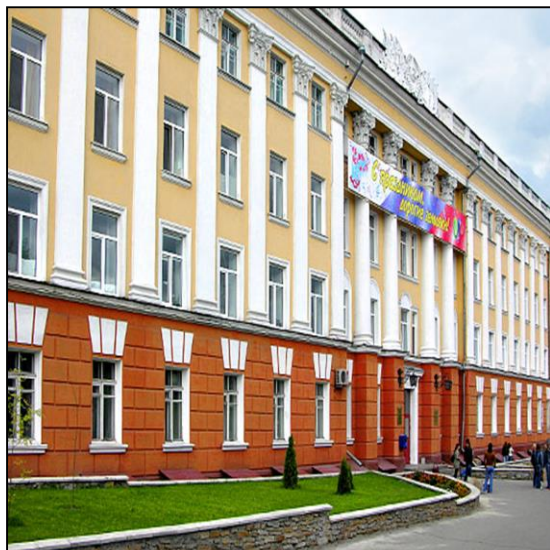


**Efficacy and safety study of functional
juice beverages FITOGURU INTELLECT**
in conditions of Altai State Medical University,
Federal Agency for Healthcare and Social
Development



Altai State Medical University



- ✓ Included in the List of Medical Institutions authorized to conduct clinical trials of medicinal products
- ✓ Today ASMU is one of the leading higher medical education establishments in Western Siberia

Principal investigator – *B.I. Kozlov* , Doctor of medical sciences, professor, Department of Faculty Therapy

Study objectives, type and design

Purposes and objectives:

- ✓ To study the dynamics of guiding clinical symptoms, parameters of laboratory and functional examinations in almost healthy persons with specific diseases.
- ✓ To evaluate efficacy of Fitoguru drinks in almost healthy persons with signs of specific diseases.
- ✓ To substantiate possibility and safety of drink usage as an adjunct in correction of clinical manifestations of diseases.

Type:

- ✓ Prospective single-site comparative open-label study.
- ✓ Period: August-December 2010

Design:

- ✓ Fitoguru drinks were used in almost healthy people with clinical manifestations of certain diseases as an adjunct source of bioactive substances in order to study their influence on clinical laboratory and functional parameters as well as quality of life.
- ✓ Number of patients – 40 persons.

Extent of examinations

Clinical examination (30 days)

- Complete blood count (haemoglobin, erythrocytes, leukocytes, erythrocyte sedimentation rate)
- Antioxidant state (in plasma – total antioxidant activity and thiobarbiturate-reactive products, in red blood cells – total antioxidant activity, superoxide dismutase, catalase, glutathione peroxidase)
- Assessment of involuntary nervous system tonus by Kareem index

Urine analysis

- colour, transparency, specific density, reaction, protein, glucose, epithelia, leukocytes, erythrocytes, cylinders, mucus

Bicycle exercises (functional tests)

- exercise capacity, chronotropic reserve and isotropic reserve, double product index, threshold power, index of metabolic cost

Quality of life

- WAM scale (Wellbeing, Activity, Mood)
- MFI 20 questionnaire (simplified modification)
- Chronic prostatitis symptom index (NIH-CPSI)
- International index of Erectile Function (IIEF)

Inclusion and exclusion criteria

Inclusion criteria

- Patients older than 18 and younger than 64 years of age
- Almost healthy volunteers
- Willingness to comply with protocol procedures
- Written informed consent

Exclusion criteria

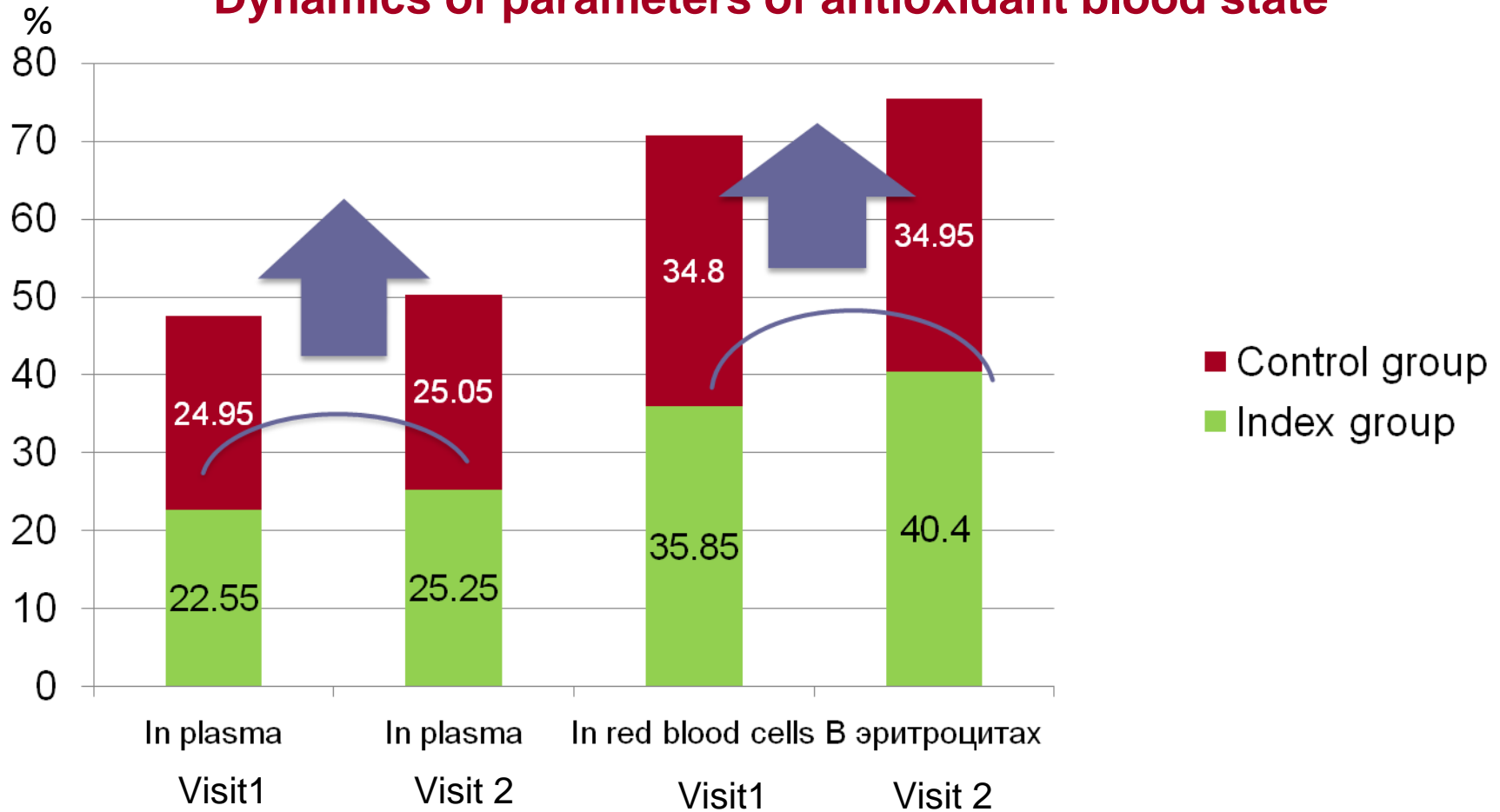
- Idiosyncrasy of product components
- Diabetes
- Phenylketonuria
- Contraindications to bicycle exercises
- Advanced general diseases
- Oncological diseases of any localization, HIV, tuberculosis, alcohol or drug abuse, mental illnesses
- Simultaneous participation in any other clinical study, as well as in the past 30 days
- Pregnancy, lactation



**“Efficacy and safety study of juice drink
“Fitoguru Pomegranate – Chokeberry –
Mellissa” (Fitoguru Intellect) `in healthy
persons with signs of asthenovegetative
syndrome”`**

Efficacy

Dynamics of parameters of antioxidant blood state

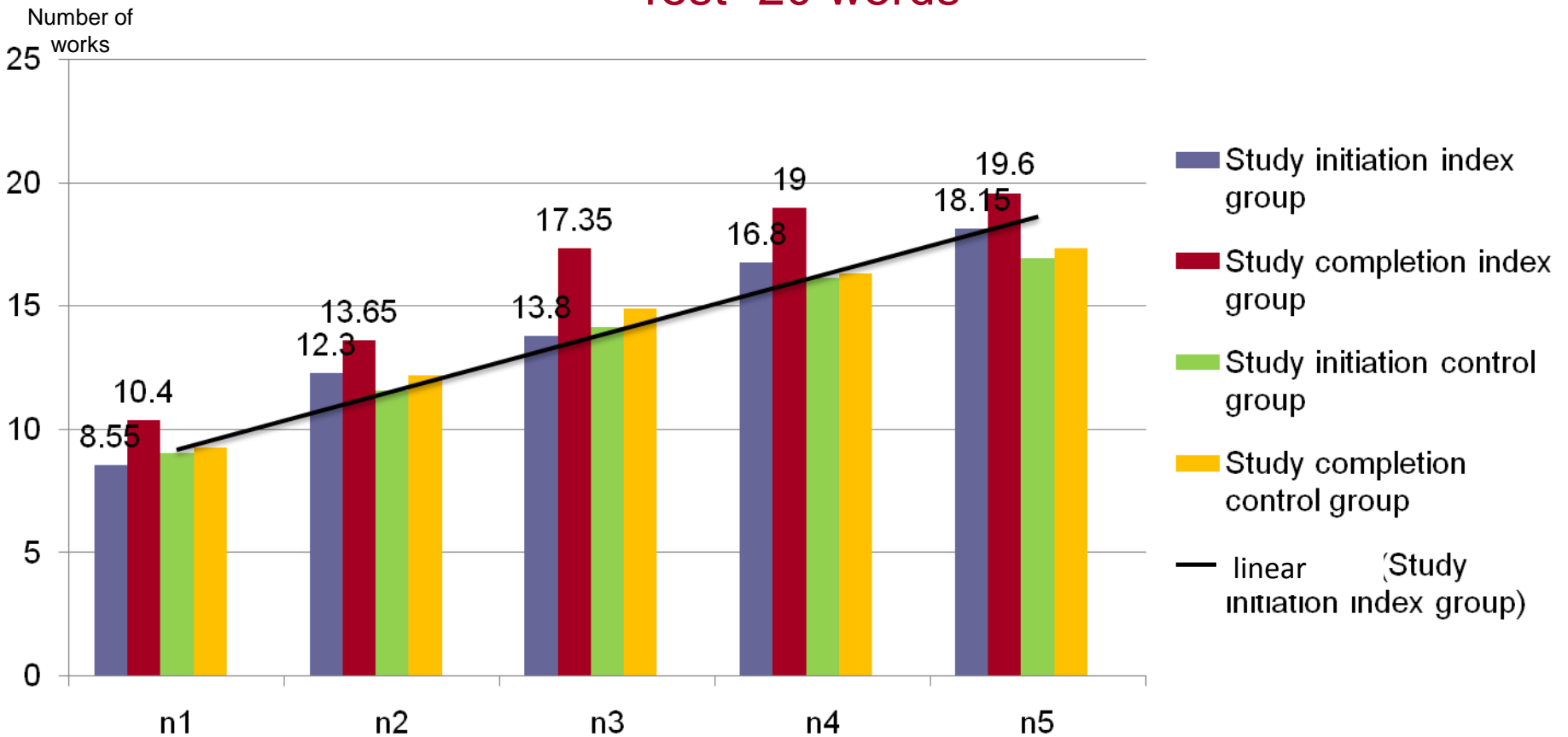


Increase in total antioxidant activity by **11 %** in red blood cells and by **13%** in plasma.

* - statistically significant differences at the beginning and at the end of the study ($p < 0.05$)

Results of psychometric testing of memory and attention

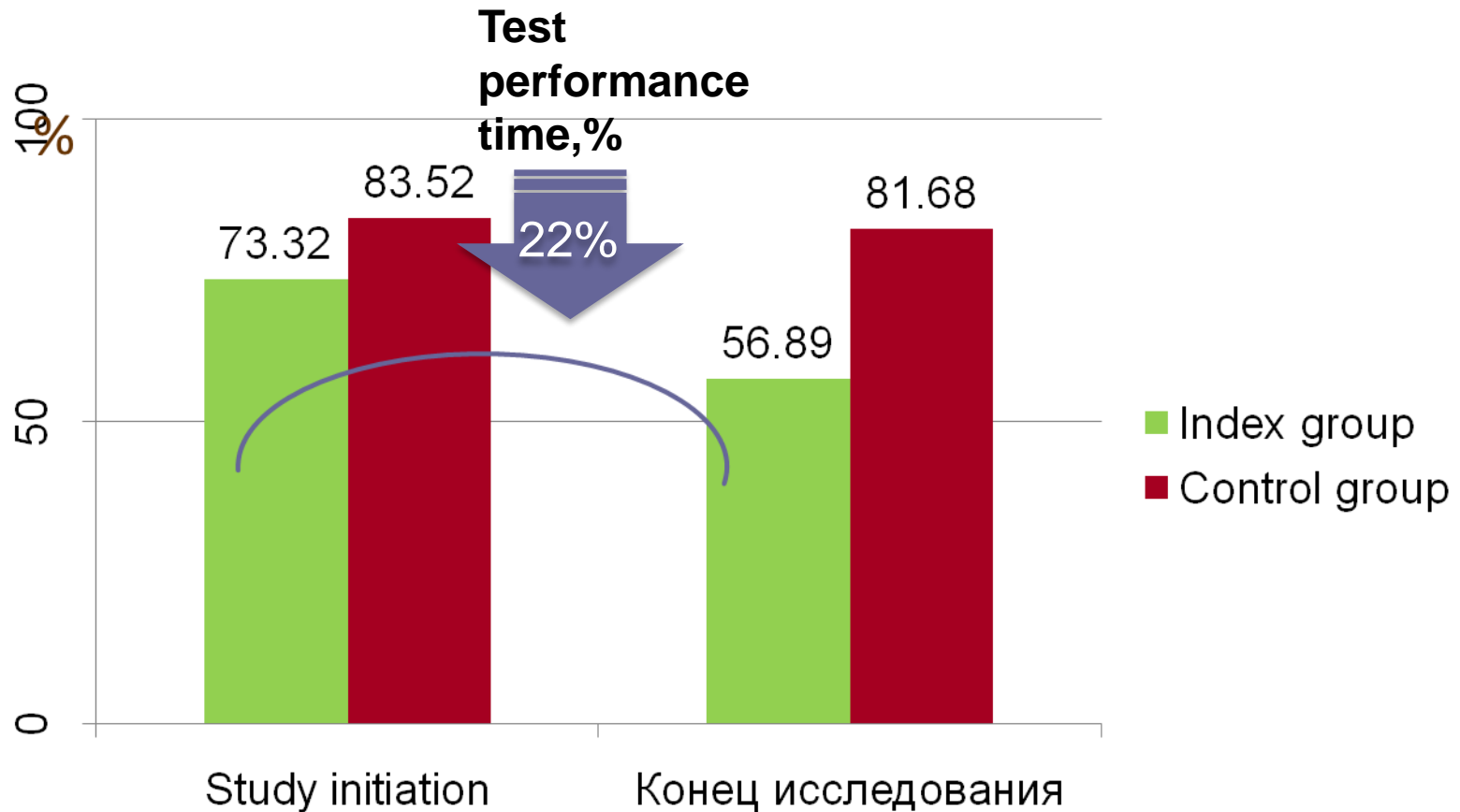
Test “20 words”



Result of memory and attention testing increased on average from **8.0%** to **25.7%**

* - statistically significant differences at the beginning and at the end of the study ($p < 0.05$)

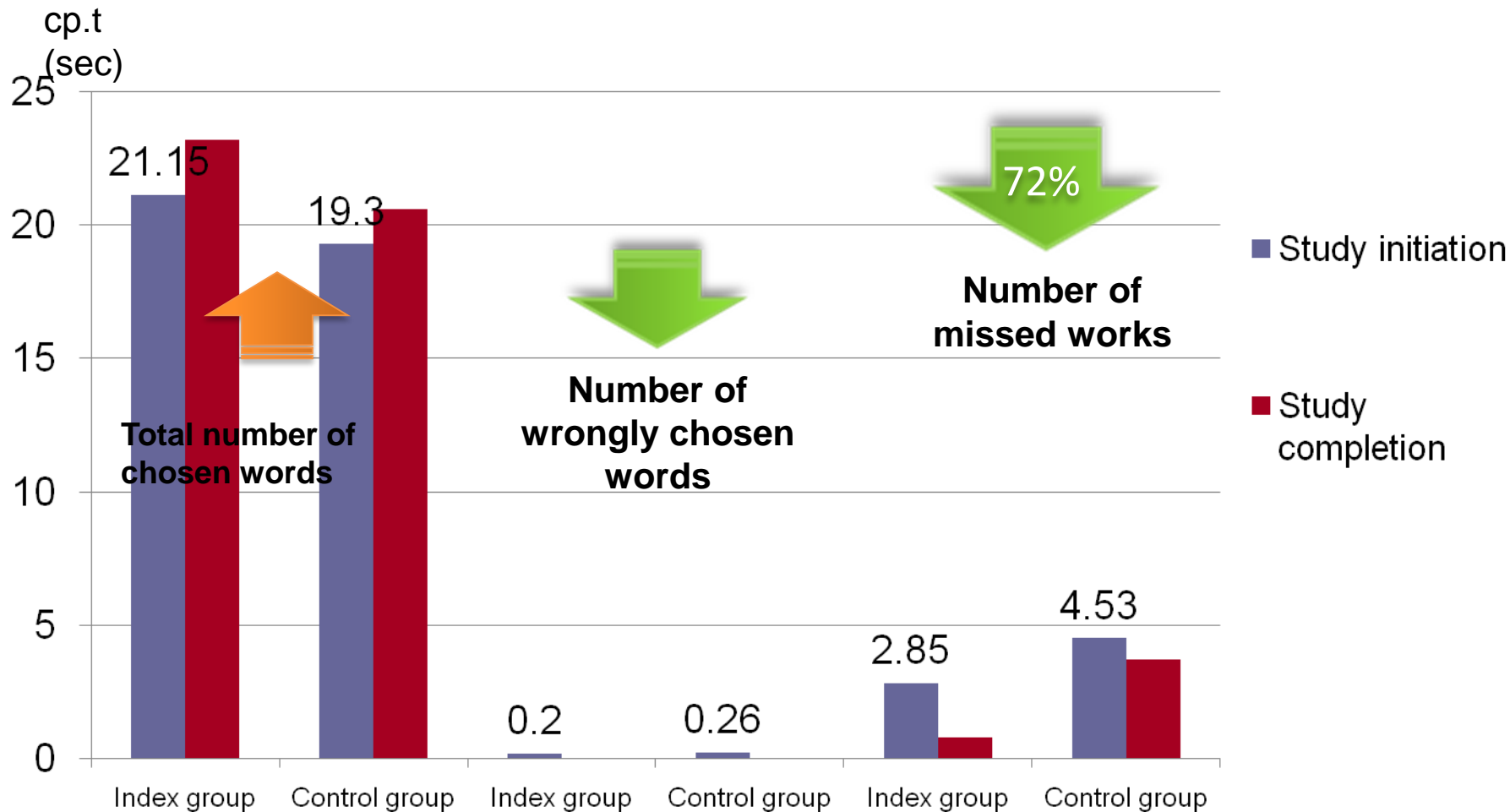
Attention concentration Test “numerical order”



Speed of test performance increased on average
by **22%**

* - statistically significant differences at the beginning and at the end of the study ($p < 0.05$)

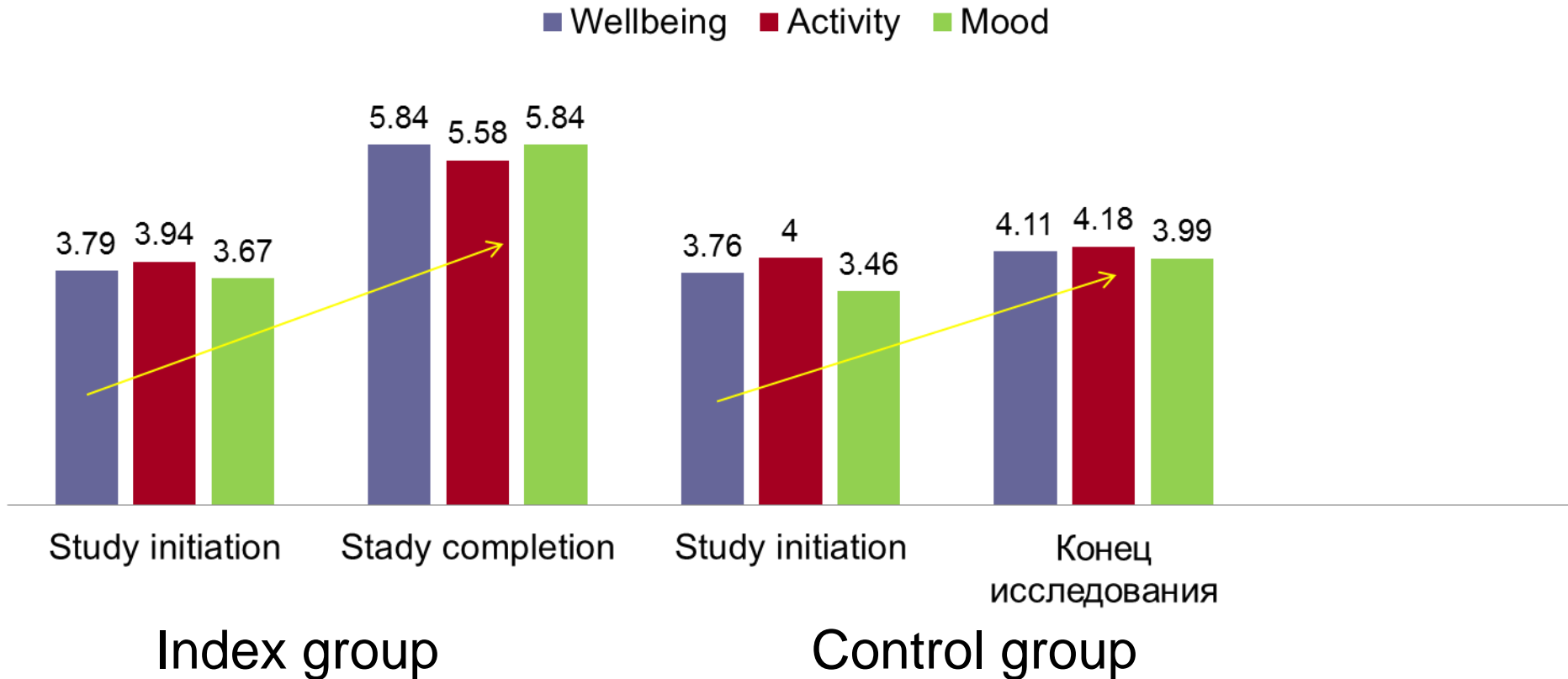
Attention selectivity of subjects in Munsterberg test



The speed of test performance increased by **12%**, number of missed words decreased by **72%**

* - statistically significant differences at the beginning and at the end of the study ($p < 0.05$)

Parameters of WAM scale



Significant improvement of quality of life

* - statistically significant differences at the beginning and at the end of the study ($p < 0.05$)

Conclusion

- ✓ Statistically significant positive effect of regular drink intake on ability to remember text information, attention concentration and selectivity has been observed. The results of “20 words” test improved on average from **8.0%** to **25.7%** .
- ✓ Test performance speed, according to the results of “Numerical order” test increased on average by **22%**.
- ✓ The speed of the Munsterberg test for attention selectivity increased by **12%**, the number of missed words decreased by **72%**.
- ✓ Drink intake during the observation period led to positive dynamics of antioxidant blood protection parameters, by **11%** in red blood cells, by **13%** in plasma. To increase in content of superoxide dismutase by **4%** and glutathione peroxidase by **2%** in red blood cells , to decrease of thiobarbiturate-reactive products in plasma by **42%**.
- ✓ Significant improvement of quality of life of subjects with signs of AVS.

Altay State Medical University, The Federal Agency for Healthcare and Social Development in Russia, Russian Ministry of Healthcare

**Principal Researcher, Doctor of Medical Sciences,
Professor Boris Ivanovich Kozlov**



“Based on conducted clinical studies, it is proven the ability of Fitoguru Intellect to influence the certain body functions. The drink is recommended to improve the functionality of the central nervous system, increasing attention, improving memory”