



## Clinical Research Project Client Consent Form

**Study Title:** Understanding canine semen processing: optimizing centrifugation and concentration standards for cooled canine semen handling

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One of the missions of the Virginia-Maryland College of Veterinary Medicine is to create, disseminate and apply medical knowledge through discovery, learning, and engagement. You are invited to participate in this mission by enrolling your animal in a clinical research study. Your participation is entirely voluntary, and you may withdraw your animal from the study at any time by notifying the Principal Investigator. There is no penalty if you choose not to participate.

### Study Purpose:

When canine semen is collected for breeding purposes, it's important that the specimen is handled carefully to maximize the chances for a successful outcome. Prior to insemination or shipping, semen is typically processed by being spun in a centrifuge, a piece of laboratory equipment that separates the different components of the sample. Techniques for spinning canine semen or for dilution with extender prior to shipping vary, and there are currently no widely-available best practice guidelines for this.

Our study will compare different centrifugation speeds and times in respect to sperm recovery rate and quality (motility, morphology, defects, and viability) to establish optimal parameters. Additionally, our study will evaluate semen quality after extended storage for cooled canine semen based on various sperm concentrations. With assessing various concentrations and re-centrifugation of the samples after cooling, our study will evaluate semen quality as an indirect assessment for fertility. Our hypothesis is that lower centrifugation speeds and shorter spinning time will result in decreased sperm recovery rates but better sperm quality. Next, we hypothesize that lower sperm concentrations for semen shipment will result in better sperm quality 24 hours after cooled storage and that re-centrifugation has no detrimental effect on quality. The goal of our project is to better establish semen processing standards to obtain the best semen quality for use in advanced reproductive techniques for canine patients. Our results will help improve current clinical practice.

### Study Design/Procedures:

This study will enroll healthy, adult, client-owned, intact male dogs. Dogs must weight over 15kg (over 33lbs) and be 2-6 years of age. Enrolled dogs should not have signs of testicular, epididymal, or prostatic disease, and should have negative *B. canis* serology (performed during study). Dogs must also be able to provide an appropriate semen sample for use across the study categories.

We will examine the stud dog as usual for a breeding soundness exam (BSE). The study has no influence on the ordinary course of treatment or classification for breeding. For the study, we will preserve the excess blood sample that is routinely collected as part of the *Brucella canis* screening protocol before semen handling in andrology lab. For the study, a semen sample will be collected by manual stimulation in the presence of previously collected estrus swabs exposed to pheromones and vaginal secretions from a *Brucella canis* negative bitch. Each dog will be discharged after physical exam and collection of samples is complete. The semen sample collected will be exclusively used for analytical research purposes and not for an insemination.

### Risks and Benefits:

Our study poses no harm, pain, or additional risk to the participating stud dogs. Our study does not affect decision making, treatment choice or standard of care treatment as deemed necessary by the attending clinician. Blood collection for *Brucella canis* screening is performed as part of our standard protocol due to zoonotic and reportable nature of this

bacteria. If a stud dog is tested positive on the RSAT *Brucella canis* testing, confirmatory testing will be necessary at owner's expense and the dog in question will be excluded from the study to reduce risk to other participants.

By the analysis of the samples we collect, we will be able to compare effects of varied centrifugation and concentration parameters on semen quality parameters. We expect that on the basis of our findings, standards in processing and handling fresh and chilled semen will be better understood for use in clinical practice. Due to this study assessing semen quality parameters, we are not assessing the effects of processing in respect to insemination during this study. Our results will also provide basis for future basic and clinical research projects.

**Confidentiality:**

The data collected in the course of this study is confidential. In any publication or presentation of the study data, we will not include information that would make it possible to identify a research participant. Research records will be kept in a secure location; only researchers will have access to the records.

**Statement of Consent:**

In giving my consent by signing this form, I acknowledge that I have been informed of the purpose and nature of this study and its associated procedures, as well as any possible side effects.

I have read and understood the above information. I have been given the opportunity to ask questions and receive answers, and I consent to participate in the study. I further certify that I am the owner (or duly authorized agent of the owner) of \_\_\_\_\_ .  
(Animal's name)

Owner or Agent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Owner or Agent Printed Name: \_\_\_\_\_

Attending Clinician Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Attending Clinician Printed Name: \_\_\_\_\_

**Please don't hesitate to contact us if you have any questions or concerns about this study.**

The research and procedures have been reviewed and approved by the Virginia Tech Institutional Animal Care and Use Committee.

If you have any questions or concerns regarding the study and would like to talk to someone other than the researchers, please contact:

Mindy Quigley  
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You will be given a copy of this form to keep for your records.