Voximetry Introduces Advanced Dose Assessment for Radiopharmaceutical Therapy

MADISON, Wis.—Voximetry, an NIH SBIR-funded Healthtech start-up company spin-out from the University of Wisconsin Medical Physics department, will debut Torch® Dose Assessment at the annual ASTRO meeting in San Diego. Torch is the only full Monte Carlo, voxel-based RPT dosimetry solution and includes GPU-acceleration to provide extreme accuracy in lightning speed.

For RPT patients, absorbed dose estimates of metastatic tumors and organs at risk can be used as an imaging biomarker to inform treatment plans based on patient-specific pharmacokinetics. Dosimetry-guided RPT has the potential to select only those patients who stand to benefit from RPT, and to allow for treatment to safe and effective dose levels.

“Even though studies show up to ten-fold variability in drug interaction between patients, the current standard of care relies on administering the same activity amount to all patients, regardless of age, sex, body size, or varying retention and excretion of the therapeutic agent. It’s no surprise some patients have excellent response to RPT while others have poor response and treatment-related toxicity,” said Dr. Sue Wallace, CEO of Voximetry. “With Torch personalized assessments, we can highlight these patient differences in therapeutic pharmacokinetics and do better for these patients.”

Studies have shown that radiation dose to critical organs can vary by up to ten-fold between patients, and up to 100-fold among individual tumors. Using dosimetry as an imaging biomarker, RPT physicians may adjust the time between cycles of therapy, the number of cycles, or administer less activity for some cycles.

According to Dr. Joe Grudzinski, Chief Innovation Officer at Voximetry “It’s clear many late-stage patients will benefit from treatments that combine EBRT and RPT. This is why we are focused on accuracy for RPT dose assessments. We know it will be important to consider prior absorbed dose to critical organs when beginning treatment with another modality. Measuring both RPT and EBRT toxicity will allow us to treat to safe and effective levels through all disease stages.”

The company has accelerated innovation to market in part by collaboration with Theravision, AB, and European technology transfer house focused on training AI training models and other RPT clinical workflow automations.

Voximetry received FDA market clearance for Torch software in November of 2022. To date, the company has been funded with $7M of NIH SBIR grants and contracts, as well as recently closing a $5M pre-A funding round.

The field of RPT is expanding rapidly in the U.S. with procedure volumes increasing in multiple specialty areas including Nuclear Medicine, Radiation Oncology, and Interventional Radiology departments. Over 350,000 U.S. patients per year are indicated for FDA approved theranostic treatments including Prostate, Lymphoma, Thyroid, Liver, and Neuroendocrine tumors.
Voximetry offers Torch Dose Assessment software as a subscription model. In addition, the company offers professional services to analyze patient data in-house and deliver comprehensive clinical dose assessments with imaging biomarker information directly to clinicians and drug developers.

**About Voximetry:**

Based in Madison, Wisconsin, Voximetry is a Healthtech software and services company with unique technology based on AI and complex algorithms implemented on high-speed Graphic Processing Units (GPUs). Currently focused on radiation transport science and voxel-level dosimetry for Radiopharmaceutical Therapy, Voximetry is pioneering patient-specific care for advanced stage cancer patients. To learn more about Voximetry and its products and services, please go to www.voximetry.com.

*Torch design and development was supported by the National Cancer Institute of the National Institutes of Health under Award Number R43CA221491. The product is solely the responsibility of Voximetry and does not represent the official views of the National Institutes of Health.*

*Torch design and development was supported by grants from the University of Wisconsin-System SBIR Advance Matching Grant Fund through its partnership with the Wisconsin Economic Development Corporation.*