and their colleagues blocked the activity of these cells and found that this reduced airway inflammation by reducing the production of immune-signalling molecules such as IL-5. The team reports that IL-5 triggers pain-sensing neurons to release a peptide called VIP that stimulates immune cells, creating a feedback loop that sustains allergies.

The results reveal a potential way to treat asthma and respiratory allergies.

Neuron **http://doi.org/5rf (2015)**

MATERIALS

DNA glues particles together

Researchers have assembled micrometre-sized particles into a variety of crystals using DNA as 'glue'.

DNA has been used to control the assembly of DNA-coated nanoparticles, but doing this with larger particles leads to the formation of random clumps that do not crystallize. To solve this, Marcus Weck, David Pine and their colleagues at New York University attached many short DNA strands to the surface of polymer particles. The high density of DNA strands — 5 to 25 times higher than in previous work — along with their short 'sticky' ends and the smooth particle surface resulted in the particles self-assembling into various crystalline designs.

The method could be used to make more complex structures out of a range of materials including metals and semiconductors, the authors say.

Nature Commun. 6, **7253 (2015)**

ASTRONOMY

Bounty of dark galaxies found

Astronomers have discovered more than 850 faint galaxies in a galaxy cluster that could be made mostly of dark matter.

Using archived images from the Subaru Telescope in Hawaii, a team led by Jin Koda at Stony Brook University in New York searched for observations of the Coma galaxy cluster, which is roughly 101 million parsecs (330 million light years) away. The team found 854 ultra-diffuse galaxies, a class of faint galaxy that can be as large as the Milky Way, but which has only 0.1% the number of stars. For these galaxies to remain gravitationally bound together, the researchers show that more than 99% of their mass must be dark matter.

This suggests that the crowded environment sucks gas away from these galaxies, leaving them largely unable to form stars.

Astrophys. J. Lett. 807, **L2 (2015)**

NEUROSCIENCE

Male mice process pain differently

Male and female mice use different types of immune cell to process chronic pain.

Studies of male mice have shown that immune cells called microglia in the spinal cord have an important role in chronic pain. To see whether this is the same in female mice, a team led by Jeffrey Mogil at McGill University in Montreal and Michael Salter at the University of Toronto, both in Canada, induced chronic pain in both sexes. The team then used drugs or antibodies to reduce microglia function. Whereas pain responses were reduced in the males, females were unaffected and instead recruited a different type of immune cell, called a T cell. This difference was linked to testosterone, which could make T cells less able to mediate pain in the males, leading to their use of microglia instead.

Nature Neurosci. **http://dx.doi.org/10.1038/nn.4053 (2015)**

ASTRONOMY

'Tatooines' may be common

Planets orbiting a binary star system — like Tatooine, the fictional home planet of Luke Skywalker in *Star Wars* — could form with surprising ease.

Most known circumbinary planets orbit close to their stars, where the competing gravitational forces from the two stars make the orbits of nearby objects unstable or intersect. This prevents debris from clumping together to form planets. But Benjamin Bromley of the University of Utah in Salt Lake City and Scott Kenyon of the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, show with simulations that a zone exists near the host stars where the orbits of debris wobble, but do not cross, allowing for planet formation.

This suggests that Earth-sized 'Tatooines' could be common and that more are likely to be discovered soon.

Astrophys. J. 806, **98 (2015)**

FISHERIES

Farming footprint is rapidly growing

Humans are venturing farther across the oceans and harvesting a greater proportion of the ocean's biomass to feed the world's appetite for seafood.

Reg Watson at the University of Tasmania in Taroona, Australia, and his colleagues analysed global fisheries, and seafood import and export data. They found that the minimum distance between where seafood is sourced and where it is consumed increased nearly sixfold from 1950 to 2011. Humans are now exploiting nearly 40% of the ocean's primary productivity, up from roughly 15% in 1950. The team predicts that the world's growing demand for seafood will be met only until about 2050, unless changes are made in marine farming.

Nature Commun. 6, **7365 (2015)**

THE YOMIURI SHIMBUN VIA AP IMAGES

SOCIAL SELECTION

Popular topics on social media

A call to fund people not proposals

Laboratory heads today spend too much time struggling to win funding from the US National Institutes of Health (NIH), and this pressure to fund raise is driving young scientists away, according to a much-discussed commentary in *Cell*. To address this problem, Ronald Germain, chief of the laboratory of systems biology at the National Institute of Allergy and Infectious Diseases (NIAID) in Bethesda, Maryland, argues that the NIH should make funding decisions based almost entirely on researchers' past accomplishments, and not on their future plans for specific projects. Irakli Loladze, a quantitative ecologist at the University of Maryland University College in Adelphi, tweeted ""person-not-project"-based scheme can be game changer in how science is funded." Sally Rockey, director of the NIH Office of Extramural Research, says that the agency is already taking steps to streamline the funding process and to support scientists despite an ever-tightening budget.

Cell 161, **1485–1491 (2015)**

➲ **NATURE.COM**
For more on popular papers:
go.nature.com/kwvdu9

➲ **NATURE.COM**
For the latest research published by *Nature* visit:
www.nature.com/latestresearch