

Ancient Egyptians made meds from wine

Researchers discover medicinal herb residue in wine

By JIN PYUO LEE

Staff Writer

lee@dailypennsylvanian.com

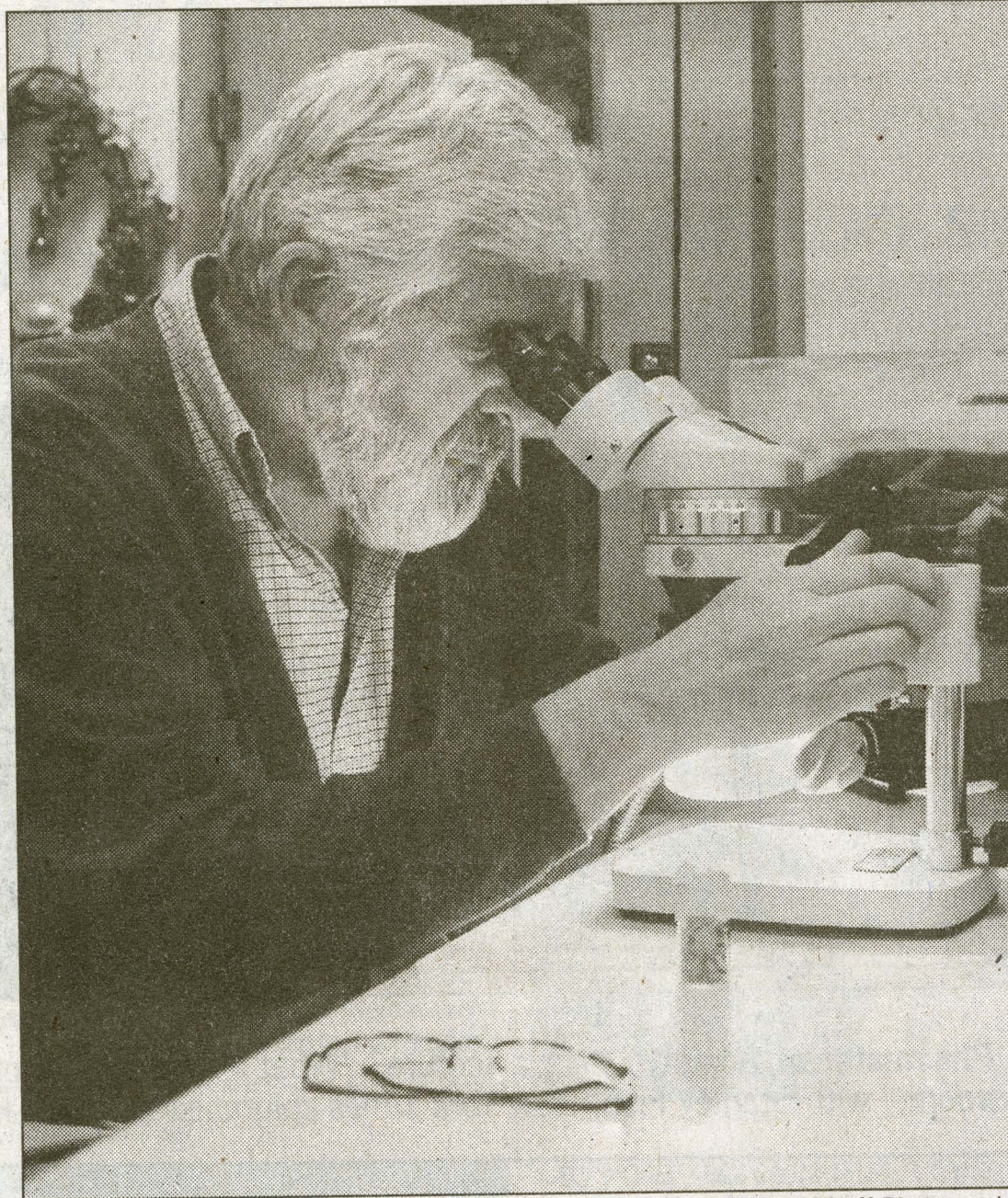
Humans have been treating diseases with natural products that come from plants and animals, but a Penn Museum of Archaeology and Anthropology researcher recently found that ancient people also utilized alcoholic beverages for medicinal purposes.

Led by Anthropology professor and Penn Museum senior research scientist Patrick McGovern, the study on ancient Egyptian herbal wines was published in *Proceedings of the National Academy of Sciences* this month.

McGovern said he had previously done studies on inorganic materials such as ancient potteries.

After some time, he thought it would be interesting to discover what's inside those materials. This interest led him to pioneer biomolecular archaeology — also known as archaeological chemistry — which focuses on organic contents of ancient materials, such as pottery.

"I realized that alcoholic beverages were important to



Alex Ball/DP Staff Photographer

Paleontologist Patrick McGovern studies samples of pottery looking for wine residues for his research on ancient Egyptian herbal wines.

humans," McGovern said. "For example, Christianity and Judaism used them for religious purposes."

After acquiring the wine residues from the German Archaeological Institute in Cairo, he and other researchers started

to investigate their composition by utilizing "modern analytical techniques."

The team found that the wine residues contained chemical compounds other than those of grapes. They turned out to be from herbs, McGovern said.

According to the study, the dry climate of Egypt has contributed to "very detailed literary and botanical evidence for medicinal wines."

Most of the compounds the researchers found have known medical effects, but the team found other compounds for which the medical effects are unknown.

"I think that it represents earliest developments in making medicine," McGovern said. "Since early humans didn't have synthetic medicine such as penicillin, they had to explore the environment to find plants that would go into beverages."

McGovern recalled that matching compounds with the right plants was the biggest challenge he faced while working on this project.

"It was hard to find what plants can explain those compounds we found," he said. "Our team had to look up Egyptian and even Mid-east literature to find out."

McGovern said he has started to work with researchers at Penn Medicine's Abramson Cancer Center to find whether these unknown compounds have the potential to treat cancer.

He said he expects ongoing study to take about two years to finish.

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