

Adisseo's 2022 Research Grant Sharpens Focus on Sustainability Challenges Facing Animal Nutrition

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With animal agriculture tasked with both feeding a rapidly growing global population and sharply reducing the impact its operations have on the planet and its finite resources, innovating and adapting to change has become more vital than ever to ensure the industry's future success.

Fostering that innovation within animal nutrition and identifying alternative approaches to current production processes is what Adisseo has been encouraging with the Adisseo Research Grant. This initiative – which was first launched last year – makes available €1 million to be shared between up to five research projects (up from last year's 2-3) covering sustainability concerns in the feed industry. And while last year's grant covered five challenges that fall under this overarching theme, the 2022-2025 grant is offering a more sharpened focus on just two topics: alternative feedstuffs and antibiotic reduction.

In this Industry Perspectives, Feedinfo talks to Adisseo's Director of Scientific Marketing, Pierre-André Geraert and two grant scientific committee members – Professor Richard Ducatelle from Ghent University in Belgium and Dr. Pairat Srichana, Vice President of Charoen Pokphand Group – to find out what led to the narrower focus of this year's grant and what interesting industry insights Adisseo walked away with following the 2021-2024 grant.



[Feedinfo] What was the industry's response to the first Adisseo Research Grant you launched last year? How successful was it?

[Pierre-André Geraert] We received great feedback from the scientific committee of the 2021-2024 grant, with both the academics as well as feed industry representatives in the group commenting on the excellent quality of the proposals and the great difficulty they had in selecting only two collaborative projects to support. The large number of pre-proposals, which totalled more than 80, and the different selection steps also facilitated lots of interesting discussions between all of the committee members.



Pierre-André Geraert
Director of Scientific Marketing
Adisseo

[Richard Ducatelle] Not only was the feed industry's response to the first Adisseo Research grant incredibly positive, but the

response from the scientific world was equally overwhelming. It really looks like this grant is filling a gap. It has brought scientists from all over the world together by placing importance on the added value of international collaboration. In addition, I think emphasising scientific originality during the call for applications is the reason such high-quality proposals were submitted.

[Pairat Srichana] I agree. The proposals submitted were definitely outstanding and set a new benchmark for multidisciplinary research integration between animal science, biological science, nutrition, microbiology, and biotechnology. Each of the winning proposals – the coccidia infection prevention project and the gut microbiota project – stated their goals clearly and showed how academic innovation can be translated into industry application.

[Feedinfo] Talking about the two winners, can you tell us a bit more about the progress they have made in the almost 4 months since winning? What are the next steps for them?

[Pierre-André Geraert] The Grant is for a period of three years, so the first developments are not expected before the first year of research work. With such highly collaborative projects, it was of utmost importance to first organise the research agreements and the planning of the scientific work.

That said, in August at this year's World Poultry Congress in Paris we will have the first opportunity to review the winners' progress and address the next steps.

[Feedinfo] The call for applications for this year's grant kicked off at the end of January. What can you share about last year's two winning projects that can help this year's applicants improve their chances of making it to the end?

[Pierre-André Geraert] Collaboration and exploratory programmes were indeed considered important criteria in choosing the winners. I also want to add that while these two first projects only concerned poultry; this was not the objective of the grant, but rather the consequence of an intense selection process. I also want to remind applicants that for the 2022-2025 grant both swine and poultry are the targets and that the challenges to address in their proposals have been limited as you mentioned, to alternative feedstuffs and the way to improve the determination of their nutritional value, as well as the challenge of replacing antibiotics and reducing medication in both species.



Professor Richard Ducatelle
Ghent University

[Richard Ducatelle] The originality of the ideas and the quality of the proposed research will definitely remain the corner stones of the selection process. Providing sufficient detail about the technological and methodological approach is of course vital to allow a full appreciation of the proposed studies. Finally, there should be room for top swine research.

[Pairat Srichana] The industry's needs were the main focus in those winning proposals. Their objectives were clearly to improve industry output as well as reducing obstacles.

The teams were also quite diverse, including universities, institutes, and government sectors, showing that the industry application of their project is possible. I also agree on encouraging more submissions of swine proposals.

[Feedinfo] As Mr. Geraert mentioned, you have reduced the focus points of the 2022-2025 grant from last year's five (sustainability, antibiotics ban, new feedstuffs, early feeding and hot conditions) to just two for this year's round. What was the thinking behind this?

[Pierre-André Geraert] The rationale was to be very focussed on the research objectives. Sustainability is the global theme as it cannot be side-lined and should be the objective of all projects. The development of rapid and efficient methods to determine nutritional evaluation of new raw materials is key in the current situation and will allow more flexibility for the end users. Reducing medication, in particular antibiotic usage, will also remain a big consumer requirement going forward. Even if these challenges

were already of concern last year, focusing again on those topics this time around should trigger more proposals and allow for important programmes that will benefit the future of animal protein production.

[Richard Ducatelle] We should also be seeing this as a maturation process. In the first year it was very difficult to predict the response, because this was a new initiative and scientists had to organise themselves to respond to it. Considering the tremendous reaction to last year's call, this next round can afford to be a bit more streamlined without leaving the previous focus points totally behind as they are part of the same, bigger picture.



Dr. Pairat Srichana

VP

Charoen Pokphand Group

[Pairat Srichana] Reducing the focus points from five down to alternative feedstuffs and antibiotics reduction, should go a long way in supporting the sustainability of raw material sourcing and promote the use of

antibiotic replacement strategies, like probiotics. I am happy that this year's proposals address these two points as they are the foundation of other areas. I believe if alternative feedstuffs and antibiotics reduction concepts are correctly addressed, sustainability, as well as early nutrition, will also be partly taken care of in the process.

[Feedinfo] Will this more streamlined focus result in less applicants for this year's grant? What has been the reaction so far in the few months since the January call for applications?

[Pierre-André Geraert] One month after the launch in January we had a lot of demand for forms to apply for the Adisseo Research Grant, which is similar to what we saw for the 2021-2024 grant. We believe that this is because offering €1 million for the next three years to contribute to 2 up to 5 research programmes is a significant amount. We have also introduced more flexibility to further stimulate proposals while cementing international collaborations and exploratory programmes as essential for the grant.

[Feedinfo] Last year's Scientific Committee was made up of five academics and 10 feed industry representatives. How does this dynamic work when it comes to the selection and review of the research project proposals? Does the industry have more say?

[Richard Ducatelle] Last year's scientific committee did an excellent job for the simple reason that the criteria were clear. Their job was not an easy one because of the overall excellent quality of the proposals. This led to interesting discussions.

I don't want to reveal too much about these discussions, but it was clear that differences in opinion were not based on academics vs industry representatives. Rather they were about people from different backgrounds (not only geographically) facing slightly different challenges. I appreciated that and that at the end there was a clear overall consensus.

[Pairat Srichana] I agree with this ratio between academic and industry representatives. I believe the translation of academic innovation into industry application will boost industry output. Academic innovation, including biomarkers, can be extensively studied and applied to the industry to innovate its processes. Academics might have more to teach the industry. It is up to the industry to decide how these teachings can serve as an improvement.

[Feedinfo] When does the pre-proposal application period end? And when can we expect the pre-selected Research Projects and winners of this year's grant to be announced?

[Pierre-André Geraert] Applicants can submit pre-proposals until 1 April, after which the Adisseo Research Grant 2022-2025 scientific committee will select the most promising projects. The selected research teams will then have to complete a dossier for final selection and the laureates will be announced at the WPC in Paris on 10 August.

[Feedinfo] What interesting industry insights did Adisseo itself gather following the first year of the grant? What did it reveal about innovation in the animal agriculture space around the world?

[Pierre-André Geraert] There is a clear need for developing innovative approaches that will help our industry deliver solutions that will develop animal protein production in accordance with customers' expectations of affordable quantity, high quality and sustainability. Some challenges, such as early feeding and hot conditions, are also of concern to the future of our industry, whatever the species. Developing solutions, tools, and methods to help the industry address those issues is important.

[Richard Ducatelle] I really appreciate Adisseo's effort to support research into poultry and pig nutrition/health. The objective is clearly to further our understanding of rather fundamental questions, which, hopefully, will ultimately lead to novel solutions for problems that seemingly are impossible to solve at present.

[Pairat Srichana] The first-year grant winners can make a big impact on the industry, especially in terms of improving animal health and performance. However, there is still a great deal of room for other challenges to be addressed and for the improvement of industry. I believe integration of multidisciplinary sciences will shape the future of agriculture businesses. These innovative changes will allow for more affordable animal protein with higher quality for all consumers.

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