



Dr. Shukun Yu to promote feed digestion simulation at Univook



Dr. Shukun Yu has joined Univook Industry as Senior Consultant to spearhead the promotion of their innovative feed digestion simulation system named Computer Controlled Simulated Digestion System for monogastric animal nutrition.

The feed industry welcomes back a familiar and influential figure, Dr. Shukun Yu, who has joined China-based Univook Industry as Senior Consultant. After a distinguished 32-year career with Danisco, DuPont, and IFF as Technical Fellow, where he was instrumental in developing groundbreaking products like ultra-low pH active phytase (Aextra® Phy) and the wide substrate spectrum feed protease (Aextra® Pro), Dr. Yu will now promote the innovative Computer Controlled Simulated Digestion System (CCSDS) for monogastric animals.

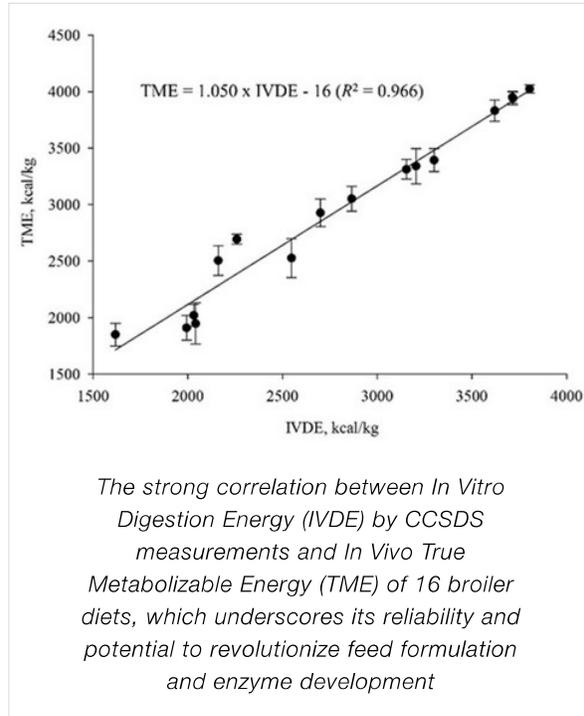
According to Dr. Yu, who has worked with in vi-

tro digestion models for decades, CCSDS is likely the best software-controlled automatic instrument on the market, since it provides In Vitro digestion Energy (IVDE) with a high correlation to in vivo animal trial data of TME (R2 is 85-96% respectively, for swine and poultry, Figure 1), thus reducing costs by more than 90% compared to in vivo trials. CCSDS uses feed as a substrate to simulate the digestion and absorption processes within the gut of monogastric animals with remarkable fidelity and repetition (CV <1.5%). Variability in nutrient content due to ingredient sources, processing, and anti-nutritional factors etc necessitates precise energy evaluation.

Compared to in vivo methods, CCSDS can determine IVDE, amino acid digestibility and feed enzyme stability. This advanced system promises a more efficient, accurate, and cost-saving approach to bionic digestion assessment for the global feed, feed additive and animal nutrition sectors, according to the announcement.

CCSDS is highlighted as offering a compelling alternative to traditional animal trials, which are often costly, time-consuming, and susceptible to various uncontrollable factors.

Feed costs represent >60% of swine and poultry production costs, with energy accounting for 70% of feed expenses. Accurate energy valuation is critical for sustainability and optimizing animal performance. By accurately, quickly, and reproducibly evaluating the nutritive value of feed ingredients in terms of True Metabolic Energy (TME) and the enzymolysis efficacy of various feed enzymes, CCSDS reportedly provides a rapid screening tool for single component enzyme and compound enzyme preparations, helping identify the most suitable compositions. The rapid test time of CCSDS enables



businesses to quickly adjust raw material formulas, mitigate risks, save costs, and significantly boost market competitiveness, which has been approved domestically with over 150 sold instruments in more than a decade.