# Collaborative breeding system based on a consortium of heterogeneous intelligent agents

**M.I. Anchekov, Z.I. Bogotova, I.A. Pshenokova, Z.V. Nagoev, B.R. Shomakhov**

Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences

360010, Russia, Nalchik, 2 Balkarov street

*Annotation.* The architecture of a human-machine intelligent system has been developed based on a consortium of intelligent software and cyber-physical agents that perform simulation modeling, decision making and synthesis of cooperative control of selection and seed production processes. Understanding the meaningful content and collective decision-making in the production and agrotechnical cycles of breeding and seed production in systems based on such a computing architecture will be ensured by the work of cooperative intelligent software agents of general artificial intelligence based on multi-agent neurocognitive architectures. The developed computational model of a distributed consortium of heterogeneous intelligent agents can be used to create intelligent expert and collaborative information and control systems that provide a significant increase in the efficiency of breeding and seed production based on the use of self-learning decentralized multi-agent neurocognitive systems for controlling the processes of precise selection and seed production.

*Key words:* artificial intelligence, collaborative systems, precise selection, seed production, multi-agent systems, robots

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**Information about the authors**

**Anchekov Murat Inusovich,** staff scientist of the laboratory «Molecular selection and biotechnology»,
Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences;
360000, KBR, Nalchik, 224 Kirova street;
murat.antchok@gmail.com, ORCID: https://orcid.org/0000-0002-8977-797X
**Bogotova Zalina Ikhsanovna,** Candidate of Biological Sciences, Head of the laboratory "Molecular selection and biotechnology" of KBSC of the Russian Academy of Sciences.
360000, KBR, Nalchik, 224 Kirova street;
zalina_bogotova@mail.ru, ORCID: https://orcid.org/0000-0002-9123-224X
**Pshenokova Inna Auesovna**, Candidate of Physical and Mathematical Sciences, Leading Researcher laboratory «Neurocognitive autonomous intelligent systems», Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences;

360002, Russia, Nalchik, 2 Balkarov street;

pshenokova_inna@mail.ru, ORCID: https://orcid.org/0000-0003-3394-7682

**Nagoev Zalimkhan Vyacheslavovich**, Candidate of Technical Sciences, General Director of the Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences;
360000, Russia, Nalchik, 37-a I. Armand street;
zaliman@mail.ru, ORCID: https://orcid.org/0000-0001-9549-1823

**Shomakhov Beslan Rashidovich,** Senior Researcher, Head of the laboratory "Breeding and seed production of late-ripening corn", Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences;

360004, Russia, Nalchik, 224 Kirov street;

ORCID: https://orcid.org/0000-0002-0248-2619