

## ***This Week's Citation Classic***

Levy H B & Sober H A. A simple chromatographic method for preparation of gamma globulin. *Proc. Soc. Exp. Biol. Med.* **103**:250-2, 1960.

[US Dept. Health, Education, and Welfare, NIH, Natl. Inst. Allergy and Infectious Diseases, Natl. Cancer Inst., Bethesda, MD]

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**A relatively simple method for separation of gamma globulin from serum has been presented. The procedure has been applied to a number of antisera, and it has been shown, with them at least, to give reasonably good localization of antibody in the gamma globulin fraction. [The *SCF*<sup>®</sup> indicates that this paper has been cited over 740 times since 1961.]**

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"This work is an example of the kind of serendipity that can develop when a group of people with a common interest meet. In the days when the National Institutes of Health was relatively small, the professional staff would meet informally in a small library in Building 7 and have lunch around an old mahogany table that had been with the US Public Health Service for many, many years. Topics of conversation were varied, including sports, politics, automobiles, and a heavy dose of science.

"In those days a major emphasis of the research of the National Institute of Allergy and Infectious Diseases was on the epidemiology of virus illness and the identification of new viruses of potential etiological importance. Tissue culture was coming into widespread use for the isolation of viruses.

The identification and relationship among these newly discovered agents involved the specific antisera against previously identified agents. If a given antiserum could neutralize the infectivity in tissue culture of a new agent, these two agents were either identical or closely related. However, frequently a crude whole antiserum would prove toxic to cells in tissue culture or, in other ways, would give effects which would confuse the results. I suggested that my colleagues purify the antiserum at least to the extent of using just gamma globulin. It was suggested, in no uncertain terms, that since there were no simple methods available for virologists to purify small amounts of antiserum, that I, a chemist, meaning a non-MD, devise such a method. Together with Herb Sober, this was done.

"I am pleased that the article was well received, but I do not feel that it was a major contribution. It does show: (1) how worthwhile ideas sometimes are born under unexpected circumstances, and (2) that 'methods' papers sometimes find widespread application. A corollary of this first point is the concept of a critical mass of people in scientific research. It is very frequently the subtle interplay of thoughts expressed by people in different disciplines that leads to the expression of an unfilled need by one element, and the realization by another element that he or they have the ability to meet this need. Isolated workers do not have the opportunity for this interaction.

"I regret to have to say that this was an isolated work of mine that apparently filled a need for such people, but bore no relationship to the molecular biology of viruses and resistance to virus infection that has been my major interest."<sup>1</sup>

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1. Levy H B, Levine A S, Engel K, Leventhal B, Krown S, Dark B & Stephen B. Preliminary clinical results with a primate effective interferon inducer. (Hersch E M, Chirigos M A, and Mastrangelo M J, eds.) *Augmenting agents in cancer therapy*. New York: Raven Press, 1981.