UroGen Pharma Receives U.S. FDA Expedited Approval for Jelmyto™, the First and Only Non-Surgical Treatment for Patients with Low-Grade Upper Tract Urothelial Cancer

April 15, 2020

- *Approval Based on Phase 3 Trial Results Showing a Complete Response Rate of 58%*
- *Median Duration of Response Has Not Been Reached*
- *Therapy Provides an Effective, Kidney-Sparing Option for Patients With This Rare and Difficult-To-Treat Cancer*
- *First-in-Class Approval Validates UroGen's Innovative Technology and Future Opportunity Across its Specialty Cancers and Urologic Diseases Portfolio*
- *Company to Host Conference Call on Thursday, April 16 at 8:30 AM Eastern Time*

PRINCETON, N.J.--(BUSINESS WIRE)--Apr. 15, 2020-- UroGen Pharma Ltd. (Nasdaq: URGN) today announced the U.S. Food and Drug Administration (FDA) granted expedited approval for Jelmyto™(mitomycin) for pyelocalyceal solution, a first-in-class treatment indicated for adults with low-grade upper tract urothelial cancer (LG UTUC). This landmark approval is based on positive results from the Phase 3 OLYMPUS trial that showed Jelmyto provides an effective, kidney-sparing option for patients with this rare and difficult-to-treat cancer.

Jelmyto consists of mitomycin, an established chemotherapy, and sterile hydrogel, using UroGen's proprietary sustained release RTGel™ technology. It has been designed to enable longer exposure of urinary tract tissue to mitomycin, thereby enabling the treatment of tumors by non-surgical means.

"UroGen was founded on the vision to improve lives by challenging the current standard of care. Jelmyto, which leverages our innovative technology and expertise in specialty cancers and urologic diseases, is just the beginning as we build a company focused on bringing novel solutions to patients," said Liz Barrett, President and Chief Executive Officer, UroGen. "We thank the patients and researchers involved in our OLYMPUS trial for helping us advance a transformative treatment in a disease space that has been historically ignored. We are tremendously proud to have pioneered this first-in-class therapy that improves patient care in a difficult-to-treat cancer."

LG UTUC is a rare cancer that develops in the lining of the upper urinary tract, ureters and kidneys. In the U.S., there are approximately 6,000 - 7,000 new or recurrent LG UTUC patients annually. It is a challenging condition to treat due to the complex anatomy of the urinary tract system. The current standard of care includes multiple surgeries and most patients require a radical nephroureterectomy, which includes the removal of the renal pelvis, kidney, ureter and bladder cuff.[1] Treatment is further complicated by the fact that LG UTUC is most commonly diagnosed in patients over 70 years of age, who may already have compromised kidney functionality and may suffer further complications as a result of major surgery.

"Jelmyto offers a new, non-surgical treatment approach for patients who otherwise may require treatment by radical nephroureterectomy, which is associated with declining kidney function and other complications," said Dr. Seth Lerner, M.D., FACS, Professor of Urology at Baylor College of Medicine in Houston, TX and Principal Investigator of the OLYMPUS trial. "This novel, minimally invasive, kidney-sparing treatment has the potential to transform the way low-grade upper tract urothelial cancer is treated and help patients avoid long-term complications associated with surgery and the loss of their kidney."

The FDA approval is based on results from the Phase 3 OLYMPUS trial showing Jelmyto achieved clinically significant disease eradication in adults with LG UTUC. Findings include:

- Complete response (CR) (primary endpoint) of 58% in the intent-to-treat population and in the sub-population of patients who were deemed not capable of surgical removal at diagnosis.
- At the 12-month time point for assessment of durability, 19 patients remained in CR, seven had experienced recurrence of disease and nine patients continued to be followed for the 12-month duration of response.
- Kaplan-Meier analysis estimated 12-month durability at 84%[2] (based on interim data).
- The most commonly reported adverse events (≥ 20%) were ureteric obstruction, flank pain, urinary tract infection, hematuria, renal dysfunction, fatigue, nausea, abdominal pain, dysuria, and vomiting. Most adverse events were mild to moderate and manageable using well established treatments. No treatment-related deaths occurred.

"There has been little progress for decades in the treatment of low-grade upper tract urothelial cancer, and this new option is paradigm-shifting for patients who often face recurrence and major surgery to remove their kidney," said Andrea Maddox-Smith, Chief Executive Officer, Bladder Cancer Advocacy Network. "We applaud the FDA approval and the impact it will have for this community of elderly patients, many of whom struggle with comorbidities and have been hoping for a surgery-free treatment option."

UroGen is committed to helping patients access Jelmyto. UroGen Support may help identify appropriate financial assistance programs for patients with commercial, Medicare or Medicaid coverage, as well as those with no insurance coverage. These programs are for eligible patients who have been prescribed Jelmyto and who need help managing the cost of treatment. The appropriate program will depend on the patient's coverage. Visit http://www.Jelmyto.com or contact UroGen Support at 855-JELMYTO for additional information.

The FDA evaluated Jelmyto under Priority Review, which is reserved for medicines that may represent significant improvements in safety or efficacy in treating serious conditions. Jelmyto was also granted Breakthrough Therapy designation by the FDA, which was created to expedite the development and review of drugs developed for serious or life-threatening conditions with high unmet need.

Conference Call & Webcast Information

Members of UroGen's management team will host a live conference call and webcast on April 16 at 8:30 AM Eastern Time to review Jelmyto™

(mitomycin) for pyelocalyceal solution approval details and commercialization plans. The live webcast can be accessed by visiting the Investors section of the Company's website at http://investors.urogen.com. Please connect at least 15 minutes prior to the live webcast to ensure adequate time for any software download that may be needed to access the webcast. Alternatively, please call (855) 765-5685 (U.S.) or (615) 247-5916 (International) to listen to the live conference call. The conference ID number for the live call is 7864846. An archive of the webcast will be available for two weeks on the Company's website.

About the Phase 3 OLYMPUS Trial

OLYMPUS (Optimized DeLivery of Mitomycin for Primary UTUC Study) is an open-label, single-arm Phase 3 clinical trial of Jelmyto™ (mitomycin) for pyelocalyceal solution to evaluate the safety, tolerability and tumor ablative effect of Jelmyto in patients with low-grade upper tract urothelial cancer (UTUC). The trial enrolled 74 patients at clinical sites across the U.S. and Israel. Study participants were treated with six weekly instillations of Jelmyto administered via a standard catheter. Four to six weeks following the last instillation, patients underwent a Primary Disease Evaluation (PDE) to determine complete response (CR), the primary endpoint of the study. PDE involved a ureteroscopy and wash cytology, a standard microscopic test of cells obtained from the urine to detect cancer. Patients who achieved a CR at the PDE timepoint were then followed for up to 12 months to determine the durability of response with Jelmyto.

About Jelmyto™ (mitomycin) for pyelocalyceal solution

Jelmyto™ (mitomycin) for pyelocalyceal solution is a drug formulation of mitomycin for the treatment of low-grade upper tract urothelial cancer (LG UTUC). Utilizing the RTGel™ technology platform, UroGen's proprietary sustained release, hydrogel-based formulation, Jelmyto is designed to enable longer exposure of urinary tract tissue to mitomycin, thereby enabling the treatment of tumors by non-surgical means. Jelmyto is delivered to patients using standard ureteral catheters. The U.S. Food and Drug Administration granted Orphan Drug, Fast Track, and Breakthrough Therapy Designations to Jelmyto for the treatment of LG UTUC. Jelmyto is the first drug approved for the treatment of LG UTUC.

IMPORTANT SAFETY INFORMATION

You should not receive JELMYTO if you have a hole or tear (perforation) of your bladder or upper urinary tract.

Before receiving JELMYTO, tell your healthcare provider about all your medical conditions, including if you:

- are pregnant or plan to become pregnant. JELMYTO can harm your unborn baby. You should not become pregnant during treatment with JELMYTO. Tell your healthcare provider right away if you become pregnant or think you may be pregnant during treatment with JELMYTO.
  Females who are able to become pregnant: You should use effective birth control (contraception) during treatment with JELMYTO and for 6 months after the last dose.
  Males being treated with JELMYTO: If you have a female partner who is able to become pregnant, you should use effective birth control (contraception) during treatment with JELMYTO and for 3 months after the last dose.
- are breastfeeding or plan to breastfeed. It is not known if JELMYTO passes into your breast milk. Do not breastfeed during treatment with JELMYTO and for 1 week after the last dose.
- **Tell your healthcare provider if you take water pills (diuretic).**

How will I receive JELMYTO?

- Your healthcare provider will tell you to take a medicine called sodium bicarbonate before each JELMYTO treatment.
- You will receive your JELMYTO dose from your healthcare provider 1 time a week for 6 weeks. It is important that you receive all 6 doses of JELMYTO according to your healthcare provider's instructions. If you miss any appointments, call your healthcare provider as soon as possible to reschedule your appointment. Your healthcare provider may recommend up to an additional 11 monthly doses.
- JELMYTO is given to your kidney through a tube called a catheter.
- During treatment with JELMYTO, your healthcare provider may tell you to take additional medicines or change how you take your current medicines.

After receiving JELMYTO:

- JELMYTO may cause your urine color to change to a violet to blue color. Avoid contact between your skin and urine for at least 6 hours.
- To urinate, **males and females should sit** on a toilet and flush the toilet several times after you use it. After going to the bathroom, wash your hands, your inner thighs, and genital area well with soap and water.
- Clothing that comes in contact with urine should be washed right away and washed separately from other clothing.

JELMYTO may cause serious side effects, including:

- **Swelling and narrowing of the tube that carries urine from the kidney to the bladder (ureteric obstruction).** If you develop swelling and narrowing, and to protect your kidney from damage, your healthcare provider may recommend the placement of a small plastic tube (stent) in the ureter to help the kidney drain. Tell your healthcare provider right away if you develop side pain or fever during treatment with JELMYTO.
- **Bone marrow problems.** JELMYTO can affect your bone marrow and can cause a decrease in your white blood cell, red blood cell, and platelet counts. Your healthcare provider will do blood tests prior to each treatment to check your blood cell counts during treatment with JELMYTO. Your healthcare provider may need to temporarily or permanently stop JELMYTO if you develop bone marrow problems during treatment with JELMYTO.

The most common side effects of JELMYTO include: side pain, urinary tract infection, blood in your urine, kidney problems, tiredness, nausea, stomach pain, trouble with urination, vomiting, low red blood cell count, frequent urination, itching, chills, and fever.

Please see JELMYTO Full Prescribing Information, including the Patient Information, for additional information.

About Upper Tract Urothelial Cancer (UTUC)

Urothelial cancer is the ninth most common cancer globally and the eighth most lethal neoplasm in men in the U.S. Between five percent and 10 percent of primary urothelial cancers originate in the ureter or renal pelvis and are collectively referred to as upper tract urothelial cancers (UTUC). In the U.S., there are approximately 6,000 - 7,000 new or recurrent low-grade UTUC patients annually. Most cases are diagnosed in patients over 70 years old, and these older patients often face comorbidities. There are limited treatment options for UTUC, with the most common being endoscopic surgery or nephroureterectomy (removal of the entire kidney and ureter). These treatments can lead to a high rate of recurrence and relapse.

About UroGen Pharma Ltd.

UroGen is a biopharmaceutical company dedicated to building novel solutions that treat specialty cancers and urologic diseases because patients deserve better options. UroGen has developed RTGel™ reverse-thermal hydrogel, a proprietary sustained release, hydrogel-based platform technology that has the potential to improve therapeutic profiles of existing drugs. UroGen's sustained release technology is designed to enable longer exposure of the urinary tract tissue to medications, making local therapy a potentially more effective treatment option. UroGen's approved Jelmyto™ (mitomycin) for pyelocalyceal solution, and pipeline treatment UGN-102 (mitomycin) for intravesical solution are designed to ablate tumors by non-surgical means and to treat several forms of non-muscle invasive urothelial cancer, including low-grade upper tract urothelial cancer and low-grade non-muscle invasive bladder cancer, respectively. UroGen is headquartered in Princeton, NJ with operations in Israel. Visit www.urogen.com to learn more or follow us on Twitter, @UroGenPharma.

COVID-19 Pandemic Potential Impact

UroGen continues to gather information in this very fluid and rapidly-evolving environment regarding the potential impact of the COVID-19 pandemic on our Company, however, we are not currently able to quantify or predict with any certainty the overall scope of impact on UroGen, or any resulting delays in the availability of Jelmyto™ (mitomycin) for pyelocalyceal solution. Our primary focus is on the health and well-being of patients, caregivers, and UroGen employees at this critical juncture.

Forward-Looking Statements

This press release contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, including, without limitation: the potential of Jelmyto™ to transform the treatment of LG UTUC; the potential of UroGen's proprietary RTGel™ technology platform to improve therapeutic profiles of existing drugs; the potential of UGN-102 for LG NMIBC; and the potential impact of the COVID-19 pandemic on UroGen's business. These statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to: the timing and success of clinical trials and potential safety and other complications thereof; the ability to obtain regulatory approval within the timeframe expected, or at all; the ability to maintain regulatory approval; complications associated with achieving commercial readiness for the launch of a new product; the labeling for any approved product; the scope, progress and expansion of developing and commercializing UroGen's product candidates; the size and growth of the market(s) therefor and the rate and degree of market acceptance thereof vis-à-vis alternative therapies; and UroGen's ability to attract or retain key management, members of the board of directors and personnel; and any negative effects on UroGen's business and product development plans caused by or associated with COVID-19. In light of these risks and uncertainties, and other risks and uncertainties that are described in the Risk Factors section of UroGen's Form 10-K filed with the SEC on March 2, 2019, and other filings that UroGen makes with the SEC from time to time (which are available at http://www.sec.gov), the events and circumstances discussed in such forward-looking statements may not occur, and UroGen's actual results could differ materially and adversely from those anticipated or implied thereby. Any forward-looking statements speak only as of the date of this press release and are based on information available to UroGen as of the date of this release.

References:

1. Browne BM, Stensland KD, Moynihan MJ, Canes D. An Analysis of Staging and Treatment Trends for Upper Tract Urothelial Carcinoma in the National Cancer Database. Clin Genitourin Cancer 2018;16:e743-e50.
2. Lerner, Seth. Primary Chemoablation for the treatment of Low-Grade Upper Tract Urothelial Carcinoma: The Olympus Trial. 2020 by American Urological Association Education and Research, Inc.

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INVESTOR CONTACT:
Kate Bechtold
Senior Director, Investor Relations
Kate.Bechtold@urogen.com
914-552-0456

MEDIA CONTACT:
Eric Van Zanten
Senior Director, Communications
Eric.VanZanten@urogen.com
610-529-6219

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