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Contact:

Heather Noonan

Blackwell Publishing

Phone: (781) 388-8540

[Medicalnews@bos.blackwellpublishing.net](mailto:Medicalnews@bos.blackwellpublishing.net)

### **Pig Cell Implants Show Potential for Treatment of Stroke, Huntington's Disease**

**AUCKLAND – July 19, 2006** – A review of accumulated evidence on the use of porcine brain choroid plexus (CP) cells published in the July issue of *Xenotransplantation* highlights that these cells have the potential to treat acute and chronic brain disease. Successful results of past CP transplants in small animals and primates point to the possibility for treatment of human neurological diseases in the near future.

CP cells are found in the brain and are rich with blood vessels, adjoining with the lining of the brain. The cells produce and secrete hormones that are essential in restoring the health and behavioral capabilities of the brain, eliminate toxic molecules, and are strongly associated with the health of the central nervous system.

The authors of the review reference research demonstrating that a single surgical procedure to implant CP cells can promote recovery of the brain in animal models. The cells used were microencapsulated in alginate-based materials to avoid an immune inflammatory reaction. This one-time administration lasts for six months or more, making this treatment suitable for chronic diseases.

"This research indicates that animal cells may be a viable, safe and effective means of treating serious human brain diseases. It is another example of how xenotransplantation can avoid the severe shortage of human organs and cells," states lead author of the review, Dr. Stephen J.M. Skinner of Living Cell Technologies, Ltd. in Auckland, New Zealand. "When this xenotransplant approach to treating brain disease becomes a reality, it will help patients destined for high levels of care remain independent. Because there are few effective treatments for brain diseases like stroke, Huntington's Disease or others like Alzheimer's and Parkinson's, this research may help to influence the attitude of policy makers to xenotransplantation."

According to the review, there are several studies supporting the potential for this xenotransplant procedure, including the use of CP cells to treat stroke and spinal trauma in animal models that resulted in rapid recovery of neurological function. In a chronic disease animal model, data showed remarkable recovery with a return to "almost normal behavior" according to the researchers. Advanced CP treatment studies in primates showed a decrease in brain lesions associated with neurological disease from 50% to just 10%.

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