TREATMENT OF DIABETES.

At the meeting of the Royal Society on November 30th, the President, Sir Charles Sherrington, referred to the new treatment for diabetes, discovered at Toronto University. His speech is reported at length in the *Times*, from which we quote the subjoined particulars.

The new pancreatic extract possesses striking power over the carbohydrate metabolism of the body. Potent as it is, experience with it is still limited. Work of urgency is required with what may prove to be a desired remedy.

In this country the Medical Research Council has undertaken public-spirited direction of the extract's preparation, and of further determination of its properties.

The physiological steps of the discovery may, said Sir Charles Sherrington, be briefly outlined thus:—

"Destruction of the pancreas is well known to produce in the dog a diabetes-like condition, rapidly fatal. The liver's store of glycogen is lost, and cannot be renewed by even liberal supply of its normal source, carbohydrate food. Sugar formation from proteins ensues, with rapid wasting of the tissues; at the same time the blood is surcharged with sugar, and the tissues are unable to make use of sugar. In a normal animal, glucose put into the circulation raises the ratio of CO_2 expired to oxygen absorbed, because the tissues consume the sugar. But glucose similarly introduced into the depancreated diabetic animal does not raise the respiratory quotient; the tissues no longer consumed the sugar.

"The inference," Sir Charles continued, "has long been that the pancreas produces some substance enabling the body to make use of sugar—some substance that in fact should control certain forms of diabetes. At Toronto there seems to have been secured the extraction of that substance. The pancreas consists of two structures intimately commingled—the one, secreting cells set round ducts into which they pour the pancreatic juice, potently digestive; the other, scattered in tiny islets seemingly unrelated to the ducts, though closely related to the blood channels. The want of success of pancreatic extracts in mitigating a diabetic condition might be due to digestive powers of the juice cells destroying an anti-diabetic substance of the islet-cells. Dr. F. C. Bunting determined to avoid this possibility by preparing extracts made from the pancreas after its trypsin-yielding cells had been selectively brought to atrophy by ligation of the gland ducts.

VALUE OF TEAM WORK.

"He and Mr. Best, who joined him, overcoming formidable difficulties of technique, succeeded in preparing the required material and in examining the effect of extract upon diabetic depancreated dogs. They found the sugar fall both in the blood and urine, and the animals, instead of dying in three weeks, remained, while treated, in excellent condition. The further prosecution of the work subsequently engaged other collaborators—Collip, Hepburn, Latchford, Macleod, and Noble. . . . With team work, advance has proceeded relatively quickly, and successful extracts are now obtained from ordinary ox, sheep, and swine pancreas.

"Of much physiological interest is the fact that the active principle in the extract seems one *normally* controlling the blood-sugar in health; its injection rapidly lessens the blood-sugar in normal animals. The extract, added to a simple perfusion fluid containing a little glucose and streamed through the isolated rabbit heart, increases three or fourfold the heart's uptake of sugar from the fluid. The extract sometimes evokes serious nervous disturbances seemingly associated with extreme fall in the amount of the blood-sugar. Administered to diabetic depancreated animals, the extract brings reappearance of the liver's glycogen store, while bringing down the sugar excess in the blood and the excretion of sugar and acetone in the urine; and it enables the diabetic organism to consume sugar. It also lessens or prevents hyperglycæmia produced in animals in several other ways.

"Gratifying success has already attended the use of this extract in the relief of diabetic patients; much further research is, however, yet needed for development of the methods of extraction and of the routine use of the active principle. The important physiological advance thus just reached comes as a fit reward to those who have achieved it."

COLOURED POISONS.

"The colouring of poisons would not only prevent accidents, but would assist in the detection and prevention of crime," said Dr. H. T. de Mouilpied of the British Dyestuffs Corporation, when discussing the possibilities of the experiments now being carried out by the Pharmaceutical Society.

The experiments now in progress are to test the feasibility of the proposal made by several High Court judges that poisons should be given distinctive colours.

If carried into effect a good many "accidents" might be prevented.

None know better than trained nurses the danger of mistakes, which may be fatal, when colourless poisonous solutions are used.

SCOTTISH NURSES' CLUB.

Under the auspices of the Health Visitors' Association and Scottish Nurses' Club, a lecture will be given at the Club, 203, Bath Street, Glasgow, on Friday, December 8th, at 7.30 p.m., by Dr. J. Ferguson Smith, M.A., M.B., Ch.B. on "Diseases of the Skin." A collection will be taken at the close of the meeting.

Great regret is felt amongst Glasgow nurses that the popular Secretary, Miss M. R. Stewart, was not elected on to the General Nursing Council for Scotland.

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