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Model 6VT8



skeptical individuals who operate "in spite of" rather than "because of" the desire for financial support.

The cure for the disease is also complex. Surely complete honesty would be palliative. In lieu of this, perhaps greater control in the hands of the individuals seeking support is indicated. This could be accomplished through a plan whereby appropriations are made to colleges and universities, grants then being allocated to individuals and programs by representative local committees.

Whatever cure is indicated, I hope it will soon be applied, for I, too, have grantitis!

CHARLES J. FLORA

Department of Biology, Western Washington State College, Bellingham

Tenate and Dialysate

The simple new word *tenate* is proposed as a general term for that which is held back or retained in various chemical operations. *Tenate* has the same root as *tenant* or *tenable*. It can be both noun and adjective.

The need for a new word grew out of the search for a single word to describe the part which does not pass through the membrane during dialysis—the dialysis residue or the nondialyzable fraction. However, it seems reasonable to refer to the "tenate" in filtration and distillation also. This would lead to the following sets of terms.

Operation Feed material dialysis dialysand filtration filtrand distillation distilland Part which passes Part retained dialysate tenate filtrate tenate distillate tenate

Note that the world dialysate should be applied only to the part that passes through the membrane. This is general usage (1). For one of two reference works where dialysate is given another meaning, the author has agreed to correct the usage in the next edition. These corrections should prevent extension of the appalling confusion which led Webster's third edition (2) to retreat to the following useless definition of dialysate: "used either of the material that has failed to diffuse through the membrane or of the diffusate."

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- Mass., ed. 2, 1940).
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Delayed Hypersensitivity

By their commendable effort to explain so complex a phenomenon as delayed hypersensitivity when so little is known about it, Karush and Eisen [Science 136, 1032 (1962)] have provided immunologists with a theoretical focal point from which enlightening discussions of various points of view can diverge. I should like to make some contributions to such potential discussions by pointing out a few aspects of delayed hypersensitivity which I believe are not adequately explained by their theory.

They make no allowance for the probability that delayed hypersensitivity exists in more than one form. The allergy which can so readily be induced in experimental animals with minute quantities of protein antigens, which can so readily be suppressed by specific desensitization, and which bears an inverse intensity relationship to immediate (anaphylactic) hypersensitivity seems distinct, phenomenologically, from classic delayed hypersensitivity of the tuberculin type. The latter is not so readily induced, does not depend for reliable elicitation on the use of small quantities of allergen, cannot be suppressed by desensitization except through heroic efforts, and bears no known relationship to anaphylactic hypersensitivity, which may or may not coexist with it. A distinction between evanescent- and tuberculin-types of delayed hypersensitivity to purified protein antigens needs to be made in any discussion of theories meant to explain this kind of allergy, so as to avoid what at first appear to be some very confusing conflicts in experimental results. Its bearing on evaluation of the theory of Karush and Eisen is illustrated by the point that although their theory may satisfactorily explain desensitization to delayed hypersensitivity of the evanescent type, it fails to explain desensitization to hypersensitivity of the tuberculin type. If high-affinity humoral antibodies were responsible for the latter type of allergy, then one would expect them to be removed preferen-

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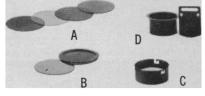
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