

Science is not robust but fragile.

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Rick Weiss introduced SciLine (1). He claims that scientific information is critical to rational policy-making. It may be almost true, but not always true. Ohm's law is an empirical law, for example. Ohm's law states that the resistance of a wire is directly proportional to the length of the wire. However, Au can be stretched into conducting chains of individual atoms (2). After a new discovery of the conductance quantum, we understand that the resistance of an atomic conductor does not scale proportional to length (Ohm's law) (2). This means that scientific information is not robust but fragile. Jon Cohen described "Why flu vaccines so often fail" (3). After reading his article, we are not sure whether we should take flu vaccines or not, because of unclear conclusion. SciLine must understand and determine what scientific information has the longer life of "truth", the others do not. Once the lay public misinterpreted, it may be hard to change their misinterpretations. All scientists must understand that scientific information is tentative and freshly true as of Today.

References:

1. Rich Weiss, Nip misinformation in the bud, *Science* 27 Oct 2017, vol. 358, issue 6362, pp.427
2. J Chen, MA Reed, AM Rawlett, JM Tour: "Large on-off ratios and negative differential resistance in a molecular electronic device" *Science* 286 (1999) 1550-1552.
3. Jon Cohen, Why flu vaccines so often fail, *Science* Sept. 20 2017, <http://www.sciencemag.org/news/2017/09/why-flu-vaccines-so-often-fail>