Participant Consent Form

**Project Title:** Ergonomic Assessment of Large Animal Veterinary Tasks

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This study will be conducted by Robyn Reist with the assistance of Catherine Trask. This study has been funded by the Canada Research Chairs. The researchers and the University of Saskatchewan are not being paid to conduct this research study.

**Reason for this Research:**

Multiple studies throughout the world have concluded that large animal veterinarians are at higher risk than the general public of developing musculoskeletal disorders. A survey of bovine practitioners in Western Canada, conducted by this research group in early 2017, has identified rectal palpations of cattle as one of the most physically strenuous tasks potentially leading to MSD's in veterinarians. In this next phase of the project, this study aims to assess biomechanical exposures during these tasks and identify the main ergonomic risk factors associated with bovine rectal palpations. You are invited to participate in this study to help us understand the postures, movements, forces, and frequencies
involved in cattle rectal exams and ultimately, how to mitigate exposure and reduce resulting musculoskeletal disorders.

Your participation will involve being videotaped while conducting your regular work tasks, specifically cattle rectal exams. It will also involve attaching several posture sensors to your upper body with medical tape, and re-creating the force applied to your palpation arm by pushing on a force transducer. You are invited to participate in this study because you are over the age of 18 years, are currently involved in large animal medicine, and are currently able to conduct your regular work tasks without usual pain or discomfort.

This study is completely voluntary and if you choose not to participate, this will not affect your relationship with the researchers or university, as well as your academic or employment status.

If you do decide to take part in this study, you are still free to withdraw at any time and without giving any reasons for your decision.

Please take time to read the following information carefully. You can ask the researcher to explain any words or information that you do not clearly understand. You may ask as many questions as you need. Please feel free to discuss this with your family, friends, or family physician before you decide.

**Procedures:**
All testing will be conducted at your place of veterinary work during veterinary tasks. If you have any musculoskeletal or other health conditions that may affect your ability to conduct your work tasks as you normally would, we are very thankful for your interest but unfortunately you will not be able to participate in the study for your safety.

This study will require a total of approximately 6 hours of your time, which may be distributed over 2 or more test sessions. We can schedule the measurement visit to align with your planned workload. We will make video recordings of your work tasks so that we can better understand the task requirements and the demands they place on your body. We will also attach several small posture sensors to your arms and upper body using medical tape. You will be asked to estimate the force on your palpation arm when entering the rectum by pushing on a force transducer. We may place coloured tape and small reflective markers on your joints so that we can see your position more clearly on the video. The research team will then analyze the collected data using specialized software. We will also ask you to complete a short questionnaire that includes questions about your health, demographic information such as your age, and your previous veterinary experience (i.e., type of practice, years of practice, typical tasks, etc).

Separate from the video analysis, you have the option at the end of the consent form to indicate if you agree that we can use your video to show students, conference participants, and other researchers how the tasks are performed.

*Please feel free to ask any questions regarding the procedures and goals of this study or your role as a participant in this study.*

**Potential Risks:**
There are minimal known risks associated with participation in this study. If you choose to participate in this study, the following are possible:
• You may feel uncomfortable during observations of your work. Most people get used to the presence of researchers very quickly, and we will endeavor to stay out of your way and when possible, out of your line of sight. If we are distracting you, please let us know and we can reposition.

• Since the sensors are fixed to you with medical tape, it is possible (though rare) that the tape may cause irritation or itchiness if affixed directly to your skin. If applying directly to skin, we would be securing the sensors with medical dressing tape (Hypafix, BSN Medical). If this happens, please let us know immediately, and we will stop the test measurement and remove the sensors.

Potential Benefits:
• If you choose to participate in this study, there may not be any direct benefits to you.
• We expect that the information gained from this study will help us understand the postures, movements, forces, and frequencies involved in cattle rectal exams and ultimately, how to mitigate exposure and reduce resulting musculoskeletal disorders.

Remuneration:
• In appreciation of your time and as a token of our gratitude, an ‘ErgoVet’ T-shirt will be provided.

Confidentiality:
• You have been assigned a study number. This study number is linked to your data on a Master list and will be retained by the researcher in locked storage. Access to this Master list will be limited to the immediate research team (as listed on page 1).
• Although the results from this study may be presented at conferences and published in scientific journals, they will be reported in summary form (i.e. all results from all participants will be combined into an average), so that it will not be possible to identify anyone that was in the study.
• It is possible that someone may see researchers at your worksite filming you and figure out that you are in the study.

Storage of Data:
• Electronic data including video (with your personal information removed) will be stored on a password-protected server at the University of Saskatchewan in the care of Dr. Catherine Trask.
• All paper copies of study information will be stored in a locked cabinet inside a locked office at the University of Saskatchewan in the care of Dr. Catherine Trask.
• The master list will be stored electronically on a password-protected server at the University of Saskatchewan in the care of Dr. Catherine Trask.

Right to Withdraw:
Your participation in this research is voluntary. You do not have to answer questions that you are not comfortable with. You may withdraw from this study at any time. You do not have to provide a reason. There will be no penalty or loss of benefits if you choose to withdraw. Your future relationship with the researchers or university as well as your academic or employment status will not be affected.

If you choose to enter the study and then decide to withdraw later, it may not be possible to destroy your data if it has already been analyzed and published

Follow up:
• Once the study is complete, we will email you a copy of the overall study results if you request one.
• Results from this study will be available in August 2019.
• To obtain a lay report of the results from the study, please contact Dr. Catherine Trask:
  306-966-5544
catherine.trask@usask.ca

Questions or Concerns:
• If you have any questions or concerns, you may contact Catherine Trask (Telephone: 306-966-5544,
  Email: catherine.trask@usask.ca) or any other member of the research team using the contact
  information at the top of page 1.
• This research project has been approved on ethical grounds by the University of Saskatchewan
  Research Ethics Board on June 28, 2018. The Research Ethics Board is a group of individuals
  (scientists, physicians, lawyers, and members of the community) that provide an independent
  review of human research studies.
• Any questions regarding your rights as a participant may be addressed to that committee through
  the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call
toll-free (888) 966-2975.

My signature below indicates that I have read and understand the study description provided and my
rights as a participant. I consent to participate in the research study.
• I have read the information in this consent form.
• I understand the purpose and procedures and the possible risks and benefits of the
  study.
• I was given sufficient time to think about it.
• I had the opportunity to ask questions and have received satisfactory answers.
• I am free to withdraw from this study at any time for any reason and the decision to stop
taking part will not affect my future academic or employment status or relationship with
the researchers.
• I give permission for the use and disclosure of my de-identified personal information
  collected for the research purposes described in this form.
• I understand that by signing this document I do not waive any of my legal rights.
• I will be given a signed and dated copy of this consent form.

_________________________  ______________________  _______________
Name of Participant  Signature  Date

_________________________  ______________________  _______________
Researcher’s Signature  Date

Videos of my work may be used for reporting results to scientific, student, and lay audiences

___________  *Even with no names and blanked-out faces you may be recognizable in images
initials
A copy of this consent will be left with you, and a copy will be taken by the researcher.