

1. Please introduce yourself and your company.

These questions were answered by Santiago Avendano (Director of Genetics for the Aviagen Group – broilers and turkeys) and Paige Rohlf (R&D manager for Aviagen Turkeys Inc., the US turkey breeding program of the Aviagen Group). The Aviagen Group is owned by the EW Group.

2. What it is that you wish they could do, but just cannot do today due to cost or lack of technology?

Feasibility of genotype by sequencing (GBS) for genomics prediction. The cost of sequencing is still prohibitive given the number of animals in our broiler and turkey breeding groups. Managing the big data is also a challenge for the same reason.

3. What is the biggest current and 10-year challenge(s) to your industry that changing traits in your animals might be able to address?

Given the movement of the US poultry markets towards “antibiotic free” (ABF) or “no antibiotics ever” (NAE), the poultry industry would benefit from understanding the underlying traits related to robustness in commercial poultry. ABF/NAE production systems have a completely different environment, and as a result, can be more challenging to the birds’ survival. Recently, key therapeutics (roxarsone and nitrasone) for protozoal control (blackhead and cocholesoma for example) have been removed for use in poultry. As a result, commercial and ABF/NAE production systems see poorer gut health and overall poorer livability. Genomics can play a role in understanding gene expression related to resistance to pathogens, better gut function, and immune response to challenge. Disease resistance to highly pathogenic avian influenza (HPAI), and other such devastating diseases will also benefit the industry, and genomics can be used to assess populations for natural resistance.

4. Are there opportunities between different segments of the industry? For example, something that does not fall within the wheelhouse of the breed association/company or the meat industry (expand to any topic one can think of), but it would be very beneficial for both industries?

In the future, meat quality will be of increasing importance, not associated with myopathies but overall texture and taste. Linking chemical and sensory attributes related to consumer preference will help the poultry industry improve products and profitability.