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**Spontaneous agglutinability of bacteria in relation to the antagonistic action of certain cations.**

By RALPH R. MELLON.

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Spontaneous agglutinability of five separate, single-celled (pure line) cultures of diphtheroid bacilli was shown to be a function of growth-cycle developments. The bacillary phase, growing at 37°, was immediately and completely agglutinable by any solution tried. The coccus phase, growing at 20°, formed stable emulsions in NaCl and other salt solutions. By reversing the growth temperature, even on the same media, the agglutinability and morphology were reversed. Certain of the cultures, still completely agglutinable by NaCl, formed stable emulsions in Tyrode's and other equilibrated solutions. The mutual antagonism of the Na, K and Ca ions is believed to explain the phenomenon. The Mg ion was especially beneficial. With various cultures of different age and environment, all possible variations in agglutinability were observed. The amplification of these observations, now in progress, promises to explain some of the paradoxes of the bacterial agglutination, and the observations in themselves constitute the first systematic application of these principles to agglutination.

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**Blood pressures and heart rate, in girls, during adolescence.  
A preliminary study of 1,700 cases.**

By STANLEY ROSS BURLAGE (by invitation).

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The data were obtained from over 800 girls in the public schools of Ithaca, N. Y., whose ages ranged from 9 to 16 years and from about an equal number of young women in Cornell University, from 16 to 26 years old.