December 5, 2014

Spectrum Pharmaceuticals Highlights 11 Abstracts at the 56th Annual Meeting of the American Society of Hematology (ASH) in San Francisco, California, December 6-9, 2014

HENDERSON, Nev.--(BUSINESS WIRE)-- Spectrum Pharmaceuticals (NasdaqGS: SPPI), a biotechnology company with fully integrated commercial and drug development operations with a primary focus in hematology and oncology, today announced key presentations of clinical and scientific data related to its products at the 56th Annual Meeting of the American Society of Hematology (ASH), being held in San Francisco, California, from December 6-9, 2014.

For more information about the ASH annual meeting and for a complete list of abstracts, please refer to the conference website at https://ash.confex.com/ash/2014/webprogram/start.html.

The following are key abstracts being presented at the ASH meeting:

ZEVALIN® (ibritumomab tiuxetan) Injection-related Abstracts

Abstract #	Type	Title	First Author	Date/Time Location
1762	Poster	Phase II study of Yttrium-90 Ibritumomab Tiuxetan (Zevalin) in Patients with Previously Untreated Marginal Zone Lymphoma	Fabregas	Saturday, Dec 6, 5:30 PM-7:30 PM West Building, Level 1 (Moscone Center)
1746	Poster	Consolidative Radioimmunotherapy after Chemoimmunotherapy in Patients with Histologic Transformation of Indolent Lymphoma	Reagan	Saturday, Dec 6, 5:30 PM-7:30 PM West Building, Level 1 (Moscone Center)
1733	Poster	Short Course of Bendamustine and Rituximab followed by Yttrium-90 Ibritumomab Tiuxetan in Patients with Chemotherapy-Naïve Follicular Lymphoma: Results of Fol-BRITe	Lansigan	Saturday, Dec 6, 5:30 PM-7:30 PM West Building, Level 1 (Moscone Center)
3986	Poster	Minimum Tolerable Interval of Radioimmunotherapy and Autologous Stem Cell Transplantation after High-Dose Chemotherapy for Relapsed or Refractory Aggressive B Cell Non-Hodgkin-Lymphoma Provides Excellent Disease Control	Hasenkamp	Monday, Dec 8, 6:00 PM-8:00 PM North Building, Hall E (Moscone Center)
4455	Poster	Yttrium-90 Ibritumomab Tiuxetan for Non-Hodgkin Lymphoma: Results after a Median Follow-up of 5 Years in a Single Institution	Anastasia	Monday, Dec 8, 6:00 PM-8:00 PM West Building, Level 1 (Moscone Center)
4414	Poster	Long term follow up of SWOG S0313: Ibritumomab Tiuxetan Consolidation after 3 Cycles of CHOP Plus Radiotherapy for High Risk Limited Stage Aggressive B-Cell Lymphoma	Persky	Monday, Dec 8, 6:00 PM-8:00 PM West Building, Level 1 (Moscone Center)

Beleodaq® (belinostat) for Injection-related Abstracts

Abstract #	Type	Title	First Author	Location
3075	Poster	Safe and Effective Treatment of Patients with Relapsed or Refractory Peripheral T-Cell Lymphoma (PTCL) and Low Baseline Platelet Counts with Belinostat	Savage	Sunday, Dec. 7, 6:00 PM-8:00 PM West Building, Level 1 (Moscone Center)
265	Oral	Big Data Approach to Identify Molecular Basis for Drug	Su-In Lee	Monday, Dec. 8,

		Sensitivity Phenotypes in Acute Myeloid Leukemia		7:00 AM-8:30 AM South Building, Esplanade 301 (Moscone Center)
N/A	Publication	Subsequent Hematopoietic Stem Cell Transplantation in Belinostat-treated Patients with Relapsed/Refractory Peripheral T-cell Lymphoma (R/R PTCL)	Shustov	Publication only

PTCL-related Abstracts

Abstract #	Type	Title	First Author	Location
4434	Poster	COMPLETE Registry- Patient Characteristics and Treatment Patterns in United States for the Most Common Subtypes of Peripheral T-Cell Lymphoma	Pinter-Brown	Monday, Dec. 8, 6:00 PM-8:00 PM West Building, Level 1 (Moscone Center)

Marqibo® (vinCRIStine sulfate LIPOSOME injection)-related Abstracts

Abstract #	Type	Title	First Author	Location
4420	Poster	Liposomal Formulation of Vincristine Allows for Doubling the Dose Compared to Conventional Vincristine: Results of the First Futility Analysis of the OPTIMAL > 60 Study of the German High-Grade Non-Hodgkin Lymphoma Study Group (DSHNHL)	Duecker	Monday, Dec. 8, 6:00 PM-8:00 PM West Building, Level 1 (Moscone Center)

About Spectrum Pharmaceuticals, Inc.

Spectrum Pharmaceuticals is a leading biotechnology company focused on acquiring, developing, and commercializing drug products, with a primary focus in oncology and hematology. Spectrum and its affiliates market five oncology drugs: FUSILEV® (levoleucovorin) for Injection; FOLOTYN® (pralatrexate injection); ZEVALIN® (ibritumomab tiuxetan) Injection for intravenous use; MARQIBO® (vinCRIStine sulfate LIPOSOME injection) for intravenous infusion; and BELEODAQ® (belinostat) for Injection. Spectrum's strong track record in 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 ZEVALIN and the ZEVALIN Therapeutic Regimen

ZEVALIN (ibritumomab tiuxetan) injection for intravenous use is indicated for the treatment of patients with relapsed or refractory, low-grade or follicular B-cell non-Hodgkin's lymphoma (NHL). ZEVALIN is also indicated for the treatment of patients with previously untreated follicular non-Hodgkin's Lymphoma who achieve a partial or complete response to first-line chemotherapy.

ZEVALIN is a CD20-directed radiotherapeutic antibody. The ZEVALIN therapeutic regimen consists of two components: rituximab, and Yttrium-90 (Y-90) radiolabeled ZEVALIN for therapy. ZEVALIN builds on the combined effect of a targeted biologic monoclonal antibody augmented with the therapeutic effects of a beta-emitting radioisotope.

Important ZEVALIN Safety Information

Deaths have occurred within 24 hours of rituximab infusion, an essential component of the ZEVALIN therapeutic regimen. These fatalities were associated with hypoxia, pulmonary infiltrates, acute respiratory distress syndrome, myocardial infarction, ventricular fibrillation, or cardiogenic shock. Most (80%) fatalities occurred with the first rituximab infusion. ZEVALIN administration can result in severe and prolonged cytopenias in most patients. Severe cutaneous and mucocutaneous reactions, some fatal, can occur with the ZEVALIN therapeutic regimen.

Please see full Prescribing Information, including BOXED WARNINGS, for ZEVALIN and rituximab. Full prescribing information for ZEVALIN can be found at www.ZEVALIN.com.

About BELEODAQ®

Beleodaq is a histone deacetylase (HDAC) inhibitor. HDACs catalyze the removal of acetyl groups from the lysine residues of histones and some non-histone proteins. *In vitro*, belinostat caused the accumulation of acetylated histones and other proteins,

inducing cell cycle arrest and/or apoptosis of some transformed cells. Belinostat shows preferential cytotoxicity towards tumor cells compared to normal cells. Belinostat inhibited the enzymatic activity of histone deacetylases at nanomolar concentrations (< 250 nM).

Please see Beleodaq Full Prescribing Information at www.beleodaq.com.

Indications and Usage

Beleodaq is a histone deacetylase inhibitor indicated for the treatment of patients with relapsed or refractory peripheral T-cell lymphoma (PTCL). This indication is approved under accelerated approval based on tumor response rate and duration of response. An improvement in survival or disease-related symptoms has not been established. Continued approval for this indication may be contingent upon verification and description of clinical benefit in the confirmatory trial.

Important Beleodaq Safety Information

Warnings and Precautions

- Beleodaq can cause thrombocytopenia, leukopenia (neutropenia and lymphopenia), and/or anemia; monitor blood counts weekly during treatment, and modify dosage as necessary.
- Serious and sometimes fatal infections, including pneumonia and sepsis, have occurred with Beleodaq. Do not administer Beleodaq to patients with an active infection. Patients with a history of extensive or intensive chemotherapy may be at higher risk of life threatening infections.
- Beleodaq can cause fatal hepatotoxicity and liver function test abnormalities. Monitor liver function tests before treatment and before the start of each cycle. Interrupt or adjust dosage until recovery, or permanently discontinue Beleodaq based on the severity of the hepatic toxicity.
- Tumor lysis syndrome has occurred in Beleodaq-treated patients in the clinical trial of patients with relapsed or refractory PTCL. Monitor patients with advanced stage disease and/or high tumor burden and take appropriate precautions.
- Nausea, vomiting and diarrhea occur with Beleodaq and may require the use of antiemetic and antidiarrheal medications.
- Beleodaq can cause fetal harm when administered to a pregnant woman. Women of childbearing potential should be advised to avoid pregnancy while receiving Beleodaq. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of potential hazard to the fetus.

Adverse Reactions

- The most common adverse reactions observed in the trial in patients with relapsed or refractory PTCL treated with Beleodaq were nausea (42%), fatigue (37%), pyrexia (35%), anemia (32%), and vomiting (29%).
- Sixty-one patients (47.3%) experienced serious adverse reactions while taking Beleodaq or within 30 days after their last dose of Beleodaq.

Drug Interactions

- Beleodaq is primarily metabolized by UGT1A1. Avoid concomitant administration of Beleodaq with strong inhibitors of UGT1A1.

Use in Specific Populations

- It is not known whether Beleodaq is excreted in human milk. Because of the potential for serious adverse reactions in nursing infants from Beleodaq, a decision should be made whether to discontinue nursing or discontinue drug, taking into account the importance of the drug to the mother.

About MARQIBO®

MARQIBO is a novel, sphingomyelin/cholesterol liposome-encapsulated, formulation of vincristine sulfate. Vincristine, a microtubule inhibitor, is FDA-approved for the treatment of adult patients with Philadelphia chromosome-negative (Ph-) acute lymphoblastic leukemia (ALL) in second or greater relapse or whose disease has progressed following two or more anti-leukemia therapies. (The encapsulation technology, utilized in this formulation, has been shown to provide prolonged circulation of vincristine in the blood).

Please see important safety information below and the full prescribing information for MARQIBO at

www.marqibo.com.

Indication and usage

MARQIBO is a liposomal vinca alkaloid indicated for the treatment of adult patients with Philadelphia chromosome-negative (Ph-) acute lymphoblastic leukemia (ALL) in second or greater relapse or whose disease has progressed following two or more anti-leukemia therapies. This indication is based on overall response rate. Clinical benefit such as improvement in overall survival has not been verified.

Important safety information

CONTRAINDICATIONS

- MARQIBO is contraindicated in patients with demyelinating conditions including Charcot-Marie-Tooth syndrome
- MARQIBO is contraindicated in patients with hypersensitivity to vincristine sulfate or any of the other components of MARQIBO (vinCRIStine sulfate LIPOSOME injection
- MARQIBO is contraindicated for intrathecal administration

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 our 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, leveraging the expertise of partners and employees around the world to assist us in the execution of our strategy, 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 our 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 lack of sustained revenue history, our limited marketing experience, 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. We do not plan to update any such forward-looking statements and expressly disclaim any duty to update the information contained in this press release except as required by law.

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