

**MOLECULAR TARGETING TECHNOLOGIES, INC.** Translating Novel Technologies into Tomorrow's Medicines

# <sup>177</sup>Lu-DOTA-EBTATE

A long-lasting somatostatin analog

A potential best-in-class treatment for gastroenteropancreatic neuroendocrine tumors



Single Injections (3 months after 19.5 mCi) Primary tumor reduced by 53% & liver metastasis reduced by 45%

## **EBTATE Improved PK/PD vs. Lutathera (Novartis)**

EBTATE reached peak slower and had a prolonged plateau



EBTATE (blue) vs. Lutathera (red)

EBTATE showed 7.9fold increase in tumor uptake vs. Lutathera



#### # of disintegrations of <sup>177</sup> Lu

MTTI obtained exclusive worldwide rights to EBTATE from NIH (invented by Drs. Xiaoyuan Chen and Orit Jacobson)

#### Challenges

- GEP NET incidence 5.8/100K
- Current treatments have limitations
- Lutathera response rate is 19%
  - Multiple Lutathera doses cause kidney and bone toxicity

#### Solution

~80% of NETs overexpress somatostatin receptors. EBTATE was designed to extend in vivo half-live over Lutathera, increasing probability of binding to those receptors, enabling fewer, lower doses of the radiotherapeutic.

# Technology

EBTATE incorporates Evans Blue in the somatostatin analog backbone which significantly increases residence in albumin, a virtual slow release system. Demonstrated negligible toxicity. Patent pending.

#### **Proof of Concept**

Extensive preclinical and two Phase I studies (50 patients) performed by NIH and Peking Union Medical College Hospital (China) show improved safety and efficacy.

#### Next

US Phase I & II trials 2020-23

## MTTI

Molecular Targeting Technologies, Inc. is a privately held biotechnology company focused on the acquisition and development of novel technologies for treatment and diagnosis of human diseases.

Two radiotherapeutics and two radiodiagnostics lead our 10 asset pipeline.

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