

## Author information



### 1. Surname, name:

Bayisbayeva Meruert.

### 2. Position, academic degree, title:

Head of the department «Technology of bread products and processing industries», candidate of technical sciences, docent (associate professor), professor of ATU.

### 3. Education:

- Almaty technological university, diploma with honors ZhB № 0024994 of May 31, 2001, specialty – "Technology of bread, confectionery and pastaproducts";

- diploma of candidate of technical sciences № 0000804, dated December 14, 2005 approved by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan in the specialty 05.18.01 – "Technology of processing, storage and processing of cereals, legumes, cereal products, fruits and vegetables and viticulture".

- diploma of docent (associate professor) approved by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, DC № 0002703, dated December 27, 2011.

### 4. Field and areas of research, including participation in scientific projects with a brief description of the results of the study:

*Field and areas of research:*

technology of bakery, pasta and confectionery production; food biotechnology.

*Participation in scientific projects:*

- the executor of the project is "Introduction and commercialization of innovative electronic equipment and technology with software for processing, processing and storage of agricultural products", 2017-2020.

Results:

a technology with software for processing grain products has been developed and implemented.

- The executor of the project "Development and implementation of nanotechnology for the processing, storage and processing of grain in the field of electromagnetic cavitation at elevators and grain processing enterprises", 2012-2014.

Results:

the technology of processing, storage and processing of grain products has been developed and implemented.

- The executor of the project "Development of technology for pasta for functional purposes for different groups of the population using raw materials of plant origin", 2013-2015.

Results:

a scientifically substantiated selection of species and varieties of local crops of plant origin was carried out on the basis of a study of the chemical composition, amino acid composition of proteins. The technology of functional pasta products for different population groups has been developed and implemented.

- The executor of the project is "Comparative study of the consumer properties of margarine "Ecouniversal 1203-32" and special-purpose fat "Oliprime 1003-32" in the production of flour confectionery products (oatmeal cookies, custard semi-finished product, gingerbread) with the fat-and-oil company EFKO (Russia), 01.10.2016 - 28.02.2017.

Results:

the technology of products with high biological value - oatmeal cookies, gingerbread, custard semi-finished products based on the use of margarine and special-purpose fat of the oil and fat company EFKO was developed, approbation was carried out in production.

- The executor of the project "Development of recipes for biscuits with a long shelf life (up to 2 years)" by order of "Galeta Kazakhstan" LLP, 02.12.2016 - 29.04.2017.

Results:

the technology of long-term storage biscuits for the needs of the military has been developed. The technology, recipes, parameters, technological processes of making biscuits in production conditions have been worked out.

- The executor of the project "Study of margarine with different mass fractions of fat on flour products without recalculation of formulations for the mass fraction of fat" with the fat-and-oil company EFKO (Russia), 15.11.2018 - 15.01.2019.

Results:

the technology of products with high biological value – flour products based on the use of margarine and fat of special purpose oil and fat company EFKO has been developed, tested in production.

- The executor of the project is "Development of technology for improving the quality of the main products of mass consumption (bakery and fermented milk products) with the addition of enterosorbent dietary fibers" with "Zhalyn" SPTC LLP 01.10.2018-31.12.2018.

Results:

the technology of products with high biological value - flour products based on the use of margarine and special-purpose fat of the EFKO oil and fat company was developed, approbation was carried out in production.

#### **5. List of the most significant publications (monographs, patents, developed standards):**

1. Baiysbaeva M. P. Technology of bakery products. Textbook / Almaty, SSK, 2018. - 354 pp.;
2. Baiysbaeva M. P. Design of Bakery enterprises. Textbook / Almaty: TechSmith, 2018. - 196 pp.;
3. Baiysbaeva M. P. Raw materials and materials used in the production of bakeries. Textbook / Almaty: TechSmith, 2018. - 120 pp.;
4. Baiysbaeva M. P. Methods of assessing the quality of bakery products. Training manual / Almaty. - 2020. - 171 pp.;
5. Baiysbaeva M. P., Iskakova G.K., technology of pasta production. Training manual / Almaty. - 2020. - 185 pp.;
6. Dairasheva S. T., Bayysbaeva M. P. Technology of production of flour confectionery products. Textbook / Almaty, ATU publishing house, 2021;
7. Dayrasheva S.T., Bayysbaeva M. P., Izembayeva A. K. confectioner ondirisinin technologiyyasy.Oku / Almaty: ATU baspasy, 2018.- 458 pp.;
8. Primbetova E., Abdizhapparova B.T., Kassymova M.K., Baiysbayeva M.P. Technology and equipment for pasta production - Study guide. - Shymkent: M. Auezov SKSU, 2019.- 108 pp.;
9. Abdizhapparova B.T., Orymbetova G.E., Baiysbayeva M.P. Technology of subtropical and food flavouring products - Study guide. - Shymkent: M. Auezov SKSU, 2019.- 96 pp.;

10. Abdizhapparova B.T., Orymbetova G.E., Baiysbayeva M.P. Technology of dried products and food concentrates - Study guide. - Shymkent: M. Auezov SKSU, 2019. - 96 pp.;
11. Iztaev A.I., Iskakova G.K., Muldabekova B.Zh., Baiysbaeva M.P. Nas ondirudin innovativyalyk technolgiyasy. Monograph. Almaty: "LEM Publishing House" ZHSHS, 2015. - 220 pp.;
12. Baiysbaeva M.P., Izembayeva A.K. Innovative technology for the production of sugar cookies from composite mixes. Monograph, Almaty, 2020. - 167 pp.;
13. Usembayeva zh. K., Baiysbaeva M. P., Shansharova D. A., Iskakova G. K. adoption of the rules of HACCP of enterprises serving the population in public catering. Almaty, 2018. - 73 pp.;
14. Iskakova G. K., Shansharova D. A., Baiysbaeva and Dr. Izdelia confectionery Galets "Soldiers" -St 151040016692-LLP-03-2016 (introduced for the first time);
15. Iskakova G. K., Shansharova D. A., Baiysbaeva and Dr. Confectionery products "Soldiers " Galets-St-151040016692-LLP-03-2016 (introduced for the first time);
16. Iskakova G.K., Shansharova D.A., Baiysbaeva et al. Technology instructions for the production of biscuits "Sarbazdary" - LLP "Galeta Kazakhstan" and JSC "ATU", 2016;
17. Iskakova G.K., Shansharova D.A., Baiysbaeva, etc. "Sarbazdary" galetiin ondiru zhonindegi technolgiyalyk nuska - "Galeta-Kazakhstan" ZHSHS, AK ATU, 2016;
18. Iskakova G.K., Shansharova D.A., Baiysbaeva, etc. Technological regulations for the production of biscuits "Sarbazdar" with a long shelf life - LLP "Galeta Kazakhstan" and JSC "ATU", 2017. - 75 pp.;
19. Iskakova G. K., Shansharova D. A., Baiysbaeva and Dr. Technological regulations for the production of Galeta "Soldiers" with long - term storage-Galeta – Kazakhstan LLP, AK ATU, 2017-75 pp.;
20. Multimedia teacher. Baisbaeva M. P. technology of bakery products. Almaty, "Epigraph" LLP. The Republic Of Kazakhstan. 2018;
21. Baiysbaeva M. P. Technology of bakery products [electronic resource]. CD / PDF, 2.96 MB. Almaty: era, 448 P., - ISBN 978-601-217-371-0;
22. Meruert P., Baiysbaeva, Asel K. Izembayeva, Dina R. Dautkanova and Torebek A. Baibatyro. Methods and technology of cooking Kazakh National puff cakes. Advances in Environmental Biology , 8 (16) 2014 F, pp. 248-251;
23. Assel K. Izembayeva, Meruert P., Baiysbaeva, Bayan Zh. Muldabekova, Auelbek I. Iztayev and Dina R. Dautkanova. Non-traditional raw materials for the production of sugar cookies. Advances in Environmental Biology, pp. 8 (16) 2014 F 258-262;
24. G. A. Umirzakova, G.K. Iskakova, B.Zh. Moldabekova, V.Yu. Chernykh. "I Don't Know," She Said. Improving the technology of pasta based on flour obtained from vegetable raw materials. Journal of engineering and Applied Sciences 12 (5): 1120-1125, 2017;

25. Zh. Alimkulov, S. Zhienbayeva, G. Baigazieva, Meruert P. Baiysbaeva, N. Batyrbaeva. Creation of a multicomponent mixture based on a consortium of lactic acid bacteria to enrich flour. *Journal of engineering and Applied Sciences* 2018, №. 2, - pp. 136-139;
26. Saule T. Zhienbayeva, Shynar I. Kenenbai, Meruert P. Baiysbaeva. Agroecological analysis of optimizing the parameters of extruding feed mixture based on rice processing products based on Scopus//. *Eurasian Journal of Biological Sciences Eurasia j biosci* 12, 2018. - pp. 451-456;
27. Baiysbaeva M. P., Zhienbayeva S. T., Batyrbaeva N., etc. influence of additives according to the recipe on the quality, nutritional value, safety and microbiological parameters of butter cookies. *Eurasian Journal of Biological Sciences Eurasia j biosci* 13, 2019. - pp. 2015-2021;
28. Baiysbaeva M.P. Irmatova Zh.K., Musulmanova M.M. Study of the effect of whey proteins on the quality of a new type of sugar cookies "Yuzhanka" and oatmeal cookies "Tumar". *Bulletin of ATU.* - № 1. - 2014. - 19-23 pp.;
29. Baiysbaeva M.P. Tursynbaeva Sh. Dandy dakyldar zharmasynan dayyndalghan tolykkundy nan oniminin sapa korsetkishterin zertteu. *Bulletin of ATU.* - №1. - 2014. - 9-15 pp.;
30. M.E. Yerzhanova, L.A. Mamaeva, M.Sh. Junisbekov., M.Zh.Yerkebaev., Baiysbaeva M.P. Determination of mass friction coefficients on metal surfaces during juice production. *Bulletin of ATU.* - №2. - 2016.-10-147 pp.;
31. M.E. Yerzhanova, L. A. Mamaeva, M. Sh.Junisbekov."I Don't Know," He Said., Baiysbaeva M. P. study of the rheological properties of melons in the production of juice. *Shooting Vestnik.* - No. 2. - 2016. - pp. 34-37;
32. Baiysbaeva M. P., Amantai B. study of the influence of additives on the rheological properties of oat biscuit dough and the quality of finished products *Vestnik ATU.* - № 3 - 2017. - pp. 17-21;
33. Baiysbaeva M. P., Izembaeva A. K. study of the influence of gluten on the quality of wheat bread dough made of composite composition. *Shooting Vestnik.* - № 3. - 2017. - pp. 25-30;
34. Baiysbaeva M. P., Izembaeva A. K. determination of the quality of wheat bread made of composite composition with high nutritional and biological value. *Shooting Vestnik.* - № 3-2017. - pp. 33-39;
35. Baiysbaeva M. P. slow freezing of flour confectionery products with the addition of additives. *Shooting Vestnik.* - № 3 - 2017. - pp. 21-25;
36. B.S. Amantai, Baiysbaeva M. P., A. K. Izembaeva. Ways to increase the nutritional value of sdobal cookies. *Shooting Vestnik.* - № 4 - 2019;
37. Baiysbaeva M.P., Z.n. Moldakulova, S.T. Dairasheva, F.A. Rahimberdieva, v. Sotnikova. Diet of wheat bread with dietary fiber. *Shooting Vestnik.* - № 1. - 2020;
38. Baiysbaeva M.P., Zhienbayeva S.T., Batyrbaeva N.B., Oshakbay Zh.N. technology of production of small crumbly cookies with additives. *Shooting Vestnik.* - № 2. - 2020;
39. Baiysbaeva M. P. study of the influence of unconventional types of flour on the aging of sdobal cookies. *Shooting Vestnik.* - №2. - 2020;

40. Izembayeva A.K., Baiysbayeva M.P., Ermatova Zh.K., Moldagulova Z. Investigation of the quality of sugar cookies from fruit and vegetable mixture. Science, New Technologies and Innovations of Kyrgyzstan, № 9. - 2017. - pp. 35-36;
41. Izembayeva A.K., Irmatova Zh.K., Meshitbekova A. Development of a recipe for buns with pumpkin juice. Science, New Technologies and Innovations of Kyrgyzstan, № 9. - 2017, pp. 37-38;
42. M. Baiysbayeva.P., Irmatova Zh.K., Moldakulova Z.N. The effect of added components on the quality of flour in order to increase the content of dietary fiber in wheat flour. Science, New Technologies and Innovations of Kyrgyzstan, № 10. - 2019;
43. Baiysbaeva M.P., Tursynbaeva Sh., Nysanbayeva A., Nannyn tagamdyk kundylygyn zhogarlattudyn zholdary. International scientific and practical conference "Innovative technologies in the industry of Kazakhstan", Eurasian Technological University, Almaty. - 2014. - 169-171 pp.;
44. Baiysbaeva M.P., Tatieva A., Dayrasheva S.T., Dildakulova B.K. Butin dannen zhasalgan taba nannyn tagamdyk zhane biologiyalyk kundylygyn zhogarylattu zholdary. Materials of the international scientific and practical conference "Innovations in science, education and production of Kazakhstan". 17-18 November 2016 w. ATU. - 2016. - 70-73 pp.;
45. Baiysbaeva M.P., S.T. Dayrasheva, Z.N. Moldakulova, F. Rakhymberdieva. Kurish kauyzinan alyngan tagamdyk talshyk kosylgan bidai nannyn recipe yasau. MNPC "The current state, prospects for the development and modernization of the agro-industrial complex of the Republic of Kazakhstan", September 27, 2019. - K. Semey, 2019;
46. F. Dikhanbayeva, E. Zhaksybayeva, M.P. Baiysbaeva, J. Dimitrov, G. Yesirkep, N. Bansal. Study of the influence of the developed technology on the chemical composition of yogurt made from camel milk 7 Eastern European Journal of Corporate Technologies ISSN 1729-3774, pp. 36-48. Vol. 3 № 11 (111) (2021). Chapter: Technology and equipment for food production. <https://doi.org/10.15587/1729-4061.2021.235831>. Percentile 56. Quote the score 2020-2,2. (Industrial and Processing Engineering);
47. Baiysbaeva M.P., Iskakova G., Izembayeva A., Batyrbaeva N., Dikhanbayeva F., Daribaeva G. Study of the influence of the developed technology on the chemical composition of yogurt made from camel milk. Eastern European Journal of Corporate Technologies ISSN 1729-3774, pp. 36-48. Vol. 3 № 11 (111) (2021). Chapter: Technology and equipment for food production. <https://doi.org/10.15587/1729-4061.2021.235831> (Industrial and processing engineering). Percentile 56 Quote the score 2020-2,2;
48. Baiysbaeva M.P., Iskakova G., Izembayeva A., Batyrbaeva N., Dikhanbayeva F., Daribaeva G. Development Of Pasta Technology Based On Grain Flour And Ionized Water. Eastern European Journal of Corporate Technologies ISSN 1729-3774, pp.51-60. Volume. 1 № 11 (109) (2021). Chapter: Technology and equipment for food production. <https://doi.org/10.15587/1729-4061.2021.225001>. Percentile 56 Quote the score 2020-2,2 (Industrial and Processing Engineering);
49. Z. Moldakulova, Baiysbaeva M.P., G. Iskakova, F. Dikhanbayeva, A. Izembayeva, V. Sotnikova. A study of the possibilities of using linseed flour and rice husk fiber as an additional source of raw materials in the bakery industry. Eastern-European Journal of Enterprise

Technologies ISSN 1729-3774, pp. 61-72. Vol. 5 No. 11 (113) (2021): Technology and Equipment of Food Production. Q2. <https://doi.org/10.15587/1729-4061.2021.242648>. percentile 56 Cite Score 2020-2, 2. (Industrial and Manufacturing Engineering);

50. Baiysbaeva M. P. determination of the influence of prescription components on the quality of wheat bread. *Mechanics and technology*, 2021, №1(71), 60-65 pp.;

51. Baiysbaeva M. P., Moldakulova Z. N., Koylanov K. S. influence of dietary fiber on the quality of rye-wheat bread. *Mechanics and technology*, 2021, № 2 (72), 15-20 pp.;

52. Moldakulova Z. N., Izembayeva A. K., Koylanov K. S., Bashirova Z. zh. influence of recipe components on the physico-chemical properties of wheat dough. *Vestnik ATU*, 2022. - № 3, pp. 59-64;

53. Izembaeva A. K., Baiysbaeva M. P., Moldakulova Z. N., Baibatyrrov T. A. assessment of the quality of bread products made from a mixture of Whole ground flour. *Vestnik ATU*, 2022. - № 2, pp. 67-73;

54. Baiysbaeva M. P., Moldakulova Z. N. quality and ways to increase the nutritional value of rye wheat bread. *Vestnik ATU*, 2022. - № 3, pp. 52-58;

55. Z. Zharylkasynova, G. Iskakova, M. P. Baiysbaeva, A. Izembaeva, A. Slavov the effect of beet pectin concentrate and coarse-ground corn flour on the quality and safety of crackers. *Potravinarstvo Slovak Journal of food sciences*. Volume 16, 2022, pp. 603-621. <https://doi.org/10.5219/1780> specify percentile 48 2020-2.2. (Industrial and processing machinery);

56. G. Tokysheva, K. Makangali, Yu. Uzakov, M. P. Baiysbaeva, M. Khakimov, N. Vostrikova, N. Mashanova Slavov. The potential of goat meat as a source of nutrition for schoolchildren. *Potravinarstvo Slovak Journal of food sciences*. Volume 16, 2022, pp. 398-410. <https://doi.org/10.5219/1763> . Specify percentile 48 2020-2.2. (Industrial and processing machinery);

57. Baiysbaeva M.P. 6V07202 " Kaita ondeu ondiristerin tehnologiyasi" mamandygyn studentteri usin confectionery kasiporyndardyn biliktilik diploma zhумыsyn (zhobasyn) oryndau boyynsha. Almaty, ATU baspasy, 2021;

58. Yerkebayeva M.Zh., Baiysbaeva M.P. Method of puff pastry production. Patent of the Republic of Kazakhstan No. 30580. 16.11.2015, bulletin №11;

59. Baybolova L.K., Baiysbaeva M.P. zhane T.B. Method of yogurt production. Conclusion on the grant of a patent . Application of RK № 0316.2, 2019;

60. Baibolova L. K., Baiysbaeva M. P. and others. The conclusion of the patent. Republic of Kazakhstan № 0315.2, 2019;

61. Izembayeva A. K., Baiysbaeva M. P. The Grain bar. Patent for a polesized model. № 2021/0503.2, 21.05.2021;

62. Baiysbaeva M. P., Moldakulova Z. N. and others. The patent was introduced on the field model № 2022/0578 .2. 19.08.2022, bulletin 33;

63. Baiysbaeva M.P., Moldakulova Z.N. and others. Patent for polesized model № 5536, 06.11.2020.

## **6. Scientific internships:**

- international internship at the Institute of International Education, Prague, Czech Republic in the period from 2 to 16 November 2020, on the topic: "Digital technologies in universities of the European Union. Quality in education when using Digital Technologies". Received a certificate of 16.11.2020 AC INSTITUTE of International education;

- international internship at the Institute of International Education, Prague, Czech Republic from 17 to 18 November 2020, on the theme: "Modern science. Management and standards of scientific research». Received a certificate of 18.11.2020 AC INSTITUTE of International education;

- international scientific internship at the University of Charles, Czech Republic, in the period from 02 to 16 November 2020, on the topic: "digital technologies in European universities. The quality of higher education and digital technologies". Received a certificate dated 16.11. 2020 from the University of Charles, Czech Republic;

- international internship at the International Center for Education and Scientific Information (Düsseldorf, Germany), in the period from 12 to 24 October 2020, on the theme: "Qualitätsmanagement im Hochschulwesen bei online learning "Cmixed / hybrid teaching and learning". Received a certificate of 24.10.2020;

- international internship at the University of Bonn, (Dusseldorf, Germany) in the period from 16 to 28 November 2020, on the topic: "Quality Management of Online Teaching and Learning in higher Education". Received a certificate of 28.11.2020;

- international scientific internship at theSaratov State Agrarian University in the period from 02 to 13 March 2020, on the topic "Food technologies for the future: innovations in the production and processing of agricultural products at the university" (Saratov, Russia), in the amount of 72 hours Received a certificate of 13.03 2020.

## **7. Achievements in research, pedagogical activities (awards):**

- Gratitude for many years of work and contribution to the development of the education system and the upbringing of the younger generation. MES RK, Astana, 2017;

- Grant of the MES RK "The best teacher of the university" 2019;

- diploma II place for achievements in educational and scientific activities in the nomination "The best teacher of ATU 2017" December 30, 2017;

- to the 60th anniversary of Almaty technological university, a diploma was awarded for the contribution to the education of specialists who work conscientiously in their country with the provision of high-quality education to young people, Akim of Almaty district of Almaty, 2017.

Prepared:

- more than 15 masters of technical sciences;
- 1 PhD: Moldakulova Z.N. (2023).

**8. E-mail address, contact details (tel.: work (ext.), cell.):**

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