

Coffee is in our blood, scientists say

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Scientists at Oregon State University may have proven just how much people love coffee, tea, chocolate, soda and energy drinks.

They've found it in our blood. Permanently.

In conducting mass spectrometry research, Richard van Breemen and Luying Chen worked with various biomedical suppliers to purchase 18 batches of supposedly pure human blood serum pooled from multiple donors. Biomedical suppliers get their blood from blood banks, who pass along inventory that's nearing its expiration date.

All 18 batches tested positive for caffeine. Also, in many of the samples the researchers found traces of cough medicine and an anti-anxiety drug. The findings point to the potential for contaminated blood transfusions, and also suggest that blood used in research isn't necessarily pure.

"From a 'contamination' standpoint, caffeine is not a big worry for patients, though it may be a commentary on current society," said Chen, a doctoral student. "But the other drugs being in

there could be an issue for patients, as well as posing a problem for those of us doing this type of research because it's hard to get clean blood samples."

The study was published in the *Journal of Pharmaceutical and Biomedical Analysis*.

In addition to caffeine, the research also involved testing pooled serum for alprazolam, an anti-anxiety medicine sold under the trade name Xanax; dextromethorphan, an over-the-counter cough suppressant; and tolbutamide, a medicine used to treat type 2 diabetes.

All of the pooled serum was free of tolbutamide, but eight samples contained dextromethorphan and 13 contained alprazolam – possibly meaning that if you ever need a blood transfusion, your odds of also receiving caffeine, cough medicine and an anti-anxiety drug are pretty good.

"The study leads you in that direction, though without doing a comprehensive survey of vendors and blood banks we can only speculate on how widespread the problem is,"



said van Breemen, director of OSU's Linus Pauling Institute. "Another thing to consider is that we found drugs that we just happened to be looking for. ... How many others are in there too that we weren't looking for?"

The purpose of the study by Chen and van Breemen was to test a new method for evaluating potential interactions between botanical dietary supplements and drug metabolism.



Courtesy ODF

Hideko Tamura-Snyder with Oregon Community Trees board member Mike Oxendine, left, and Jim Gersbach of ODF.

Seaside tree to be peace symbol

Seaside and Tillamook have joined 24 communities across the state that plan to plant special peace trees to mark the 75th anniversary of the end of World War II.

The trees will be distributed by the Oregon Department of Forestry in partnership with nonprofit groups Oregon Community Trees and the Medford-based One Sunny Day Initiative.

The seedling ginkgo and Asian persimmon trees were grown from seed collected from trees that survived the atomic bombing of Hiroshima and brought to Oregon by Medford resident Hideko Tamura-Snyder. She survived the bombing, which occurred 75 years ago on Aug. 6, 1945.

Seaside plans to put its ginkgo tree in Cartwright Park.

"Thank you, people of Oregon, for your enduring faith in the future, in the resilience of life," Tamura-Snyder wrote. The anticipated plantings "filled me with joy, remembering the long journey for both the trees and myself."

The 36 peace trees – 29 ginkgos and seven Asian persimmons – will be planted across 16 Oregon counties, said Kristin Ramstad, manager of ODF's Urban and Community Forestry Assistance Program.

Most will go to parks, arboreta and schools across the state. The greatest number will be planted in April as part of Arbor Week.

The seedlings are not the first Hiroshima peace trees in Oregon. Some were planted earlier this year at Oregon State University and Lake Oswego.

The plantings provide an opportunity for Oregonians to acknowledge the service, sacrifice and suffering of people worldwide who were touched by World War II – both civilians and veterans.

Tamura-Snyder was 10 years old when she lost her mother in the atomic bombing of Hiroshima. She went on to found the One Sunny Day Initiative in her adopted home of Medford. Later, she secured from Green Legacy Hiroshima seeds the group had collected from trees that survived the bomb.

In spring 2017, Tamura-Snyder gave the seeds to Oregon Community Trees board member Michael Oxendine to germinate. He sprouted the seeds and the Department of Forestry agreed to find homes for them.

ODF offered the seedlings at no cost. Recipients are required to plant them in public places.

Ft. Clatsop visitor fees to go up

Visitor fees at Fort Clatsop are going up beginning Jan. 1, the National Park Service announced.

NPS has phased in the increases over the last six years as part of its attempt to standardize entrance fees at similar parks.

Visitors will pay \$10 per adult, a \$3 increase. The money will stay in the park and be put toward park improvements, the develop-

ment of new exhibits, increased accessibility, and trail expansion.

In 2018, 286,000 visitors spent an estimated \$16.9 million in nearby communities while visiting Lewis and Clark National Historical Park, Fort Clatsop.

The spending supported 235 jobs, \$8.5 million in labor income, and \$23.8 million in economic output, the park service estimates.



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