



**Contact:**

Tania Banak, University Relations Specialist  
University of Wisconsin-Madison School of Veterinary Medicine  
2015 Linden Drive  
Madison, WI 53706-1102  
Telephone: 608/263-6914  
Email: [banakt@svm.vetmed.wisc.edu](mailto:banakt@svm.vetmed.wisc.edu)

September 16, 2008

**FOR IMMEDIATE RELEASE**

Improving Pain Relief in Pets

MADISON – A new, injectable pain-relieving drug formulation for animals might eliminate more than pain.

If clinical trials go as well as initial studies have gone, it's possible that animals recovering from major surgery could avoid a lengthy hospital stay. Instead, after their veterinarian gives them a shot, they could head home free of pain for either five days (if their pain is acute) or 21 days (if they have chronic pain), depending on which formulation of this medication is given.

“We’re hoping our new pain relief injections will perform as well as or better than the current standard of care, which is usually a continuous drip of fentanyl analgesic via an intravenous catheter,” says Dr. Lesley Smith, a veterinary anesthesiologist at the University of Wisconsin-Madison School of Veterinary Medicine.

-more-

## Pain relief studies -- 2

Her work was published on September 16, 2008 in the October 2008 *Journal of Veterinary Pharmacology and Therapeutics*.

So far, the liposome-encapsulated opioids, developed by Timothy D. Heath at the UW School of Pharmacy and Lisa Krugner-Higby of the Research Animal Resources Center, have provided steady, long-acting pain relief, coupled with ease of use.

This is the first extended-release product that delivers opioids continuously and effectively to the patient. Opioids are one of the best pain relief options available, but because they are a controlled substance, they must be administered in a hospital setting. In dogs and other veterinary species, oral extended-release opioids do not work because they are metabolized quickly in the liver after ingestion and never reach effective blood levels.

Dr. Smith carried out the initial studies to determine the appropriate dosages in beagles, with excellent results. The dogs were rated for level of sedation, ranging from completely asleep, to awake but groggy (lifts head when petted), to awake and normal. Side effects were also studied and were no more pronounced than the side effects seen with currently available, short acting opioids.

“We don’t want to over sedate the patients,” Dr. Smith notes. “Owners would not perceive that as a good quality of life for their pet.”

She is now eager to begin clinical trials (that is, in actual client animals) of the new pain relief medication. In fact, the long-term hope is that this formulation might have human applications as well.

## Pain relief studies -- 3

The shorter-acting version of the injectable drug is best for acute post-operative pain, such as occurs after limb amputation due to cancer. The longer-acting version is best for chronic pain.

“Because this is injectable, and intravenous catheters and constant observation are not necessary, the patient will not have to stay in a critical care unit,” says Dr. Smith. “Another advantage is that the pain relief is more steady, without the bolus effect of the catheter method.”

Initial funding for the study was provided by the school’s Companion Animal Fund. Based on early results, the Morris Animal Foundation and National Institutes of Health became interested and provided additional funding. All of the beagles involved in the initial trials have been adopted into loving homes.

###

*Editor’s note: Clinical trials are never done without the client’s approval. In some cases, partial costs may be covered by a study to entice animal owners to participate.*

### **Photos of beagles available by emailing [banakt@svm.vetmed.wisc.edu](mailto:banakt@svm.vetmed.wisc.edu):**

#### *Suggested captions:*

[a&p/arch/ans/photo/dogs/L Smith beagles/Gus 1](#)

Research beagles helped test initial dosages of the new liposome-encapsulated opioids, or extended release pain medication, developed by Dr. Lesley Smith, anesthesiologist at the University of Wisconsin School of Veterinary Medicine. The goal is to prevent pain without over-sedating the patient.

[a&p/arch/ans/photo/dogs/L Smith beagles/Ernie2](#)

New pain medication developed by Dr. Lesley Smith at the University of Wisconsin School of Veterinary Medicine consists of a long-lasting injectable (5-day and 21-day pain relief), eliminating the need for intravenous catheters and constant monitoring. After helping Dr. Smith determine the correct dosages of the drug, beagles in the study were adopted into private homes.