Transgenic Mice That Ubiquitously Express Enhanced Green Fluorescent Protein

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Inventors: Eric Sandgren, William Kisseberth, Jan Lohse, Phil Soriano

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing transgenic mice that ubiquitously express the marker gene *EGFP*.

Overview

The ability to unambiguously mark a cell's genotype is essential for studies in which genetically distinct cell populations must be distinguished from one another *in vivo*.

The Invention

UW-Madison researchers have developed transgenic mice that ubiquitously express the marker gene *enhanced green fluorescent protein* (*EGFP*). They used an 800-base pair fragment of a promoter region from ROSA26 cells in a genetic construct with *EGFP*.

Several lines of transgenic mice were created using the microinjection technique. The ROSA26 promoter directs ubiquitous expression of EGFP during embryonic and postnatal development in the mice.

Applications

- Marking donor cells in transplantation studies
- Marking genotypes in pre-implantation embryos
- Embryonic chimera studies and lineage analyses
- Experiments that require genetic marking of subpopulations of cells within a larger unmarked cell population

Key Benefits

- Marker gene is expressed ubiquitously.
- Marker is easily detectable with no background staining.
- Permits monitoring of engraftment of transplanted cells
- GFP can be visualized in living cells.

Additional Information

For More Information About the Inventors

- Eric Sandgren

Tech Fields

- Research Tools : Animal & disease models

For current licensing status, please contact Jennifer Rothwell at jrothwell@warf.org or 608.960.9854