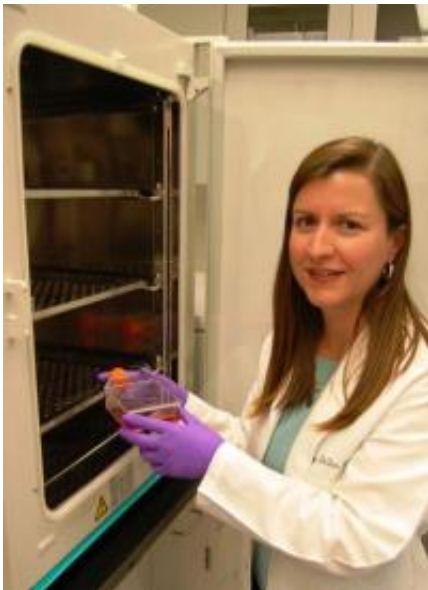


# Veterinarians find infections faster by monitoring blood compound

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Amy DeClue, assistant professor of veterinary internal medicine in the MU College of Veterinary Medicine, says faster infection identification could save more animal lives. Credit: MU News Bureau

In pets and people, the time it takes to diagnose an infection may mean life or death. Now, a University of Missouri veterinarian is identifying ways to diagnose pet infections in approximately a third of the current diagnosis time. The resulting test could be used eventually for humans.

"Infections can be difficult to diagnose, and many veterinarians have to send samples to a lab and wait three days or more as the lab attempts to

grow a culture," said Amy DeClue, assistant professor of veterinary internal medicine in the MU College of Veterinary Medicine.

"Meanwhile, the infection continues to spread each day that veterinarians wait on lab results, which is detrimental to the patient. In extreme infections, called [sepsis](#), more than half of patients die. My group has been evaluating different blood biomarkers that could give a quick and accurate indication of infection, and we believe we've found a [biomarker](#) that will only require a simple [blood test](#)."

DeClue and her colleagues found that measuring the amount of the blood biomarker N-terminal portion of pro C-type natriuretic peptide (NT-pCNP) is a good indication of infection, and the same is true in humans. Working with collaborators at Veterinary Diagnostics Institute, DeClue hopes to develop a portable bedside test that veterinarians could use to quickly test patients for infection and ultimately target a better cure.

"In animal and human medicine, one goal is to reduce the amount of antibiotics used in treatment, to reduce bacterial resistance to antibiotics," DeClue said. "If successful, future tests could help [veterinarians](#) tailor treatment to the specific problem and reduce [antibiotic use](#)."

"The systems in dogs and people are very applicable to each other, so whatever biomarkers we find in dogs could also benefit people," DeClue said.

**More information:** DeClue has tested several biomarkers for infection in dogs. "Evaluation of serum NT-pCNP as a diagnostic and prognostic biomarker for sepsis in dogs" was published in the May-June issue of the Journal of Veterinary Internal Medicine and "Plasma nitrate/nitrite concentrations in dogs with naturally developing sepsis and non-infectious forms of the systemic inflammatory response syndrome," was

published in the November issue of the journal *Veterinary Record*.

Provided by University of Missouri-Columbia

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