



New AI-driven diagnostic tool can predict chronic kidney disease in cats two years before onset

RenalTech™ predictive diagnostic tool is a first for veterinarians, signaling new potential for personalized health care for pets

Journal of Veterinary Internal Medicine publishes manuscript on science behind RenalTech

Los Angeles, Calif. —October 1, 2019 — Today, Antech Diagnostics, part of Mars Petcare, released a new diagnostic tool that was developed using artificial intelligence to analyze pet medical record data to predict whether a cat will develop chronic kidney disease (CKD) up to two years before traditional clinical diagnosis.

The RenalTech tool was developed by Mars Petcare scientists* and is delivered to veterinarians through Antech's reference laboratory network. The tool can identify whether a cat will develop CKD, enabling a new way for veterinarians to partner with cat owners on proactive health care plans tailored specifically to their pet's unique medical needs. Now available free of charge to veterinarians that use Antech's reference laboratories in the U.S., this tool is the first of many predictive diagnostics in the pipeline from Mars Petcare.

"This is a paradigm shifting moment for veterinary medicine" says Jonathan Elliott, MA, Vet MB, PhD, Cert SAC, Dip ECVPT, MRCVS and Vice Principal for Research and Innovation at the University of London Royal Veterinary College and partner in the development of the tool. "The ability to use artificial intelligence on data collected in practice as part of routine health screens to address chronic kidney disease well before the disease becomes clinically apparent gives us an opportunity to leverage best practice medicine for cats not previously available to veterinarians. It's also exciting that we were able to move so quickly from publication in the *Journal of Veterinary Internal Medicine* to making the tool available in practice."

CKD is the number one cause of death for cats over five and affects 30-40 percent of all cats over the age of 10. A highly complex disease that historically has been difficult to diagnose, current detection methods find disease only once significant kidney damage has occurred, making intervention and treatment challenging. Developed by leveraging the anonymized medical data of more than 150,000 cats and 750,000 Banfield Pet Hospital® patient visits over 20 years, the RenalTech tool can predict CKD with greater than 95 percent accuracy.

“Behind the numbers are real pets, pet owners and veterinarians,” said Poul Weihrauch, President, Mars Petcare. “Mars Petcare is committed to its purpose: A BETTER WORLD FOR PETS™, leveraging data, science and technology. We envision a world where predictive diagnostics in pet health care are the norm, enabling CKD and other diseases to be managed proactively. The RenalTech tool reflects the combined expertise and assets of Mars Petcare, The Waltham Centre for Pet Nutrition and Antech Diagnostics, enabling a shift in veterinary care from disease detection to disease prediction.”

A manuscript, “[Predicting Early Risk of Chronic Kidney Disease in Cats Using Routine Clinical Laboratory Tests and Machine Learning](#),” recently published in the *Journal of Veterinary Internal Medicine*. The study found that the four-measure model alone is also able to predict CKD two years before clinical diagnosis. The RenalTech tool uses six common feline health measurements—creatinine, blood urea nitrogen, white blood cell count, urine specific gravity, urine protein, urine pH—along with approximate age—to deliver a RenalTech Status. Based on this status, veterinarians can say with certainty if a cat has or will develop CKD within the next two years.

“The ability to predict disease is a game changer for veterinarians,” said David Aucoin, DVM, DACVCP, Chief Technology Officer, Antech Diagnostics. “Now, veterinarians can act early, before disease strikes, allowing them to create a highly personalized care plan enabling pet owners to take the necessary steps to minimize the effects of chronic kidney disease. We believe this will dramatically improve a veterinarian’s ability to keep pets with their people for as long as possible, which is truly why we all come to work every day.”

For more information on the RenalTech tool and the future of predictive and preventive health care for pets, please visit www.antechdiagnostics.com/renaltech and <https://www.waltham.com/waltham-science/preventive-health/>.

For more information regarding the manuscript and specifics on the study, please visit <https://www.waltham.com/news-events/welfare-and-behaviour/renal-tech-diagnostics-tool/>.

**Made in collaboration with PIPA LLC.*

About Antech

For more than 30 years, Antech Diagnostics has set the standard for reference laboratory excellence. Antech is proud to have a world-class team of veterinary professionals putting their clients first with excellent customer service. At the heart of Antech is our love for pets, their health and well-being. Visit us at www.antechdiagnostics.com.

About Mars Petcare

Part of Mars, Incorporated, a family-owned business with more than a century of history making diverse products and offering services for people and the pets people love, the 85,000 Associates in Mars Petcare are dedicated to one purpose: A BETTER WORLD FOR PETS. With 75 years of experience, our portfolio of almost 50 brands serves the health and nutrition needs of the world's pets – including brands PEDIGREE®, WHISKAS®, ROYAL CANIN®, NUTRO™, GREENIES™, SHEBA®, CESAR®, IAMST™ and EUKANUBA™ as well as The WALTHAM Centre for Pet Nutrition which has advanced research in the nutrition and health of pets for over 50 years. Mars Petcare is also a leading veterinary health provider through a network of over 2,000 pet hospitals including BANFIELD™, BLUEPEARL™, PET PARTNERS™, VCA™, Linnaeus and AniCura. We're also active in innovation and technology for pets, with WISDOM PANEL™ genetic health screening and DNA testing for dogs, the WHISTLE™ GPS dog tracker, and LEAP VENTURE STUDIO accelerator and COMPANION FUND™ programs that drive innovation and disruption in the pet care industry. As a family business and guided by our principles, we are privileged with the flexibility to fight for what we believe in – and we choose to fight for: A BETTER WORLD FOR PETS.

About WALTHAM

WALTHAM is the fundamental science centre for Mars Petcare and focuses on the nutrition and wellbeing of dogs, cats, horses and fish, and their benefits to humans. Since its first scientific paper over 50 years ago, WALTHAM has shared its expertise through 1,700 publications, including more than 600 peer-reviewed journal articles. In addition, WALTHAM researchers collaborate with some of the world's most renowned veterinary and nutritional scientists. In collaboration with the world's foremost research institutes, it provides the science and expertise underpinning leading Mars Petcare brands.

About Banfield Pet Hospital®

Banfield Pet Hospital was founded in Portland, Ore. in 1955 and today is the largest general veterinary practice in the United States with more than 1,000 hospitals in 42 states, Washington D.C. and Puerto Rico. More than 3,600 Banfield veterinarians are committed to providing high-quality veterinary care to over three million pets annually. As part of the Mars, Inc. family of brands, Banfield is committed to its purpose—A BETTER WORLD FOR PETS®—because pets make a better world for us. Press seeking additional information are invited to call the [Media Hotline](tel:8883550595): (888) 355-0595.

About Royal Veterinary College (RVC)

The Royal Veterinary College (RVC) is the UK's largest and longest established independent veterinary school and is a constituent College of the University of London. It is ranked as the world's number one veterinary school in the QS World University Rankings 2019. The RVC offers undergraduate, postgraduate and CPD

programmes in veterinary medicine, veterinary nursing and biological sciences. RVC was the first veterinary school in the world to hold full accreditation from AVMA, EAEVE, RCVS and AVBC. RVC currently holds full accreditation from RCVS, AVBC and AVMA and conditional from EAEVE. In 2017, the RVC received a Gold award from the Teaching Excellence Framework (TEF) – the highest rating a university can receive. RVC is a research led institution with 79% of its research rated as internationally excellent or world class in the Research Excellence Framework 2014. The College also provides animal owners and the veterinary profession with access to expert veterinary care and advice through its teaching hospitals; the Beaumont Sainsbury Animal Hospital (a first opinion teaching hospital) in central London, and the Queen Mother Hospital for Animals (Europe's largest small animal referral centre) and the Equine Referral Hospital, both located at the Hertfordshire campus. Visit us at <http://www.rvc.ac.uk>.

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