PolyPid Announces Publication of Animal Model Studies in 2022 ASCO Annual Meeting Abstract Demonstrating that Locally Administered OncoPLEX Potentially Decreases the Likelihood of Tumor Recurrence with Reduced Side Effects

- *Locally Administered Docetaxel Through Extended-Release Delivery via the Company's PLEX Technology Offers Potentially Enhanced Adjuvant Chemotherapy Option*

PETACH TIKVA, Israel, June 01, 2022 — PolyPid Ltd. (Nasdaq: PYPD) ("PolyPid" or the "Company"), a late-stage biopharma company aiming to improve surgical outcomes, today announced that animal studies related to OncoPLEX, the Company's lead intra-tumoral product candidate in oncology applied as a paste to the resection bed during surgery, have been published in an abstract in the American Society of Clinical Oncology (ASCO) 2022 Annual Meeting Abstract Book. The abstract, *reduction in local tumor recurrence in a murine R2 resection model comparing locally administered docetaxel-releasing product, OncoPLEX, versus systemic docetaxel*, demonstrated that locally administered OncoPLEX potentially decreases the likelihood of tumor recurrence, with reduced side effects, compared to systemically administered chemotherapy agents.

"We are pleased with the compelling results of these preclinical studies of OncoPLEX," said Dr. Noam Emanuel, PolyPid's Chief Scientific Officer and first author of the studies. "Despite advances in oncological surgery techniques and neoadjuvant and adjuvant treatments, local recurrence in many solid tumor malignancies still presents a challenge to the long-term survival of oncology patients. Addition of controlled local treatment to the current standard of care systemic chemotherapy could potentially lead to improved patient outcomes for certain devastating cancers, such as Glioblastoma Multiform (GBM). We look forward to advancing OncoPLEX into the clinic, with the objective of initiating a Phase 1/2 study."

OncoPLEX utilizes PolyPid's novel PLEX technology to provide extended release, controlled local exposure to docetaxel, one of the most widely used chemotherapy agents, to potentially reduce local tumor recurrence and prolong patient survival.

The studies consisted of two tests-one on CT26 (murine colorectal carcinoma-found to be resistant to docetaxel) and one on U-87 (human primary glioblastoma). In both animal model studies, OncoPLEX was applied once on the tumor bed post-tumor-resection. The control groups were treated with placebo or IV docetaxel in CT26 study and placebo or IP gemcitabine in U87 study every four days, for a total of five injections. Animals were monitored for tumor regrowth. At the completion of the 37-day CT26 study, there were more tumor-free animals in the OncoPLEX group (75%) compared to the control group that was treated with IV docetaxel (25%). The U-87 study showed similar results, with a larger group of tumor-free animals treated with OncoPLEX (80%) than the IP gemcitabine treated control group (30%).

ASCO’s annual meeting is taking place in Chicago, IL, from June 3 – 7, 2022.

About OncoPLEX

OncoPLEX is PolyPid’s lead intra-tumoral product candidate in oncology. OncoPLEX utilizes the Company’s novel PLEX technology to provide prolonged and controlled local exposure to docetaxel, one of the most widely used chemotherapy agents, directly at the tumor site for few weeks to potentially reduce local tumor reoccurrence, the potential spreading of cancer cells, and ultimately improve the overall survival rate of cancer patients. Local delivery of drugs directly into the tumor site, especially in difficult to access tumors such as in the brain, may significantly improve the clinical outcome. The OncoPLEX intra-tumoral cancer therapy program has been evaluated successfully in various animal tumor models, including colon carcinoma and glioblastoma.

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, 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 and sternal bone 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 and continued pre-clinical trial assessment of OncoPLEX, that locally administered OncoPLEX potentially decreases the likelihood of tumor recurrence with reduced side effects, that locally administered docetaxel through extended-release delivery via the PLEX technology offers a potentially enhanced adjuvant chemotherapy option, that addition of controlled local treatment to the current standard of care systemic chemotherapy could potentially lead to improved patient outcomes for certain devastating cancers, such as Glioblastoma Multiform (GBM), that OncoPLEX potentially reduces local tumor recurrence and prolongs patient survival and its objective of initiating a Phase 1/2 study. 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.

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