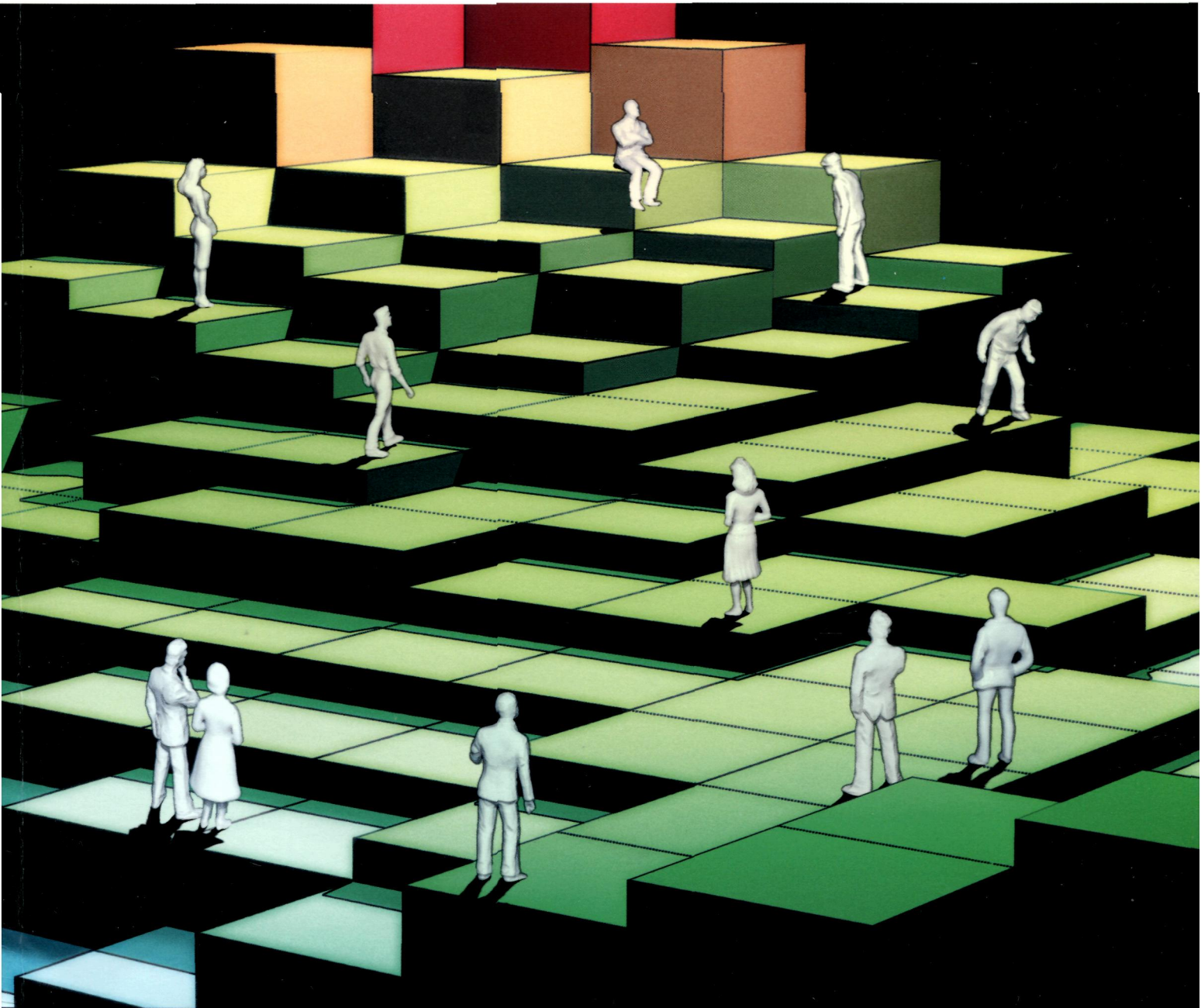


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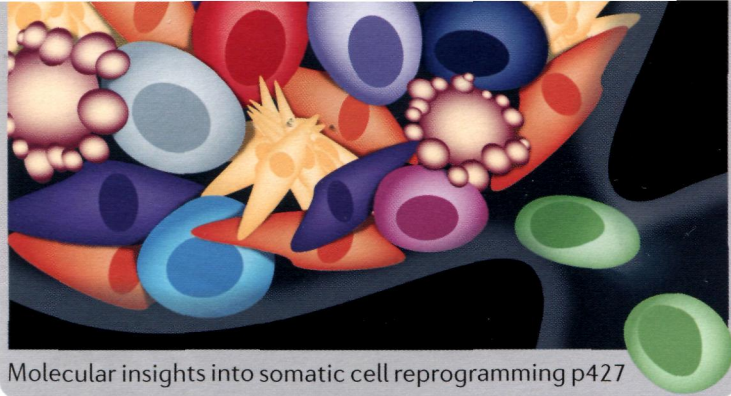


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Meta-analysis methods for genome-wide association studies and beyond

Evangelos Evangelou and John P. A. Ioannidis

The authors review statistical methods for meta-analysis of genome-wide association studies (GWASs) and extensions of these methods to complex data. They discuss how low-frequency variants can be incorporated into meta-analyses as next-generation sequencing data become more commonly used in GWASs.

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Exploring the three-dimensional organization of genomes: interpreting chromatin interaction data

Job Dekker, Marc A. Marti-Renom and Leonid A. Mirny

The three-dimensional organization of genomes can now be explored at increased resolution using approaches based on 3C technology. This Review discusses how these chromatin interaction data sets can be interpreted using statistical approaches and computational modelling, and considers the levels of organization that are revealed.

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Understanding the origin of species with genome-scale data: modelling gene flow

Vitor Sousa and Jody Hey

Genome-wide data hold the key to answering long-standing questions about the mechanisms of speciation, including the role of gene flow. Here, the authors discuss recently developed methods to analyse genome-wide data and consider emerging results from their recent application.

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Molecular genetic testing and the future of clinical genomics

Sara Huston Katsanis and Nicholas Katsanis

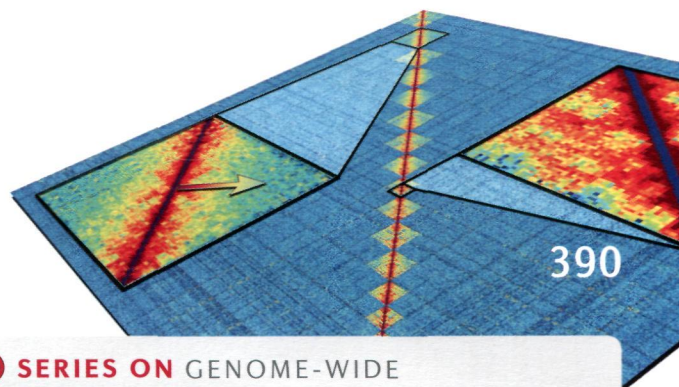
The authors review current technologies for clinical genetic testing. Moves are being made towards whole-genome and whole-exome sequencing in the clinic, although other technologies will continue to be of value.

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Mechanisms and models of somatic cell reprogramming

Yosef Buganim, Dina A. Faddah and Rudolf Jaenisch

Our understanding of the molecular steps that occur during reprogramming somatic cells to induced pluripotent stem cells has recently been improved through analyses of cell populations and single cells. Here the authors consider the phases of reprogramming, models for describing the process and the roles of reprogramming factors.



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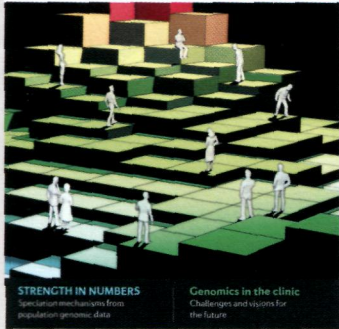
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by the Review on p404.

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373 Therapy for Duchenne muscular dystrophy: renewed
optimism from genetic approaches*Rebecca J. Fairclough, Matthew J. Wood and Kay E. Davies*

Several promising genetic approaches are being investigated for the treatment of Duchenne muscular dystrophy, including traditional gene therapy, stop codon read-through, exon skipping and increased expression of a compensatory gene. The lessons learned should also be valuable for other disorders.



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440 From neural development to cognition: unexpected roles
for chromatin (Erratum)*Jehna L. Ronan, Wei Wu and Gerald R. Crabtree*

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