## **Bioc Technical Advisory Board Minutes**

5 June 2025

**Present**: Vince Carey, Henrik Bengtsson, Stephanie Hicks, Lori Kern, Charlotte Soneson, Rafael Irizarry, Laurent Gatto, Jacques Serizay, Marcel Ramos, Wolfgang Huber, Helena Crowell, Levi Waldron, Ludwig Geistlinger, Andres Wokaty, Sehyun Oh, Hervé Pagès, Davide Risso, Alexandru Mahmoud

Apologies: Kasper Hansen, Michael Lawrence

:04 - :05 Welcome, previous minutes approved.

:06 - :10 CAB updates.

- Not planning to go back to posting on Twitter (but should still work to tag Bioconductor).
- Discussion about increasing industry involvement.
  - Paid industry workshops/training.
  - Would be good to have advocates within industry.
  - 'Glossy' about Bioconductor.
  - Would be useful to reflect about the different value propositions of the project at large. Would be helpful to get input from people with a 'business-oriented' mind, would help liaising with third parties.
- :11 :14 Working group updates
  - Training
    - Populating a repository with HowTo documents: <u>https://bioconductor.github.io/BiocHowTo/articles/index.html</u>. Contributions are welcome (see instructions <u>here</u>).
      - Four-way documentation: <u>https://docs.divio.com/documentation-system/</u>
    - Agreement with Physalia-courses (initially for 1 year). Co-branded courses/promotion, assistance with identifying suitable instructors, conference sponsorship, sponsored seats for participants from low-income countries.
  - Workflows
    - Discussions underway with the <u>Journal of Open Source Education</u> (JOSE) as a venue to which authors of Bioconductor workflows can submit their work for publication (as an optional step after the current review process and inclusion in Bioconductor).

:14 - :15 Move from slack to Zulip - also investigation of Discourse.

• Tabled for TAB, low bandwidth so far; bots, captchas, emails, support.bioc is in need of renovation.

:15 - :16 Slack discussion on storing reduced dimension representations

• Discuss in the #biocclasses working group (see here)

## :16 - :29 R-universe

- <u>demonstration universe</u> (slides)
- R-universe will be a staging area, then there will be gatekeepers that take packages from R-universe and move to production. Emulate the hooks that prevent bad developer actions like large files or reduction of package version.
- Will we still have a hosting cost? Depends on how things will be set up in the end.
- Are we currently paying more for hosting or egress? Likely the latter. The main advantage will be to not have to maintain BBS/SPB save on core team time.
- Arguably, it would benefit Bioconductor to move away from BiocManager::install() to install.packages(). Somewhat unrelated to the R-universe discussion as this will be mainly a staging area.

:29 - :34 basilisk switch to pip/pyenv - impact and current status

- <u>https://bioconductor.org/checkResults/devel/bioc-LATEST/basilisk/</u>
- A few packages fail to build as they are attempting to use functions that were moved between basilisk.utils and basilisk.
- A few packages fail check since python can not be installed.
- A few packages need updates to the environment specifications, or modifications to install (non-python) packages from conda instead of PyPI.
- A few packages fail on macOS Silicon with error ! OSError: Could not find/load shared object file

:34 - :57 Perpetual availability of archives/hubs

- Since OSN has gone down for a few days (planned downtime) possibility of automatic redirect to the S3 copy of archive.
- Alex notes a possibility of responding to a bad HEAD request response, fall back to S3 as needed, hubs.bioconductor.org concept.
- General resilience approach, shell script to do head request, apache will call the shell.
- OSTA book authors try to deposit data on OSN, frequent failures occurring (website down, timeout, connection issues). Could it depend on the geographical location of where the request is made?
- Cloudflare R2: \$15/month/TB, no egress charge. S3 compatible on the technical level.
- <u>https://dev.status.bioconductor.org/</u> can we catch automatically if a website is unreachable and point users to this?
- CRAN policy: Packages should fail gracefully if internet access is not available.
- 5MB package size restriction can't include large example data. What to do if developers also shouldn't download example data. Not really asking developers not to download - but to use caching.
- Depending on experience level, it may be difficult to judge why things are failing, what is a temporary glitch and what is a more serious issue.
- Recent pain point in context of reliability: package failed because the vignette didn't build since the example data could not be downloaded (although the package in itself was working fine).

- Tradeoff between strictness and creativity. Aim for resilience. Different levels of reliability for different parts of the ecosystem.
- There are packages that have code in .onLoad hook that tries to get things from the internet won't even load without internet connection. We should have strict guidance against this.

:57 - :59 Elections

- Announce/open nomination at GBCC 2025. Nomination form draft.
- Nominations open until August 31.
- Discussion at September meeting.
- Voting in September.
- New members to join in October.

:59 - :60 GBCC 2025 CoFest projects

• Updates on a package could all be one group, split to work on different packages, bounce ideas across package-specific teams.