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| http://images.magnetmail.net/images/template/acs/gold.gif In This Edition  |  | | --- | | [Advance in re-engineering photosynthesis to make drugs, compounds or ingredients](#1)  [First discovery of a natural topological insulator](#ARTICLE_2)  [Duckweed as a cost-competitive raw material for biofuel production](#3)  [Development of the first way to make large amounts of promising anti-cancer substance](#4)  [How science debunked the ancient Aztec crystal skull hoax](#5) |  |  | | --- | | [**Journalists’ Resources:**](#Resources)  [About the Weekly PressPac](#About)  [News media registration for ACS’ 245th National Meeting & Exposition in New Orleans](#press)  [Press releases, briefings and more from ACS’ 244th National Meeting](#registration)[Inside Science News Service](#InsideScience)  [C&EN Video Spotlight: Crowdsourcing and Open Science to Check Chemical Reactions](#VideoSpotlight)  [Must-Read from C&EN: From Lab to Pharmacy Shelf](#mustread)  [ACS Pressroom Blog](#pressroomblog)   [Bytesize ScienceBlog](#bytesizeblog)  [ACS Satellite Pressroom: Daily news blasts on Twitter](#twitter) [C&EN on Twitter](#CENTwitter)  [ACS Press Releases](#releases) |  |  | | --- | | [**ACS Videos:**](#Videos) [Spellbound: A video series on how kids became scientists](#Spellbound)  [Prized Science video series](#Dance)  [The Periodic Table Table Featuring Theo Gray](#Mars)  [Healing the voice: Synthetic vocal cords](#daywithoutchemistry)  [The Chemistry of Beer](#Beer)  [The Chemistry of Cheese](#Cheese)  [Without a Scratch: Self-Healing Materials](#Scratch) |  |  | | --- | | [**ACS Podcasts:**](#podcasts)     [Bytesize Science: A podcast for young listeners](#globalchallenges)  [Global Challenges/Chemistry Solutions](#Bytesizescience)    [Science Elements: From the PressPac](#Scienceelements) |  |  | | --- | | [**And Don't Miss:**](#dontmiss)  [Chemistry Glossary](#glossary) |   [PressPac Archives](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959669&m=2513198&u=ACS&j=13310045&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_PRESSPACS&node_id=223&use_sec=false&sec_url_var=region1&__uuid=a0c923e3-c385-4d96-bdc8-eadaa07eb02f) | **ACS NEWS SERVICE Weekly Press Package - March 6, 2013   ALL CONTENT IS FOR IMMEDIATE RELEASE  Please credit the individual journal or the American Chemical Society as the source for this information.**  Here is the latest American Chemical Society (ACS) Weekly PressPac from the Office of Public Affairs. It has news from ACS’ more than 40 peer-reviewed journals and Chemical & Engineering News.  Science Inquiries: Michael Woods, editor [m\_woods@acs.org](mailto:m_woods@acs.org) 202-872-6293  General Inquiries: Michael Bernstein [m\_bernstein@acs.org](mailto:m_bernstein@acs.org)  202-872-6042  Follow us: [http://images.magnetmail.net/images/clients/ACS/Twitter1(1).png](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011188&m=2513198&u=ACS&j=13310045&s=https://twitter.com/ACSpressroom)  [http://images.magnetmail.net/images/clients/ACS/Facebook.jpg](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011189&m=2513198&u=ACS&j=13310045&s=https://www.facebook.com/pages/American-Chemical-Society-Press-Room/130342583687829)  ARTICLE #1 **FOR IMMEDIATE RELEASE**  **Advance in re-engineering photosynthesis to make drugs, compounds or ingredients** ACS Synthetic Biology   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613plantsthumbs.jpg The tiny packets of chlorophyll that make plants green have been re-engineered in an advance toward transforming plants into bio-factories that make ingredients for medicines, fabrics and fuels. Credit: iStockphoto/Thinkstock |   Scientists are reporting an advance in re-engineering photosynthesis to transform plants into bio-factories that manufacture high-value ingredients for medicines, fabrics, fuels and other products. They report on the research in the journal ACS Synthetic Biology.  Poul Erik Jensen and colleagues explain that photosynthesis does more than transform carbon dioxide and water into sugar and oxygen and generate energy. That process also produces a wealth of natural chemical compounds, many of which have potential uses in medicines and other commercial products. However, evolution has compartmentalized those functions into two separate areas of plant cells. Chloroplasts, the packets of chlorophyll that make plants green, generate energy and produce sugar and oxygen. Another structure, the endoplasmic reticulum, produces a wide range of natural chemicals.  Their report describes breaking that evolutionary compartmentalization by relocating an entire metabolic pathway needed for production of natural bioactive chemicals to the chloroplast. “This opens the avenue for light-driven synthesis of a vast array of other natural chemicals in the chloroplast,” they say, citing key natural chemicals that would be ingredients in medications.  The authors acknowledge funding from the [Villum Foundation](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959672&m=2513198&u=ACS&j=13310045&s=http://veluxfoundations.dk/C12576AB00426565/0/4C05C456014EDFD5C1256E9F00371B87?OpenDocument) and the [Danish Ministry of Science, Technology and Innovation](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959673&m=2513198&u=ACS&j=13310045&s=http://fivu.dk/en/the-minister-and-the-ministry/organisation/the-danish-agency-for-science-technology-and-innovation).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613acssynthetbiolthumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011190&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/030613acssynthetbiolhires.jpg) for high-resolution image. |   ARTICLE #1 **FOR IMMEDIATE RELEASE** “Redirecting Photosynthetic Reducing Power towards Bioactive Natural Product Synthesis”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959674&m=2513198&u=ACS&j=13310045&s=http://pubs.acs.org/stoken/presspac/presspac/abs/10.1021/sb300128r)   CONTACT: Poul Erik Jensen, Ph.D. University of Copenhagen Section for Molecular Plant Biology Thorvaldsensvej 40, DK-1871 Frederiksberg C Copenhagen, Denmark Phone: +45-353-33340  Email: [peje@life.ku.dk](mailto:peje@life.ku.dk)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #2 **FOR IMMEDIATE RELEASE**  **First discovery of a natural topological insulator** Nano Letters   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613naturalinsulatorthumbnew2.jpg The mineral Kawazulite is a natural “topological insulator,” a material that could have applications in a new genre of supercomputers.[*Click here*](http://www.mmsend88.com/link.cfm?r=800557068&sid=22966558&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/030613naturalinsulatorhires.jpg) for high-resolution image.Credit: American Chemical Society |   In a step toward understanding and exploiting an exotic form of matter that has been sparking excitement for potential applications in a new genre of supercomputers, scientists are reporting the first identification of a naturally occurring “topological insulator” (TI). Their report on discovery of the material, retrieved from an abandoned gold mine in the Czech Republic, appears in the ACS journal Nano Letters.  Pascal Gehring and colleagues point out that synthetic TIs, discovered only a decade ago, are regarded as a new horizon in materials science. Unlike conventional electrical insulators, which do not conduct electricity, TIs have the unique property of conducting electricity on their surface, while acting as an insulator inside. Although seemingly simple, this type of surface could allow manipulation of the spin of an electron, paving the way for development of a quantum computer. Such a computer would crunch data much faster than today’s best supercomputers.  The research team describes discovering that the mineral Kawazulite, found in the Czech gold mine and processed into nanoflakes, is a natural TI. The flakes were so small that thousands would fit inside the dot over an “i.” Based on the discovery, natural TIs may exist in other minerals, the report states. Scientists, they recall, once believed that quasi-crystals — topic of the 2011 Nobel Prize in Chemistry — were available only synthetically, but those materials recently were discovered in sky-fallen meteorites.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613nanolattersthumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011191&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/030613nanolettershires.jpg) for high-resolution image. |   ARTICLE #2 **FOR IMMEDIATE RELEASE** “A Natural Topological Insulator”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011192&m=2513198&u=ACS&j=13310045&s=http://pubs.acs.org/stoken/presspac/presspac/abs/10.1021/nl304583m) CONTACT:Pascal Gehring Max-Planck-Institut für Festkörperforschung Heisenbergstrasse 1, D-70569 Stuttgart Germany Email: [p.gehring@fkf.mpg.de](mailto:p.gehring@fkf.mpg.de)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #3 **FOR IMMEDIATE RELEASE  Duckweed as a cost-competitive raw material for biofuel production** Industrial & Engineering Chemistry Research   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613duckweedthumb.jpg Duckweed, the quick-growing plant covering this pond, ranks as an ideal raw material for producing biofuels that could help ease reliance on petroleum and natural gas in the 21st century. Credit: iStockphoto/Thinkstock |   The search for a less-expensive, sustainable source of biomass, or plant material, for producing gasoline, diesel and jet fuel has led scientists to duckweed, that fast-growing floating plant that turns ponds and lakes green. That’s the topic of a report in ACS’ journal Industrial & Engineering Chemistry Research.  Christodoulos A. Floudas, Xin Xiao and colleagues explain that duckweed, an aquatic plant that floats on or near the surface of still or slow-moving freshwater, is ideal as a raw material for biofuel production. It grows fast, thrives in wastewater that has no other use, does not impact the food supply and can be harvested more easily than algae and other aquatic plants. However, few studies have been done on the use of duckweed as a raw material for biofuel production.  They describe four scenarios for duckweed refineries that use proven existing technology to produce gasoline, diesel and kerosene. Those technologies include conversion of biomass to a gas; conversion of the gas to methanol, or wood alcohol; and conversion of methanol to gasoline and other fuels. The results show that small-scale duckweed refineries could produce cost-competitive fuel when the price of oil reaches $100 per barrel. Oil would have to cost only about $72 per barrel for larger duckweed refiners to be cost-competitive.  The authors acknowledge funding from the [National Science Foundation](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959678&m=2513198&u=ACS&j=13310045&s=http://www.nsf.gov/) and the [Chinese Academy of Sciences](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959679&m=2513198&u=ACS&j=13310045&s=http://english.cas.cn/).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613iechemresearchthumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011193&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/030613iechemresearchhires.jpg) for high-resolution image. |   ARTICLE #3 **FOR IMMEDIATE RELEASE** “Thermochemical Conversion of Duckweed Biomass to Gasoline, Diesel, and Jet Fuel: Process Synthesis and Global Optimization”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959680&m=2513198&u=ACS&j=13310045&s=http://pubs.acs.org/stoken/presspac/presspac/abs/10.1021/ie3034703)  CONTACT: Christodoulos A. Floudas, Ph.D. Department of Chemical and Biological Engineering Princeton University Princeton, N.J. 08544 Phone: 609-258-4595 Fax: 609-258-0211 Email: [floudas@titan.princeton.edu](mailto:floudas@titan.princeton.edu)  or  Xin Xiao, Ph.D. Institute of Process Engineering Chinese Academy of Sciences No. 1 Zhongguancun North Second Street Beijing 100190 P.R. China Phone: +86 10 62566737 Email: [xxiao@home.ipe.ac.cn](mailto:xxiao@home.ipe.ac.cn)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    ARTICLE #4 **FOR IMMEDIATE RELEASE: A PressPac Instant Replay\***  **Development of the first way to make large amounts of promising anti-cancer substance** Journal of Medicinal Chemistry   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613cancerpillsthumbs.jpg Scientists have developed what may be the first way to make large quantities of a promising anti-cancer substance for drugs.Credit: iStockphoto/Thinkstock |   Scientists are reporting development of the first practical way to make large amounts of a promising new anti-cancer substance that kills cancer cells differently than existing medicines. Their article on synthesis of the substance, and tests demonstrating its effectiveness in the laboratory, appears in ACS’ Journal of Medicinal Chemistry.  Isamu Shiina and colleagues explain that the substance, AMF-26, showed promise against certain forms of cancer in laboratory studies, fostering excitement about its potential for development as a new anti-cancer drug. That excitement centered on AMF-26’s action in targeting a structure in cells, the Golgi apparatus, that had never been exploited in the past. The Golgi apparatus sorts and modifies hormones, enzymes and other key proteins for transport elsewhere. However, AMF-26 had been available in only small amounts by semisynthesis starting from AMF-14, which was extracted from the common soil mold of the genus Trichoderma.  Their report describes the first successful practical synthesis of AMF-26 and laboratory tests showing that the synthetic AMF-26 is just as effective as its natural counterpart. "The large-scale production of AMF-26 and its derivatives for the development of novel anticancer drugs are now in progress in this laboratory," the report states.  The authors acknowledge funding from Health and Labour Sciences Research Grants from the [Ministry of Health, Labour and Welfare](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959681&m=2513198&u=ACS&j=13310045&s=http://www.mhlw.go.jp/english/), Japan.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/030613medichemthumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011194&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/030613medichemhires.jpg) for high-resolution image. |   ARTICLE #4 **FOR IMMEDIATE RELEASE** “Total Synthesis of AMF-26, an Antitumor Agent for Inhibition of the Golgi System, Targeting ADP-Ribosylation Factor 1”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959682&m=2513198&u=ACS&j=13310045&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/jm301695c)  CONTACT: Isamu Shiina, Ph.D. Department of Applied Chemistry Tokyo University of Science 1-3 Kagurazaka, Shinjuku-ku Tokyo 162-8601, Japan Phone: +81-3-3260-4271 Fax: +81-3-3260-5609 E-mail: [shiina@rs.kagu.tus.ac.jp](mailto:shiina@rs.kagu.tus.ac.jp)  **\*A previous PressPac item that you may have missed**     [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #5 **FOR IMMEDIATE RELEASE**  **How science debunked the ancient Aztec crystal skull hoax** Chemical & Engineering News   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/0306CENcover.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011195&m=2513198&u=ACS&j=13310045&s=http://web.1.c2.audiovideoweb.com/1c2web3536/09109CENcover.jpg) for high-resolution image. |   They may have gained fame in the Steven Spielberg adventure film "Indiana Jones and the Kingdom of the Crystal Skull," but those quartz-crystal skulls that once ranked as a great enigma of archaeology are certifiably fake. And the current edition of Chemical & Engineering News, (C&EN) the weekly news magazine of the American Chemical Society, the world’s largest scientific society, recalls the details of their rise and fall.  In the article, Sarah Everts, C&EN’s European science correspondent, delves back into history, explaining that the skull sculptures — supposedly crafted before the Spanish conquest in the 16th century — began appearing on the art market in the 1860s. They graced collections of institutions as renowned as the British Museum in London, the Quai Branly Museum in Paris and Washington, D.C.’s Smithsonian Institution.  Experts began doubting the authenticity of the skulls as long ago as the 1930s. Everts describes how experts at those three museums have used scientific instruments to show that the skulls are post-Columbian fakes. French antiquities dealer Eugène Boban played a major role in sparking public fascination with the skulls by getting some of the first fakes placed in major museums.  ARTICLE #5 **FOR IMMEDIATE RELEASE** "Crystal Skulls Deemed Fake"  This story is available at: [http://cenm.ag/skulls](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011196&m=2513198&u=ACS&j=13310045&s=http://cenm.ag/skulls)    [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    **Journalists’ Resources** **About the Weekly PressPac** The ACS Weekly PressPac consists of summaries of research published in the American Chemical Society’s more than 40 peer-reviewed journals and its weekly newsmagazine, Chemical & Engineering News. ACS journals publish more than 35,000 articles annually. Although not traditional press releases, PressPac content can be used to prepare news stories, in conjunction with the full-text PDF and an interview with the authors. PressPac stories and the accompanying full-text PDFs also can be an excellent resource for features and background.  **News media registration for ACS’ 245th National Meeting & Exposition in New Orleans** News media [registration](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959684&m=2513198&u=ACS&j=13310045&s=https://www.xpressreg.net/register/acsa043/media/reginfo.asp) is now open for the American Chemical Society’s 245th National Meeting & Exposition in New Orleans, April 7-11, 2013. The event will include almost 12,000 reports on new discoveries in medicine and health, food and nutrition, energy, the environment and other fields where chemistry plays a central role. One of the largest scientific conferences of 2013, the meeting will take place at the Ernest N. Morial Convention Center and area hotels.  To view the full news release about meeting registration, [click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959685&m=2513198&u=ACS&j=13310045&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=222&content_id=CNBP_031828&use_sec=true&sec_url_var=region1&__uuid=a563a716-754e-4dda-b033-8128b87b7fb7).  **Press releases, briefings and more from ACS’ 244th National Meeting** [www.eurekalert.org/acsmeet.php](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959686&m=2513198&u=ACS&j=13310045&s=http://www.eurekalert.org/acsmeet.php)  [www.ustream.tv/channel/acslive](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959687&m=2513198&u=ACS&j=13310045&s=http://www.ustream.tv/channel/acslive%20) **Inside Science News Service** For thoroughly enjoyable multimedia coverage of the science behind the news — a valuable resource for journalists and news media organizations everywhere. [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959688&m=2513198&u=ACS&j=13310045&s=http://www.insidescience.org/) to visit the Inside Science News website.  **C&EN Video Spotlight: Crowdsourcing and Open Science to Check Chemical Reactions** What do you get when you combine crowdsourcing, chemistry and the spirit of TV show “America’s Test Kitchen”? You get a new website called Blog Syn. It sprung up in January, with the purpose of checking chemical reactions to determine how reliable they are and reporting the results to chemists around the world. The chemists behind Blog Syn are trying to help with a major chemistry bugaboo — it turns out that published “recipes” for chemical compounds don’t always work the first time they’re tried or work consistently. Blog Syn has some established competition, but as C&EN Senior Editor Carmen Drahl reports, its founders think that their crowdsourcing approach will give them the speed to stake out a niche.  [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=23011197&m=2513198&u=ACS&j=13310045&s=http://www.youtube.com/watch?v=wJvJAt0RLMk) to view the video.  **Must-Read from C&EN: From Lab to Pharmacy Shelf** Smaller biotech firms with a potential new drug discovery often need a helping hand in moving that compound out of the lab and onto pharmacy shelves. A three-part cover story provides a behind-the-scenes look at the role of contract manufacturers in getting those compounds ready for clinical trials. For the full story, contact [newsroom@acs.org](mailto:newsroom@acs.org).   **ACS Pressroom Blog** The ACS Office of Public Affairs' [pressroom blog](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959689&m=2513198&u=ACS&j=13310045&s=https://communities.acs.org/community/science/science_news) highlights research from ACS’ more than 40 peer-reviewed journals and National Meetings.  **Bytesize Science Blog**  Educators and kids, put on your thinking caps: The American Chemical Society has [a blog for Bytesize Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959690&m=2513198&u=ACS&j=13310045&s=http://www.bytesizescience.com), a science podcast for kids of all ages.  **ACS Satellite Pressroom: Daily news blasts on Twitter** The satellite press room has become one of the most popular science news sites on Twitter. To get our news blasts and updates, create a free account at [https://twitter.com/signup](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959691&m=2513198&u=ACS&j=13310045&s=https://twitter.com/signup). Then visit [http://twitter.com/ACSpressroom](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959692&m=2513198&u=ACS&j=13310045&s=http://twitter.com/ACSpressroom) and click the ‘join’ button beneath the press room logo.   **C&EN on Twitter** Follow @cenmag at [http://twitter.com/cenmag](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959693&m=2513198&u=ACS&j=13310045&s=http://twitter.com/cenmag) for the latest news in chemistry and dispatches from C&EN's blog, CENtral Science, at [http://centralscience.org](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959694&m=2513198&u=ACS&j=13310045&s=http://centralscience.org).**ACS Press Releases**  [Press releases](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959695&m=2513198&u=ACS&j=13310045&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_NEWSRELEASES&node_id=222&use_sec=false&sec_url_var=region1&__uuid=50b5ab93-801d-4d0d-868f-b9507ff9d709) on a variety of chemistry-related topics.  [To Top](#top)  http://images.magnetmail.net/images/clients/acs/goldline.gif  **ACS Videos**  The American Chemical Society encourages news organizations, museums, educational organizations and other web sites to embed links to these videos.  **Spellbound: How Kids Became Scientists**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/Spellbound3.jpg |   The road to a Nobel Prize began for one scientist in elementary school when his father placed a sign on his bedroom door proclaiming him to be a “doctor.” This is just one of the many experiences that helped launch the careers of scientists from diverse backgrounds who are featured in a new ACS video series called [Spellbound: How Kids Became Scientists](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959696&m=2513198&u=ACS&j=13310045&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=1355&content_id=CNBP_028033&use_sec=true&sec_url_var=region1&__uuid=e8e6ee76-0abe-4e78-84c4-3717c995c65e).  **Prized Science video series**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/2012PrizedScienceLanger.png |   Prized Science: How the Science Behind ACS Awards Impacts Your Life video series is new for 2012! The first episode features the research of Dr. Robert Langer, winner of the 2012 ACS Priestley Medal. He is a professor at the Massachusetts Institute of Technology. The Priestley Medal is the highest honor of the ACS, and it recognizes Langer’s pioneering work making body tissues in the lab by growing cells on special pieces of plastic. Langer’s team has used the approach to make skin for burn patients, for instance, with the goal of eventually making whole organs for transplantation. The second episode features Dr. Chad Mirkin, winner of the 2012 ACS Award for Creative Invention. His research has provided patients with faster diagnoses for influenza and other respiratory infections, and new tests that improve care for heart disease. More episodes will appear later in the year. The series is available at the [Prized Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959697&m=2513198&u=ACS&j=13310045&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=446&content_id=CTD1_018821&use_sec=true&sec_url_var=region1&__uuid=594bce97-0b05-4df7-b759-1a0f9156c5d8) website and on [DVD](mailto:m_bernstein@acs.org).  **The Periodic Table Table Featuring Theo Gray**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/VideoGrayTable_thumb(1).png |   Some people collect stamps. Wolfram Research co-founder and author Theo Gray collects elements. Step into his office, and you'll see a silicon disc engraved with Homer Simpson, a jar of mercury, uranium shells and hundreds of other chemical artifacts. But his real DIY masterpiece is the world's first ["periodic table table."](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959698&m=2513198&u=ACS&j=13310045&s=http://www.bytesizescience.com/index.cfm/2012/2/22/The-Periodic-Table-Table-Featuring-Theo-Gray) Within this masterfully constructed table-top lay samples of nearly every element known to man, minus the super-radioactive ones.  **Healing the voice: Synthetic vocal cords**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/VideoVocalCords_thumb(2).jpg |   [Synthetic vocal cords](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959699&m=2513198&u=ACS&j=13310045&s=http://www.bytesizescience.com/index.cfm/2012/5/22/Bytesize-Science-Healing-the-voice-with-synthetic-vocal-cords%20) may someday heal the voices of singers like Julie Andrews — whose legendary voice was permanently damaged in a 1997 operation. Filmed in the lab of 2012 ACS Priestley Medalist and MIT Institute Professor Robert Langer, our latest video explains how artificial polymer vocal cords may help repair damaged vocal tissue.   [The Chemistry of Beer](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959700&m=2513198&u=ACS&j=13310045&s=http://youtu.be/2xKpQ11CpVE)  [The Chemistry of Cheese](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959701&m=2513198&u=ACS&j=13310045&s=http://youtu.be/jMAlToEYHJM)  [Without a Scratch: Self-Healing Materials](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959702&m=2513198&u=ACS&j=13310045&s=http://youtu.be/Bx3WTSSD5f0)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  **ACS Podcasts**   |  |  | | --- | --- | | **Bytesize Science, a podcast for young listeners**  Bytesize Science is a science podcast for kids of all ages that entertains and educates, with new high-definition video podcasts and some episodes in Spanish. 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[Listen to the latest episodes of Bytesize Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959704&m=2513198&u=ACS&j=13310045&s=http://feeds.feedburner.com/BytesizeScience) in your web browser. |  | | **Global Challenges/Chemistry Solutions**  This special series of ACS podcasts focuses on some of the 21st century’s most daunting challenges, and how chemists and other scientists are finding solutions. [Subscribe at iTunes](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959705&m=2513198&u=ACS&j=13310045&s=http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=283627508) or listen and access other resources at the ACS web site [www.acs.org/GlobalChallenges](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959706&m=2513198&u=ACS&j=13310045&s=http://www.acs.org/GlobalChallenges). | http://images.magnetmail.net/images/clients/ACS/GlobalChallenges(1).jpg | | **Science Elements: ACS science news podcast**  Science Elements is a podcast of PressPac content that makes cutting-edge scientific discoveries from ACS journals available to a broader public audience. 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[Listen to the latest episodes of Science Elements in your web browser](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959708&m=2513198&u=ACS&j=13310045&s=http://feeds2.feedburner.com/acs/scienceelements). Science Elements is on Facebook — [check out the latest updates and information](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959709&m=2513198&u=ACS&j=13310045&s=http://www.facebook.com/pages/Science-Elements/135606971011). |  | |  |  | | **And Don’t Miss. . .**  **[General Chemistry Glossary](http://www.mmsend88.com/link.cfm?r=800557068&sid=22959710&m=2513198&u=ACS&j=13310045&s=http://antoine.frostburg.edu/chem/senese/101/glossary.shtml)** Simple definitions and explanations of chemistry terms. |  |   [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif      The American Chemical Society is a nonprofit organization chartered by the U.S. Congress. With more than 163,000 members, ACS is the world’s largest scientific society and a global leader in providing access to chemistry-related research through its multiple databases, peer-reviewed journals and scientific conferences. Its main offices are in Washington, D.C., and Columbus, Ohio.  PressPac information is intended for your personal use in news gathering and reporting and should not be distributed to others. Anyone using advance PressPac information for stocks or securities dealing may be guilty of insider trading under the federal Securities Exchange Act of 1934. |