

## NEWS

# Nerve regeneration paper retracted over faked data

BY BRENDAN BORRELL

24 MAY 2023

The authors of a paper on the role of immune cells in directing nerve regeneration have withdrawn their study after the lead investigator **admitted to falsifying data** in two figures.

Following “reports from the scientific community” **Xin-Peng Dun**, who was then a senior research fellow at the Peninsula Medical School at the University of Plymouth in the United Kingdom, “admitted, orally and in writing, to the fabrication of data, unknown to the authors, and is solely responsible for this fabrication,” according to the retraction notice.

The **study**, which was published in *Cell Reports* in 2019, concerned the Slit-Robo signaling pathway, which, among other functions, guides the growth of axons during early development. Peripheral nerves can regrow following injuries, but they do not always regain full function when the gap between the two ends is longer than a few centimeters. In this mouse study, the researchers found that macrophages, a type of white blood cell that helps repair tissue after an injury, form a ring around severed peripheral nerves and secrete a particular Slit protein, SLIT3. This protein helps direct nerve regrowth along a “bridge” between the severed ends of the nerve, they found.

“More than 1 million people worldwide suffer from peripheral nerve damage each year,” Dun said in **a press release** issued by the university at the time, “and our work has exciting potential to help patients to improve the outcome of such injuries.”

“The retraction lays out the details of what happened.” David Parkinson

The article has been cited more than 35 times, **according to PubMed**. It was first flagged in a **March 2021 post** on PubPeer, a forum for discussing published articles. An anonymous commenter pointed out that an image of a gel electrophoresis band purporting to show expression of the SLIT3 gene in the nerve gap following an injury was identical to the band presented at the

nerve root. A **second commenter** noted that a band published in a different context in a previous **paper** from Dun had been re-used in this paper.

**David Parkinson**, senior investigator on the study and professor of neuroscience at the University of Plymouth, **replied in a July 2022 post** on PubPeer that “an investigation was carried out and action has been taken by the University against the individual concerned.” He noted that although the findings had been independently reproduced by another researcher, the team had made the decision, in consultation with the journal, to retract the paper.

When *Spectrum* reached out to Parkinson, he declined to comment further. “The retraction lays out the details of what happened,” he said.

According to **an archived version** of Dun’s biography and research history, he received his Ph.D. at Huazhong University of Science and Technology in Wuhan, China. Following a stint in Sweden, he came to Plymouth as a postdoctoral fellow in June 2007. Between 2012 and 2021, he and Parkinson co-authored 17 publications on nerve regeneration and other topics.

Dun’s current whereabouts are unknown, and he failed to respond to requests for comment sent via email and LinkedIn.

This retraction marks the second for co-author **Alison Lloyd**, a cell biologist at University College London. She was one of seven authors of a highly cited 2005 **paper** on the potential of stem-cell therapies to lead to tumors.

Five authors agreed to **retract that paper** in 2010, concluding that their findings had likely been the result of contamination of cell samples. Lloyd reportedly **declined to sign** the retraction notice because she had not been involved in that aspect of the work. Lloyd did not respond to *Spectrum*’s multiple attempts to reach her via email.

**Cite this article:** <https://doi.org/10.53053/GLWX3839>