

POSITION

of

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Plovdiv, Section of Parasitology and Tropical Medicine,
Department of Infectious Diseases, Parasitology and Tropical Medicine**

Concerning: Dissertation thesis for the award of the educational and scientific degree
“Doctor” in the scientific specialty “Parasitology and Helminthology” of
Eleonora Marinova Kaneva – a doctoral student on self-training education
form, Department of Parasitology and Tropical Diseases, NCIPD, Sofia.

**Thesis topic: “Development and application of additional serological methods for
the diagnosis of Toxocariasis and evaluation of their significance as markers for
the disease stage”**

The dissertation develop very important diagnostic problem for contemporary
medicine and parasitology, which considers *laboratory serological diagnostic of
Toxocariasis* in humans and represents significant theoretical and practical interest.
This research includes 208 standard pages, and is well illustrated with 36 tables and 54
figures. The literary sources include 306 articles of which 10 in Cyrillic and 296 in
Latin. The dissertation and abstract are structured perfectly.

The problem with Toxocariasis’ diagnostic and definition of its form, stage of the
invasion and treatment criteria, are pointed in the *introduction*.

The aim and the tasks of the development are defined clearly and precise to the main
problem. The tasks, laboratory experiments and clinical studies, related to the main
aim, are structured in 5 main tasks.

The discussion of the received data follows logically in a conclusion and summarizes
in 10 conclusions with defined contributing results – 6 originals, 2 with scientific and
practical meaning and 1 practical result.

The statistical processing is very professional and provides optimal authenticity.

The research is developed in several directions as a problem with purposeful character. The achieved results are with defined diagnostic and clinical significant meaning. Some of them are:

- a) Development and standardization of laboratory ELIZA tests for determination of serum anti-*Toxocara* IgG1, IgG2, IgG3 u IgG4 antibodies with definition of optimal test parameters. Most significant diagnostic sensitivity is register in IgG1(65%).
- b) Anti-*Toxocara* serum IgA-antibodies are registered in the beginning of *Toxocara* - invasion and gradually depleted for 9-12 months, when specific IgG - antibodies still present. This is indicative for the invasion stage.
- c) Increased serum level of total serum IgE is registered in 75% of *Toxocara* - patients, more expressed in children. Drop of their level is register 6-9 months after the primary examination. This indicator could be used as a marker for the dynamic of the disease and a pointer for the treatment efficiency.
- d) The correlation between serum IgE and specific IgG1 and IgG4 shows their role in the immune response against *Toxocara* - invasion.
- e) An indicator for transformation from acute to chronic phase of toxocariasis invasion could be determined the depletion of specific serum IgA and IgG2 antibodies in the period of 9-12 months. These results have important significance for the clinical practice.

Conclusion: The dissertation is developed very detailed and systematic on modern scientific level. The received results have important theoretical and practical value. **This covers all the requirements for dissertation work and award for educational and scientific degree “Doctor”, and my assessment is positive.**

12.12.2019 y.



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