





Sarek

The Review - 2018-06-05

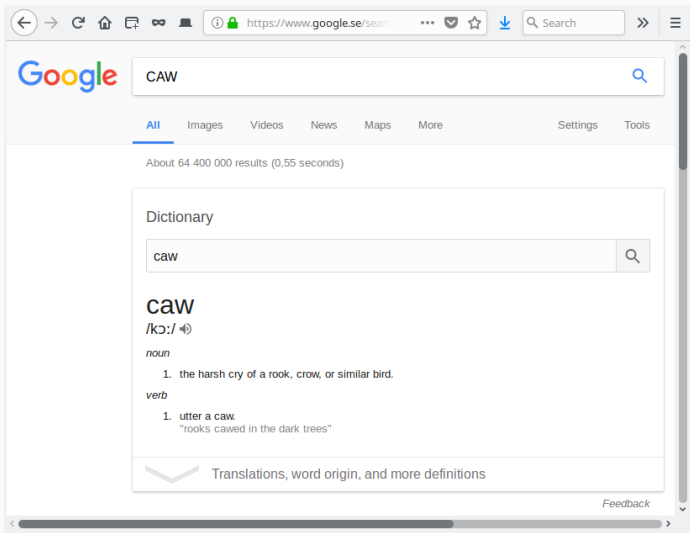
 Maxime U. Garcia
 @gau
 @MaxUlysse
 maxulysse.github.io



Today's agenda

- Transition from CAW to Sarek
- Article
- Deployment on NGL's Irma
- Samples with Clinical Genomics

Definition



What happens when you look for CAW



- Can do more than Tumor/Normal Pair Cancer Analysis



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 - Plan to replace NCI Piper



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- Can do more than Tumor/Normal Pair Cancer Analysis
 - Plan to replace NCI Piper
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 - Get a more Nordic name

Sarek, the National Park



Sarek, the National Park in Northern Sweden

The most dramatic and grandiose of all

Long, deep, narrow valleys and wild, turbulent waters. A tortuous delta landscape. **Completely lacking in comfortable accommodations.** This is where visitors and the wild World Heritage Site meet.

Sarek is one of Sweden's **most inaccessible national parks** for anyone who cannot hike or ski in on their own. **There are no roads leading up to the national park.**

Sarek National Park website

Where we're going we don't need roads



- More than 50 mails exchanged

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“Any chance you could make the mountain top less pointy? It
“hurts” a bit looking at it.”


What is Sarek?



 <http://opensource.scilifelab.se/projects/sarek/>

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- Nextflow pipeline
- Developed at NGI
- In collaboration with NBIS
- Support from The Swedish Pediatric Tumor Biobank



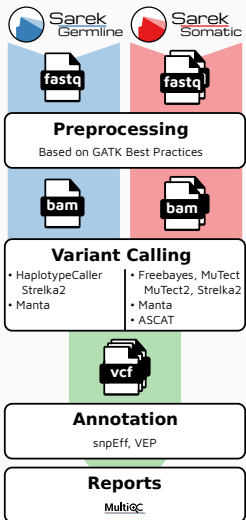
Sarek is now in two flavors



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What does Sarek do?



Sarek: A portable workflow for whole-genome sequencing analysis of germline and somatic variants

Maxime Garcia, Szilveszter Juhos, Malin Larsson, Pall I Olason, Marcel Martin, Jesper Eisfeldt, Sebastian DiLorenzo, Johanna Sandgren, Teresita Díaz de Ståhl, Valtteri Wirta, Monica Nistér, Björn Nystedt, Max Käller

doi: <https://doi.org/10.1101/316976>

Manuscripts I Have Co-Authored

| STATUS | ID | TITLE | CREATED | SUBMITTED |
|---------------|------------------|--|-------------|-------------|
| • With Editor | BIOINF-2018-1054 | Sarek: A portable workflow for whole-genome sequencing analysis of germline and somatic variants View Submission Submitting Author: Nystedt, Björn Cover Letter | 15-May-2018 | 23-May-2018 |

With the help of:

- Senthil
- Pär

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Already been used:

- Germline
- Somatic

Sarek was presented there

- SPHN Workflow Interoperability Workshop (Basel, Switzerland, 2018/03)
- Frontiers in Cancer Research and Therapy (Stockholm, Sweden, 2018/03)
- Keystone Symposia - Precision Medicine in Cancer (Stockholm, Sweden, 2018/05)

- The Nordic Precision Medicine Initiative (Reykjavik, Iceland, 2018/06)
- 25th Biennial Congress Of The European Association For Cancer Research 2018 (Amsterdam, Netherlands, 2018/06-07)
- Journées Ouvertes en Biologie, Informatique et Mathématiques (Marseille, France, 2018/07)

Latest additions

- New logo and stickers
- Main script was dissected into 5 new script
 - to facilitate work on separate parts
- Follow Strelka Best Practices
- Improved slurm usage
- Improved help
- Improved CI testing

- Control-FREEC
- CI testing for ASCAT
- GATK 4.0
- Removing MuTect1

The List of People Involved



| | |
|---------------------|------------------------|
| Sebastian DiLorenzo | Markus Mayrhofer |
| Jesper Eisfeldt | Monica Nistèr |
| Phil Ewels | Björn Nystedt |
| Maxime Garcia | Pall Olason |
| Szilveszter Juhos | Markus Ringnér |
| Max Käller | Pelin Sahlén |
| Malin Larsson | Johanna Sandgren |
| Marcel Martin | Teresita Díaz De Ståhl |

Get involved!

- We are on the SciLifeLab Slack
#sarek-pipeline

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 - #sarek-pipeline
- We have a gitter channel
 - `https://gitter.im/SciLifeLab/Sarek`

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- Our code is hosted on Github

 <https://github.com/SciLifeLab/Sarek>

Any questions?

🌐 <http://opensource.scilifelab.se/projects/sarek/>

🔗 <https://github.com/SciLifeLab/Sarek>

