

# CURRICULUM VITAE

**Academician, Professor, Dr. Nodar P. Mitagvaria**

Born January 29, 1941 in Tbilisi, Georgia.

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**EDUCATION:** Technical University of Georgia, Tbilisi, 1964 –Bachelor, Systems of Regulation and Control;  
Beritashvili Institute of Physiology, Georgian Academy of Sciences, Tbilisi, 1971 - **Candidate of Biological Sciences (Pathological Physiology)**;  
Sechenov Institute of Evolutionary Physiology and Biochemistry, Leningrad, Russia, 1984 - **Doctor of Biological Sciences (Human and Animals Physiology)**.

**ACADEMIC RANK :** **Professor in Human and Animals Physiology (1991),**  
**Academician of the Georgian National Academy of Sciences (2013).**

## **SCIENTIFIC SOCIETIES:**

- International Society on Oxygen Transport to Tissue (**ISOTT**), *former Executive Director (1978-1981)*
- International Clinical Hyperthermia Society (**ICHS**), *President, 2010-2011*
- International Brain Research Organization (**IBRO**), *Member of Governing Council (2010 – 2016)*
- Federation of European Neuroscience Society (**FENS**), *Member of Governing Council (2010-2016)*
- European Neurological Society (ENS);
- Sigma-Xi – International Research Society, *Full Member*
- Georgian Neuroscience Association, *former Secretary General*
- Georgian Physiological Society, *Vice-President*

## **CAREER:**

- **1967-1971:** Post-graduator and then Research Scientist, Beritashvili Institute of Physiology, Georgian Academy of Sciences, Tbilisi, Georgia;

- **1971-1980:** Head, Department of Metabolic Maintenance of the Brain Functions, same institution.
- **1980-1991:** Vice-Director, Beritashvili Institute of Physiology, Georgian Academy of Sciences, Head of above-mentioned Department, Tbilisi, Georgia.
- **1991-present:** Head, Department of Cerebral Circulation and Metabolism, Beritashvili Center of Experimental Biomedicine (formerly the Beritashvili Institute of Physiology), Tbilisi, Georgia.
- **1991 – 2017:** Senior Consultant of the Valley Cancer Institute (Los Angeles, CA, USA)
- **2017-Present:** Scientific Advisor of BAO Health Resources Corporation (Tarzana, CA, USA).
- **2015-Present:** Academician- Secretary, Dept. Physiology and Medicine, Georg. Nation. Academy of Sciences, Tbilisi, Georgia;

**SUPERVISOR OF  
DISSERTATIONS:**

**38 PhD and 10 Doctors of Sciences** (defended in the fields of Biology and Medicine),

**GRANTS:**

*International:*

1. **NATO Science Program.** The study of mechanisms of ischemic-hypoxic disorders in the brain (jointly with the Department of Anatomy at Bristol University) (*1998-1999, Head of the project from the Georgian side*)
2. **ISTC.** Novel methods for correction of brain functions in depression and after antidepressant treatment (*1999-2004, Head of the group*).
3. **OSGF.** Training of the specialists from the field of basic biomedical disciplines (*1996, Manager*).
4. **World Vision (GABSI-RV).** Georgian tool for rapid assessment of adaptive behavior (*2006, participant*)
5. **STCU.** The role of blood rheology and free radicals in local hyperthermia-induced morphological changes in the brain (*2009-2011; Scientific Supervisor and Manager*)
6. **STCU.** Analysis of the mechanisms of whole body hyperthermia-induced behavioral disorders (experimental study) (*2002-2014; Scientific Supervisor and Manager*)
7. **STCU.** Development and study of novel nanomaterials for self-regulated magnetic cell hyperthermia of cancer cells (*2018-2020; Head of Scientific Team*)

***Local:***

State Scientific-Technical Program - Development and introduction of new diagnostic and prevention tools. Experimental study of the pathogenesis, prevention and treatment of cerebral infarction (***1997-2000, team leader***);

Georgian National Academy of Sciences (GNAS) - Examining the role of the adjacent nucleus and, amygdala complex, in drug-dependent behavioral disorders using an experimental model of psychotropic self-injection (***1997-2000, team leader***);

GNAS. Cerebrovascular Age-Related Changes in Normal and Antihypertensive Drug Conditions (***2002-2004, Scientific Supervisor and Manager***);

GNAS. Analysis of changes in morpho-functional and behavioral indices induced by Sildenafil Citrate (***2001, Scientific Supervisor and Manager***);

GNAS. Analysis of morphological and functional changes caused by local hyperthermia in the brain (***2005, Scientific Supervisor and Manager***).

**LONG-TERM RESEARCH ACTIVITY  
IN FOREIGN COUNTRIES:**

- **1973** – Center of Clinical and Experimental Medicine, **Warsaw (3 months)**;
- **1975** – Max Plank Institute of Systems Physiology, **Dortmund, Germany (6 months)**;
- **1978** – Roswell Park Memorial Institute, **Buffalo, New York (5 months)** and Henry Ford Hospital, **Detroit, Michigan (1 month)**;
- **1983** – Western Tumor Medical Group, **Van Nice, California, USA (3 months)**;
- **1986** – Pan Dynamics Medical Corporation, **Los Angeles, California, USA (3 months)**;
- **1990-1991** – Valley Cancer Institute, **Los Angeles, California, USA (5 months)** and Rollins College, **Winter Park, Florida, USA (3 months)**.

**LANGUAGES:**

Georgian, Russian and English

**HONORS:**

- Laureate of the **Beritashvili Prize (2001)**.
- International Order: **“Merit for Life” (1991)**;

- **First Prize and Honorary Diploma of the USSR Academy of Sciences for High Quality Investigations provided in the field of Cerebral Circulation (1991)**

**EDITORIAL  
BOARDS:**

**Editor-in-Chief, Journal - Proceedings of the Georgian National Academy of Sciences, Biomedical Series;**

**PUBLICATIONS:**

**3 Monographs:**

- **N.Mitagvaria, H. Bicher.** Cerebral Blood Flow Regulation, Nova Science Publishers, NY, 2009;
- Azin L., Klimin V., **Mitagvaria N.**, Baratashvili I. Regulatory mechanisms of the blood supply to the cerebral cortex, Ekaterinburg, Nauka, 1995;
- **N. Mitagvaria.** Stability of Circulatory maintenance of the brain functions. Metsniereba, Tbilisi, 1983;

**3 Textbooks** (2 - Biology for high schools, and  
1 – Anatomy and Physiology for professional Schools)

**and** over 200 Articles published in Georgian, Russian and English periodicals and Proceedings, devoted to the problems of Cerebral circulation and metabolism in norm and different pathological conditions (stroke, hypertension, changes in blood rheological properties, hyperthermia and others) published in local and international periodicals (Some of them attached).

**SCIENTIFIC  
FORUMS:**

**Organizer of two International Forums:**

**1. Physiology, Pathological Physiology and Pharmacology of Cerebral Circulation (1988) and**

**2. Hyperthermia – Scientific Basis and Clinical Application (2010)**

**and** Participant and Keynote Speaker of many International and Local Scientific Forums.

## **LIST OF SELECTED PUBLICATIONS:**

### **MONOGRAPHS:**

1. **Mitagvaria N.P.**, Bicher H. Cerebral Blood Flow Regulation. **Nova Publishers Inc., NY, 2009.**
2. Azin A.L., Klimin V.G., **Mitagvaria N.P.**, Baratashvili I.K. Regulatory mechanisms of blood supply to the cerebral cortex. **Ekaterinburg, Nauka, 1995.**
3. **Mitagvaria N.P.** Stability of circulatory support of brain functions. **Tbilisi, Metsniereba, 1983.**

### **TEXTBOOKS:**

1. Human physiology for everyone. Tbilisi, 2013. (Co-authors - G. Bekaia, L. Machavariani).
2. Fundamentals of Human Anatomy and Physiology, Handbook for Medical and Pharmaceutical Secondary Vocational Schools, Parnavaz, Gori, 2012 (Co-author: T. Kekoshvili).
3. Biology, 7th grade textbook, "Education", Tbilisi, 1998 (Co-authors: G. Tumanishvili, I. Lazrishvili, I. Korkia, G. Gvaladze, S. Tsagareli);
4. Biology, 7th grade textbook, "Education", Tbilisi, 2004, updated edition (co-authors: G. Tumanishvili, I. Lazrishvili, I. Korkia, G. Gvaladze, S. Tsagareli);

### **EDITING BOOKS AND COLLECTIONS OF WORKS**

Systemic, Cellular and Molecular Mechanism of Physiological Functions and Their Disorders (Proceedings of I. Beritashvili Center of Experimental Biomedicine - **2018**), Nova Science Publishers Inc, New York, **2018**, 339 pages.

Systemic, Cellular and Molecular Mechanism of Physiological Functions and Their Disorders (Proceedings of I. Beritashvili Center of Experimental Biomedicine - **2015**), Nova Science Publishers Inc, New York, **2016**, 406 pages.

R. Khetsuriani, A. Shukakidze. Manganese and the central nervous system. Bio-Medical Technology Resource Center, Tbilisi, 2003

V. Begiashvili. Introduction to the general theory of blood circulation regulation. Metsniereba, Tbilisi, 1990.

Physiology, pathophysiology and pharmacology of cerebral circulation. Proceedings of the All-Union Conference, Tbilisi, Metsniereba, 1988.

## ARTICLES:

N. Mitagvaria, M.Devdariani., L.Davlianidze, L.Gumberidze, I.Kvachakidze, M.Nebieridze, N.Sikharulidze. The positive effects of free radicals in action of whole body hyperthermia. In: The 1<sup>st</sup> Beritashvili Talks, Neurophysiological Functions and Their Disorders – Interdisciplinary Studies. N.Nachkebia – Editor, Tbilisi, **2019**, 149-156.

Devdariani M., Davlianidze L., Nebieridze M., \*Darbaidze M., Gugushvili M., Sikharulidze N., Kekoshvili T., Mitagvaria N. Effects of high and low doses of ethanol, given to rats during the process of pregnancy, on the behavior and the blood rheological properties of their offspring. Georgian Medical News, # 5 (290) **2019**, 121-124

ChikobavaN., Doreuli N., MitagvariaN. Changes in arterial reactivity to noreadrenaline under conditions of hyperhomocysteinemia. Georgian Medical News, #7-8 (292-293), 92-95, **2019**.

Dekanosidze M., Saganelidze Kh., Mamaladze M., Sakvarelidze N., Diasamidze G., Mitagvaria N. Possible role of Nitric Oxide in regulation of microcirculation in the oral cavity tissues of rat. World Science, RS Global, Warsaw, Poland, **2019**, vol.2, 2(42), 4-9.

Ketevan Kakabadze\*, Irakli Megreladze\*\*, Tamar Sanikidze\*, NinaKipiani\*,Nino Khvichia§, Nodar Mitagvaria. Morphological Changes in the Target Organs during Experimental Hypertension and its Treatment in Rats. BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES, **2019**, vol. 13, no. 4, 104-108,

Mitagvaria N., Davlianidze L., Devdariani M., Mantskava M., Nebieridze M., Momtselidze N., Gumberidze L., Kvachakidze I., Sikharulidze N. Analysis of the Mechanisms of Whole Body Hyperthermia-Induced Behavioral Disorders (Experimental Study). In: Systemic, Cellular and Molecular Mechanisms of Physiological Functions and Their Disorders (Edit.: Nodar Mitagvaria, Nargiz Nachkebia). Nova Science Publishers, NY, USA, **2018**, pp. 173-194.

Lazrshvili I., Bikashvili T., Mitagvaria N. The Effect of Partial Deprivation of External Noise on the Structural Alterations of the Medial Geniculate Body. In: Systemic, Cellular and Molecular Mechanisms of Physiological Functions and Their Disorders (Edit.: Nodar Mitagvaria, Nargiz Nachkebia). Nova Science Publishers, NY, USA, **2018**, pp. 137-144.

Museridze D.P., Svanidze I.K., Gegenava L.G., Gugushvili M.L., Gvinadze N.N., Devdariani M.V., Nebieridze M.G., Kalmakhelidze S.L. and Mitagvaria N.P. Influence of Ethanol Low (Hormetic) Dose on the Limbic System's Neurogenesis at the Early Stages of Postnatal Development of White Rats. In: Systemic, Cellular and Molecular Mechanisms of Physiological Functions and Their Disorders (Edit.: Nodar Mitagvaria, Nargiz Nachkebia). Nova Science Publishers, NY, USA, **2018**, pp. 195-208.

Mitagvaria N., Devdariani M., Davlianidze L., Gumberidze L., Kvachakidze I., Nebieridze M., Sikharulidze N. The positive effects of Free Radicals in action of Whole Body Hyperthermia. In:

Abstract Book. The 1<sup>st</sup> “Beritashvili Talks” Neurophysiological Functions and their Disorders – Interdisciplinary Studies, **2018**, June 25-27, p.37, Tbilisi

L. Gumberidze, I. Kvachakidze, L. Davlianidze, M. Devdariani, M. Nebieridze, N. Momtselidze, M. Mantskava, N. Sikharulidze, N. Mitagvaria. Effect of dimethyl sulfoxide on animal’s behavioral changes induced by hyperthermia. Proceedings of the Georgian Academy of Sciences, Biomedical Series, 2018, 44, 1-2, 15-24.

**Mitagvaria N.**, Davlianidze L., Devdariani M., Nebieridze M., Gumberidze L., Kvachakidze I., Sikharulidze N. HYPERTHERMIA AS A TRIGGER FOR ACTIVATION OF HORMETIC MECHANISMS. Open Access Peer-reviewed Journal “Science Review”, 3(10), March **2018**, Vol.4, pp. 4-10.

**Mitagvaria N.**, Murtazashvili T. Study of ophthalmic safety of Camelin eye drops. In: MEDICINES - HUMAN. MODERN PROBLEMS OF PHARMACOTHERAPY AND PURPOSES OF MEDICINES. Materials of the II International Scientific and Practical Conference in two volumes. March 28-29, 2018, vol. 2, pp. 15-16, Kharkov.

Murtazashvili T., Mitagvaria N. Study of the anti-inflammatory action of camellin eye drops. Experimental and Clinical Medicine, 2018, 2, 94-98.

Chikobava Nino, Nana Doreuli, **Nodar Mitagvaria**. The Role of Nitric Oxide in the Changes of Blood Vessels Acetylcholine Induced Dilation in the Conditions of Hyperhomocysteinemia. International Journal of Science and Research (IJSR), **2018**, v. 05, issue-01, pp. 2035-2040.

M Dekanosidze, K. Saganelidze, N **Mitagvaria**. Effect of free radicals on calcitonin-gene-related peptide mediated vasodilation. Georgian Med News. **2018** Jan; (274):149-152.

N. Chikobava, M.Dekanosidze, N. **Mitagvaria**. Direct measurement of Contractility of Isolated Small Arteries Preparations. Bulletin of Georgian National Academy of Sciences, **2017**, vol 11., #3, 146-150.

**Mitagvaria** Nodar P. Fusion Pore: A Curious Case of Rediscovering Science. Discoveries, USA, **2017**, April-June; 5 (2): e73.DOI: 10.15190/d.2017.3

M. Gugushvili, M. Devdariani, M. Nebieridze, I. Svanidze, L. Gegenava, D. Museridze, N. Gvinadze, L. Gobechia, Q. Aptsiauri, N. Mitagvaria. Influence of low (hormonal) doses of ethanol on the behavioral responses of their offspring to spatial learning tasks. Proceedings of the National Academy of Sciences of Georgia, Biomedical Series, 2017, 43, 3-4, 119-12.

N.Mitagvaria. Cellular mechanisms of the phenomenon of hormesis (overview). Proceedings of the National Academy of Sciences of Georgia, Biomedical Series, 2017, 43, 5-6, 235-241

N. **Mitagvaria**, M.Nebieridze, M.Devdariani, L.Davlianidze, M.Mantskava, N.Momtselidze, L.Gumberidze, I.Kvachakidze, N.Jojua, N.Sikharulidze. The possible mechanisms of Local Hyperthermia-induced Morphological changes in Cerebral Tissue. In: Systemic, Cellular and Molecular Mechanisms of Physiological Functions and Their Disorders (Edit.: Nodar Mitagvaria). Nova Science Publishers, NY, **2016**, pp. 187-207.

Lazrshvili I., T. Bikashvili, L. Gelazonia and N. **Mitagvaria**. Manganese loading induces mouse-killing behaviour in nonaggressive rats. *Journal of Biological Physics and Chemistry*, **2016**, 16, 3, 137-141.

Nino Jojua, Nikoloz Gongadze, Marina Nebieridze, Nodar Mitagvaria. Possible mechanisms of ischemic infarction, induced by local hyperthermia in the brain. *Proceedings of the National Academy of Sciences of Georgia, Biomedical Series*, 2016, 42, 3-4, 205-222.

M. Dekanosidze, Kh. Saganelidze, N. Mitagvaria. Analysis of regulatory mechanisms functioning in the microcirculation system (literature review). *Proceedings of the National Academy of Sciences of Georgia, Biomedical Series*, 2016, 42, 5-6, 231-251.

N. Saginadze, R. Sakandelidze, N. Mitagvaria. Positive and negative effects of oxidative stress, the dual role of free radicals (brief overview). *Proceedings of the Georgian National Academy of Sciences, Biomedical Series*. 2016, 5-6, 261-270.

Chikobava, N. Doreuli, N. Mitagvaria. Homocysteine and its role in organ function. *Proceedings of the Georgian National Academy of Sciences, Biomedical Series*. 2016, 5-6, 283-297.

Jojua N., Gongadze N., **Mitagvaria** N. The main types of stroke and pathophysiological mechanisms of their development. *Proceedings of the Georgian Academy of Sciences, Biomedical Series*, **2015**, 41, 5-6, 241-252.

Saginadze N., Gumberidze L., Davlianidze L., Devdariani M., Kvachakidze I., Momtselidze N., Mantskava M., Nebieridze M., Sikharulidze N., Mitagvaria N. Oxidative stress-induced changes in animal's behavior. *Proceedings of the National Academy of Sciences of Georgia, Biomedical Series*, 2015, 44, 5-6, 221-227.

*Jojua N., Gongadze N., Mitagvaria N.* [The role of nitric oxide and blood rheological properties in the maintenance of a temperature homeostasis in the brain tissue.](#) *Georgian Medical News*, 2015, Dec., 12 (249), 80-85N,

Saginadze N.A., Sakandelidze R.V., Mitagvaria N.P. Behavioral effects of oxidative stress. *Georgian Medical News*, 2015, March, 240, 3, 78-82.

Basiladze T.G., Bekaya G.L., Gongadze N.V., Mitagvaria N.P. A possible mechanism for the development of hyperemia in the skin caused by non-pain mechanical pressure. *Georgian Medical News*, 2015, Jan. 238, 83-88.

**N.Mitagvaria**, I. Lazrshvili, M. Devdariani, L. Davlianidze, M. Nebieridze, N. Saginadze, I. Kvachakidze, L. Gumberidze, N. Sikharulidze. Hormesis - a basis for homeostasis in the presence of stressors. An example of hyperthermic stress. *Journal of Biological Physics and Chemistry*, 2015, 15, 187-193.



Mantskava MM, Momtselidze NG, Davlianidze LSh, Mitagvaria NP. Hemorrhagic Shock and Stress-Cause and Consequence of Hemorheology Disturbances on the Example of the Changes in Erythrocyte Aggregation. *Journal of Stress Physiology and Biochemistry*, 2014, 10, 2, 238-246.

M. Mantskava, G. Azikuri, N. Momtselidze, N. Mitagvariya. Hemorheological status of blood with obstructive apnea. *Proceedings of the NAS of Georgia, Biomedical Series*, 2014, v.40, 5-6, 314-319

N. Mitagvaria, J. Bicher, M. Devdariani, L. Davlianidze, M. Nebieridze, N. Momtselidze. Autoregulation of the brain temperature during whole body hyperthermia. *Oncothermia Journal*, 2013, 7, 62-68

N. Mitagvaria, L. Gumberidze, L. Davlianidze, M. Devdariani, I. Kvachakidze, M. Nebieridze, N. Sikharulidze. Behavioral manifestations of the hormesis phenomenon associated with oxidative stress in rats. *Proceedings of the National Academy of Sciences of Georgia, Biomedical Series*, 2013, 39, 3-4, 113-123

N. Gongadze, M. Rogava, T. Bochorishvili, T. Kezeli, N. **Mitagvaria**, M. Chipashvili, N. Dolidze, G. Sukoyan. Cardio-hepatic syndrome and therapeutic efficacy of NAD-containing drug. *Clinical Therapeutics*, 2013, 35, 8, Supplement, e105.

Lazrishvili, T. Bikashvili, A. Shukakidze, N. Chkhartishvili, N. Mitagvaria. Influence of short-term intoxication with manganese chloride on the behavior of young female and male rats. *Proceedings of the Third National Congress of Physiologists of Georgia, Tbilisi*, 2013, 37.

Mitagvaria N., Gumberidze L., Davlianidze L., Devdariani M., Momtselidze N., Nebieridze M., Kvachakidze I., Sikharulidze N. Oxidative stress and the phenomenon of hormesis *Proceedings of the Third National Congress of Physiologists of Georgia, Tbilisi*, 2013, 49

Sanikidze TV, Beridze M, **Mitagvaria** N, Bakhtadze S, Khan N. Neuroprotective treatment of cerebral infarction: an experimental study. *Int J Neurosci*, 2013, 123, 2, 104-113

Mitagvaria N., Bicher J. Hormetic effect of whole body hyperthermia. *Proceedings of 32<sup>nd</sup> Annual Conference of the International Clinical Hyperthermia Society (ICHS)*. Guangzhou, China, 2013, 107-116.

H. Bicher, N. Mitagvaria, M. Devdariani, L. Davlianidze, M. Nebieridze, N. Momtselidze. Autoregulation of the brain temperature during whole body hyperthermia. *Hindawi Publishing Corp., Conference papers in Medicine*, Volume 2013, Article ID 9282243; <http://dx.doi.org/10.1155/2013/928243>

N. **Mitagvaria**, J. Bicher, M. Devdariani, L. Davlianidze, M. Nebieridze and N. Momtselidze. Whole body hyperthermia and the phenomenon of temperature homeostasis in the rat brain. *Journal of Biological Physics and Chemistry*, 2012, 12, 133–137.

N. **Mitagvaria**. Morpho-Physiological Changes in the Brain Tissue Induced by Local Hyperthermic Exposure. *NeuroTalk-2012*, Beijing, China

N. Mitagvaria, M. Devdariani, L. Davlianidze, M. Nebieridze. The problem of inversion of coupling “Function-Metabolism-Blood Flow” in the brain. Materials of the Conference “Physiological Mechanisms of Organisms’ Functional Regulation”. Erevan, Gitutun, 2012, 217-221.

G.Diasamidze, N. Mitagvaria. Overview of Vascular Tone Regulatory Mechanisms. Proceedings of Georgian National Academy of Sciences, Biomedical Series., 2012, 38, 5-6, 271-281.

Bicher J., Devdariani M., Davlianidze L., Nebieridze M., Momcelidze N., Sikharulidze N, Mitagvaria N. Phenomenon of temperature homeostasis in the tissue of the brain of white rats with general controlled hyperthermia. Proceedings of the National Academy of Sciences of Georgia, Biomedical Series, 2012, 38, 3-4, 105-114.

**Mitagvaria N.**, Darbaidze M., Kekoshvili T., Pitiuri N. Pathophysiology of Stroke. Proceedings of Conference “Modern Scientific Problems”, Gori, 2011, 200-2011.

N. **Mitagvaria**, I.Lazrshvili, M.Devdariani, M.Nebieridze, L.Davlianidze, T.Bikashvili, T.Lortkipanidze and N. Sikharulidze. The mechanisms involved in the therapeutic effect of hyperthermia on tumor tissue. Proceedings of the Georgian National Academy of Sciences, Biomedical Series, **2011**, 37, 5-6.

J.Bicher, M.Darbaidze, M.Nebieridze, I. Erkomaishvili, N.Pipia, N. **Mitagvaria**. General problems of the brain functional activity and local blood flow coupling. Proceedings of Second International Scientific Conference. Gori, 2010, 149-156.

**Mitagvaria N.**, Bicher H., Lazrshvili I., Devdariani M., Nebieridze M. The role of Nitric Oxide in development of local Hyperthermia-induced morphological changes in cerebral tissue – an experimental study on rats. Proceedings of XXIX Meeting of the International Clinical Hyperthermia Society (ICHS), Cologne, Germany, September, 2010.

[Rustamov N](#), [Kvachadze I](#), [Bekaia G](#), [Sakvarelidze Z](#), and [Mitagvaria N](#). [Iodine deficiency in the prenatal period may form learning ability deficiency in the postnatal period](#). Georgian medical news (178):65-8, **2010**

**Mitagvaria N.**, Devdariani M., Gobechia L., Nebieridze M. Basal tone of cerebrovascular smooth muscles and their reactivity to metabolic factors. The Journal of Physiological Sciences, Proceedings of the XXXVI International Congress of Physiological Sciences (IUPS 2009), Kyoto Japan, Springer, **2009**, P4AM-6-11.

**Mitagvaria N**, Gobechia L., Nebieridze M., Devdariani M. The role of hydrogen ions in mechanisms of adenosine and carbonic acid actions on smooth muscles of cerebral arteries. The Journal of Physiological Sciences, Proceedings of the XXXVI International Congress of Physiological Sciences (IUPS 2009), Kyoto Japan, Springer, **2009**, P4AM-6-10.

Bicher H., Khetsuriani R., Shukakidze A., Lazrshvili I., **Mitagvaria N**. Hyperthermia-induced morphological changes in cerebral tissue of the rat. Georgian Medical News, **2009**, 7-8 (172-173), 72-75.

Bicher H., Mitagvaria N., Kvachakidze I., Shukakidze A., Lazrishvili I., Arabuli M/. Khomeriki. Main factors in development of local hyperthermia-induced morphological changes in cerebral tissue of the rat. Proceedings of Tbilisi State Medical University, 2009, XLIII, 17-18.

M. DEVDARIANI, L. GOBECHIA, N. **MITAGVARIA**. Morphine-induced changes in pO<sub>2</sub> level in fronto-parietal cortex and Nucleus Accumbens of white rats. Annual Meetings/Neuroscience **2009** Abstracts. <http://www.abstractsonline.com/.../ViewAbstract.aspx?cKey=7cfb4443-c0cb-47a4-...>

Deavdariani M., Gobechia L., Nebieridze M., **Mitagvaria N.** Severity of Morphological Changes, Induced in Cerebral Tissue by Local Hyperthermia in Many Respects is Mediated by Blood Viscosity and Existence of Free Radicals (Experimental Study). Collection of Works of the Medical Students and Doctors of the Black Sea Region. Rustaveli State University, Batumi, 2009, 209-210.

*Sukhishvili E., Janelidze M., Bekaia T., Bekaia G., Mitagvaria N.* Calcitonin gene related peptide inhibits contractile activity of miometrium. First International Conference "Healthy Woman", Tbilisi, 2009, 5.

Chitaishvili N.T., Mitagvaria N.P. Mechanisms for regulating contractility of the smooth muscles of cerebral arteries. Georgian Medical News, 2008, 10, 163, 76-79.

Bicher H., **Mitagvaria N.**, Nebieridze M., Tabatadze M. Effect of blood viscosity and free radicals on severity of morphological changes, induced in cerebral tissue by local hyperthermia (Experimental Study). Proc. Georgian Acad. Sci. Biol. Ser. A, **2007**, 6, 329-340.

*Bicher H., Mitagvaria N., Nebieridze M., Tabatadze M.* Local Hyperthermia Treatment Results in Significant Morphological Changes in Rats' Brain Tissue. Proc. Georgian Acad. Sci. Biol. Ser. A, **2007**, 5, 261-271.

Gabrighidze GO, Lazrishvili NI, Metreveli DS, Bekaya GL, **Mitagvariya NP.** Local blood flow in the dorsal hippocampus and cerebellar cortex in the offspring of iodine-deficient rats. Neurosci Behav Physiol. 2007, 37, 5, 495-498

*H.I.Bicher, N.P.Mitagvaria.* The physiological effects of hyperthermia treatment. Proc. Georgian Acad. Sci., Biol. Ser. A, **2007**, 33, 3, 153-168.

Sarishvili A., Mitagvaria N., Azikuri G., Tsintsadze T., Lazrishvili I. Changes in the emotional state and learning disruption in rats during experimental hepatic encephalopathy. Georgian Medical News, 2006, 6, 135, 134-139.

Gabrighidze G., Lazrishvili N., Metreveli D., Bekaya G., Mitagvaria N. Local blood flow in the dorsal hippocampus and cerebellar cortex in the offspring of iodine-deficient rats. Russian Journal of Physiology, 2006, 92, 3, 292-298.

Tsintsadze T., Gabrichidze G., Lazrishvili N., Metreveli D., Mitagvaria N. Violation of the ability to learn from the offspring of iodine-deficient rats. Russian Journal of Physiology, 2006, 52, 1, 82-88.

Shengelia D., Nikuradze N., Mitagvariya N., Bekaya G. Determination of the lower limit of autoregulation of the blood supply to the optic disc in an experiment. *Georgian Medical News*, 2006, 3, 132, 113-115.

Shukakidze A., Tsintsadze T., Bikashvili T., Darbaidze M., **Mitagvaria N.**, Lazrshvili L. The effect of subacute per os manganese chloride administration on the rat's learning ability and memory. In: *Proceedings of 5<sup>th</sup> International symposium on trace elements in human: nes perspectives*, Athene, Greece, **2005**, 215-223.

Lazrshvili I.L., Tsintsadze T.G., Chikobava G.I., Sarishvili A.G., Mitagvaria N.P. Animal liver failure and encephalopathy models. *Clinical Surgery*, 2005, No. 9 (751), p. 55-60.

Khurtsia M., Pavlenishvili I., Agladze N., Mitagvariya N., Bekaya G. Effect of aminoguanidine on the brain of rats exposed in the neonatal period to toxic-ischemic effects. *Georgian Medical News*, 2005, 127, 70-73

Nikolaishvili L., Gobechia L., **Mitagvaria N.** The effects of fentanyl and morphine on local blood flow and oxygen tension in the frontoparietal cortex and nucleus acumbens of the brain in white rats. *Neurosci. Behav. Physiol.*, **2004**, 34, 5, 467-471.

Mitagvaria N., Dzhikiya M. Analysis of the functioning of the metabolic link of the regulatory system of the tone of blood vessels in the brain and tongue. *Proceedings of the Academy of Sciences of Georgia, Biol. Series, A*, 2004, 30, 5, 673-683.

Mitagvaria N., Gersamia N., Gurashvili M., Nebieridze M. Analysis of some features of the development of ischemic penumbra of the brain. *Proceedings of the Academy of Sciences of Georgia, Biol. Series. A*. 2004, 30, 2, 245-250.

Bicher HI MD, Mitagvaria NP PhD, Nebieridze MI MD. Local Hyperthermia treatment results in significant morphological changes in rats' brain tissue. *Proceedings of the XXVI ICHS Shenzhen, China, September 10th-12th, 2004*.

Shakarishvili R., Sanikidze T., **Mitagvaria N.**, Beridze M., Mikeladze D., Bakhutashvili V. The role of oxygen and nitrogen reactive species in pathogenesis of ischemic stroke. In: *Creatine Kinase and Brain Energy Metabolism*. IOS Press, Amsterdam, **2003**, 171-182.

Shukakidze A., Lazriev I., **Mitagvaria N.** Behavioral impairments in acute chronic manganese poisoning in white rats. *Neurosci. Behav. Physiol.*, **2003**, 33, (3), 263-267.

Nikolayshvili L., Gobechia L., Mitagvariya N. Effects of fentanyl and morphine on local blood flow and oxygen tension in the frontal cortex and adjacent nucleus of the brain of white rats. *Russian Journal of Physiology*. 2002, t. 88, No. 12, p. 1505 - 1511.

**Mitagvaria N.**, Bakhutashvili V., Sanikidze T., Nebieridze M., Pipia N. Plaferon-LB prevents development of cerebral infarction after photochemically induced thromboses in the rats. *Georgian Journal of Neurosciences*, **2001**, 1, 1, 13-27.

Nebieridze M.I., Mitagvaria N.P. Theoretical background for the use of an experimental model of photodynamic infarction of the cerebral cortex. No. D-26906, the manuscript was deposited with the State Central Scientific Medical Library on October 12, 2001.

Shukakidze A., Lazriev I., Mitagvaria N. Behavioral disorders in acute and chronic manganese intoxication of white rats. Russian physiological journal I.M.Sechenova, 2001, 87, 9, 1237-1243.

**Mitagvaria N.**, Nebieridze M., Kakabadze T., Erkomaishvili I. Sildenafil citrate (viagra) aggravates development of cerebral infarction. Clinical Hemorheology and Microcirculation, **2001**, 24, 212-213.

Erkomaishvili I., Kakabadze T., Nebieridze M., **Mitagvaria N.** Inhibition of phosphodiesterase PDE5 by Sildenafil Citrate (Viagra) age-related changes the maze performance of white rats. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 1-3, 73-81.

Kakabadze T., Erkomaishvili I., Nebieridze M., **Mitagvaria N.** Sildenafil Citrate reduces in Cerebral Cortex effect of bilateral clipping of common carotid arteries. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 4-6, 391-396.

Kakabadze T., Erkomaishvili I., Nebieridze M., G.Abuladze, **Mitagvaria N.** Changes in local blood flow and oxygen partial pressure in rats brain tissue after sildenafil citrate (Viagra) intraperitoneal injection. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 1-3, 111-117.

Pipia N., Devdariani M., Sanikidze T., Didimova L., Svanidze I., Bakhutashvili L., **Mitagvaria N.** Neuroprotecting action of Plaferon-LB in case of cognitive deficiency induced by focal ischemia. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 1-3, 193-202.

Gabisiani Kh., Devdariani M., Kurtskhalia E., Pipia N., Solomonias R., **Mitagvaria N.**, Bakhutashvili V. Influence of Plaferon-LB on the Infarction-induced peroxidation processes. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 1-3, 39-45.

Gabisiani Kh., Bakhutashvili V., Sanikidze T., **Mitagvaria N.**, Devdariani M., Pipia N. Plaferon-LB as a modulator of reactive forms of Nitrogen and Oxygen during photochemically-induced stroke. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 1-3, 25-37.

Erkomaishvili I., Kakabadze T., Nebieridze M., **Mitagvaria N.** Sildenafil Citrate (Viagra) increases Local Blood Flow and Oxygen supply in Penumbra zone during Stroke in cerebral Cortex. Proceedings of the Georgian Academy of Sciences, Biological Series, **2000**, 26, 4-6, 353-358.

Kvrvishvili G., Mitagvaria N. Modern ideas about the role of glutamate in ischemic damage to brain tissue. Russian journal of physiol., 1999, 85, 12, 1489-1495.

Mitagvaria N., Darbaidze M., Shukakidze A., Bikashvili T. The learning disorders in rats exposed to chronic manganese intoxication. Proc. Georgian Acad. Sci., Biol. Ser., 1999, 25, 4-6, 461-465.

Mitagvaria N.P., Azikuri G.Sh., Nebieridze M.I. The effect of the Plaferon-LB on the learning process in the labyrinth for circulatory disorders in various parts of the cerebral cortex of white rats. In Sat: Regulation of cerebral circulation is normal and pathological. Rostov-on-Don, 1999, 57-59.

Kvrivishvili G., Mitagvariya N. Effect of neurotrophin on local cerebral blood flow and systemic blood pressure. *Bulletin Expert. Biol. and Med.*, 1998, 125, 6, 612-614

Mitagvaria N., Nebieridze M., Katsarava Z., Azikuri G. Effect of plaferon-LB on the formation of thrombotic infarction of the cerebral cortex. *Morphology*, 1996, 110, 6, 32-36.

Kvrivishvili G., Mitagvaria N. Influence of plaferon on circulatory hypoxia of the rabbit's brain *Russ. J. of Physiol*, 1996, 82, 10-11, 64-68

Kvachakidze I., Mitagvaria N., Khananashvili M. Local blood flow in the parietal cortex (RA field) of the rat brain in a state of informational behavior pathology. *Proceedings of the Academy of Sciences of Georgia, Biological Series, A.*, 1995, 1-6, 16-22

Bicher Haim I, Yarmoninko Samuel, Wainson Adolf, Surowiec Irene, **Mitagvaria Nodar.** Anticancer Effect of L-Glucose on Vivo-Potential of Hyperthermia. *Southern Medical Journal*: October 1995 - Volume 88 - Issue 10 - ppg S141. Conjoint Meeting with the American Society of Clinical Hyperthermic Oncology

Mitagvaria N., Nebieridze M.I. Morphological changes in the cerebral cortex of white rats caused by photochemical thrombosis of cerebral vessels. *Kolosov Readings-94, St. Petersburg*, 1994, 46-48

Kvrivishvili G.I., Dzamoeva E., Tsitsishvili A. .. Lazriev I., Bakhutashvili V., Mitagvaria N. Effect of plaferon on disorders caused by circulatory hypoxia in the brain of a rabbit. *Russian J of Physiol*, 1994, 80, 5, 31-40

Nebieridze M.I., Katsarava Z.R., Bakhutashvili V.I., Mitagvaria N.P. Investigation of the anti-ischemic effect of plaferon on a non-invasive model of cerebral cortex infarction in white rats, *Morphology*, 1993, 7-8, 41-42

Bicher H., Yarmonenko S., Wainson, S., Surowiec I., Mitagvaria N. specific inhibition of L-Glucose Cell Proliferation. Potentiation of Hyperthermia, Radiation and Chemotherapy Effects (Abstract). *Proceedings of the 16<sup>th</sup> ISCH. Kyoto, Japan, June 13-16, 1993*

Mitagvaria N.P., Nebieridze M.I. Changes in the quantitative parameters of stellate neurons of the fourth layer of the auditory region of the cerebral cortex of rats during aging. *Proceedings of the Academy of Sciences of Georgia, Biological Series. A*, 1992, 18, 2, 104-109.

Bicher HI, Mitagvaria N. Oxygen and pH in Human Tumors During Hyperthermia. *Proceeding of the 6th International Congress on Hyperthermic Oncology. Tucson, Arizona, April 26- May 1, 1992.*

Bicher HI, Mitagvaria N. Oxygen and pH in Human Tumors During Hyperthermia. *Proceeding of the XV International Symposium on Clinical Hyperthermia (ICHHS). Lyon, France, May 19-22, 1992.*

Mitagvaria N.P., Gumberidze L.M., Shengelaya N., Shelia R.N., Adamia T.E. Local cerebral blood flow during emotional stress. *USSR J Physiol*, 1991, 77, 9, 94-101

Bicher HI, Mitagvaria, N. Oxygen and pH in Human Tumors During Hyperthermia (Abstract). *Proceeding of the 1991 International Society on Oxygen Transport to Tissue Meeting (ISSOT). Willemstad, Curaco, Netherlands Antilles, August 24-30, 1991.*

Mitagvaria, N., Bicher H.I. Local Blood Flow and PO<sub>2</sub> in Rat's Brain During Maze Behavior (Abstract). Proceeding of the 1991 International Society on Oxygen Transport to Tissue Meeting (ISSOT). Willemstad, Curaco, Netherlands Antilles, August 24-30, 1991.

Azin A.L., Mitagvaria N.P., Medvedev V.G., Baratashvili I.K., Barybin A.S. The effect of the tumor necrotizing factor on the tone of the arteries of the brain. Bulletin Expert. Biol. and Med., 1990, 8, 121-124

Nebieridze M.I., Mitagvaria N.P. Age-related changes in the geometric parameters of neurons in the sensorimotor and auditory regions of the cerebral cortex of white rats. Bulletin of the GNAS, 1990, 137, 2, 409-412

Devdariani M.I., Meladze V.G., Mitagvaria N.P., Beradze G.G., Bekaya G.L. The effect of electrical stimulation of the fastigial nuclei of the cerebellum on the local blood flow in the brain. USSR J Physiol, 1989, 75, 11, 1602-1607;

Mitagvaria N.P. The neurogenic mechanism of regulation of cerebral circulation and the conjugation of "blood flow-metabolism-function.". USSR J Physiol, 1989, 75, 11, 1473-1478;

L. Nikolaishvili, N. **Mitagvaria**. Microflow dynamics in brain structures in sleep-wake cycle. In: Neurobiology of Sleep-Wakefulness Cycle (Ed.: T. Oniani). Tbilisi, Metsniereba, **1988**, 315-22.

L. Nikolaishvili, N. Mitagvaria, L. Gobechiya. Dynamics of oxygen tension in various areas of the hypothalamus in the wake-sleep cycle. USSR J Physiol, 1987, LXXIII, 1, 3-7.

D. Mikeladze, D. Kacharava, N. Gwalia, N. Mitagvaria, T. Adamia. A method for modeling vasoconstriction of the pial arteries of the brain. Auth. certificate 3958952 / 28-14 / 120683. 1987.

I. Baratashvili, N. Mitagvaria. Redistribution of local blood flow in the cerebral cortex of white rats with funct. loads. Bull of GNAS, 1986, Annual supplement "Actual. questions exp biol and medicine." 23-32.

T. Adamia, N. Mitagvaria. Motivational and emotional aspects of behavior and local blood flow in the brain. In: Modern issues of morphology and physiology of funct. wildlife systems. Tbilisi, 1986, 70-81.

N. Mitagvaria, L. Nikolaishvili, L. Gobechiya. Blood flow and oxygen tension in the dorsal hippocampus in the wake-sleep cycle. Proceedings of the GNAS, II, 1985, 2, 86-92.

V. Meladze, Ya.A. Khananashvili, N.P. Mitagvaria. Features of the regulation of local blood flow in the brain in spontaneously hypertensive rats with an acute decrease in systemic blood pressure. Pathological physiology and exp. therapy. 1985, 5, 338-40.

J. Bicher, N. **Mitagvaria**, D. Bruley. Changes in tumor tissue oxygenation during microwave hyperthermia: Clinical relevance. . In: Oxygen Transport to Tissue – VI, (EDS.: D. Bruley, H. Bicher, D. Reneau), Plenum Press, New York, **1984**, 861-879

N. **Mitagvaria**. Regulation of Cerebral blood flow. In: Oxygen Transport to Tissue – VI, (EDS.: D. Bruley, H. Bicher, D. Reneau), , Plenum Press, New York, **1984**, 901 –905.

L. Nikolaishvili, L. Gobechiya, N.P. Mitagvaria. Dynamics of oxygen tension in the dorsal hippocampus at various phases of the wakefulness-sleep cycle. In: Neurophysiology of Emotion and the Wakefulness-Sleep Cycle (IV), Tbilisi, 1984.

Ya.A. Khananashvili, V. Meladze, N.P. Mitagvariay. Autoregulation of local blood flow in the cerebral cortex in rats with hereditary hypertension. In: Physiology, pathophysiology and pharmacology of cerebral circulation, Yerevan, 1984, 174-175.

N.P. Mitagvaria, J. Bicher. The effect of microwave irradiation on local blood flow and tissue oxygenation in the brain. Bull. exp biol. and med.. 1984, 7, 37-39.

I.A. Zakharova, N.P. Mitagvaria, V.G. Meladze. An experimental model of glaucoma. Proceedings of GNAS, Biological Series, 1984, 10, 2, 109-111.

N.P. Mitagvaria, V. Meladze, V. Begiashvili. Organization of the process of autoregulation of blood supply to the brain. USSR j Physiol., 1984, LXX, 6, 822-828.

L. Nikolaishvili, L. Gobechiya, N.P. Mitagvaria. Investigation of the dynamics of oxygen tension in the hippocampus and sensorimotor cortex during the wake-sleep cycle USSR J Physiol., 1983, LXIX, 12, 1543-1548.

N.P. Mitagvaria, V. Begiashvili, V. Meladze. Regulation of local cerebral blood flow: the concept of "homeostatic range." USSR J Physiol, 1983, LXIX, 12, 1595-1601.

N.P. Mitagvaria. General principles of regulation of organ blood flow. In the book: Blood circulation and the environment, Simferopol, 1983, 126-133.

V. Meladze, V. Begiashvili, N. Zakariadze, N.P. Mitagvaria. Mechanisms for maintaining constancy of cerebral blood flow in conditions of hypo- and hypertension. In the book: Actual issues of pathology, Materials of the V Transcaucasian Scientific Conference of Pathophysiologists, Baku, 1982, 283-285.

T. Adamia, N.P. Mitagvaria. The effect of scopolamine on the regulation of local blood flow in the brain. Proceedings of GNAS, 1982, 106, 2, 389-392.

N.P. Mitagvaria, V. Meladze, V. Begiashvili, N. Zakariadze. The mechanisms of regulation of cerebral circulation with changes in systemic blood pressure. Proceedings of GNAS, Biological Series, 1981, 7, 3, 204-208.

J. Bicher, P.Vaupel, M. O'Hara, T. O'Brien, **N. Mitagvaria**. Tissue oxygenation and Normal Hyperthermic Conditions. Adv. Physiol. Sci., Vol. 25, Oxygen Transport to Tissue, Pergamon Press (Eds.: A. Kovach, E.Dora, M. Kessler, I.Silver) **1981**, 215-224.

J. Bicher, **N. Mitagvaria**. Circulatory responses of malignant tumore during hyperthermia. Microvascular Research **1981**, 21, 19-26.

J. Bicher, F. Hetzel, **N. Mitagvaria**. Changes in tumor tissue induced by microwave hyperthermia. Ann. N.Y. Acad. Sci., 335, **1980**, 236-237.

V. Begiashvili, V. Meladze, N.P. Mitagvaria. A mathematical model of a myogenic active vessel. Mechanics of Composite Materials, 1980, 2, 331-338.



V. Begiashvili, V. Meladze, N.P. Mitagvaria. An analog model of autoregulation of vascular tone in the brain. Proceedings of the Academy of Sciences of Georgia, Biological Series A, 1979, 5, 4, 375-384.

V. Begiashvili, V. Meladze N.P. Mitagvaria. A mathematical model of the possible principle of myogenic autoregulation of cerebral blood flow. Proceedings of the Academy of Sciences of Georgia, Biological Series A, 1979, 5, 3, 266-276.

N.P. Mitagvaria, V. Meladze, I. Ognev, V. Begiashvili. To the question of the multidirectional nature of the reaction of local blood flow and oxygen tension in adjacent microareas of the cerebral cortex. Bulletin of the Academy of Sciences of Georgia, 1978, 92.1., 169-172.

N.P. Mitagvaria, T. Adamia, K. Lataria. Study of the dynamics of cerebral blood flow in amisil and scopolamine amnesia. Proceedings of the Academy of Sciences of Georgia, 1978, 91, 3, 693-696.

N.P. Mitagvaria. Modeling of biological processes and systems Georgian Soviet Encyclopedia, vol. 3, 1978.

T. Adamia, K. Lataria, N.P. Mitagvaria. A study of the dynamics of local cerebral blood flow in the parietal cortex in rats when solving a maze problem. Proceedings of the GNAS, Biological Series, 1978, 4, 3, 206-213 /

N.P. Mitagvaria, V. Meladze, V. Begiashvili, L. Gobechiya, K. Tsereteli. Some dynamic characteristics of the system of regulation of local blood flow in the cerebral cortex. Bulletin of the Academy of Sciences Georgia, 1977, 87, 1.

N.P. Mitagvaria. Biocybernetics Georgian Soviet Encyclopedia. T. 2.1977.

N.P. Mitagvaria, V. Meladze, K. Lataria, V. Begiashvili. Some aspects of self-regulation of local blood microflow in the cerebral cortex of the cat, Bulletin of the Academy of Sciences of the Georgia, 1976, 8, 3, 717-720.

N.P. Mitagvaria, V. Begiashvili D. Museridze. A system for automatically determining the optical density of cell nuclei. Proceedings of the Academy of Sciences of the Georgia, Biological Series, 1976, 2, 6, 163-167.

N.P. Mitagvaria, J. Asatiani, I. Ognev, V. Meladze. Automatic express processing of the results of measuring cerebral blood flow using a small analog computer. Proceedings of GNAS, Biological Series, 1976,

N.P. Mitagvaria. III Symposium "Blood supply to the brain" Proceedings of GNAS, Biological Series, 1975, 3, 465-467.

G. Mchedlishvili, N. **Mitagvaria**, L. **Ormotsadze**. Mechanisms of autoregulation of CBF. In: Cerebral circulation and metabolism (Eds.: Th. Langfitt, C. Kawrence, McHenry, Jr., M. Reivich, H. Wollman) Springer-Verlag, New York, **1975**, 497-499.

N. Mitagvaria. Control of brain Blood Supply. In: Regulation and Control in Physiological Systems. Eds.: A. Iberall, A. Guyton. Pittsburgh, **1973**, 391-393.

G. Mchedlishvili, N. **Mitagvaria**, L. Ormotsadze. Vascular mechanisms controlling a constant blood supply to the brain ("autoregulation"). *Stroke*, **1973**, 4, 5, 742-750.

G. Mchedlishvili, N. **Mitagvaria**, L. Ormotsadze. Mechanisms maintaining the constant blood supply to the brain (so called "autoregulation"). *Stroke*, **1973**, 4, 3, 373-374.

N. **Mitagvaria**, L. Ormotsadze G. Mchedlishvili. Some algorithms for regulation and circulatory disorders of the brain. *Pathological physiol. and experiment. therapy*. 2, 1973, 20-24.

G. Mchedlishvili, L. Ormotsadze, N. **Mitagvaria**, R. Antia. Resistance in large and small arteries of the brain during convulsive activity. *Bull. expert. biol. and med.* 1973, 3, 27-29.

G. Mchedlishvili, R. Antia, N. **Mitagvaria**, G. Amashukeli. Intravital polarographic studies of blood supply, respiration, and brain metabolism in various types of acute hypoxia. In: *Modern Problems of the Activity and Structure of the Central Nervous System, III (XVI)*, Metsniereba, Tbilisi, 1972, 159-187.

G. Mchedlishvili, N. **Mitagvaria**, L. Ormotsadze. Physiological mechanisms of "autoregulation" of blood supply "of the brain. *USSR J Physiol*, 1972, 58, 2, 224-230.

N.P. **Mitagvaria**. A mathematical model for studying the regulation of cerebrovascular resistance. In: *Issues of Biological and Medical Technology*, Tbilisi, Metsniereba, 1972, 1, 204-214.

N.P. **Mitagvaria**. The mechanisms of "autoregulation" of cerebral circulation with changes in the level of total blood pressure. V. book: *Materials of the III Transcaucasian scientific conference of pathophysiologicalists*. Tbilisi, Metsniereba, 1972, p. 148-149.

G. Mchedlishvili, N. **Mitagvaria**, L. Nicolaishvili, L. Ormotsadze, D. Baramidze. Cerebrovascular mechanisms of autoregulation. In: *XXII International Congress of Physiologists, Munich*, **1971** p.1131.

N.P. **Mitagvaria**. On possible algorithms for regulating the blood supply to the brain. In: *Proceedings of the I Republican Conference on the Application of Mat. methods and calcul. technicians in medicine*, Tbilisi, Metsniereba, 1971, 173-175.

N. **Mitagvaria**, G. Mchedlishvili. Distributive tracheotomy tube for recording of breathing, supplying gas mixtures and connecting to artificial respiration apparatus. *Pathological physiology and experimental therapy*, 1971, 5, 86-87.

G. Mchedlishvili, N. **Mitagvaria**, L. Ormotsadze. Determination of resistance in large and small arteries of the brain using an adequate mathematical model. *USSR J Physiol*. 1971, 57, 4, 575-583.

G. Mchedlishvili, L. Nikolaishvili, R. Antia, N. **Mitagvaria**, D. Baramidze. On the mechanism of expansion of the pial arteries with a decrease in total blood pressure. *USSR J Physiol*. 1971, 57, 2, 240-246.

G. Mchedlishvili, R. Antia, N. **Mitagvariya**. Intravital studies of blood supply and brain metabolism in hypoxic hypoxia. In the journal: *"Blood Supply"*, 1970, III, 6, 3-9.

G. Mchedlishvili, G. Amashukeli, R. Antia, V. Dolidze, R. Kolelishvili, N.P. **Mitagvaria** . L. Nikolaishvili. Polygraphic studies of various parameters of blood supply for metabolism and brain

activity in terminal conditions and resuscitation. In the book: The recovery period after revitalization.. M., Medicine, 1970, 73-81

N.P. Mitagvaria. On possible algorithms for regulation the blood supply to the brain. In: Proceedings of the I Republican Conference on the Application of Mat. methods and computing technology in medicine, Tbilisi, Metsniereba, 1971, 173-175.

G. Mchedlishvili, N. Mitagvaria, L. Ormotsadze. Determination of resistance in large and small arteries of the brain using an adequate mathematical model. USSR J Physiol. 1971, 57, 4, 575-583.

G. Mchedlishvili, L. Nikolaishvili, R. Antia, N. Mitagvaria, D. Baramidze. On the mechanism of expansion of the pial arteries with a decrease in total blood pressure. USSR J Physiol. 1971, 57, 2, 240-246.

G. Mchedlishvili, R. Antia, N. Mitagvaria. Intravital studies of blood supply and brain metabolism in hypoxic hypoxia. In the journal: "Blood Supply", 1970, III, 6, 3-9.

G. Mchedlishvili, N. Mitagvaria R. Antija. Cerebral blood flow and metabolism during acute ischemia, asphyxia and hypoxia. In: Proc. of International Symposium "Regulation of Cerebral Blood Flow", London, **1970**.

N.P. Mitagvaria, L. Ormotsadze, G. Mchedlishvili. Study of the brain blood supply system using the method of mathematical simulation. In: XII Scientific Conference of the Institute of Physiology, Academy of Sciences of Georgia, Tbilisi, 1970.

N.P. Mitagvaria. About one mathematical model of cerebral circulation. In: Proceedings of the Fifth All-Union Symposium on Cybernetics, Tbilisi, 1970, 135-136.

N.P. Mitagvaria. An adequate mathematical model of the relationship in between the basic hemodynamic parameters of the brain. Proceedings of GNAS, 60, 3, 1970, 697-700.

N. Mitagvaria, G. Mchedlishvili. The use of statistical simulation in the study of cerebral circulation. In the book: Mathematical models of blood circulation M., Nauka, 1969, 29-31.