Molecular Therapies of Atherosclerosis

OCR Number: OCR 6925

Description:

**Endothelium-specific delivery of let-7 miR for treating Atherosclerosis**

- Atherosclerosis is responsible for the vast majority of cardiovascular disease. Currently available therapy (statins) slow down, but do not reduce the disease.
- Suppression of TGF, FGF and let-7 miRNA signaling in the endothelium can be used to reduce the size of atherosclerotic plaque and decrease overall atherosclerosis burden.
- A genetic proof of this concept has been obtained in mice using endothelial-specific TGFR1/R2 knockout.
- Additional supporting data available from human samples
- **Indications**: atherosclerosis, CAD/MI/angina, stroke, peripheral vascular disease
- **Lead Innovator**: Michael Simons, M.D.
- **References**: Unpublished work
- **IP status**: PCT patent application filed

![Graph showing the effect of let-7 miR on lesion area]

Endothelium-specific delivery of let-7 miR reduces atherosclerosis: ~ 60% reduction in total plaque burden in Apoe/-

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