

New England Journal of Medicine publishes Ipsen's Somatuline[®] CLARINET[®] Phase III results in patients with metastatic gastroenteropancreatic neuroendocrine tumors

- **Somatuline[®] prolongs progression free survival in the treatment of metastatic gastroenteropancreatic neuroendocrine tumors**
- **After 96 weeks of investigational treatment with Somatuline[®], the risk of disease progression or death was reduced by 53%**

Paris (France), 17 July 2014 – Ipsen (Euronext: IPN; ADR: IPSEY) today announced that the New England Journal of Medicine has published clinical trial results showing that Somatuline[®] Autogel[®] / Somatuline[®] Depot[®] (lanreotide) Injection 120 mg (referred to as Somatuline[®]) achieved statistically significant prolongation of progression free survival over placebo in patients with metastatic gastroenteropancreatic neuroendocrine tumors (GEP-NETs). CLARINET[®], an investigational phase III randomized, double-blind, placebo-controlled study of the antiproliferative effects of Somatuline[®] was conducted in 48 centers across 14 countries. The article titled “Lanreotide in Metastatic Enteropancreatic Neuroendocrine Tumors” is available online at NEJM.org and has been published in the July 17th edition (N. Engl. J. Med. 2014; 371: 224-233).

The data gathered from 204 GEP-NET patients over the 96-week study showed that placebo-treated patients had a median PFS of 18.0 months and 33.0% had not progressed or died at 96 weeks, whereas the median PFS for Somatuline[®] treated patients was not reached and 65.1% had not progressed or died at 96 weeks (stratified logrank test, $p < 0.001$). This represented a 53% reduction in risk of disease progression or death based on a hazard ratio of 0.47 (95% CI: 0.30–0.73). These statistically and clinically significant antiproliferative effects of Somatuline[®] were observed in a large population of patients with grade G1 or G2 (World Health Organization classification) GEP-NETs, and independent of hepatic tumor volume ($\leq 25\%$ or $> 25\%$). Quality of life measures were not different between the Somatuline[®] and placebo groups. Safety data generated from the study are consistent with the known safety profile of Somatuline[®].

“The CLARINET[®] data are compelling, since no similar GEP-NET progression free survival data exist for a somatostatin analog in such a large, multinational study population.” said **Pr Martyn Caplin, Professor of Gastroenterology & Gastrointestinal Neuroendocrinology, Royal Free Hospital (London, UK) and lead author and principal investigator of the CLARINET[®] study.**

“The peer-reviewed publication of CLARINET[®] results in the New England Journal of Medicine highlights the robust data that showed an antiproliferative effect of Somatuline[®] in the treatment of GEP-NETs.” said **Claude Bertrand, Executive Vice President R&D and Chief Scientific Officer.** *“Based on these significant results, Ipsen has initiated a worldwide registration program and on July 1st 2014, the submission of a Supplemental New Drug Application for Somatuline[®] for the treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs) to the U.S. FDA*

as well as Marketing Authorization variations in 25 countries of the European Union were announced.”

The data from CLARINET[®] is considered investigational, as Somatuline[®] is not indicated for anti-proliferative treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs) in any market. Somatuline[®] is approved for treatment of symptoms associated with neuroendocrine tumors, which can include the treatment of GEP-NET patients experiencing symptoms from carcinoid syndrome, in many markets where it is marketed as Somatuline[®] Autogel[®]. Somatuline[®] is not approved in the US to treat GEP-NETs or the symptoms thereof, where it is marketed as Somatuline[®] Depot[®] for acromegaly.

About CLARINET[®]

CLARINET[®] is a randomized, double-blind, placebo-Controlled study of Lanreotide Antiproliferative Response in patients with enteropancreatic Neuroendocrine Tumors (ClinicalTrials.gov NCT00353496). This 96-week multinational study was conducted in collaboration with UK & Ireland Neuroendocrine Tumour Society (UKI NETS) and the European Neuroendocrine Tumour Society (ENETS).

A total of 204 patients from 48 centers across 14 countries with well or moderately differentiated non-functioning enteropancreatic neuroendocrine tumors and a proliferation index (Ki67) of <10%, were randomized to treatment with Somatuline[®] Autogel[®] 120 mg (n=101) or placebo (n=103). At enrollment, primary tumor locations were pancreas (44%), midgut (36%), hindgut (7%) and unknown (13%). Most patients had stable disease (96%) and were treatment-naïve (84%). Thirty percent of patients had a Ki67 of 3%–≤10% (WHO grade 2) and 33% had an hepatic tumor load >25%.

The primary efficacy endpoint was time to either disease progression (centrally assessed using Response Evaluation Criteria In Solid Tumors, RECIST 1.0) or death. Two baseline computed tomography or magnetic resonance imaging scans were performed (the second one done 12 to 24 weeks after the first imaging test), followed by additional scans at 12- week intervals during the first year and 24-week intervals during the second year up to 96 weeks.

Safety data generated from the CLARINET[®] study were consistent with the known safety profile of Somatuline[®]. Similar proportions of each treatment group experienced adverse events (lanreotide, 88%; placebo, 90%). Most of these patients experienced mild (17% per group) or moderate events (lanreotide, 44%; placebo, 43%). One-half of the lanreotide group experienced treatment-related adverse events (vs. 28% with placebo), most commonly diarrhea (26% vs. 9%, respectively), followed by abdominal pain and cholelithiasis. Six patients experienced adverse events leading to withdrawal, three in each group, with only one considered by the investigator to be treatment-related in the Somatuline[®] group. Fifty-seven patients experienced 122 serious adverse events; eight were considered treatment-related (lanreotide, seven events; placebo, one event).

About gastroenteropancreatic neuroendocrine tumors

Gastroenteropancreatic neuroendocrine tumors (GEP-NETs) are serious rare types of cancer. They constitute a heterogeneous group of tumors most often arising from cells in the gastrointestinal tract or the pancreas; although rare, their incidence has been on the rise (4-6 fold increase in the last 30 years). They have the ability to secrete functional amines and peptides and based on the type and amount of these bioactive substances in circulation, they can or cannot result in an identifiable hormonal clinical syndrome. GEP-NETs can be clinically silent for long periods of time, delaying the diagnosis until late presentation with hormonal related symptoms or with symptoms related to tumor mass effect such as intestinal obstruction or abdominal pain.

About Somatuline[®]

The active substance in Somatuline[®] is lanreotide acetate, a somatostatin analog that inhibits the secretion of several endocrine, exocrine and paracrine functions. It has been shown to be effective in inhibiting the secretion of GH and certain hormones secreted by the digestive system. Somatuline[®] is marketed as

Somatuline[®] Depot[®] within the United States and as Somatuline[®] Autogel[®] in other countries where it has marketing authorization.

Somatuline[®] was initially developed and continues to be used for the treatment of acromegaly in many countries, including the United States, where it is indicated for the long-term treatment of patients with acromegaly who have had an inadequate response to or cannot be treated with surgery and/or radiotherapy. Somatuline[®] is not currently indicated as an antiproliferative agent for the treatment of GEP-NETs. Somatuline[®] is approved for the treatment of symptoms associated with neuroendocrine tumors in many markets, but is not approved within the United States for this indication.

Important Safety Information about Somatuline[®]

The most commonly reported adverse drug reactions following treatment with lanreotide are gastrointestinal disorders and cholelithiasis. In addition there have been reports of changes to glucose regulation, levels of liver enzymes, changes to heart rate, injection site and allergic reactions. The product information should be consulted for a complete list of undesirable effects, warnings and precautions and contraindications for use.

About Ipsen

Ipsen is a global specialty-driven pharmaceutical company with total sales exceeding €1.2 billion in 2013. Ipsen's ambition is to become a leader in specialty healthcare solutions for targeted debilitating diseases. Its development strategy is supported by 3 franchises: neurology, endocrinology and urology-oncology. Moreover, the Group has an active policy of partnerships. Ipsen's R&D is focused on its innovative and differentiated technological platforms, peptides and toxins. In 2013, R&D expenditure totaled close to €260 million, representing more than 21% of Group sales. Ipsen also has a significant presence in primary care. The Group has close to 4,600 employees worldwide. Ipsen's shares are traded on segment A of Euronext Paris (stock code: IPN, ISIN code: FR0010259150) and eligible to the "Service de Règlement Différé" ("SRD"). The Group is part of the SBF 120 index. Ipsen has implemented a Sponsored Level I American Depositary Receipt (ADR) program, which trade on the over-the-counter market in the United States under the symbol IPSEY. For more information on Ipsen, visit www.ipсен.com.

Forward Looking Statement

The forward-looking statements, objectives and targets contained herein are based on the Group's management strategy, current views and assumptions. Such statements involve known and unknown risks and uncertainties that may cause actual results, performance or events to differ materially from those anticipated herein. All of the above risks could affect the Group's future ability to achieve its financial targets, which were set assuming reasonable macroeconomic conditions based on the information available today.

Moreover, the targets described in this document were prepared without taking into account external growth assumptions and potential future acquisitions, which may alter these parameters. These objectives are based on data and assumptions regarded as reasonable by the Group. These targets depend on conditions or facts likely to happen in the future, and not exclusively on historical data. Actual results may depart significantly from these targets given the occurrence of certain risks and uncertainties, notably the fact that a promising product in early development phase or clinical trial may end up never being launched on the market or reaching its commercial targets, notably for regulatory or competition reasons. The Group must face or might face competition from Generics that might translate into a loss of market share.

Furthermore, the Research and Development process involves several stages each of which involves the substantial risk that the Group may fail to achieve its objectives and be forced to abandon its efforts with regards to a product in which it has invested significant sums. Therefore, the Group cannot be certain that favorable results obtained during pre-clinical trials will be confirmed subsequently during clinical trials, or

that the results of clinical trials will be sufficient to demonstrate the safe and effective nature of the product concerned. The Group also depends on third parties to develop and market some of its products which could potentially generate substantial royalties; these partners could behave in such ways which could cause damage to the Group's activities and financial results. The Group cannot be certain that its partners will fulfill their obligations. It might be unable to obtain any benefit from those agreements. A default by any of the Group's partners could generate lower revenues than expected. Such situations could have a negative impact on the Group's business, financial position or performance.

The Group expressly disclaims any obligation or undertaking to update or revise any forward looking statements, targets or estimates contained in this press release to reflect any change in events, conditions, assumptions or circumstances on which any such statements are based, unless so required by applicable law.

The Group's business is subject to the risk factors outlined in its registration documents filed with the French Autorité des Marchés Financiers.

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