



NEWS RELEASE

US Patents Issued to Akaal Pharma on S1P₁ Receptor Modulators Useful for the Treatment of Autoimmune and Inflammatory Diseases

MELBOURNE, Australia and SAN DIEGO, CA, USA, Dec 7, 2015. Akaal Pharma Pty Ltd (Akaal Pharma) announced today that the United States Patent and Trademark Office (USPTO) has issued Akaal Pharma the U.S. Patents 9,181,182 B2, and 9,193,716 B2, entitled S1P receptors modulators, and S1P receptors modulators and their use thereof, respectively. The patents cover Akaal Pharma's internally discovered various classes of novel compounds (small molecule drug candidates) as modulators of Sphingosine 1-Phosphate receptors (S1P) useful in the treatment of autoimmune and inflammatory diseases. Novel chemical scaffolds, synthetic intermediates and processes for the manufacture of drug candidates are claimed in these issued composition-of-matter patents. Several similar patent applications have been filed in Canada, Europe, Japan, China and India. Nearly 50 million people are afflicted with various autoimmune and inflammatory diseases in the U.S. alone.

"These issued patents strengthen our patent position and expand further the intellectual property discovered internally by Akaal Pharma's medicinal chemistry and drug discovery team. We believe that novel small molecules claimed in these patents could provide new generation of safer and more effective small molecule drugs for the treatment of autoimmune and inflammatory diseases including psoriasis, atopic dermatitis, multiple sclerosis, ulcerative colitis, Crohn's disease, stroke and others", said Dale Dhanoa, Ph.D., CEO of Akaal Pharma.

About S1P₁

Sphingosine 1-Phosphate Receptor Subtype-1 (S1P₁) is one of the five S1P receptors (S1P₁₋₅), a class of G-protein coupled receptors (GPCRs) that are activated by the endogenous ligand phospholipid Sphingosine1-phosphate (S1P). S1P₁ plays a key role in the regulation of multiple biological processes including immune cell trafficking, neuronal and vascular function. Compounds that activate the S1P₁ receptor (S1P₁ agonists) lower the number of circulating lymphocytes by disrupting the normal migration of lymphocytes from the lymphoid organs into peripheral blood to potentially combat autoimmune and inflammatory diseases. Autoimmune diseases occur when the immune system uncontrollably attacks healthy tissues or organs resulting in inflammatory damage. One of the most important objectives in combatting autoimmune diseases is to reduce inflammation. The S1P₁ receptor directly impacts neuronal survival and endothelial barrier enhancement. S1P₁ agonists not only have shown activity in preclinical models of inflammation, autoimmune, neuronal and vascular diseases, but have also shown a clinical benefit in the treatment of autoimmune diseases such as multiple sclerosis, psoriasis, ulcerative colitis and stroke. Akaal Pharma's drug candidate AKP-11 is initiating Phase 2 clinical trials for the topical treatment of Psoriasis and Atopic Dermatitis after having completed successfully its Phase 1 clinical trial for the topical treatment of Psoriasis.

About Akaal Pharma

Akaal Pharma Pty Ltd (Akaal Pharma) is a clinical-stage drug discovery and development company focused on the development of novel small molecule drugs for the treatment of inflammatory and autoimmune diseases including psoriasis, atopic dermatitis, multiple sclerosis, ulcerative colitis, Crohn's disease, stroke and rheumatoid arthritis. Akaal Pharma has created a robust pipeline of novel, potent, and highly selective S1P₁ receptor modulators that show excellent oral and topical drug profiles. Akaal Pharma applies its medicinal chemistry and drug discovery platform to design, discover and develop novel, safer and highly effective topical and oral drugs for the treatment of inflammation and immune diseases. For more information, visit www.akaalpharma.com.

Contact

Dale Dhanoa, Ph.D., CEO
Akaal Pharma Pty Ltd, Thomas Cherry Building, # 301E
La Trobe University, Bundoora, VIC-3086, Australia
Tel. +61 3 9479 2584 (Melbourne, Australia)
Direct: +1 858 925-4555 (San Diego, CA, USA)