

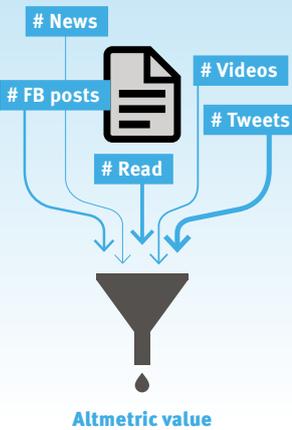
# The top Swiss research of 2014/15

What study has had the biggest impact? Our analysis shows that two different methods offer different results.

## New: Altmetric

### Altmetrics

The impact of an article is measured by the (weighted) number of **mentions** in the **media** and on the **Internet** (Twitter, Facebook, etc.).



**1**

### Ebola Virus Disease in West Africa – The First 9 Months of the Epidemic and Forward Projections.

New England Journal of Medicine, 22.09.2014  
[Altmetric: 1352](#)  
 News: 57, tweets: 701, FB posts: 232  
[Citations: 301](#)

**5**

### Photonic crystals cause active colour change in chameleons

Nature Communications, 10.03.2015  
[Altmetric: 1116](#)  
[Citations: 11](#)

**6**

### Recovery of large carnivores in Europe's modern human-dominated landscapes

Science, 19.12.2014  
[Altmetric: 1105](#)  
[Citations: 43](#)

**2**

### Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990 – 2013: a systematic analysis for the Global Burden of Disease Study 2013

The Lancet, 12.12.2014  
[Altmetric: 1181](#)  
 News: 34, tweets: 950, FB posts: 76  
[Citations: 104](#)

**7**

### A prudent path forward for genomic engineering and germline gene modification

Science, 19.03.2015  
[Altmetric: 977](#)  
[Citations: 47](#)

**8**

### Biological insights from 108 schizophrenia-associated genetic loci

Nature, 22.07.2014  
[Altmetric: 820](#)  
[Citations: 436](#)

**3**

### Business culture and dishonesty in the banking industry

Nature, 19.11.2014  
[Altmetric: 1177](#)  
 News: 70, tweets: 596, FB posts: 36  
[Citations: 11](#)

**9**

### Mind-controlled transgene expression by a wireless-powered optogenetic designer cell implant

Nature Communications, 11.11.2014  
[Altmetric: 809](#)  
[Citations: 426](#)

**4**

### 67P/Churyumov-Gerasimenko, a Jupiter family comet with a high D/H ratio.

Science, 10.12.2014  
[Altmetric: 1135](#)  
[Citations: 21](#)

**10**

### Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft

Science, 15.08.2014  
[Altmetric: 782](#)  
[Citations: 18](#)

## Ebola, bankers and 3D printing

The ranking of Swiss articles according to their Altmetric score for 2014/2015 reflects the general trend in popular topics. Biomedical fields are clearly dominant, and physics also snatched a top place. All the other disciplines are in the 'also ran' category. One exception confirms the rule: third place in the cumulative rankings went to 'Busi-

ness culture and dishonesty in the banking industry' from Ernst Fehr's research group at the University of Zurich – which is not surprising, given the current zeitgeist.

It's striking that the impact factor clearly applies here. In the upper regions of the chart we primarily find articles from the top journals such as Nature and Science. This

isn't surprising because they do a lot of media work to advertise themselves. What's interesting are the differences between the channels, as shown by our detailed analysis (available online). On Facebook particularly, less prominent publications can still succeed. Its highest-ranking paper is 'No scientific consensus on GMO

## Traditional: number of citations

1

### Planck 2013 results. XVI. Cosmological parameters

Astronomy and Astrophysics, 01.10.2014  
[Altmetric: 12](#)  
 News: 1, tweets: 1, FB posts: 0  
[Citations: 697](#)

2

### 2014 ESC/EACTS Guidelines on myocardial revascularization

European Heart Journal, 28.08.2014  
[Altmetric: 81](#)  
 News: 2, tweets: 73, FB posts: 7  
[Citations: 450](#)

3

### Biological insights from 108 schizophrenia-associated genetic loci

Nature, 22.07.2014  
[Altmetric: 820](#)  
 News: 45, tweets: 334, FB posts: 30  
[Citations: 436](#)

4

### Ebola Virus Disease in West Africa – The First 9 Months of the Epidemic and Forward Projections.

New England Journal of Medicine, 22.09.2014  
[Altmetric: 1352](#)  
[Citations: 301](#)

5

### A hole-conductor-free, fully printable mesoscopic perovskite solar cell with high stability

Science, 18.07.2014  
[Altmetric: 92](#)  
[Citations: 290](#)

6

### SWISS-MODEL: modelling protein tertiary and quaternary structure using evolutionary information

Nucleic Acids Research, 09.04.2014  
[Altmetric: 1](#)  
[Citations: 289](#)

7

### Planck 2013 results. XXII. Constraints on inflation

Astronomy and Astrophysics, 29.10.2014  
[Altmetric: 110](#)  
[Citations: 234](#)

8

### Comprehensive molecular profiling of lung adenocarcinoma

Nature, 09.07.2014  
[Altmetric: 129](#)  
[Citations: 232](#)

9

### Growth of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> cuboids with controlled size for high-efficiency perovskite solar cells

Nature Nanotechnology, 31.08.2014  
[Altmetric: 3](#)  
[Citations: 209](#)

10

### Organohalide lead perovskites for photovoltaic applications

Energy & Environmental Science, 29.04.2014  
[Altmetric: 1](#)  
[Citations: 177](#)

## Citations

The impact of an article is determined by the number of published articles that cite it.



safety' by the ETH Zurich researcher Angelika Hilbeck. It's followed by papers on Ebola and early history, but also by tips about how to finish your PhD. It's here that we get the biggest mixed discussion between amateurs and experts, whereas on Twitter, a nerd's paper breaks the pattern: 'Open labware: 3-D printing your own lab equipment'.

Kathrin Altmegg scored a hit with a paper about the discovery of oxygen on the Chury comet. But she'd never heard of alternative metrics until she was told of her success. She laughed about it, but was happy for her work to be noticed beyond the confines of her own field. It certainly acts as an encouragement, she says. Just behind Altmegg in the rankings was

Michel C. Milinkovitch from the University of Geneva with his paper on chameleons changing their colours. He'd known about altmetrics for longer, but he was still a little surprised to see how widely his article had been shared. "Of course I'm also happy if my results reach a broader public". But his main task, he insists, is to produce good science.

## Method:

The analysis considers articles published between July 2014 and June 2015 in which at least one Swiss institution participated.

■ For more extensive data: [www.snf.ch/Ho\\_altmetrics](http://www.snf.ch/Ho_altmetrics)