

# Alexion Pipeline

## ADVANCED CLINICAL DEVELOPMENT

### **ULTOMIRIS® (ravulizumab-cwvz) IV for PNH**

ULTOMIRIS, a long-acting C5 inhibitor, is approved for the treatment of adults with PNH, a severe and ultra-rare blood disorder in which chronic, uncontrolled activation of complement, a component of the normal immune system, results in hemolysis (destruction of the patient's red blood cells). A Phase 3 study in children and adolescents who have PNH is underway.

### **ULTOMIRIS IV for aHUS**

ULTOMIRIS is a long-acting C5 inhibitor being evaluated for the treatment of patients with aHUS, a chronic, ultra-rare, and life-threatening disease. Alexion has completed a Phase 3 trial of ULTOMIRIS administered intravenously every eight weeks in complement inhibitor treatment-naïve adults with aHUS. A Phase 3 study in children and adolescents who have aHUS is underway.

### **ULTOMIRIS IV for Neuromyelitis Optica Spectrum Disorder (NMOSD)**

ULTOMIRIS is a long-acting C5 inhibitor. Alexion plans to initiate a Phase 3 study of ULTOMIRIS in NMOSD by the end of 2019, pending regulatory feedback.

### **ULTOMIRIS IV for Hematopoietic Stem Cell Transplant-Associated Thrombotic Microangiopathy (HSCT-TMA)**

ULTOMIRIS is a long-acting C5 inhibitor. Alexion plans to initiate a Phase 3 study of ULTOMIRIS in HSCT-TMA in the first half of 2020, pending regulatory feedback.

### **SOLIRIS® (eculizumab) for Generalized Myasthenia Gravis (gMG)**

SOLIRIS, a first-in-class complement inhibitor, is approved for the treatment of adults with generalized myasthenia gravis (gMG). A Phase 3 study of SOLIRIS in children and adolescents with gMG is underway.

### **SOLIRIS for Neuromyelitis Optica Spectrum Disorder (NMOSD)**

SOLIRIS, a first-in-class complement inhibitor, is approved for the treatment of adults with anti-aquaporin-4 (AQP4) antibody positive neuromyelitis optica spectrum disorder (NMOSD). Alexion plans to initiate a Phase 3 study in children and adolescents with NMOSD by the end of 2019.

### **ALXN1840 for Wilson Disease**

ALXN1840 (bis-choline tetrathiomolybdate) is a novel oral copper-protein binding agent with a unique mechanism of action, under investigation for Wilson disease, a rare, chronic, genetic, and potentially life-threatening liver disorder of impaired copper transport. A Phase 3 study is underway in patients with Wilson disease ages 18 and older.

### **ULTOMIRIS Subcutaneous QW**



# Alexion Pipeline

ULTOMIRIS is a long-acting C5 inhibitor. A single, PK-based Phase 3 study of ULTOMIRIS delivered subcutaneously once per week is underway to support registration in PNH and aHUS. Data are expected in early 2020.

## **ULTOMIRIS IV for Generalized Myasthenia Gravis (gMG)**

ULTOMIRIS is a long-acting C5 inhibitor. A Phase 3 study of ULTOMIRIS in gMG is underway.

## EARLY CLINICAL DEVELOPMENT

### **ULTOMIRIS IV for Amyotrophic Lateral Sclerosis (ALS)**

ULTOMIRIS is a long-acting C5 inhibitor. Alexion plans to initiate a proof-of-concept study of ULTOMIRIS in ALS in early 2020, pending regulatory feedback.

### **ULTOMIRIS IV for Primary Progressive Multiple Sclerosis (PPMS)**

ULTOMIRIS is a long-acting C5 inhibitor. Alexion plans to initiate an exploratory clinical study of ULTOMIRIS in PPMS.

### **ALXN1810 Subcutaneous Q2W or Q4W**

Alexion has completed a Phase 1 study of subcutaneous ULTOMIRIS co-administered with Halozyme's ENHANZE® drug-delivery technology, recombinant human hyaluronidase enzyme (rHuPH20), a next-generation subcutaneous formulation called ALXN1810.

### **ALXN1830 for Warm Autoimmune Hemolytic Anemia (WAIHA) and Generalized Myasthenia Gravis (gMG)**

ALXN1830 is a humanized monoclonal antibody that inhibits the interaction of neonatal Fc receptor (FcRn) with Immunoglobulin G (IgG) and IgG immune complexes and has the potential to improve treatment in a number of rare IgG-mediated diseases. Alexion plans to initiate a Phase 2/3 study of ALXN1830 (SYNT001) in warm autoimmune hemolytic anemia (WAIHA) in early 2020. In addition, Alexion plans to initiate a Phase 1 study of a subcutaneous formulation of ALXN1830 in healthy volunteers in early 2020. Pending results from the Phase 1 study, Alexion plans to initiate a Phase 2/3 study of subcutaneous ALXN1830 in gMG in 2020.

### **CAEL-101**

Alexion is collaborating with Caelum Biosciences to develop CAEL-101 for light chain (AL) amyloidosis, a rare systemic disorder that causes misfolded immunoglobulin light chain protein to build up in and around tissues, resulting in progressive and widespread organ damage. CAEL-101 is a first-in-class amyloid fibril targeted therapy designed to improve organ function by reducing or eliminating amyloid deposits in patients with AL amyloidosis. Pending regulatory feedback, a Phase 2/3 study investigating CAEL-101 as an add-on to current standard-of-care therapy is planned to begin in 2020.

# Alexion Pipeline

## **ABY-039**

Alexion is partnering with Affibody AB to co-develop ABY-039 for rare Immunoglobulin G (IgG)-mediated autoimmune diseases. Currently in Phase 1 development, ABY-039 is a bivalent antibody-mimetic that targets the neonatal Fc receptor (FcRn).

## PRECLINICAL

### **ALXN1720**

Alexion plans to initiate a Phase 1 study of ALXN1720, a novel anti-C5 albumin-binding bi-specific mini-body that binds and prevents activation of human C5, in late 2019.

### **Peptide Therapies**

Alexion is collaborating with Zealand Pharma A/S to discover and develop novel peptide therapies for up to four targets in the complement pathway.

### **GalXC™ RNA interference (RNAi)**

Alexion and Dicerna are jointly discovering and developing up to four subcutaneously delivered GalXC™ RNAi candidates for the treatment of complement-mediated diseases.

### **CP010**

Alexion and Complement Pharma are co-developing C6 complement inhibitor CP010 for neurodegenerative disorders.

### **Additional Complement**

Alexion's Research & Development pipeline includes additional complement inhibitor candidates for the potential treatment of severe and devastating complement-mediated disorders.