

## CEO's corner

**Michael Castagna, PharmD**  
Chief Executive Officer



“ We had a solid fourth quarter with Afrezza® net revenue hitting a record \$11.3 million and we ended the year with over \$260 million in cash and investments on our balance sheet which allows us to invest behind our innovative product pipeline and Afrezza. We are also excited about the upcoming PDUFA date for Tyvaso DPI™ with our collaboration partner United Therapeutics. ”

## company news



### TYVASO DPI

The MannKind manufacturing facility in Danbury, Conn., remains busy producing pre-launch commercial supply of Tyvaso DPI in anticipation of a launch in summer 2022 or earlier. The PDUFA date for Tyvaso DPI was extended to May 2022. With approval from the U.S. Food and Drug Administration (FDA), Tyvaso DPI (trepostimil) would represent the first and only approved dry powder inhaled treatment for patients with pulmonary arterial hypertension (PAH) and pulmonary hypertension associated with interstitial lung disease (PH-ILD).



### PIPELINE

Phase 1 for Clofazimine (MNKD-101) is underway with Single Ascending Dose (SAD) and Multiple Ascending Dose (MAD) study dosing expected to be completed by 2Q 2022.

MannKind recently revealed that MNKD-201 is nintedanib and our efforts are progressing towards IND enabling studies. Nintedanib is currently available on the market as an oral medication and is a treatment option for idiopathic pulmonary fibrosis (IPF). There are more than 130,000 people in the U.S. – and 1.3M worldwide – diagnosed with IPF. In recent years, the predominant drivers of growth in the IPF market have included an increase in the aging population and rising prevalence of fibrotic diseases. The worldwide IPF market in 2021 was approximately \$4.3B and is projected to reach nearly \$6.2B by 2024.

Progress continues on MNKD-501 which is a potent, highly selective inhibitor the TGF-β receptor kinase: ALK-5, the driver of fibrotic signaling. MannKind recently extended its collaboration with Thirona Bio, Inc. with the purchase of a second convertible note issued by Thirona. Thirona has also appointed MannKind CEO Michael Castagna, PharmD, to its board of directors as of January 2022.



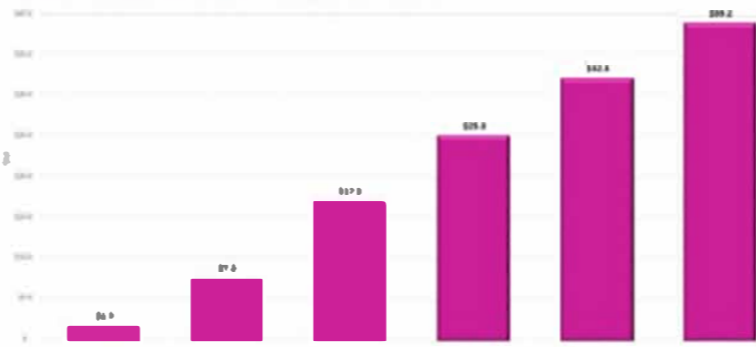
### AFREZZA

Afrezza continues to trend upwards year-over-year. Afrezza net revenue grew approximately 55% from 2019 to 2021, despite the impact of COVID during 2020-21.

MannKind is preparing to kick off the ABC (Afrezza with Basal Combination) study in 2Q 2022. The proof-of-concept study will examine findings amongst three groups – those currently using automated insulin delivery (AID) pumps who will add Afrezza to their regimen, those on AID pumps who will take a break from them to utilize Afrezza plus basal, and those who will continue on their current AID pump without introducing Afrezza. Data collected will be valuable intel to inform future evaluations.

Our Endocrine Business Unit is continuing the INHALE-1 study, evaluating Afrezza in pediatric patients. Read more later in the Newsletter (In The News section).

Afrezza Annual Net Revenue



## spotlight

In each issue of the quarterly MNKD Newsletter, we will look to Spotlight interesting and/or topical people and stories connected with MannKind. If there are story topics in the future of interest, please feel free to email [ir@mankindcorp.com](mailto:ir@mankindcorp.com). We hope you enjoy learning more about our ESG efforts:

## MannKind issues first annual ESG report

In January, MannKind issued its first annual Environmental, Social & Governance (ESG) report detailing efforts in 2021. Our focus on continuous improvement will be the north star of MannKind's approach to ESG moving forward. We are proud to have established high standards of governance, developed an award-winning corporate culture, and conducted business in a responsible manner that works to minimize environmental impact.



## in the news

## INHALE-1 study expands enrollment and recruitment



The multi-center INHALE-1 study continues to enroll patients as it's reach grows across the U.S. with 14 certified sites to date. Recruitment efforts are expanding through partnerships with Juvenile Diabetes Research Foundation (JDRF), as well as field outreach with presence at popular events such as "Friends For Life" hosted by Children With Diabetes in Orlando from July 5-10.

"We continue to establish sites and provide pathways for pediatric patients living with diabetes to consider taking part in our INHALE-1 study," said Dr. Kevin Kaiserman, Vice President, Medical Affairs & Safety, Endocrine Business Unit for MannKind. "We are pleased to sponsor this study to assess the safety and efficacy of Afrezza with the goal of bringing Afrezza to a younger generation."

## MannKind picks up two honors

MannKind wrapped up 2021 with two honors from Comparably – a leading workplace culture and corporate brand reputation platform with more than 15 million anonymous employee ratings on 70,000 companies. MannKind was named the top biopharmaceutical company for Best Company Culture 2021 (small & midsize companies), as well as Best CEO honors for Michael Castagna.



**\$260.7M** Cash as of December 31, 2021

**\$75.4M** 2021 total revenues

**16% ^** Increase in total revenue\*  
\*% comparison to 2Q 2020

[see 4Q & YE 2021 financial results](#) →

### stock performance\*

| Equity/Index               | Price: 12/31/19 | Price: 12/31/20 | Price: 12/31/21 |
|----------------------------|-----------------|-----------------|-----------------|
| <b>MNKD</b>                | \$1.29          | \$3.13          | \$4.48          |
| <b>R3000 P&amp;B Index</b> | \$3,052.90      | \$3,459.40      | \$3,851.50      |

| Equity/Index               | % Change (3 yr):<br>1/1/19-12/31/21 | % Change (2 yr):<br>1/1/20-12/31/21 | % Change (1 yr):<br>1/1/21-12/31/21 |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>MNKD</b>                | +312.3%                             | +238.8%                             | +39.6%                              |
| <b>R3000 P&amp;B Index</b> | +45.7%                              | +26.2%                              | +11.3%                              |

\* Stock price returns over the course of 2019-21 for both MannKind and the Russell 2000 Pharmaceuticals & Biotech Index provided via Bloomberg

## Events

- april 4-7** Lytham Partners Spring 2022 Investor Conference
- 1H may** MannKind 1Q 2022 Earnings
- 1H may** MNKD Annual Stockholders Meeting
- may 17-18** RBC Global Healthcare Conference
- may 23-25** H.C. Wainwright Global Investment Conference

## Connect with us.

Reach out anytime. We'd love to hear from you.

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