Teens who smoke pot recreationally are two to four times as likely to develop psychiatric problems, including depression and suicidal thinking, according to new research by Columbia psychiatrist Ryan Sultan.

Rising nighttime temperatures caused by climate change are impairing the quality and duration of people’s sleep around the world, posing a significant threat to global health, according to a new study coauthored by Columbia data scientist and
postdoctoral researcher Kelton Minor. The elderly, women, and residents of low-income countries are most affected.

The key to a long life?

Columbia medical researchers led by geneticist Vijay Yadav have found evidence that taurine, a nutrient commonly added to energy drinks and found in many foods including shellfish and turkey, can slow the pace of aging. Human trials have yet to be conducted, but Yadav and his colleagues report that animals given supplements of taurine show improved strength and longevity.

How water holds us together

An interdisciplinary team of researchers led by Columbia biophysicist Ozgur Sahin has discovered that many biological materials that contain water — including wood, pine cones, pollen, and hair, skin, and nails — are given structural integrity by the outward pressure that water molecules exert on the physical matter that surrounds them. The researchers say that these materials represent a distinct new category of matter, which they call “hydration solids.”

A poor education may lead to cognitive decline in later life

Americans who attend low-performing high schools are more likely to suffer cognitive impairment in old age, according to a study by neuropsychology professor Jennifer Manly and postdoctoral researcher Dominika Šeblová.

Seeking autism’s signature

Researchers at the Mailman School of Public Health have identified molecular abnormalities in the blood of pregnant women and newborns that may indicate a child is at risk of developing autism. They say the discovery could open the door to early diagnosis.