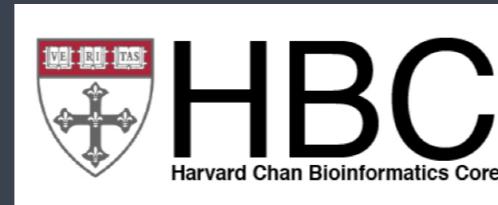
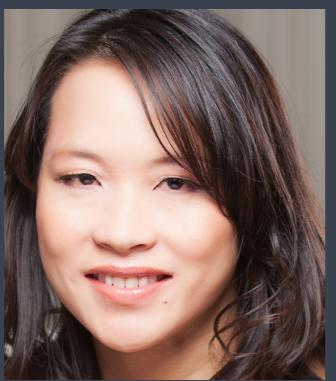


Introduction to Single-cell RNA-seq analysis

Harvard Chan Bioinformatics Core



<https://tinyurl.com/hbc-intro-to-scrnaseq>



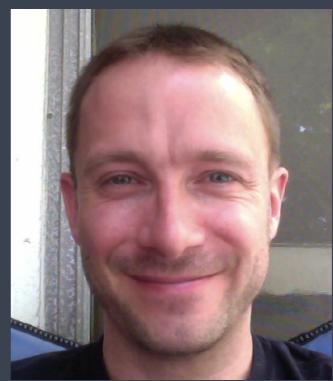
Shannan Ho Sui
Director



John Hutchinson
Associate Director



Victor Barrera



Rory Kirchner



Meeta Mistry



Mary Piper



Radhika Khetani
Training Director



James Billingsley



Ilya Sytchev



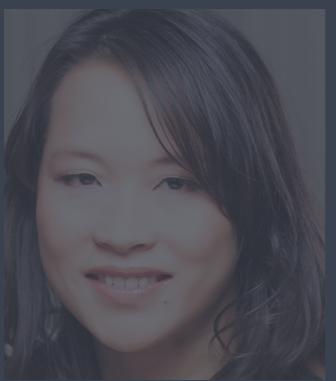
Zhu Zuo



Sergey Naumenko



Peter Kraft
Faculty Advisor



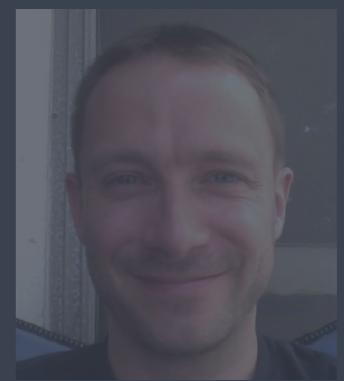
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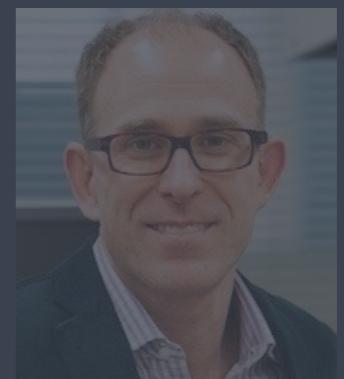
Ilya Sytchev



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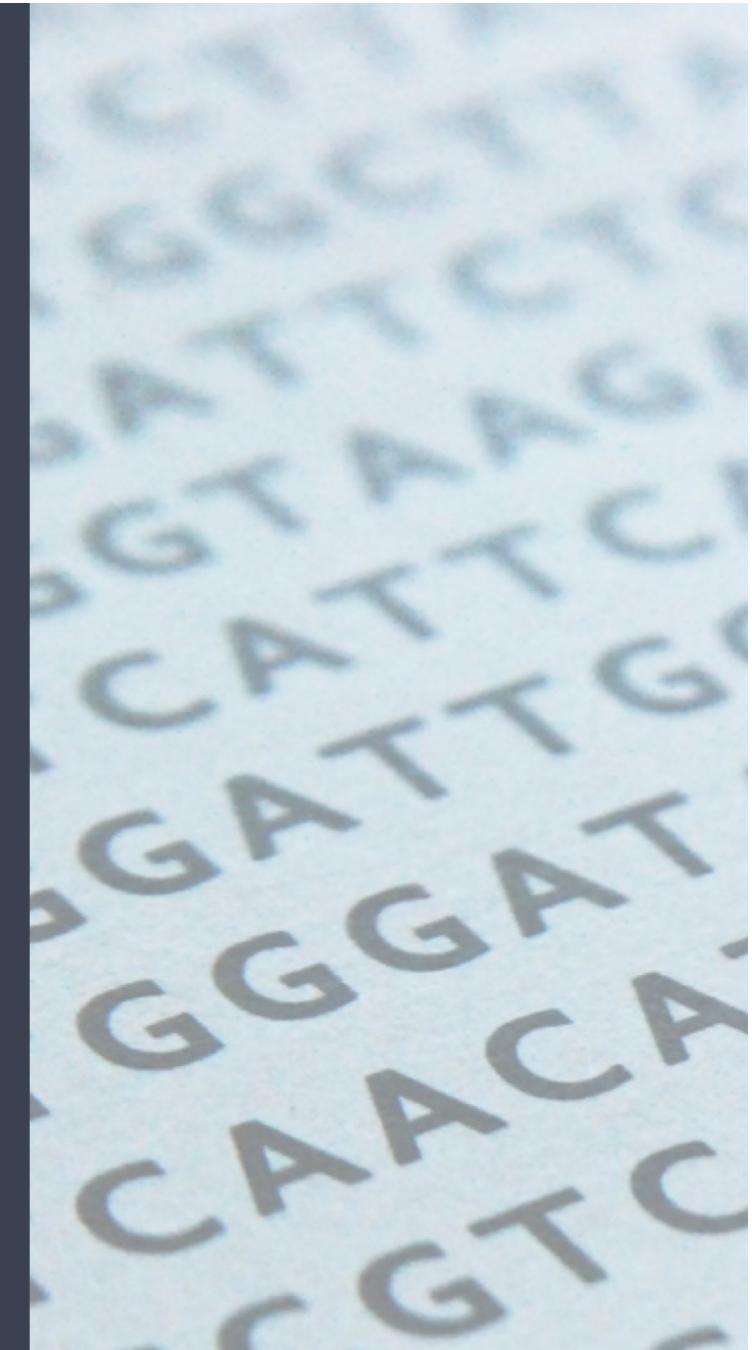
Sergey Naumenko



Peter Kraft
Faculty Advisor

Consulting

- RNA-seq, small RNA-seq and ChIP-seq analysis
- Genome-wide methylation
- WGS, resequencing, exome-seq and CNV studies
- Quality assurance and analysis of gene expression arrays
- Functional enrichment analysis
- Grant support





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Bioinformatics
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HSCI
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Bioinformatics

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AND TRANSLATIONAL
SCIENCE CENTER

 **HARVARD**
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Harvard
Catalyst
Bioinformatics
Consulting

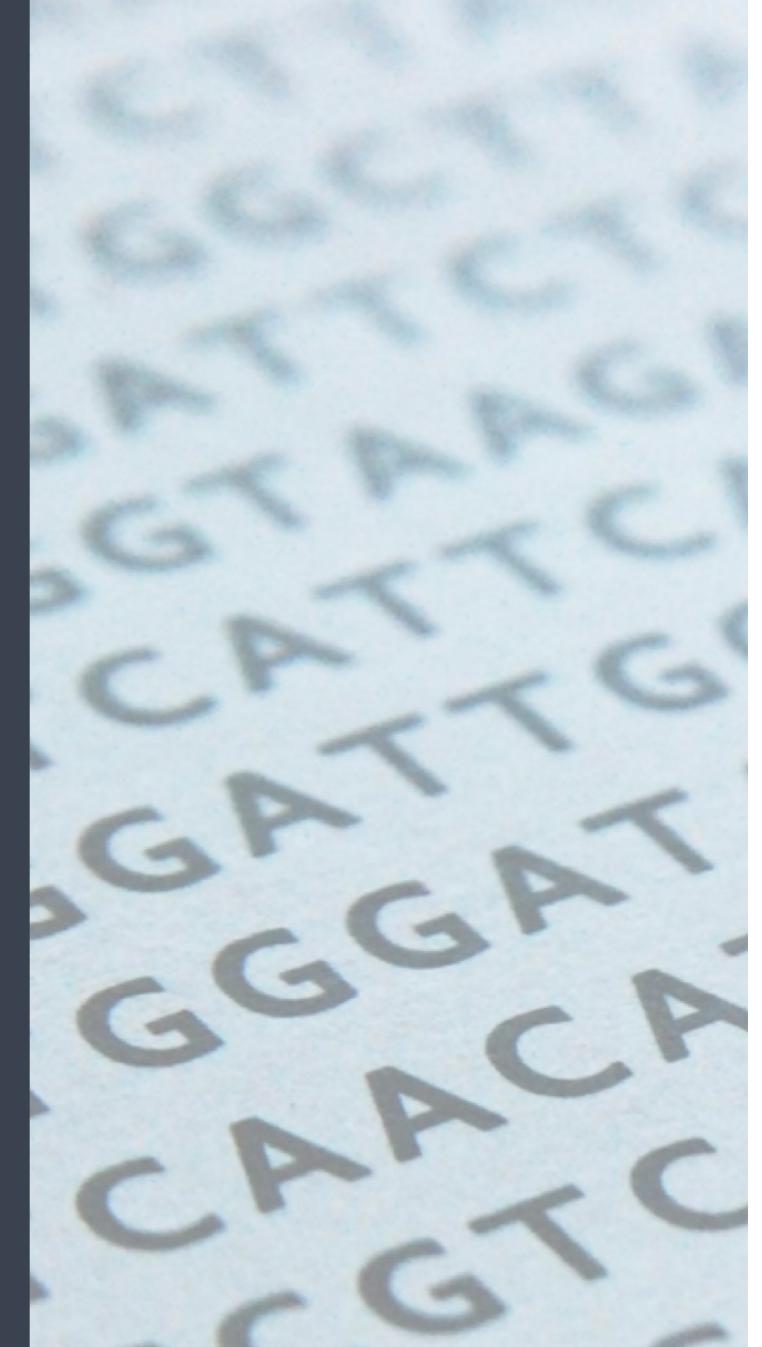
HMS
Tools &
Technology

Training

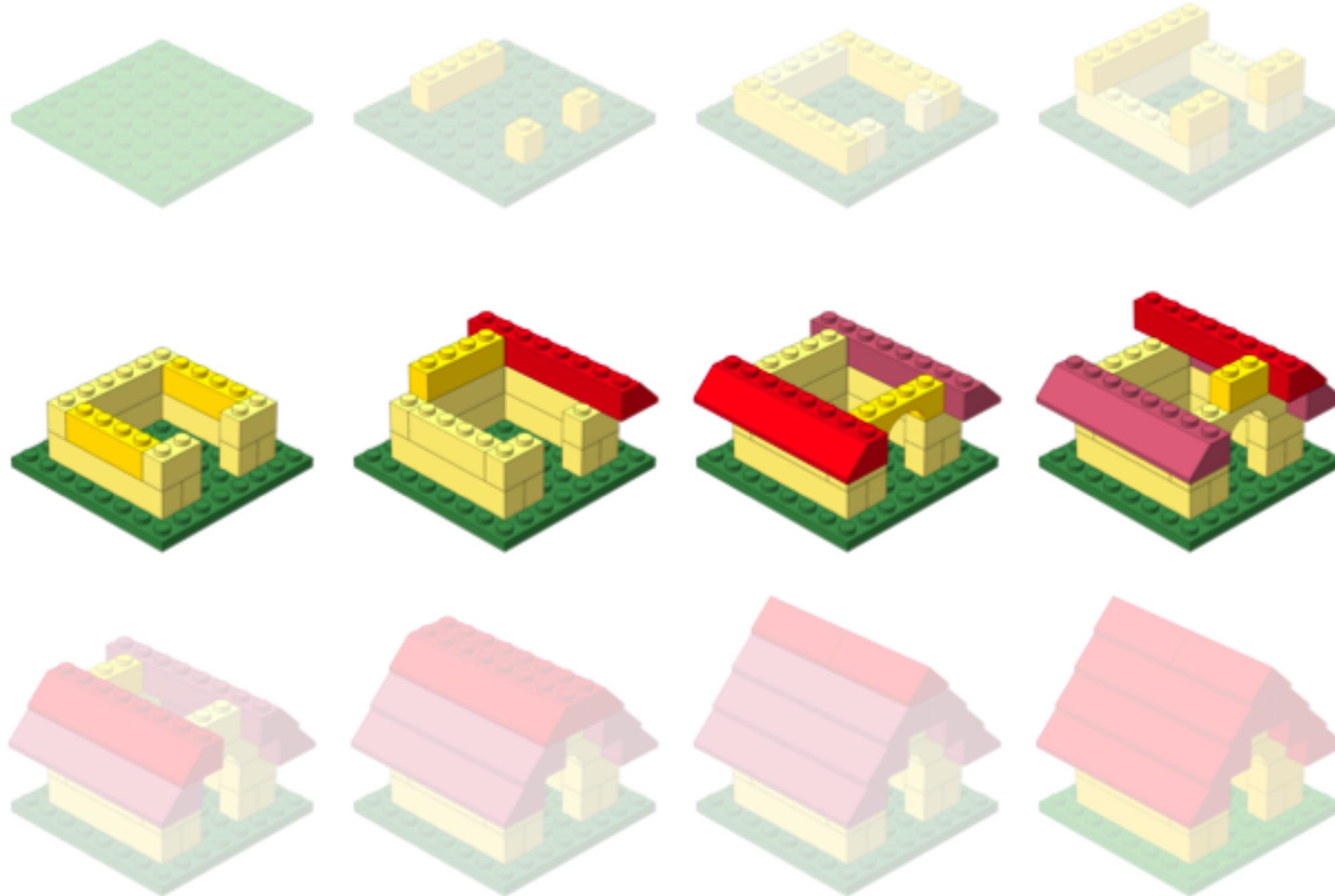
- 1 to 2 day “short” workshops on introductory, intermediate and advanced topics related to NGS data analysis
- In-depth “long” courses (8- or 12-day formats)
- Monthly, 2-3 hour, hands-on and free workshops on “Current Topics in Bioinformatics”

Schedule: <http://bioinformatics.sph.harvard.edu/training/>

Training materials: <https://hbctraining.github.io/main/>



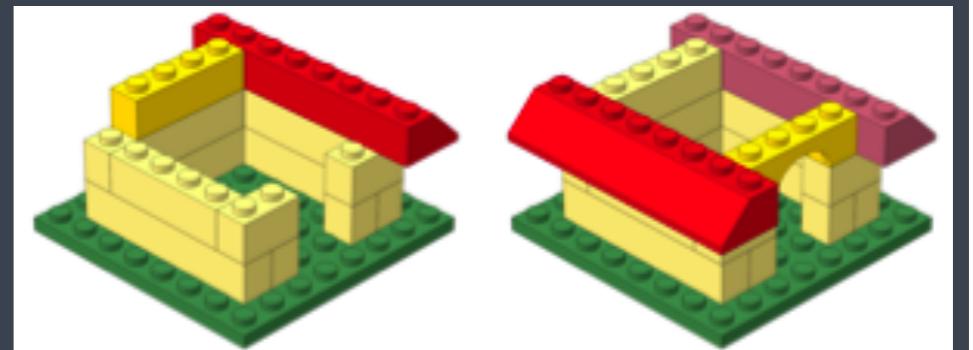
Workshop scope



<http://anoved.net/tag/lego/page/3/>

Bioinformatics data analysis

Learning Objectives



- ✓ Describe best practices for designing a Single-cell RNA-seq experiment
- ✓ Describe steps in a Single-cell RNA-seq analysis workflow.
- ✓ Use Seurat and associated tools to perform analysis of single-cell expression data, including data filtering, QC, clustering, and marker identification

Logistics

<https://tinyurl.com/hbc-intro-to-scrnaseq>

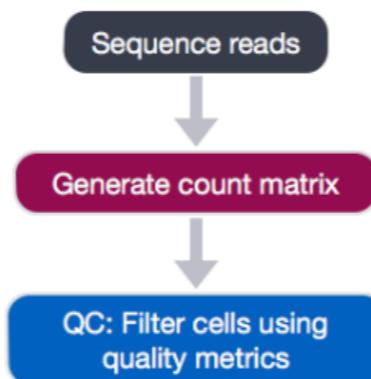


Approximate time: 90 minutes

Learning Objectives:

- Understand how to bring in data from single-cell RNA-seq experiments
- Construct QC metrics and associated plots to visually explore the quality of the data
- Evaluate the QC metrics and set filters to remove low quality cells

Single-cell RNA-seq: Quality control



Odds and Ends

- ❖ Name tags: Tent Cards
- ❖ Post-its
- ❖ Phones on vibrate/silent!

Contact us!

Training team  : hbctraining@hsph.harvard.edu

Consulting  : bioinformatics@hsph.harvard.edu

 [@bioinfocore](https://twitter.com/bioinfocore)