Docket #: S01-184

# Composition and Method to Purify Active Wnt Proteins for Stem Cell Proliferation

# **Applications**

- Biochemical characterization of Wnt signaling
- Maintain and expand stem cell populations for research purposes
- Potential broad applications of use of the purified Wnt proteins in fields such as transplantation and tissue regeneration

# **Advantages**

- First effective method to purify Wnt proteins full purification never done before
- First time useful amounts of pure, biologically active Wnt proteins available
- Allows maintanence of stem cell cultures not possible before
- Allows for more effective transplantation and tissue regeneration

### **Publications**

- Reya T et al. A role for Wnt signalling in self-renewal of haematopoietic stem cells. Nature. 2003 May 22;423(6938):409-14.
- Willert K et al. Wnt proteins are lipid-modified and can act as stem cell growth factors. Nature. 2003 May 22;423(6938):448-52.
- US patent 7,153,832: Compositions of active Wnt protein
- US patent 7,335,643: Compositions of active Wnt protein
- US patent application 12/480,550: Compositions of active Wnt protein

• **related publication**: Couzin J. <u>Purified Signaling Protein Stimulates Stem Cell</u> Proliferation. Science. 2003 May 2;300(5620):722.

### **Patents**

• Published Application: WO2004091647

• Published Application: 20040248803

• Published Application: 20070105776

• Published Application: 20070269890

• Published Application: 20090275134

• Published Application: 20150344846

• Published Application: 20160097031

• Published Application: 20180002661

• Issued: 7,335,643 (USA)

• Issued: 8,642,335 (USA)

• Issued: 9,139,636 (USA)

• Issued: 10,066,206 (USA)

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