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## **Xenotransplantation: The Current Status and Future Prospective**

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**Abstract:** Xenotransplantation, the transplantation of living cells, tissues, or organs from one species to another, represents a promising solution to the critical shortage of human donor organs. This comprehensive report examines the current status of xenotransplantation research, focusing on pig-tohuman transplants, it includes major immunological barrier and their prevention, current status of xenotransplantation, and future prospective. With advances in clinical applications, xenotransplantation has moved from theoretical possibility to clinical reality, offering hope to thousands of patients on transplant waiting lists worldwide. [1,2]

Keywords: Xenotransplantation, allotransplantation, global organ crisis, immunological barrier, hyperacute rejection, acute humoral xenograft rejection, cellular xenograft rejection, genetic modification

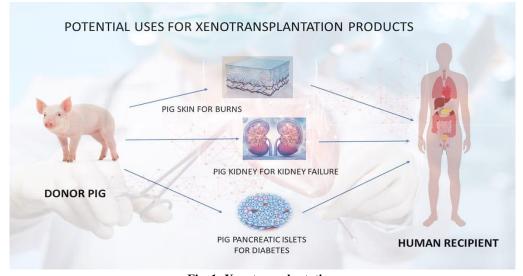


Fig. 1: Xenotransplantation

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