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STEROLS OF THE NYSTATIN-RESISTANT YEAST *Saccharomyces cerevisiae*

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Sterols obtained microbiologically may prove to be useful precursors of steroid vitamins and hormones.

In this investigation we used nystatin-resistant and nystatin-sensitive strains of the yeast *Saccharomyces cerevisae* of Petergof genetic lines derived from race XII. The nystatin-resistant mutants were obtained under the action of UV radiation and of 6-N-hydroxyamino purine. All the mutants considered in the present paper belong to a single genotypic class, denoted NYS I.

The sterols in the unsaponifiable fraction of the lipids were isolated from the yeast cells by the method of Breivik and Owades in Woods' modification [1].

The GLC analysis of the mixture of sterols was performed on a Pye-Unican chromatograph. As the stationary phase we used 3% of SE-30 on the support Chromosorb Q. The rate of flow of He was 35 ml/min, and the temperature of the column 250°C. Mass spectra were obtained on an LKB-2091 instrument at 70 eV.

In contrast to strains of the wild type in which the main sterol is ergosterol [2], in the mutants we found cholesterol derivatives. Analysis of mass spectra, comparison of retention times with the results obtained for known compounds, and also comparison with literature information [3, 4] enabled the following compounds to be identified in mutants with respect to the NYS I gene of the yeast *Saccharomyces cerevisiae*: cholesta-5,7,22,24-tetraen-3β-ol (I), cholesta-5,7,24-triene-3β-ol (II), and cholesta-8,24-diene-3β-ol (III) in relative amounts of 5-8, 9-20, and 60-80%, respectively.

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