**Transplanted Neural Stem Cells Produced Myelin**

A Phase I clinical trial led by investigators from the University of California, San Francisco and sponsored by Stem Cells Inc., showed that neural [stem cells](http://www.medicalnewstoday.com/info/stem_cell/) successfully engrafted into the brains of patients appear to have produced Myelin.

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The study, published in *Science Translational Medicine*, also demonstrated that the neural stem cells were safe in the patients' brains one year post transplant.

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The results of the investigation, designed to test safety and preliminary efficacy, are encouraging, said principal investigator David H. Rowitch, MD, PhD, a professor of pediatrics and neurological surgery.

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In the trial, human neural stem cells developed by Stem Cells, Inc., of Newark, California, were injected directly into the brains of four young children with an early-onset, fatal form of a condition known as Pelizaeus-Merzbacher disease (PMD).

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In PMD, an inherited genetic defect prevents brain cells called oligodendrocytes from making myelin, a fatty material that insulates white matter which serves as a conduit for nervous impulses throughout the brain. Without myelin sheathing, white matter tracts short-circuit like bare electrical wires and are unable to correctly propagate nerve signals, resulting in neurological dysfunction and neurodegeneration. Patients with early-onset PMD cannot walk or talk, often have trouble breathing and undergo progressive neurological deterioration leading to death between ages 10 and 15.The disease usually occurs in males.

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**مغامر يقفز من حدود الغلاف الجوي**

نجح المغامر النمساوي فيليكس بومغارتنر اليوم بالقفز من حدود الغلاف الجوي مخترقا جدار الصوت، وحط بسلام في منطقة خالية في ولاية نيومكسيكو الأميركية، ليحطم بذلك عددا من الأرقام القياسية.

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وقالت وكالة أسوشيتدبرس إن بومغارتنر حط في منطقة صحراوية شرقي ولاية نيو مكسيكو بعد أن قفز من ارتفاع يصل إلى 24 ميلا (38.6 كيلومترا) ورفع يديه راسما إشارة النصر فور وصوله إلى الأرض.

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وقال رعاة المشروع إن بومغارتنر كان داخل كبسولة ألحقت بالبالون الضخم المزود بغاز الهيليوم فوق روزويل بولاية نيو مكسيكو، وكان يهدف إلى تحطيم أربعة أرقام قياسية من بينها القفز من الكبسولة، ليصبح أول إنسان يحطم سرعة الصوت في سقوط حر.

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وبهذا يكون المغامر النمساوي قد حطم الرقم القياسي لأعلى ارتفاع للقفز الحر بالمظلة المسجل منذ 52 عاما. ويعود الرقم القياسي في السقوط الحر إلى عام 1960، وقد حققه عقيد سابق في سلاح الجو الأميركي يدعى جو كيتسنغر -وهو المشرف على مشروع هذه القفزة الجديدة- الذي قفز من علو 31333 مترا من منطاد هيليوم أيضا.

ويأمل فريق المهمة المسماة 'ريد بول ستراتوس'، الذي يضم 100 شخص، أن تساهم هذه القفزة في الأبحاث العلمية في مجال الطيران.

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