This is a consent form to voluntarily participate in the following research project:

1. **Project Title:** How genes and gut microbes shape canine behavior

2. **Principal Investigator:** Bridgett vonHoldt    **Dept:** Ecology & Evolutionary Biology
   **Telephone #:** 609-258-7021    **Email:** vonHoldt@princeton.edu
   **Project website:** http://vonholdt.princeton.edu/dog_wbs.html

3. **Description/Purpose of Study:**

   The purpose of this study is to investigate the dynamics of a genetic mutation that is associated with hyper-social behavior with microbes found within the gut, and how this influences canine behavior as it relates to human-animal bonds.

4. **Animal Species:** Domestic dog (*Canis familiaris*)

5. **Describe the potential benefits to the animal as a result of participating in this research.**

   The academic community will learn more about the genetic foundation of canine social behavior. The dog owner can opt to receive a very simple report that describes which genes carry mutations, and how many. The understanding is that genes and environment are both critical for shaping the animal’s behavior.

6. **Describe the potential risks or discomfort to the animal as a result of participating in this research?**

   There are two options for participating via a genetic sample donation: 1) Non-invasive cheek and fecal swab collection: This option has no risks or discomfort to the animal; 2) Blood collection to be performed by a licensed veterinarian or a licensed veterinarian technician: There is minimal risk and discomfort for blood draw when conducted at a licensed facility by properly trained veterinarian staff and doctors. For a full list of possible risks or discomfort, please consult your veterinarian prior to any blood collection.

7. **Description of procedures that will be performed on the animal(s), the frequency and/or duration of participation required.**

   a. Non-invasive cheek swab: The collection of cheek or buccal cells is a non-invasive procedure. You will use the cotton swab provided to rub on the inside of your dog’s cheek to collect cells for DNA sequencing. The dog must not eat or drink approximately 30 minutes prior to collecting the
 cheek swab to avoid any food particles or contaminant that may interfere with DNA sequencing. The swab can then be stored in the buffer tube at room temperature for return to Dr. vonHoldt.

b. Non-invasive fecal swab: The collect of microbes from fecal material is a non-invasive procedure. You will use the cotton swab provided to stick the swab end into fresh fecal material (<4 hours since it was deposited; it must not be dried from overexposure to the elements) and twist 5-7 times. The swab can then be replaced into the buffer storage tube and stored at room temperature for return to Dr. vonHoldt.

c. C-BARQ and demographic information: This is a very short questionnaire comparable to human personality tests. This survey will assess the type of personality your dog displays along the axes of excitability, aggression, fear/anxiety, separation, attachment, training, and miscellaneous.

8. Are there alternative procedures, besides those described here, to obtain similar research results?

The cheek swab collection is an alternative to blood collection, although the cells collected in the mouth are inferior to that found in blood. This means that sequencing may not be as successful with cheek swabs compared to blood collection, but this is a valid and viable alternative to blood collection. Microbial sequencing from fecal/stool samples is incredibly successful as long as the fecal/stool source is fresh (<4 hours since it was deposited; the sooner the better).

9. Compensation for therapy for accidental injury or complications:

Participation in this study is voluntary. Neither Princeton University, nor the individual investigators, will provide compensation related to any costs related to volunteer participation, accidental injuries, or losses that may occur as a result of participation in this study.

10. Confidentiality:

All client/animal identity information obtained from this study will be treated as confidential to the extent permitted by law, and only used for research or teaching purposes. The study will need to record dog breed, age, sex, coloration, and results of the behavioral tests and use this in the study’s analysis. No information about the owner is needed and will remain confidential.

11. Voluntary participation and right to withdraw:

Participation in this study is voluntary, and you have the right to withdraw at any time without penalty. Refusal to participate in, or withdrawal from, the study will in no way affect the care to which your animal(s) is otherwise entitled.)
12. Termination of participation by principal investigator(s):

The investigator(s), has/have the right to terminate the study for any or all participants at any time and for any reason.

13. Unforeseen risks:

Unforeseen risks might arise at any time during the study. The investigator(s) will promptly inform owners of all animals enrolled in this project of any new information that may affect their willingness to participate.

14. Primary Contact person(s)

To obtain further information regarding this study contact: Dr. Bridgett vonHoldt, vonholdt@princeton.edu, 609-258-7021, or visit the project’s website at http://vonholdt.princeton.edu/dog_wbs.html

Client Consent:

I am the owner or the agent for the owner of the animals(s) described above, and I have the authority to execute this consent. I hereby consent to have my animal(s) participate in the above described study. I understand that some risk always exists in performing animal procedures and that I am encouraged to discuss any concerns I have about those risks with the principal investigator or veterinarian before the procedure(s) is initiated. I consent to having photographs and videos taken of my animal(s) if deemed appropriate by the principal investigator.

_______________________________  ________________________________
Owner name (please print)       Title (owner or breeder/agent)

_______________________________  ________________________________
Owner Signature                 Date