



PRESS RELEASE

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Research Study Shows Promise for New Piavita Product to Automate Early Birth Detection in Horses

[ZÜRICH, SWITZERLAND, FEBRUARY 3, 2021] — Piavita AG has partnered with the Zurich University of Applied Sciences (ZHAW) and the University of Bern with support from the Swiss Federal Fund, Innosuisse, to pursue a research study with the goal of further developing its vital sign monitoring technology—the Piavet System—to detect the onset of foaling in horses. This study—the largest known birth data collection project to date—is titled “Piabreed: Machine Learning for Automated Ovulation and Birth Monitoring in Horses.” This year, the Piabreed Project will focus on one of the two sub-projects: the industry’s need for better, less invasive, and more cost-effective monitoring of foaling mares.

“We are the middle players who combine all the partners. We provided them with the core data and the Piavet System for data collection and we are working to implement the findings into a marketable product. Together with the people from ZHAW, our goal was to figure out if there are indications for when a mare is foaling—before it begins.”

– Dr. Dorina Thiess, CEO, Piavita AG

Breeding relatively untouched by technology

The breeding industry, although still relatively untouched by technology, plays a huge role in the global, 300-billion-dollar equine industry. Today's industry standards for birth monitoring are based on the use of behavioral sensors to detect when the mare is sweating or laying down, or by use of an invasive vaginal sensor. In addition, most breeders use camera systems to keep visual tabs on mares around the clock.

Study reveals exciting possibilities

The two-year funded study, which began at the beginning of the 2020 breeding season, is led by PD Dr. Dominik Burger of the University of Bern and Agroscope. His research team includes two veterinary doctoral students from the Swiss Institute of Equine Medicine (ISME) in Avenches. In addition, Piavita partnered with machine learning expert Professor Dr. Thomas Ott of the ZHAW School of Life Sciences. He is leading the data analysis with his team in data science and computational life sciences.

“Working with vital sign data is always an interesting challenge, especially in the case of animals. Luckily, the Piavet System is a unique data source that we can exploit, showing the potential and benefits of digital veterinary medicine.”

– Dr. Thomas Ott

The dedicated research team is collecting data using the Piavet System at a rate of 1,000 data points per second. Piavita seeks to combine the user experience and studies from the data collection process with machine learning to develop a holistic and user-friendly concept for breeders.



The Piabreed Project started at the end of 2019 and has since successfully collected a broad set of continuous vital parameters before, during and after birth. Initial insights from 35 foaling mares raised big hopes for a highly reliable, non-invasive detection of birth, hours before the process begins. The algorithm developed from the first wave of data showed that Piabreed successfully predicted 100% of the 35 births. An early indicator like this would give breeders the value of time to take any precautionary measures needed to support the mare and foal.

A future with Piabreed

With these exciting results, the Piabreed Project team is embarking on a market trial with a select group of breeders for the 2021 foaling season. It's anticipated that this secondary data collection will confirm the promising initial findings to provide breeders with a convenient, non-invasive solution for birth monitoring. If the market trial goes as planned, Piavita plans to release Piabreed to the market later this year.

Are you active in the equine breeding industry and interested in joining us to take equine birth monitoring to the next level? Simply email us at info@piavita.com to learn more. To follow along with the progress of this project and to learn more about the Piavet Solution, subscribe to our [blog](#), and follow Piavita on [Instagram](#), [Facebook](#), and [LinkedIn](#).

Attachments:

- Piavita logo [graphic, .png]
- Piavet System on foaling mare [photo, .png]

Helpful links:

[Piavita website](#)

For further questions:

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Boilerplate:

At Piavita, we like happy vets and healthy horses. It's that simple. Our mission is to transform veterinary care by providing remote health monitoring technology to the veterinary industry. With a non-invasive, sensor-enabled hardware device and sophisticated software platform, the Piavet Solution automates and digitizes repetitive, manual tasks to help vets save time and improve patient outcomes. We operate in Europe and the USA, with headquarters in Zürich, Switzerland.