#### SCIENTIFIC SCHOOLS OF MARSU

## **School of Molecular Bioenergy**

Head of the School: Samartsev V.N., Doctor of Biological Sciences, Professor, Professor of the Department of Biochemistry, Cell Biology and Microbiology, Head of the Laboratory of Molecular Bioenergy

State registration number: 01201278733

Subjects of research: basic research in the field of molecular bioenergy.

### School of Population Biology

Head of the school: Suetina Yu.G., Ph.D, Biology, Associate Professor, Associate Professor of the

department of biology

State registration number: 01201278729

Subjects of research: genetic heterogeneity of populations of a number of plant and animal species according to quantitative characteristics, concept of fitness, intrapopulation genetic polymorphism, genetic load of populations, diversity of response standards of genotypes in natural populations, quantitative assessment of the structure of variation of traits (genotype, environment component and genotype-environment interaction components)

## Archeology and ethnology of the Volga region

Head of the School: Zeleneev Yu. A., Doctor of Historical Sciences, Associate Professor, Head of the Educational and Scientific Archaeological and Ethnological Center

State registration number: 01201278721

Subjects of research: primitive archeology of the Volga region (the era of stone and bronze, the era of early iron), medieval archeology of the Volga region (the early Middle Ages, the Golden Horde Volga region, later the Middle Ages and the new time), ethnology of the Volga region.

#### Socio-pedagogical rehabilitation of children with disabilities

Head of the School: Morova N. S., Doctor of Pedagogical Sciences, Professor, Lecturer of the Institute of Pedagogy and Psychology

State registration number: 01201278727

Subjects of research: theoretical and methodological foundations of socio-pedagogical rehabilitation of children with disabilities.

## History and culture of the peoples of the Volga-Vyatka region

Head of School: Ivanov A. G., Doctor of Historical Sciences, Professor, Head of the Department of

National History
State registration number: 01201278720

The subject of research: population and ethno-demographic processes in the Volga-Vyatka region in the XVI-XX centuries. Agrarian history and the history of the multinational peasantry of the region, the peasant movement in the XVI - early XX centuries (power, society, center and regions), the history of churches and denominations, Orthodox Christianity and Mari paganism.

# SCIENTIFIC-PEDAGOGICAL SCHOOLS OF MARSU

#### Population-ontogenetic school

Head of School: Zhukova L. A., Doctor of Biological Sciences, Professor, Professor of the

Department of Ecology

State registration number: 01201278732

Subjects of research: the study of the ontogeny of plants of various life forms, the morphophysiological features of medicinal plants at different stages of ontogenesis, ecological and physiological aspects of ontogenetic adaptation of plants in urban environments, features of the organization of plant populations of forest, meadow and water ecosystems.

## **Ecological monitoring of anthropogenic and natural ecosystems**

Head of School: Voskresenskaya, OL, Doctor of Biological Sciences, Professor, Director of the

Institute of Medicine and Natural Sciences State registration number: 01201278725

Subjects of research: ecological and physiological features of plant adaptation in urbanized environments, the functioning of woody and grassy ecosystems under natural and anthropogenically modified environments, monitoring of water bodies and assessing the sustainability of hydrophytes under anthropogenic stress, characterizing of atmospheric air, soil and surface water bodies in urban environments in the Republic of Mari EI, the development of recommendations aimed at reducing the anthropogenic impact on natural systems and environment impact assessment.

### Problems of improving the economic mechanism

Head of School: Tsaregorodtsev E.I., Doctor of Economics, Professor, Professor of the Department

of Economics and Finance

State registration number: 01201278722

Subjects of research: economic and mathematical modeling and information technology, economic theory, improvement of accounting and auditing, problems of analysis, finance and statistics.

## Numerical methods of nonlinear analysis

Head of the School: Kokurin M. Yu., Doctor of Physical and Mathematical Sciences, Professor, Head of the Department of Mathematical Analysis and Theory of Functions

State registration number: 01201278719

The subject of research: theoretical and numerical analysis of nonlinear problems of the calculus of variations, inverse problems of mathematical physics and function theory using the modern instruments of functional analysis and methods of the geometric theory of functions of a complex variable; development of methods of teaching related mathematical disciplines at school and university.

#### **Energy and Electrical Engineering**

Head of the School: Rybakov L.M., Doctor of Technical Sciences, Professor, Head of the Department of Power Supply and Technical Diagnostics

State registration number: 01201278734

The subject of research: reliability and diagnostics of high-voltage electrical power equipment, development of methods and devices for technical diagnostics of electrical installations with a voltage above 1000 V, forecasting the operation of electrical installations.

#### Folklore in the XXI century: traditions and development prospects

Head of School: Zolotova T.A., Doctor of Philology, Professor, Professor of the Department of Philology and Journalism

State registration number: 01201351685

The subject of research: folklore in the inter-ethnic cultural space of the Republic of Mari EI, the regional identity of the Russian folklore of the Republic of Mari EI, the verbal creativity of youth communities: types and nature of connection with traditional, elite and popular cultures, folklore and literature.