

Haipeng Yu

CONTACT INFORMATION

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EDUCATION

Virginia Polytechnic Institute and State University, Blacksburg, Virginia USA

Ph.D., Animal and Poultry Sciences - Quantitative Genetics

Expected in May 2020

- Advisor: Dr. Gota Morota

North Dakota State University, Fargo, North Dakota USA

M.S., Animal Breeding and Genetics

August 2016

- Thesis: "The exploration of a four-platform standing scale in the application of measuring temperament in beef cattle"
- Advisor: Dr. Lauren Hulsman Hanna

Qingdao Agricultural University, Qingdao, Shandong CHINA

B.S., Veterinary Medicine

July 2013

PROFESSIONAL EXPERIENCE

Virginia Polytechnic Institute and State University, Blacksburg, Virginia USA

- Graduate Research Assistant August 2018 - Present
- Graduate Teaching Assistant Spring 2019

University of Nebraska-Lincoln, Lincoln, Nebraska USA

- Graduate Research Assistant August 2016 - August 2018

North Dakota State University, Fargo, North Dakota USA

- Graduate Teaching Assistant Fall 2015 - Spring 2016
- Graduate Research Assistant Spring 2015 - Spring 2016

PROFESSIONAL AFFILIATIONS

- American Society of Animal Science, member. 2017 - Present

PREPRINTS

- **Yu H** and Morota G. 2019. GCA: An R package for genetic connectedness analysis using pedigree and genomic data. *bioRxiv*. doi: [10.1101/696419](https://doi.org/10.1101/696419)

PEER REVIEWED JOURNAL PAPERS

- **Yu H**, Campbell MT, Walia H, and Morota G. 2019. Genomic Bayesian confirmatory factor analysis and Bayesian network to characterize a wide spectrum of rice phenotypes. *G3: Genes, Genomes, Genetics*. **9**:1975-1986. doi: [10.1534/g3.119.400154](https://doi.org/10.1534/g3.119.400154)
- **Yu H**, Spangler ML, Lewis RM, and Morota G. 2018. Do stronger measures of genomic connectedness enhance prediction accuracies across management units? *Journal of Animal Science*. **96**:4490-4500. doi: [10.1093/jas/sky316](https://doi.org/10.1093/jas/sky316)
- **Yu H**, Spangler ML, Lewis RM, and Morota G. 2017. Genomic relatedness strengthens genetic connectedness across management units. *G3: Genes, Genomes, Genetics*. **7**:3543-3556. doi: [10.1534/g3.117.300151](https://doi.org/10.1534/g3.117.300151)

PAPERS IN PROCEEDINGS

- **Yu H**, Spangler ML, Lewis RM, and Morota G. 2018. Stronger measures of genomic connectedness enhance prediction accuracies across management units. In: *Proceedings, 11th World Congress of Genetics Applied to Livestock Production*. **11**:406. February 11-16, Auckland, New Zealand. [[WCGALP](#)]

CONTRIBUTED PRESENTATIONS

- Precision Agriculture on Cattle Temperament: Utilizing Factor Analysis and Multi-trait Modeling to Characterize a Four-platform Standing Scale. NCERA-225 Annual Meeting. Implementation and Strategies for National Beef Cattle Genetic Evaluation. Blacksburg, VA. October 10-11, 2019.
- An assessment of genomic relatedness across management units. ADSA-ASAS 2018 Midwest Meeting. Omaha, NE. March 12-14, 2018. [[Abstract](#)]
- Stronger measures of genomic connectedness enhance prediction accuracies across management units. NCERA-225 Annual Meeting. Implementation and Strategies for National Beef Cattle Genetic Evaluation. Stanley Stout Livestock Marketing Center, Manhattan, KS. October 18-19, 2017.
- Genomic relatedness strengthens genetic connectedness across management units. ASAS-CSAS Annual Meeting and Trade Show. Baltimore, MD. July 8-12, 2017.

CONFERENCES ATTENDED

- NCERA-225 Annual Meeting. Implementation and Strategies for National Beef Cattle Genetic Evaluation. North Dakota State University, ND, October 22-23, 2015.
- Graduate Learning Conference for College Teaching. North Dakota State University, ND. August 17-18, 2015.
- WERA-1: Beef Cattle Breeding in the Western Region. Miles City, MT. May 19-20, 2015.
- Midwest Meeting of American Society of Animal Science. Des Moines, IA. March 15-18, 2015.

INTRAMURAL SEMINARS

- Genetic Connectedness Across Management Units. Ninth Annual Animal and Poultry Sciences Research Symposium. Department of Animal and Poultry Sciences, Virginia Polytechnic Institute and State University. May 21, 2019.
- Genetic Connectedness Across Management Units. The Reproductive Biology Club. Department of Animal and Poultry Sciences, Virginia Polytechnic Institute and State University. April 19, 2019

- Genomic factor analytic and graphical models to characterize a wide spectrum of rice phenotypes. Animal Breeding and Genetics seminar. Department of Animal Science, University of Nebraska-Lincoln. February 28, 2018.
- Genomic relatedness strengthens genetic connectedness across management units. Animal Breeding and Genetics seminar. Department of Animal Science, University of Nebraska-Lincoln. February 14, 2017.
- The exploration of a four-platform standing scale in the application of measuring temperament in beef cattle. Animal Breeding and Genetics Seminars. Department of Animal Sciences, University of Nebraska-Lincoln. September 29, 2016.
- M.S., Thesis Defense. Department of Animal Sciences, North Dakota State University. May 17, 2016.

TEACHING

Virginia Polytechnic Institute and State University, Blacksburg, Virginia USA

Guest Instructor

- GWAS Workshop 2019 - June 26 Summer 2019

Graduate Teaching Assistant

- ALS 3104: Animal Breeding and Genetics Spring 2019

University of Nebraska-Lincoln, Lincoln, Nebraska USA

Guest Instructor

- ASCI 944 Quantitative Methods for Genomics of Complex Traits - February 20 Spring 2018

North Dakota State University, Fargo, North Dakota USA

Graduate Teaching Assistant

- ANSC 357: Animal Genetics Spring 2016
- AGRI 189: Skills for Academic Success Fall 2015

ADDITIONAL TRAINING

- Deep Learning for Computer Vision Workshop, Virginia Tech, VA, September 6, 2019.
- 24th Summer Institute in Statistical Genetics (SISG), University of Washington, Seattle, WA, July 17-24, 2019.
- Programming and Computer Algorithms in Animal Breeding With Focus on Genomic Selection and Single-Step GBLUP, University of Georgia, GA, May 7-25, 2018.
- Introduction to Graphical Models With Applications to Quantitative Genetics and Genomics, Iowa State University, IA, June 19-23, 2017.
- Software Carpentry Workshop. University of Nebraska-Lincoln, NE, January 5-6, 2017.

HONORS/ AWARDS

- Ninth Annual Animal and Poultry Sciences Research Symposium Travel Award \$400, Virginia Polytechnic Institute and State University. May 21, 2019.
- Frank Bain Graduate Student Scholarship \$1,650, North Dakota State University, Spring 2015.

- Outstanding Undergraduate Scholarship, Qingdao Agricultural University, China, 2009-2013.

REFERENCES

- Dr. Gota Morota, Department of Animal and Poultry Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA. *E-mail:* morota@vt.edu, *Phone:* (540) 231-4732
- Dr. Harkamal Walia, Department of Agronomy and Horticulture, University of Nebraska-Lincoln, Lincoln, NE. *E-mail:* hwalia2@unl.edu, *Phone:* (402) 472-1162
- Dr. Ina Hoeschele, Department of Statistics & Biocomplexity Institute, Virginia Polytechnic Institute and State University, Blacksburg VA. *E-mail:* inah@vbi.vt.edu, *Phone:* (540) 231-3135
- Dr. Lauren Hulsman Hanna, Animal Science Department, North Dakota State University, Fargo, ND. *E-mail:* Lauren.Hanna@ndsu.edu, *Phone:* (701) 231-7636