Update:
Bioconductor Images

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https://bioconductor.org/help/docker
New images

In the same spirit as "bioconductor_full" i.e all system dependencies

- bioconductor/bioconductor_docker:devel
- bioconductor/bioconductor_docker:RELEASE_3_10

Cmd:

docker pull bioconductor/bioconductor_docker:devel
Why new images?

- **Maintenance**: Chain of inheritance was too complicated for easy maintenance.
  
  - rocker/rstudio --> bioconductor/bioconductor_docker
  
  - Remove intermediate docker images, (devel_core2, etc)

- **Size**: Keep image size still in a manageable.

- **Best practices**: Dockerfile with standards, versioning, deprecation cycle

- **Naming convention**: Better naming convention
Reproducibility of Dockerfile

# Version is 3.11.0 because this is the first iteration of the bioconductor devel Dockerfile
LABEL name="bioconductor/bioconductor_docker" \ 
  version="3.11.1" \ 
  url="https://github.com/Bioconductor/bioconductor_docker" \ 
  vendor="Bioconductor Project" \ 
  maintainer="maintainer@bioconductor.org" \ 
  description="Bioconductor docker image with system dependencies to install most packages." \ 
  license="Artistic-2.0"

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Contribute Images with familiarity

- Images ~ packages
- Contribute images through the contributions page.

How to contribute: https://github.com/Bioconductor/bioconductor_docker/blob/master/best_practices.md
'devel' build variables

• Recently added "devel" build variables

• Builds packages **a little more like** the Linux nightly builder now.

• Easy for maintainers to reproduce bugs,

  Eg: https://github.com/Bioconductor/Rsamtools/issues/16

NOTE: It still has a long way to go before emulating the build system perfectly.
Complications

- The way packages are installed is different on the Linux build machine.
  - It pulls the latest update on git.bioconductor.org, not a BiocManager::install.
- No vignette builder currently
- It's important to share the "host-site-library" in the correct way to mount volumes for this to work.
Links

Github:  
https://github.com/Bioconductor/bioconductor_docker

Dockerhub:  
https://hub.docker.com/repository/docker/bioconductor/bioconductor_docker

Bioconductor website:  
http://bioconductor.org/help/docker/

How to contribute images to Bioconductor:  
https://github.com/Bioconductor/bioconductor_docker/blob/master/best_practices.md
Q&A

1. Are singularity images available? Do we have to worry about security issues with Docker?

Yes, singularity images are available. http://bioconductor.org/help/docker/#singularity

2. What kind of images can we contribute?

Extending the image with just a set of packages is not very useful, but extending with additional system dependencies and workflows could be a very useful contribution.

3. How many versions do we foresee per release/devel cycle?

Not too many, they are pretty stable. Only time we'd update is if there was a bug fix.