ALEXION PHARMACEUTICALS INC
Form 10-K
February 23, 2009
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# UNITED STATES

# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# FORM 10-K

**FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTIONS 13 OR 15(D) OF THE SECURITIES AND EXCHANGE ACT OF 1934**

**x Annual report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934**
**For the fiscal year ended December 31, 2008**

**or**

**¨ Transition report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934**
**For the transition period from to**

**Commission file number: 0-27756**

# ALEXION PHARMACEUTICALS, INC.

**(Exact Name of Registrant as Specified in Its Charter)**

| **Delaware** | **13-3648318** |
|---|---|
| **(State or Other Jurisdiction of Incorporation or Organization)** | **(I.R.S. Employer Identification No.)** |

**352 Knotter Drive, Cheshire Connecticut 06410**

**(Address of Principal Executive Offices) (Zip Code)**

**203-272-2596**

**(Registrant s telephone number, including area code)**

**Securities registered pursuant to Section 12(b) of the Act:** **Common Stock, par value $0.0001**
**Rights to Purchase Junior Participating Cumulative Preferred Stock, par value $.0001**
**Name of each exchange on which registered: The Nasdaq Stock Market LLC**
**Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes x No ¨

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. Please see definition of accelerated and large accelerated filer in Rule 12b-2 of the Exchange Act. Check One:

Large Accelerated Filer: x Accelerated Filer: ¨ Non-Accelerated Filer: ¨

The aggregate market value of the Common Stock held by non-affiliates of the registrant, based upon the last sale price of the Common Stock reported on The Nasdaq Stock Market LLC on June 30, 2008, was approximately $2,795,465,875.

The number of shares of Common Stock outstanding as of February 17, 2009 was 81,695,309.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s Definitive Proxy Statement to be used in connection with its Annual Meeting of Stockholders to be held on May 13, 2009, are incorporated by reference into Part III of this report.

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**PART I**

Unless the context requires otherwise, references in this report to we, our, us, Company and Alexion refer to Alexion Pharmaceuticals, Inc. a its subsidiaries. Amounts, except per share amounts, are denominated in thousands.

**Note Regarding Forward-Looking Statements**

This annual report on Form 10-K contains forward-looking statements that have been made pursuant to the provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on current expectations, estimates and projections about our industry, management s beliefs and certain assumptions made by our management, and may include, but are not limited to, statements regarding the potential benefits and commercial potential of Soliris® (eculizumab), for its approved indications and any future indications, timing and effect of sales of Soliris in various markets worldwide, level of future Soliris sales and collections, costs, expenses and capital requirements, cash outflows, cash from operations, status of reimbursement, price approval and funding processes in various countries worldwide, progress in developing commercial infrastructure and interest about Soliris in the patient, physician and payor communities, the safety and efficacy of Soliris and our product candidates, estimates of the potential markets and estimated commercialization dates for Soliris around the world, sales and marketing plans, any changes in the current or anticipated market demand or medical need for Soliris, status of our ongoing clinical trials, commencement dates for new clinical trials, clinical trial results, evaluation of our clinical trial results by regulatory agencies in other countries, prospects for regulatory approval in other countries, the need for additional research and testing, the uncertainties involved in the drug development process and manufacturing, our future research and development activities, assessment of competitors and potential competitors, estimates of the capacity of manufacturing and other facilities to support Soliris and our product candidates, potential costs resulting from product liability or other third party claims, the sufficiency of our existing capital resources and projected cash needs, assessment of impact of recent accounting pronouncements, and the effect of shifting currency exchange rates. Words such as anticipates, expects, intends, plans, believes, seeks, estimates, variations of such words and similar expressions are intended to identify such forward-looking statements, although not all forward-looking statements contain these identifying words. These statements are not guarantees of future performance and are subject to certain risks, uncertainties, and assumptions that are difficult to predict; therefore, actual results may differ materially from those expressed or forecasted in any such forward-looking statements. Such risks and uncertainties include, but are not limited to, those discussed later in this report under the section entitled Risk Factors. Unless required by law, we undertake no obligation to update publicly any forward-looking statements, whether because of new information, future events or otherwise. However, readers should carefully review the risk factors set forth in other reports or documents we file from time to time with the Securities and Exchange Commission.

**Item 1.** ***BUSINESS.***
**Overview**

Alexion Pharmaceuticals, Inc., Alexion or the Company, is a biopharmaceutical company engaged in the discovery, development and delivery of biologic therapeutic products aimed at treating patients with severe and life-threatening disease states, including hematologic and neurologic diseases, transplant rejection, cancer and autoimmune disorders. Our marketed product Soliris® (eculizumab) is the first therapy approved for the treatment of patients with paroxysmal nocturnal hemoglobinuria, or PNH.

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Soliris is designed to inhibit a specific aspect of the complement component of the immune system and thereby treat inflammation associated with chronic hematologic and neurological disorders, transplant rejection, and autoimmune disorders. Soliris is a humanized antibody that generally blocks complement activity for one to two weeks after a single dose at the doses currently prescribed. The initial indication for which we received approval for Soliris is PNH. PNH is a rare, debilitating and life-threatening, acquired genetic deficiency blood disorder defined by the destruction of red blood cells, or hemolysis. The chronic hemolysis in patients with PNH may be associated with life-threatening thromboses, recurrent pain, kidney disease, disabling fatigue, impaired quality of life, severe anemia, pulmonary hypertension, shortness of breath and intermittent episodes of dark-colored urine (hemoglobinuria).

Since our incorporation in January 1992 until April 2007, we devoted most of our resources to drug discovery, research, and product and clinical development. In March 2007, the Food and Drug Administration, or FDA, granted marketing approval for Soliris. In the United States, Soliris is indicated for the treatment of all patients with PNH to reduce hemolysis. We began commercial sale of Soliris in the United States during April 2007.

In June 2007, the European Commission, or E.C., approved the use of Soliris for patients with PNH in the European Union, which also serves as the basis for approval in Iceland and Norway. Subsequently, we engaged with appropriate authorities on the operational, reimbursement, price approval and funding processes that are separately required in each country and have initiated commercialization in those countries where this process was completed.

We have submitted an application for marketing authorization in Australia for Soliris for the treatment of patients with PNH. The application was accepted for priority review. Soliris has received Orphan Drug Designation in Australia, which provides certain regulatory and filing fee advantages, including market exclusivity, except in limited circumstances, for several years after approval. In September 2008, we were granted limited marketing authorization for Soliris for the treatment of patients with PNH in Switzerland. In January 2009, Health Canada approved the use of Soliris for patients with PNH in Canada.

We completed the 12-week AEGIS study of Japanese patients in October 2008. This study was a single registration study to evaluate the safety, efficacy, and pharmacology of Soliris as a treatment for Japanese patients with PNH. The open label study was authorized by Japan s Pharmaceutical and Medical Devices Agency. Summary results were reported in December 2008. As previously announced by the Company in December 2008, the pre-specified primary efficacy endpoint of change in hemolysis was achieved with statistical significance, and the drug appeared to be safe and well tolerated in study patients.

We are also focusing our research efforts on the use of eculizumab as a treatment for patients with other rare and severe complement-mediated conditions, including chronic hemolytic and thrombotic disorders, transplant rejection and chronic and debilitating neurological disorders. The FDA authorized our Investigational New Drug Application, or IND, for studying the safety and efficacy of eculizumab in treating myasthenia gravis, a rare autoimmune syndrome characterized by the failure of neuromuscular transmission, and we commenced clinical development in 2008. We are currently developing clinical programs to investigate the use of eculizumab as a treatment for patients with other complement-mediated disorders, including three severe, life-threatening, and rare hematologic disorders: atypical hemolytic uremic syndrome, or aHUS, a disease in which the lack of naturally occurring complement inhibitors can cause life-threatening kidney damage; catastrophic anti-phospholipid syndrome, a disorder in which uncontrollable blood clotting often leads to multiple organ failure; and cold agglutinin disease, an auto-immune hemolytic anemia. The program for aHUS was initiated in January 2009.

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The FDA also authorized our IND to evaluate the activity of an antibody to the immune regulator CD200 in patients with chronic lymphocytic leukemia, or CLL, an incurable chronic cancer that results from expansion of B-lymphocytes, and other blood tumors such as multiple myeloma. We commenced dosing of initial CLL patients with anti-CD200 in the second quarter of 2008.

We are aware that independent investigators have commenced a study to evaluate eculizumab in organ transplantation. We are also aware that investigator-initiated trials of eculizumab have begun in patients with multifocal motor neuropathy, or MMN, a severe autoimmune neurologic disorder and dense deposit disease, a severe kidney disease.

Also, we completed a phase I/II proof of concept study of IV eculizumab in allergic asthmatic patients in the fourth quarter of 2008.

Since September 2005, we have formed a number of wholly owned subsidiaries to support commercial and regulatory operations throughout the world, including Alexion Europe SAS, our regional executive and sales office in Paris, France, Alexion International S.a.r.l., our regional executive and sales office in Lausanne, Switzerland, and additional sales and marketing subsidiaries in Belgium, France, Germany, Italy, Spain, Switzerland, the United Kingdom, Japan and Australia.

Our principal executive offices are located at 352 Knotter Drive, Cheshire, Connecticut 06410 and our telephone number is (203) 272-2596. Our Web site address is www.alexionpharm.com. On our Web site, we make available, free of charge, our annual and transition reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practical after we electronically file such material with or furnish it to the SEC. The information found on our Web site is not part of this or any other report we file with or furnish to the SEC.

***Litigation***

In March 2007, PDL BioPharma, Inc., or PDL, filed a civil action against us in the U.S. District Court for the District of Delaware claiming willful infringement of certain PDL patents, or the PDL Patents, due to sales of Soliris. We denied such claims and filed counterclaims. In December 2008, we entered into a patent license agreement and settlement agreement with PDL for the purpose of resolving all claims previously filed by PDL and all counterclaims previously filed by Alexion. Pursuant to the patent license agreement, we acquired a fully paid, nonexclusive, irrevocable, perpetual worldwide license to some claims of the PDL Patents and a covenant not to sue from PDL for other claims of the PDL Patents, in each case for the commercialization of Soliris for all indications. We are obligated to make a total of $25,000 in payments to PDL, $12,500 of which was paid in January 2009 and $12,500 of which is due in June 2009. No royalties or other amounts are owed to PDL with respect to sales of Soliris for any indication. Upon receipt of the $25,000 license payment, the previously announced claims filed by PDL and counterclaims filed by us will be dismissed. Under the terms of the patent license agreement, PDL separately granted us the right to take a worldwide, royalty-bearing license under the PDL Patents to commercialize additional Alexion humanized antibodies that may be covered by the PDL Patents in the future.

***Matters Relating to our Common Stock***

In July 2008, the Company s Board of Directors approved a two-for-one stock split to be effected in the form of a 100 percent stock dividend. The additional shares were distributed on August 22, 2008 to stockholders

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of record as of the close of trading on August 12, 2008. All share and per share data presented in this Form 10-K have been retroactively restated to reflect this stock split.

In October 2008, certain holders of our 1.375% Convertible Senior Notes due February 2012 exercised conversion rights with respect to an aggregate principal amount of $52,778 resulting in the issuance of 3,356 shares of Alexion common stock. The shares were issued in November 2008. As of December 31, 2008, the outstanding principal balance of the notes is $97,222.

***Products and Development Programs***

The human immune system defends the body from attack or invasion by infectious agents or pathogens. This is accomplished through a complex system of proteins and cells, primarily complement proteins, antibodies and white blood cells, each with a specialized function. Under normal circumstances, complement proteins, together with antibodies and white blood cells, act to protect the body by removing:

- harmful micro-organisms;
- cells containing foreign proteins known as antigens; and
- potential disease-causing combinations of antigens and antibodies known as immune complexes.

When activated by stimuli, the immune system triggers a series of enzymatic and biochemical reactions called the complement cascade that results in an inflammatory response. This inflammatory response is one of the immune system s weapons against foreign pathogens or otherwise diseased tissue. However, under certain circumstances, the complement cascade may cause excessive or inappropriate activation, which may result in acute and chronic inflammatory conditions and damage to healthy tissues.

Some of the hematologic, autoimmune, or inflammatory diseases in which the complement cascade is activated include:

- PNH;
- myasthenia gravis;
- multifocal motor neuropathy;
- asthma;
- autoimmune and other hemolytic anemias;
- atypical hemolytic uremic syndrome;
- transplantation;

cold agglutinin disease;

membranoproliferative glomerulonephropathy type II (dense deposit disease);

Guillain-Barré syndrome;

rheumatoid arthritis;

age-related macular degeneration;

antiphospholipid antibody syndrome including the catastrophic form;

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autoimmune kidney disease;

lupus;

inflammatory skin and muscle disorders; and

specific types of multiple sclerosis.

We have focused our product development programs on anti-inflammatory therapeutics for diseases for which we believe current treatments are either non-existent or inadequate. Eculizumab is an antibody known as a C5 complement inhibitor, or a C5 Inhibitor, which is designed to selectively block the production of inflammation-causing proteins of the complement cascade. We believe that selective suppression of this immune response may provide a significant therapeutic advantage relative to existing therapies. In addition to PNH, for which the use of eculizumab has been approved in the United States, Europe and Canada, we believe that C5 Inhibitors may be useful in the treatment of a variety of other serious diseases and conditions resulting from aberrant complement response.

Our drug programs, including investigator sponsored programs, are as follows:

| Program | Indication | Stage |
|---|---|---|
| Soliris (eculizumab) | Paroxysmal Nocturnal Hemoglobinuria (PNH) | Approved (U.S., E.U. and Canada) |
| Eculizumab (intravenous) | Atypical HUS | Phase II |
| | Presensitized Renal Transplant* | Phase II |
| | Myasthenia Gravis | Phase II |
| | Multifocal Motor Neuropathy* | Phase II |
| | Dense Deposit Disease* | Phase II |
| | Catastrophic Antiphospholipid Syndrome | Preclinical |
| | Cold Agglutinin Disease | Preclinical |
| Eculizumab (new formulation) | Asthma | Phase I/II |
| CD200 Mab | CLL | Phase I/II |
| | Multiple Myeloma | Preclinical |

* Investigator sponsored program

***C5 Inhibitors***

Complement proteins are a series of inactive proteins circulating in the blood. When activated by stimuli, including those associated with both acute and chronic inflammatory disorders, these inactive complement proteins are split by enzymes known as convertases into activated byproducts through the complement cascade.

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Some of these byproducts, notably C3b, are helpful in fighting infections and inhibiting autoimmune disorders. However, the byproducts generated by the cleavage of C5, known as C5a and C5b-9, generally cause harmful inflammation if inappropriately or over-activated. The inflammatory byproducts of C5 cause:

- lysis, or destruction, of red blood cells that are deficient in complement inhibitors;
- activation of platelets, white blood cells, and blood-vessel lining endothelial cells that are deficient in complement inhibitors;
- activation and destruction of muscle and other tissue cells;
- activation of white blood cells;
- attraction of white blood cells into inflamed tissues;
- production of inflammatory chemicals including tumor necrosis factor-alpha;
- activation of blood-clotting systems;
- activation of blood vessel-lining cells called endothelial cells, allowing leakage of white blood cells into tissue;
- activation of kidney cells; and
- initiation of cell suicide programs in heart cells.

The following diagram illustrates the complement cascade:

Because of the generally beneficial effects of the components of the complement cascade prior to C5 and the potent inflammatory, destructive and disease-promoting effects of the cleavage products of C5, we have identified C5 as an effective anti-inflammatory drug target. Our C5 Inhibitor, eculizumab, specifically and tightly binds to C5 blocking its cleavage into harmful byproducts, which inhibits subsequent damage from the downstream inflammatory mediators.

In human studies Soliris, a C5 Inhibitor, had the following effects in patients with PNH:

- reduction of red blood cell destruction (hemolysis);
- reduction in incidence of life-threatening blood clots (thromboses) in a broad patient population, including in patients with a history of aplastic anemia and myelodysplastic syndromes;

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improvement of severe anemia;

improvement of disabling fatigue and other quality of life outcomes;

decrease or elimination of blood transfusion requirements;

reduction of inflammation and blood clotting activation;

reduction in chronic kidney disease; and

reduction in incidence of high blood pressure in the lungs (pulmonary hypertension).

In addition, in laboratory and animal models of human disease, we have published results that the administration of a C5 Inhibitor, as compared to placebo, has demonstrated the following:

prevention and amelioration of asthmatic attacks;

enhancement of survival in organ transplantation models;

prevention of kidney damage and preservation of kidney function in a model of complement inhibitor deficiency;

prevention of nerve degeneration and improvement in function in myasthenia gravis models;

prevention of nerve degeneration and improvement in function in multifocal motor neuropathy model;

reduction of brain damage in cerebral ischemia, or reduced blood flow to brain tissue;

enhancement of survival in a model of lupus; and

preservation of kidney function in nephritis, or inflammation of kidney tissue.

***Soliris***

Soliris is designed to inhibit a specific aspect of the complement component of the immune system and thereby treat inflammation related to chronic hematologic, neurologic and autoimmune disorders and transplant rejection. Soliris is a humanized antibody which, administered at the doses currently prescribed, generally blocks complement activity for one to two weeks after a single dose.

The FDA granted marketing approval for Soliris for patients with PNH in March 2007, the E.C. approved the use of Soliris for patients with PNH in the European Union in June 2007 and Health Canada approved the use of Soliris for patients with PNH in January 2009. Soliris has been granted orphan drug designation for the treatment of PNH which entitles us to exclusivity for seven years in the United States and for ten years

in Europe. However, if a competitive product that is the same as Soliris, as defined under the applicable regulations, is shown to be clinically superior to our product in the treatment of PNH, or if a competitive product is different from Soliris, as defined under the applicable regulations, the orphan drug exclusivity we have obtained may not block the approval of such competitive product. We market and sell Soliris with our own sales force. Following approval by the E.C., we engaged with appropriate authorities on the operational, reimbursement, price approval and funding processes that are separately required in each country and have initiated commercialization where this process was completed. In some European countries, we recorded meaningful sales to individual patients through approved named-patient programs during 2008.

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We have submitted an application for marketing authorization in Australia for Soliris for the treatment of patients with PNH. The application was accepted for priority review. Soliris has received Orphan Drug Designation in Australia, which provides certain regulatory and filing fee advantages, including market exclusivity, except in limited circumstances, for several years after approval. In September 2008, we were granted limited marketing authorization for Soliris for the treatment of patients with PNH in Switzerland. In January, 2009, Health Canada approved the use of Soliris for patients with PNH in Canada.

We completed the 12-week AEGIS study of Japanese patients in October 2008. This study was a single registration study to evaluate the safety, efficacy, and pharmacology of Soliris as a treatment for Japanese patients with PNH. The open label study was authorized by Japan s Pharmaceutical and Medical Devices Agency. Summary results were reported in December 2008. As previously announced by the Company in December 2008, the pre-specified primary efficacy endpoint of change in hemolysis was achieved with statistical significance, and the drug appeared to be safe and well tolerated in study patients.

***About Paroxysmal Nocturnal Hemoglobinuria, or PNH***

PNH is a rare, debilitating and life-threatening acquired genetic deficiency blood disorder defined by the destruction of red blood cells. Patients with PNH have an acquired genetic deficiency in certain protective proteins on the surface of their blood cells, allowing their own complement system to attack and destroy these blood cells. Patients with PNH suffer from chronic complement activation of some of their blood cells and hemolysis, or destruction of red blood cells caused by the C5 cleavage product C5b-9. This hemolysis is believed to lead to further clinical complications including thromboses, kidney disease, liver dysfunction, disabling fatigue, impaired quality of life, recurrent pain, shortness of breath, pulmonary hypertension, intermittent episodes of dark colored urine (hemoglobinuria), and anemia. The red blood cell destruction may be sufficiently large that recurrent blood transfusions are necessary to support normal red blood cell function. The prevalence, or number of affected patients at any one time, has not been definitively determined but has been estimated at approximately 8,000 10,000 total patients in North America and Western Europe. Approximately one-half of the patients with PNH die from the disease within 10-15 years of diagnosis. Soliris is the only therapy approved for PNH.

***C5 Inhibitor Immunotherapeutic Product Candidates***

**Eculizumab Development Programs: Chronic Hemolytic and Thrombotic Disorders**

**Atypical Hemolytic Uremic Syndrome (aHUS)**

Atypical hemolytic uremic syndrome, or aHUS, is a rare life-threatening disease characterized by the triad of microangiopathic hemolytic anemia, low platelet count and acute renal failure. It is a disorder of the regulation of the complement alternative pathway; many patients exhibit genetic mutations in complement inhibitor genes. It is a thrombotic microangiopathy that affects small blood vessels leading to chronic intravascular hemolysis, consumption of platelets, and clots in kidney blood vessels, resulting in acute renal failure. The prognosis for patients with aHUS is poor. Approximately 70% of patients with the most common mutation experience chronic renal insufficiency, chronic dialysis, or death by one year after the first clinical episode. Atypical HUS commonly recurs in patients who undergo renal transplantation. In addition, depending on the mutation, the disease can lead to loss of the transplanted kidney in up to approximately 90% of aHUS patients who undergo kidney transplantation

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Approximately 50% of patients with aHUS have been identified to have genetic mutations in one of the complement control proteins or neutralizing autoantibodies to complement regulatory factors, which can lead to uncontrolled complement activation. Excessive complement activation may contribute to the blood vessel inflammation and clotting by stimulating activation of white blood cells, platelets, and the endothelial lining of blood vessels.

In December 2008, preliminary data on the use of eculizumab in two patients with aHUS outside, of a clinical trial, was presented at the American Society of Hematology Meeting in San Francisco. We are currently initiating four prospective, open-label clinical studies of eculizumab as a treatment for patients with aHUS in North America and multiple European countries.

**Catastrophic Antiphospholipid Syndrome (CAPS)**

Antiphospholipid syndrome, or APS, is an autoimmune condition characterized by blood vessel clotting in the presence of antibodies that target specific proteins (antiphospholipid, or aPL). Catastrophic antiphospholipid syndrome, or CAPS, is a rare and extreme form of APS characterized by near simultaneous clotting of blood vessels in multiple organs leading to multiorgan failure. Initial mortality in patients experiencing a first episode of CAPS is approximately one-quarter to one-half and treatment with anticoagulants may be ineffective.

In pregnant patients with APS, activated complement proteins are identified in the placenta. In animal models of APS, inhibition of complement rather than anticoagulation is required to block fetal loss. C5 inhibitor treatment in animal models of APS was shown to inhibit blood clotting and tissue damage.

**Cold Agglutinin Disease (CAD)**

Cold Agglutinin Disease, or CAD, is a rare autoimmune hemolytic anaemia characterized by activation of the complement cascade and sticking together (agglutination) of red blood cells. Patients may be typically first afflicted after reaching the age of sixty.

As blood is cooled during circulation through the distal parts of the arms and legs, specific antibodies bind to the red blood cells resulting in activation of the complement cascade and sticking together (agglutination) of red blood cells leading to hemolysis. Clinical manifestations of CAD include symptoms of chronic hemolysis such as fatigue, dyspnea, weakness, hemoglobinuria, kidney damage, pallor and jaundice as well as cold-induced circulatory symptoms ranging from mild discomfort to severe pain in affected limbs and tissues. In the most severe cases, complications of progressive hemolysis or anemia, or complications of blood transfusions, may result in death. Current therapies, including cold avoidance, corticosteroids, immunosuppressive drugs, intravenous immunoglobulin G (IgG) and chemotherapy agents are largely ineffective in controlling hemolysis in patients with CAD.

In December 2008, preliminary data on the use of eculizumab in a patient with CAD outside of a clinical trial was presented at the American Society of Hematology Meeting in San Francisco.

**Eculizumab Development Programs: Nephrology**

**Antibody-Mediated Rejection (AMR)**

Patients undergoing solid organ transplantation may experience severe antibody-mediated rejection in the early post-transplant period. For example, in a patient undergoing a kidney transplant this may be characterized by the acute onset of renal dysfunction and rapid progression to destruction of the transplanted kidney.

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AMR results when antibodies in the transplant recipient vigorously attacks the blood vessels of the donor kidney. During severe AMR, these donor specific antibodies bind to the blood vessel lining of the donor organ and initiate activation of the complement cascade, resulting in severe blood vessel inflammation and clotting. Administration of a C5 inhibitor in animal models of AMR inhibits complement activation, tissue damage and transplant rejection.

We are aware that independent investigators commenced a study to evaluate eculizumab in presensitized renal transplant patients and we understand that patient enrollment is currently ongoing in this trial.

**Dense Deposit Disease (DDD)**

Dense deposit disease, or DDD, also called Type II membrano-proliferative glomerulonephritis, is a rare form of glomerulonephritis, associated with genetic mutations in complement inhibitor genes leading to sustained complement activation and inflammation. Clinically, it is characterized by the onset of severe proteinuria, often accompanied by nephrotic syndrome which is refractory to immunosuppressant therapy. In most cases, the disease evolves into chronic renal failure, requiring dialysis and renal transplantation.

We are aware that independent investigators have commenced a study to evaluate eculizumab in patients with dense deposit disease.

**Eculizumab Development Programs: Chronic and Debilitating Neurological Disorders**

**Myasthenia Gravis (MG)**

Myasthenia gravis, or MG, is a rare autoimmune syndrome characterized by autoantibodies attacking a specific target in the nerve-muscle junctions leading to failure of neuromuscular transmission. Patients with MG initially experience weakness in their ocular, or eye muscles, and the disease typically progresses to head, spinal, limb and respiratory muscles. Symptoms can include drooping eyelid, blurred vision, slurred speech, difficulty chewing or swallowing, weakness in the arms and legs and difficulty breathing.

In an experimental animal model of MG, administration of a C5 Inhibitor was found to prevent experimentally acquired MG and to inhibit disease progression.

In the third quarter of 2007, we filed an IND with the FDA to initiate clinical development and received authorization from the FDA in July 2008. Patient enrollment is currently ongoing in this Phase II clinical trial.

**Multifocal Motor Neuropathy (MMN)**

Multifocal motor neuropathy, or MMN, is a rare autoimmune disorder in which autoantibodies attack the nerve-muscle junctions. Patients with MMN demonstrate a slow progressive asymmetrical weakness of limbs without sensory loss. Antibodies and complement activation products have been identified at the nerve-muscle junctions in diseases similar to MMN. Complement inhibition has recently been shown to be protective in animal models of MMN.

We are aware that an investigator submitted a request to a drug regulatory agency to initiate studies of eculizumab in patients with MMN. We understand that patients are currently being screened for enrollment in this Phase II clinical trial.

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**Eculizumab: New Formulation**

**Asthma**

Asthma is a chronic respiratory disease that results in bronchial inflammation and airway constriction leading to asthma s hallmark symptoms shortness of breath, chest tightness and wheezing.

Administration of a C5 Inhibitor significantly reduced bronchial inflammation and airway constriction in animal studies. The researchers found that animals given an anti-C5 blocking antibody either systemically or when inhaled through a nebulizer (a common asthma inhalation device) showed substantial reductions in airway reactivity, even in the face of airway challenges with methacholine, a drug administered to confirm an asthma diagnosis. We completed a phase I/II proof of concept study of IV eculizumab in allergic asthmatic patients in the fourth quarter of 2008.

**Other Product Candidates**

**Anti-CD200 Antibody: Oncology Programs**

We are developing an antibody for the treatment of B-Cell Chronic Lymphocytic Leukemia, or B-CLL, an incurable chronic cancer that results from expansion of B-lymphocytes and other cancers including blood tumors such as multiple myeloma, or MM. Our antibody binds to CD200, a protein that is upregulated on the surface of B-CLL and MM tumor cells. Our antibody targets CLL and MM cells and blocks the interaction of CD200 with the CD200 receptor, with the objective of enhancing the body s immune response to these tumors. Our anti-CD200 antibody has been shown to have potent anti-tumor activity in a model of CLL.

The FDA has authorized our IND to study the activity of an antibody to the immune regulator CD200 in patients with chronic lymphocytic leukemia, or CLL, an incurable chronic cancer that results from expansion of B-lymphocytes. We commenced dosing of initial CLL patients with our anti-CD200 antibody in the second quarter of 2008.

**Antibody Discovery Technology Platform**

In September 2000, we acquired Prolifaron, Inc., a privately held biopharmaceutical company and integrated this entity into Alexion as a wholly-owned subsidiary, Alexion Antibody Technologies, Inc. or AAT. The AAT technology includes extensive research expertise and methodologies that we call Combinatorial Human Antibody Library Technologies or CoALT, in the area of creating fully human antibodies from libraries containing billions of human antibody genes. As of December 31, 2006, we terminated operations at AAT and relocated CoALT and other AAT technologies to our expanded research and discovery groups in our Cheshire, Connecticut headquarters.

Our goal, through CoALT and related technologies, is to develop new fully human or humanized therapeutic antibodies addressing multiple disease areas, including autoimmune and inflammatory disorders and cancer. These technologies involve, in part, the generation of diverse libraries of human antibodies derived from patients blood samples, and the screening of these libraries against a wide array of potential drug targets. We believe that these technologies may be optimally suited to the rapid generation of novel, fully human and humanized, therapeutic antibodies directed at validated clinical targets. To date, we have focused on identifying antibodies that may be therapeutically effective in different cancers, and autoimmune and inflammatory

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disorders. In addition, we believe that these technologies could permit the preclinical validation of new gene targets that are being identified by numerous groups from recent access to the human genome. We also believe that these technologies might identify therapeutic antibodies when the libraries are screened against certain of these new gene targets.

**Manufacturing**

We currently rely on a single third-party contract manufacturer for commercial quantities of Soliris. We obtain drug product to meet our requirements for clinical studies using both internal and third-party contract manufacturing capabilities. For both clinical and commercial requirements, we have contracted and expect to continue contracting for product finishing, vial filling and packaging through third parties.

In July 2006, we acquired a manufacturing plant in Smithfield, Rhode Island for the future commercial production of Soliris and manufacturing development of future products. We have completed production of eculizumab for process validation purposes and are in the process of compiling a supplemental BLA, or sBLA, for commercial production of eculizumab at this facility. We expect to submit the sBLA in 2009. We transferred our pilot manufacturing capabilities from New Haven, Connecticut to Smithfield, Rhode Island during 2007, and we have commenced the use of this facility for the production and purification of certain of our product candidates for clinical studies.

Our most significant agreement with a third party manufacturer is the Large-Scale Product Supply Agreement with Lonza Sales AG, or Lonza, dated December 18, 2002, which has been amended from time to time. This agreement, the Lonza Agreement, relates to the manufacture of eculizumab. We executed the latest amendment to the Lonza Agreement in June 2007 to provide for additional production and minimum quantity purchase commitments of Soliris of $30,000 to $35,000 from 2009 through 2013. Such commitments may be cancelled only in limited circumstances. If we terminate the Lonza Agreement without cause, we will be required to pay for batches of product scheduled for manufacture under our arrangement.

We are required to prepay certain amounts to Lonza related to the production of Soliris, which are reflected as prepaid manufacturing costs. Once we take title to the inventory produced by Lonza, the amounts are reclassified into inventory. On an ongoing basis, we evaluate our plans to proceed with production of Soliris by Lonza, which depends upon our commercial requirements as well as the progress of our clinical development programs.

**Sales and Marketing**

We have established a commercial organization to support sales of Soliris in the United States, in the major markets in Europe and, on a more limited basis, in Japan and the Asia Pacific region. Our sales force is small in both the United States and Europe compared to other drugs with similar gross revenues; however, we believe that a relatively smaller sales force is appropriate to effectively market Soliris given the limited PNH patient population. If we receive regulatory approval in territories other than the United States, Europe and Canada, we may expand our own commercial organizations in such territories and market and sell Soliris through our own sales force in these territories. However, we will evaluate sales efforts on a country-by-country basis, and it is possible that we will promote Soliris in collaboration with marketing partners or rely on relationships with one or more companies with established distribution systems and direct sales forces in certain countries.

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**Customers**

In the United States, our customers are primarily specialty distributors and specialty pharmacies who supply physician office clinics, hospital outpatient clinics, infusion clinics or home health care providers. In some cases, we also sell Soliris to government agencies. Outside the United States, our customers are primarily hospitals, hospital buying groups, pharmacies, other health care providers and distributors.

During 2008, sales to our single largest customer, AmerisourceBergen, accounted for 21% of our Soliris net product sales, and no other customer individually accounted for more than 10% of total net product sales.

During 2007, sales to our three largest customers accounted for the following portions of our Soliris net product sales, and no other customer individually accounted for more than 10% of net sales:

| Customer | December 31, 2007 |
|---|---|
| Amerisource Bergen Corporation | 40.4% |
| IDIS Limited | 24.7% |
| McKesson Corporation | 11.1% |
| | 76.2% |

We generally do not focus our promotional activities on distributors, and they do not set or determine demand for Soliris. Because of the pricing of Soliris, the limited number of patients, the short period from sale of product to patient infusion and the lack of contractual return rights, Soliris customers generally carry limited inventory.

Please also see Management s Discussion and Analysis Revenues, and Note 17 on Page F-41, for financial information about geographic areas.

**Patents and Proprietary Rights**

Patents and other proprietary rights are important to our business. Our policy is to file patent applications to protect technology, inventions and improvements to our technologies that are considered important to the development of our business. We also rely upon our trade secrets, know-how, and continuing technological innovations, as well as patents that we have licensed or may license from other parties, to develop and maintain our competitive position.

We have filed several U.S. patent applications and international counterparts of certain of these applications. In addition, we have in-licensed several additional U.S. and international patents and patent applications. As of December 31, 2008, we own or in-license over 78 U.S. patents and 42 U.S. patent applications. These patents and patent applications relate to technologies or products in the C5 Inhibitor program, high throughput screening, vectors, cancer, recombinant antibodies, and other technologies. We own or in-license 61 foreign patents and 140 pending foreign patent applications. We owe royalties to a third party and other fees to owners of one or more patents in connection with the manufacture and sale of Soliris for PNH, and we may owe royalties and fees to other third parties with respect to any future commercial manufacture and sale of Soliris and our product candidates.

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We record actual and estimated royalties to third parties related to the sale and commercial manufacture of Soliris. These estimates are influenced by our assessment of the likelihood of third parties asserting that their patents are infringed by the manufacture or sale of Soliris and the likely outcome of any such assertion (see Note 11 of the Consolidated Financial Statements included in this Form 10-K). On a periodic basis and based on specific events such as the outcome of litigation, we may reassess these estimates, resulting in adjustments to cost of sales.

Our success will depend in part on our ability to obtain and maintain U.S. and international patent protection for our products and development programs, to preserve our trade secrets and proprietary rights, and to operate without infringing on the proprietary rights of third parties or having third parties circumvent our rights. Because of the length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the health care industry has traditionally placed considerable importance on obtaining patent and trade secret protection for significant new technologies, products and processes. Significant legal issues remain to be resolved as to the extent and scope of patent protection for biotechnology products and processes in the United States and other important markets outside of the United States. Accordingly, there can be no assurance that patent applications owned or licensed by us will issue as patents, or that any issued patents will afford meaningful protection against competitors. Moreover, once issued, patents are subject to challenge through both administrative and judicial proceedings in the United States and in foreign jurisdictions. Such proceedings include interference proceedings before the U.S. Patent and Trademark Office and opposition proceedings before the European Patent Office. Litigation may be required to enforce our intellectual property rights. Any litigation or administrative proceeding may result in a significant commitment of our resources and, depending on outcome, may adversely affect the validity and scope of certain of our patent or other proprietary rights.

We are aware of broad patents owned by others relating to the manufacture, use and sale of recombinant humanized antibodies, recombinant human antibodies, and recombinant human single chain antibodies. Soliris and many of our product candidates are either genetically engineered antibodies, including recombinant humanized antibodies, recombinant human antibodies, or recombinant human single chain antibodies. We have received notices from the owners of patents claiming that their patents may be infringed by the development, manufacture or sale of Soliris or some of our drug candidates. We are also aware of other patents owned by third parties that might be claimed by such third parties to be infringed by the development and commercialization of Soliris or some of our drug candidates. In respect to some of these patents, we have obtained licenses, or expect to obtain licenses. However, with regard to such other patents, we have determined in our judgment that:

- our products do not infringe the patents;
- the patents are not valid; or
- we have identified and are testing various modifications that we believe should not infringe the patents and which should permit commercialization of our product candidates.

If any patent holder successfully challenges our judgment that our products do not infringe their patents or that their patents are invalid, we could be required to pay costly damages or to obtain a license to sell or develop our drugs. A required license may be costly or may not be available on acceptable terms, if at all. A costly license, or inability to obtain a necessary license, could materially and adversely affect our ability to commercialize our products, including Soliris.

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It is our policy to require our employees, consultants and parties to collaborative agreements to execute confidentiality agreements upon the commencement of employment or consulting relationships or collaborations with us. These agreements generally provide that all confidential information developed or made known during the course of the relationship with us is to be kept confidential and not to be disclosed to third parties except in specific circumstances. In the case of employees, the agreements also provide that all inventions resulting from work performed for us, utilizing our property or relating to our business and conceived or completed by the individual during employment shall be our exclusive property to the extent permitted by applicable law.

**License Agreements**

In March 1996, the Company entered into a license agreement with the Medical Research Council, or MRC, whereby MRC granted to the Company worldwide non-exclusive rights to certain patents related to the humanization and production of monoclonal antibodies. We pay MRC royalties on a quarterly basis with respect to sales of Soliris. The royalty is payable until the last to expire of the patents covered by the license agreement, which is expected to be in 2015. MRC may terminate the license if Alexion files for bankruptcy or becomes insolvent, or if Alexion fails to perform its obligations under the agreement and such failure is not remedied within three months after delivery of notice. Under the agreement, Alexion has agreed to (a) make royalty payments with respect to sales of licensed products, (b) promote the sale of Soliris of good marketable quality, and (c) use reasonable endeavors to meet market demand for licensed products.

In December 2008, we entered into a patent license agreement with PDL in connection with the resolution of all civil claims previously filed by PDL and all counterclaims previously filed by Alexion. Pursuant to the license agreement, we acquired a fully paid, nonexclusive, irrevocable, perpetual worldwide license to some claims of certain PDL patents and a covenant not to sue from PDL for other claims of such PDL patents, in each case for the commercialization of Soliris for all indications.

We are party to other license agreements related to the manufacture and sale of Soliris, however, as with the PDL license agreement, we do not pay royalties under such agreements with respect to sales of Soliris.

**Government Regulation**

The preclinical studies and clinical testing, manufacture, labeling, storage, record keeping, advertising, promotion, export, and marketing, among other things, of our products and product candidates, including Soliris, are subject to extensive regulation by governmental authorities in the U.S. and other countries. In the U.S., pharmaceutical products are regulated by the FDA under the Federal Food, Drug, and Cosmetic Act and other laws, including, in the case of biologics, the Public Health Service Act. Soliris is regulated by the FDA as a biologic. Biologics require the submission of a Biologics License Application, or BLA, and approval by FDA prior to being marketed in the United States. Manufacturers of biologics may also be subject to state regulation. Failure to comply with FDA requirements, both before and after product approval, may subject us and/or our partners, contract manufacturers, and suppliers to administrative or judicial sanctions, including FDA refusal to approve applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, fines and/or criminal prosecution.

The steps required before a biologic may be approved for marketing in the U.S. generally include:

(1) preclinical laboratory tests and animal tests;

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(2) submission to the FDA of an Investigational New Drug Application for human clinical testing, which must become effective before human clinical trials may commence;

(3) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product;

(4) submission to the FDA of a BLA;

(5) FDA pre-approval inspection of product manufacturers; and

(6) FDA review and approval of BLA.

Preclinical studies include laboratory evaluation, as well as animal studies to assess the potential safety and efficacy of the product candidate. Preclinical safety tests must be conducted in compliance with FDA regulations regarding good laboratory practices. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an Investigational New Drug Application, or IND, which must become effective before human clinical trials may be commenced. The IND will automatically become effective 30 days after receipt by the FDA, unless the FDA before that time raises concerns about the drug candidate or the conduct of the trials as outlined in the IND. The IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed. We cannot assure you that submission of an IND will result in FDA authorization to commence clinical trials or that once commenced, other concerns will not arise.

Clinical trials involve the administration of the investigational product to healthy volunteers or to patients, under the supervision of qualified principal investigators. Each clinical study at each clinical site must be reviewed and approved by an independent institutional review board, prior to the recruitment of subjects.

Clinical trials are typically conducted in three sequential phases, but the phases may overlap and different trials may be initiated with the same drug candidate within the same phase of development in similar or differing patient populations. Phase I studies may be conducted in a limited number of patients, but are usually conducted in healthy volunteer subjects. The drug is usually tested for safety and, as appropriate, for absorption, metabolism, distribution, excretion, pharmaco-dynamics and pharmaco-kinetics.

Phase II usually involves studies in a larger, but still limited patient population to evaluate preliminarily the efficacy of the drug candidate for specific, targeted indications; to determine dosage tolerance and optimal dosage; and to identify possible short-term adverse effects and safety risks.

Phase III trials are undertaken to further evaluate clinical efficacy of a specific endpoint and to test further for safety within an expanded patient population at geographically dispersed clinical study sites. Phase I, Phase II or Phase III testing might not be completed successfully within any specific time period, if at all, with respect to any of our product candidates. Results from one trial are not necessarily predictive of results from later trials. Furthermore, the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

The results of the preclinical studies and clinical trials, together with other detailed information, including information on the manufacture and composition of the product, are submitted to the FDA as part of a BLA requesting approval to market the product candidate. Under the Prescription Drug User Fee Act, as amended, the fees payable to the FDA for reviewing a BLA, as well as annual fees for commercial manufacturing

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establishments and for approved products, can be substantial. Each BLA submitted to the FDA for approval is typically reviewed for administrative completeness and reviewability within 45 to 60 days following submission of the application. If found complete, the FDA will file the BLA, thus triggering a full review of the application. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable. The FDA s established goals for the review of a BLA is six months for Priority applications and 10 months for Standard applications, whereupon a review decision is to be made. The FDA, however, may not approve a drug within these established goals and its review goals are subject to change from time to time. Further, the outcome of the review, even if generally favorable, may not be an actual approval but an action letter that describes additional work that must be done before the application can be approved. Before approving a BLA, the FDA may inspect the facilities at which the product is manufactured and will not approve the product unless current Good Manufacturing Practices, or cGMP, compliance is satisfactory. The FDA may deny approval of a BLA if applicable statutory or regulatory criteria are not satisfied, or may require additional testing or information, which can delay the approval process. FDA approval of any application may include many delays or never be granted. If a product is approved, the approval will impose limitations on the indicated uses for which the product may be marketed, may require that warning statements be included in the product labeling, and may require that additional studies be conducted following approval as a condition of the approval, may impose restrictions and conditions on product distribution, prescribing or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval. To market a product for other indicated uses, or to make certain manufacturing or other changes requires FDA review and approval of a BLA Supplement or new BLA. Further post- marketing testing and surveillance to monitor the safety or efficacy of a product is required. Also, product approvals may be withdrawn if compliance with regulatory standards is not maintained or if safety or manufacturing problems occur following initial marketing. In addition new government requirements may be established that could delay or prevent regulatory approval of our product candidates under development.

The U.S. Congress and regulatory authorities, including the FDA, are considering whether an abbreviated approval process for so-called generic or follow-on biological products should be adopted. An abbreviated approval process is currently available under the Federal Food, Drug and Cosmetic Act for generic versions of conventional chemical drug compounds, sometimes referred to as small molecule compounds, but not for biological products approved under the Public Health Service Act through a BLA. Currently, an applicant for a generic version of a small molecule compound only has to reference in its application an approved product for which full clinical data demonstrating safety and effectiveness exist for the approved conditions of use; demonstrate that its product has the same active ingredients, dosage form, strength, route of administration and conditions of use and is absorbed in the body at the same rate and to the same extent as the referenced approved drug; include certifications to non-infringement of valid patents listed with the FDA for the referenced approved drug; and await the expiration of any non-patent exclusivity. Various proposals have been made to establish an abbreviated approval process to permit approval of generic or follow-on versions of biological products. It is unclear as to when, or if, any such proposals may be adopted but any such abbreviated approval process could have a material impact on our business as follow-on products may be significantly less costly to bring to market and may be priced significantly lower than our products would be.

Both before and after the FDA approves a product, the manufacturer and the holder or holders of the BLA for the product are subject to comprehensive regulatory oversight. For example, quality control and manufacturing procedures must conform to cGMP requirements, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, manufacturers must continue to spend time, money and effort to maintain cGMP compliance.

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**Orphan Drug Designation**

Soliris has received orphan drug designation from the FDA for PNH. Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which generally is a disease or condition that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are publicly disclosed by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. If a product which has an orphan drug designation subsequently receives the first FDA approval for the indication for which it has such designation, the product is entitled to orphan exclusivity, i.e., the FDA may not approve any other applications to market the same drug for the same indication for a period of seven years, except in limited circumstances.

**Foreign Regulation**

In addition to regulations in the United States, we are subject to a variety of foreign regulatory requirements governing human clinical trials and marketing approval for drugs. The foreign regulatory approval process includes all of the risks associated with FDA approval set forth above, as well as additional country-specific regulations. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

For example, under European Union regulatory systems, we may submit marketing authorizations either under a centralized or decentralized procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions, and the holder of a national marketing authorization may submit an application to the remaining member states. We submitted our Marketing Authorization Application for Soliris for the treatment of PNH to the European Medicines Agency, or EMEA, using the centralized procedure.

In June 2007, the European Commission, or E.C., approved the use of Soliris for patients with PNH in the European Union, which also serves as the basis for approval in Iceland and Norway. The EMEA reviewed the Soliris MAA under its Accelerated Assessment Procedure and Soliris was the first product approved in the European Union under such process. In September 2008 we were granted limited marketing authorization for Soliris for the treatment of patients with PNH in Switzerland. In January, 2009, Health Canada approved the use of Soliris for patients with PNH in Canada.

**Reimbursement**

Sales of pharmaceutical products depend in significant part on the coverage and reimbursement policies of government programs, including Medicare and Medicaid in the United States, and other third-party payers. These health insurance programs may restrict coverage of some products by using payor formularies under which only selected drugs are covered, variable co-payments that make drugs that are not preferred by the payor more expensive for patients, and by using utilization management controls, such as requirements for prior authorization or prior failure on another type of treatment. Payors may especially impose these obstacles to coverage for higher-priced drugs, and consequently Soliris may be subject to payor-driven restrictions.

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In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices and/or reimbursement of medicinal products for human use. A member state may approve a specific price or level of reimbursement for the medicinal product, or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. Following E.C. approval of Soliris for patients with PNH in June 2007, we engaged with appropriate authorities on the operational, reimbursement, price approval and funding processes that are separately required in each country and have initiated commercialization in those countries where this process is completed.

In furtherance of our efforts to facilitate access to Soliris, we have created the Soliris OneSource Treatment Support Program in the United States, a treatment support service for patients with PNH and their healthcare providers. Alexion case managers provide education about PNH and Soliris and help facilitate solutions for reimbursement, coverage and access.

**Competition**

There are currently no approved drugs other than Soliris for the treatment of PNH. However, many companies, including major pharmaceutical and chemical companies as well as specialized biotechnology companies, are engaged in activities similar to our activities. Universities, governmental agencies and other public and private research organizations also conduct research and may market commercial products on their own or through joint ventures. Many of these entities may have: