

## Curriculum Vitae (CV)

1. Name - **Nana Koshoridze**
2. Education – **Doctor of Biology, Full professor, Iv. Department of Biology Faculty of Exact and Natural Sciences, Iv. Javakhishvili Tbilisi State University**
3. Academic experience –
  - 1976-1977 - Iv. Beritashvili Institute of physiology, Laboratory of membranology, Laborant
  - 1980-1987-Tbilisi State University, Department of Biochemistry, Laborant
  - 1987-1996- Senior Research Fellow, Tbilisi State University, Department of Biochemistry
  - 1996-2006- Senior Research Fellow, Active admixture Lab, Tbilisi State University
  - 2006-2009- Associate Professor, Department of Biology, Tbilisi State University
  - 2009- Full Professor, Department of Biology, Biochemistry direction, Tbilisi State University
6. Current membership in professional organizations – **FEBS, FENS.**
7. Honors and awards – **Acadec. Petre Kometiani award, 2002**
8. Briefly list the most important publications and presentations from the past five years – title, co-authors if any, where published and/or presented, date of publication or presentation
  1. *E. Zhuravliova, T. Barbakadze, E. Zaalishvili, M. Chipashvilic, N. Koshoridzec, D. Mikeladze. Social isolation in rats inhibits oxidative metabolism, decreases the content of mitochondrial K-Ras and activates mitochondrial hexokinase. Behavioural Brain Research 205, 377–383, 2009.*
  2. *N. I. Koshoridze, K.O. Menabde, Chachua M. V., Kuchukashvili Z.T., Chipashvili M.D. Enzymes of Energy Metabolism in Brain and Chronic Stress. J. of stress Physiology and Biochemistry, 5, 1-2,32-37, 2009.*
  3. *Burjanadze G., Dachanidze N., Karapetyan M., Menabde K., Koshoridze N. Changes in White Rat Brain Energetic Cells Under Stress Induced by Violated Diurnal Cycle. Georg. Medical News, 167, 2, 84-88, 2009.*
  4. *K. O. Menabde, G. M. Burjanadze, M. V. Chachua, Z. T. Kuchukashvili, N. I. Koshoridze Tissue Specificity of Lipid Peroxidation under Emotional Stress in rats. Укр. біохім. журн., 2011, т. 83, № 3, 85-90, 2010.*
  5. *Kuchukashvili Z, Menabde K., Chachua M., Burjanadze G., Chipashvili M. and Koshoridze N. Functional state of rat cardiomyocytes and blood antioxidant system under psycho-emotional stress. Acta Biochim Biophys Sin. 2011 Jun;43(6):480-6, 2011.*
  6. *Menabde K., Kuchukashvili Z., Chachua M., Chipashvili M., Koshoridze N. Brain oxidation stress caused by isolation and violation of diurnal cycle. Bull. of the Georg. Nat. Acad. of Sci. 5, 2, 87-91, 2011.*
  7. *Z. Kuchukashvili, G. Burjanadze, K. Menabde, M. Chachua, N. Dachanidze, M. Mikadze and N. Koshoridze. Long-lasting stress, quantitative changes in nitric oxide concentration and functional state of brain mitochondria. Acta Neurobiol Exp., 72, 1, 40–50, 2012.*
  8. *N. Koshoridze, K. Menabde, Z. Kuchukashvili. Investigation of the Mg-HCO<sub>3</sub><sup>-</sup>-ATPase activity of thyroid tissue cells under various pathologies. Scandinavian Journal of Clinical & Laboratory Investigation. 72, 5, 363-368, 2012.*
  9. *N. Dachanidze, G. Burjanadze, Z. Kuchukashvili, K. Menabde, N. Koshoridze. Functioning of the Antioxidant System under Psycho-Emotional Stress. J. of Stress Physiology & Biochemistry, 9, 4, pp. 122-131, 2013.*
  10. *N. Dachanidze, G. Burjanadze, Z. Kuchukashvili, K. Menabde, N. Koshoridze. Lipid Peroxidation and Antioxidant System Activity Changes of Rat Blood and Cardiac Muscle Cells Under Chronic Stress. Int. J. of Biochemistry and Biophysics. 1, 1, 16 – 21, 2013.*
  11. *GM Burjanadze, ZT Kuchukashvili, MV Chachua, KO Menabde, NT Dachanidze, NI Koshoridze. Changes in activity of hippocampus creatine kinase under circadian rhythm disorders. Biological Rhythm Research. 45, 9, 685-697, 2014.*

12. K Chubinidze, B Partsvania, T Sulaberidze, A Khuskivadze, E Davitashvili, *NI Koshoridze. Luminescence enhancement in nanocomposite consisting of polyvinyl alcohol incorporated gold nanoparticles and Nile blue 690 perchlorate. Applied optics 53 (31), 7177-7181, 2014.*
13. *NT Dachanidze, ZT Kuchukashvili, KO Menabde, NI Koshoridze. Circadian rhythm disorders and dynamic changes of energy metabolism in rat heart muscle cells. Biological Rhythm Research. 46,1, 39-51, 2015.*

9. Briefly list the most recent professional development activities (workshops/seminars/conferences attended, technical projects, etc.

1. **2013, 8-9 october, Workshop on Molecular Life Sciences Education (Organised by FEBS in cooperation with Association of Georgian Biochemists (AGB))**
2. **17th Asian Pacific Congress of Cardiology.** Energetic Changes in Heart Cells of White Rats in Conditions Stress Induced by Violated Diurnal Cycle. Koshoridze NI., Samcharadze TB., Karapetian MB., Kuchukashvili Z. Energetic Changes in Heart Cells of White Rats in Conditions Stress Induced by Violated Diurnal Cycle. Kyoto, Japan, 2009;
3. **11th European Congress of Endocrinology.** Human Thyroid Tissue HCO-3-ATPase in Normal and Pathology. N. Koshoridze, K. Menabde, Z. Kuchukashvili. Istanbul. Turkey, 2009.
4. **XXVI Europ. Congress of cardiology.** Pro- and anti-oxidant system in cardiac histocytes and blood under stress caused by isolation and violation of diurnal cycle. Istanbul. Turkey, 2010.
5. **IX Internat. Conferen. on Fundamental Questions of Neuroscience.** Activity of brain pro-and antioxidant system under stress caused by isolation and violation of diurnal cycle. Tbilisi, Georgia, 2010.
6. **8th World Congress of Neuroscience.** Functional status of brain mitochondria under psycho-emotional stress. Florence - Italy, 14-18 July, 2011.
7. **22nd JUBMB and 37th FEBS Congress "From Single Molecules to System Biology".** Brain mitochondria and long-lasting psycho-emotional stress. September 4-9, Sevilla, Spain, 2012.
8. **Cell Symposia Mitochondria:from Signaling to Disease.** Psycho-emotional stress and antioxidant system in brain mitochondria. Lisbon, Portugal, 5-7 May, 2013
9. **Cell Symposia Mitochondria:from Signaling to Disease.** Changes in activity of enzymes related to energy metabolism in rat brain and functional state of mitochondria under psycho-emotional stress. Lisbon, Portugal, 5-7 May, 2013

### -Project:

1. *Isolation and violated diurnal cycle stress-induced changes in energy metabolism and possibilities for prevention thereof. GNSF/ ST08/7-374. 2009-2012.* - research supervisor
2. *Attempt to Create New Model of Depression in Rats Caused by Chronicle Psycho-Emotional Stress (N GNSF/ ST08/6-461). 2009-2012.* - Main staff
3. *Impact of Psycho-Emotional Stress on Brain Energy Metabolism among Naturally Aggressive Animals. FR/226/7-220/13 (2014-2017)* - Main staff

13. List of courses taught

**Lectures General Biochemistry, Medical Biochemistry, Methods of Clinical Biochemistry, Functional Biochemistry, Enzymology.**

14. Research interests

Our group is mainly focused on stress conditions induced by isolation and disruption of natural circadian rhythm and changes of various metabolic pathways, such as energy metabolism and antioxidant system, also alterations in calcium ion and nitric oxide (NO) concentrations in brain, blood and cardiac muscle.

The obtained results have been published in various publications and presented on international and local scientific meetings.

Experiments have been done under several scientific grants got from Shota Rustaveli National Science Foundation.