



**Colorado State University**

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# **Todos Santos Center**

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BAJA CALIFORNIA SUR, MEXICO



**SMBE Regional Workshop on  
Computational Biology in  
Todos Santos, Mexico**

**April 8-12, 2019**



Tai



Mark



Alissa



Dan



Aines

# Contact Information

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## Tai Montgomery

- [Tai.Montgomery@colostate.edu](mailto:Tai.Montgomery@colostate.edu)
- <https://www.montgomerylab.org>

## Dan Sloan

- [Dan.Sloan@colostate.edu](mailto:Dan.Sloan@colostate.edu)
- <https://sites.google.com/site/danielbsloan>

## Mark Stenglein

- [Mark.Stenglein@colostate.edu](mailto:Mark.Stenglein@colostate.edu)
- <http://www.stengleinlab.org>

## Mark Stenglein

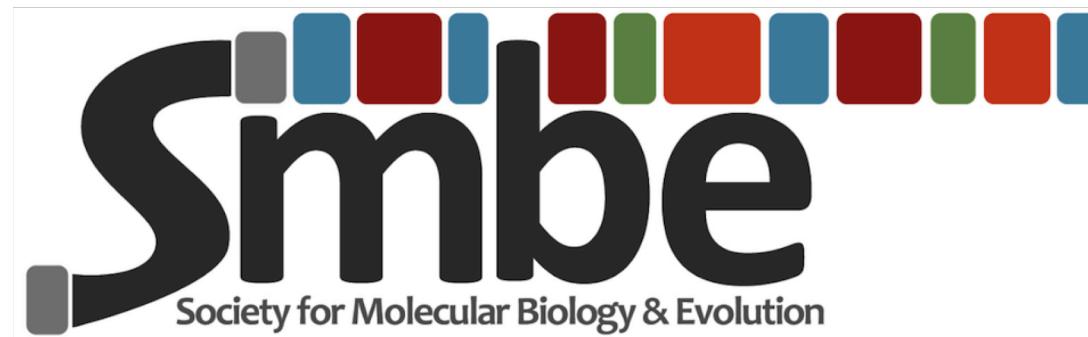
- [Alissa.Williams@colostate.edu](mailto:Alissa.Williams@colostate.edu)

## Aines Castro Prieto

- [Aines.Castro.Prieto@colostate.edu](mailto:Aines.Castro.Prieto@colostate.edu)

# Sponsors

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# Learning objectives

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- Learn how to use UNIX and the command line interface.
- Learn how to design genomics experiments.
- Learn how to handle and manipulate genomics datasets.
- Learn how to analyze genomics data.
- Learn how to visualize genomics data.

# Schedule

**Monday:** Introduction to high-throughput sequencing and computational biology

- Illumina sequencing
- Command line tools
- Obtaining and manipulating genomics data

**Tuesday:** RNA-seq

- RNA-seq data analysis

**Wednesday:** Comparative genomics

- Assembly and annotation
- Variant calling

**Thursday:** Comparative genomics (cont.) and data visualization

- Local BLAST
- Metagenomics
- R, R Markdown and Data Visualization

**Friday:** Scripting

- GitHub
- Bash and Python

<https://dbsloan.github.io/TS2019/>