

PolyPid Announces New Publication Highlighting Potent Antibacterial Activity of D-PLEX against Susceptible and Resistant Bacteria for the Prevention of Surgical Site Infections

Potent Antibacterial Efficacy of D-PLEX₁₀₀ in In-vivo and Phase 2 Clinical Studies against a Wide Range of Bacteria Tested, including Resistant Strains

D-PLEX₁₀₀ Antibacterial Activity Attributed to its Ability to Support High and Prolonged Local Antibiotic Concentration Directly at the Surgical Site

PETACH TIKVA, Israel, June 29, 2023 — PolyPid Ltd. (Nasdaq: PYPD) (“PolyPid” or the “Company”), a late-stage biopharma company aiming to improve surgical outcomes, today announced a new publication highlighting the potent antibacterial activity of D-PLEX₁₀₀ and its potential as an effective prophylactic drug against the most prevalent bacteria causing surgical site infections (SSIs), including resistant strains. The paper, entitled, “Potent antibacterial activity in surgical wounds with local administration of D-PLEX₁₀₀” was recently published in the *European Journal of Pharmaceutical Sciences* and can be found [here](#).

“This publication highlights the tremendous potential of D-PLEX₁₀₀ in addressing the persistent challenge of surgical site infections, especially in an era of increased multidrug-resistant bacteria” stated Dikla Czaczkes Akselbrad, PolyPid’s Chief Executive Officer. “The data showed the significant antibacterial activity of D-PLEX₁₀₀ in pre-clinical and phase 2 clinical studies against a wide range of bacteria tested, including resistant ones. D-PLEX₁₀₀’s high anti-bacterial efficacy is attributed to its ability to support high local doxycycline concentration over a prolonged period in the surgical site and confirm its prophylactic potential against a wide range of antibiotic resistant bacteria, addressing a critical need in hospital care.”

The efficacy and safety of D-PLEX₁₀₀ for the prevention of abdominal colorectal SSIs are currently being further evaluated in the SHIELD II Phase 3 clinical trial. Top-line results are expected in mid-2024.

About D-PLEX₁₀₀

D-PLEX₁₀₀, 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-PLEX₁₀₀ 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-PLEX₁₀₀

received Breakthrough Therapy Designation from the U.S. FDA for the prevention of SSIs in patients undergoing elective colorectal surgery. D-PLEX₁₀₀ 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-PLEX₁₀₀ 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 potential benefits, efficacy and advantages of D-PLEX₁₀₀, its potential as an effective prophylactic drug against the most prevalent bacteria causing SSIs, including resistant strains, and the timing of the top-line results from the SHIELD II Phase 3 clinical 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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