The judges of the Tulane Novel Tech Challenge awarded grand prizes to Instapath (experienced category) and Thoraco Therapeutics (novice category) on April 19 in the third annual competition sponsored by the Burton D. Morgan Foundation.

The competition empowers Tulane undergraduate and graduate students to improve the environment, human health, education and urban infrastructure through technology. Judges selected first- and second-prize winners from seven presentations in the experienced category and first- and second-prize winners from eight presentations in the novice category. A fifth winner was selected as the audience favorite through mobile voting.

Instapath used structured illumination microscopy to examine fresh tissue during the process of rapid biopsy evaluation.

David Tulman, a fourth-year doctoral student and member of the Instapath team, said the competition was a milestone in a research journey that began nearly five years ago. Other members
of the Instapath team are Tulane doctoral students Mei Wang and Peter Lawson and undergraduate senior Sam Leuthy.

“Current rapid evaluation methods are inaccurate, and our products will provide physicians better biopsy quality when it comes to the treatment and diagnosis of cancer patients,” said Tulman. “We’ve done some clinical studies using real tissue, and we’ve submitted a patent application through Tulane’s Technology Transfer Office.”

Thoraco Therapeutics developed a chest tube with a camera inside for more accurate placement and fewer complications in trauma patients.

The second prize experienced team winner was Viralchemy, a novel antiviral formulation based on a co-therapeutic approach to treat dengue fever. Second prize in the novice category went to a group that created the Integrated Wrap Percutaneous Electrical Nerve Stimulation process, which alleviates chronic lumbar pain through a combination of deep tissue modality and nerve stimulation.

The prize for audience favorite went to CMDX Biopsy, an integrated biopsy punch device for the removal of potentially cancerous skin lesions in a clinical setting.

The Novel Tech Challenge featured more than $20,000 in total cash prizes and the participation of faculty mentors, experienced alumni and parents, who served as real-world experts and advisers to the teams.

Shannon Sparrow presents for her team Thoraco Therapeutics during the 2017 Novel Tech Challenge. Her teammate (not pictured) is M. Sadegh Azimi. (Photo by Paula Burch-Celentano)