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|  | <p>NADTOCHII, Liudmila A. Candidate of Technical Sciences Assistant Professor</p> |
| <p>Research interests</p> | <p>Biotechnology of foods for active and healthy aging:</p> <ul style="list-style-type: none"> ✓ Biotechnology for encapsulation of biologically active substances of natural origin ✓ Development of functional ingredients and functional foods ✓ Development of specialized nutrition (sports nutrition, preventive nutrition, enteral nutrition, etc.) |
| <p>Features of the PhD program</p> | <p>The research is carried out in collaboration with leading scientists from partner universities (UBFC, France; SLU, Sweden; HIT, China, etc.)</p> |
| <p>List of the supervisor's research projects (participation/supervision)</p> | <ul style="list-style-type: none"> ✓ Research and development project "Development of food additives in tablet form for a drink with specified properties based on water" (2021-2022) – a leader ✓ Fundamental research project "Biological technologies for the rational use of agricultural resources and the preservation of human health" (2014 – 2016) – a participant ✓ Applied research project "Investigation of the parameters of ultrasonic treatment providing an intensification of the enzymatic activity of starter lactic acid microorganisms used in the production of reconstituted fermented dairy products" (2015 – 2016) – a participant ✓ Applied research project "Biotechnology of multicomponent food products of functional and special purposes" (2015year – 2017) – a participant ✓ Fundamental research project «Sol-gel synthesis of functional nanomaterials" (2014 year – 2018) – a participant ✓ International project "Foreign experts project" in the Harbin University of Technology - HIT_EM_XX1567242718689 (2019) – a participant ✓ Applied research project "Development of technologies for functional food products based on nano-encapsulated complex biologically active ingredients with scientifically proven preventive effects" (2017 – 2019) – a participant ✓ Applied research project "Development of a method for early diagnosis and nutraceutical support to prevent the development of endometriosis" (2018 – 2019) – a participant ✓ Fundamental research project "Resource-saving ecologically safe biotechnologies of functional and specialized products on the basis of deep processing of food raw materials" (2017 – 2020) – a participant |

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| | <ul style="list-style-type: none"> ✓ Applied research project “Development of ration for functional nutrition in the Far North” (2019 –2020) – a scientific supervisor ✓ Fundamental research project “Development of complex technology for nanostructured micelated forms of biologically active substances of natural origin” (2020 - 2023) – a leader ✓ International project ACADEMIC COLLABORATION IN THE BALTIC SEA REGION “Multidisciplinary Collaboration for Precise Food Science Development” (2020-2021) – a coordinator from ITMO University ✓ International project COST “Cross-border transfer and development of sustainable resource recovery strategies towards zero waste” (2021-2024) – a participant |
| List of potential thesis topics | <ul style="list-style-type: none"> ✓ Research of processed products of flax seeds (<i>Linum</i>) and chia seeds (<i>Salvia hispanica</i> L.) ✓ Development of encapsulated biologically active substances as part of functional foods ✓ Development of an individual diet in extreme conditions |
| Publications in the last five years | ✓ 24 |
| Key publications | <ol style="list-style-type: none"> 1. Gebremeskal Y.H., Nadtochii L.A., Eminova E.R., Kazydub N.G. Role of Plant-Derived Alkaloids and Their Mechanisms in neurodegenerative Disorders//Medicinal Plants for the Management of Neurodegenerative Diseases, 2024, pp. 10-19 2. Gebremeskal Y.H., Nadtochii L.A., Ereemeeva N.B., Mensah E.O., Kazydub N., Soliman T.N., Baranenko D.A., El-Messery T.M., Tantawy A.A. Comparative Analysis of the Nutritional Composition, Phytochemicals, and Antioxidant Activity of Chia seeds, Flax seeds, and psyllium husk//Food Bioscience, 2024, Vol. 61, pp. 104889 3. Mensah E.O., Nadtochii L., Adadi P., Agyei D. Chia derived bioactive peptides: Extraction, characterization, pharmacological activities and potential food applications//Food Bioscience, 2024, Vol. 59, pp. 103975 4. Mensah E.O., Oludipe E., Gebremeskal Y.H., Nadtochii L.A., Baranenko D. Evaluation of extraction techniques for chia seed mucilage; A review on the structural composition, physicochemical properties and applications//Food Hydrocolloids, 2024, Vol. 153, pp. 110051 5. Jameel M., Fatma H., Nadtochii L.A., Siddique H.R. Molecular Insight into Prostate Cancer: Preventive role of Selective Bioactive Molecules//Life, 2023, Vol. 13, No. 10, pp. 1976 |
| Key IPs | 1. Nadtochii L.A., Lepeshkin A.I., Chechetkina A.Yu. Ration for food in the Far North (2021) №2743975, RF |

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| | <ol style="list-style-type: none"> 2. Baranenko D.A., Nadtochii L.A., Chechetkina A.Yu., Lepeshkin A.I., Proskura A.V. Method for producing a functional fermented dairy product (2020) №2729358, RF 3. Baranenko D.A., Nadtochii L.A., Ivanova V.A., Golovinskaia O.V., Chernihovets E. A.. A dry composition for the preparation of custard (2019) №2702177, RF 4. Lepeshkin A.I., Nadtochii L.A., Baranenko D.A., Chechetkina A.Yu., Proskura A.V. Method for producing of dry functional complex mixture for fermented dairy products (2019) №2702426, RF 5. Abramzon V. V., Baranenko D. A., Kuprina E. E., Malova A. A., Nadtochii L.A The method of fish salting (2019) №2694184, RF |
| Code of the subject area of the PhD program | 2.7.1 Biotechnology of Food Products and Medicinal and Biologically Active Substances |