Regeneron Presents Positive Data at ASH for REGN1979 CD20xCD3 Bispecific Antibody in Relapsed or Refractory B-Cell Non-Hodgkin Lymphoma

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100% overall and 80% complete response rate in 10 patients with relapsed or refractory follicular lymphoma treated with 5 mg or more of REGN1979

Plan to initiate in 2019 a potentially registrational Phase 2 trial in relapsed or refractory follicular lymphoma

Promising clinical activity also seen in ongoing study in diffuse large B-cell lymphoma

Regeneron Pharmaceuticals, Inc. (NASDAQ: **REGN**) today presented new data for REGN1979 in patients with relapsed or refractory (R/R) B-cell non-Hodgkin lymphoma (B-NHL), including promising clinical results in follicular lymphoma (FL) and diffuse large B-cell lymphoma (DLBCL) which are the two most common types of NHL. In this Phase 1 proof-of-concept trial, REGN1979 demonstrated an acceptable safety and tolerability profile with no observed dose-limiting toxicities (DLTs). There were no clinically-significant neurotoxicities, including no occurence of seizures or encephalopathy. REGN1979 is a wholly-owned, investigational, full-length bispecific monoclonal antibody designed to trigger tumor killing by binding CD3 on immune system T-cells and CD20 on B-cell malignancies.

In the data presented at the 2018 American Society of Hematology (ASH) Annual Meeting, heavily pre-treated patients with R/R FL grades 1 to 3a who received REGN1979 doses of 5 mg to 40 mg, experienced a 100% overall response rate (ORR) (8 complete responses [CR] and 2 partial responses [PR]); 90% of responders maintained a response during treatment. Based on these data, Regeneron plans to initiate in 2019 a potentially registrational Phase 2 trial investigating REGN1979 in R/R FL.

REGN1979 also showed encouraging dose-dependent clinical activity in heavily pre-treated patients with R/R DLBCL. Among patients receiving doses between 5 mg and 12 mg, the ORR was 18% (2 of 11 patients, including 1 CR and 1 PR). At doses of 18 mg to 40 mg, the ORR increased to 60% (6 of 10 patients, including 2 CR and 4 PR). Regeneron plans to continue dose-escalation in DLBCL.

"While a high response rate is frequently observed in the first-line treatment of follicular lymphoma, it is remarkable to see a 100% response rate in heavily pre-treated relapsed or refractory follicular lymphoma patients," said Israel Lowy, M.D., Ph.D., Head of Clinical and Translational Sciences, Oncology at Regeneron. "We plan to initiate a potentially registrational Phase 2 trial in 2019 investigating REGN1979 in relapsed or refractory follicular lymphoma, and are also considering its potential as a first-line treatment for this disease. Furthermore, we are continuing to dose-escalate in the more difficult-to-treat DLBCL setting, to see if we can continue to further improve efficacy. Finally, REGN1979 is being investigated in combination with Libtayo® (cemiplimab-rwlc) in an ongoing Phase 1 study, which we believe is the first to combine a CD20xCD3 bispecific antibody with a PD-1 or PD-L1 inhibitor."

"There have been tremendous recent advances in the field of immuno-oncology, with new breakthrough therapies including checkpoint inhibitors and personalized cell-based therapies," said George D. Yancopoulos, M.D., Ph.D., President and Chief Scientific Officer at Regeneron. "Regeneron has recently launched its first checkpoint inhibitor, Libtayo, for a serious skin cancer with no previously-approved therapies that were available. Regeneron is also advancing a broad and deep bispecific antibody platform – which may offer off-the-shelf alternatives to cell-based therapies for both solid tumors and hematologic malignancies. Our bispecific antibody pipeline includes REGN1979 and a MUC16xCD3 antibody for ovarian cancer in clinical development, and a BCMAxCD3 antibody for multiple myeloma expected to enter human studies before the end of this year. In 2019, we expect to start clinical trials of a new class of bispecific antibodies that engage cellular immunity in novel ways. We believe that cancer treatment in the future will require precision medicine-based combinations of these and other approaches and that Regeneron is well positioned to be a future leader in this exciting area."

The objectives for this ongoing Phase 1 proof-of-concept trial are to assess safety, tolerability and efficacy of REGN1979 monotherapy. The data presented at ASH included a total of 68 patients with R/R B-NHL who were treated with REGN1979. These patients had received a median of three prior therapies, including an anti-CD20 therapy. As of September 2018, 14 patients had completed treatment, 13 patients remained on treatment and 41 had discontinued treatment. The most common reason for treatment discontinuation was progressive disease (27 patients). Two patients discontinued treatment due to a treatment-emergent adverse event (TEAE; grade 3 hemolysis and grade 3 fatigue).

In the trial, the most common TEAEs occurring in at least 25% of patients were pyrexia, chills, cytokine release syndrome (CRS), fatigue, increased C-reactive protein, anemia, hypotension, infusion-related reaction (IRR) and nausea. IRR and CRS events were generally mild to moderate in severity, and neither resulted in trial discontinuations. Three patients in the trial died due to adverse events. Of these, one death, in a patient with a tumor involving the gastric lining who experienced a gastric perforation, was attributed to REGN1979.

REGN1979 was invented by Regeneron using the company's proprietary *VelocImmune*® technology that yields optimized fully-human antibodies, and Regeneron's proprietary *Veloci-Bi*™ bispecific platform. *Veloci-Bi* allows for the generation of full-length bispecific antibodies similar to native antibodies that are amenable to production by standard antibody manufacturing techniques, and likely to have favorable antibody-like pharmaco-kinetic properties.

REGN1979 was granted orphan drug designation by the U.S. Food and Drug Administration for the treatment of DLBCL in 2017. REGN1979, REGN4018 (MUC16xCD3 bispecific antibody) and REGN5458 (BCMAxCD3 bispecific antibody) are currently under clinical development for B-NHL, ovarian cancer and multiple myeloma, respectively, and their safety and efficacy have not been evaluated by any regulatory authority. In addition, the

potential use of REGN1979 in combination with Libtayo is investigational, and its safety and efficacy have not been evaluated by any regulatory authority.

Libtayo is being developed jointly by Regeneron and Sanofi under a global collaboration agreement. In the U.S., Libtayo is currently approved for the treatment of patients with metastatic CSCC or locally advanced CSCC who are not candidates for curative surgery or curative radiation. Regeneron and Sanofi Genzyme, the specialty care global business unit of Sanofi, market Libtayo jointly in the U.S.

IMPORTANT SAFETY INFORMATION AND INDICATION FOR U.S. PATIENTS

What is the most important information I should know about Libtayo?
Libtayo is a medicine that may treat a type of skin cancer by working with your immune system. Libtayo can cause your immune system to attack normal organs and tissues in any area of your body and can affect the way they work. These problems can sometimes become severe or life-threatening and can lead to death. These problems may happen anytime during treatment or even after your treatment has ended.

Call or see your healthcare provider right away if you develop any symptoms of the following problems or these symptoms get worse:

- **Lung problems (pneumonitis).** Signs and symptoms of pneumonitis may include new or worsening cough, shortness of breath, and chest pain.
- **Intestinal problems (colitis) that can lead to tears or holes in your intestine.** Signs and symptoms of colitis may include diarrhea (loose stools) or more frequent bowel movements than usual; stools that are black, tarry, sticky or that have blood or mucus; and severe stomach-area (abdomen) pain or tenderness.
- **Liver problems (hepatitis).** Signs and symptoms of hepatitis may include yellowing of your skin or the whites of your eyes, severe nausea or vomiting, pain on the right side of your stomach area (abdomen), drowsiness, dark urine (tea colored), bleeding or bruising more easily than normal, and feeling less hungry than usual.
- **Hormone gland problems** (especially the adrenal glands, pituitary, thyroid and pancreas). Signs and symptoms that your hormone glands are not working properly may include headaches that will not go away or unusual headaches, rapid heartbeat, increased sweating, extreme tiredness, weight gain or weight loss, dizziness or fainting, feeling more hungry or thirsty than usual, hair loss, feeling cold, constipation, deeper voice, very low blood pressure, urinating more often than usual, nausea or vomiting, stomach-area (abdomen) pain, and changes in mood or behavior, such as decreased sex drive, irritability, or forgetfulness.
- **Kidney problems,** including nephritis and kidney failure. Signs of these problems may include decrease in your amount of urine, blood in your urine, swelling in your ankles, and loss of appetite.
- **Skin problems.** Signs of these problems may include rash, itching, skin blistering, and painful sores or ulcers in the mouth, nose, throat, or genital area.
- **Problems in other organs.** Signs of these problems may include headache, tiredness or weakness, sleepiness, changes in heartbeat (such as beating fast, seeming to skip a beat, or a pounding sensation), confusion, fever, muscle weakness, balance problems, nausea, vomiting, stiff neck, memory problems, seizures (encephalitis), swollen lymph nodes, rash or tender lumps on skin, cough, shortness of breath, vision changes, or eye pain (sarcoidosis), seeing or hearing things that are not there (hallucinations), severe muscle weakness, low red blood cells (anemia), bruises on the skin or bleeding, and changes in eyesight.
- **Rejection of a transplanted organ.** Your doctor should tell you what signs and symptoms you should report and monitor you, depending on the type of organ transplant that you have had.
- **Infusion (IV) reactions that can sometimes be severe and life-threatening.** Signs of these problems may include chills or shaking, itching or rash, flushing, shortness of breath or wheezing, dizziness, fever, feeling of passing out, back or neck pain, and facial swelling.

Getting medical treatment right away may help keep these problems from becoming more serious.

Your healthcare provider will check you for these problems during your treatment with Libtayo. Your healthcare provider may treat you with corticosteroid or hormone replacement medicines. Your healthcare provider may delay or completely stop treatment if you have severe side effects.

Before you receive Libtayo, tell your healthcare provider about all your medical conditions, including if you:

- have immune system problems such as Crohn's disease, ulcerative colitis, or lupus;
- have had an organ transplant;
- have lung or breathing problems;
- have liver or kidney problems;
- have diabetes;
- are pregnant or plan to become pregnant; Libtayo can harm your unborn baby

Females who are able to become pregnant:

- Your healthcare provider will give you a pregnancy test before you start treatment.
- You should use an effective method of birth control during your treatment and for at least 4 months after your last dose of Libtayo. Talk with your healthcare provider about birth control methods that you can use during this time.
- Tell your healthcare provider right away if you become pregnant or think you may be pregnant during treatment with

Libtayo.

- are breastfeeding or plan to breastfeed. It is not known if Libtayo passes into your breast milk. Do not breastfeed during treatment and for at least 4 months after the last dose of Libtayo.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

The most common side effects of Libtayo include tiredness, rash, and diarrhea. These are not all the possible side effects of Libtayo. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. You may also report side effects to Regeneron Pharmaceuticals and Sanofi at 1-877-542-8296.

Please see accompanying full Prescribing Information, including Medication Guide.

What is Libtayo?

Libtayo is a prescription medicine used to treat people with a type of skin cancer called cutaneous squamous cell carcinoma (CSCC) that has spread or cannot be cured by surgery or radiation.

It is not known if Libtayo is safe and effective in children.

About Regeneron Pharmaceuticals, Inc.
Regeneron (NASDAQ: REGN) is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. Founded and led for 30 years by physician-scientists, our unique ability to repeatedly and consistently translate science into medicine has led to seven FDA-approved treatments and numerous product candidates in development, all of which were homegrown in our laboratories. Our medicines and pipeline are designed to help patients with eye diseases, allergic and inflammatory diseases, cancer, cardiovascular and metabolic diseases, neuromuscular diseases, infectious diseases and rare diseases.

Regeneron is accelerating and improving the traditional drug development process through our proprietary *VelociSuite*® technologies, such as *VelocImmune*® which produces optimized fully-human antibodies, and ambitious research initiatives such as the Regeneron Genetics Center, which is conducting one of the largest genetics sequencing efforts in the world.

For additional information about the company, please visit www.regeneron.com or follow @Regeneron on Twitter.

Regeneron Forward-Looking Statements and Use of Digital Media
This press release includes forward-looking statements that involve risks and uncertainties relating to future events and the future performance of Regeneron Pharmaceuticals, Inc. ("Regeneron" or the "Company"), and actual events or results may differ materially from these forward-looking statements. Words such as "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," 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 concern, and these risks and uncertainties include, among others, the nature, timing, and possible success and therapeutic applications of Regeneron's products, product candidates, and research and clinical programs now underway or planned, including without limitation REGN1979(as monotherapy or in combination with Libtayo® (cemiplimab-rwlc)) in patients with relapsed or refractory B-cell non-Hodgkin lymphoma, follicular lymphoma, diffuse large B-cell lymphoma, and other potential indications, as well as REGN4018 (MUC16xCD3 bispecific antibody), REGN5458 (BCMAxCD3 bispecific antibody), and Regeneron's earlier-stage product candidates (such as Regeneron's other bispecific antibodies); unforeseen safety issues resulting from the administration of products and product candidates in patients, including serious complications or side effects in connection with the use of Regeneron's product candidates (such as REGN1979) in clinical trials; the extent to which the results from the research and development programs conducted by Regeneron or its collaborators may be replicated in other studies and lead to therapeutic applications; the likelihood, timing, and scope of possible regulatory approval and commercial launch of Regeneron's late-stage product candidates and new indications for marketed products; ongoing regulatory obligations and oversight impacting Regeneron's marketed products, research and clinical programs, and business, including those relating to patient privacy; determinations by regulatory and administrative governmental authorities which may delay or restrict Regeneron's ability to continue to develop or commercialize Regeneron's products and product candidates; competing drugs and product candidates that may be superior to Regeneron's products and product candidates; uncertainty of market acceptance and commercial success of Regeneron's products and product candidates and the impact of studies (whether conducted by Regeneron or others and whether mandated or voluntary) on the commercial success of Regeneron's products and product candidates; the ability of Regeneron to manufacture and manage supply chains for multiple products and product candidates; the ability of Regeneron's collaborators, suppliers, or other third parties to perform filling, finishing, packaging, labeling, distribution, and other steps related to Regeneron's products and product candidates; the availability and extent of reimbursement of the Company's products from third-party payers, including private payer healthcare and insurance programs, health maintenance organizations, pharmacy benefit management companies, and government programs such as Medicare and Medicaid; coverage and reimbursement determinations by such payers and new policies and procedures adopted by such payers; unanticipated expenses; the costs of developing, producing, and selling products; the ability of Regeneron to meet any of its financial projections or guidance and changes to the assumptions underlying those projections or guidance; the potential for any license or collaboration agreement, including Regeneron's agreements with Sanofi, Bayer, and Teva Pharmaceutical Industries Ltd. (or their respective affiliated companies, as applicable), to be cancelled or terminated without any further product success; and risks associated with intellectual property of other parties and pending or future litigation relating thereto, including without limitation the patent litigation proceedings relating to EYLEA® (aflibercept) Injection, Dupixent® (dupilumab) Injection, and Praluent ® (alirocumab) Injection, the ultimate outcome of any such litigation proceedings, and the impact any of the foregoing may have on Regeneron's business, prospects, operating results, and financial condition. A more complete description of these and other material risks can be found in Regeneron's filings with the U.S. Securities and Exchange Commission, including its Form 10-Q for the quarterly period ended September 30, 2018. Any forward-looking statements are made based on management's current beliefs and judgment, and the reader is cautioned not to rely on any forward-looking statements made by Regeneron. Regeneron does not undertake any obligation to update publicly any forward-looking statement, including without limitation any financial projection or guidance, whether as a result of new information, future events, or otherwise.

Regeneron uses its media and investor relations website and social media outlets to publish important information about the Company, including information that may be deemed material to investors. Financial and other information about Regeneron is routinely posted and is accessible on

Regeneron's media and investor relations website (http://newsroom.regeneron.com) and its Twitter feed (http://twitter.com/regeneron).

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