NEWS IN BRIEF

NCI starts 'exceptional responder' hunt

Agency hopes that clinical trial 'subgroups' of one patient may open up new biology and rescue failed anticancer drugs.

The lowdown: Even in failed oncology clinical trials, some patients may experience huge benefits from treatment. Using genomic analysis techniques that have only come online in the past few years, the US National Cancer Institute (NCI) is now going to analyse the genetics of these so-called 'exceptional responders' in the hope of identifying other patients who could also benefit. While the NCI has being planning and piloting this extreme-subgroup analysis approach for the past two years, it has now put out a formal call for academic and industry investigators to get involved.

The agency defines exceptional responders as patients who "received a treatment in which fewer than 10% of patients had a complete response or a durable (6 month) partial response" and "achieved either a complete response (CR) or a partial response (PR) with duration of at least 6 months as defined by RECIST (Response Evaluation Criteria in Solid Tumors) criteria" or other appropriate response criteria. A committee will review suspected, submitted exceptional responder case studies and, where feasible, will run DNA and RNA analyses on stored biospecimens. "The investigators may examine up to 300 cases to see if they would be able to acquire useable data on 100 cases," says the NCI in a statement.

"We have never thought of this as anything but a feasibility and hypothesis-generating study," Barbara Conley, Associate Director of the Cancer Diagnosis Program at the NCI, previously told *Nature Reviews Drug Discovery* (*Nature Rev. Drug Discov.* **13**, 401–402; 2014). "But given that we have these genomic capabilities to look at what is different in the tumour DNA of exceptional responders, we have to see whether we can do any better at getting the right drug to the right patient."

The programme was prompted by the discovery that an exceptional responder in an everolimus trial had mutations in *TSC1* (which encodes hamartin), explaining the unusual response in an otherwise failed trial (*Science* **12**, 221; 2012).

Clinical trial transparency, take two

In January, European regulators will start publishing the clinical reports that underpin their decision-making.

The lowdown: The European Medicines Agency (EMA) has finalized its plans for publishing clinical trial reports, and will start making the data available on 1 January 2015. The agency had originally planned to start publishing this type of data in January 2014 but, after receiving more than 1,000 comments during a public consultation phase, it pushed its timeline back. In May this year, a revised draft policy came under heavy criticism from transparency advocacy groups for, among other things, proposing that investigators would only be able to review the trial data on a computer screen (printing, saving and downloading of the data would have been prohibited).

Although the final policy reverses this restriction, other concerns persist. Most notably, transparency advocates take issue with the fact that "commercially confidential information" may be redacted. "The policy puts primary responsibility for redacting information into the hands of trial sponsors," writes the AllTrials campaign in a statement. "The EMA has a policy that the information in clinical trial reports should not generally be considered commercially confidential (this is echoed in the [European Union] Clinical Trials Regulation) but it may never become clear which information is being kept hidden."

The EMA says it plans to make individual patient-level data available in the future.

Several companies — including Bayer, Boehringer Ingelheim, GlaxoSmithKline, Johnson & Johnson, Eli Lilly, Novartis, Roche and Sanofi — have already started making clinical data available through their own data-request portals.

BRAIN gain

The US National Institutes of Health (NIH) has awarded an initial US$46 million in funding under the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative to over 100 investigators.

The lowdown: Last year, the NIH joined forces with the National Science Foundation, the US Food and Drug Administration and the US Defense Advanced Research Projects Agency to give a major boost to neuroscience through the BRAIN Initiative. The BRAIN Initiative has now announced its first wave of funding. Fifty-eight awards, which are aimed primarily at fostering new tools and technologies that can be used to probe the brain, will enable researchers to catalogue the types of cells in the brain, and to develop better brain-imaging approaches, tools to analyse neural circuits and technologies with which to record brain activity.

Last year, Thomas Insel, the Director of the US National Institute of Mental Health, and Story Landis, the former Director of the US National Institute of Neurological Disorders and Stroke (NINDS), jointly lamented the continued lack of basic knowledge about how the brain works (*Neuron* **80**, 561–567; 2013). The BRAIN Initiative should help to address some of this knowledge gap, but Landis told *Nature Reviews Drug Discovery* last month that the NINDS has also been studying and rethinking its funding strategy to ensure that basic research doesn't stagnate (*Nature Rev. Drug Discov.* **13**, 718–719; 2014).

NIAID amps up vaccine adjuvant work

The US National Institute of Allergy and Infectious Diseases (NIAID) will spend up to US$70 million on seven new vaccine adjuvant projects.

The lowdown: Only three vaccine adjuvants have been approved by the US Food and Drug Administration for use in human vaccines: alum, a mixture of aluminium salts that has been used in vaccines since the 1920s; GlaxoSmithKline's AS04, a combination of alum and an immune-stimulating lipid that is used in vaccines against human papilloma virus and hepatitis B virus; and GlaxoSmithKline's AS03, an oil-in-water adjuvant that was used in an H5N1 vaccine. New adjuvants, the NIAID hopes, could help to improve current vaccines, extend the vaccine supply or enhance vaccine efficacy in immune-compromised individuals. To this end, the NIAID is funding seven new adjuvant-discovery contracts, aiming in particular to find adjuvants that can activate the adaptive immune system.

This funding will enable academic and industry researchers to: use experimental and computer-based approaches to screen more than a million molecules to identify candidates that trigger adaptive immune responses; determine how the most promising adjuvant candidates work; make structural changes to candidate molecules to improve their safety and efficacy profiles; and test vaccines that have been formulated with optimized adjuvant candidates for safety and efficacy in animals.