DETECTION OF *BRUCELLA* spp. IN DOGS AND CATS

Luiz Augusto Fornasier Milani*, Gabriela Zucco Nadin, Luiza dos Santos Miranda, Caroline Fussieger, Simone Silveira, Gustavo Brambatti, André Felipe Streck (Advisor).

*lafmilani@ucs.br

Voluntary Research Activity

Introduction:

- Genus of bacteria
  - Coccobacillus
  - Gram-negative
  - Nonmotile
  - Nonencapsulated

- It is a zoonotic disease known as brucellosis.
- Currently, 12 species of the *Brucella* genus are known to exist, but only 5 of them are capable to infect humans:

B. melitensis | *B. abortus* | *B. suis* | *B. canis* | *B. inopinata*

Transmission to humans

- Consuming unpasteurized or undercooked products, inhalation, skin penetration, conjunctival contact to contaminated fluids and rarely from person to person by transplacental route or blood transfusion.

Symptoms - humans

- Fever, body pain, weight loss, poor appetite, night sweats, cough, vomiting and diarrhea. In severe clinical conditions - splenomegaly, arthritis, sacroiliitis, scrotal edema, cervical stigma and lymphadenopathy.

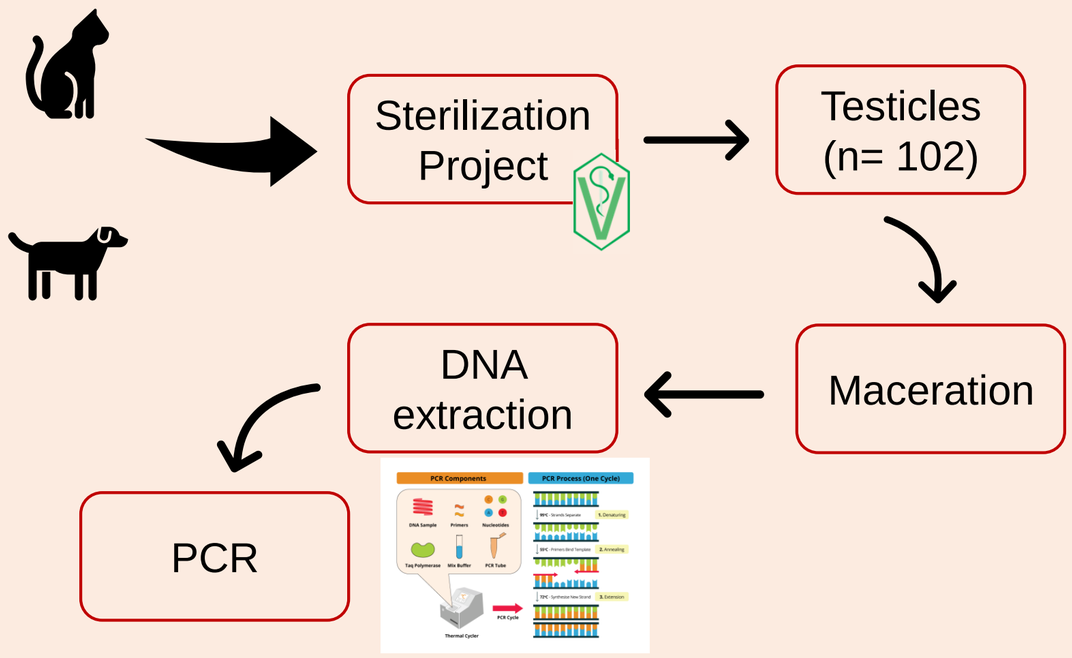
Symptoms - animals

- Reproductive alterations such as infertility, abortions and stillbirths. It occasionally affects other tissues, causing changes such as uveitis, discospondylitis, osteomyelitis and dermatitis.

Objective:

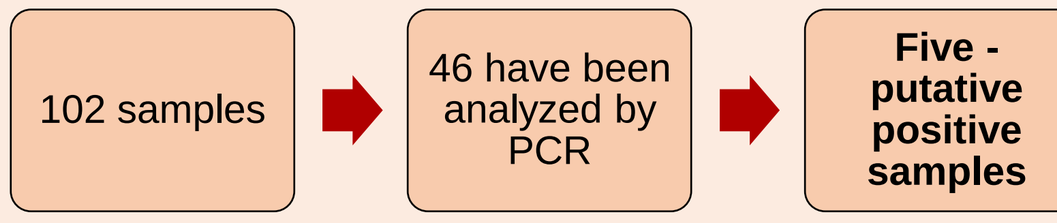
- To detect the presence of *Brucella* spp. in pets in the city of Caxias do Sul, Rio Grande do Sul, Brazil.

Methods:

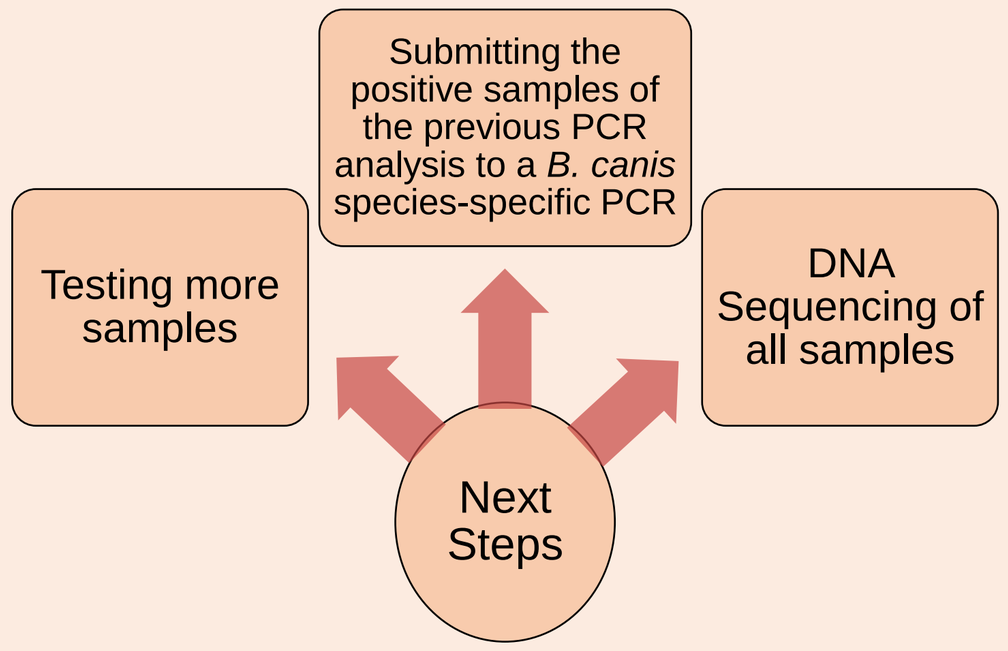


- The primers used in this procedure amplify a 317 base pairs (bp) target sequence that includes the gene-code IS711 region of the *Brucella* genome.

Results:



Discussion & Conclusion:



- This study is important because of the close contact of companion animals to humans, and the fact that both hosts rarely show clinical signs.
- As shown above, 5 putative positive samples have been detected so far, which highlight the importance of diagnosing and preventing the disease.

Bibliographic References:

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