SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported) JANUARY 26, 2001

ALEXION PHARMACEUTICALS, INC.
(Exact Name of Registrant as Specified in its Charter)

DELAWARE	0-27756	13-3648318
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

352 KNOTTER DRIVE, CHESHIRE CT	06410
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: (203) 272-2596

NOT APPLICABLE
(Former Name or Former Address, if Changed Since Last Report)

ITEM 5. OTHER EVENTS

On January 26, 2001 and January 29, 2001, Alexion Pharmaceuticals, Inc. issued the press releases filed herewith as Exhibits 99.1 and 99.2.

ITEM 7. FINANCIAL STATEMENTS, PRO FORMA FINANCIAL INFORMATION AND EXHIBITS.

(C) EXHIBITS.

99.1 Press Release dated January 26, 2001.

99.2 Press Release dated January 29, 2001.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ALEXION PHARMACEUTICALS, INC.

Date: January 29, 2001

By: /s/ Leonard Bell, M.D.

Name: Leonard Bell, M.D.

Title: President, Chief Executive Officer, Secretary and Treasurer

CONTACTS:
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Rhonda Chiger (Investor)
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ALEXION REPORTS ADDITIONAL INFORMATION REGARDING PHASE IIB CARDIOPULMONARY BYPASS TRIAL AND ANNOUNCES AVAILABILITY OF JANUARY 23 WEBCAST ON ITS WEBSITE

Cheshire, CT, January 26, 2001 -- Alexion Pharmaceuticals, Inc. (Nasdaq:ALXN) today announced the availability on its website of a replay of the January 23, 2001 webcast hosted by Leonard Bell, M.D., Chief Executive Officer of Alexion, discussing initial analysis of clinical safety and efficacy data from a Phase IIb cardiopulmonary bypass trial. A question and answer period is included in this webcast. Alexion's website can be accessed at www.alexionpharm.com.

In a double-blind, randomized, placebo-controlled trial which enrolled 914 patients at 62 medical centers in the United States, patients were stratified into two groups, those undergoing only CABG with CPB or patients undergoing CABG with concomitant valve surgery during CPB. Approximately 90% of patients were in the CABG only group (n=796). Patients were treated with placebo, pexelizumab 2.0 mg/kg bolus, or pexelizumab 2.0 mg/kg bolus followed by a 24 hour infusion of pexelizumab at 0.05 mg/kg/hr. Patients were followed for safety and efficacy for 30 days.

Preliminary results from this trial show that pexelizumab suppressed complement in CPB patients, with the bolus and bolus plus infusion regimens showing complete suppression for 4 and 24 hours, respectively. Both regimens appear to be safe and well-tolerated in CPB patients, with observed serious adverse events including atrial fibrillation, infection, right heart failure and hemorrhage, and the most common adverse events observed including atrial fibrillation, nausea and anemia.

The results in the CABG only group were noteworthy for the observation that pexelizumab, administered as a bolus plus infusion, was associated with a reduction in large post CABG myocardial infarctions. Non-Qwave myocardial infarctions (CK-MB >100 ng/ml) were observed in 2.7% of pexelizumab treated patients and 8.0% of placebo patients at 30 days. Additionally, at 30 days, the death rate was 0.4% of pexelizumab treated patients and 1.9% in the placebo group. The composite incidence of death or MI (Qwave or non-Qwave) was observed in 7.8% of pexelizumab-treated patients and 13.2% of placebo patients at 30 days. These unanticipated results based on analysis of this selected subgroup suggest a clinically meaningful benefit of pexelizumab in CABG only patients, and will help us select the optimum dosing regimen and ensure definition of the most relevant efficacy endpoints and patient population for a Phase III study. The initial primary combined endpoint, which included the more modest non-Qwave definition of CK-MB consistent with smaller, more mild post-operative myocardial infarctions, neurologic deficits and left ventricular dysfunction, was not achieved. The data from the non-Qwave myocardial infarction and the composite of death or myocardial infarction may be more reliable than the data regarding mortality due to the difference in event rates. A full analysis of the safety and efficacy data is expected to be completed this spring and data is expected to be submitted for publication and presentation.

Alexion is engaged in the discovery and development of therapeutic products aimed at treating patients with a wide array of severe disease states, including cardiovascular and autoimmune disorders, inflammation and cancer. Alexion's two lead product candidates are currently in eight clinical development programs. Alexion, in collaboration with Procter & Gamble, has completed this Phase IIb efficacy and safety study in CPB patients, and together the firms are currently conducting two large Phase II studies in acute myocardial infarction patients. Alexion's other lead product candidate, 5G1.1, has recently completed a Phase II efficacy trial for the treatment of rheumatoid arthritis and we expect to release results after completion of the

preliminary analysis. 5G1.1 is also in a Phase II efficacy trial for the treatment of membranous nephritis and in Phase Ib pilot studies for treatment of psoriasis, dermatomyositis, and pemphigoid. Through its wholly owned subsidiary, Alexion Antibody Technologies, Inc., Alexion is engaged in discovering and developing a portfolio of additional antibody therapeutics targeting severe unmet medical needs. This press release and further information about Alexion Pharmaceuticals, Inc. can be found on the World Wide Web at: www.AlexionPharm.com.

This news release contains forward-looking statements. Such statements are subject to certain factors which may cause Alexion's plans to differ or results to vary from those expected including unexpected pre-clinical or clinical results, the need for additional research and testing, delays in manufacturing, access to capital and funding, delays and adverse changes in development of commercial relationships, the risk that the results of earlier clinical trials are not predictive of the safety and efficacy results in larger clinical trials, and a variety of risks set forth from time to time in Alexion's filings with the Securities and Exchange Commission, including but not limited to Alexion's Annual Report on Form 10-K for the year ended July 31, 2000. Except in special circumstances in which a duty to update arises under law when prior disclosure becomes materially misleading in light of subsequent events, Alexion does not intend to update any of these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

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Alexion Reports Interim Analysis of Clinical Safety and Efficacy Data From Phase II Rheumatoid Arthritis Trial

-INCREASED ACR20 RESPONSE RATE OBSERVED WITH 5G1.1 TREATMENT-

Cheshire, CT, January 29, 2001 -- Alexion Pharmaceuticals, Inc. (Nasdaq: ALXN) today announced interim results of a recently completed Phase II trial in patients with rheumatoid arthritis treated with 5G1.1, Alexion's anti-inflammatory C5 Inhibitor monoclonal antibody. The prospectively identified primary endpoint of improvement in ACR (American College of Rheumatology) 20 score was successfully met in one of the 5G1.1 treated groups after three months of chronic treatment.

To more fully discuss these preliminary results, as previously announced, the company will webcast a conference call this morning, January 29, 2001 at 9:00 AM eastern time at http://www.alxn.com. The conference call can also be accessed by calling 800-233-2795 (US) or 785-832-1523 (International).

In a double-blind, randomized, placebo-controlled trial which enrolled 209 patients at 28 clinical sites in the United States, patients with mild to moderate disease undergoing treatment with moderate doses of methotrexate were evaluated in one of four treatment arms. Patients were treated with placebo (n=55), 5G1.1 at 8 mg/kg intravenous injection once per week for four weeks and then once every month (Induction/monthly;n=53), 5G1.1 at 8 mg/kg intravenous injection once per week for four weeks and then once every two weeks (Induction/biweekly;n=48), or 5G1.1 at 8 mg/kg intravenous injection once every two weeks (Biweekly;n=53). The patients were evaluated after three months of treatment for safety and efficacy and are then evaluated three months after termination of the drug phase for safety only. While group data has been unblinded at the interim analysis, individual patient data is currently unavailable and will not be unblinded until completion of the final three month safety observation period.

"5G1.1 targets the terminal complement cascade part of the innate immune system," noted John Tesser, M.D., Chief Principal Investigator at the Phoenix Center for Clinical Research, and a lead investigator in the current trial. "This study describes a new potential therapy which is novel and unique and which differs from all other available biologic therapies for rheumatoid arthritis. These interim results suggest an important step forward on the path to demonstrating that 5G1.1 may have important clinical activity in the treatment of rheumatoid arthritis."

At the interim three month evaluation, 5G1.1 administration appeared to be safe and well tolerated and we will continue to monitor safety in the second three month period. The adverse event profile at three months was comparable to placebo, with the most common adverse events being nausea and diarrhea. The interim results after only three months of treatment showed that the Induction/monthly group met the primary endpoint of the trial, improvement in ACR20 score after three months of treatment. ACR20 score means that a patient had a 20% improvement in tender and swollen joint count plus 20% improvement in at least 3 of 5 of the following criteria: patient pain assessment, physician global assessment, patient global assessment, patient self-assessed disability and acute phase reactant. The ACR20 response in the Induction/monthly group was 43% as compared to the 20% ACR20 response in the placebo group. Both Induction/monthly and Induction/biweekly groups also met the prospectively identified secondary endpoint for changes in C-reactive protein after three months of therapy (Placebo = +0.4 mg/dl; Induction/monthly = -0.4 mg/dl; Induction/biweekly = -0.2 mg/dl). C-reactive protein is a validated objective measurement of disease activity and is also a component of the ACR criteria. A full analysis of the safety and efficacy data is expected to be available after completion of the final three month safety period, at which time individual patient data will also be unblinded. Additionally, we expect to submit available data for presentation and publication at the earliest opportunity.

"We are encouraged by these preliminary data that 5G1.1 administration in the Induction/monthly group met the primary endpoint of this trial, ACR20 score, after only 3 months of therapy," commented Dr. Christopher Mojcik, a clinical rheumatologist and Vice President of Clinical Development at Alexion. "Additionally, we are also encouraged that both induction arms suggested clinical activity since they each met an important secondary endpoint with a reduction in C-reactive protein at three months. It is also noteworthy that the current results were obtained in a patient population expected to have mild-to-moderate disease."

"The clinical data obtained in the interim analysis of this study is encouraging, since, if confirmed in subsequent Phase III trials, the data from this study suggest that 5G1.1 may be able to provide a new biologic approach for the chronic treatment of patients with rheumatoid arthritis," stated Leonard Bell, M.D., President and Chief Executive Officer of Alexion. "Pending a full evaluation of the interim data and final six month safety data from this trial, and in conjunction with planned discussions with the FDA, we expect to initiate a Phase III efficacy trial with 5G1.1 in rheumatoid arthritis patients at the earliest possible opportunity."

It is estimated that more than two million Americans are affected by rheumatoid arthritis, a disease in which the immune system attacks multiple joints as well as the whole body. This chronic immune attack frequently involves multiple organs in the body leading to the onset of fatigue, severe joint destruction, pain and disfigurement.

Alexion is engaged in the discovery and development of therapeutic products aimed at treating patients with a wide array of severe disease states, including cardiovascular and autoimmune disorders, inflammation and cancer. Alexion's two lead product candidates are currently in eight clinical development programs. Alexion is developing its antibody fragment pexelizumab in collaboration with Procter & Gamble, and has completed a Phase IIb efficacy and safety study in CPB patients, and together the firms are currently conducting two large Phase II studies in acute myocardial infarction patients. Alexion's other lead product candidate, 5G1.1, has recently completed the treatment phase of this Phase II efficacy trial for the treatment of rheumatoid arthritis. 5G1.1 is also in a Phase II efficacy trial for the treatment of membranous nephritis and in Phase Ib pilot studies for treatment of psoriasis, dermatomyositis, and pemphigoid. Through its wholly owned subsidiary, Alexion Antibody Technologies, Inc., Alexion is engaged in discovering and developing a portfolio of additional antibody therapeutics targeting severe unmet medical needs. This press release and further information about Alexion Pharmaceuticals, Inc. can be found on the World Wide Web at: www.AlexionPharm.com.

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