

## **Annual Report for NC1170**

**Project Title: Advanced Technologies for the Genetic Improvement of Poultry**

**Period Covered:** January 1, 2018 to December 31, 2018

**Date of Report:** March 12, 2019

**Compiled by:** Giri Athrey (Texas AgriLife Research) & Gale Strasburg (Michigan State)

### **Institutional Stations (Institutional Abbreviation: Members)**

Beckman Research Institute at the City of Hope (**COH**<sup>1</sup>: M. Miller<sup>2</sup>)

Cornell University (**CU**: P. Johnson)

Iowa State University (**IA**<sup>1</sup>: S. Lamont<sup>2,3</sup>, J. Dekkers)

Michigan State University (**MI**<sup>1</sup>: G. Strasburg<sup>3</sup>)

Mississippi State University (**MS**<sup>1</sup>: C. McDaniel, B. Nanduri<sup>2,3</sup>)

North Carolina State University (**NC**: C. Ashwell<sup>2</sup>, J. Petite)

Pennsylvania State University (**PA**: A. Johnson, R. Ramachandran)

Texas AgriLife Research (**TX**<sup>1</sup>: G. Athrey)

University of Arizona (**AZ**<sup>1</sup>: F. McCarthy<sup>3</sup>, S. Burgess)

University of Arkansas (**AR**<sup>1</sup>: W. Kuenzel<sup>2,3</sup>, B. Kong, D. Rhoads<sup>2,3</sup>)

University of California, Davis (**CA**<sup>1</sup>: M. Delany, H. Zhou<sup>2,3</sup>)

University of Delaware (**DE**<sup>1</sup>: B. Abasht<sup>2,3</sup>)

University of Florida (**FL**<sup>1</sup>: M. Edelmann<sup>2,3</sup>)

University of Georgia (**GA**<sup>1</sup>: S. Aggrey<sup>2</sup>)

University of Maryland (**MD**: T. Porter, J. Song<sup>2,3</sup>)

University of Minnesota (**MN**<sup>1</sup>: K. Reed<sup>1,3</sup>)

University of Tennessee (**TN**<sup>1</sup>: B. Voy)

University of Wisconsin (**WI**<sup>1</sup>: G. Rosa<sup>2</sup>, R. Sunde<sup>2,3</sup>)

USDA-ARS-Avian Disease and Oncology Lab (**ADOL**<sup>1</sup>: H. Cheng, H. Zhang)

Virginia Tech (**VA**<sup>1</sup>: E. Wong<sup>2,3</sup>, E. Smith)

- 1.** Written annual report submitted.
- 2.** Oral annual report given at the meeting.
- 3.** Attended the annual business meeting.

### **NC1170 Current year administrators**

NCRA Executive Director - Jeff Jacobsen, Michigan State University

NIFA Representative - Lakshmi Matukumalli

Regional System Administrator - Christina Hamilton

NC1170 Administrative Advisor - Susan Lamont (Present at Annual Meeting)

## **Poultry Workshop PAG, January 12-13, 2019:**

- a. Attendance: Saturday = 53, Sunday = ~55 peak attendance=70
- b. Seventeen investigators representing 15 stations attended the Poultry Workshop/Annual Business meeting at some point during the weekend.
- c. Researchers representing 7 international institutions and agencies participated in the workshop at various points.
- d. Attendance by at least five poultry and genomics industry partners participated in the workshops (Hy-Line, Cobb, Ontario Genomics, ThermoFisher, Hendrix Genetics).
- e. 9 graduate students and postdoctoral associates gave short presentations

## **NC1170 Business Meeting January 13, 2019 San Diego NC1170/NRSP8**

Attendees: (AR) Douglas Rhoads, (DE) Carl Schmidt, (AR) Adnan Alrubay, (IA) Susan J. Lamont, (WUHS) Yvonne Drechler, (MS) Bindu Nanduri, (AZ) Fiona McCarthy, (DE) Behnam Abasht, (AR) Wayne Kuenzel, (CA) Huaijun Zhou, (VA) Eric Wong, (CSU Fresno) Katy Tarrant, (WI) Roger Sunde, (MN) Kent Reed, (MI) Gale Strasburg.

Agenda approved unanimously

Sue Lamont USDA Administrative Advisor

- New project was approved and implemented for a five-year term Oct 1, 2018 – Sept 30, 2023
- Gale was thanked for his leadership on assembling and submitting the proposal.
- Publication lists annual reports need to report categories, but only report for this project, what is relevant to the project.
- All publications should acknowledge USDA support from the Hatch program; wording: USDA/NIFA funding through Hatch program (program #)

Comments from NIFA Representative: Dr. Matukumalli was not present due to government shut-down

Comments from NRSP8 Representative Huaijun Zhou

- NRSP8 renewed but significant reduction in NRSP8 because has been successful. Need to think about new directions. NRSP8 being sunset?
- Coordination funding -faculty need to be a member of NRSP8 to get travel support etc. for students.
- Support essential small projects especially junior faculty
- New farm bill support \$40,000,000 for high throughput phenotyping and genotyping of plants and animals. Still need to get appropriation (money) to actually fund this effort. Need to think about priorities of species that might be funded for this effort.
- ADOL genetic lines: USDA indicates ADOL will move to Georgia by 2022 but facility not sufficient until 2022, but facility not sufficient to all of the lines. Michigan ADOL location will be shut down. Are there any stations that could adopt one or more lines as there may not be spaces?

Discussion of workshop external speakers

Purpose of Poultry workshop

- S. Lamont: multistate meeting at PAG. Need to do annual written reporting,
- No requirement for every member to speak every year.
- Invite relevant outside scientists Wes Warren, Wageningen(?).
- Who do we invite to speak?
- Comments from community:
  - Wayne Kuenzel - liked concept of minisymposium 2,3 speakers per year in such a relevant target (microbiome, gene knockout).
  - Support for Wayne's idea: Eric Wong
  - Susan Lamont: value of meeting is learning about people outside of group and what they are doing. Should we shorten technical talks?
  - Vet school poultry also supports idea of bringing in outside talks. There was a general consensus of support for bringing outside speakers.
  - Perhaps 15 minutes as a limit for the members?

Suggestion shorten the members talk to 15 minutes.

- Doug Rhoads: travel funds for outside speakers an issue
- What is the next minisymposium?

Chicken genome improvement: Fiona -suggestions for improving chicken genome

Wes-sequencing the Trio of parents/offspring

May help with MHC, minichromosome.

There was support for the idea.

Red Jungle fowl x parent with very small variability

Perhaps back to UCD red jungle fowl line x something as different as possible.

Fiona will contact Wes with discussion of email

Doug Rhoads moved have meeting on weekend prior to 2020 PAG meted

Unanimously supported.

Meeting adjourned at 11:55 January 13, 2019