09:16:48 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:17:39 From Alex Kunin to Everyone:

    What's the link?

09:17:45 From Sydney Wilbon to Everyone:

    May you please resend the link?

09:17:48 From Dierdre Axell-House to Everyone:

    Sorry, is there a link?

09:17:48 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:17:50 From anne gonzales to Everyone:

    Are you able to resend the quiz? we cannot see the chat before joining

09:17:51 From Dierdre Axell-House to Everyone:

    Thank you

09:18:05 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:18:57 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:20:07 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:21:31 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:21:57 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:22:57 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:23:42 From Eduardo Jurado-Cobena to Everyone:

    done

09:23:52 From Dawn Koob to Everyone:

    Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:24:14 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:25:56 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:26:11 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:27:21 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:29:45 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:30:36 From Dawn Koob to Everyone:

Pre Assessment: https://forms.gle/X1SEFZ6S6URWHvWb7

09:42:54 From Doris Taylor to Everyone:

Are there career consequences for retractions? It sure seems fairly meaningless right now.

09:53:30 From SCorvigno to Everyone:

good question

09:55:57 From Doris Taylor to Everyone:

In my field we knew data from a few labs were bogus for years but they kept having papers accepted in Nature and folks who criticized had their careers trashed. this wentfrom the bench through clinical trials.. ive lost a lot of colleagues and friends for criticizing those data

10:00:51 From Alex Kunin to Everyone:

Why can't the publish-or-perish paradigm go away? Every time I hear it discussed, people point at how badly it incentivizes scientists, and how profitable the journal industry is at the expense of universities. What would a replacement for the current "publish-or-perish" paradigm look like?

10:01:49 From Kara Hood to Everyone:

I had a similar question. How can PIs demonstrate progress to funding agencies to show that they don't waste their money if it's not through publications?

10:06:36 From abano to Everyone:

Will we get a copy of the slides?

10:06:38 From Robiya Joseph to Everyone:

Are scientific journals responsible too for promoting and accepting papers that are retracted later on? Does editorial favoritism exist?

10:08:37 From Suzanne Tomlinson to Everyone:

Yes, slides will be made available as will the recording

10:09:14 From Dawn Koob to Everyone:

The slides and video will be posted to the GCC Rigor and Reproducibility resources page. https://www.gulfcoastconsortia.org/home/research/rigor-reproducibility-resource-page/rr-media/

10:12:06 From Kara Hood to Everyone:

Maybe the number of published papers that get retracted from a journal should be the major component of its impact factor

10:15:38 From Alex Kunin to Everyone:

Interesting to compare figures C and D

10:19:35 From SCorvigno to Everyone:

so, since both us trainees/students and PIs are affected by the publish or perish paradigm, what are we doing about that? Who needs to follow this lesson besides us and learn what is going on? If both us and PIs are aware of that, who else needs to learn this lesson who s not listening? I heard that for years, nothing seems to change

10:21:20 From Doris Taylor to Everyone:

Agreed. the irony is that what gives the speaker the credibility to discuss this is publication in CNS journals

10:29:32 From SCorvigno to Everyone:

to solve the problem punishment is the tip of the iceberg, creating an environment that avoids the problem to exist is the solution

10:31:36 From vynanda@mdanderson.org to Everyone:

Every paper should be given its own impact factor over time, rather than get a free ride on the CNS journals.

10:32:43 From Doris Taylor to Everyone:

i would love to help witht hat

10:33:25 From Alex Kunin to Everyone:

In the internet age, with the rise of decentralized consensus technology, why do we need journals at all? Maybe it is time for the pendulum to swing back towards decentralization a bit.

10:39:36 From abano to Everyone:

Can you ask the author for the script they used for processing the data, Are they obliged to share? I have a similar issue. I have been trying to replicate the analysis of TCGA data published in a paper, but not getting the same results.

10:42:56 From abano to Everyone:

   Is this the approach used for developing tests like PAM50 for breast cancer?

10:43:30 From abano to Everyone:

   And MammaPrint

11:02:07 From Doris Taylor to Dawn Koob(Direct Message):

   Egad major author former mentor of mine

11:06:03 From Robiya Joseph to Everyone:

   Is raw data from a published treatment cohort sufficient for rechecking the results? The analysis tools -software and the version also matters?

11:06:25 From Kara Hood to Everyone:

   Wow!

11:11:59 From Doris Taylor to Everyone:

   one of the authors is a former mentor of mine. shocking and wow

11:13:33 From Suzanne Tomlinson to Everyone:

   Ugh…so sorry Doris!

11:15:20 From Doris Taylor to Everyone:

   it just proves it happens to good people but the resistance is a problem. Top institution, top people and here we are

11:19:37 From Suzanne Tomlinson to Everyone:

   Yes, I know some who have contributed data for one set of assays and all of their data was good, but they are still affected when the paper is retracted

11:23:12 From Alex Kunin to Everyone:

   Thank you for the talk!

11:23:51 From Blake Hanson to Everyone:

   Thank you for the fantastic talk

11:24:10 From Lucas Camargo to Everyone:

   Amazing storyteller! This was fantastic!!

11:25:04 From Krupa Mysore to Everyone:

   Wow!!

11:25:05 From Suzanne Tomlinson to Everyone:

   Also note that Keith's responses will be from "Sarah"

11:26:05 From Sarah to Everyone:

Yes, lots of people are affected by retractions. I actually wound up being asked for ref letters from some of the minor authors on these papers so they wouldn't be blacklisted. I agreed, as long as they could tell me what their role was, and send me readily usable code which I could check.

11:27:47 From Sarah to Everyone:

Resistance is a problem even at good places, yes. On one of my last slides there's a link to a paper by Tina Gunsalus on "How to Blow the Whistle and have a Career Afterwards" which talks in more detail about some steps you can take when you suspect problems.

11:34:03 From Sarah to Everyone:

We have asked authors for scripts they used for preprocessing and the like, so you can certainly try. Most folks have been pretty helpful and sent at least something. Supplying materials for reproducibility is now a nominal requirement at many journals (and funding agencies), so it is possible to escalate if there's no response or a negative one. Be prepared to ask at least a few times before anything else though - emails can pile up for benign reasons. We've tried supplying code as supplementary material to journals because the footprint isn't big (unlike with some raw data), and had that work. There are papers where we asked, got no response, and decided it wasn't worth the hassle and moved on telling our collaborators that we couldn't verify things.

11:37:44 From Sarah to Everyone:

PAM50 / Mammaprint used somewhat different approaches, and in particular they were better about trying to assemble blinded and randomized validation cohorts. Even if we can't follow all of the code, if your procedure gives good predictions in a good randomized trial, you've got something. This issue is coming up with various attempts to validate AI predictions where we don't fully understand what the machine is doing.

11:43:45 From Sarah to Everyone:

Raw data typically isn't enough to validate many findings, particularly in high throughput biology - the preprocessing and other steps need to be specified as well. If you tell me "I did a t-test", I can work with the raw data. If you tell me "I compared these sets of arrays" (or RNA-Seq, etc), I'd need to know how you were quantifying and normalizing the data before I could begin. I'd also typically ask for some metadata, along the lines of run date. If I plot the expression level of a gene of interest and it shows a bigger shift by run date than by treatment group, I'd want to see some discussion of how you identified and adjusted for batch effects before going much further.

11:50:40 From Sarah to Everyone:

For most high throughput assays, there are now public repositories which can be used for hosting raw data (e.g., GEO, SRA), and with supplying some constraints (you may have to agree to some use conditions to access data with personal health information, PHI, for example). Summary (deidentified) data I would really like to see as a matter of course. For example, in papers showing survival curves (Kaplan-Meier, Cox PH models, etc), I'd like to be able to get a table showing survival times used to construct the curve.

11:51:38 From Sarah to Everyone:

   I think I replied to all the questions; shoot me an email if I missed any!

11:59:14 From SCorvigno to Everyone:

   how do we enter the breakout groups?

11:59:56 From Dawn Koob to SCorvigno(Direct Message):

   You will be put into your breakout room at the appropriate time.

11:59:57 From SCorvigno to Everyone:

   and when

12:00:06 From SCorvigno to Everyone:

   ok

12:01:10 From SCorvigno to Everyone:

   I am following from my mobile device as well as sara.corvigno I think

12:03:33 From Robia Pautler to Everyone:

   they'll put you in a breakout room when it's time for that part of the workshop :)

12:04:04 From SCorvigno to Everyone:

   yes, I see, just saying that I am following from two accounts cause our stationary PC does not have mic

12:10:17 From Lizette Rios to Everyone:

   Graphpad prism has an "Identify outliers" option and lists ROUT and Grubb's method, is this okay to use?

12:11:55 From Lizette Rios to Everyone:

   thank you!

12:18:07 From Doris Taylor to Everyone:

   is it valid to divide a known set of data into a hypothetical set to generate data and validation set?

12:23:58 From dpogue to Everyone:

   I would assume that the sample, ie cell lines could be used again, but under different conditions or collection times??? not my area

12:29:40 From Doris Taylor to Everyone:

   so this is ideal in an ideal world but how do we get grants etc to pay for these or what do we do if the biological replicates just don't exist

12:45:28 From Shirlette Milton to Everyone:

   Does rigor of prior and proposed research apply to qualitative research proposals?

12:45:31 From Alex Kunin to Everyone:

   post all your code on github (or some other public git repo)!

12:48:22 From Aravind Chenrayan Govindaraju to Everyone:

   Thank you, that was helpful.

12:48:37 From Robia Pautler to Everyone:

   @Shirlette — Yes, I think it should

12:49:35 From Robia Pautler to Everyone:

   @Shirlette — for rigor of prior research, that is essentially building the case for what you propose to do .

12:50:11 From Robia Pautler to Everyone:

   For rigor of proposed research, even if it's qualitative, you need to address this.   You need to demonstrate that the data collected will be collected in a rigorous, reproducible and unbiased manner

12:51:34 From dpogue to Everyone:

   esp acknowledging and noting research bias

12:51:58 From Shirlette Milton to Everyone:

   Thanks, Robia for this response. Moving into this area where I will be conducting individual interviews.

12:54:08 From Robia Pautler to Everyone:

   No problem, Shirlette —   have you seen this link?

12:54:10 From Robia Pautler to Everyone:

   https://grants.nih.gov/grants/peer/guidelines_general/Review_Human_subjects_Inclusion.pdf

12:54:18 From Robia Pautler to Everyone:

   that's just the tip of the iceberg

12:56:40 From Shirlette Milton to Everyone:

   Robia, appreciate this reference. FYI just completed a 3-day Qualitative Analysis of Data Workshop last week and still reviewing all the materials. Thx so much!

12:57:27 From Kara Hood to Everyone:

   Who is the "burden of proof" on in these user-specific experiments? The question seems to imply that if other labs can't reproduce results, the fault is on the lab rather than on the user error of others.

12:58:00 From Robia Pautler to Everyone:

Very cool, Shirlette!!

12:58:13 From Doris Taylor to Everyone:

But isn't some of this about reporting and controlling biology to the extent possible but making sure data are rigorous is different isn't it?

12:58:40 From Doris Taylor to Everyone:

Fraud comes from things like this unfortunately. and if no one can reproduce its a problem

13:00:18 From Aravind Chenrayan Govindaraju to Everyone:

Are there any ideas on how computational models implemented using commercial solvers - (in my case Comsol) can be made accessible? The functions, parameters and equations can be exported and shared separately as text, but the underlying code is not available in the same way as typical python or matlab code shared on GitHub.

13:04:40 From Robia Pautler to Everyone:

Hi Aravind — I hope Kurt can get back to you on your question since I am not a computational person, however, one thing I wanted to share with you is that when you craft your NIH biosketch, make sure that you do not include any links to Github in it. NIH has really cracked down on including some active links in bio sketches and applications to the point, they will withdraw your grant from review if such links are included. Just a tidbit if advice because I know a TON of people who had their grants withdrawn from review because they had Github links included.

13:06:04 From Robia Pautler to Everyone:

@Doris — I'm not 100% sure what you mean but I think that reporting details of data and experimental approaches and making sure the experimental approaches are rigorous and reproducible don't necessarily contribute to fraud. Could you elaborate what you mean?

13:06:48 From Aravind Chenrayan Govindaraju to Everyone:

Thank you.

13:21:49 From Doris Taylor to Everyone:

We use lab archives which is auditable and FDA compliant

13:22:45 From Aravind Chenrayan Govindaraju to Everyone:

didn't know about labarchives before, will check it out, thanks.

13:46:23 From SCorvigno@mdanderson.org to Everyone:

We re fine:)

14:03:06 From Doris Taylor to Everyone:

Where n value for power differs within an aim do you go for highest N?

14:30:12 From Dawn Koob to Everyone:

Post Assessment: https://forms.gle/EEonGve9Nzr5bRhc6

14:30:52 From vynanda@mdanderson.org to Everyone:

Thank you!!

14:30:54 From Ying-Wooi Wan to Everyone:

Thanks

14:30:57 From Todd Treangen to Everyone:

thanks, Suzanne! and all, great job

14:30:57 From Olivia Solomon to Everyone:

Thank you!!!

14:31:00 From Suzanne Tomlinson to Everyone:

smtomlin@rice.edu

14:31:30 From Aravind Chenrayan Govindaraju to Everyone:

Thank you everyone. Insightful.

14:31:47 From Dawn Koob to Everyone:

https://forms.gle/EEonGve9Nzr5bRhc6

14:32:54 From Robiya Joseph to Everyone:

Thank you

14:32:56 From Eric P. Zorrilla to Everyone:

appreciated the workshop very much, we hope to adapt much of this for our Training out West, and I may me in touch for follow-up requests in the future. COngratulations for a great workshop.

14:33:43 From Suzanne Tomlinson to Everyone:

Eric was great to chat with you. Feel free to reach out. Look forward to chatting again!