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(71) Applicant (for all designated States except US): **WISCONSIN ALUMNI RESEARCH FOUNDATION** [US/US]; 614 Walnut Street, P.O. Box 7365, Madison, WI 53707-7365 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ODORICO, Jon** [US/US]; 5228 Old Indian Trace, Madison, WI 53716 (US). **XU, Xiaofang** [CN/US]; 6401 Dyllyn Drive, Madison, WI 53719 (US).(74) Agent: **VINAROV, Sara, D.**; Quarles & Brady LLP, P.O. Box 2113, Madison, WI 53701-2113 (US).

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(54) Title: METHOD OF DIFFERENTIATING STEM CELLS INTO CELLS OF THE ENDODERM AND PANCREATIC LINEAGE

Generation of pancreatic lineage cells from human ES cells

Stage 1: (4 days)

Initiation of hESC differentiation in mesendoderm direction
Treatment of hESCs with 50ng/ml BMP4 on gelatin-coated tissue culture surface with irradiated MEF as feeder cells
(or on Matrigel with 50ng/ml BMP4 and 100ng/ml bFGF)

Stage 2: (14 days)

Production and Proliferation of PDX1+ cells
Generation of EBs from small ESC colonies (<70 µm) in MEF conditioned medium. Addition of 100 ng/ml bFGF during this stage further promotes pdx1+ cell production

Stage 3: (variable periods of time)

Terminal differentiation of pancreatic lineage cells; Formation of Insulin+/C-peptide+/PDX1+ cell clusters
plating of EBs on gelatin-coated tissue culture surface in serum free ITS/FNE media (insulin-transferrin-selenium-FGF7-nicotinamide-exendin-4)

(57) Abstract: The invention relates to compositions and methods for treating patients with Demyelinating Diseases and Conditions including Multiple Sclerosis, Spinal Cord Injury, Traumatic Brain Injury and Stroke. The compositions and methods may also be used for Stroke Rehabilitation and the treatment of pain disorders including Neuropathic Pain and Chemokine-Induced Pain. The compositions comprise one or more pyridazine compounds having a pyridazinyl radical pendant with an aryl or substituted aryl, a heteroaryl or substituted heteroaryl.



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