

Studies on the Etiology and Treatment of Vitiligo

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We continue to perfect the transplantation of patients' own pigment cells grown and expanded in number in culture as a treatment for vitiligo. We are also trying to have other groups in the United States and abroad use this form of treatment. The widespread use of this therapy should result in further improvement. Transplantation of pigment cells is the best treatment for most patients with segmental vitiligo. It can also be used on some parts of the body for patients who have generalized vitiligo when the vitiligo is stabilized. There are two difficult parts to transplantation. One is to be able to grow large numbers of normal pigment cells in culture and the other is to put the cells into the depigmented areas. At the level of basic science, we want to find out whether or not nitric oxide plays a role in the destruction of pigment cells to bring about the onset of vitiligo. We have completed a study showing that pigment cells in the skin contain the enzyme nitric oxide synthase---the enzyme that is needed to produce nitric oxide. We now know that nitric oxide can be made in human pigment cells in skin. We must go on to find out whether or not nitric oxide plays a role in the destruction of pigment cells.