

Message from the President



July 15th marks the fifth anniversary of NovaVive Inc. Looking back on our first five years, I can proudly say that we have made a number of significant accomplishments. Here are some highlights:

Year 1 (to July, 2015)

- ✓ acquired MCWF technology platform from Vetoquinol (France)

Year 2 (to July, 2016)

- ✓ relabelled products; USDA reviewed and approved them

- ✓ re-launched Amplimune and Settle in the U.S.A.
- ✓ received CFIA approval of Amplimune
- ✓ presented data for Immunocidin (canine) data presented at World Veterinary Cancer Congress

Year 3 (to July, 2017)

- ✓ received CFIA approval for Immunocidin Equine
- ✓ launched Amplimune in Canada
- ✓ launched Immunocidin Equine in the U.S.
- ✓ presented data from veal study with Amplimune at the American College of Veterinary Internal Medicine (ACVIM) Forum

Year 4 (to July, 2018)

- ✓ launched Immunocidin Equine in Canada
- ✓ signed co-operation agreement in China
- ✓ received approval for Settle from the

- ACVIM in New Zealand
- ✓ initiated Immunocidin Equine study at Iowa State University
- ✓ received US OMRI listing for Amplimune
- ✓ presented Immunocidin research data at the ACVIM Forum
- ✓ launched Settle in New Zealand

Year 5 (to present)

- ✓ signed partnership agreement with AABEX Animal Health for U.S. sales and marketing
- ✓ presented research data at World Buiatrics Congress
- ✓ received Canadian OMRI listing for Amplimune
- ✓ initiated Immunocidin study in dogs with hemangiosarcom at Iowa State University

We look forward to the coming months and years with optimism and we are grateful for the continuing support of our employees, shareholders, suppliers and customers.

Feedback from the Field: Settle® Having an Impact in NZ

Equine veterinarians in New Zealand were recently asked about how Settle® is working for them in the field.

Settle—our immunotherapeutic for the treatment of equine endometritis—was approved for sale in by the New Zealand regulator (ACVM) last year.

Dr. Kevin Miers, Director of Veterinary Associates Equine & Farm in Auckland, had a positive response with Settle. “I was impressed with the amount of data and science behind this product and decided I would try it in some of my problem mares. To be honest, I did not believe some would respond to any therapy.”

Dr. Miers reported that he treated 23 mares with Settle and 17 (74%) became “in foal” (pregnant). Many of these mares had been bred several times

without success, then became pregnant after a single treatment with Settle.

A problem mare is defined as a mare that has difficulty becoming pregnant or carrying a pregnancy to term. Management of problem mares is challenging and frustrating for veterinarians and horse owners.

Endometritis in the broodmare and the damaging inflammation it causes can often be the underlying reason why she’s not becoming pregnant. Unfortunately, there are few treatment options aside from antibiotics to address this bacterial infection.

Settle is a potent immunomodulator that is manufactured using the NovaVive Mycobacterium Cell Wall Fraction (MCWF) technology. It is approved as an aid in the treatment of equine endometritis caused by *Streptococcus zooepidemicus*, the hardest to treat cause of the disease.

“On the basis of these results and my own clinical experiences with this product over the last breeding season, I am currently recommending Settle for use in difficult mares to assist in achieving pregnancy.”



Dr. Kevin Miers, BVSc, Director, Veterinary Associates Equine & Farm, Auckland, New Zealand

Reducing the Antibiotic Footprint on Farms Using Amplimune®



Dairy and beef producers are being asked to use fewer antibiotics on their farms. We have a tool that can help!

Amplimune® is a USDA- and CFIA-approved immunotherapy for the treatment of calf scours that can be used in place of an antibiotic.

Calves are born with minimal immune system function. If they receive colostrum as early as possible after birth, and if the colostrum is of good quality and in

sufficient quantity, calves will have short-term protection against some diseases.

However, disease exposure in the environment is significant; in the past, antibiotics were a simple solution for resulting health issues. With the increasing pressure to reduce antibiotic use in cattle herds, immunotherapy is a natural way to make the animals stronger to fight disease.

In a controlled challenge study in calves, mortality due to bacterial diarrhea was reduced to 10% in the Amplimune-treated group versus 58% in the untreated control group.

Amplimune can be used effectively on its own or in conjunction with other supportive therapies to help the animal recover more quickly without further treatments. In both cases, the use of immunotherapy may reduce overall antibiotic use in the herd.

North American farmers are encouraged to try Amplimune first in their calves; they may not need an antibiotic at all.

Amplimune is Organic Materials Review Institute (OMRI) listed in the USA and Canada, meaning it is acceptable for use in organic herds.

The product is available in three sizes: 5mL, 20mL and 100mL. A newborn calf dose is 1mL.



Effectively Treating Sarcoids: The Proof is in the Pictures!

Equine sarcoids are considered to be the most common skin tumors of horses. They can occur in horses of any age. They are most common in adult Quarter Horses and other closely related breeds.

There are four different forms of sarcoids and these tumors are often found around the eyes, head/face, neck, chest, and shoulder, and at the site of old scars. It is estimated that sarcoids affect 1 in 100 horses in North America and it is believed that infection with bovine papillomavirus could be a cause.

Our immunotherapy for sarcoids — Immunocidin® Equine—is the only regulator approved sarcoid therapy in North America.

Immunocidin Equine is an injectable product that activates macrophages and lymphocytes for both cell-mediated and humoral immune response in the horse.



BEFORE TREATMENT



AFTER TREATMENT

Immunocidin Equine possesses both antiviral and antitumor capabilities.

An ongoing study at the Iowa State University College of Veterinary Medicine (led by Dr. Stephanie S. Caston, DVM, DACVS-LA, Associate Professor, Equine Surgery) is assessing the product's efficacy and safety in the treatment of sarcoids. The data should be available later this year.

Immunocidin Equine (with or without surgical de-bulking) has been proven to be a safe and effective sarcoid treatment option. The proof is in the before and after pictures!



[NovaVive Inc.—Equine](#)
[NovaVive Inc.—Canine](#)
[NovaVive Inc.—Bovine](#)