



Press Release

## **Poxel Presents New Data on Imeglimin's Dual Mechanism of Action at the American Diabetes Association's 76<sup>th</sup> Scientific Sessions**

New data confirm Imeglimin insulin sensitivity improvement and detail its unique insulin secretion pathway

**Lyon, France, June 13, 2016** – POXEL SA (Euronext – POXEL - FR0012432516), a biopharmaceutical company focused on the development of innovative drugs to treat type 2 diabetes, today announced the presentation of novel data on its lead candidate Imeglimin. The results were discussed during two poster presentations at the American Diabetes Association's 76th Scientific Sessions in New Orleans, Louisiana. Both preclinical studies highlighted Imeglimin's novel and unique mechanism of action (MoA) and indicated the specific pathways through which Imeglimin improves insulin secretion and action. Imeglimin has completed Phase 2 development in over 850 patients in the US and EU and is currently being studied in a Phase 2b clinical trial program in Japan.

"Over the past year we have made significant progress in understanding how Imeglimin improves both insulin sensitivity and secretion, which are the two key defects that cause type 2 diabetes," commented Thomas Kuhn, CEO of Poxel. "The new discovery that Imeglimin increases the nicotinamide adenine dinucleotide (NAD) synthesis, a pivotal molecule to mitochondrial function, further elucidates Imeglimin's differentiated and unique MoA and emphasizes its potential to address the large inherent needs of the type 2 diabetes market."

"Poxel presented compelling data which strengthen the results of the Imeglimin 18-week Phase 2 clinical trial showing the dual MoA of this novel oral agent. Currently marketed therapies do not improve both insulin sensitivity and insulin secretion and Imeglimin's MoA clearly differentiates it from other agents. Imeglimin has the potential to offer patients an important new treatment option for type 2 diabetes," added Professor Harold Lebovitz, Professor of Medicine at the Division of Endocrinology and Metabolism/Diabetes at the State University of New York, Health Sciences Center at Brooklyn and member of Poxel's scientific advisory board.

The first preclinical study confirmed Imeglimin's beneficial effect on insulin sensitivity in a streptozotocin-induced (STZ) diabetic rat model. After both acute and chronic treatment, Imeglimin was observed to improve glucose tolerance and to improve overall insulin sensitivity during a euglycemic hyperinsulinemic clamp, with a significant effect on hepatic insulin sensitivity, confirming previous results observed in various preclinical models, as well as in type 2 diabetes patients.

In the second preclinical study, Imeglimin was observed for the first time to increase glucose stimulated insulin secretion through a unique MoA that targets NAD synthesis. The treatment of isolated islet cells from a diabetic rat model with Imeglimin was observed to lead to a significant increase in NAD content, a crucial component of mitochondrial function. Poxel has previously demonstrated that Imeglimin increases glucose stimulated insulin secretion *in vivo* and in type 2 diabetes patients. The new results highlighted at the ADA 76th Scientific Sessions provide additional insight into the underlying



mechanisms.

The posters presented at the ADA 76th Scientific Sessions are available on the Company's website under "Scientific Publications" or by using the links presented below.

- *Imeglimin Improves Insulin Sensitivity in an Adult STZ Rat Model*  
[http://poxel.com/pdf/2016-06-13\\_ADA%20Imeglimin%20Poster%20Insulin%20Sensitivity%20Final.pdf](http://poxel.com/pdf/2016-06-13_ADA%20Imeglimin%20Poster%20Insulin%20Sensitivity%20Final.pdf)
- *Imeglimin Increases Insulin Secretion in Response to Glucose as a Unique Mechanism of Action Depending on NAD Synthesis*  
[http://poxel.com/pdf/2016-06-13\\_ADA%20Imeglimin%20Poster%20GSIS%20Final.pdf](http://poxel.com/pdf/2016-06-13_ADA%20Imeglimin%20Poster%20GSIS%20Final.pdf)

### **About Imeglimin**

Imeglimin is the first in a new chemical class of oral anti-diabetic agents, the Glimins. Imeglimin acts on three main target organs involved in glucose homeostasis: the liver, muscle, and the pancreas. Imeglimin's unique mechanism of action targets the mitochondrial bioenergetics. This distinct mode of action compared to existing treatments for type 2 diabetes makes Imeglimin a prime candidate in monotherapy and to complement other treatments such as metformin or sitagliptin.

### **About Poxel**

Poxel uses its development expertise in metabolism to advance a pipeline of drug candidates focused on the treatment of type 2 diabetes. We have successfully completed our Phase 2 trials for our first-in-class lead product, Imeglimin, which targets mitochondrial dysfunction, in the U.S. and EU and have entered Phase 2b clinical development in Japanese patients. We are advancing our second program, PXL770, a direct AMPK activator, which is in Phase 1 development. We intend to generate further growth through strategic partnerships and pipeline development. (Euronext: POXEL, [www.poxel.com](http://www.poxel.com))

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