

Spectrum Announces Asset Purchase and License for a Novel Immuno-Oncology Platform including Two Early Stage Assets

May 9, 2019

- The Focused Interferon Therapeutics (FIT) platform is a proprietary targeted antibody-interferon fusion technology with potential broad application in oncology
- This asset purchase adds two innovative early-stage drug candidates to Spectrum's existing pipeline and advances the oncology strategy

HENDERSON, Nev.--(BUSINESS WIRE)--May 9, 2019-- Spectrum Pharmaceuticals, Inc. (NASDAQ-GS: SPPI), a biopharmaceutical company focused on novel and targeted oncology therapies, announced today the closure of an asset purchase and license agreement with ImmunGene, Inc., a privately held biotechnology company. The deal includes an exclusive license for the intellectual property related to the FIT antibody-interferon fusion technology drug delivery platform originally developed by scientists at UCLA.

The license also includes two novel assets derived from this platform. The first asset is an antibody-interferon fusion molecule directed against CD20 (Anti–CD20-IFNα). This drug candidate is in Phase 1 development for treating relapsed or refractory non-Hodgkin lymphoma, including diffuse large b-cell lymphoma patients where a considerable unmet medical need exists. Research for this program received financial support through the Therapy Acceleration Program® of The Leukemia & Lymphoma Society, Inc. (LLS), and an LLS research grant to UCLA. The second asset is an antibody-interferon fusion molecule directed against GRP94, a target for which currently there are no existing approved therapies. It has the potential for treating both solid and hematologic malignancies.

"The FIT platform that we've acquired today represents a new class of biotherapeutics which may have the potential to make the administration of an antibody-interferon fusion protein feasible and allows Spectrum to harness this powerful immune activating cytokine," said Francois Lebel, M.D., F.R.C.P.C., Chief Medical Officer of Spectrum Pharmaceuticals. "In pre-clinical models, anti–CD20-IFNα has been shown to have significant proapoptotic activity. Anti–CD20-IFNα is essentially a 2-pronged attack whereby both CD20 and IFNAR signaling pathways can be activated to induce tumor cell apoptosis. Although IFNα has potent biologic activities against B-cell malignancies, its clinical utility has been curtailed by systemic toxicities. Preclinical results suggest that anti–CD20-IFNα fusion proteins have an improved therapeutic index, while still exhibiting the ability to eradicate tumor cells."

Originally developed by scientists at UCLA and licensed to Spectrum by UCLA Technology Development Group, the FIT platform fuses interferon with various monoclonal antibodies targeting various tumor antigens. Interferons are highly potent and well-established anticancer cytokines but have been associated with significant dose-related side effects. The FIT technology may be able to maintain the potency and efficacy of interferon while reducing toxicity traditionally associated with interferon therapy. FIT therapies have potential application as single agents or in combination with other therapies, such as checkpoint inhibitors.

"Adding a promising platform and two early stage assets is consistent with our commitment to serving the needs of cancer patients by developing innovative drugs for unmet need," said Joe Turgeon, President and CEO of Spectrum Pharmaceuticals. "We are aggressively building a robust oncology pipeline anchored by our late-stage assets, poziotinib and ROLONTIS."

Under the terms of the agreement, Spectrum will pay an upfront cash payment of approximately \$3 million, up to \$156 million in development and sales milestones, and royalties on net sales in the high-single digits.

About Spectrum Pharmaceuticals, Inc.

Spectrum Pharmaceuticals is a biopharmaceutical company focused on acquiring, developing, and commercializing novel and targeted drug products, with a primary focus in hematology and oncology. Spectrum has a strong track record of successfully executing across the biopharmaceutical business model, from in-licensing and acquiring differentiated drugs, clinically developing novel assets, successfully gaining regulatory approvals, and commercializing in a competitive healthcare marketplace. Spectrum has a late-stage pipeline with novel assets that serve areas of unmet need. This pipeline has the potential to transform the company in the near future.

About UCLA Technology Development Group

UCLA Technology Development Group (TDG) serves as a campus-wide gateway to Innovation, Research and Entrepreneurship. TDG promotes UCLA innovation, research, teaching and entrepreneurship to benefit society, creates economic value to support UCLA's scholarly and educational missions and the State of California, and leads UCLA's research community to bring innovation to market.

Notice Regarding Forward-looking Statements - Certain statements in this press release may constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, as amended to date. These forward-looking statements relate to a variety of matters, including, without limitation, statements that relate to Spectrum's business and its future, including the Company's ability to successfully develop the FIT therapies, the potential applications for the FIT therapies, including as single agents or in combination with other therapies and, in the case of the anti-body interferon fusion molecule directed against GRP94, its potential for treating both solid and hematologic malignancies, the ability of the FIT therapies to meet currently unaddressed medical needs and the size of the potential markets, the feasibility of administering antibody-interferon fusion proteins clinically, the future potential of Spectrum's existing drug pipeline, and other statements that are not purely statements of historical fact. These forward-looking statements are based on management's current beliefs, expectations and assumptions and

are subject to significant risks and uncertainties. Investors are cautioned not to place undue reliance on any such forward-looking statements. All such forward-looking statements speak only as of the date they are made, and Spectrum undertakes no obligation to update or revise these statements, whether as a result of new information, future events or otherwise. Although Spectrum believes that the expectations reflected in these forward-looking statements are reasonable, these statements involve many risks and uncertainties that may cause actual results to differ materially from what may be expressed or implied in these forward-looking statements, including, without limitation, the uncertainties inherent in new product development, including clinical trial results and additional analysis of existing pre-clinical and clinical data, the possibility that Spectrum's new and existing drug candidates, including poziotinib, ROLONTIS and the FIT therapies, may not ultimately prove to be safe or effective, and the possibility that Spectrum's new and existing drug candidates, if approved, may not be more effective, safer, or more cost efficient than competing drugs. For a further discussion of risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of Spectrum in general, see the risk disclosures in the Annual Report on Form 10-K of Spectrum for the year ended December 31, 2018, and in subsequent reports on Forms 10-Q and 8-K and other filings made with the SEC by Spectrum.

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