

Professor imagines, gives insight on future of ocean drilling

Rosalynn Vasquez
The Battalion

Ten years ago, Dr. H. Paul Johnson of the University of Washington led a robotic drill to collect rock samples from the ocean floor. However, it proved to be ineffective when one of the drill's wires broke and the drill was stuck in the ocean.

Since then, there have been few attempts to construct another drill, because of difficulty obtaining federal funds.

Texas A&M oceanography professor William Sager held a workshop at A&M this weekend to readdress the topic.

He said he envisions a small robotic drill suitable for his research on oceanic rock samples from the ocean

floor. "We need to build drills that can be operated on ships and bring up volcanic rock samples with complete magnetic orientation," Sager said.

Sager said magnetic orientation is similar to a compass needle frozen into the rock. If magnetic orientation can be measured, then one can determine how the tectonic plates (plates that make up the Earth's exterior) have shifted since the rock first formed.

"My research could put sea-floor samples to good use in attempting to explain the rapid shifts in the Earth's magnetic field that have occurred over time," he said.

The only ship able to go to these depths to collect volcanic rock samples from the ocean floor is A&M's Ocean Drilling Program (ODP) ship. The ship is 470 feet long and costs

about \$ 7 million dollars for a two-month cruise.

Sager said the ODP ship is not effective.

"It only manages to scrape the rock samples needed, and it is also very expensive," Sager said. "Furthermore, the rotation of the drill's pipe makes it impossible to orient the sample rock cores."

At the workshops, Sager and A&M's ocean drilling program hosted a two-day robotic drills forum focused on designing a robotic drill machine that would enable scientists to sample rocks beneath the waves. Thirty scientists and technical experts from institutions across the nation attended the workshop, which was sponsored by the National Science Foundation (NSF).

The committee members concluded that four drills would be needed to conduct their research thoroughly and effectively. One large drill would run on one of the largest ships in the U.S. fleet. The development of the drill is estimated to cost \$1 million. There will also be a need for several other drills that will be simpler and smaller, costing \$100,000 each.

The committee wants to mount these smaller drills on remotely operated vehicles (ROV). The advantage of using ROVs is that an electronic camera can be attached to these drills, which would aid in maneuverability and visual capability.

Other issues addressed included how the design, cost, and operational limits affect the development of a new drill, the types of robotic drills re-

quired and how many drills with what specific capabilities are needed.

The new type of drill that Sager and his team are attempting to develop will land on the ocean floor and stay fixed in one place. Therefore, as it goes into the ocean floor, it will orient the samples.

"This is the way to do what people have been doing wrong for 30 years," he said. "It's a quantum leap into science."

Sager said the next step for the committee is to submit and receive approval for a proposal to provide funding to start the project.

Sager this process could take years.

"With a drill like that, I could find a sea mount of virtually any age, determine where the magnetic pole was at the time, and look at the evolution of the magnetic field through time."



RUBEN DELUNA THE BATTALION

FDA issues voluntary recall of PPA in over-the-counter medication

Roni Sridhara
The Battalion

Walking around campus yesterday, one could witness many students wrapped in heavy jackets, and gloves, sneezing and sniffing along the way. When some of the students start to run to local pharmacies, they may be surprised to find their cure-all missing from the shelf.

Tuesday, the Food and Drug Administration (FDA) voluntarily recalled the drug phenylpropanolamine (PPA).

Jayne Pearson, chief pharmacist at Texas A&M's A.P. Beutel Health Center said this drug is prevalent in over-the-counter (OTC) medications and diet pills.

"PPA functions both as a decongestant to help up drainage and as an appetite suppressant," Pearson said.

Recent studies conducted by Yale medical researchers showed that, within the last year,

PPA could be to blame for 200 to 500 hemorrhagic strokes (bleeding in the brain) for people under 50 years of age.

Laura Bradbard, an FDA spokeswoman in Washington, D.C., said strokes in people who were consuming PPA products are very rare, but they are catastrophic when they do occur.

Bradbard said the reason the FDA drug advisory panel (which reviews all OTC medications) deemed to the drug to be completely safe was the limited population sample size.

"The Yale studies had people 18 to 49 years old to study," Bradbard said. "This is the group where we were seeing bleeding in the brain, but it was described that the subjects did not have any previous risk factors."

"If you are doing a trial you are generally going to be observing 150,000 to 200,000 subjects throughout the course of the study. However, this product was selling 6 billion

doses a year, which gives you an opportunity to see the adverse effects you can have with a larger population," Bradbard said.

While there is not an official ban on the drug, many pharmacies, including Beutel and

"We just wanted to warn consumers ..."

— Laura Bradbard
FDA spokeswoman

the Wal-Mart Supercenter in Bryan, immediately pulled products containing PPA off their shelves Tuesday.

"One of the main reasons for us not having the figures is that this is a voluntary recall, it is not life-threatening, and so it is not something to cause alarm," Bradbard said.

Bradbard said the drug is not officially

banned because OTC medications existed long before food and drug laws were present. Therefore the OTC medications are unclassified, and do not have a health hazard risk associated with them.

"We just wanted to warn consumers because this is a drug where the individual determines whether they need it or not and there is no learning intermediary to teach them about the drug," she said. "We wanted to inform the consumers while we go through the legal hurdles instead of having the products just hang out there on the shelves."

PPA is not used to treat only human illnesses.

Dr. George Lees, a urinary specialist in the College of Veterinary Medicine, said in a press release that PPA is widely used among veterinarians for treating urinary incontinence in dogs.

"The drug was never on the market specifically for use in dogs, but a recall of PPA will

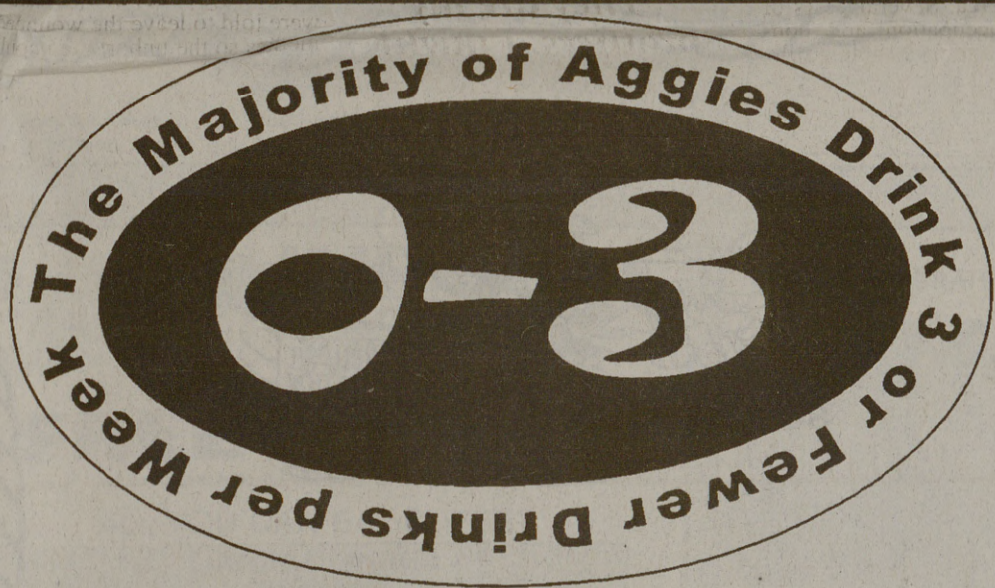
adversely impact its availability for veterinary treatments," Lees said.

Lees also said in the press release that veterinarians were able to use PPA in animal patients without risking the same side effects that humans may experience.

"There are no direct alternatives that have proven as effective for treating urine leakage in dogs," he said. "Now veterinarians will have to start trying other drugs in this class to see if any are as effective on canine urinary incontinence."

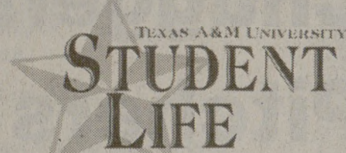
The FDA advises concerned consumers to read all labels on OTC cough, cold, nasal decongestant and weight control products containing PPA.

Bradbard said that consumers can also check with their health care providers or pharmacists to see whether their prescription cough-cold or nasal decongestant product contains PPA and to discuss alternative medications.



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