PRESS RELEASE

Ipsen Presents Data on Somatuline® Depot at the North American Neuroendocrine Tumor Society (NANETS) Annual Symposium

– Studies Demonstrate Ipsen's Commitment to Ongoing Innovation and Improving Patient Care in the Neuroendocrine Tumor (NETs) Space –

Cambridge, Mass., October 5, 2018 – Ipsen Biopharmaceuticals, an affiliate of Ipsen (Euronext: IPN; ADR: IPSEY), today announced that seven studies have been selected for poster presentations at the annual symposium of the North American Neuroendocrine Tumor Society (NANETS) taking place in Seattle, Washington, Oct. 4-6, 2018.

One of the studies being presented, **Living with Neuroendocrine Tumors: Assessing Quality of Life (QoL) Through a Mobile Application**, reports results from a 12-week prospective, observational study describing Quality of Life (QoL) among 120 patients with neuroendocrine tumors (NET) in the United States on either Somatuline® Depot (lanreotide) or octreotide LAR. QoL data was collected through a patient-reported outcome measure (PROMIS-29)[1], symptom-tracking surveys and patient journaling through the innovative mobile app, Carcinoid Health Storylines™.

- Baseline assessment revealed patients reporting overall poor QoL (26.9%) with symptoms including clinically significant depression (17.7%), anxiety (24.2%) and dissatisfaction with social role (i.e. daily routine, 42.2%), but a high percentage of patients were hopeful and reported seeing their life as meaningful (72.3%) and reported QoL symptoms decreased significantly from initial to subsequent surveys
- Daily mobile app symptom tracking captured a wider variation of symptom severity in comparison to cross sectional patient reported outcome assessments. In most cases, averaged daily symptom severity resembles scaled symptom survey scores
- Tracking through the app captured reported symptoms with averages aligned with symptom surveys and the PROMIS-29 scores, and the study suggests the potential utility of apps for the reduction of symptoms due to the therapeutic effect of journaling

"Because many neuroendocrine tumors may grow slowly, and the manifestation of symptoms often leads to mis- or delayed-diagnosis, it is important to understand the long-term patient experience and treatment pathway to best serve patients," said **Francois Lafleur, Vice President Global Medical Affairs, North & South America, Ipsen**. "We've heard from the patient community about the need for more real-world, quality-of-life studies that inform a multidisciplinary treatment approach to NETs. At Ipsen, we remain dedicated to using new technologies and mobile applications in innovative study designs that contribute to the understanding of the patient journey."

Also being presented are results from **Lanreotide vs. Octreotide-LAR for Patients with Advanced Gastroenteropancreatic Neuroendocrine Tumors (GEP-NETs): An Observational Time and Motion Analysis,** an observational study evaluating the impact of drug delivery systems between Somatuline® Depot and octreotide-LAR. The study found that nurses were able to prepare and administer Somatuline® Depot in less than half the time (2.6 min; 95% CI: 2.1, 3.2) than octreotide-LAR (6.2 min; 95% CI: 4.4, 8.1; p=0.004). Results were based on reviewing observational time and motion (T&M) measures between the two treatment options, suggesting a reduction in nursing time to treat

1 The Patient-Reported Outcomes Measurement Information System® (PROMIS) is a flexible set of tools designed to measure self-reported physical, mental and social health and wellbeing. The PROMIS-29, is a generic health-related quality of life survey, assesses each of the 7 PROMIS domains with 4 questions. The questions are ranked on a 5-point Likert Scale. There is also one 11-point rating scale for pain intensity. http://www.healthmeasures.net/explore-measurement-systems/promis

adult patients with GEP-NETs with Somatuline® Depot than with octreotide-LAR. Nursing time in the study was defined as collective time for drug preparation and administration.

"For nurses and other healthcare practitioners administering Somatuline® Depot to patients, the value of innovation across the entire treatment landscape, including delivery systems, aids in our ability to provide the best care for patients" said **Pamela Ryan, RN, BSN from the Ochsner Medical Center in Louisiana and Primary Investigator.** "As an oncology nurse who administers cancer treatments to patients many times a day, efficient delivery systems allow me to save time and focus on patients and their needs."

In addition to these two presentations, Ipsen will share results from the following four studies:

- (Abstract #36) The Sequencing of Lanreotide (LAN) after Octreotide LAR (OCT) for the Treatment of (GEP-NETs)
- (Abstract #52) Lanreotide Depot/Autogel Before, During, and After Peptide Receptor Radionuclide Therapy in Advanced Neuroendocrine Tumors: Data from the PRELUDE Study
- (Abstract #93) Tumor Growth and Regression Rate Constants from the CLARINET Study as Surrogate Endpoints for Progression-Free Survival: A Novel Assessment Approach in Cancer Therapy
- (Abstract #94) Lanreotide for the Prolonged Control of Carcinoid Syndrome (CS) in Somatostatin Analog (SSA)-Naïve or -Experienced Patients
- (Abstract #95) Prospective Observational Study in Patients with Locally Advanced or Metastatic Gastroenteropancreatic Neuroendocrine Tumors Treated with Lanreotide Depot in a US Community Oncology Setting: Interim Analysis

About Neuroendocrine Tumors and Gastroenteropancreatic Neuroendocrine Tumors

A neuroendocrine tumor begins in the hormone-producing cells of the body's neuroendocrine system, which is made of cells that are a combination of hormone-producing endocrine cells and nerve cells. Neuroendocrine cells are found throughout the body in organs such as the lungs and gastrointestinal tract, including the stomach and intestines. NETs can produce hormones that can cause serious illness including symptoms of like hypoglycemia, hyperglycemia and diarrhea. Gastrointestinal and pancreatic neuroendocrine tumors, also known as gastroenteropancreatic neuroendocrine tumors (GEP-NETs), are a rare type of cancer, with an estimated 115,000 individuals currently living with neuroendocrine tumors in the U.S., and an estimated 12,000 people in the U.S. diagnosed with a neuroendocrine tumor each year.[1,2] The average time until a patient with GEP-NETs is accurately diagnosed is at least 5 years;[3] with more than 80% of patients seeing at least three doctors during their diagnosis.[4] Because of this, most patients are diagnosed while in the advanced stages of the disease, which often leads to a poor prognosis. Additionally, many of the symptoms of GEP-NETs are gastrointestinal in nature, thus they can be easily misdiagnosed as Crohn's disease or Irritable Bowel Syndrome (IBS).

About SOMATULINE® DEPOT

Somatuline® Depot (lanreotide) Injection 120 mg is indicated for the treatment of adult patients with unresectable, well- or moderately differentiated, locally advanced or metastatic gastroenteropancreatic neuroendocrine tumors (GEP-NETs) to improve progression-free survival. Somatuline® Depot is also indicated for the treatment of carcinoid syndrome; when used, it reduces the frequency of short-acting somatostatin analog rescue therapy.

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IMPORTANT SAFETY INFORMATION

Contraindications

- Somatuline® Depot is contraindicated in patients with hypersensitivity to lanreotide. Allergic reactions (including angioedema and anaphylaxis) have been reported following administration of lanreotide.

Warnings and Precautions

- **Cholelithiasis and Gallbladder Sludge**
  - Somatuline® Depot may reduce gallbladder motility and lead to gallstone formation.
  - Periodic monitoring may be needed.
- **Hypoglycemia or Hyperglycemia**
  - Pharmacological studies show that Somatuline® Depot, like somatostatin and other somatostatin analogs, inhibits the secretion of insulin and glucagon. Patients treated with Somatuline® Depot may experience hypoglycemia or hyperglycemia.
    - Blood glucose levels should be monitored when Somatuline® Depot treatment is initiated, or when the dose is altered, and antidiabetic treatment should be adjusted accordingly.
- **Cardiovascular Abnormalities**
  - Somatuline® Depot may decrease heart rate.
  - In patients in the GEP-NET pivotal trial, 23% of Somatuline® Depot-treated patients had a heart rate of less than 60 bpm compared to 16% of placebo-treated patients. The incidence of bradycardia was similar in the treatment groups. Initiate appropriate medical management in patients with symptomatic bradycardia.
  - In patients without underlying cardiac disease, Somatuline® Depot may lead to a decrease in heart rate without necessarily reaching the threshold of bradycardia. In patients suffering from cardiac disorders prior to treatment, sinus bradycardia may occur. Care should be taken when initiating treatment in patients with bradycardia.

Most Common Adverse Reactions

- **GEP-NETs:** Adverse reactions occurring in greater than 10% of patients who received Somatuline® Depot in the GEP-NET trial were abdominal pain (34%), musculoskeletal pain (19%), vomiting (19%), headache (16%), injection site reaction (15%), hyperglycemia (14%), hypertension (14%), and cholelithiasis (14%).
- **Carcinoid Syndrome:** Adverse reactions occurring in the carcinoid syndrome trial were generally similar to those in the GEP-NET trial. Adverse reactions occurring in greater than 5% of patients who received Somatuline® Depot in the carcinoid syndrome trial and occurring at least 5% greater than placebo were headache (12%), dizziness (7%) and muscle spasm (5%).

Drug Interactions: Somatuline® Depot may decrease the absorption of cyclosporine (dosage adjustment may be needed); increase the absorption of bromocriptine; and require dosage adjustment for bradycardia-inducing drugs (e.g., beta-blockers).

Special Populations

- Lactation: Advise women not to breastfeed during treatment and for 6 months after the last dose.

To report SUSPECTED ADVERSE REACTIONS, contact Ipsen Biopharmaceuticals, Inc. at +1- 855-463-5127 or FDA at +1-800-FDA-1088 or www.fda.gov/medwatch.

Please click here for the full Somatuline® Depot Prescribing Information including Patient Information.

About Ipsen in North America

Ipsen (Euronext: IPN; ADR: IPSEY) is a global, biopharmaceutical group focused on innovation and specialty care. The group develops and commercializes innovative medicines in three key therapeutic areas - Oncology, Neuroscience and Rare Diseases. At Ipsen, we focus our resources, investments and energy on discovering, developing and commercializing new therapeutic options to provide hope for

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patients whose lives are challenged by difficult-to-treat diseases. Ipsen's North American operations and headquarters are located in Cambridge, Massachusetts, where its fully integrated biopharmaceutical team across External Innovation and Partnering, Research & Development (R&D), Manufacturing and Commercial collaborate. Cambridge is home to Ipsen's third global hub, in addition to R&D centers in Paris-Saclay in France and Oxford in the United Kingdom. With additional offices in Basking Ridge, NJ, and Mississauga, Ontario, Ipsen employs approximately 600 people in North America. For more information on Ipsen in North America, please visit www.ipsenus.com or www.ipsen.ca.

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