

Immunization experiments were successfully carried out, increasing doses of 1 to 15 c.c. being administered. Dogs survived such doses, and developed agglutinins to *B. pyocyaneus*.

In animals which survived ten days or longer, areas of unresolved pneumonia and thickened pleura were the rule.

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A method for the separation of lipins from lipin extracts.

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Owing to the solubility of lipins in ether and alcohol we have a basis for the isolation of these substances. To separate them from their ether and alcohol solution we have several methods. As a rule these methods are expensive as most of the solvent is lost, they require considerable time and in some of the methods heat is applied, a bad procedure on account of the labile nature of some of these substances.

I have devised a method which gives good results, allows the solvent to be regained and takes little time without using heat. It is based on the fact that lipins are *insoluble in water*. The method is as follows; to the ether or alcohol extract of the lipins add cold water containing 0.5 per cent. of sodium chloride,¹ till no further precipitation occurs. The water should be added slowly without shaking or stirring, otherwise some of the lipins will be emulsified. Any of the precipitate not coming to the surface may be obtained by filtration.² It will be found that this precipitate contains the lipins and if one wants to obtain the phospholipins from the precipitate, simply wash thoroughly with acetone until no residue is obtained, when the washings are evaporated to dryness. The acetone removes all the lipins except the phospholipins.

¹ The addition of sodium chloride to the water helps to flocculate the lipins and by raising the specific gravity of the solution, allows the lipins to come to the surface, where they may be skimmed off by means of a spoon. Percentages of sodium chloride under 0.5 per cent. do not give good results.

² The solvent can now be obtained by distilling it from the filtrate.

In the presence of much chromlipin (lipochrome) this method does not work so well as it requires from 12 to 24 hours for the insoluble lipins to separate out and as a rule the precipitate goes to the bottom of the container instead of rising to the surface. It appears from this observation that the presence of chromlipin in some way changes the physico-chemical conditions of the associated lipins.

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Note on the effect of the internal secretions upon the volume of the pancreas.

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We have studied the action of infusions of the various dried glands upon the volume of the pancreas. The animals used were etherized cats. The injections were made per jugular. The volume of the pancreas was registered with a modified piston recorder.

Infundibulin (pituitrin) causes a marked increase in the volume of the pancreas. Adrenalin produces a decrease in volume for a short time and then an increase. The pineal gland infusion increases the volume. Infusion of thyroid momentarily decreases and then increases the volume. Iodothyryn also increases the volume. Thymus does the same.

Secretin depresses blood-pressure for a short time and increases the volume of the pancreas to a marked extent.

Infusion of pancreas decreases the volume for a moment and then increases the volume of the pancreas. The renal cortex decreases the blood-pressure for a moment, but increases the volume of the pancreas to a marked extent.

Prostatic infusion had no effect on pancreatic volume. Tonsillar infusion lowered blood-pressure and slightly increased volume of pancreas.

Mammary gland infusion decreased blood-pressure for a short time but caused a marked increase in pancreatic volume.