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596 Sound Strategies for Hearing Restoration
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Review Summary; for full text: http://dx.doi.org/10.1126/science.1241062

ON THE WEB THIS WEEK
>> Science Podcast
On this week’s show: marine archaeology digs up political complexities and a roundup of stories from our daily news site.

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COVER
Farmers drying grains of rice in the sun in China’s Anhui province. New psychological tests suggest that China’s history of rice farming has given the south more markers of traditional East Asian culture, such as interdependence, holistic thought style, and low divorce rates. In comparison, people in wheat-growing northern China are more independent. See pages 593 and 603.

Photo: Getty Images

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597 Structural Basis for Protein Antiaggregation Activity of the Trigger Factor Chaperone T. Saio et al.
Nuclear magnetic resonance data show how molecular chaperones recognize and prevent aggregation and misfolding of unfolded proteins.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1250494
>> Perspective p. 590

598 Hippocampal Neurogenesis Regulates Forgetting During Adulthood and Infancy K. G. Akers et al.
Addition of new neurons leads to remodeling of hippocampal circuitry and memory degradation.
>> Perspective p. 594

603 Large-Scale Psychological Differences Within China Explained by Rice Versus Wheat Agriculture T. Talhelm et al.
A history of growing rice contributed to an interdependent mode of thought.
>> Perspective p. 593

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608 Fermi Surface and Pseudogap Evolution in a Cuprate Superconductor Y. He et al.
Simultaneous Transitions in Cuprate Momentum-Space Topology and Electronic Symmetry Breaking K. Fujita et al.
Scanning tunneling microscopy is used to provide evidence for a quantum critical point beneath the superconducting dome.

612 Direct, Nonoxidative Conversion of Methane to Ethylene, Aromatics, and Hydrogen X. Guo et al.
Methyl radicals that form at isolated iron sites in a silica matrix form gas-phase products and do not deposit solid carbon.

616 Restoration of Large Damage Volumes in Polymers S. R. White et al.
A sequential set of gelation and polymerization reactions are used for patching large gaps in a polymer sample.
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623 In Situ TEM Observation of a Microcrucible Mechanism of Nanowire Growth R. Boston et al.
Nanowire growth from a microcrucible catalyst particle at the bottom of the wire is observed in situ.

626 Spatially Distributed Local Fields in the Hippocampus Encode Rat Position G. Aparwal et al.
Electrical fields within the hippocampus can now be decoded to reveal a rat’s location.

630 Vascular and Neurogenic Rejuvenation of the Aging Mouse Brain by Young Systemic Factors L. Katsimpardi et al.
A circulating growth factor promotes youthful muscles and brains in aged mice.
>> News story p. 570; Report p. 649

634 Identification of LRRCB Heteromers as an Essential Component of the Volume-Regulated Anion Channel VRAC F. K. Voss et al.
Components of an elusive swelling-activated anion channel are identified and form a structurally new class of channel.
>> Perspective p. 585

638 Gibberellin Acts Positively Then Negatively to Control Onset of Flower Formation in Arabidopsis N. Yamaguchi et al.
Inflorescence architecture is shaped by a bi phasic signaling network involving the plant hormone gibberelin.

641 Cancer Immunotherapy Based on Mutation-Specific CD4+ T Cells in a Patient with Epithelial Cancer E. Tran et al.
T cells specific for a mutation expressed by tumor cells show antitumor activity in a patient with an epithelial cancer.

643 The Transcription Factor Gat6 Links Tissue Macrophage Phenotype and Proliferative Renewal M. Rosas et al.
The major self-renewing population of peritoneal macrophages is under discrete tissue-selective transcriptional control.

649 Restoring Systemic GDF11 Levels Reverses Age-Related Dysfunction in Mouse Skeletal Muscle M. Sinha et al.
A circulating growth factor promotes youthful muscles and brains in aged mice.
>> News story p. 570; Report p. 630
Editor's Summary

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