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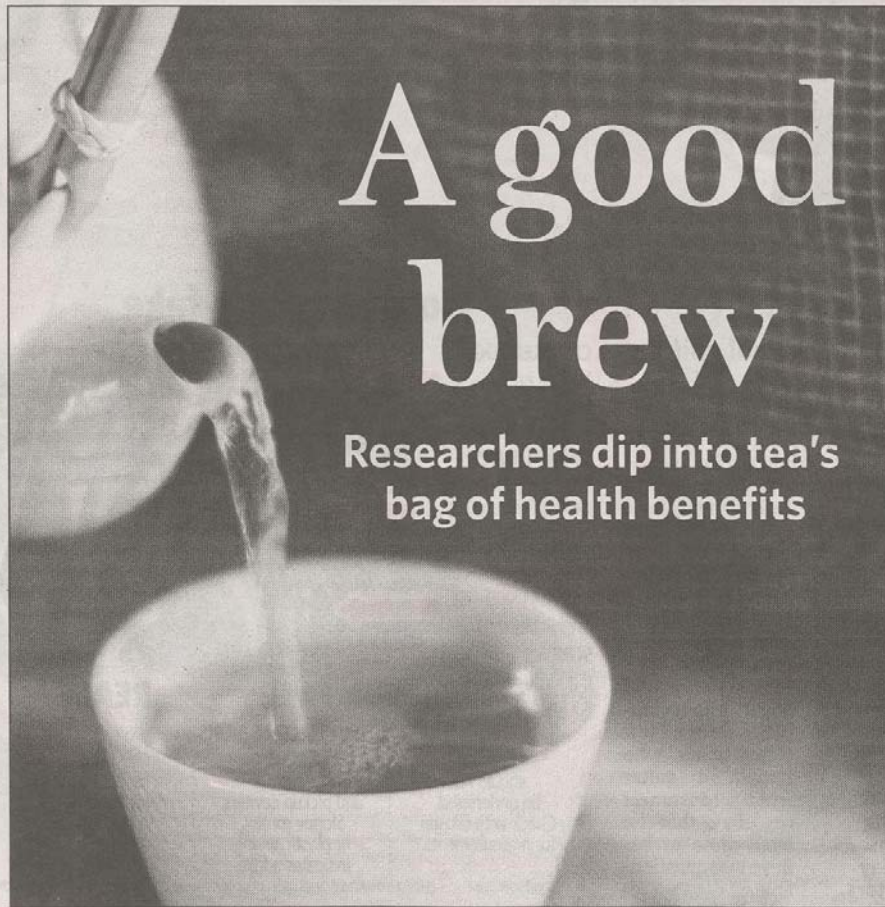
Can imbibing tea affect brain waves — or perhaps more astonishingly, thwart the development of lung cancer?

A growing number of scientists, including a team on Long Island, theorize that tea is far more complex than most people might think. As a result, they are exploring new ways to uncover the chemical secrets nature has tucked into the leaves of green and black teas.

"People have been drinking tea for 5,000 years, and many cultures have used teas for medicinal purposes for just about that long," said John Foxe, a professor of neuroscience and biology at the Nathan Kline Institute in Orangeburg, N.Y. Foxe, who studies the effects of tea on the brain, presented data at a tea conference yesterday at the U.S. Department of Agriculture in Washington.

Foxe has found that an amino acid present in green, black and oolong teas has dramatic physiologic effects. Known as theanine, the tiny molecule enters the bloodstream, then crosses the critical blood-brain barrier, the selective sieve that allows only certain molecules entry.

"We found that within 20 minutes of drinking a cup of tea, there was an impact on the brain's alpha waves," said Foxe, who studies ways to improve attention. Study subjects were better able to focus after drinking tea, he said, because theanine lowered alpha



A good brew

Researchers dip into tea's bag of health benefits

wave, or electrical, activity in the brain. He said there are about 20 to 25 milligrams of theanine in a cup of tea and that the effect on alpha waves lasts about four hours.

Paradoxically, theanine acts

synergistically with caffeine to produce the calming effect.

Foxe has pursued his research under a grant from Unilever, the giant that owns Lipton. But Dr. Louis Teichholz, chief of both comple-

mentary medicine and cardiology at Hackensack University Medical Center in New Jersey, said the research is still valid. "Just because it was supported by a company does not negate the research," he

said yesterday. Teichholz was not connected with the meeting in Washington.

Scientists from abroad who were not connected with U.S. corporations also presented data. Israeli researcher Dr. Sylvia Mandel said her studies of animal models and epidemiologic studies suggest green tea may support the aging brain. Tea drinkers, she said, are less likely to develop Alzheimer's and Parkinson's diseases.

On Long Island, researchers have found that a critical class of green tea compounds may prevent lung cancer.

Dr. Theodore Gabig, chief of hematology and oncology at Stony Brook University Hospital, who was not connected with the meeting, said tea leaves contain a mother lode of beneficial compounds. But pursuing tea-related research, he added, is not a simple enterprise.

Gabig has had to put his studies on hold because large quantities of EGCG, a vital purified compound, are scarce and the cost to conduct human clinical trials, at the moment, is prohibitively expensive.

"We actually need to get funding to do more animal studies," said Gabig, who also found that EGCG, part of a family of compounds called polyphenons, has adverse effects in the gastrointestinal tract in large amounts. He hypothesizes that inhaling it may prove beneficial, but only research will answer the question.