

drug for the treatment of asthma comparable to penicillin for the treatment of syphilis. If antibiotics had not been discovered, we suspect that arsphenamine and bismuth might still be the treatment of choice for syphilis. When a drug with the therapeutic index of penicillin becomes available for treating asthma, not only will inorganic arsenic be discarded but also corticosteroids, nebulizers, aminophylline, and the other drugs which we currently use.

Finally, we would like to affirm our respect for clinical impressions of the type that Dr. Bleiberg offers. However, we feel such clinical impressions should be the starting point for the initiation of studies to establish their validity. We can not accept clinical impressions when they run counter to the data. We would urge Dr. Bleiberg to test his impressions by a carefully controlled clinical trial, as we have tried to do, and the results of which, in the case of Gay's solution, are the basis of the paper of which he is critical.

*John G. Harter, M.D.
A. Mark Novitch, M.D.
889 Southampton Drive
Palo Alto, Calif. 94303*

REFERENCES

1. Vallee, B. L., Ulmer, D. D., and Wacker, W. E. C.: Arsenic Toxicology and Biochemistry. *Arch. Indust. Health* **21**: 132, 1960.
2. Schroeder, H. A., and Balassa, J. J.: Abnormal Trace Metals in Man: Arsenic, J. *Chron. Dis.* **19**: 85, 1966.
3. Frost, D. V.: Arsenical in Biology—Retrospect and Prospect, *Fed. Proc.* **26**: 194, 1967.

Immunotherapy in ragweed hay fever

To the Editor:

We have been sent the prepublication manuscript of the Lichtenstein, Norman, and Winkenwerder paper entitled "Antibody Response Following Immunotherapy in Ragweed Hay Fever: Allpyral vs. Whole Ragweed Extract."

This work represents a logical and scientific effort to answer some of the many questions still existing in the complex field of allergy today. Unfortunately, clinical results on the patients involved are not reported.

Some basic problems continue to plague allergists and immunologists: What makes an antigen immunogenic or protective? What immunologic determination can be consistently correlated with clinical improvement of the patient undergoing hyposensitization treatment with a particular allergenic extract? Are blocking antibodies alone responsible for the clinical improvement of the allergic patient, or are there more subtle cellular or tissue changes and chemical mediators that reflect more accurately the effect of hyposensitization regimens?

Additional immunologic studies, correlated with carefully controlled clinical evaluations, will undoubtedly provide a better understanding of the allergic patient, and, correspondingly, more skilled medical management.

Thank you for the opportunity to express these comments.

*Paul B. Koehler, M.D., F.A.A.P.
Director of Clinical Research
Therapeutics
Dome Laboratories
125 West End Ave.
New York, N. Y. 10023*

Reply

To the Editor:

There is little to say in direct response to Dr. Koehler's letter. We would agree that many questions relating to clinical allergy continue to plague both allergists and immu-