A Method of Remyelinating Congenitally Dysmyelinated Forebrains

A method of remyelinating axons using oligodendrocyte progenitor cells.

Problem Solved by this Technology
A broad range of diseases – from the inherited leukodystrophies to 25 vascular leukoencephalopathies to multiple sclerosis – result from myelin injury or loss. In the pediatric leukodystrophies, in particular, compact myelin either fails to develop properly, or is injured in the setting of toxic storage abnormalities. Recent studies have focused on the use of transplanted oligodendrocytes or their progenitors for the treatment of these congenital myelin diseases.

Applications
This technology involves a method of remyelinating axons in conditions mediated by a loss of myelin or a loss of oligodendrocytes by treating the axons with oligodendrocyte progenitor cells. An in vitro method of identifying and separating oligodendrocyte progenitor cells from a mixed population containing other mammalian brain or spinal cord cell types is also involved, resulting in the availability of the stem cells for therapy.

Intellectual Property Status
Patents issued in Canada, Germany, and the United Kingdom.
Additional patent applications pending in the U.S. and Europe.

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