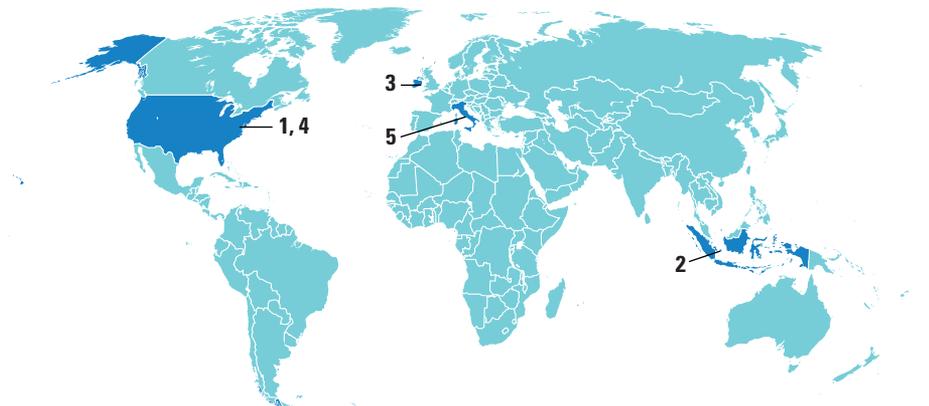


AROUND THE WORLD



Washington, D.C. 1

U.S. Panel: Human Research Needs Closer Tracking

A presidential ethics panel last week found that people who volunteer for federally funded research both in this country and abroad are well-protected by federal ethics rules. But there is room for improvement. The Presidential Commission for the Study of Bioethical Issues examined the rules protecting research subjects in response to the revelation last year that in the late 1940s, U.S. researchers deliberately exposed more than 1300 Guatemalans to sexually transmitted diseases (<http://scim.ag/Guatethics>). It found that in the decades since, strong rules protecting human research subjects have been developed. “The commission is confident that what happened in Guatemala in the 1940s could not happen today,” said commission chair Amy Gutmann, president of the University of Pennsylvania.

However, the commission’s report makes 14 recommendations for strengthening these protections. One is that the 18 U.S. agencies that conduct most human studies—more than 55,000 in 2010—should post basic details online to improve transparency. The United States should also study whether there is a need for a national compensation system for injured research subjects. <http://scim.ag/moralscience>

Belitung Island, Indonesia 2

Smithsonian Scuppers Indonesian Shipwreck Exhibit

Smithsonian Institution officials have taken a 180-degree turn and decided to cancel a controversial exhibit of shipwreck artifacts due to ethical concerns about how the artifacts were salvaged. The institution is now

strongly backing re-excavation of the original shipwreck, which lies off the coast of Indonesia, according to a 14 December press release from the Smithsonian.

Originally scheduled to open in 2012, *Shipwrecked: Tang Treasures and Monsoon Winds* contains imperial-quality silver, gold, and ceramic artifacts salvaged from a 9th century ship. The exhibit has been dogged by controversy since last February. At the time several major American archaeological associations wrote to Smithsonian Institution Secretary Wayne Clough, charging that the excavator, a private German company called Seabed Explorations GbR, failed to meet crucial scientific standards while excavating a ship of international significance.

For many nautical archaeologists who have been fighting to preserve the world’s shipwrecks from treasure hunters and looters, the real importance of the Smithsonian decision this week is the message it sends to the international community. “I think it shows everyone that nations shouldn’t allow treasure hunting,” says Johnston. “You really can’t put a price on underwater cultural heritage.” <http://scim.ag/Tangcancel>



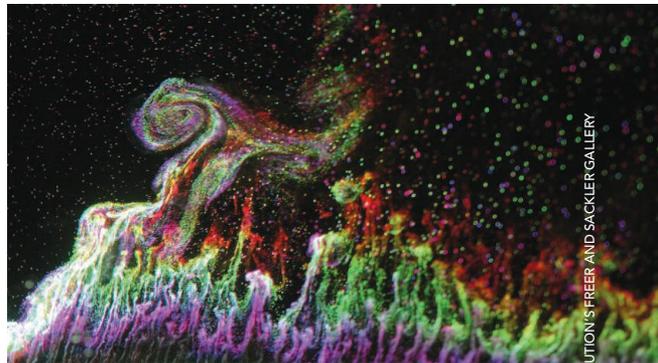
Wrecked. Artifacts from a 9th century shipwreck off Indonesia won’t be displayed at the Smithsonian.

Dublin 3

Edgy Gallery Going Global

The Science Gallery at Trinity College Dublin, an Irish center that seeks to merge art and science and is aimed at visitors aged 15 to 25, is going global. The center, which opened in 2008, has received a €1 million gift from Google.org—the software giant’s philanthropic arm—to kick-start a network of eight similar centers around the globe.

Dublin’s Science Gallery runs free, temporary exhibitions and draws in artists and designers to explore scientific concepts. A group of 50 scientists, artists, engineers, technologists, and entrepreneurs brainstorms twice a year to come up with themes and ideas, which have included contagion, water, and the future of fashion. The 18 exhibitions so far have drawn 800,000 visitors.



Art and science. An image from “Hydrogeny,” an exhibit at the Dublin Science Gallery about hydrogen.

With Google’s seed money, the plan is to launch two spinoffs by 2014; negotiations are underway with venues in London and Moscow, says Michael John Gorman, the founding director of the Dublin Science Gallery. The ultimate goal is eight galleries worldwide by 2020, each of which should function as a “porous membrane” between a university and a city; urban locations are vital, Gorman says. And, he adds, the centers should seek to bridge science and the world of art and design. <http://scim.ag/Dublingallery>

Washington, D.C. 4

U.S. Grows Program For High-Tech Start-Ups

Congress has increased how much 11 federal research agencies must contribute to two long-running, competitive grants programs for science entrepreneurs. University lobbyists don’t like the bigger set-aside, however, saying that the money would be better spent

CREDITS (TOP TO BOTTOM): EVELINA DOMNITICH AND DMITRY GELFAND; M. FLECKER/COURTESY SMITHSONIAN INSTITUTION; FREER AND SACKLER GALLERY

THEY SAID IT

“Jules Hoffman was not very supportive of the genetics approach I had undertaken. ... [He] never provided any ideas for my project, being very far from the realities of experimental bench work.”

—Fruit fly geneticist Bruno LeMaitre, who set up a Web site to claim that he did most of the work for which Hoffman, his former supervisor, received this year’s Nobel Prize for medicine or physiology.

“I cannot feel any guilt at all.”

—Jules Hoffman, when asked about LeMaitre’s complaint.
<http://scim.ag/lemaitre>

on funding more basic research.

This year, the agencies will spend \$2.3 billion on the Small Business Innovation Research (SBIR) program, which provides companies with nearly \$1 million in two phases to get their technology ready for the marketplace. A smaller relative aimed at university start-ups, the Small Business Technology Transfer (STTR) program will disburse \$275 million.

The new law, 5 years in the making, gradually raises the SBIR tax from its current level of 2.5% of an agency’s research budget to 3.2% by 2017, and the STTR allocation from 0.3% to 0.45%. By 2017, agencies would be spending an additional \$750 million on the two programs. The changes are part of a massive annual reauthorization of programs at the Department of Defense, which contributes about half of the overall SBIR-STTR funding. The 6-year bill stabilizes activities that have received numerous short-term extensions since its last reauthorization in 2001.

Rome 5

Funding Snag Delays Italy’s SuperB Collider

The start of construction of the €650 million SuperB particle collider in Italy has been delayed at least a year following difficulties in releasing project funding. Work on the tunnels for the facility’s circular accelerator has been put back from the end of this year to the beginning of 2013, but

Random Sample

Archaeology: So Punk Rock

The word “archaeology” may conjure images of ages-old ruins and excavations, but the research of two British archaeologists paints a different picture. The scientists have been investigating a more modern kind of relic: graffiti drawn on the walls of a London apartment in the mid-1970s by members of the band the Sex Pistols. Those images, the researchers say in an article published this month in *Antiquity*, pictorially preserve the band’s iconic punk ethos during its seminal years.

While renting the flat at 6 Denmark Street, the band recorded a bootleg demo album, 1977’s *Spunk*, which became the prototype for their studio album *Never Mind the Bollocks, Here’s the Sex Pistols*. The band members drew crude, rambunctious pictures and remarks on the apartment’s walls: a snaggletoothed drawing of Johnny Rotten captioned “Rotten Bastard”; a nude Nancy Spungen (“Nanny Spunger”) smoking a cigarette and waving.

The line drawings and obscenities were unknown to academia, but were no secret to the artists and shop owners who later occupied the flat, including members of pop band Bananarama, who lived in the building in the early 1980s and added graffiti of their own. The building now houses a guitar shop.

There aren’t any plans to formally preserve the site, says Paul Graves-Brown, an unaffiliated researcher who conducted the research with University of York archaeologist John Schofield. But the graffiti has undergone a sort of “informal process of preservation,” with the building’s occupants realizing and respecting its historical importance, he says. “It’s a snapshot of the social relationships that existed between the members of the group.”



project scientists say they are confident this will not impact plans to carry out its first collisions in 2016.

Some have expressed skepticism that SuperB will ever get built, with Italy remaining close to bankruptcy. But Marcello Giorgi of the University of Pisa, who is leading the project’s technical design team, says that the government has given no signs it will cut research funding.

The Italian government has promised to provide €250 million to build the SuperB accelerator, with additional funding to come from Italy’s Institute of Technology and National Institute for Nuclear Physics, as well as the United States, France, and Russia. The first tranche of government money, worth €19 million, was expected to be available early this year. But prolonged negotiations involved in setting up the Cabibbo laboratory, which will house the collider, and a time-consuming bank transfer meant that the funds are only now ready to use, Giorgi says.

<http://scim.ag/superBsnag>

FINDINGS

Is Jupiter Eating Its Own Heart?

Sophisticated new calculations indicate that Jupiter has destroyed part of its own core. Jupiter consists primarily of an atmosphere of hydrogen and helium, with a liquid hydrogen-helium interior surrounding a metallic-rocky-icy core.

Conditions at the interior of the gas giant—with temperatures of about 16,000

kelvin and pressures at about 40 million atmospheres—are so extreme that no experiment can reproduce them. So, planetary scientists Hugh Wilson and Burkhard Militzer of the University of California, Berkeley, used quantum mechanical calculations to

simulate how materials in the core might interact with the liquid mantle. They found that magnesium oxide (MgO)—a key ingredient in Jupiter’s core—dissolves readily when it encounters the hydrogen-helium fluid surrounding the core, they report in a >>

