



# Kansas State University Research Foundation

## TECHNOLOGY LICENSING PROFILE

### Monocyte-Derived Mesenchymal Cells with Osteogenic, Chondrogenic, and Adipogenic Potential

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#### Description:

Mesenchymal cells are the primary cells utilized for cell therapy. They have the ability to be implemented in the treatment of numerous ailments including tissue injury and immune disorders. They also have the ability to be utilized as delivery vehicles. Currently, isolated populations of mesenchymal cells are isolated in small quantities. Therefore, inhibiting the number of cells available for use in therapeutic treatment. Researchers at Kansas State University (K-State) have developed a method to produce primary monocyte-derived mesenchymal cells in large quantities. This novel cell population contains the beneficial attributes of monocytes and mesenchymal stem cells, have rapid expansion, and can be differentiated in multiple lineages including osteogenic, chondrogenic, and adipogenic potential.

#### Advantages:

- Population Doublings: Ability to generate a large number of autologous cells quickly
- Multi-lineage Differentiation: Osteogenic, Chondrogenic, and Adipogenic Potential
- Therapeutic Potential: Utilization as therapeutic or therapeutic delivery vehicle
- Regenerative Medicine: May be utilized in tissue regeneration
- Features: Mesenchymal progenitor cells with monocytic markers and lacking mesenchymal stem cell markers.

#### Applications:

- Cell therapy
- Tissue Regeneration
- Drug delivery

**Patent Status:** Patent Pending

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