PolyPid Announces Cost Reduction Plan

Reduction of Approximately 20% in Organization Headcount

Company Expects to Extend Cash Runway into Q3 2023

PolyPid Intends to Discuss Regulatory Pathway for D-PLEX$_{100}$ for Prevention of Surgical Site Infections in Abdominal Surgery with U.S. and EU Regulatory Authorities in Q1 2023

PETACH TIKVA, Israel, Oct. 20, 2022 — PolyPid Ltd. (Nasdaq: PYPD) ("PolyPid" or the "Company"), a late-stage biopharma company aiming to improve surgical outcomes, today announced a cost reduction plan, including a 20% reduction in headcount across all departments as the Company prepares for planned discussions in the first quarter of 2023 with the U.S. Food and Drug Administration (FDA) and EU regulatory authorities regarding the regulatory pathway for D-PLEX$_{100}$ for the prevention of surgical site infections (SSIs) in abdominal surgery. PolyPid expects that these actions will extend the Company's cash runway into the third quarter of 2023.

"As we prepare for our planned discussions with the FDA and EU regulatory authorities, we are taking these decisive actions in order to further enhance PolyPid's long-term growth strategy," said Dikla Czaczkes Akselbrad, PolyPid's Chief Executive Officer. "Based on the collective data generated to date, we remain confident in the potential of D-PLEX$_{100}$ to prevent SSIs in abdominal surgery, and we look forward to discussing the ongoing late-stage clinical program for our lead product candidate with U.S. and EU regulatory authorities in the first quarter of next year."

"We were pleased to recently receive confirmation from the European Medicines Agency that D-PLEX$_{100}$ is eligible for submission of a Marketing Authorization Application in the EU under the Agency's centralized procedure, which we view as reflective of the potential innovation behind our lead product candidate," continued Ms. Czaczkes Akselbrad.

PolyPid will provide further details on its regulatory plans and cash position on its third quarter 2022 financial results and corporate update call on November 9, 2022.

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 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. FDA for the prevention of SSIs in patients undergoing elective colorectal surgery. D-PLEX$_{100}$ also received three Qualified Infectious Disease Product (QIDP) designations, and three Fast Track designations for the prevention of SSIs in patients undergoing elective colorectal surgery, post-abdominal surgery incisional infection and for the prevention of sternal wound infection post-cardiac surgery.

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 trials for the prevention of soft tissue abdominal surgical site infections. In addition, the Company is currently in preclinical stages to test the efficacy of OncoPLEX for 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 its ongoing clinical trials, its expectation to extend the Company's cash runway into the third quarter of 2023, its intention to discuss the regulatory pathway for D-PLEX$_{100}$ for prevention of SSIs in abdominal surgery with U.S. and EU regulatory authorities in the first quarter of 2023, the potential of D-PLEX$_{100}$, the Company's lead product candidate, to prevent SSIs in abdominal surgery and the potential innovation behind its lead product candidate. 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 February 28, 2022. 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.

Contacts:
PolyPid Ltd.
Ori Warshavsky
COO – US
908-858-5995
IR@Polypid.com

Investors:
Bob Yedid
LifeSci Advisors
646-597-6989
Bob@LifeSciAdvisors.com