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LETTER FROM THE EDITOR

Tall trees and a small particle

Alexandra Ozorio de Almeida | EDITOR IN CHIEF

It is highly unlikely that you have ever heard of the Tumucumaque Mountains National Park. Located in the states of Amapá and Pará at the northern border of Brazil, it is the largest national park in the country and the largest tropical forest in the world. This uninhabited tropical region has experienced the least human activity, making it an ideal location for scientific research. The exceptional park is also home to some of the tallest Brazilian trees. In the central Amazon, trees rarely surpass 60 meters; at Tumucumaque Park, however, specimens more than 80 meters tall have been sighted. These extremely tall trees represent a scientific enigma. Until the turn of the century, trees of this height were unknown in tropical regions. It was believed that hydrating and feeding a tree of these dimensions demanded a milder climate. *Pesquisa FAPESP's* team accompanied an expedition to Amapá that aimed to understand the Amazon forest's physiological reactions to climate change (*page 6*).

Brazilian research on themes such as the Amazon and climate change is cited in documents produced in countries such as the US, the UK and Germany that present or analyze public policies. Citations from abroad are more common than those from Brazil. FAPESP, the São Paulo Research Foundation, conducted a survey to demonstrate the impact of this research outside the academic world (*page 26*). In addition to the themes mentioned above,

papers produced by authors based in scientific institutions in São Paulo highlight themes such as tropical diseases and ultra-processed food.

The idea that a diet involving a high degree of processed food contributes to weight gain was presented by a Brazilian researcher in 2009. Carlos Augusto Monteiro's research group at the University of São Paulo proposed the Nova classification. An interview with Monteiro is available on the *Pesquisa FAPESP* website in English (revistapesquisa.fapesp.br/en/).

Methodology is at the heart of the work of sociologist Maria Cecília Minayo (*page 20*). A socio-historical phenomenon, violence affects health in various ways, explains the FIOCRUZ researcher. In addition to causing deaths and physical trauma, it also causes mental and emotional problems, lowers quality of life, and has consequences on healthcare systems, creating new problems for preventive and curative care.

César (Cesare) Lattes was the most well-known Brazilian scientist of his time. Using different approaches, Lattes' work on cosmic rays and with particle accelerators allowed him to prove the existence of the pi-meson (pion), one of the subatomic particles predicted in theory. Instead of pursuing a career abroad, Lattes returned to Brazil after spells in the UK and the US. He used his prestige to support the institutionalization of science in the country. His 100th birthday was celebrated in 2024 (*page 34*).