

Date of birth: November 4, 1956

**Present position:** Principal researcher (since August 2015) Chief of the Dept. for

international and initiative project coordination

Present Employment: Gorbatov Federal Research Center for Food Systems

www.vniimp.ru www.fncps.ru

Background: Meat technology, quality control

Previous positions: Researcher (until 1997), Scientific secretary (1997-2004), deputy

director for R&D (2004- August 2015)

**Academic qualifications:** Doctor of Science (2009), professor (2010), Academician: corresponding (2016) and full member (2019) of the Russian Academy of Sciences

**Education:** Moscow technological institute of meat and dairy industry – meat technology (1979); Kingston University - international managers program (1995), Academy for Standardization, Metrology and Certification (Educational) – quality management (2007), teaching and tuiting (2019)

### Fields of research:

- meat and meat product's quality assessment
- · biotechnology and animal feed quality assessment
- health-promoting properties of meat and meat-based products
- bioactive peptides generated from meat proteins
- in vivo modification of carcass composition and meat characteristics
- use of "-omic" strategies for meat quality and composition' assessment
- FOODOMICs platform for food analysis

- meat quality, safety and risk assessment: methods and procedures
- quality Management Systems implementation to meat processing, HACCP
- IT in food technology, food design and modelling.

# Teaching:

• Meat technology, quality assessment, proteomics

# Supervising:

- 12 theses completed under my main supervision during 2009-2021
- 2012- 2019 Supervisor for 9 master students
- 2014-2019 Supervisor for 3 bachelor students
- 2017-2021 Guest Supervisor for 6 PhD students from Kazakhstan

#### Other:

- Member of editorial boards "All about meat" (RF), "Theory and practice of meat processing" (RF), "Product quality control" (RF), "Meat technology" (Serbia) journals
  - Expert for the Russian academy of sciences, Russian science foundation
- Expert on HACCP, IFS, ISO standards implementation to the RF food industries

#### Main publications for 5 years:

Vasilevskaya, E.R., Fedulova, L.V., Chernukha, I.M., Kotenkova, E.A., Fokina, A.I. Effects of tissue-specific biomolecules on piglets after-weaning period //Veterinary World. − 2021. − Vol. 14. − №. 1. − P. 168-175 (SCOPUS SJR 0,495). doi: www.doi.org/10.14202/vetworld.2021.

Kalčáková, L., Pospiech, M., Tremlová, B., Javůrková, Z., Chernukha, I. Development of Immunohistochemical Methods for Casein Detection in Meat Products //Foods. − 2021. − T. 10. − №. 1. − C. 28. https://doi.org/10.3390/foods10010028; (Q2, SJR 0,66; JSR 4,09 Q1) https://www.mdpi.com/2304-8158/10/1/28/htm

Nikitina MA, Chernukha IM Methods for nonparametric statistics in scientific research. Overview. Part 1. // Theory and practice of meat processing. 2021. - # 6(2. – PP. 151-162. DOI: https://doi.org/10.21323/2414-438X-2021-6-2-151-162

Chernukha, I., Fedulova, L., Vasilevskaya, E., Kulikovskii, A., Kupaeva, N., & Kotenkova, E. Antioxidant effect of ethanolic onion (Allium cepa) husk extract in ageing rats //Saudi Journal of Biological Sciences. − 2021. − T. 28. − №. 5. − C. 2877-2885. https://doi.org/10.1016/j.sjbs.2021.02.020 (Scopus, Q1, SJR 0,65)

Chernukha, I.; Kotenkova, E.; Derbeneva, S.; Khvostov, D. Bioactive Compounds of Porcine

Hearts and Aortas May Improve Cardiovascular Disorders in Humans // International Journal of Environmental Research and Public Health. – 2021. V.18(14). - 7330; https://doi.org/10.3390/ijerph18147330Scopus, PubMed, Q2, SJR 0,75

Veniaminova, E. Metabolic, Molecular, and Behavioral Effects of Western Diet in Serotonin Transporter-Deficient Mice: Rescue by Heterozygosity? / E. Veniaminova, R. Cespuglio, I. Chernukha, A.G. Schmitt-Boehrer, S. Morozov, A.V. Kalueff, O. Kuznetsova, D.C. Anthony, K.P. Lesch, T. Strekalova // Frontiers in neuroscience. - 2020. - vol.14. - article 24. DOI: 10.3389/fnins.2020.00024 (WOS, Q2, JCR=3,877, Scopus, Q1 SJR=1,554)

Chernukha, I. A randomised controlled trial of innovative specialised meat product for patients with cardiovascular and metabolic disorders / I. Chernukha, E. Kotenkova // Potravinarstvo Slovak Journal of Food Sciences. - 2020. - vol. 14. - №1. - P.458-464. DOI: https://doi.org/10.5219/1298 (Scopus, SJR=0,27)

Lisitsyn, A.B. Russian methodology for designing multicomponent foods in retrospect / A.B. Lisitsyn, I.M. Chernukha, M.A. Nikitina // Foods and Raw Materials. - 2020. vol. 8. - №1. - P. 2-11. DOI: 10.21603/2308-4057-2020-1-2-11 (WOS, Scopus, SJR=0,171)

Vostrikova, N.L. Quality and safety of meat products in Russia: Results of monitoring samples from manufacturers and evaluation of analytical methods / N.L. Vostrikova, A.V. Zherdev, E.A. Zvereva, I.M. Chernukha // Current Research in Nutrition and Food Science. - 2020. - vol. 8. - №1. - P. 41-47. DOI: http://dx.doi.org/10.12944/CRNFSJ.8.1.04 (Scopus, SJR=0,222)

Vostrikova, N.L. Changes in the PSE and DFD porcine muscle proteome during autolysis / N.L. Vostrikova, I.M. Chernukha, L.I. Kovalev, O.V. Schkabrov // Journal of animal science. - 2019. - V.97. - P. 337-337. - Suppl.3. - Meeting Abstract: PSV-29. (WOS, Q1, JCR=1,711) Chernukha, I.M. Detection of protein aggregation markers in raw meat and finished products / I.M. Chernukha, L.I. Kovalev, N.G. Mashentseva, M.A. Kovaleva, N.L. Vostrikova // Foods and Raw Materials. - 2019. - V.7. - №1. - P. 118-123. DOI: 10.21603/2308-4057-2019-1-118-123 (WOS, Scopus, SJR=0,171)

Nikitina, M.A. Artificial neural network technologies as a tool to histological preparation analysis / M.A. Nikitina, I.M. Chernukha, V.A. Pchelkina // IOP Conference Series: Earth and Environmental Science. - 2019. - V.333. - conference 1. - article id 012087. DOI: 10.1088/1755-1315/333/1/012087 (WOS, Scopus, SJR = 0,175)

1Nikitina, M.A. Principal approaches to design and optimization of a diet for targeted consumer groups / M.A. Nikitina, I.M. Chernukha, D.E. Nurmukhanbetova // News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Geology and Technical Sciences. - 2019. − V.1. - №433. - P. 231-241. DOI: 10.32014/2019.2518-170X.28 (WOS, Scopus, SJR=0,209)

Chernukha, I.M. Hypolipidemic and anti-inflammatory effects of aorta and heart tissues of cattle and pigs in the atherosclerosis rat model / I.M. Chernukha, L.V. Fedulova, E.A. Kotenkova, S. Takeda,R. Sakata // Animal Science Journal. - 2018. - Vol. 89. - Issue 5. - P. 784-793. -doi:10.1111/asj.12986 ( WOS, Q2, JCR=1, 402, Scopus, Q1 SJR=0,582)

Vostrikova, N.L. Identification of tissue-specific proteins and peptides forming innovative meat products corrective properties to confirm authenticity of meat raw materials / N.L. Vostrikova, I.M. Chernukha // Foods and Raw Materials. - 2018. - V. 6. - №. 1. - P. 201-209. - DOI 10.21603/2308-4057-2018-1-201-209 (WOS, Scopus, SJR = 0,171)

Shukesheva, S.E. Research to improve the quality of food products / S.E. Shukesheva, Y.M. Uzakov, I.M. Chernukha, Z.S. Nabiyeva, A.B Nurtaeva // News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Geology and Technical Sciences. - 2018. − V.3. - №430. - P. 37-45. (WOS, Scopus, SJR=0,209)

Chernukha, I.M. Generation of bioactive peptides in meat raw materials exposed to proteases of different origin / I.M. Chernukha, N.G. Mashentseva, N.L. Vostrikova, L.I. Kovalev, M.A Kovaleva, D.A. Afanasev, A.A. Bazhaev // Sel'skokhozyaistvennaya Biologiya. - 2018. - vol.53. - Nº6. -P. 1247-1261. doi: 10.15389/agrobiology.2018.6.1247eng (Scopus, SJR=0,182)

Vostrikova, N.L. Determination of Muscular Tissue Proteins by 2D Electrophoresis and Time-of-Flight Mass Spectrometry /N.L. Vostrikova, A.V. Kulikovskii, I.M. Chernukha, L.I. Kovalev, S.A. Savchuk // Journal of Analytical Chemistry. – 2017. - V. 72. - №10. – P. 1102–1112. DOI: 10.1134/S1061934817100173 (WOS, JCR=0,971, Scopus, SJR=0,260)

Bagirov, V.A. Comparative study of the fatty acid composition of lipids in the raw meat samples

obtained from hybrid sheep / V.A. Bagirov, S.Y. Zaitsev, I.M. Chernukha, N.A. Zinovieva / 41st FEBS Congress on Molecular and Systems Biology for a Better Life Местоположение: Kusadasi, TURKEY. – 2016. -V.283. - SI. - P. 363-363. (WOS, Q1, JCR=4,53)

Ivankin, A.N. Determination of unsaturated fatty acids with a migrating double bond in complex biological matrices by gas chromatography with flame ionization and mass spectrometry detection / A.N. Ivankin, G.L. Oliferenko, A.V. Kulikovskii, I.M. Chernukha, A.A. Semenova, K.I. Spiridonov, V.V. Nasonova // Journal of Analytical Chemistry. − 2016. - V. 71. - №11. − P. 1131-1137. DOI: 10.1134/S1061934816110046 (WOS, JCR=0,971, Scopus, SJR=0,260)