## **∃UPyTher**

## **EXECUTIVE SUMMARY**

UPyTher develops **custom drug delivery** solutions based on proprietary technology that consists of a **supramolecular injectable**, **biodegradable hydrogel** and is perfectly suited for delivery of various types of therapeutics including small molecule drugs and biologics. UPyTher hydrogels have the unique property to combine **local delivery** with a **slow release profile**, which lead to **improved therapeutic efficacy** of the drug. Moreover, UPyTher hydrogels are modular and highly adaptable, which accelerates the development of custom drug delivery systems for conventional and novel therapeutics.

Our **lead indication** will revolutionize the treatment of **peritoneal cancer**, which is one of the most deadly cancers and affects hundreds of thousands of patients worldwide. Aggressive intraperitoneal chemotherapy is considered standard of care, but is also associated with poor therapeutic efficacy because it only allows short exposure to the drug. UPyTher offers a **single shot therapy for peritoneal cancer that allows local continuous drug exposure** to improve therapeutic efficacy, patient recovery and survival. Our platform is based on proprietary supramolecular polymer chemistry and consists of a modular hydrogel drug depot and a common chemotherapeutic drug. The unique features of this platform enable local therapy, prolonged release of a hydrophilic drug with enhanced tumor penetration, whereas comparable hydrogels for local drug delivery typically lack this combination.

UPyTher combines expertise in supramolecular chemistry and biomedical engineering and is founded on technology that is developed in the group of **professor Patricia Dankers** at the **Eindhoven University of Technology**. Her involvement secures UPyTher's position in the forefront of drug delivery research via contacts with leading scientists, medical experts and industry. **Dr. Peter-Paul Fransen** has been involved since the early development of UPyTher technology and brings in unique know-how on design, synthesis and modification of the hydrogel and drug compounds. The team is complemented by **dr. Geert van Almen** who has a background in life sciences and valorization of biomaterials and is committed to development and implementation of UPyTher's commercialization strategy.

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