Local Production, Standardization and Keeping Quality of *Brucella* Monospecific A and M antisera

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Current study: e.g. PhD in irradiated *Brucella* vaccine/ SAS

About your institution

Veterinary Research Institute (VRI) is governed by Animal Resources Research Corporation (ARRC) and further by Ministry of Livestock, Fisheries and Rangelands. It is the national Reference laboratory of animal diseases diagnosis, Research and training. VRI was founded in 1913 and located in Khartoum-soba (capital city of Sudan), and then 17 regional laboratories were established all over provinces of our country. VRI publishes annually the Sudan Journal of Veterinary Research (www.sudanjvr.net).

Objectives:

- Trial and master standardization of biological products locally.
- Production & standardization of *Brucella* monospecific A & M antisera.
- Monitoring of the stability of the antisera under different storage temperatures using suitable preservatives.

Methods:

- Production of *Brucella abortus* strain 544 and *Brucella melitensis* strain 16 M live suspension and non viable *Brucella* cells antigen.
- Ten healthy Rabbits were infected with the viable Brucella suspension intravenously.
- Titration of the infected rabbits sera against homologous antigen and investigated for *Brucella* Antibodies level.
- Bleeding of All infected intra-cardinally and titration of their sera against homologous and heterologous antigens.
- Absorption of sera using heterologous non viable antigens.
- Standardization of the monospecific antisera and preservation either by Lyophilization or dilution in phenol saline (0.05% phenol & 0.85% NaCl) at the rate of 1:5.
- Keeping of preserved antisera each in deep freezing, fridge and Room temperature and examination of antibody titers against homologous antigen monthly for one year.

Expected outputs from the project:

- I am looking forward to growing my knowledge, awareness, Skills and master Scientific writing.

Impact of the outputs on agriculture in Africa:

- Agriculture in a lot of African countries is a backbone of life and resembles the main source of income so development and research is fundamental to enhance life.