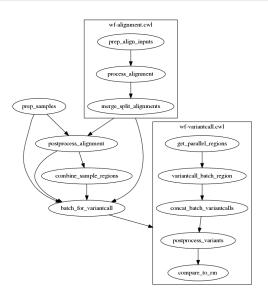
# Building a community menagerie of automated variant validations

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## You have a variant calling pipeline

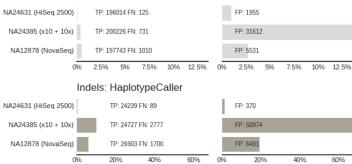


## Is it good? How good? What data types?



#### SNPs: HaplotypeCaller

False negative rate

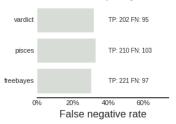


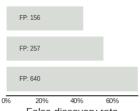
False discovery rate

## Does it work on my difficult samples?

## Somatic tumor-only FFPE

#### SNPs: Low frequency RAS combined

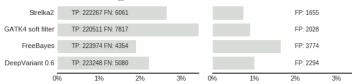




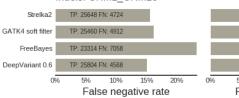
## Can I use it to improve callers?

### DeepVariant: CHM haploid diploid

SNPs: CHM1\_CHM13



#### Indels: CHM1\_CHM13





## Will it run correctly on my platform?

- Local machines and HPC: Cromwell, Toil
- AWS, GCP, Azure
- Arvados
- DNAnexus
- SevenBridges

```
http://bcbio-nextgen.readthedocs.io/en/latest/contents/cwl.html
```

## Automated validations for everything

■ Workflows

https://github.com/bcbio/bcbio\_validation\_workflows

Analyses

https://github.com/bcbio/bcbio\_validations

Help us build a community

https://github.com/bcbio/bcbio-nextgen