第110回 創薬科学セミナー・GTRセミナー

Generation of immune evasive functional human islet like organoids

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2019年9月2日（月）15:30 - 17:00

創薬科学研究館 2階 講義室（205）

Islet transplantation provides superior long-term blood glucose control for type 1 and late-stage type 2 diabetics, however the availability and quality of cadaveric islets as well as the side effects of immune suppressants which is administrated to avoids graft rejection limits its success and utility. Towards this end, we have developed the novel method for generation of scalable, 3 dimensional (3D) functional human islet like organoids (HILOs) with enhanced functional maturation. Furthermore, we show that immunoediting of HILOs restrict T cell activation and ameliorate diabetes by reducing the chance for allogenic rejection in diabetic “humanized” mice. The generation of glucose-responsive human islet-like organoids able to avoid immune detection may provide an alternative to current islet transplantation therapy in diabetes.（セミナーは日本語で行います。）

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