A Call for Continuous Post-Pub Improvement

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| reviews | annotations |
| discussions | corrections |
| comments | tweaks |
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reviews  annotations
discussions  corrections
comments  tweaks

Already happening constantly in journal clubs, conferences, e-mail

Challenge: how to move the private to online?

*** (if online - good for readers & authors)
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Publishing today - static

except F1000, no journal has versioning
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7. Wash 2x with 1mL 1x PBS.
8. Resuspend in 1mL 70% EtOH and leave for at least overnight at 4C. We have sporadic reports that longer incubations at 4C in EtOH (i.e., 5 days) can reduce autofluorescence, but we don't think it really matters.

All done! Larvae can be hybridized up to one week after being fixed, perhaps longer.

**C. elegans embryos**

1. Add 5mL M9 buffer to a plate of gravid hermaphrodites and swirl to release worms from surface. Move worms to a 15mL conical centrifuge tube.
2. Spin down and add bleaching solution (40mL H2O, 7.2mL 5N NaOH, 4.5mL 6% NaOCl).
3. Vortex for roughly 4-8 minutes until worms disappear and only embryos remain.
4. Spin down and aspirate, then wash 2x in M9 buffer.
5. Resuspend in 1mL fixation solution and incubate at room temperature for 15 minutes.
6. Vortex and then immediately submerge tube in liquid nitrogen for 1 minute to freeze crack the embryos' eggshells.
7. Thaw in water at room temperature.
8. Once thawed, vortex and place on ice for 20 minutes.
9. Wash 2x with 1mL 1x PBS.
10. Resuspend in 1mL 70% EtOH and store at least overnight at 4C.

All done! Embryos can be hybridized up to a week after being fixed, perhaps longer.

**D. melanogaster wing imaginal discs**

1. Submerge 3rd instar larvae in 1mL 1x PBS and dissect to release wing imaginal discs.
2. Place discs at the bottom of a chambered coverglass. They should stick readily.
3. Fix wing discs by aspirating PBS and adding 1mL fixation solution; incubate at room temperature for 45 minutes.
4. Wash 2x with 1mL 1x PBS to remove fixative.
5. Add 1mL 70% EtOH and leave at least overnight at 4C.

All done! Discs can be hybridized up to a week after being fixed; perhaps longer.

**Yeast (S. cerevisiae)**

This protocol is adapted from the Singer lab's protocol.

1. Grow yeast to an OD of around 0.1-0.2 in a 45mL volume of minimal media.
2. Add 5mL of 37% formaldehyde directly to growth media and let sit for 45 minutes.
3. Wash 2x with ice cold Buffer B.
4. Add 1mL of spheroplasting buffer, transferring to a new microcentrifuge tube.
5. Add 1mL of zymolyase and incubate at 30C for 15 minutes.
7. Add 1mL 70% EtOH and leave overnight at 4C.

All done! Yeast can be hybridized up to a week after being fixed, perhaps longer.
What about tradition and etiquette?

Discussion and criticism should go through the journal/author
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Tradition can be wonderful or terrible
(not too long ago, tradition was that women and blacks didn’t vote)

Why do we have this tradition?
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Why do we have this tradition?

30-300 years ago

Today

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Given today’s technology - question becomes whether our via-journal/author tradition is good.
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Given today’s technology - question becomes whether our via-journal/author tradition is good.

It is - but only for the original author. And by being nice and civil to the author, we are valuing the comfort of a single individual over the lives of countless other scientists, over lives of patients, over the progress of science and benefit to society.

*** (Not a call to be a Youtube-comments jerk!)
What about tradition and etiquette?

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Michael LaCour, author of retracted gay-marriage attitudes study:

“I note that Broockman et al. (2015)’s decision to not present the lead author with the critique directly, by-pass the peer-review process, privately investigate data collection activities without knowledge or consent of the author, demand confidential identifying information from respondents in a study without grounds or standing to do so, publicize unsubstantiated allegations and hearsay prior to a formal investigation, is unprecedented, unethical, and anomalous in the relevant literature.”
Takes time & resources

Total public user-contributed protocols
Isn’t peer review great? Why do you hate it?
Isn’t peer review great? Why do you hate it?

Yes, peer review is wonderful - WE LOVE IT and want more of it!
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We just want it in the open, continued as dialogue post-publication.