

# Daniel E. Cook

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## Education

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### Northwestern University

*Ph.D. Graduate Student – Interdisciplinary Program in Biological Sciences (IBiS)*

**Evanston, IL**

*Expected 2017*

### University of Iowa

*B.S. Biology with Honors*

**Iowa City, IA**

*May 2010*

## Experience

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### Andersen Lab, Northwestern University

*Graduate Student*

**Evanston, IL**

*2014–Present*

- Developed Genome-wide association portal for *C. elegans* community.
- Developed bioinformatic pipelines population resequencing analysis of *C. elegans*.
- Creation and maintenance of laboratory website.

### Ober Lab, University of Chicago

*Research Assistant*

**Chicago, IL**

*2012–2013*

- Assisted with development of databases for phenotypic and genotypic data.
- Helped disclose carrier status to individuals.

### Murray Lab, University of Iowa

*Research Assistant*

**Iowa City, IL**

*2009–2012*

- Wrote and published statistical, data-management, and graphing programs.
- Conducted geographic analysis of Iowa newborn screen data.
- Collected Human Placental tissue for genetic, epigenetic, and expression studies.

## Skills

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**Projects:** [GitHub.com/danielecook](https://github.com/danielecook)

**Package Development:** R, Python

**Programming:** Python, Bash, R, Stata, Travis C.I.

**Database:** SQL, BigQuery, Google Datastore

**Web:** HTML, Javascript, CSS, Django, Flask, Mediawiki, Wordpress

**Genetic Analysis:** BWA, Samtools, Bcftools, Plink, Galaxy

**Cloud/Cluster:** AWS, Google Cloud, Slurm

**General:** L<sup>A</sup>T<sub>E</sub>X, sketch

## Professional Activities

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- **2015** - NSF-GRFP data workshop
- **2015** - Teaching Assistant, Genetic Analysis
- **2014** - Contributed to development of computational bootcamp for incoming graduate students within the IBiS program.

## Honors and Awards

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- **2015** - IBiS Travel Award (\$975)
- **2014** - National Science Foundation Graduate Research Fellowship
- **2006** - University of Iowa National Scholars Award

## Publications

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**2016 The Genetic Basis of Natural Variation in *Caenorhabditis elegans* Telomere Length**

Cook, Daniel C, Stefan Zdraljevic, Robyn E Tanny, Beomseok Seo, David D Riccardi, Luke M Noble, Matthew V Rockman, Mark J Alkema, Christian Braendle, Jan E Kammenga, John Wang, Leonid Kruglyak, Marie-Anne Félix, Junho Lee, and Erik C Andersen  
*Genetics*. PMID: 27449056 DOI: 10.1534/genetics.116.191148.

**2015 DYRK1A controls the transition from proliferation to quiescence during lymphoid development by destabilizing Cyclin D3**

Thompson, Benjamin J, Rahul Bhansali, Lauren Diebold, Cook, Daniel E, Lindsay Stolzenburg, Anne-Sophie Casagrande, Thierry Besson, Bertrand Leblond, Laurent Désiré, and Sébastien Malinge  
*The Journal of experimental medicine*. PMID: 26008897 DOI: 10.1084/jem.20150002.

**2013 The heritability of metabolic profiles in newborn twins.**

Alul, Farah Y, Cook, Daniel E, Oleg a Shchelochkov, Lauren G Fleener, Stanton L Berberich, Jeffrey C Murray, and Kelli K Ryckman  
*Heredity* 110.3. PMID: 23149456 DOI: 10.1038/hdy.2012.75.

**Generating Manhattan plots in Stata**

Cook, Daniel E, Kelli R Ryckman, and Jeffrey C Murray  
*Stata Journal* 13.2.

**Clinical and environmental influences on metabolic biomarkers collected for newborn screening**

Ryckman, Kelli K., Stanton L. Berberich, Oleg a. Shchelochkov, Cook, Daniel E., and Jeffrey C. Murray  
*Clinical Biochemistry* 46.1-2. PMID: 23010448 DOI: 10.1016/j.clinbiochem.2012.09.013.

**The influence of maternal disease on metabolites measured as part of newborn screening**

Ryckman, Kelli K, Oleg A Shchelochkov, Daniel E Cook, Stanton L Berberich, Sara Copeland, John M Dagle, and Jeffrey C Murray  
*The Journal of Maternal-Fetal & Neonatal Medicine* 26.14. PMID: 23550828 DOI: 10.3109/14767058.2013.791267.

**2012 Replication of clinical associations with 17-hydroxyprogesterone in preterm newborns**

Ryckman, Kelli K., Cook, Daniel E., Stanton L. Berberich, Oleg a. Shchelochkov, Susan K. Berends, Tamara Busch, John M. Dagle, and Jeffrey C. Murray  
*Journal of Pediatric Endocrinology and Metabolism* 25.3-4. PMID: 22768660 DOI: 10.1515/jpem-2011-0456.

## **Presentations**

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**2015 Genome-Wide and Species-Wide Variation in *C. elegans* Reveals Association of Telomere Length With Population Differences in *pot-2***

Talk – International Worm Meeting 2015, UCLA.

**2012 Mapping Newborn Screen Data: A Geographic Exploration**

Poster – Pediatric Academic Societies Meeting, Boston, MA.