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690 My Genome
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730 Crystal Structure of the Eukaryotic 40S Ribosomal Subunit in Complex with Initiation Factor 1
J. Rabl et al.
The structure provides insight into how protein synthesis is initiated and into the evolution of the eukaryotic ribosome.

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736 Discovery of Powerful Gamma-Ray Flares from the Crab Nebula
M. Tavani et al.

739 Gamma-Ray Flares from the Crab Nebula
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Gamma-ray observations of the Crab Nebula by two different space telescopes challenge particle acceleration theory.

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742 Negative Linear Compressibility and Massive Anisotropic Thermal Expansion in Methanol Monohydrate
A. D. Fortes et al.
At low temperatures, a simple molecular crystal can shrink along one axis when heated and expand along it when compressed.

>> Perspective p. 687

746 Increasing Solar Absorption for Photocatalysis with Black Hydrogenated Titanium Dioxide Nanocrystals
X. Chen et al.
An amorphous surface layer on titanium dioxide nanoparticles creates electronic states that allow longer-wavelength photoexcitation.

750 Complete Fourth Metatarsal and Arches in the Foot of Australopithecus afarensis
C. V. Ward et al.
A long bone of the foot of an early human indicates that its foot was stiff and arched, as in modern humans.

753 Embryological Evidence Identifies Wing Digits in Birds as Digits 1, 2, and 3
K. Tamura et al.
Digit identities in living birds are the same as in three-fingered dinosaurs, in agreement with paleontological evidence.

757 Structure of MyTH4-FERM Domains in Myosin VIIa Tail Bound to Cargo
L. Wu et al.
Structural data suggest how mutations in a myosin tail cause deafness in humans.

760 HSPC117 Is the Essential Subunit of a Human tRNA Splicing Ligase Complex
J. Popow et al.
The human enzyme that joins transfer RNA exons together is discovered.

764 Proteome Half-Life Dynamics in Living Human Cells
E. Eden et al.
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768 K+ Channel Mutations in Adrenal Aldosterone-Producing Adenomas and Hereditary Hypertension
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772 Retrieval Practice Produces More Learning than Elaborative Studying with Concept Mapping
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775 Leishmania RNA Virus Controls the Severity of Mucocutaneous Leishmaniasis
A. Ives et al.
An RNA virus of a parasite binds to human Toll-like receptor 3 and modulates host immune responses to the parasite.

778 Posttranslational Modification of Pili upon Cell Contact Triggers N. meningitidis Dissemination
J. Chamot-Rooke et al.
Regulated deaggregation allows meningitis-causing bacteria to propagate to new host cells and migrate across epithelia.