ABSTRACT SUBMISSION INSTRUCTIONS

Abstract Deadline – May 16, 2025

Please adhere to the following guidelines when submitting your abstract.

- Abstracts must be submitted through the online Submission Form
- Trainees and Early-Career Investigators may be eligible for travel awards. If you wish to be considered for a travel award, please attach a letter from the head of your department verifying your status as a Trainee or Early Investigator:
    - Trainees: Individuals still in full-time training (Graduate students; Medical Fellows or Residents; Post-doctoral Fellows)
    - Early Investigators: Researchers in a faculty or equivalent position within 6 years of their terminal degree (PhD or MD).

NOTE: All abstracts submitted by the May 16, 2025 deadline and accepted for presentation at the conference will be published in the Conference Program Booklet and in a supplement to the *Journal of Animal Science*. If authors wish to opt out of the JAS supplement, please indicate this option at submission.

ABSTRACT PREPARATION:

- The abstract should be written in English and should be no longer than 250 words excluding title, authors, addresses, etc.
- Use both upper- and lower-case letters throughout the abstract–do not use all caps or all lower case.
- Special formatting (i.e., bold, bullets, italic, subscript etc.) and special characters are allowed.
- Abstract must be in a Word document and include the following items in this order: Abstract Title, Author Names and Affiliations, and Abstract Main Text.

Abstract Title: The abstract title should be listed on the first line and be as concise as possible. It should include the species studies, if applicable.

Author Names and Affiliations: Each author name should be listed with first name and middle initial, followed by the last name in full. Authors should be separated by commas, and a period should follow the last name. The presenting author should be listed first.

Affiliations should follow the authors' names. For each affiliation, list the institution, city, state, and country. Full street addresses and post codes/zip codes should **not** be included.

Numbered superscripts should be used as a key to couple names with affiliations.

Abstract Main Text:

- Leave a blank line before the main abstract text. Do not type "abstract" at the start of the main text.
- Justify paragraphs and do not indent the first line of a paragraph.
- Figures and tables must not be included with abstracts.
- Define abbreviations at the first occurrence and avoid using them in the title if possible.

Abstract Structure Should Include:

1. An initial statement of specific objectives of the study, unless this is given in the title
2. A brief description of methods.
3. A summary of the results obtained, including statistics (e.g., means, measure(s) of variation, P-levels) where applicable.
4. Specific and concise conclusions.
5. Funding source(s) should be listed last in parenthesis.

Do not include non-specific statements such as ''The results will be discussed."

Sample Abstract:

Investigating Transthyretin and Thyroid Hormones in CSH RNA Interference-Induced IUGR Pregnancies.

Anna Donovan[1], Amelia R. Tanner[1], Paul J. Rozance[2], Russell V. Anthony[1], Quinton A. Winger[1]
[1]*Colorado State University College of Veterinary Medicine, Fort Collins, CO, United States*
[2]*University of Colorado Anschutz Medical Campus, Aurora, CO, United States.*

Introduction: *In vivo* lentiviral-mediated RNA interference of chorionic somatomammotropin (CSH) results in intrauterine growth restriction (IUGR) in sheep. Abnormal thyroid hormones (TH; T3 and T4) have been reported in animal IUGR models, with reduced T4 in maternal and fetal circulation. Transthyretin (TTR) is a TH binding molecule produced by trophoblasts that preferentially binds T4 and may shuttle it through the placenta.
Objective: Assess TTR, T3 and T4 in CSH-RNAi IUGR and control pregnancies. We hypothesize that in this IUGR model, reduced placental CSH affects TH in maternal and fetal circulation by impacting TTR.
Methods: Trophectoderm of hatched blastocysts was infected with lentivirus expressing a non-targeting sequence (NTS)-shRNA or CSH-shRNA to generate CSH-RNAi IUGR. Uterine vein, uterine artery, umbilical vein, and umbilical artery blood was collected via catheterization. Maternal and fetal tissue was harvested at day 135 from CSH-RNAi (n=4) and NTS-RNAi pregnancies (n=4). TTR protein was determined through western blot. T4 and T3 were assessed using ELISA.
Results: TTR was reduced (P=0.04) 61% in the uterine artery and 64% in the uterine vein by CSH-RNAi. Umbilical artery TTR was reduced (P=0.04) 51%, with no change in umbilical vein concentrations. T4 was reduced (P=0.02) 29% in the umbilical artery and tended to be reduced (P<0.10) in the umbilical vein (16%), uterine artery (16%), and uterine vein (15%). There were no changes in T3 in CSH RNAi pregnancies.
Conclusion: These results suggest that TTR and T4 abundance is reduced by CSH RNAi in maternal and fetal circulation.
(Supported by NIH HD093701).