PolyPid Announces Publication of Preclinical Data Further Supporting the Good Safety Profile of D-PLEX and PLEX Technology Platform

Safety Profile of D-PLEX$_{100}$ and PLEX Platform Shown in Juvenile Animals for the First Time

Results Could Support Clinical Evaluation of D-PLEX$_{100}$ in Pediatric Population

PETACH TIKVA, Israel, Oct. 04, 2023 — PolyPid Ltd. (Nasdaq: PYPD) ("PolyPid" or the "Company"), a late-stage biopharma company aiming to improve surgical outcomes, today announced the publication of positive preclinical results demonstrating, for the first time, the safety profile of D-PLEX$_{100}$ and the PLEX technology platform in juvenile animals. These preclinical data were published in the peer-reviewed journal, *International Journal of Toxicology*, in a paper titled, "Preclinical In-Vivo Safety and Toxicokinetics of D-PLEX$_{100}$ in an Abdominal Surgery Incision Model in Juvenile Miniature Swine," which can be found here.

The safety and toxicokinetics of D-PLEX$_{100}$ were tested following its administration via an abdominal incision to juvenile swine. The animals were evaluated for a period of nine months and no treatment-related adverse events were observed during this period.

PolyPid's ongoing Phase 3 SHIELD II trial of D-PLEX$_{100}$ for the prevention of surgical site infections (SSIs) is currently recruiting patients undergoing open abdominal colorectal surgery with large incisions. Top-line results are expected in mid-2024.

About D-PLEX$_{100}$

D-PLEX$_{100,}$ PolyPid's lead product candidate, is designed to provide local prolonged and controlled anti-bacterial activity directly at the surgical site to prevent SSIs. Following the administration of D-PLEX$_{100}$ into the surgical site, the PLEX (Polymer-Lipid Encapsulation matriX) technology pairs with Active Pharmaceutical Ingredients, enabling a prolonged and continuous release of the broad-spectrum antibiotic doxycycline, resulting in a high local concentration of the drug for a period of 30 days for the prevention of SSIs, with additional potential to prevent SSIs caused by antibiotic-resistant bacteria at the surgical site. D-PLEX$_{100}$ received Breakthrough Therapy Designation from the U.S. Food and Drug Administration for the prevention of SSIs in patients undergoing elective colorectal surgery. D-PLEX$_{100}$ is currently in Phase 3 SHIELD II trial for the prevention of surgical site infections in patients undergoing open abdominal colorectal surgery with large incisions.

About PolyPid

PolyPid Ltd. (Nasdaq: PYPD) is a late-stage biopharma company aiming to improve surgical outcomes. Through locally administered, controlled, prolonged-release therapeutics, PolyPid's

proprietary PLEX (Polymer-Lipid Encapsulation matriX) technology pairs with Active Pharmaceutical Ingredients (APIs), enabling precise delivery of drugs at optimal release rates over durations ranging from several days to months. PolyPid's lead product candidate D-PLEX$_{100}$ is in Phase 3 clinical trial for the prevention of abdominal colorectal surgical site infections. In addition, the Company is currently in preclinical stages to test the efficacy of OncoPLEX for the treatment of solid tumors, beginning with glioblastoma.

For additional Company information, please visit http://www.polypid.com and follow us on Twitter and LinkedIn.

Forward-looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, the Company is using forward-looking statements when it discusses the safety profile of D-PLEX$_{100}$, that the positive results demonstrating, for the first time, that the safety profile of D-PLEX$_{100}$ and the PLEX technology platform in juvenile animals could support further clinical evaluation of D-PLEX$_{100}$ in a pediatric population and the timing of the expected top-line results from ongoing Phase 3 SHIELD II trial. Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain. Such expectations, beliefs and projections are expressed in good faith. However, there can be no assurance that management's expectations, beliefs and projections will be achieved, and actual results may differ materially from what is expressed in or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission ("SEC"), including, but not limited to, the risks detailed in the Company's Annual Report on Form 20-F filed on March 31, 2023. Forward-looking statements speak only as of the date the statements are made. The Company assumes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws. If the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements.

References and links to websites have been provided as a convenience, and the information contained on such websites is not incorporated by reference into this press release. PolyPid is not responsible for the contents of third-party websites.

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