

# NATALIE TELIS

(408) 843 7118 • 1915 Montecito Avenue, Mountain View, CA • ntelis@stanford.edu • @natalietelis

---

---

## EDUCATION

Sept 2013 - Present	<b>Stanford University</b> <i>Thesis Advisor:</i> Jonathan Pritchard	PhD Candidate, Biomedical Informatics
Sept 2009 - June 2013	<b>University of California, Davis</b> <i>Thesis Advisors:</i> Ian Korf, Simon Chan	BA, Mathematics; BS, Cell Biology

---

---

## HONORS

2017 - 2018  
2013 - 2017  
2015 - 2016  
2015 - 2016  
2012 - 2013

## SUPPORT

**Predoctoral Fellow**, Center for Computational, Evolutionary and Human Genomics  
**Hewlett Packard Fellow**, Stanford Graduate Fellowship  
**Big Ideas Prize**, Stanford Genetics Department  
**Seed Grant**, Stanford Center for Systems Biology  
**Beckman Scholar**, Arnold and Mabel Beckman Foundation

## AWARDS

2017  
2012 - 2013  
2013  
2013  
2011

Honorable mention, **Ford Foundation Dissertation Fellowship**  
**Student Excellence Award**, UC Davis  
**Citation for Academic Excellence**, UC Davis Department of Cell Biology  
**Citation for Academic Excellence**, UC Davis Department of Mathematics  
**Gold Community Service Award**, UC Davis

---

---

## RESEARCH

January 2014 - Present	<b>Graduate Student Researcher</b> , <i>Jonathan Pritchard's group</i> , Department of Biology, Stanford University, and Department of Genetics, Stanford University School of Medicine Understanding intersection of complex trait architecture and recent polygenic selection, to decompose effects of selection in recent times on modern health and disease <sup>1</sup> . Confirmed selection on anthropometric and metabolic traits in northern Europe. Continuing work on selection in humans, with regards to Neanderthal introgression, and immune traits like parasite resistance <sup>3</sup> . Statistical and computational methods development for a wide array of projects. <sup>2</sup>
June 2016 - Sep 2016	<b>Bioinformatics / Computational Biology Fellow</b> , <i>with Amir Kermany</i> , AncestryDNA Science Team San Fransisco, CA De novo methods for detecting recombination events from genotypic data in thousands of family groups. Blinded assembly of family groups from polymorphism data.
April 2011 - June 2013	<b>Undergraduate Researcher</b> , <i>Korf and Chan Labs</i> Departments of Genetics and Plant Biology, University of California, Davis Algorithm development for understanding evolution of tandem centromere repeat structure through comparative evolutionary methods. Confirmed existence of higher-order structural patterns in most tandem centromeres. <sup>6</sup>
June 2012 - Aug 2013	<b>Beckman Scholar</b> , <i>Heyer Lab</i> Departments of Microbiology and Molecular Genetics University of California, Davis Computational and experimental methods for understanding interaction partners with phosphorylated residues in RAD55 (yeast).

- 
- April 2011 - Jan 2012     **Research Associate, *Emergency Medicine***  
 University of California, Davis School of Medicine  
 Study recruitment, enrollment management, and study follow-up for up to 15 studies at a time, including drug and therapeutic trials. Training and managing new associates.
- Oct 2009 - June 2011     **Undergraduate Researcher, *German Lab, Foods For Health Institute***  
 and *Milk Bioactives Group*  
 Department of Food Science and Technology  
 University of California, Davis  
 Laboratory work evaluating effects of diet in Immunoglobulin A nephropathy patients' metabolite content. Science writing, including diagram and schematic creation and press-release creation.<sup>7</sup>
- 

## PUBLICATIONS

- [1] Yair Field\*, Evan A Boyle\*, Natalie Telis\*, Ziyue Gao, Kyle J Gaulton, David Golan, Loic Yengo, Ghislain Rocheleau, Philippe Froguel, Mark I Mccarthy, and Jonathan K Pritchard. Detection of human adaptation during the past 2000 years. *Science*, 0776(October), 2016.
- [2] Natalie Telis, Benjamin V Lehmann, Marcus W Feldman, and Jonathan K Pritchard. A bibliometric history of *GENETICS*. *Genetics*, 2016.
- [3] Emily R Ebel, Natalie Telis, Sandeep Venkataram, David Enard, and Dmitri Petrov. Pervasive adaptation in plasmodium-interacting proteins in mammals. *bioRxiv*, 2016.
- [4] Jonathan Mortensen, Natalie Telis, ..., Michel Dumontier, and Mark A Musen. Is the crowd better as an assistant or a replacement in ontology engineering? an exploration through the lens of the gene ontology. *Journal of Biomedical Informatics*, 2016.
- [5] David Odgers, Natalie Telis, Heather Hall, and Michel Dumontier. Using lasso regression to predict rheumatoid arthritis treatment efficacy. *Joint Summits on Translational Science Proceedings*, 2016.
- [6] Daniël P Melters, Keith R Bradnam, Hugh A Young, Natalie Telis, Michael R May, Graham Ruby, Robert Sebra, Paul Peluso, John Eid, David Rank, José Fernando Garcia, Joseph L Derisi, Timothy Smith, Christian Tobias, Jeffrey Ross-ibarra, Ian F Korf, and Simon W Chan. Comparative Analysis of Tandem Repeats from Hundreds of Species Reveals Unique Insights into Centromere Evolution. *Genome Biology*, 2013.
- [7] Angela M Zivkovic, Natalie Telis, Bruce D Hammock, and J Bruce German. Inflammation and Metabolic Health. *Calif Agric (Berkeley)*, 65(3):106–111, 2011.
- 

## PRESENTATIONS

- Talk.* **Functional characterization of Neanderthal introgressions.** SMBE. July 2017.
- Poster.* **Functional characterization of and selection on Neanderthal introgressions.** ASHG. October 2016.
- Talk.* **Maternally-inherited recombination events in a cohort of 2 million.** BAPG. September 2016.
- Poster.* **Detecting signals of polygenic selection.** American Society of Human Genetics. October 2015.
- Poster.* **SciReader: a novel approach to characterizing and recommending literature based on population genetics.** Howard Hughes Medical Institute Annual Meeting, November 2014.
- Poster.* **Inferring effects of eQTL CNVs in Acute Myeloid Leukemia.** American Medical Informatics Association Joint Summit. April 2014.
- Poster.* **Characterizing Genetic Interactions in Rad55 Using the Epistasis Miniarray Profile.** West Coast Biosciences Undergraduate Research Conference. May 2013.
- Talk.* **Evolutionary Patterns of Centromeric Tandem Repeats in 253 Plant and Animal Species.** 23rd Annual Undergraduate Research Conference at UC Davis. April 2012.
- Talk.* **Quantification of Urinary HDL Loss in Immunoglobulin A Nephropathy.** 22nd Annual Undergraduate Research Conference at UC Davis. April 2011.