Parker[10], but no detailed assignments were possible with the techniques then available. The extra-hepatic synthesis of serum albumin is of especial interest. In the case of HeLa tissue it is likely that the parent epithelial tissue was capable of making serum albumin, and that this capacity was conserved in cancerization. A full report of our experiments will be published elsewhere. The experiments on the γ-globulins are being continued.

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The Behaviour of Haptoglobin during Routine Fractionation

Haptoglobin is a very interesting plasma protein, because of its specific binding capacity for hæmoglobin and the existence of different genetically determined types.

Jayle *et al.*[1] reported the isolation of haptoglobin from the urine of a nephrotic child and from plasma of a haptoglobin-rich individual[2] by a technique based on precipitation with ammonium sulphate. Laurell[3] has recently published a method for preparing haptoglobin from ascitic fluid. Apparently no attempt has been made to prepare haptoglobin during routine fractionation of human plasma. Haptoglobin from ordinary pooled plasma would represent a mixture of the known types of haptoglobin. Mixed haptoglobin would thus be unsuitable for genetic research, but might be used for studies concerning the hæmoglobin-binding capacity. But a method allowing the preparation of haptoglobin from pooled plasma would, with slight modifications due to differences in solubility, be suitable for obtaining haptoglobin from a single, well-defined plasma group. However, the additional controls necessary for pooling plasma belonging to a single haptoglobin group would only be acceptable, if a good technique for obtaining haptoglobin was available.

Haptoglobin present in the serum is revealed by paper-electrophoresis after addition of hæmoglobin. The complex migrates as an α_2-globulin. This complex has peroxidase activity. Haptoglobin alone has no such activity, hæmoglobin a smaller one than the complex. Hæmoglobin migrates as a β-globulin, in the presence of the classical Michaelis-buffer at *p*H 8·6. Heremans[4] has proposed a phosphate-buffer of *p*H 6·8 for the study of haptoglobin-hæmoglobin complexes. No migration occurs with hæmoglobin alone at *p*H 6·8, while the complex migrates normally. This technique permits differentiation between excess haemoglobin and slightly altered haptoglobin-hæmoglobin complexes which sometimes have the mobility of a β_1-globulin. Peroxidase activity is conclusively demonstrated by oxidation of benzidine or anisidine in the presence of hydrogen peroxide.

By both these methods we studied the distribution of haptoglobin in the different fractions resulting from the alcohol fractionation of human plasma (a slightly modified Nitschmann technique[5]).

The only fraction containing haptoglobin in considerable quantities is fraction IV, obtained at *p*H 5·8 with 33 per cent alcohol. This fraction can be subfractionated by rivanol as recently described[6]. Haptoglobin is still present in the supernatant after the precipitation of ceruloplasmin.

The precipitate obtained from this supernatant by addition of alcohol (35 per cent) at *p*H 5·9 contains siderophilin (main component), haptoglobin and a small quantity of albumin. The albumin can be removed by rivanol at alkaline *p*H. Haptoglobin and siderophilin can then be separated by alcohol precipitation at *p*H 4·4–4·6.

Thus it is possible to prepare haptoglobin together with other plasma proteins during routine fractionation, and pooled plasma obtained from a single haptoglobin group would not be wasted because of the preparation of one minor component of plasma proteins.

Further details will be published elsewhere.

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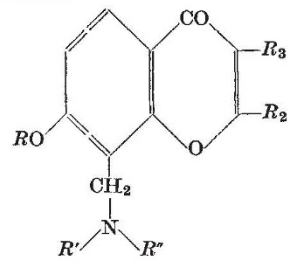
N-Substituted 7-Methoxy-8-Aminomethylchromones and Flavones: New Brain-Stem Stimulants

The pharmacological screening of various chromone and flavone derivatives has led to the discovery of a new class of brain-stem stimulants, the N-substituted aminomethyl derivatives of these two nuclei, with the following structure:



where R = H or alkyl radical,
R' = R'' = H or alkyl radicals,
R' and R'' can be a part of a cycle,
R_2 = H or alkyl or aryl radical,
R_3 = H or alkyl radical.