PolyPid Announces Private Placement for Up to $14 Million in Gross Proceeds

Funding Extends Company's Cash Runway into Second Quarter 2025, which is beyond the Anticipated Timing for SHIELD II Top-line Results if Warrants are Fully Exercised

More than 300 Patients Enrolled in Ongoing SHIELD II Phase 3 Trial of D-PLEX$_{100}$ for the Prevention of Abdominal Colorectal Surgical Site Infections

Unblinded Interim Analysis to be Conducted Once Approximately 400 Patients Complete Their 30-Day Follow-up Expected in Fourth Quarter of 2024; Top-Line Results Anticipated in First Quarter of 2025

PETACH TIKVA, Israel, Aug. 02, 2024 — PolyPid Ltd. (Nasdaq: PYPD) ("PolyPid" or the "Company"), a late-stage biopharma company aiming to improve surgical outcomes, today announced that it has entered into a securities purchase agreement for a private placement financing (the "PIPE") for $8.1 million in gross proceeds priced at $3.61 per share. The PIPE syndicate is comprised of both new and existing investors.

Under the securities purchase agreement, the investors have agreed to purchase 2,235,457 of the Company's ordinary shares, no par value per share (the "Ordinary Shares"), or pre-funded warrants in lieu thereof, at a purchase price of $3.61 per share (or pre-funded warrant). The investors will also receive 75% warrant coverage, to purchase up to 1,676,588 Ordinary Shares at an exercise price of $3.61 per share. The warrants expire upon the earlier of two years from the date of issuance and 10 trading days following PolyPid's announcement of the recommendation by Data Safety Monitoring Board regarding the Company's unblinded interim analysis in its SHIELD II Phase 3 trial of D-PLEX$_{100}$ resulting in either the stopping of the trial due to positive efficacy, or continuation to planned patient recruitment (up to 630 subjects). Exercise of the warrants in full would result in an additional $6.1 million in gross proceeds to the Company.

The PIPE is expected to close on August 6, 2024, subject to the satisfaction of customary closing conditions. The Company intends to use the net proceeds from the sale of the securities for its ongoing SHIELD II phase 3 clinical trial for the prevention of surgical site infections in patients undergoing abdominal colorectal surgery, working capital and general corporate purposes. The gross proceeds from the financing extend the Company's cash runway into first quarter of 2025, beyond expected completion of enrollment in SHIELD II. If all warrants issued in this financing are exercised, the Company would be funded beyond top-line results and into the second quarter of 2025.

To date, more than 300 patients have been enrolled in the ongoing SHIELD II Phase 3 trial. Unblinded interim analysis is planned to be conducted once approximately 400 patients

complete their 30-day follow-up, which is expected to occur in the fourth quarter of 2024.

Citizens JMP is acting as exclusive placement agent in the offering.

The offer and sale of the foregoing securities are being made in a transaction not involving a public offering and the securities have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or applicable state securities laws. Accordingly, the securities may not be reoffered or resold in the United States except pursuant to an effective registration statement or an applicable exemption from the registration requirements of the Securities Act and such applicable state securities laws. Pursuant to a registration rights agreement with the PIPE investors, the Company has agreed to file within 30 calendar days of closing one or more registration statements with the Securities and Exchange Commission (the "SEC") covering the resale of the Ordinary Shares and Ordinary Shares issuable upon exercise of the warrants and pre-funded warrants.

This press release does not constitute an offer to sell or the solicitation of an offer to buy the securities, nor shall there be any sale of the securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state or jurisdiction.

In addition, PolyPid announced that it has restructured its existing secured loan agreement with Kreos Capital VI (Expert Fund) LP with over $2 million of deferred repayments, which will be paid from April 2025 onwards, in line with the expected timing for the top-line results from the Company's ongoing SHIELD II Phase 3 trial.

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 surgical site infections (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 gross proceeds received from the PIPE, intended use of proceeds from the PIPE, the anticipated closing date for the PIPE, the anticipated gross proceeds from the exercise of warrants issued in the PIPE if such warrants are exercised in full, the unblinded interim analysis is planned to be conducted once approximately 400 patients complete their 30-day follow-up, which is expected to occur in the fourth quarter of 2024, the gross proceeds from the financing extend the Company's cash runway into first quarter of 2025, which is beyond expected completion of enrollment in SHIELD II, and that if all warrants issued in this financing are exercised, the Company would be funded beyond top-line results and into the second quarter of 2025, and that the restructured secured loan agreement with over $2 million of deferred repayments, which will be paid from April 2025 onwards, is in line with the expected timing for the top-line results from the Company's ongoing SHIELD II Phase 3 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 SEC, including, but not limited to, the risks detailed in the Company's Annual Report on Form 20-F filed on March 6, 2024. 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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