

InvenioIP - Technology Details

Institution: University of Maryland, Baltimore

Docket: LZ-2004-064

Title: A Novel Surface Marker for the Enrichment and Expansion of the Stromal Stem Cell Population

Summary: A novel method to obtain and culture a pure population of adult human or mouse bone marrow stromal stem cells (BMSSCs) in large numbers.

Applications:

- Hematopoietic diseases
- Birth defects
- Trauma
- Disease processes leading to dysfunctional bone and/or low bone mass
- Orofacial and plastic surgery
- Bone marrow ex vivo
- Vehicles for gene therapy

Advantages: Superior to currently available methods using known surface markers for BMSSCs.

State of Development: The novel surface marker has been characterized and used to enrich BMSSCs.

R and D Required:

- Demonstration of the differentiation capability of purified stem cells into, for example, osteoblasts, chondrocytes, and adipocytes.
- Successful isolation of stromal stem cells from adipocyte tissue.
- Proof of concept for clinical application.

Licensing Potential: UMB seeks to develop and commercialize via an exclusive or non-exclusive license agreement and/or sponsored research with a company active in the area.

Patent Status: PCT/US05/32220 filed on September 6, 2005.

Related Publications: Manuscript in preparation.

Files:

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