

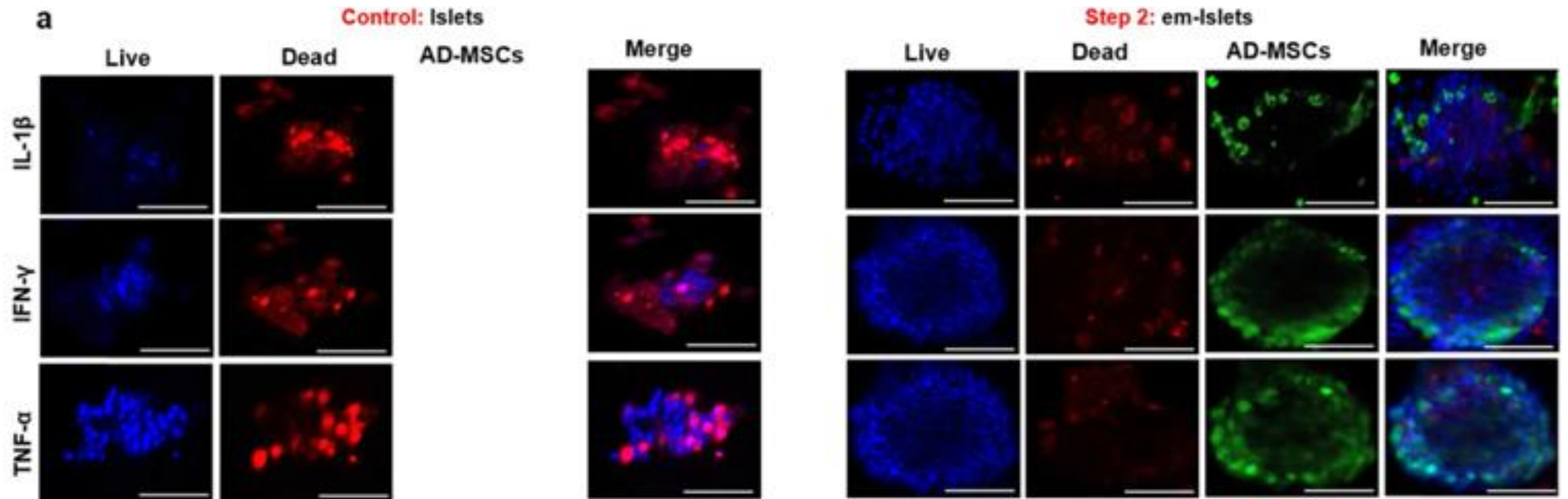
# Paper Errors: Leave Alone, Erratum, or Retraction?

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November 6, 2024

Responsible Conduct in Research Training

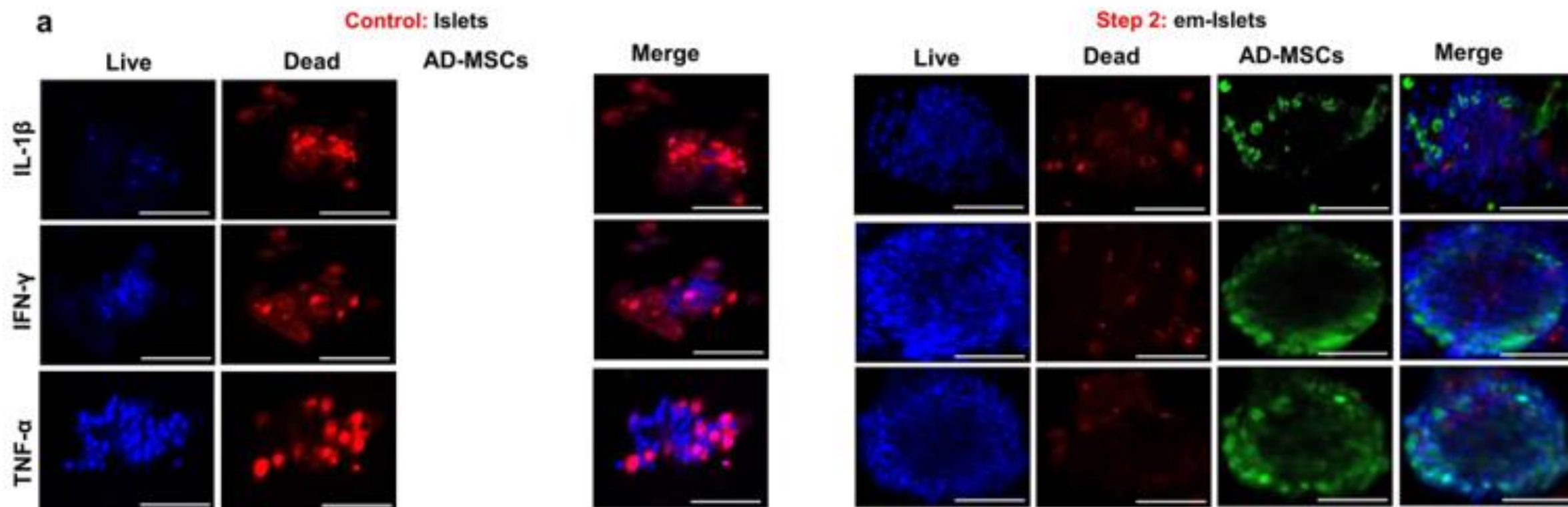
# Where is the error?



# Correction: Facilitating islet transplantation using a three-step approach with mesenchymal stem cells, encapsulation, and pulsed focused ultrasound

Mehdi Razavi, Tanchen Ren, Fengyang Zheng, Arsenii Telichko, Jing Wang, Jeremy J. Dahl, Utkan Demirci & Avnesh S. Thakor 

*Stem Cell Research & Therapy* **13**, Article number: 526 (2022) | [Cite this article](#)



# Erratum

Published correction of a paper that corrects a minor error that does not change the conclusions or outcomes of the paper.

# Retraction

A removal of a publication from the journal/literature. This is done when errors are identified such that the conclusions are not justified or the outcomes of the paper become untrustworthy.

# Blockbuster Alzheimer's paper retracted by former Stanford president after a decade of resistance

Marc Tessier-Lavigne had declined to withdraw the paper as recently as this summer, when he resigned as president



(Graphic: MICHELLE FU/The Stanford Daily)

# Stanford president retracts two Science papers following investigation

Marc Tessier-Lavigne, whose resignation as president of Stanford University becomes effective today, is retracting two papers from *Science* following an institutional investigation that found data manipulation in multiple figures.



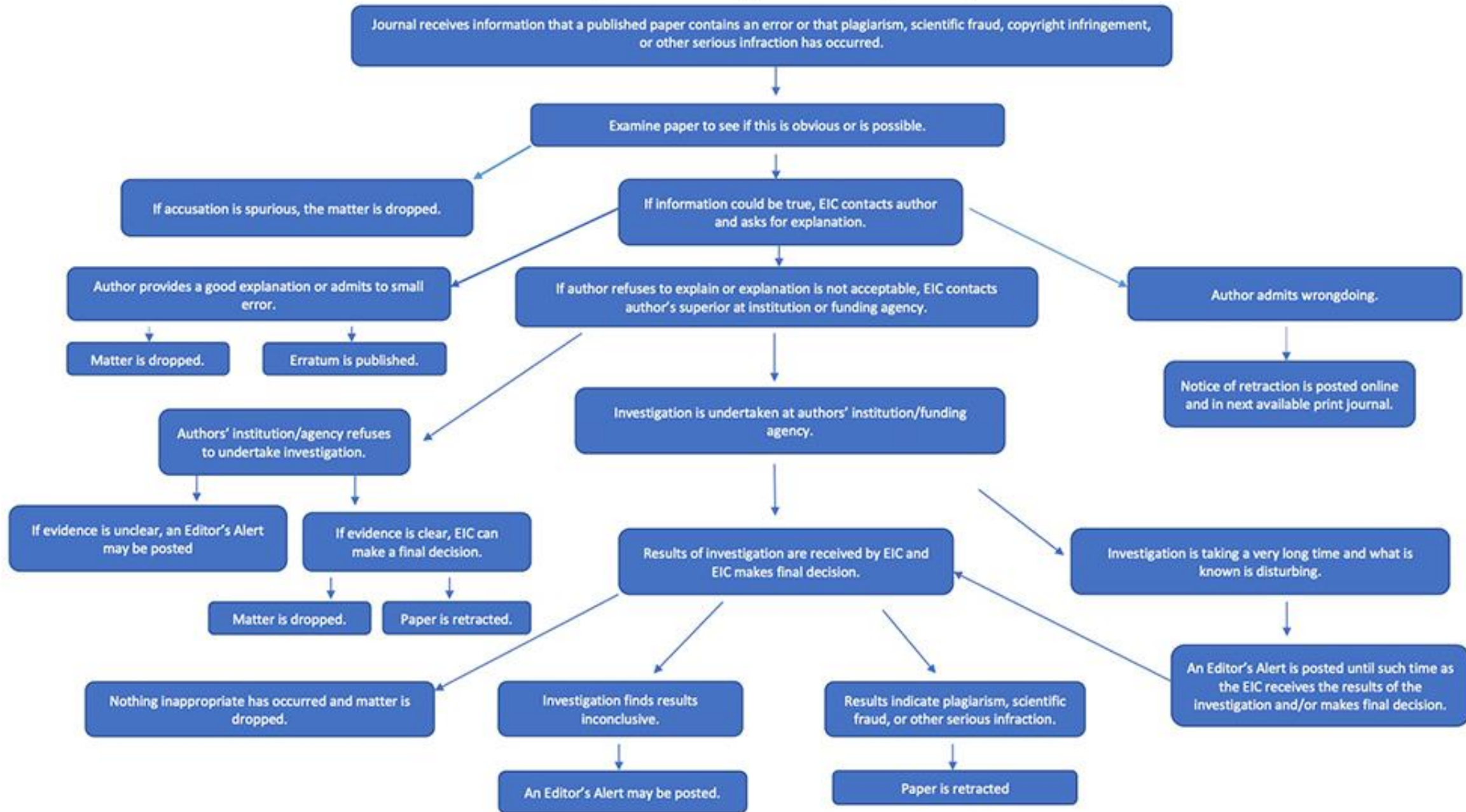
Marc Tessier-Lavigne

Both articles, "Hierarchical Organization of Guidance Receptors: Silencing of Netrin Attraction by Slit Through a Robo/DCC Receptor Complex," and "Binding of DCC by Netrin-1 to Mediate Axon Guidance Independent of Adenosine A2B Receptor Activation," were published in 2001, when Tessier-Lavigne, the corresponding author, was at the University of California, San Francisco. They have been cited well over 600 times in total, according to Clarivate's Web of Science.

# The case of Mark Tessier-Lavigne

- Dr. Tessier-Lavigne has retracted 3 papers in light of the ongoing controversy surrounding his research, and had to issue corrections to two papers.
- The Stanford investigation did not report any misconduct on the part of Dr. Tessier-Lavigne. Yet, Dr. Tessier-Lavigne resigned from Stanford's presidency.
- Why do you think things turned out this way?
- What are the consequences of this turn of events?
- How would you handle things if you were in the president's shoes?

### Protocols for Erratum Notice, Retraction of Article, and Editor's Alert (Editorial Expression of Concern)





# Our own work

- How would you handle a bug in your code? Bugs aren't always visible to the reader.
  - Does the bug substantially alter the results? Does it change the conclusions of the paper? Does it substantially decrease the confidence in the paper and the results of the paper?
  - What are your correction options?
- Correction options:
  - Do nothing
  - Indicate the error in the next publication
  - Erratum
  - Retraction

# How do we minimize the chances of an erratum or retraction?

- Multiple validations of the methodology
  - Simple validation of model in an ideal environment
  - Validation on simple/known targets
  - Repeated experiments
- Controls
- How else can we minimize errors and bugs?