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A 36× enlarged triply periodic porous cube of photocured polymer, 60 millimeters in total length, shown reflected off a pool of uncur ed resin. Computer-aided design makes it possible to tailor materials with control over porosity, pore size, and mechanical properties. These materials may subsequently find use as scaffolds for tissue engineering and cell-laden hydrogel constructs. See the special section starting on page 899 for a series of articles on biomaterials.

Fabrication: Ferry P. W. Melchels, Jan Feijen, Dirk W. Grijsma
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939 Evidence for a Dynamo in the Main Group Pallasite Parent Body
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Some pallasite meteorites might have formed when liquid FeNi from an impactor was injected into their parent body’s mantle.
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Data for birds and protected area requirements yield estimated costs for maintaining worldwide diversity targets.
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K. C. Luk et al.
Intracerebral inoculation of synthetic misfolded α-synuclein mimics Parkinson’s disease in wild-type mice.

953 Orbitofrontal Cortex Supports Behavior and Learning Using Inferred But Not Cached Values
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Expression of a single effector protein allows a human-specific pathogen to replicate within normally nonpermissive mice.
963 Salmonella Inhibits Retrograde Trafficking of Mannose-6-Phosphate Receptors and Lysosome Function
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A bacterial pathogen interferes with intracellular trafficking of receptors needed for host cell lysosomal-enzyme targeting.
968 Convergent Evolution Between Insect and Mammalian Audition
F. Montealegre-Z. et al.
In an example of convergent evolution, rainforest katydids hear using similar mechanisms to those found in mammalian ears.
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K. Hayashi et al.
Mature, fully functional female gametes can be generated from mouse pluripotent stem cells.
975 A Genomic Regulatory Element That Directs Assembly and Function of Immune-Specific AP-1–IRF Complexes
E. Glasmacher et al.
Cooperative binding of transcription factors to composite genomic elements regulates T helper 17 cell differentiation.
>> Perspective p. 891
Dancers help scientists assess models of molecular motion inside a cell.

**Highlights From Our Daily News Coverage**

- Wired for Harmony?
  - A new study shows that the ear and brain prefer harmonic sounds.
  - [http://scim.ag/Wired_Harmony](http://scim.ag/Wired_Harmony)

- Alignment of Magnetized Accretion Disks and Relativistic Jets with Spinning Black Holes
  - J. C. McKinney
  - [10.1126/science.1230811](http://scim.ag/1230811)

- PORPHRY-COPPER Ore Shells Form at Stable Pressure-Temperature Fronts Within Dynamic Fluid Plumes
  - P. Weis et al.
  - [10.1126/science.1225009](http://scim.ag/1225009)

- Optomechanical Dark Mode
  - C. Dong et al.
  - [10.1126/science.1228370](http://scim.ag/1228370)

**RESEARCH ARTICLE: Single Amino Acid Substitutions Confer the Antiviral Activity of the TRAF3 Adaptor Protein onto TRAF5**

P. Zhang et al.

Two single amino acid changes enable the adaptor protein TRAF5 to promote antiviral responses.

**EDITORIAL: Regenerative Engineering**

C. T. Laurencin and Y. Khan

The future of tissue regeneration lies in “regenerative engineering,” with biomaterials playing a key role.

**COMMENTARY: What Is the Greatest Regulatory Challenge in the Translation of Biomaterials to the Clinic?**

G. D. Prestwich et al.

Leaders in the field list the greatest barriers to biomaterials translation.

**PERSPECTIVE: Building Vascular Networks**

H. Bae et al.

Advances in generating vascular networks in biomaterials may aid translation of tissue engineering technologies.

**PERSPECTIVE: Dynamic Environments—The Fourth Dimension**

M. W. Tibbett and K. S. Anseth

Four-dimensional cell matrices will aid in the translation of cell-based therapies.

**REVIEW: Engineering Complex Tissues**

A. Atala et al.

Advances in tissue engineering technologies will enable regeneration of complex tissues and organs.

**REVIEW: Designing Regenerative Biomaterial Therapies for the Clinic**

E. T. Pashuck and M. M. Stevens

Research, regulatory, and clinical aspects are considered for biomaterial translation.

**SCIENCE CAREERS**

[www.sciencemag.org/career_magazine](http://www.sciencemag.org/career_magazine)

Free Career Resources for Scientists


**Tooling Up: Questions to Set Your Sails By (Part 1)**

D. Jensen

Answering these six questions can help you choose your career path.

**Careers in Biomaterials Science—An Overview**

E. Pain

Scientists with an ability to work across fields can find exciting opportunities in biomaterials.

**Materials Researchers in Biomedicine**

M. Price

As biomedical applications emerge, materials scientists find new funding and research opportunities.

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