June 19, 2017

Spectrum Pharmaceuticals Highlights Results of a Combination Study of FOLOTYN® (pralatrexate injection) Plus Romidepsin Presented at the 14th International Conference on Malignant Lymphoma (14-ICML) Meeting

- **The FOLOTYN (antifolate) and an HDAC inhibitor (romidepsin) combination was shown to achieve a 71% overall response rate (ORR) among PTCL patients.**

HENDERSON, Nev.--(BUSINESS WIRE)-- Spectrum Pharmaceuticals, Inc. (NasdaqGS: SPPI), a biotechnology company with fully integrated commercial and drug development operations with a primary focus in Hematology and Oncology, announced the presentation of data from a clinical study of FOLOTYN plus Romidepsin in patients with relapsed or refractory Peripheral T-Cell Lymphoma (PTCL) in an oral presentation session which was presented at the 14th International Conference on Malignant Lymphoma (ICML) meeting in Lugano, Switzerland.

"Promising doublets may create new treatment platforms and change the paradigms of care for T-cell lymphoma," concluded Dr. Jennifer E. Amengual of the Columbia University Medical Center Herbert Irving Comprehensive Cancer Center.

"We are excited about the encouraging data presented at the ICML meeting," said Rajesh C. Shrotriya, MD, Chairman and Chief Executive Officer of Spectrum Pharmaceuticals. "These results show that the combination of FOLOTYN, an antifolate, and an HDAC inhibitor such as romidepsin could be highly effective in the treatment of PTCL patients. FOLOTYN was the first drug approved for the treatment of relapsed or refractory PTCL and it continues to be used in pioneering research for this aggressive disease with poor prognosis. We are encouraged that FOLOTYN has the potential to further improve outcome for PTCL patients."

Abstract #076: Results of the Phase I Study of FOLOTYN (pralatrexate injection) plus Romidepsin reveals marked activity in patients with relapsed or refractory (R/R) peripheral T-Cell Lymphoma (PTCL)

29 patients were enrolled and evaluable for toxicity. 23 patients were evaluable for response. The ORR in the total, non-PTCL and PTCL populations was 57%, 33%, and 71%, respectively. Of the PTCL 10/14 achieved a response with a CR= 4/14 (29%), PR=6/14 (43%), and 1 patient had stable disease. The mean DOR in PTCL population (N=10) was 7.49 m (1.5 - 30.2+), PFS of 5.9 m (0.3 - 33.2+), and OS 10.8 m in this heavily pretreated patient population.

Median age was 54 y (23-73) and 62% were male. The median number of prior therapies was 3 (1-16). Histologies included HL/other (N=4), B-cell (N=7), and T-cell (N=18). There were 5 DLTs in cohort 3 (FOLOTYN 15 mg/m2 & romidepsin 14 mg/m2) over both schedules consisting of 3 Grade 4 thrombocytopenias, 1 Grade 4 pancytopenia, and 1 Grade 4 neutropenia all attributed to romidepsin. There were 3 DLTs in cohort 4A (FOLOTYN 20mg/m2 & romidepsin 12mg/m2given D1, 8 Q21D) consisting of 2 Grade 3 oral mucositis and 1 Grade 4 sepsis. The D1, 15 Q28D schedule had no mucositis and resulted in no DLTs at all dose levels. The Grade 3/4 toxicities reported in > 5% of patients were: anemia (29%), thrombocytopenia (28%), febrile neutropenia (14%), oral mucositis (14%), hyponatremia (7%), pneumonia (6%), neutropenia (6%), and sepsis (7%).

Results outlined in the presentation conclude that the combination of FOLOTYN and romidepsin given on the D1, 15 Q28D schedule has an acceptable safety profile. These data support the lineage specific activity of the FOLOTYN and romidepsin combination with a 71% ORR in PTCL. A multicenter Phase II study of FOLOTYN and romidepsin is now enrolling for PTCL.

About Spectrum Pharmaceuticals, Inc.

Spectrum Pharmaceuticals is a leading biotechnology company focused on acquiring, developing, and commercializing drug products, with a primary focus in Hematology and Oncology. Spectrum currently markets six hematology/oncology drugs, and has an advanced stage pipeline that has the potential to transform the Company. Spectrum's strong track record for in-licensing and acquiring differentiated drugs, and expertise in clinical development have generated a robust, diversified, and growing pipeline of product candidates in advanced-stage Phase 2 and Phase 3 studies. More information on Spectrum is available at www.sppirx.com.

About FOLOTYN®

FOLOTYN, (pralatrexate injection), a folate analogue metabolic inhibitor, was discovered by Memorial Sloan-Kettering Cancer Center, SRI International, and Southern Research Institute, and developed by Allos Therapeutics. In September 2009, the U.S. Food and Drug Administration (FDA) granted accelerated approval for FOLOTYN for use as a single agent for the treatment of patients with relapsed or refractory PTCL. This indication is based on overall response rate. Clinical benefit such as improvement in progression-free survival or overall survival has not been demonstrated. FOLOTYN has been available to patients in the U.S. since October 2009. An updated analysis of data from PROPEL, the pivotal study of FOLOTYN in patients with relapsed or refractory PTCL, was published in the March 20, 2011, issue of the Journal of Clinical Oncology.

Important FOLOTYN® Safety Information

Warnings and Precautions

FOLOTYN may suppress bone marrow function, manifested by thrombocytopenia, neutropenia, and anemia. Monitor blood counts and omit or modify dose for hematologic toxicities.

Mucositis may occur. If greater-than or equal-to Grade 2 mucositis is observed, omit or modify dose. Patients should be instructed to take folic acid and receive vitamin B12 to potentially reduce treatment-related hematological toxicity and mucositis.

Fatal dermatologic reactions may occur. Dermatologic reactions may be progressive and increase in severity with further treatment. Patients with dermatologic reactions should be monitored closely, and if severe, FOLOTYN should be withheld or discontinued. Tumor lysis syndrome may occur. Monitor patients and treat if needed.

FOLOTYN can cause fetal harm. Women should avoid becoming pregnant while being treated with FOLOTYN and pregnant women should be informed of the potential harm to the fetus.

Use caution and monitor patients when administering FOLOTYN to patients with moderate to severe renal function impairment.

Elevated liver function test abnormalities may occur and require monitoring. If liver function test abnormalities are greater-than or equal-to Grade 3, omit or modify dose.

Adverse Reactions

The most common adverse reactions were mucositis (70%), thrombocytopenia (41%), nausea (40%), and fatigue (36%). The most common serious adverse events are pyrexia, mucositis, sepsis, febrile neutropenia, dehydration, dyspnea, and thrombocytopenia.

Use in Specific Patient Population

Nursing mothers should be advised to discontinue nursing or the drug, taking into consideration the importance of the drug to the mother.

Drug Interactions

Co-administration of drugs subject to renal clearance (e.g., probenecid, NSAIDs, and trimethoprim/sulfamethoxazole) may result in delayed renal clearance.

Please see FOLOTYN Full Prescribing Information at www.FOLOTYN.com.

Forward-looking statement — This press release may contain forward-looking statements regarding future events and the future performance of Spectrum Pharmaceuticals that involve risks and uncertainties that could cause actual results to differ materially. These statements are based on management's current beliefs and expectations. These statements include, but are not limited to, statements that relate to Spectrum's business and its future, including certain company milestones, Spectrum's ability to identify, acquire, develop and commercialize a broad and diverse pipeline of late-stage clinical and commercial products, the timing and results of FDA decisions, and any statements that relate to the intent, belief, plans or expectations of Spectrum or its management, or that are not a statement of historical fact. Risks that could cause actual

results to differ include the possibility that Spectrum's existing and new drug candidates may not prove safe or effective, the possibility that our existing and new applications to the FDA and other regulatory agencies may not receive approval in a timely manner or at all, the possibility that our existing and new drug candidates, if approved, may not be more effective, safer or more cost efficient than competing drugs, the possibility that our efforts to acquire or in-license and develop additional drug candidates may fail, our dependence on third parties for clinical trials, manufacturing, distribution and quality control and other risks that are described in further detail in the Company's reports filed with the Securities and Exchange Commission. The Company does not plan to update any such forward-looking statements and expressly disclaims any duty to update the information contained in this press release except as required by law.

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Spectrum Pharmaceuticals, Inc.
Shiv Kapoor
Vice President, Strategic Planning & Investor Relations
702-835-6300
InvestorRelations@sppirx.com

Source: Spectrum Pharmaceuticals, Inc.