

Stem-Cell Scandal Shakes Japan Science Community

BY ALEXANDER MARTIN

TOKYO—A scandal that started with a few suspicious images has led Japan's most prestigious research institute to cut its stem-cell unit by half and acknowledge deeper flaws in its ethics.

The move by the Riken institute came seven months after the publication of papers that it initially hailed as equal in importance to the Copernican revolution in astronomy. Since then, the papers have been retracted, and one of the co-authors committed suicide.

On Wednesday, Riken said it would scale down to half its size the Center for Developmental Biology, rename the center, and choose a new director with input from non-Japanese scientists, an indication of how the scandal has damaged the reputation of Japanese science.

"As the one responsible for Riken's operations, I deeply regret our failure in risk management and preventing misconduct," said Ryoji Noyori, the Nobel Prize-winning chemist who leads Riken, pledging that the institute would push forward with restructuring to "promote

honest research."

Riken's overhaul could also sway the field of stem-cell science, which has received billions of dollars in research funds in the hopes of cures for ailments such as diabetes and heart disease. "This could trigger scaling down in the field of regenerative medicine," said Shinya Midori, a science writer who has been following the scandal from the beginning.

Riken has portrayed the research problems as isolated incidents rather than symptomatic of an ingrained culture. Meanwhile, an independent panel in a report in June recommended that its stem-cell center be dismantled altogether, saying it showed evidence of fundamental governance issues including sloppy data management and an inadequate internal peer-review system. The scandal has shaken the country's science establishment and the wider stem-cell world and sparked a debate about Japan's research ethics amid "results-first" pressure.

The drama has focused on the institute's 14-year-old developmental-biology center and erupted after one of its scientists, Haruko Obokata, was found guilty of manipulating

data in a pair of papers published in the journal *Nature*. The studies, which claimed to show a groundbreaking method of making stem cells by dipping cells in a mild acid solution, were quickly challenged and *Nature* retracted the papers saying they contained inaccurate data.

Riken initially stood by the 31-year-old Dr. Obokata, who had been hailed as a national hero after her research was first published, but later distanced itself from what it called her "sloppy data management" and poor research ethics.

Riken said it would study disciplinary action against Dr. Obokata but has allowed her to remain at the center and given her until November to try to replicate her results. Dr. Obokata admitted errors but maintains her basic thesis is valid.

The institute has held her solely responsible for the misconduct, but the controversy has had broader fallout. This month, Yoshiki Sasai, the center's deputy director who guided and cowrote the research, committed suicide.

—*Toko Sekiguchi*
contributed to this article.

