

Bad Pharma

- 7 Suntharalingam G, Perry MR, Ward S, Brett SJ, Castello-Cortes A, Brunner MD, et al. Cytokine storm in a phase 1 trial of the anti-CD28 monoclonal antibody TGN1412. *N. Engl. J. Med.* 2006 Sep 7;355(10):1018–28.
- 8 Expert Group on Phase One Clinical Trials: Final report [Internet]. 2006 [cited 2012 Apr 5]. Available from: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_063117
- 9 Decullier E, Chan A-W, Chapuis F. Inadequate Dissemination of Phase I Trials: A Retrospective Cohort Study. *PLoS Med.* 2009 Feb 17;6(2):e1000034.
- 10 Cowley AJ, Skene A, Stainer K, Hampton JR. The effect of lorcinide on arrhythmias and survival in patients with acute myocardial infarction: an example of publication bias. *International journal of cardiology.* 1993;40(2):161–6. Iain Chalmers was the first to raise TGN1412 and anti-arrhythmics as examples of the harm done when individual early trials are left unpublished. They are the best illustrations of this problem, but you should not imagine that they are unusual: the quantitative data shows that they are just two among many, many similar cases.
- 11 Antman EM, Lau J, Kupelnick B, Mosteller F, Chalmers TC. A comparison of results of meta-analyses of randomized control trials and recommendations of clinical experts. *Treatments for myocardial infarction. JAMA.* 1992 Jul 8;268(2):240–8.
- 12 Here is the classic early paper arguing this point: Chalmers Iain. *Underreporting Research Is Scientific Misconduct. JAMA.* 1990 Mar 9;263(10):1405–1408.
- 13 Sterling T. Publication decisions and their possible effects on inferences drawn from tests of significance – or vice versa. *Am Stat Assoc J* 1959;54:30–4.
- 14 Sterling TD, Rosenbaum WL, Weinkam JJ. Publication decisions revisited – the effect of the outcome of statistical tests on the decision to publish and vice-versa. *Am Stat* 1995;49:108–12.
- 15 Bacon F (1645). *Franc Baconis de Verulamio/Summi Angliae Cancellarii/Novum organum scientiarum.* [Francis Bacon of St. Albans Lord Chancellor of England. A ‘New Instrument’ for the