



## ArmaGen Receives Notice of Allowance for U.S. Patent Covering Novel Investigational Therapy for Hunter Syndrome

*Strengthens Extensive Intellectual Property for Therapies that Cross the Blood-Brain Barrier*

**Calabasas, Calif., June 17, 2014 – ArmaGen**, a privately held biotechnology company focused on developing revolutionary therapies for severe neurological disorders, announced today that the United States [Patent and Trademark Office](#) (USPTO) issued a Notice of Allowance for a patent claiming the composition of AGT-182, a novel enzyme replacement therapy (ERT) under development for the treatment of neurological complications in patients with Hunter syndrome. The patent, when issued, will be in force until at least 2030.

Hunter syndrome is a severe, progressive and life-limiting lysosomal storage disorder caused by inadequate activity of iduronate-2-sulfatase (IDS), an enzyme needed to break down complex sugars produced by the body. The patent will cover the fusion of IDS to any immunoglobulin G (IgG) directed against any endogenous blood-brain barrier (BBB) transporter.

“We are very pleased to receive notice of the AGT-182 patent allowance from the USPTO, as it strengthens ArmaGen’s dominant intellectual property position in the development of biopharmaceuticals that cross the blood-brain barrier,” said James E. Callaway, Ph.D., Chief Executive Officer of ArmaGen. “This important milestone further supports ArmaGen’s advancement of AGT-182 as an investigational treatment for Hunter syndrome and helps us build a pipeline of therapies to treat a broad range of severe neurological disorders.”

ArmaGen expects to initiate a Phase 1/2 study of AGT-182 for the treatment of Hunter syndrome before the end of 2014.

### **About Hunter Syndrome**

Hunter syndrome, also known as mucopolysaccharidosis type II, or MPS II, is a lysosomal storage disorder caused by inadequate activity of the enzyme iduronate-2-sulfatase (IDS), which is needed to break down complex sugars produced by the body. The buildup of these complex sugars, known as mucopolysaccharides, interferes with functioning of certain cells and organs, leading to serious complications including developmental delays and mental impairment. Symptoms of Hunter syndrome include growth delay, joint stiffness, and coarsening of facial features. In severe cases, patients experience respiratory and cardiac problems, enlargement of the liver and spleen, and neurological deficits that can lead to premature death. Hunter syndrome primarily affects males and is almost always severe, progressive, and life-

limiting. Available treatments for Hunter syndrome do not cross the BBB and therefore do not address the progressive neurological complications of the disease.

### **About AGT-182**

AGT-182 is a novel, investigational enzyme replacement therapy (ERT) for the treatment of neurological complications in patients with Hunter syndrome. ArmaGen engineered AGT-182 to transport the replacement IDS enzyme across the BBB, thereby delivering the therapy directly to the brain. The company's proprietary technology takes advantage of the body's natural system for transporting products across the BBB by using the same receptor that delivers insulin to the brain. AGT-182 is engineered by the fusion of the replacement IDS enzyme to an antibody that is attracted to a receptor on the BBB. The IDS enzyme travels through the BBB attached to that antibody.

### **About ArmaGen**

ArmaGen is a privately held biotechnology company focused on developing revolutionary therapies for severe neurological disorders, with an initial focus on central nervous system (CNS) complications of lysosomal storage diseases. The company is developing a broad pipeline of recombinant protein therapeutics that penetrate the BBB, including lysosomal enzymes, neurotrophins, decoy receptors and therapeutic antibodies. ArmaGen is leveraging decades of scientific leadership in unlocking the BBB and a dominant intellectual property portfolio to advance the company's innovative pipeline through licensing and collaboration agreements, in-house development programs, and future partnering opportunities. For more information, visit [www.armagen.com](http://www.armagen.com).

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