

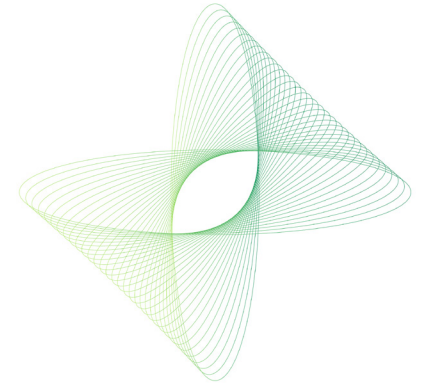
Cobb Research Initiative (CRI)

Request for Applications 2024

Pre-Proposal Applications:
Opens January 30th, 2024
Closes March 4th, 2024

Find your competitive edge





Purpose and Research Priorities

Cobb's primary purpose is to serve our customers using innovative research and technology to make protein available, healthy, and affordable worldwide. Cobb harnesses scientific research and innovative technology to select the best genetics for continuous improvement in each generation of breeding stock.

The Cobb Research Initiative (CRI) is a program that seeks partnerships with researchers to further our genetic progress and answer key issues facing the global poultry industry. Leaders in basic and applied research are sought to provide solutions and advance poultry care, health, and welfare by leveraging advanced technology and innovative thinking. Projects with external partners will assist Cobb with controlling and preventing poultry diseases, improving animal health and welfare outcomes, reducing production costs, and/or enhancing product quality while advancing sustainability needs.

The goals of the Cobb Research Initiative (CRI) include:

1. Enhance the genetics of Cobb products with improved management and analytics for each primary research area.
2. Improve animal health and welfare outcomes of poultry flocks and reduce the economic impact of avian pathogens.
3. Develop tools and methods to accelerate genetic progress across all traits. This includes developing new traits and improved measurements of existing traits.
4. Identify and develop an advanced understanding of nutrition, health, fertility, and hatchability relevant to Cobb broiler breeder genetics.

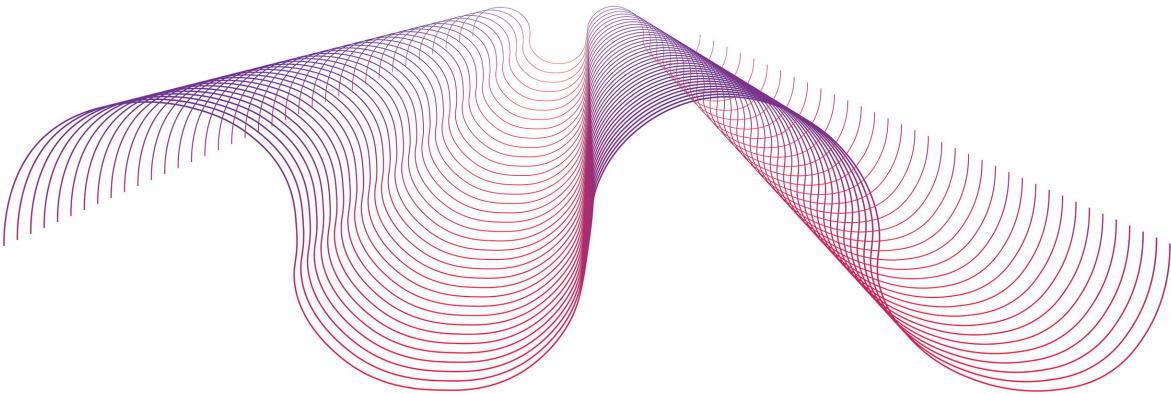
Research Components to Consider

Science and Technology Integration

Research projects that promote the convergence of science, automation, and technology to solve Cobb’s challenges are highly encouraged. The CRI seeks partnerships with researchers who consider how technology and automation could be used to support solutions within the key focus areas identified in this request for applications. Artificial intelligence, data systems collection, data systems management, robotics, and/or automation are technologies Cobb is seeking to leverage to improve our genetic products and production efficiency. Research with strategies that include the application of biotechnology for breed improvement is highly encouraged.

Global Engagement

Cobb is a global genetics company that has been advancing science around the world for over 100 years. Cobb welcomes pre-proposals from researchers around the globe and encourages researchers to consider our worldwide presence and extensive customer network. We recognize that some solutions may not be universal. However, we encourage researchers to propose solutions that may be adapted to fit regional needs and commercial application.





Cobb Research Initiative priorities for 2024

Cobb has identified five (5) research priorities for the current funding cycle: broiler breeder livability, broiler livability, hatchability/chick quality, fertility/egg production, and meat quality. We are accepting research applications that address these priority areas. Further descriptions of each priority and key questions/focus follow.

We recognize that other research areas outside of the 5 priorities we identified are also important. The CRI will accept and review pre-proposals outside the research priorities that are relevant to Cobb and the broiler breeder industry. We encourage researchers to provide sufficient justification and evidence of need for projects that are outside the scope of our research priorities (see page 9 for details).



Broiler Breeder Livability

Background

Life-of-flock livability is critical item for the productivity of a broiler breeder flock. In both the rearing phase and the laying phase, the overall livability of a broiler breeder flock greatly impacts the quantity and quality of hatching eggs produced and the ability of the company to have a regular supply of day-old chicks. During the last 4 years, industry reports show that brooding mortality (day 1 to 14) is increasing, grow-out mortality is higher, and overall production mortality has also increased. In a recent survey of the broiler breeder industry, key areas were identified that require more research to help determine the cause of the increased mortality and to help resolve the issue for future broiler breeder flocks.

Key questions and focus areas for investigation

- What are the key reasons for culling and mortality in each critical phase of breeder management (brooding, grow-out, pre-peak, peak, and post-peak)?
- Using existing tools, can new application and management strategies be developed to control coccidiosis during the rearing period?
- Using existing tools, can new application and management strategies be developed to improve the prevention of bacterial infections during the brooding and rearing phases?
- What is the best feeding strategy to prevent bird losses due to piling while also optimizing flock uniformity during the rearing phase?
- What feeding applications, lighting programs, and / or management strategies can be used to reduce hen losses due to peritonitis and lameness during the pre-peak phase in the breeder house?
- What feeding applications and management strategies can be used to reduce hen losses due to peritonitis, metabolic disease, and lameness during the peak and post-peak phases in the breeder house?
- What are the key reasons for metabolic disease in breeder flocks and what strategies can be used to mitigate the causes?

Broiler Livability

Background

Broiler mortality results in a direct loss of profits for growers and integrators and is a key welfare indicator that is regularly assessed as part of the broiler production system. Some causes of mortality include disease challenges and mobility issues leading to culling. Changes in management practices and genetics, as well as providing growers and integrators with improved tools can promote flock livability and enhance welfare outcomes of broilers. Across the broiler industry, Cobb identified gaps in knowledge that research can fill to potentially reduce broiler mortality.

Key questions and focus areas for investigation

- Can methods be identified and/or developed in broiler breeders to reduce the susceptibility of broiler progeny to bacterial and viral disease challenges?
- What are the routes of transmission of relevant broiler pathogens on farms and in hatcheries? What are some control strategies for the transmission routes?
- How can leg health be improved and culls for mobility issues be reduced in broilers?
- How can methods and management strategies for coccidia control be improved?
- What are the best methods and practices to optimize foot pad health and good welfare outcomes?
- What are the impacts of management practices on gut health, correlated with livability?
- What hatchery and brooding strategies can be implemented to reduce early chick mortality related to colibacillosis?

Hatchability / Chick Quality

Background

Good hatchability and chick quality are two prerequisites to ensure good overall flock performance. There are many factors influencing hatchability and chick quality from the incubation and hatching process. These include such areas as egg size, egg storage length and condition, egg position during storage, eggshell quality, hatch temperature, embryonic temperature, genetics, nutrition of the breeder flock, and age of the breeder flock. In a recent survey of the broiler breeder industry, key areas were identified that require more research to help determine the cause of decreased hatch, challenges with chick quality, and to improve the hatchability and egg quality for future breeder flocks.

Key questions and focus areas for investigation

- What are the key reasons for poor hatch rate?
- What innovative strategies and ideas should be implemented pre-incubation and during incubation to improve embryo viability and quality?
- What is the impact of current egg quality sanitation protocols on embryo viability and quality?
- What are the key reasons for poor chick quality at hatch? Using innovative hatchery equipment and technology, can chick quality be more objectively and quickly assessed during processing in the hatchery?
- Using existing tools, can new application and management strategies be developed to enhance the uniformity of the hatch window and improve overall hatch rates?
- Using existing tools, can new application and management strategies be developed to better identify issues leading to poor chick quality at hatch?

Fertility / Egg Production

Background

Fertility and hatchability have a direct impact on production and profitability within the industry. In a recent survey of the broiler breeder industry, key areas were identified that require more research to help provide solutions to improve fertility and egg production.

Key questions and focus areas for investigation

- What feed management strategies can increase egg production? How should nutritional profiles be implemented to improve male fertility and female productivity?
- What is the best strategy/trait to select for male fertility? How can innovative technology be used to identify and assess rooster quality and fertility during the life of the flock?
- How does semen quality relate to hatch? What are the best semen traits to evaluate that improve fertility/hatchability?
- Using existing tools, can new application and management strategies be developed to bring hens into lay earlier, as well as achieve persistency in lay post-peak?
- Can broiler breeder reproductive performance be improved using new tools, applications, and management strategies?
- What is the optimum female bodyweight and feed curve to attain optimal pullet development, uniformity, and sexual maturity?
- What is the optimum feeding of hens during peak and post peak to achieve good egg peak production and persistency?
- What is the optimum male bodyweight and feed curve to attain optimal male development, uniformity, and sexual maturity?
- To what extent do early uniformity of male and female affect male fertility and egg production?

Meat Quality

Background

Meat quality is an important economic factor that can be impacted both on the farm and during processing. Quality is based on several characteristics including water holding capacity (WHC), color, flavor, and tenderness. Poor quality meat is usually ground, used in further processing, or sent to pet food operations, often reducing profitability.

Key questions and focus areas for investigation

- Are there feed management strategies that can support high quality meat production?
- How does nutrition influence meat quality? What dietary additions can improve meat quality?
- Are there ways to detect muscle myopathies in living birds?
- What role does environment play in meat quality outcomes?
- How do the hatchery conditions and environment impact meat quality?
- What are the most important processing approaches / tools for meat quality and can we improve them?
- How can processing become more efficient, while preserving good meat quality?

Cobb Research Areas

Cobb has identified five (5) research priorities described earlier in this 2024 RFA. However, we recognize that other areas of poultry research are also important. The CRI will accept and review pre-proposals outside the research priorities that are relevant to Cobb and the broiler breeder industry. We encourage researchers to provide sufficient justification and evidence of need for projects that are outside the scope of our research priorities.

Research areas relevant to the CRI:

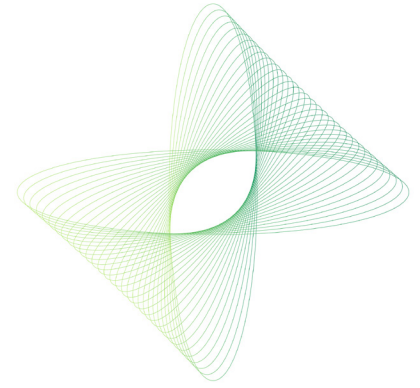
Animal Welfare	All aspects of animal welfare as they relate to improving and/or monitoring poultry health and welfare outcomes.
Breeder Broiler Management	Flock management best practices to improve production performance and health and welfare outcomes.
Biosecurity	Best practices on the farm and/or in the hatchery to prevent the introduction of pathogens, mitigate risk of disease spread and enhance early disease detection. .
Disease	Epidemiology, risks, treatment, prevent and control of diseases relevant to meat-type chickens.
Nutrition	Identify nutritional factors (ingredients, nutrient inclusion levels, processing methods, feed quality, feed form, feed presentation, etc.) that impact broiler or broiler breeder production performance (feed conversion, weight gain, livability, etc.).
Environmental management	All aspects of poultry house management (litter quality, humidity, ventilation, water sources, lighting, etc.) as it relates to production performance, behavior, and welfare outcomes
Hatchery Management	All aspects of hatcheries including egg sanitation, egg storage, incubation, and hatching, that impact chick quality.
Egg production	Improving egg quality and production with respect to equipment, collection, sanitation, etc.



Pre-Proposal Application Process

The CRI program is accepting research pre-proposals beginning January 30th, 2024 and will close on March 4th, 2024. Researchers (defined on page 12) must submit their applications electronically using the form available at Cobb Research Initiative » Cobb (cobbgenetics.com) and must upload the pre-proposal form to complete the application process. Ideally, research projects should be completed within 18 to 24 months.

Researchers will be notified of the outcome of the pre-proposal selection process by April 24th, 2024. Researchers who have approved pre-proposals will have the opportunity to partner with a Cobb subject matter expert to refine and expand their application before submitting the full application proposal.



Instructions for Pre-proposal Submission

- Use the fillable document accessible on the website (Cobbgenetics.com). This form will be used to enter all your information including your project narrative. Any application that is submitted as a file other than the fillable form issued by Cobb, will be returned without review. Pre-proposals received with missing information or lacking the required signatures will not be accepted and returned without review.
- Save your file as a pdf and title the file for submission using the following format:

Pre-Proposal_Application_(Last Name of Primary Researcher).

Example: Joe Smith is the lead researcher so he would title his file:

Pre-Proposal_Application_Smith.pdf

If submitting more than one pre-proposal as a Primary Researcher, add a number after the last name.

Example: Joe Smith is the lead investigator submitting 2 pre-proposals as the Primary Researcher so he would title his files:

Pre-Proposal_Application_Smith_1.pdf

Pre-Proposal_Application_Smith_2.pdf

- Fill in all the requested information in the submission portal.
- Upload your file. Submit the pdf pre-proposal form file. Do not submit supplementary files. Any files other than the fillable pre-proposal form will not be reviewed.
- File size is limited to 50 MB. Files over this size will be rejected by the submission portal.
- Applications must be received by 11:59 pm Central Time (CT) on the due date (see current RFA for due dates). Applications received after the deadline will not be reviewed.
- Do not submit the same application more than once. You will receive an email confirmation that your pre-proposal has been received within 5 business days of submission.



Full-Proposal Application Process

Researchers selected from the pre-proposal application process may partner with a Cobb subject matter expert to refine their research proposal before submitting the full application. The full application must be submitted by May 31st, 2024.

Cobb Review and Selection Process for Full Proposals

A panel of Cobb subject matter experts will evaluate the full proposals. Reviewers will consider the strengths and weaknesses of the proposal, the overall likelihood that the study will have significant outcomes and impact for Cobb, and the alignment of the project with current research initiatives. The panel will select the full proposals for funding and all researcher applications will receive notice from Cobb.

Cobb Disbursement of Funding

In the event the Researcher's proposal is ultimately selected by Cobb and upon the execution of a mutually agreeable written research agreement signed by both parties, the Researcher will receive several payments over the duration of the project as more specifically set forth in said contract. At the initiation, the Researcher will receive 25 % of the total requested budget. Once the final report is received, the final payment will be disbursed.

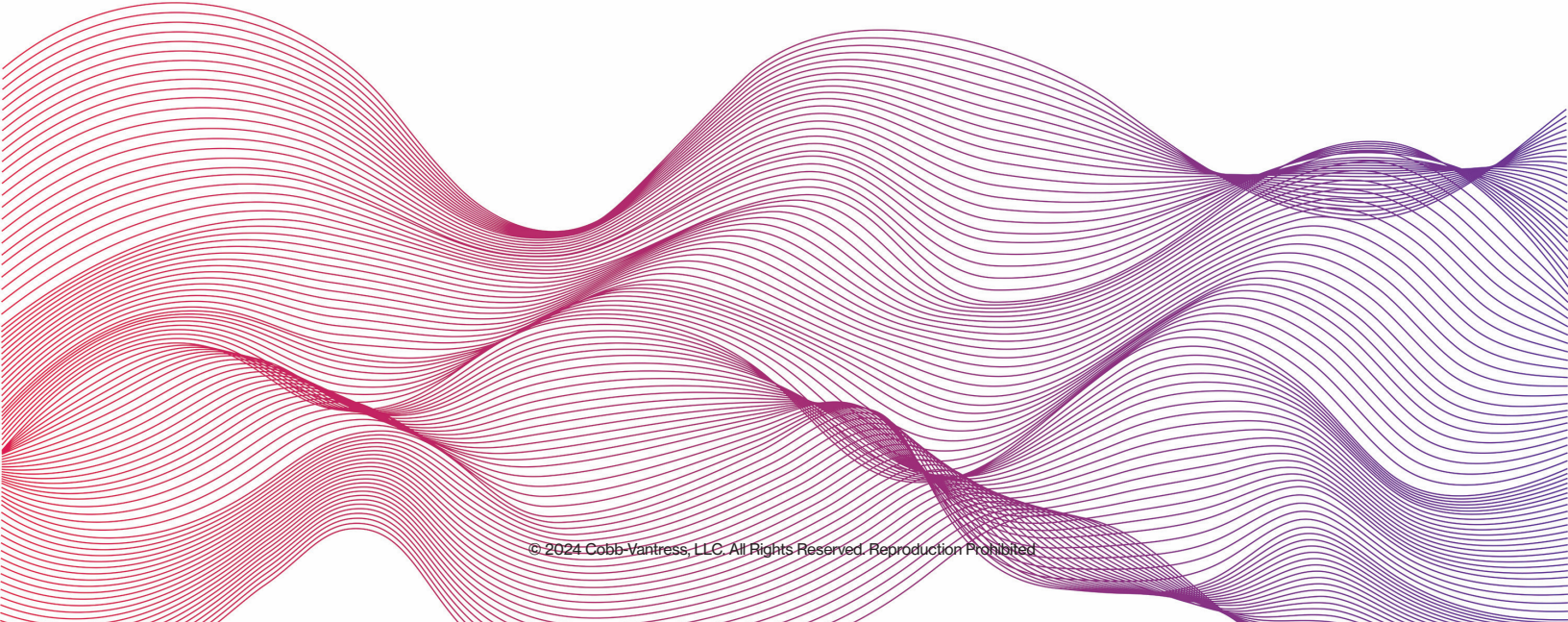
Important Dates

January 30th, 2024 RFA is released and pre-proposal application portal opens

March 4th, 2024 Deadline to submit pre-proposals

April 24th, 2024 Requests for full proposals notification

May 31st, 2024 Deadline for full proposals





Partner with Cobb
research and help us find
the next edge.

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