

## UWAMIT

**Narrator:** At the University of Washington, the Applied Physics Laboratory is shaping the future of medicine as part of UWAMIT — the new Ultrasound-based Washington Molecular Imaging and Therapy Center.

**Tom Matula:** “In UWAMIT, we’re collaborating with the College of Engineering, the Department of Radiology, and the Applied Physics Lab. Our center is to use ultrasound as the main modality for imaging and treating diseases in the early stages. CT, MRI, and PET are all nice technologies that are useful. But ultrasound is very inexpensive relative to these other technologies. So the idea behind UWAMIT is to increase health and reduce health care costs for the citizens of Washington and to create jobs.”

**Narrator:** On the horizon, cancer-specific molecular probes.

**Matt O’Donnell:** “What imaging allows us to do is look inside the body — non-invasively — and try to make diagnoses about disease. But molecular imaging is trying to go to the next stage, which is to see not only what anatomically is going on, but the molecules which drive biological processes. One of our goals in this project is to be able to make images of the first rapidly dividing cell inside your body way before a tumor would form... let alone a pre-cancerous lesion.”

**Norm Beauchamp:** “I believe molecular imaging has the ability to transform health care in terms of identifying who are the patients who are most likely to respond and what is the therapy that is going to be most effective for them?”

**Joo Ha Hwang:** “One of the main goals of this UWAMIT program is to use contrast agents — to look at different microbubble contrast agents. Ideally, we’ll deliver more drug, better drug, faster, and improve cure rates absolutely.”

**Narrator:** The state of Washington’s Life Sciences Discovery Fund is investing 5 million dollars in UWAMIT to create new science, new jobs, and commercial spinoffs.

**O’Donnell:** “That’s the real challenge in this: taking stuff from the bench to the bedside.”

**Matula:** “We want to generate 200 jobs over the next five years using ultrasound to image and treat diseases in their early stages.”

**Beauchamp:** “We’re essentially going to be THE place for leaders in ultrasound molecular engineering.”

