

adds that altmetrics suffer from one of the same flaws as citation counts: a mediocre paper in a popular field will receive more attention than a first-rate paper in a small field. And including altmetrics in a job application? “At this point, I don’t think anyone would pay attention,” says Rubin, who looks at many applications.

But some people do pay attention. Scientists are permitted to use altmetrics to demonstrate social impact in reports for the Research Excellence Framework (REF), an evaluation of UK academia that influences funding, notes Graeme Rosenberg, REF manager at the Higher Education Funding Council for England in Bristol. Plum Analytics, an altmetrics company based in Dresher, Pennsylvania, and Seattle, Washington, this year completed a pilot project with the University of Pittsburgh in Pennsylvania, in which it generated altmetrics profiles for a subset of researchers that could be aggregated by department. The next step is to roll out altmetrics profiles for the entire institution, says company co-founder Andrea Michalek. Plum is also currently running projects with about ten other institutions.

Rubin is better disposed towards altmetrics that suggest a positive value judgement, such as the number of requests to use software. In that vein, Adie suggests that rather than simply reporting numbers, researchers should use altmetrics to find success stories that they can mention in their CVs or on their websites. The data might reveal that a non-governmental organization or a government department took notice of a paper, for example. Altmetric plans soon to start flagging up citations by agencies such as the World Health Organization and the Intergovernmental Panel on Climate Change, both based in Geneva, Switzerland.

Context such as percentile ranks or explanations of data sources can help evaluators to interpret altmetrics. In Pettifer’s CV, he included a legend for his ImpactStory labels, listing some of the data sources, such as Mendeley, Twitter and Wikipedia. Piwowar suggests that researchers who worry that evaluators will view altmetrics negatively could start by including the data in annual performance reviews, which are lower-risk than grant or job applications.

Some think that altmetrics will soon become a normal part of a CV. It used to be that researchers who wanted to demonstrate the importance of a recently published article could only say, “Look, I really believe this is great research,” notes Mike Thelwall, an information scientist at the University of Wolverhampton, UK. Now, he adds, “you can back up your words with a little evidence.” ■

Roberta Kwok is a freelance science writer in Seattle, Washington.

TURNING POINT

Jason Weber

Breast-cancer researcher Jason Weber of Washington University in St. Louis, Missouri, is struggling to maintain funding. As a mid-career researcher, he is part of the demographic in greatest jeopardy in the wake of US research-funding cuts (see Nature 498, 527–538; 2013). In May, he wrote an opinion piece about his plight in the St. Louis Post-Dispatch, which caught the attention of a US Senator.



How did you end up studying breast cancer?

As a postdoc at St. Jude Children’s Research Hospital in Memphis, Tennessee, I worked at the cutting edge of cell-cycle regulation, and my team discovered a key tumour suppressor. In 2001, I was hired to work in the then-new molecular-oncology division at Washington University in St. Louis, where researchers were mixing genomics with cancer biology and making the translational jump to the clinic. Breast cancer was an area where we could make a big impact clinically.

Did it take you long to get your footing in that competitive field?

It took a couple of years. The big break came in 2002, when I was named a Pew Scholar. The Pew Charitable Trusts, headquartered in Washington DC, provide generous funding and convene scholars to collaborate and exchange ideas at an annual meeting. So I was interacting with a diverse group of Pew scholars, which helped me and my lab members to think outside the box and explore new techniques. We started going in many different directions — which led to an influx of money between 2007 and 2008.

In what ways does your lab’s situation now differ from what it was five years ago?

Back then, we had more than US\$1.1 million in project funding from various sources: Susan G. Komen for the Cure, the American Cancer Society, two R01 grants from the US National Institutes of Health (NIH), and a Department of Defense Era of Hope grant. I had 17 people in the lab. But my NIH funding recently ran out and did not get renewed. I currently have a \$100,000 grant from a children’s foundation, and four people in the lab.

How has the US government’s budget sequestration directly affected your lab?

The sequester adds to the burden in terms of what gets funded in the grant-review process. Essentially, an R01 grant application to the US National Cancer Institute has to be in the top 6–8% to get funded. Yet there is little difference between a grant scoring in the top 5% and one in

the top 15% — it becomes arbitrary. My greatest fear is that by trimming the fat, we’re starting to hit muscle. Labs with 10 to 15 people who are doing solid work are getting the squeeze now.

Why did you write your opinion piece on the impact of funding cuts?

I just got fed up. None of my non-science friends had any idea how bad the cuts were. I wrote it after I laid off one of my best young scientists, and two of my PhD students switched career paths after they graduated because of concerns about funding. I didn’t write a ‘woe is me’ piece; I wrote a ‘the public needs to better understand how these cuts actually affect the economy’ piece. It led to conversations with Senator Dick Durbin (Democrat, Illinois). His staff called me to discuss the impacts of the sequester and the economic downturn on science funding. I got the sense that he is on our side at a time when it is difficult to find a congressional representative who is carrying the banner of scientific research in this country.

What is your outlook like now?

Bleak. It is frustrating to be stuck in front of the computer writing grants, instead of in the lab doing and guiding experiments. I have seven grant applications out right now, and I am writing three more.

What is most frustrating to you?

Every politician says that to have a great economy, we need a well-educated workforce. Yet although the government has the ability to maintain the highest level of that educated workforce, it chooses to slash science funding through the sequester. It makes no sense to train people with PhDs and then not fund them. Scientists need to speak up. ■

BY VIRGINIA GEWIN