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LETTER FROM THE EDITOR

Brains and births

Alexandra Ozorio de Almeida | EDITOR IN CHIEF

The Biobank brain collection is a direct beneficiary of the University of São Paulo's link with the city's postmortem investigation service. The collection, which includes over 3,000 specimens donated by relatives of people subject to an autopsy, is a valuable contribution to research on aging, enabling advances in fields such as Alzheimer's disease.

Psychiatric disorders often associated with Alzheimer's disease could result from neurological damage typical of early stages of the disease, according to the analysis of 455 samples from the database. Previous research has suggested that depression and anxiety, which often accompany aging, could increase the risk of the development of Alzheimer's disease. Given that common symptoms, such as memory loss and dementia, only manifest years after the onset of neurological damage, a link to other psychiatric disorders could be useful for diagnoses. When diagnosed early, patients benefit more from existing treatments and could help test new drugs, as described in the cover story of this issue.

Brazil is notorious for its rate of cesarean sections, which is far above the proportion recommended by the World Health Organization. In 2015, 1.6 million babies were born via cesarean section in the country, representing 55.5% of all births. A study by researchers from universities in the state of Rio Grande do Sul shows that up to 48% of cesarean sections that year were performed before the mother went into labor. Excluding interventions for health reasons, estimates are that 370,000 babies were born by elective surgery before 39 weeks of gestation.

Contradicting common sense, data show that the higher the education level of the mother, the more likely the child is

to be born early. The report shows that among 163,000 women with four years of education or less, 13.2% had early-term cesarean sections, while the proportion among those with higher education was 49.2%. Early-term delivery is worrying because of the greater risk of various health complications in the first few weeks of life as well as cognitive development problems in the future. The risks in early life include respiratory difficulties caused by immature lungs and an inability to suck properly, which can lead to hypoglycemia and the need to administer formulas, exposing the infant to proteins that would otherwise be unnecessary and potentially causing food allergies.

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Images of the Brazilian National Museum in flames shocked the world. The 200-year-old institution, housed in a former imperial palace, was home to plants and animals collected during nineteenth-century expeditions throughout Brazil, mummies and minerals gathered by the Portuguese royal family, prehistoric fossils and meteorites, and artifacts of extinct indigenous peoples.

The São Cristóvão Palace was the main exhibition center, but the museum complex spreads across the Quinta da Boa Vista park. Thus, the fire in September 2018 affected different collections in different ways, sparing approximately 10% of the exhibits. The herbarium remained undamaged, while the archaeology, paleontology and geology sections suffered immense losses, as did the zoology department. The October 2018 special issue of *Pesquisa FAPESP* was entirely dedicated to the museum, with an overview of the collections and activities at the institution. In this international issue, we reproduce a brief history of the museum (page 28).