

Fixing the Phony Fish Problem

That \$5 grouper sandwich is too good to be true, and a spinoff company from the University of South Florida (USF) is trying to prove it.

PureMolecular in St. Petersburg has developed a simple and quick method to test seafood for authenticity making it harder for imposter fish to find its way between your buttered buns.

According to a report by an organization protecting the world's oceans, Oceana, as much as 33 percent of the seafood sold in the U.S. is mislabeled. Fish in consistent demand, such as tuna, salmon and grouper, lead the cases of phony seafood. Increased regulations, expense, wildlife protection measures and other factors have driven part of the market toward shortcuts resulting in deceitful practices.

In an effort to thwart the shortcuts, PureMolecular teamed up with USF and The Corridor in a Matching Grants Research Program project to further develop its technology.

CEO Dr. John Paul is also a USF professor in the College of Marine Science. He led the project in his lab with a graduate student, both researching improvements to the kits, hardware and chemistry.

"Our goal is to build a better mouse trap for when a buyer is standing on a boat getting ready to purchase 49 tons of grouper and he needs to know what it is," said Paul.

The technology works like this: someone purchasing food for a restaurant can visit



a vendor and obtain a very small sample of the seafood for sale (a mere prick of the fish), then place the sample in a proprietary mixture to receive a reading of authenticity within seconds.

The kit analyzes genetics of the fish to determine the result. Imposter seafood tends to come in the form of lower-quality species, including farm-raised fish which differ greatly in heavy metals and pollutants. The genetic make-up predicts flavor quality. There are some fish that are outright frauds, as was the case when Paul found Asian Catfish being marketed as grouper.

"Grouper is a delicious fish," said Paul. "It's expensive because it is iconic in Florida and restaurants serving it at price differences of \$15 have to make the consumer wonder what they are buying for their money."

Without The Corridor funding, PureMolecular would not be able to afford the student researcher furthering her graduate work on the project and supplies necessary to upgrade the kits.

Paul's business partner, CTO Bob Ulrich, was a former graduate student of his.

"The spark for this company came from realizing technology developed by research dollars in academia can often stagnate," said Ulrich. "We saw a practical application for this technology and we are seeing more of its potential every day." ■