



Technology Transfer Opportunity

Fibrosuppressant

OPPORTUNITY:

Novel fibrosuppressant target and biotherapeutic.

Description of Technology:

IHG-1 (induced by high glucose- 1) is a novel gene that encodes a highly conserved protein with little homology to other proteins of known function. The protein strongly enhances fibrotic response and is therefore a potential target for the treatment of fibrotic diseases such as diabetic nephropathy (DN).

Value Proposition:

Fibrosis is the end stage of many chronic inflammation conditions leading to excessive scarring and eventual organ failure. Renal fibrosis is central to DN, a progressive degeneration of kidney function that develops as a result of diabetes mellitus. In Western society DN accounts for more than one third of all new cases of end-stage renal failure.

Expression of the novel glucose regulated gene IHG-1 causes an amplified fibrotic response in *in vitro* and *in vivo* models of fibrotic disorders and in human diabetic nephropathy. Conversely, decreased IHG-1 expression levels suppress the fibrotic response. Hence, IHG-1 is a promising therapeutic target in fibrotic disorders.

In addition, structural mutants of IHG-1 proved to strongly inhibit fibrotic responses when expressed in human cells.

The present invention offers:

- A novel therapeutic target for fibrotic disorders

- Novel promising fibrosuppressant biotherapeutics for fibrotic disorders
- A method of screening a therapeutic agent for suitability for the treatment of fibrotic disorders

Market:

Pharmaceutical and Biotechnology companies with an interest in diabetes, inflammatory and fibrotic diseases

Inventors:

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Status:

A US provisional application was filed in May 2009.

Publication:

Murphy M et al (2008), *J Am Soc Nephrol* 19:1672-1680

Opportunity Sought:

Available for licensing

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