

# May 1, 2025 - NSF CEIF Animal Welfare Committee Agenda + Minutes

1. Attendance:
  - a. **Chair: Meghan Barrett**
  - b. Student Representative: Jordan Smink
  - c. Innovafeed (co-Chair): not in attendance; excused
  - d. Better Insect Solutions: Lars Heckmann
  - e. Arthropoda Foundation: Bob Fischer
  - f. Ty-Pro: Giovanna De Blasis
  - g. Mars: not in attendance; excused
2. Declarations of any COI:
3. Updates on Action Items:

Objective	Responsible Party	Due Date	Task
Admin	Cheryl Preyer	3/6 3/10	Send around minutes Upload minutes behind the firewall
Admin	Meghan Barrett	3/12	Book next meeting time
Admin	Meghan Barrett and Maye Walraven	3/3	Review applications for Agronutris seat and finalize last AWC seat
Obj 1	Lars Heckmann	3/9	Reach out to Eilenberg and IPIFF (to discuss standards) and cc Barrett and Preyer
Obj 1	Meghan Barrett	3/9	Reach out to Benjamin from Veterinary Invert Society and the HBVC
Obj 1	Jeff Tomberlin	3/9	Reach out to Judit Penzes at Texas A & M; (confirmed already)
Obj 1	Meghan Barrett	3/9 3/25 4/3	Write short project summaries Get feedback from PIs re: the project summaries Get feedback from CEIF AWC about project summaries

Obj 1	Bob Fischer	3/9	Shorten Meghan's sample IACUC response
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#### 4. Project Summaries

##### **Project 17: Understanding insect health and welfare**

One key aspect of farmed animal welfare is physical health. Having tools to prevent diseases, and diagnose and treat or manage diseases, is critical for animal producers to maintain healthy animals with good welfare. This project uses gene sequencing technology to analyze and identify viruses that infect insects on insect farms. Further, by coupling information on the genetic sequence on these viruses with on-farm performance indicators (e.g., symptoms like lethargy, discoloration, poor growth/survival), producers will be better prepared to diagnose insect health problems when they first appear. Overall, this project seeks to help producers improve management practices and prepare for potential viral outbreaks.

##### **Project 5: Using insect-derived products to improve shrimp health and welfare**

One key aspect of farmed animal welfare is physical health. Farmed shrimp can be infected with a variety of diseases that can reduce their productivity and welfare. Supplementing their diet with health-positive compounds might help prevent or mitigate the effects of diseases on shrimp farms. This project evaluates lauric acid, derived from black soldier flies, for inclusion in shrimp diets and assesses whether insect-derived lauric acid can help prevent diseases in farmed shrimp.

##### **Project 6: Using insect-derived products to improve the gut health and performance of chickens**

Gut health is essential to the performance and welfare of poultry, like chickens. Insect protein has many nutritional benefits and compounds that may support immune and digestive health in chickens, however determining the appropriate inclusion levels is crucial to supporting poultry health and well-being. This study characterized gut microbiota, growth, and immune biomarkers of broiler chickens raised on different levels of black soldier fly larval protein. These data will yield insights about the optimal levels of insect protein in poultry diets to improve health and performance in broiler chicken.

5. **Top Priority Objective:** providing guidance that supports ethical research practices that align with industry and academic standards when animals are used for CEIF research projects; and

[Revised, shortened template and example here \(Tabs 2 + 3\)](#)

Committee largely believes this is ready to go; goal is to keep admin burden reduced for PIs and for the committee by only having funded projects do this.

Procedure: 1) Project gets selected for funding; 2) PIs are asked to fill out the template within 2 - 3 weeks and give committee a date by which they need feedback. 3) Dependent on the date, committee will either hold a special meeting or give combined feedback report as part of a regular meeting. 4) PIs will receive feedback report and can submit a finalized protocol taking into account (which may or may not include implementing) that feedback to the committee.

6. **Second Objective:** maintaining empirical- and industry-informed guidance to support mini-livestock animal welfare in production facilities, and regularly updating this guidance to match changes in scientific evidence or industry best practices. This guidance will begin with the black soldier fly, with the possibility of expanding scope to other species as appropriate knowledge and expertise becomes available.
  - a. Lethal larval overheating
  - b. Slaughter
  - c. Disease

Generally, folks agreed there isn't precise enough data on lethal larval overheating to necessarily say anything meaningful - tabled that one. Slaughter seems tractable to provide at least some guidance; will start there. Disease could dovetail nicely with the AWC symposium in the fall.

7. **Currently Tabled Objective:** suggesting tractable ways to incorporate animal (vertebrate or invertebrate) welfare into ongoing CEIF research projects and proposals where appropriate.
8. Action items

Objective	Responsible Party	Due Date	Task
Admin	Cheryl Preyer	5/5 5/9	Send around minutes Upload minutes behind the firewall
Admin	Meghan Barrett	5/15	Book next meeting time
	Meghan Barrett	5/9  5/5	Revise Project 6 summary with information from Giri to make links to well-being clearer: "Consider adding a statement that improved gut health increases immunity/reduces disease (Meghan: check with Giri)."  Send around Project 17 + 5 to CEIF leadership
Symposium	Lars Heckmann	5/15	Reach out to Eilenberg and IPIFF (to discuss standards) and cc Barrett and Preyer

			-Eilenberg successor - still trying -IPIFF, trying with Christoph's successor
Symposium	Meghan Barrett	5/15	Follow up with HBVC
Obj 1	All	5/8	Provide Meghan with feedback, if any, on the filled in template
Obj 1	Meghan Barrett	5/15	Send template and example to leadership and get feedback on them and their implementation
Obj 2	Meghan Barrett	72 hr before next meeting	Draft of slaughter guidance