

hosts has been collected and will be reported on elsewhere.

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### NOMENCLATURE OF GONAD-STIMULATING HORMONES OF PLACENTAL ORIGIN

WE have recently obtained evidence<sup>1</sup> indicating that the rat may be added to a growing list of mammals whose foetal placentae secrete some type of gonad-stimulating hormone. By combining the evidence which has been accumulated from the horse, human being, monkey, chimpanzee and rat<sup>2</sup> it becomes apparent that the natural function of these chorionic secretions is to prolong corpus luteum function during pregnancy, and there is indirect evidence that a similar mechanism is operative in the mouse, rabbit and hamster.<sup>3</sup> This concept has been obscured, however, by the fact that when administered to foreign species, the known substances display great differences in the type of gonadal response which they produce.

These gonadotropic substances which arise from or are associated with the products of pregnancy are known by terms that in most cases are ambiguous and unduly cumbersome. Certainly the policy of using the name of a body fluid to designate a hormone, as for

instance "pregnant mare serum" or "the urine of pregnant women," etc., is an example in loose terminology. It seems to us that in view of the fact that these hormones have a common tissue source and exercise a homologous function, the introduction of a generic term would conform to the facts and afford a satisfactory basis for a sound nomenclature.

We therefore propose that the term *cyonin* (Gr. *kyo* - pregnancy + hormone + protein) be applied to all those hormones of chorionic origin and of protein nature which act to sustain a female sex hormone balance favorable to the maintenance of pregnancy. This word used in conjunction with the name of the animal in which the hormone occurs would apply to any mammals where such a substance might exist. Thus "human cyonin" would replace such terms as "pregnancy urine," "pregnancy prolan" and "anterior-pituitary-like hormone" and "equine cyonin" such terms as "pregnant mare serum" and "endometrial scrapings of the mare," while "murine cyonin" would apply to the recently described placental hormone of the rat. Should more than one hormone be active in a given species, then qualifying terms may be added.

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## SCIENTIFIC BOOKS

### CRYSTAL PHYSICS

*A Text-book on Crystal Physics.* By W. A. WOOSTER. Cambridge: At the University Press; New York: The Macmillan Company. xxii + 295 pp., 108 diagrams, \$4.00.

IT seems that ever since Laue's discovery of x-ray diffraction crystallographers have been too busy to present an up-to-date treatment of those physical properties of crystals which are determined by microscopic rather than molecular symmetry. The experimental physicist and engineer interested in such properties as elasticity and piezoelectricity had to refer to the authoritative but cumbersome "Lehrbuch der Kristallphysik" by Woldemar Voigt, which was

<sup>1</sup> E. B. Astwood and R. O. Grep, *Proc. Soc. Exp. Biol. and Med.*, 38: 713, 1938.

<sup>2</sup> H. H. Cole and G. H. Hart, *Am. Jour. Physiol.*, 93: 57, 1930; J. S. L. Browne and E. M. Venning, *Lancet*, 2: 1507, 1936; *Am. Jour. Physiol.*, 123: 26, 1938; R. E. Kirsch, *Am. Jour. Physiol.*, 122: 86, 1938.

<sup>3</sup> W. H. Newton, *Jour. Physiol.*, 84: 196, 1935; G. P. Heckel and W. M. Allen, *SCIENCE*, 87: 302, 1938; M. Klein, *Arch. Anat. Micr.*, 31: 397, 1935, *Arch. d'Anat. d'Histol. et d'Embryol.*, 18: 1, 1934 and *Proc. Roy. Soc.*, B. 125: 348, 1938.

published in 1910 and was never translated into English.

In the foreword to a new printing of Voigt's book in 1928 Professor von Laue stated that the phenomenological theory of crystals could be greatly simplified by using the notation for components of higher-order tensors which the general theory of relativity has introduced into physics. He concluded that "whoever wants to make an improvement in that direction will have to write an entirely new book. But who among present-day physicists would delve into this subject with as deep an affection as W. Voigt?"

Dr. W. A. Wooster, of the Department of Mineralogy at the University of Cambridge, has finally taken up the challenge. He can be assured of the grateful interest of physicists and metallurgists as well as crystallographers and mineralogists. The fact that Wooster's book is very modest compared to Voigt's both in volume and in price will increase its appeal. The book is intended primarily as a text-book for students at universities, and presupposes "a knowledge of the elements of physics, mathematics and crystallography." "A two-fold object has been kept in view