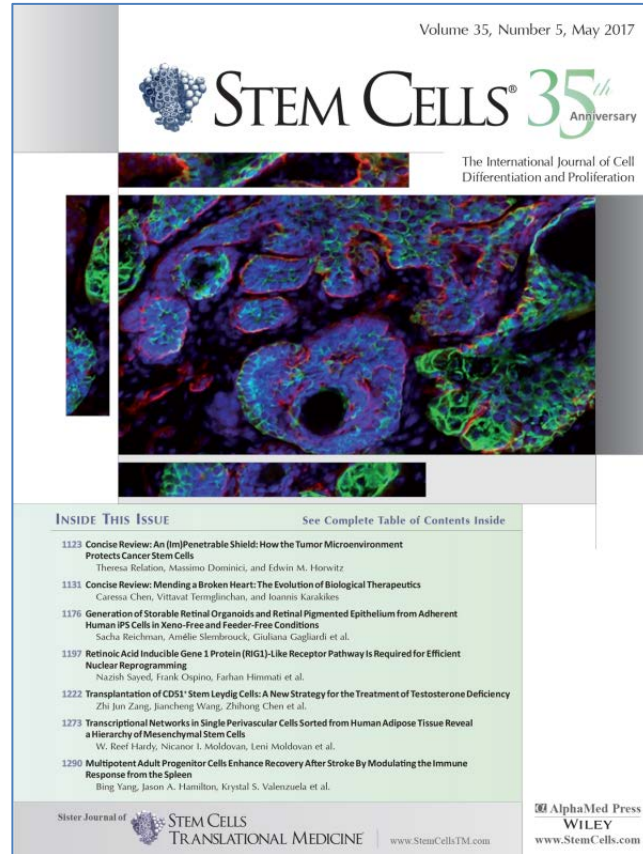




Publication Ethics: The Case of the Suspected Image Manipulation

Julie Vo
Associate Managing Editor
STEM CELLS
AlphaMed Press

STEM CELLS



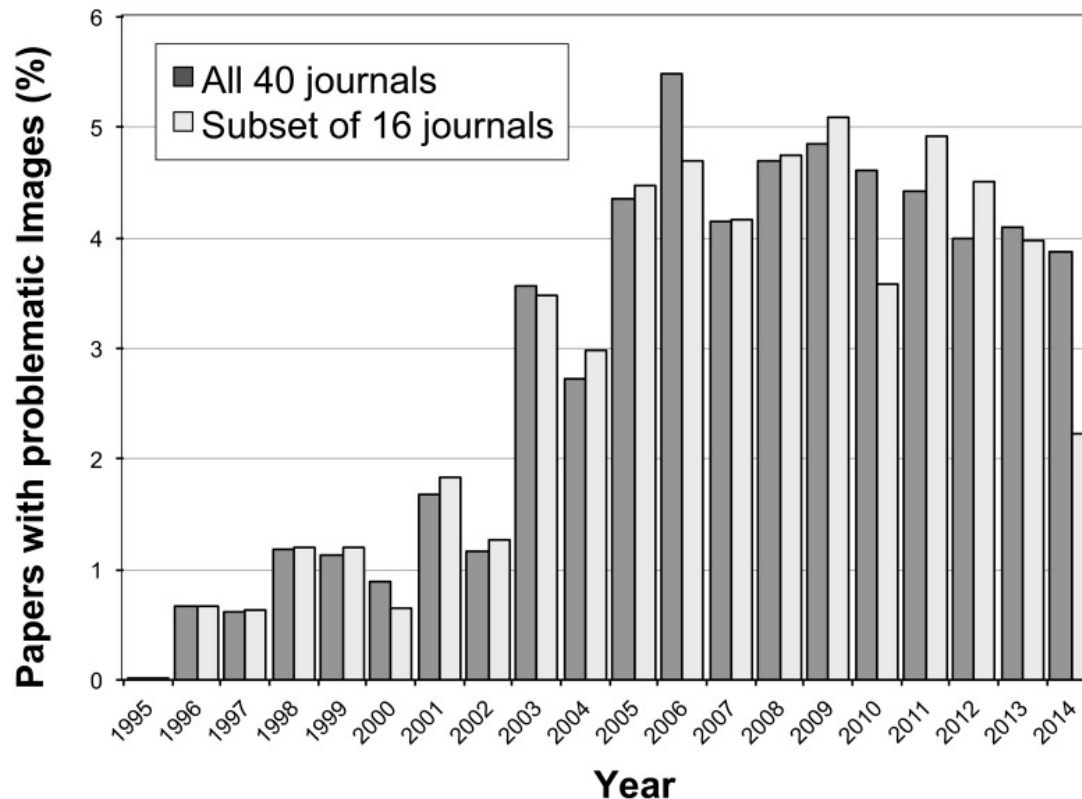
- **Celebrating 35th Anniversary**
- **Co-published by AlphaMed Press and Wiley**
- **5-Year Impact Factor: 6.872**
- **Editorial office based in Durham, NC, 3 staff members**
- **Member of the Committee on Publication Ethics (COPE)**



**Council of
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CouncilScienceEditors.org

Cases of Image Manipulation



Bik EM, Casadevall A, Fang FC. The Prevalence of Inappropriate Image Duplication in Biomedical Research Publications. *mBio*. 2016;7(3):e00809-16. doi:10.1128/mBio.00809-16.



STEM CELLS Case

- Alerted by a science blogger
- COPE Guidelines – “How to respond to whistle blowers when concerns are raised directly”
- Contacted authors
- iThenticate for text, but what about figures?
- Contacted Lead Reviewer for expertise

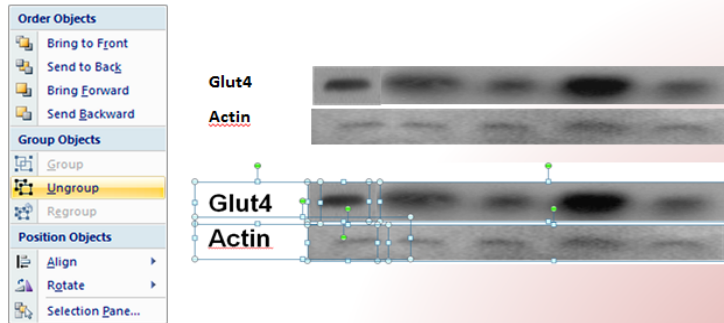
Gaps in Investigation: Next Steps?



CSE: Short Course in Publication Ethics

PowerPoint

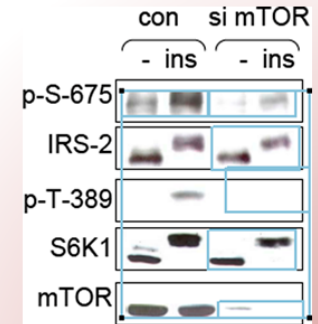
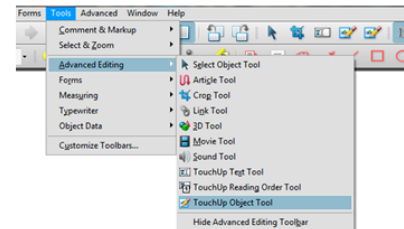
- **In-depth Review: Ungroup**
 - Ungrouping images may reveal splicing



Integrating the Life Sciences from Molecule to Organism

Acrobat

- **In-depth Review : Application**
 - TouchUp Object Tool
 - Marquee Zoom
- Click on pieces in figure
 - Multiple pieces?
 - Panels consistent?



Integrating the Life Sciences from Molecule to Organism

Pesanelli, E. (2016). Publication Ethics: Rules and Tools for Addressing Image Manipulation [PowerPoint slides].



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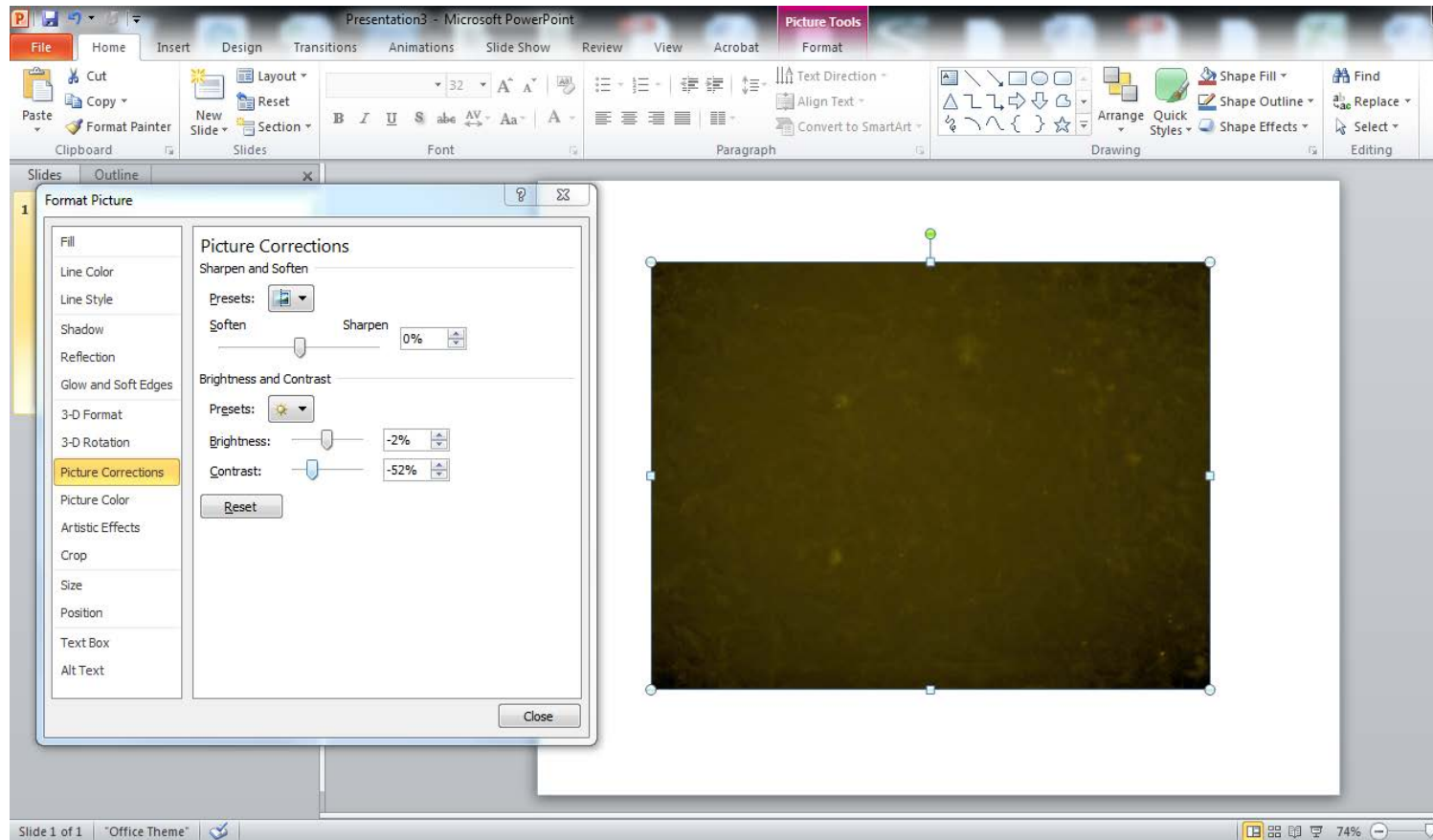
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CSE: Networking and Sessions

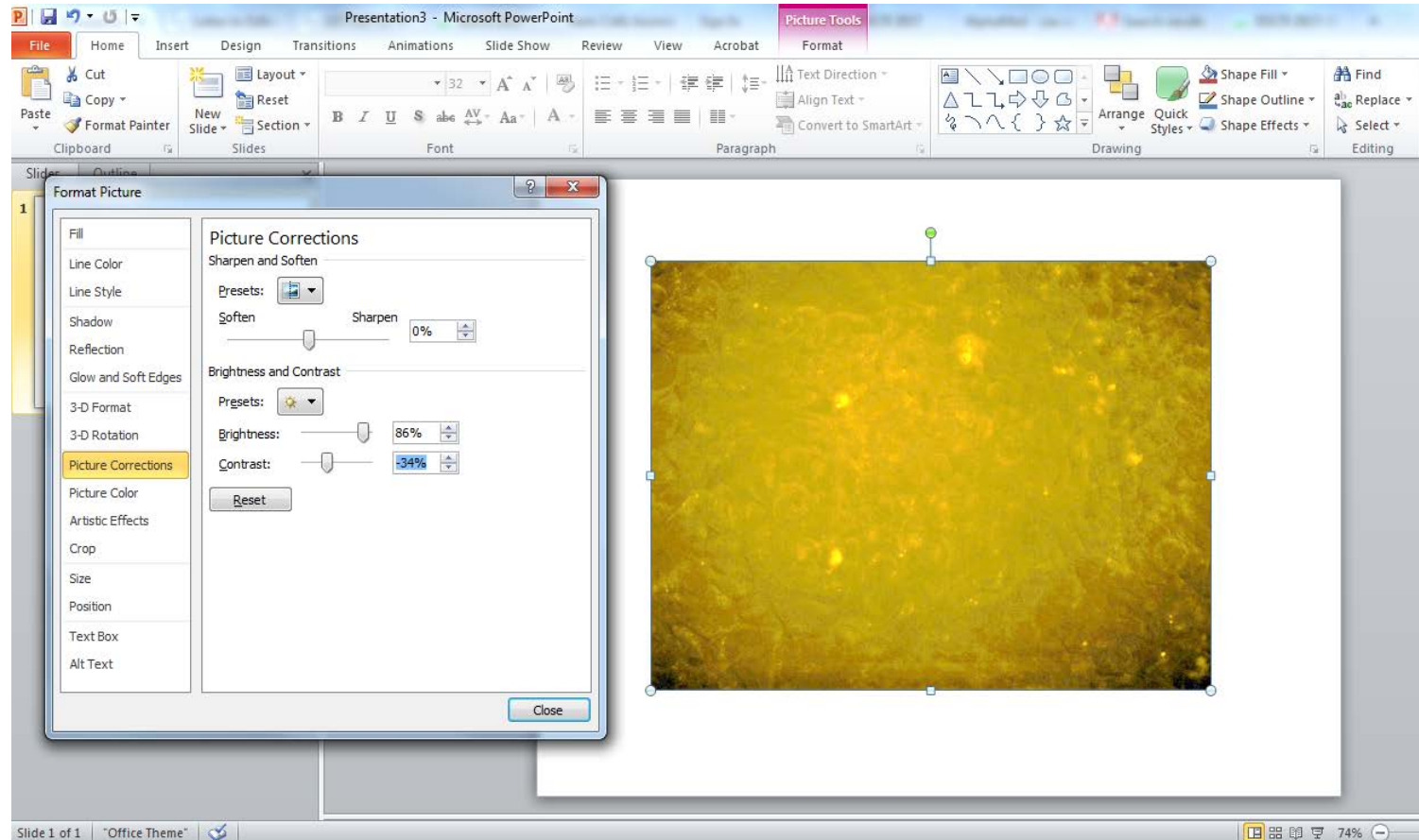
- **Liz Wager – Correcting the Literature & Liaising with Institutions**
 - Investigation results, correspondence
 - Expression of concern or retraction?
- **1.4 “Scientific Misconduct: Investigating Alleged Misconduct and Educating to Prevent It”**
 - Different perspectives and opinions on how to proceed
 - Responsibility to investigate?
 - Tread lightly, but deliberately



Back at My Desk



Back at My Desk



Back at My Desk

- **Production affiliate confirmed findings in Forensic Image Analysis**
- **Reviewed and clarified IFA for Misconduct Policy**

Image Integrity

No specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable if they are applied to the whole image and as long as they do not obscure, eliminate, or misrepresent any information present in the original. The grouping of images from different parts of the same gel, or from different gels, fields, or exposures must be made explicit by the arrangement of the figure (e.g., dividing lines) and in the text of the figure legend. If the original data cannot be produced when requested, the acceptance of the manuscript may be revoked.

- **CASE CLOSED: Figure manipulation was not detected**
- **Findings report was issued to the authors**
- **Neither EOC nor retraction was required**



Defined Protocol for Future Investigations

- **Re-evaluate internal workflow to supplement COPE guidelines**
- **Use Acrobat and PowerPoint for a preliminary investigation**
- **Inform co-publisher (Wiley Ethics Committee)**
- **Contact institution or authors depending on case and needs**
- **Liaise with university ethics committee / research integrity officer (RIO)**
- **Increase awareness with our editorial leadership, reviewers, authors by reviewing policies**



Questions?



**“Your X-ray showed a broken rib,
but we fixed it with Photoshop.”**

