

Maya Dyankova Markova, PhD

Assoc. Prof. at the Department of Biology



**Position at the Department:**

2012 – present: Assoc. Prof.

2002 – 2012: Head Assist. Prof.

1994 – 2002: Assist. Prof.

**Academic Degree:**

PhD in Biology (Morphology).

**PhD Thesis:**

Cytoskeletal structures – analogs of intermediate filaments and their proteins in mammalian male gametes, presented in 2005.

**Specialty:**

Medical Biology, since 1998.

**Education:**

**Master thesis:** ELISA method for detection of autoantibodies associated with insulin-dependent diabetes mellitus, presented in 1994.

**University education:** 1989 – 1994, Sofia University St. Kliment Ohridski, Faculty of Biology, specialty Biochemistry and microbiology.

**Specialization:** Biochemist.

**Secondary education:** 1989, 19<sup>th</sup> Elin Pelin secondary school in Sofia.

**Scientific interests:**

In the area of cell biology, using mainly microscopic and immunocytochemical methods.

**Personal site:**

[http://www.mayamarkov.com/index\\_eng.html](http://www.mayamarkov.com/index_eng.html)

**Teaching materials for 1<sup>st</sup> year students:**

[http://www.mayamarkov.com/biology/home\\_eng.htm](http://www.mayamarkov.com/biology/home_eng.htm)

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**Selected publications:**

Markova M., S. Delimitreva, A. Kolarov, R. Zhivkova. Impact of autoimmunity on oogenesis and ovarian morphology. *Acta Morphol. Anthropol.* 25 (1-2): 103-107. [Journal site](#)

Nikolova V., M. Markova, R. Zhivkova, I. Chakarova, V. Hadzhinesheva, S. Delimitreva (2017). Karyosphere, the enigmatic “surrounded nucleolus” of maturing oocytes: review. *Acta Morphol. Anthropol.* 24 (1-2): 78-84. [Journal site](#)

Nikolova V., S. Delimitreva, I. Chakarova, R. Zhivkova, V. Hadzhinesheva, M. Markova (2017). Dynamics of Lamins B and A/C and Nucleoporin Nup160 during Meiotic Maturation in Mouse Oocytes. *Folia Biol. (Praha)* 63 (1): 6-12. [PubMed](#)

Markova M., V. Hadzhinesheva, R. Zhivkova, V. Nikolova, I. Chakarova, S. Delimitreva (2016). Rearrangements of oocyte cytoskeleton during mammalian oogenesis. *Acta Morphol. Anthropol.* 23: 145-148. [Journal site](#)

Nikolova V.P., S.M. Delimitreva, R.S. Zhivkova, I.V. Chakarova, V.P. Hadzhinesheva, M.D. Markova (2016). Immunocytochemical study of mouse oocytes suggests conserved keratin organisation in tetrapod oogenesis. *Acta Zool. Bulg.*, 68 (1): 35-38. [Journal site](#)

Markova M.D., I.V. Chakarova, R.S. Zhivkova, V.P. Nikolova, V.P. Hadzhinesheva, S.M. Delimitreva (2015). Genetic disorders affecting tubulin cytoskeleton. *JBCR (Pleven)* 8 (2): 97-103. [Journal site](#)

Markova M.D., V.P. Nikolova, I.V. Chakarova, R.S. Zhivkova, R. K. Dimitrov, S. M. Delimitreva (2015). Intermediate filament distribution patterns in maturing mouse oocytes and cumulus cells. *Biocell*, 39 (1): 1-7. [Journal site](#)

Nikolova V., R. Zhivkova, M. Markova, T. Topouzova-Hristova, A. Mitkova, S. Delimitreva (2012). Characterization of mouse oocytes and oocyte-cumulus complexes extracted for nuclear matrix and intermediate filaments (NM-IF). *Acta Morphol. Anthropol.* 19: 149-152. [Journal site](#)

Markova M., V. Nikolova, L. Chakalova, S. Salieva, Ts. Marinova (2012). Reconstruction and explanation of early artifactual microscopic observations of sperm tail. *Acta Morphol. Anthropol.* 18: 54-59. [Journal site](#)

Markova M.D., V.P. Nikolova, Ts. Ts. Marinova (2011). Observations of interface between tail microtubules and outer dense fibers in human necrozoospermic spermatozoa. *JBCR (Pleven)* 4 (2): 82-85. [Journal site](#)

Nikolova V., S. Delimitreva, R. Zhivkova, I. Chakarova, D. Dimitrova, M. Markova (2011). Cytoskeletal changes during mouse oocyte maturation revealed by a variation of nuclear matrix and intermediate filaments (NM-IF) extraction. CR Acad. Bulg. Sci. 64, No. 11, 1571-1576. [Journal site](#)

Marinova T.T., L.D. Spassov, V.I. Vlassov, V.V. Pashev, M.D. Markova, V.S. Ganey, R.S. Dzhupanova, D.N. Angelov (2009). Aged human thymus Hassall's corpuscles are immunoreactive for IGF-I and IGF-I receptor. Anat. Rec. 292: 960-965. [PubMed](#)

Marinova Ts., M. Markova, L. Aloe (2006). NGF overexpression and distribution in cortical thymic epithelial cells of mice with experimentally induced leukemia. In Vivo 20: 259-264. [PubMed](#)

Markova M.D. (2004). Electron microscopic observations of human sperm whole-mounts after extraction for nuclear matrix and intermediate filaments (NM-IF). Int. J. Androl. 27: 291-295. [PubMed](#)

Markova M.D., R.S. Zhivkova (2003). Possible cytoskeletal structures of rainbow trout sperm revealed by electron microscopic observation after detergent extraction. Anim. Reprod. Sci. 79: 127-132. [PubMed](#)

Markova M.D., T.T. Marinova, I.T. Vatev (2002). Asymmetric vimentin distribution in human spermatozoa. Fol. Biol. 48: 160-162. [PubMed](#)

Markova M.D. (2001). Electron microscopic observations of mouse sperm whole mounts after extraction for nuclear matrix and intermediate filaments. Arch. Androl. 47: 37-45. [PubMed](#)

Markova M.D., T.T. Marinova (1999). EGF receptor-like determinants on human spermatozoa and their possible cytoskeletal association. Fol. Biol. 45: 143-145. [PubMed](#)

Marinova Ts.Ts., M.D. Markova, R.K. Stanislavov (1996). Distribution of vimentin in abnormal human spermatozoa. Andrologia 28: 287-289. [PubMed](#)

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