

## Research

Non-Mendelian inheritance patterns and extreme deviation rates of CGG repeats in autism 1967<sup>OA</sup>  
 Dale J. Annear, Geert Vandeweyer, Alba Sanchis-Juan, F. Lucy Raymond, and R. Frank Kooy

Redistribution of lamina-associated domains reshapes binding of pioneer factor FOXA2 in development of nonalcoholic fatty liver disease 1981<sup>OA</sup>  
 Xiaolong Wei, Megan A. Murphy, Nihal A. Reddy, Yi Hao, Taylor G. Eggertsen, Jeffrey J. Saucerman, and Irina M. Bochkis

Gene essentiality in cancer cell lines is modified by the sex chromosomes 1993<sup>OA</sup>  
 Shahar Shohat, Ethel Vol, and Sagiv Shifman

Systematic transcriptome analysis associated with physiological and chronological aging in *Caenorhabditis elegans* 2003  
 Seokjin Ham, Sieun S. Kim, Sangsoon Park, Eun Ji E. Kim, Sujeong Kwon, Hae-Eun H. Park, Yoonji Jung, and Seung-Jae V. Lee

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 Dongying Xie, Pohao Ye, Yiming Ma, Yongbin Li, Xiao Liu, Peter Sarkies, and Zhongying Zhao

Developmental timing of programmed DNA elimination in *Paramecium tetraurelia* recapitulates germline transposon evolutionary dynamics 2028  
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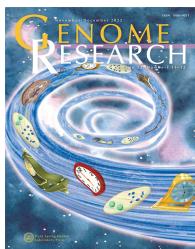
Three assays for in-solution enrichment of ancient human DNA at more than a million SNPs 2068<sup>OA</sup>  
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Methyl-SNP-seq reveals dual readouts of methylome and variome at molecule resolution while enabling target enrichment 2079<sup>OA</sup>  
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<sup>OA</sup>Open Access paper



**Cover** Transposable elements (TEs) have colonized the genome of most living species and represent a major threat to genome integrity. The ciliate *Paramecium* has evolved a mechanism for precise excision of thousands of TE-derived internal eliminated sequences (IESs) at each sexual cycle. IES excision follows a sequential order that reflects their evolutionary age. The most ancient IESs have evolved by optimizing their excision efficiency, acquiring strong sequence determinants and escaping epigenetic control. In this illustration, *Paramecium* cells are trapped in a vortex that depicts evolutionary time, while the timing of IES elimination is represented by the melting clocks inspired by Dali. (Cover artwork by Mickaël Bourge. [For details, see Zangarelli et al., pp. 2028–2042.])