

Abstract Submitted
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Good science, deceptive science, and fraud, plus a brief discussion of peer review MARJORIE LUNDQUIST, The Bioelectromagnetic Hygiene Institute — What makes scientific publication different from other types of publication? Traditionally, it was that scientists published not only their conclusions, but also their data (which enabled others wanting to re-evaluate the data to do so). Publishing their data helped keep scientists honest. In the mid-20th century the policies of scientific journals changed, partly because very large data sets were being evaluated via computer. Many (but not all) scientific journals paid homage to scientific tradition by establishing archives for data serving as the basis for published scientific papers, while only a description of the study and the conclusions were published in the peer-reviewed scientific journals. This set the stage for scientific deception and scientific fraud, which became widespread in certain fields of study during the latter part of the 20th century. Indeed, some organizations were established that appeared to be legitimate scientific societies, but in fact existed for the purpose of promoting the **incorrect** evaluation of scientific data and publishing deceptive studies masquerading as sound scientific studies. The field of medicine has also become more science than art, with its current emphasis on “evidence-based medicine.” The different types of scientific deceit/fraud are identified, and a lifetime of experience with the correction of scientific error, plus encounters with scientific deception and scientific fraud, is summarized.

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