



MannKind Presents Two Posters At American Diabetes Association's Virtual 81st Scientific Sessions, June 25-29

June 25, 2021

- **Poster 923-P: Phase 2 clinical study results revealed similar tolerability and time-action profile of Technosphere® Insulin in pediatric subjects as in published data for adults; provides rationale for conducting a Phase 3 study**
- **Poster 722-P: Data shared that Technosphere Insulin improved daytime time-in-range in people with type 2 diabetes**

WESTLAKE VILLAGE, Calif., June 25, 2021 /PRNewswire/ -- **MannKind Corporation (Nasdaq: MNKD)**, which focuses on the development of innovative medicines for patients with endocrine and orphan lung diseases, will present two posters at the American Diabetes Association's virtual 81st Scientific Sessions, June 25-29. The submissions include 923-P in Pediatrics-Type 1 Diabetes, and 722-P in Clinical Therapeutics/New Technology-Insulins. MannKind is also hosting a booth in the virtual Exhibit Hall at the Scientific Sessions.



Poster 923-P

An insulin regimen that closely mimics physiologic insulin for pediatric patients with type 1 diabetes (T1D) remains a critical goal. Poster 923-P reports on a Phase 2 clinical study to characterize the pharmacokinetics (PK) and safety of prandial Afrezza® (Technosphere® Insulin or TI) in 30 children aged 8 to 17 years with T1D. Afrezza – an ultra rapid-acting dry-powder prandial insulin – is currently indicated to improve glycemic control in adults with T1D or type 2 (T2D) diabetes.

"The final results from the phase 2 pediatric study revealed that serum insulin concentrations peaked rapidly within 10-15 minutes of inhaled administration of TI, similar to the results observed previously in adults. In addition, there were no severe hypoglycemic events or clinically relevant declines in pulmonary function, and no new or unexpected signals with TI," said Dr. Kevin Kaiserman, Vice President, Medical Affairs and Safety of MannKind and the presenting author of the study. "The pharmacokinetics and safety results provide us the rationale to move forward with conducting a phase 3 safety and efficacy study in pediatric patients with diabetes, which we expect to initiate in the fall."

PK measurements were obtained in 30 patients with T1D (median age of 12.7 years). Patients met criteria of using insulin for at least one year, and were on a stable regimen of basal-bolus insulin therapy for six weeks or greater. Insulin PK and blood glucose were assessed following single doses of TI.

Poster 722-P

Poster 722-P presents a retrospective analysis of data from the [Levin](#) study, an investigator-initiated trial sponsored by MannKind, to determine the effect of prandial inhaled insulin on daytime glucose levels in people with uncontrolled type 2 diabetes. For purposes of the study, daytime was defined as 6:00 am to midnight.

- Twenty T2D patients who had never been on mealtime insulin before were started on TI and rapidly titrated during the first week and followed for 12 weeks.

- On average, patients showed an 83.5% increase in daytime time-in-range (70-180 mg/dL).
- The study concluded that TI reduced patients' daytime time spent in hyperglycemia (>250 mg/dl) by 76.4% (p=0.0002) and without a significant increase in daytime time spent in hypoglycemia (<54 mg/dl) (p=0.0938).

"Daytime time-in-range continues to be the most challenging aspect of living with diabetes," said Dr. Philip Levin. "The data demonstrated that adding mealtime insulin helped decrease time spent in hyperglycemia and improved glycemic control for patients with T2D."

About Afrezza®

Available by prescription, Afrezza® (insulin human) Inhalation Powder is an ultra rapid-acting inhaled insulin indicated to improve glycemic control in adult patients with diabetes mellitus. Afrezza consists of a dry powder formulation of human insulin delivered from a small and portable inhaler. Administered at the beginning of a meal, Afrezza dissolves rapidly upon inhalation to the lung and passes quickly into the bloodstream (in less than one minute). This rapid absorption allows Afrezza to begin reducing blood sugar levels within minutes of administration. Afrezza is available in 4-unit, 8-unit and 12-unit single-dose cartridges of insulin powder that can be used, as prescribed by a health care professional, in combination with other diabetes medications to achieve target blood sugar levels. For Afrezza doses exceeding 12 units, patients may use a combination of existing cartridge strengths. For more information about Afrezza, please visit afrezza.com.

About MannKind Corporation

MannKind Corporation (Nasdaq: MNKD) focuses on the development and commercialization of inhaled therapeutic products for patients with endocrine and orphan lung diseases. MannKind is currently commercializing Afrezza® (insulin human) Inhalation Powder, the Company's first FDA-approved product and the only inhaled ultra-rapid-acting mealtime insulin in the United States, where it is available by prescription from pharmacies nationwide. Afrezza is also available by prescription in Brazil, where it is commercialized by the Company's partner, Biomm SA. MannKind was established in 1991, and is headquartered in Westlake Village, Calif., with a manufacturing and R&D facility based in Danbury, Conn. The Company also employs field sales and medical representatives across the U.S. Please visit mannkindcorp.com to learn more.

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