

Message from the President



The expression “teamwork makes the dream work” is highly relevant to the work we do at NovaVive. Not only do we have a talented and dedicated internal team, we

are able to tap into expertise outside our organization.

One of these external resources is Professor Derek Knottenbelt of Equine Medical Solutions in the UK (Scotland). Professor Knottenbelt presented a webinar for us last June about equine sarcoids and treatment options. Later in the year, he conducted demonstrations at our AAEP trade show booth (see article below).

Prof. Knottenbelt makes himself available as a sarcoid consultant to equine practitioners around the world. Given

that he has personally been involved in treating more than 150,000 cases, he is truly a global authority on this disease.

We are honoured that Prof. Knottenbelt has identified the value of our Immunocidin Equine immunotherapy as an equine sarcoid treatment option, and we are grateful that he is willing to lend his support to the equine veterinary community as they grapple with these pesky tumors.

As for our internal team, you can get to know another member by reading page 2 of our newsletter.

Immunocidin[®] Equine “How To” by Derek Knottenbelt



Attendees at the American Association of Equine Practitioners (AAEP) Annual Convention & Trade Show last December may have been a little

surprised to see staff at the NovaVive booth cutting up slices of melon. This odd sight only made sense when Professor Derek Knottenbelt of Equine Medical Solutions showed up to demonstrate the proper administration of our Immunocidin[®] Equine immunotherapy for treating sarcoid tumors.

Professor Knottenbelt used the melon as a tumor and showed how to inject our product (represented by coloured ink for the demo) to achieve the maximum contact of product with tumor cells.

“The reason that cancer is not recognizable is that the immune system doesn’t see the tumor,” he explained. “In order to treat it immunologically, we have to make the tumor recognizable to the immune system.” That’s what Immunocidin Equine does. As Derek described, when the product (a “recognizable protein”) attaches to a tumor cell, the immune system recognizes it and cleans the cell out.

Derek’s administration technique involves placing fine needles through the tumor in orthogonal planes (parallel lines throughout) approximately one-half to one centimetre apart. As each needle is withdrawn, the product is injected and drawn through the tumor. He recommends massaging the surface of the tumor after injecting to ensure maximum contact of product to cells.



Derek also described how sarcoids are different from normal cancer cells. “A sarcoid is different because it’s an insertional genome—a piece of the bovine papilloma virus that gets picked up by the cell. This is taken into the cell and changes the behaviour of the tumor, so it’s not mutational. That’s why they don’t metastasize.”

Professor Knottenbelt has treated more than 150,000 sarcoids in his career. His expertise was of great interest to AAEP attendees and we were grateful that he joined us at our booth.

Employee Profile: Gordon Gilreath

We often reference our valued employees, but we don't often talk about them in detail. We're pleased to introduce a new feature in our quarterly newsletter focused on our hardworking employees. In this edition, we learn more about Gordon Gilreath, Senior Production Technologist at our NovaVive USA manufacturing site in Athens, GA.

Q: How long have you worked with NovaVive?

A: I joined NovaVive USA when it was founded in December, 2014.

Q: What did you do before joining NovaVive?

A: I have always worked in science. I worked at Bioniche Animal Health. Before that, I worked at Merial (now Boehringer Ingelheim) in the Research and Development, Bacteriology Lab. I previously worked at Huber Engineered Woods Research and Development, Innovating Building Products. I also worked at Johnson & Johnson Noramco as a QC Chemistry Analyst.

Q: What is your background/education?

A: I earned an Associate Degree at Athens

Technical College, Biotechnology and a Bachelor of Business Administration degree in Management at Brenau University.

Q: What do you like most about your job?

A: NovaVive is a great team and everyone is like family. Every vial we manufacture is made with care and attention to detail.

Q: What makes you most proud about your work?

A: We truly believe in our biological products and are very proud to bring such products to the market for animal health.

Q: What is the greatest challenge at work?

A: Sourcing and procuring raw materials to manufacture our biological products can be a challenge at times.

Q: If you were to have done something else, career-wise, what would it have been?

A: I enjoy following the real estate market, so maybe I would have worked in real estate. I have always had a fascination with meteorology as well.

Q: What is your favourite hobby in your down time?

A: I enjoy spending time outdoors, fishing, camping, or grilling, or spending time with my two sons.

Q: What is something surprising that most people don't know about you?

A: I'm the proud owner of a Holland Lop bunny rabbit named Banjo. Bunnies make great pets and share similar characteristics to cats. They like to sit in your lap, they clean themselves constantly and they're easy to litter train. A bunny is a great alternative to someone who is allergic to cats.



Settle[®] Research Highlights

It's equine reproduction season in the northern hemisphere: The time when our Settle[®] immunotherapy for equine endometritis takes centre stage.

Settle is manufactured using the NovaVive Mycobacterium cell wall fraction (MCWF) technology. It is approved in the USA, Australia, New Zealand, Canada and UAE as an aid in the treatment of equine endometritis caused by *Streptococcus zooepidemicus*, the hardest to treat cause of the disease. When administered by IV injection or intrauterine (IU) infusion, Settle stimulates the mare's immune system to fight the infection.

Multiple research studies have been conducted with Settle proving its efficacy in a variety of situations. Here are some data highlights:

- ◆ In the face of bacterial challenge with *Streptococcus zooepidemicus*,

as demonstrated by Rogan *et al.*, Settle had a positive effect on bacterial load. Endometritis was observed in all placebo-treated mares at 7 days post-ovulation, whereas treatment with Settle resulted in elimination of endometritis in 70% of mares at 7 days post-ovulation.

- ◆ Settle significantly reduced the magnitude of bacterial growth in the uterus (Fedorka *et al.*). "We saw that Settle-treated mares had a significant decrease in the number of days it required to clean culture." Carleigh Fedorka, PhD
- ◆ Settle has also been shown to hasten the uterine involution process when administered post-foaling, allowing the mare to be ready faster for the



next breeding cycle.

- ◆ In 2022, a two-treatment regimen (6ml per treatment) of Settle proved effective in treating endometrial cups. The study was published in the Journal of Equine Veterinary Science (*Utilizing an immunostimulant (MCWF; Settle) to hasten the degradation of endometrial cups.*)

