tion has been definitely attributed to this tick before the observations reported here. On the other hand, the genus Amblyomma is known to be a vector of spotted fever in Brazil and Colombia. Under these circumstances, the spotted fever of the Gulf Coast would be more closely related epidemiologically to that of South America than to that of the Rocky Mountains.

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ADDITIONAL STEROIDS WITH LUTEOID ACTIVITY

RECENT experiments lead us to believe that contrary to common opinion the progestational type of luteoid activity is detectable in many steroids and is not dependent upon the presence of an α-β unsaturated ketone group at C_3. Bioassays were performed on the immature rabbit according to McPhail[1] with the only modification of using 3 subcutaneous injections of 5 γ of estradiol in 0.1 cc of peanut oil subcutaneously every second day during the period of sensitization.

Since considerable confusion has been created in the literature by the inadequate description of steroids used for pharmacological assays, we shall refer to our compounds by their full systematic names [for terminology see Selye[2]] followed in brackets by their common names—whenever such are in use—and the melting point of our sample. The dosages given represent the total amount administered during the test.

The following steroids proved to possess progestational activity at the dose levels indicated: 17-ethyl-Δ^5-androstene-3(β)-ol-20-one (pregnenolone, M.P. 186°) 10 mg; 17-ethyl-Δ^5-androstene-3(β),21-diol-21 acetate (acetoxy-pregnenolone, M.P. 183–184°) 25 mg; 17-ethyl-Δ^4-androstene-3,11,20-trione-17,20-diol (Kendall's Cpd. "E", M.P. 215–218°(dec.)) 2 mg; 17-butyl-Δ^4-androstene-3,20-dione(21-ethyl progesterone, M.P. 115°) 10 mg; Δ^4-androstene-3,17-dione (M.P. 170°) 25 mg; Δ^5-androstene-3(β),17(α)-diol (androstenediol, M.P. 184–185°) 50 mg.

The following compounds proved to be devoid of progestational activity at the dose level indicated: Δ^5-androstene-3(β)-ol-17-one (dehydro-*iso*-androsterone, M.P. 146°) 50 mg; Δ^4-androstene-3,17-dione-6(α)-ol acetate (M.P. 176°) 4.5 mg; 17-*iso*-heptyl-Δ^5-androstene-3(β)-ol-25-one (27-nor-cholestenolone, M.P. 127–128°) 50 mg; the M.P. 180–182° epimer of Δ^5-17a-methylchrysopregnene-3(β),17a(?)-diol-17-one at 10 mg and its M.P. 275–278° isomerid at 5 mg.

It should be emphasized that the material available did not suffice in each case to perform a sufficient number of assays on a wide range of dosages and that there is considerable individual variation with regard to the sensitivity of rabbits to progestational compounds. Hence the doses at which we detected definite activity should not be regarded as accurate threshold doses suitable for quantitative comparisons, although positive tests are qualitatively conclusive. Pregnenolone and acetoxypregnenolone have been assayed at various dose levels on 20 rabbits so that the threshold dose of 10 mg for the former and 25 mg for the latter may be regarded as fairly accurately established. The fact that they both possess progestational properties indicates that neither the ketone group at C_3 nor the Δ^4-double bond are essential prerequisites for luteoid activity. It will be recalled that both these compounds are also endowed with corticoid activity,[3] but in this respect acetoxypregnenolone is more active. It appears, therefore, that in the Δ^5-3-ol series, as in the Δ^4-3-one series (confront with progesterone and desoxycorticosterone acetate), introduction of a 21-acetoxy group increases the corticoid, but decreases the luteoid potency.

A detailed description of these experiments as well as of the relevant literature will be given at a later date. At this time we merely wish to call attention to the fact that progestational activity is exhibited by many more compounds than has hitherto been suspected.

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THE OCCURRENCE AND SIGNIFICANCE OF MARINE CELLULOSE-DESTROYING FUNGI[1]

IN the course of investigations on the decomposition of wood submerged in sea water the author has recently isolated a series of marine fungi which readily attack wood and other cellulosic plant materials under marine conditions. Extensive data concerning the distribution of these aquatic fungi show that they are of very common occurrence along the North Atlantic coast, with the present known range from Newfoundland to New York Harbor. Further evidence on the

[1] M. K. McPhail, *Jour. Physiol.*, 83: 145, 1934.
[2] Hans Selye, *Rev. Canad. de Biol.*, 1: 577, 1942.
[3] Hans Selye, SCIENCE, 94: 94, 1941.
[1] Preliminary note.