Science & Technology

Cholesterol’s Cumulative Toll, and Other Columbia Discoveries

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Cholesterol’s cumulative toll

Researchers at Columbia University Irving Medical Center have demonstrated that LDL, or “bad” cholesterol, has a cumulative effect over a lifetime, with a person’s risk for having a heart attack or stroke growing the longer their LDL levels are elevated.

The shadow pandemic

Data scientists at the Mailman School of Public Health estimate that one-third of the American population, or 103 million people, had had COVID-19 by the end of 2020 — more than four times the number indicated by official government records. They say that about half of all residents in major cities were likely infected.

In a financial hole, digging deeper

People struggling financially often feel a deep sense of shame that leads them to engage in avoidance behaviors, like ignoring bills, which worsens their troubles, according to research by Adam Galinsky, a social psychologist at Columbia Business School. His team found that engaging in self-affirmation exercises — like writing a list of one's best qualities — can give people the confidence to confront and begin to resolve their money problems.

Now we're cooking

Columbia mechanical engineers led by Hod Lipson have achieved a breakthrough in their ongoing effort to develop a system for cooking 3D-printed food with lasers — a technique that could one day be useful to astronauts. In a new paper, they report having transformed liquefied raw chicken into a laser-cooked dish that looks and tastes similar to stove-cooked meat but is moister and more uniform in texture.

Tudor timber terrors

Simon Billinge, a materials scientist at Columbia Engineering, recently used a powerful X-ray technique that he developed to inspect the remnants of King Henry VIII's favorite warship. He discovered that the wooden hull of the *Mary Rose*, which was built in 1511 and is now displayed in a museum in Portsmouth, UK, is slowly being eaten away by microscopic acid deposits — essentially "bacteria poop," he says — that must be painstakingly removed to protect the one-of-a-kind artifact

from further degradation.



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