1185 From Persistence to Cross-Species Emergence of a Viral Zoonosis
D. G. Streicker

1202 A Mechanism for Reorientation of Cortical Microtubule Arrays Driven by Microtubule Severing
J. J. Lindeboom et al.
A self-organizing system makes the microtubule array in plants rearrange in order for the shoot to turn toward blue light.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1245533
>> Perspective p. 1183; Video

1203 Oscillatory Control of Factors Determining Multipotency and Fate in Mouse Neural Progenitors
I. Imayoshi et al.
During neural development, the differentiated state correlates with sustained expression of a single fate-determination factor.

1208 Structure and Composition of the Plate-Boundary Slip Zone for the 2011 Tohoku-Oki Earthquake
F. M. Chester et al.
The Tohoku-Oki earthquake occurred along a thin, clay-rich fault zone in the basal strata of the subducting plate.

1211 Low Coseismic Shear Stress on the Tohoku-Oki Megathrust Determined from Laboratory Experiments
K. Ujiie et al.
Rotary shear experiments reveal the frictional properties of clay-rich material recovered directly from the Tohoku-Oki fault zone.

1214 Low Coseismic Friction on the Tohoku-Oki Fault Determined from Temperature Measurements
P. M. Fulton et al.
A temperature anomaly of 0.31°C indicates that coseismic friction was extremely low during the Tohoku-Oki earthquake.
>> Perspective p. 1178; Science Podcast

1217 Giant Convection Cells Found on the Sun
D. H. Hathaway et al.
Flows in cells transport angular momentum toward the solar equator, maintaining the Sun’s rapid equatorial rotation.

1220 Precision Spectroscopy of Polarized Molecules in an Ion Trap
H. Loh et al.
A method to measure the electric dipole moment of the electron is demonstrated using polarized trapped molecular ions.

1223 Phase Mismatch–Free Nonlinear Propagation in Optical Zero-Index Materials
H. Suchowski et al.
Metamaterials relax the requirement for phase matching in nonlinear optics.
>> Perspective p. 1182

1226 Interfollicular Epidermal Stem Cells Self-Renew via Autocrine Wnt Signaling
X. Lim et al.
Stem cells produce short-range signals to support self-renewal and long-range signal inhibitors to allow differentiation.

1230 Preferential Recognition of Avian-Like Receptors in Human Influenza A H7N9 Viruses
R. Xu et al.
The hemagglutinin of 2013 avian-origin H7N9 influenza virus is poorly adapted for efficient human-to-human transmission.

1235 HCF-1 Is Cleaved in the Active Site of O-GlcNac Transferase
M. B. Lazarus et al.
A protein involved in cell cycle regulation is proteolytically activated and glycosylated by a nutrient-sensitive enzyme.

1239 Crossstalk Between Microtubule Attachment Complexes Ensures Accurate Chromosome Segregation
D. K. Cheerambathur et al.
Chromosome partitioning involves regulatory crossstalk between two major microtubule-binding complexes at the kinetochore.

1243 Nonredundant Function of Soluble LTRα Produced by Innate Lymphoid Cells in Intestinal Homeostasis
A. A. Kruglov et al.
Soluble lymphotoxin plays a paracrine role in controlling immunoglobulin A responses and regulating gut microbiota.

1247 Hedgehog Signaling Controls T Cell Killing at the Immunological Synapse
M. de la Roche et al.
T cell receptor stimulation activates Hedgehog signaling to arm cytotoxic T cells with the labile actin needed for killing.
>> Perspective p. 1177

1251 Intact But Less Accessible Phonetic Representations in Adults with Dyslexia
B. Boets et al.
The persistent reading problems observed in dyslexia may derive from inefficient communication within the brain.
>> News story p. 1158

1254 MicroRNA-128 Governs Neuronal Excitability and Motor Behavior in Mice
C. Lek-fan et al.
A microRNA expressed in adult neurons affects movement by modulating neuronal signaling networks and excitability.

1257 Segregation Complexes Ensures Accurate Chromosome Segregation
D. K. Cheerambathur et al.
Chromosome partitioning involves regulatory crossstalk between two major microtubule-binding complexes at the kinetochore.

1258 Lyophilisate Transformed into Water by a Nutrient-Sensitive Enzyme
M. B. Lazarus et al.
A protein involved in cell cycle regulation is proteolytically activated and glycosylated by a nutrient-sensitive enzyme.

1260 HCF-1 Is Cleaved in the Active Site of O-GlcNac Transferase
M. B. Lazarus et al.
A protein involved in cell cycle regulation is proteolytically activated and glycosylated by a nutrient-sensitive enzyme.

1262 Metabolism of a Single Fate-determination Factor
D. J. Lebovitz et al.
During neural development, the differentiated state correlates with sustained expression of a single fate-determination factor.

1264 MicroRNA-128 Governs Neuronal Excitability and Motor Behavior in Mice
C. Lek-fan et al.
A microRNA expressed in adult neurons affects movement by modulating neuronal signaling networks and excitability.

1267 Outcomes of Neuronal Differentiation
D. J. Lebovitz et al.
During neural development, the differentiated state correlates with sustained expression of a single fate-determination factor.

1270 Metabolism of a Single Fate-determination Factor
D. J. Lebovitz et al.
During neural development, the differentiated state correlates with sustained expression of a single fate-determination factor.

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1283 HCF-1 Is Cleaved in the Active Site of O-GlcNac Transferase
M. B. Lazarus et al.
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1286 Crossstalk Between Microtubule Attachment Complexes Ensures Accurate Chromosome Segregation
D. K. Cheerambathur et al.
Chromosome partitioning involves regulatory crossstalk between two major microtubule-binding complexes at the kinetochore.

1289 Nonredundant Function of Soluble LTRα Produced by Innate Lymphoid Cells in Intestinal Homeostasis
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Soluble lymphotoxin plays a paracrine role in controlling immunoglobulin A responses and regulating gut microbiota.

1293 Hedgehog Signaling Controls T Cell Killing at the Immunological Synapse
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>> Perspective p. 1177

1301 Intact But Less Accessible Phonetic Representations in Adults with Dyslexia
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1304 MicroRNA-128 Governs Neuronal Excitability and Motor Behavior in Mice
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1307 Metabolism of a Single Fate-determination Factor
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M. B. Lazarus et al.
A protein involved in cell cycle regulation is proteolytically activated and glycosylated by a nutrient-sensitive enzyme.

1316 Crossstalk Between Microtubule Attachment Complexes Ensures Accurate Chromosome Segregation
D. K. Cheerambathur et al.
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1319 Nonredundant Function of Soluble LTRα Produced by Innate Lymphoid Cells in Intestinal Homeostasis
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342 (6163)

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