; Adair, G.M.; Humphrey, R.M.; Siciliano, J................................................................. 15
Scanning electron microscopy of variations in human metaphase chromosome structure revealed by Giemsa banding
Harrison, C.J.; Allen, T.D.; Harris, R................................. 21
The Z-chromosome is involved in the regulation of H-W (H-Y) antigen expression in Xenopus
Engel, W.; Kobel, H.R......................................................... 28
Absence of correlation between univalent formation and meiotic nondisjunction in aged female Chinese hamsters
Sugawara, S.; Mikamo, K.................................................. 34
Cytogenetic analysis of Q-banded pronuclear chromosomes in fertilized Syrian hamster eggs
Martin, R.H.; Balkan, W.; Burns, K................................. 41
Complex chromosome homologies between the rhesus monkey (Macaca mulatta) and man
Estop, A.M.; Garver, J.J.; Egozcue, J.; Meera Khan, P.; Pearson, P.L.................................................. 46
C-band patterns of chromosomes in 17 strains of mice
Yoshida, M.C.; Kodama, Y.............................................. 51
Spontaneous heteroploidy in one-cell mouse embryos
Martin-DeLeon, P.A.; Boice, M.L................................. 57

Brief Reports
Regional localization of the human \( \times 2(I) \) collagen gene on chromosome 7 by molecular hybridization
Solomon, E.; Hiorns, L.; Dalgleish, R.; Tolstoshev, P.; Crystal, R.; Sykes, B.................................................. 64
Assignment of the human phosphoserine phosphatase gene (PSP) to the pter-q22 region of chromosome 7
Koch, G.A.; Eddy, R.L.; Haley, L.L.; Byers, M.G.; McAvoy, M.; Shows, T.B.................................................. 67
The human phosphoserine phosphatase gene (PSP) is mapped to chromosome 7 by somatic cell genetic analysis
Sparkes, R.S.; Mohandas, T.; Sparkes, M.C.......................... 70
An XX male with a single STS gene dose
Wieacker, P.; Voiculescu, J.; Muller, C.R.; Ropers, H.H. . 72
Complementation analysis of dexamethasone resistance in L cells
Gal, A.; Venetianer, A......................................................... 75
A rapid DAPI – distamycin method for identification of the mouse Y chromosome
Buhariwalla, F.; Blecher, S.R............................................ 78

Correction
ISCN(1981)
Harnden, D.G................................................................. 80

Original Articles
The measurement of sister chromatid exchanges induced in utero utilizing intraperitoneal infusion of BrdU: a novel technique
Singh, N.P.; Turturro, A.; Chang, M.J.W.; Hart, R.W. ... 81
Synaptonemal complexes and the chromosome complement of domestic fowl, Gallus domesticus
Kaelbling, M.; Fechheimer, N.S........................................ 87
Non-random human chromosome distribution in human-mouse myeloma somatic cell hybrids

No. 2
Cieplinski, W.; Reardon, P.; Testa, M.A ................................. 93
On the types of chromosomal aberrations induced by 8-
methoxypsoralen
Hook, G.J.; Heddle, J.A.; Marshall, R.R .............................. 100
A temperature sensitive mutant of a Chinese hamster cell line
exhibiting high chromosomal breakage
Fainsod, A.; Voss, R.; Spann, P.; Goitein, R.; Marcus, M. 104 Assignment of the gene for neutral alpha-glucosidase AB to
chromosome 11
Martiniuk, F.; Smith, M.; Ellenbogen, A.; Desnick, R.J.;
Astrin, K; Mitra, J.; Hirschhorn, R ................................. 110
Comparative gene mapping of the owl monkey, *Aotus*, with
karyotypes V (2n=46) and VI (2n=49, 50)
Ma, N.S.F ................................................................. 117
Molecular cytogenetics of the Equidae. II. Purification and
cytological localization of a (G + C)-rich satellite DNA from
*Equus hemionus onager* and cross-species hybridization to
*E. asinus* chromosomes
Gadi, I.K.; Ryder, O.A .................................................. 124

Contents

Numerous chromosomal polymorphisms in a natural popula-
tion of rice rats (*Oryzomys*, Cricetidae)
Koop, B.F.; Baker, R.J.; Genoways, H.H .......................... 131
Chromosomal homologies and phylogenetic relationships of
the vespertilionid bat genera *Euderma*, *Idionycteris*, and
*Plecotus*
Stock, A.D ................................................................. 136

Brief Reports

A presumptive new hylobatid subgenus with 38 chromosomes
Prouty, L.A.; Buchanan, P.D.; Pollitzer, W.S.; Mootnick,
A.R ................................................................. 141
Nucleolar organizer regions in *Akodon arvicoloides* (Cricetidae,
Rodentia): evidence for the activity of rDNA genes in both
X chromosomes of females
AABBate, M.; Souza, M.J ........................................... 143
High-resolution banding by treating cells with acridine orange
before fixation
Matsubara, T.; Nakagome, Y ........................................... 148
DNA replication and sister chromatid exchange in 9qh+
Crossen, P.E ................................................................. 152
The chromosomes of *Muntiacus feae*
Sora, H.; Kada, H.; Miyoshi, K.; Suzuki, Y.; Meckvichal,
C; Mahannop, A.; Vatanaromya, B .............................. 156

Announcement

Human Genetic Mutant Cell Repository
Collection of cell cultures trisomic for human chromo-
somes ................................................................. 159

Cover Illustration

Fourth Basel Colloquium (1967) on Mammalian Sex Chromo-
somes in Differentiation and Development
Identification of participants ........................................... 160

No. 3
Original Articles

The origin of multiple sex chromosomes in the gerbil Gerbillus gerbillus (Rodentia: Gerbillinae)
Wahrman, J.; Richler, C; Neufeld, E.; Friedmann, A. ... 161 Chromosome changes in 6-TG-resistant mutant strains derived from a karyotypically stable human line, C32

Karyotypic kinship between the blue fox (Alopex lagopus Linn.) and the silver fox (Vulpes fulva Desm.)
Yoshida, M.A.; Takagi, N.; Sasaki, M. ............................... 190

Heterochromatin heterogeneity in Chinese hamster sex bivalents
Murer-Orlando, M.; Richer, C-L ............................................ 195

The ancestral karyotype of Carnivora: comparison with that of platyrrhine monkeys
Dutrillaux, B.; Couturier, J ...................................................... 200

Modes of inheritance of X-Y dissociation in inter-subspecies hybrids between BALB/c mice and Mus musculus molossinus
Matsuda, Y.; Imai, H.T.; Moriwaki, K.; Kondo, K. ..................... 209

Robinson, T.J.; Elder, F.F.B.; Chapman, J.A ................................. 216

Fragile X expression studied by clonal analysis and somatic cell hybridization
Bryant, E.M.; Martin, G.M.; Hoehn, H ................................. 223

Identification of cell surface polypeptides encoded by human chromosomes 2 and 5 in human-mouse somatic cell hybrids
Carlin, C.R................................................................. 226

No. 4

Original Articles

Heterochromatin variation and sex chromosome polymorphism in Nesokia indica: a population study

Mechanisms involved in the spontaneous occurrence of diploid-triploid chimerism in the mink (Mustela vison) and chicken (Gallus domesticus)
Fechheimer, N.S.; Isakova, G.K.; Belyaev, D.K .......................... 238

Differential NOR activities in somatic and germ cells of Monodelphis domestica (Marsupialia, Mammalia)
Merry, D.E.; Pathak, S.; VandeBerg, J.L ................................. 244

A detailed method for obtaining preparations of human sperm chromosomes
Martin, R.H................................................................. 252

Delayed meiotic development and correlated death of spermatocytes in male mice with chromosome abnormalities
Speed, R.M.; Boer, P. de .................................................... 257

Complexity of control of tumorigenic expression in intraspecies hybrids of human SV40-transformed fibroblasts and normal human fibroblast cell lines
Weissman, B.E.; Stanbridge, E.J ........................................... 263

Chromosomal phylogeny of Muridae: a study of 10 genera
Viegas-Pequignot, E.; Dutrillaux, B.; Prod’Homme, M.; Petter, F................................................................. 269
Two new X-autosome translocations in the mouse
Searle, A.G.; Beechey, C.V.; Evans, E.P.; Kirk, M .......... 279

Brief Reports
Nucleolus organizer regions of the canine karyotype
Howard-Peebles, P.N.; Howell, W.M.............................. 293
Sperm chromosome analysis of a man heterozygous for a peri
centric inversion of chromosome 3
Balkan, W.; Burns, K.; Martin, R.H ............................. 295

Human Genetic Mutant Cell Repository Reports
Breakpoint map of chromosomal inversion and deletion cell cultures in the NIGMS Human Genetic Mutant Cell Repository
Aronson, M.M.; Nichols, W.W.; Mulivor, R.A.; Greene,
A.E.; Coriell, L.L.............................................................. 298

Author Index.................................................................. 303
Subject Index ................................................................. 304