CURRICULUM VITAE

Michail V. Sitkovsky

General Information

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Place of Birth Ukraine USSR

Education

1970	M.S. Biophysics and Physiology,	Moscow State University, USSR
1973	Ph.D. Biochemistry and Biophysics,	Moscow State University, USSR

Post-doctoral Training

1981-1982	Immunology, Center for Cancer Research Massachusetts Institute of Technology with Dr. Hermann Eisen

Academic Appointments

1973-1977	Staff Research Scientist, Division of Biophysics, Moscow State University, USSR
1977-1981	Senior Staff Research Scientist, Division of Biochemistry, Moscow State University, USSR
1981-1982	Research Associate, Center for Cancer Research Massachusetts Institute of Technology
1982-1984	Research Scientist, Center for Cancer Research, Massachusetts Institute of Technology; Principal Investigator on NIH Grant NIRA #IR23CA37439
1984-1991	Senior Investigator and Head, Biochemistry and Immunopharmacology Unit Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda MD

Tenure Awarded in 1991

1992-2004	Chief, Biochemistry and Immunopharmacology Section, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases National Institutes of Health Bethesda MD

2004-	Eleanor W. Black Chair and Professor Immunophysiology and Pharmaceutical Biotechnology Northeastern University Director, New England Inflammation and Tissue Protection Institute Northeastern University
2008-	Presidential Scholar, Cancer Vaccine Center Dana Farber Cancer Institute, Harvard Institute of Medicine
2009-2013	Chair of International Scientific Strategy Board, Oncotyrol Center for Personalized Cancer Medicine, University of Innsbruck Medical School, Innsbruck, Austria
2009-	Chair of International Scientific Strategy Board, Oncotyrol Center for Personalized Cancer Medicine, University of Innsbruck Medical School, Austria

Professional Societies

1986 -	American Association of Immunologists, Member

Editorial Boards

1991-1995	Associate Editor, Journal of Immunology
2000-	Associate Editor, Inflammation
2008-	Editorial Board, Purinergic Signalling
2010-	Editorial Board, Frontiers in Immunology

Awards and Honors

1993	Public Health Service Award, National Institutes of Health National Institute for Allergy and Infectious Diseases
2003	I. I. Mechnikov Medal and Diploma by Russian Academy of Natural Sciences for contributions to biomedical research
2006	Nicolaus Copernicus Award by University of Ferrara Italy and Eighth International Symposium on Adenine Nucleotides in Health and Disease
2010	Plenary Speaker, 48th Annual Nobel Forum "Frontiers in Medicine," Karolinska Institutet Stockholm

PART II RESEARCH, TEACHING, AND CLINICAL CONTRIBUTIONS

A. Narrative Report of Research, Teaching, and Clinical Contributions

Cancer immunotherapy is complementary to surgery, radiotherapy, or chemotherapy. However, malignant cells can create a self-protective, tumor microenvironment (TME) that inhibits anti-tumor T cells. It is established that the tumor cells are protected from anti-tumor T cells by the Hypoxia-Adenosinergic mechanism, which is triggered by very low local tumor tissue oxygen tension (i.e. hypoxia) and tumor hypoxia-produced extracellular adenosine. The key molecules of this immunosuppressive mechanism are a) cAMP-elevating A2A and-*possibly*- A2B adenosine receptors (A2AR/A2BR) and b) Hypoxia Inducible transcription Factor 1 alpha (HIF-1a). Preclinical testing suggests a promising novel approach that may prevent the inhibition of anti-tumor T cells and thereby improve the tumor rejection and cancer patients' survival by eliminating the tumor protection by this Hypoxia-Adenosinergic mechanism.

There is worldwide excitement about using the discovery of this novel approach of manipulating the immune response in order to improve the efficacy of current immunotherapies of cancer. Clinical trials of cancer patients using this new method are in preparation in the Sylvester Cancer Center, USA, Moffitt Cancer Center, USA, and in Russia under the auspices of Skolkovo, the "Silicon Valley of Russia" project. The first cancers targeted are bronchial alveolar carcinoma and non-small cell lung cancer in the USA and ovarian cancer in Russia.

B. Funding Information

1982 -1984 National Institutes of Health
PI
NIH Grant NIRA #IR23CA37439 (research)
Studies of cell-contact proteins using photo-activatable crosslinking reagents in cytotoxic T cell-tumor cell conjugates (research)

1984 – 2004 Funded by Division of Intramural Research as Chief, Biochemistry and Immunopharmacology Section Laboratory of Immunology,
National Institute of Allergy and Infectious Diseases
National Institutes of Health, Bethesda MD

2005 – 2011 National Institutes of Health
PI
R01 CA112561 (research)
Mechanisms of Tumor Protection for T cells by Hypoxia

2006 – 2008 National Institutes of Health
PI
R21 AT002788 (research)
Hyperbaric Oxygenation May Increase Lung Injury

2006 – 2017 National Institutes of Health
PI
R01 CA111985 (research)
Cancer Immunotherapy by Targeting A2 Adenosine Receptor

2009 – 2011 National Institutes of Health
Co-Investigator
R21 A1068816-01A1 (research)
Activation Inducible HIF-1alpha in Regulation of T cells during Bacterial Sepsis

2009 – 2011 National Institutes of Health
PI
3R01 111985 04S1 (research)
Cancer Immunotherapy by Targeting A2 Adenosine Receptor
(Competitive revision)

2009 – 2010 Harvard Catalyst Pilot Grant
PI
Funded from Harvard Clinical and Translational Science Center
NIH ULI RR 02578-01
Generation of Anti-tumor T cells that are Resistant to Inhibition in the Tumor Microenvironment

2009 – 2010 National Institutes of Health
PI
P01 AI043649-09S3 (research)
Preventing the Hypoxia-Adenosinergic Inhibition of Anti-HIV-1 Immune Response

2010 – 2015 National Institutes of Health
PI
1 U19 AI091693-01-01
Eliciting B Cells to Produce Anti-HIV gp4 1 MPER-Specific Neutralizing Antibodies

2011 – 2015 National Institutes of Health
PI
R01 GH097320-1
Adenosine and Oxygen Modulate Antimicrobial Defenses

2012 – 2013 Northeastern University/Dana-Farber Cancer Institute
PI
Design, Synthesis and Design of Novel
Co-adjuvants for Immunotherapy of Cancer

2017 – 2020 Juno Therapeautics (JUNO)
PI
Assessment of the Anti-Tumor Activities of JSMD026 and Other Specific Drug Candidates

2017 – 2019 Oxyhop
PI
Effects of different oxygenation agents on the ability of anti-tumor killer cells to reject tumors

2020 – 2024 National Institute of Health
Senior Key Investigator
Engineering a hypoxic tissue-on-a-chip platform for adoptive T-cell immunotherapy

2021 – 2026 National Institute of Health
Senior Key Investigator
Overcoming vaccine-associated hypoxia with advanced biomaterials to enhance cancer immunotherapy

2021 – 2024 Beam Therapeutics
Co-PI
Design and characterization of CART cells genetically resistant to hypoxia-adenosinergic immunosuppression.

C. Report of Current Research Activities

A pharmacological approach is being developed to improve tumor rejection by preventing the Hypoxia-Adenosinergic inhibition of T cells using drugs. In a prototype of better cancer immunotherapy, we treat the cancer vaccine-treated tumor-bearing mice with A2AR antagonists thereby preventing the inhibition of anti-tumor T cells via their A2AR. These mice will also be breathing high oxygen (30%, 40% or 60%-containing gas mixtures) in order to 1) decrease the level of hypoxia-driven accumulation of adenosine in TME and thereby facilitate the effects of the A2AR antagonist, and 2) prevent the inhibition of anti-tumor T cells by HIF-1.

We will combine our treatments with a melanoma peptide-specific vaccine (with Dr. Ellis Reinhertz, Dana-Farber Cancer Institute) and GM-CSF plus anti-Treg strategy vaccine (with Drs. Glenn Dranoff and Jerry Ritz, Dana Farber Cancer Institute). We are preparing human clinical trials facilitated by the availability of the A2AR antagonist developed for the treatment of Parkinson's Disease or the widely used A2AR antagonist I,3,7 trimethylxanthine, a.k.a. caffeine.

To prevent the exacerbation of lung damage by routinely and widely used supplemental oxygen, we plan more mechanistic studies. We will develop a novel therapy that will allow the benefits of supplemental oxygen without iatrogenic exacerbation of ongoing acute inflammation.

In parallel with the development of novel therapies, the fundamental research of mechanisms of immune-regulation is conducted using methods of mouse genetics, biochemistry and molecular biology by focusing on such key molecules of the non-redundant immunosuppressive mechanism as cAMP-elevating A2A and A2B adenosine receptors and Hypoxia Inducible transcription Factor 1 alpha and -2 alpha.

The current research is also taking advantage of the "chance" observation that mice with genetic deletion of just one molecule, i.e., A2A adenosine receptor, developed a dramatic accumulation of abdominal fat. This immediately suggested a novel pharmacological approach. Subsequent studies demonstrated that targeting A2A receptor by a drug prevents accumulation of fat even if mice are put on a "western diet" containing 60% fat.

These discoveries made at Northeastern have been published in top world journals including a recent paper in *New England Journal of Medicine*, with an impact factor >50. They have been publicized in two separate NIH press releases, and in editorials in top journals such as *Nature* and *Science* as well as other journals. The discoveries have been confirmed by other scientists who published their research in top journals and acknowledged the pioneering work from Northeastern University as "landmark", 'breakthrough", and "seminal."

D. Report of Teaching

1. Local Contributions

Undergraduate Courses at Northeastern University

2013
Introduction to Immunotherapies of Cancer

This most recent course is popular among undergraduates from several colleges with 62 undergraduate students enrolled and more turned away due to space limitations. This course is innovative in that it combines state of the art developments in the field with "hot from the bench" insights coming from the lab of this professor.

Graduate courses at Northeastern University

2008
Engineering Inflammation

2010 –
Directed Study

2010
Special Topics in Pharmaceutical Science

2011 -
Advanced Immunology and Immunological Therapies

Advisory and supervisory responsibilities in laboratory setting for graduate students

2004 -

As Director of New England Inflammation and Tissue Protection Institute, I have had thirteen graduate students who have trained under my supervision in my Institute lab:

1 MD/PhD student, 6 PhD students, and 6 Master's level students.

Supervision involves:

- Explanation of the major fundamental problems in understanding the biological process and potential new treatments if these problems will be resolved
- Selection of correct and well-controlled experiments to answer the focused question
- Instructions as to the best method to use
- Organization of student training by the established senior scientific members of the staff
- Analysis of data
- Design of the next experiment
- Preparation of students to present their data in a scholarly manner
- Preparation of students to present their data as a scientific publication

- Preparation of students to write critical reviews of their field of science, its focus on areas of research which require further attention

2. Regional, national, or international contributions

Invited presentations

1989
Distinguished Visiting Scientists program, Mayo Clinic, Rochester, Minnesota

1989
DNAX Research Institute on Molecular and Cellular Immunology Symposium on Cytotoxicity, Palo Alto, California

1989
Scripps Clinic Foundation Seminars on Immunology, San Diego CA

1990
Plenary session of the meeting, Immunotherapy of Cancer,
Society for Biological Therapy, Los Angeles, CA

1991
Biochemistry Seminar, University of Illinois, Urbana-Champaign, Illinois

1992
Genetics Institute Symposium, Cambridge, MA

1993
Fifth International Cytotoxicity Workshop, Tel Aviv, Israel
1995
Medical College of Ohio Department of Pharmacology Seminar Series, Toledo, OH

1996
Friedrich Miesher Institute, Basel, Switzerland

1996
University of Virginia, Health Sciences Center, Department of Molecular Physiology and Biological Physics Seminar Series, Charlottesville, VA

1997
Institute Pasteur-University of Rome Cenci Bolognetti Foundation Lecture Series, Rome

1997
European Molecular Biological Organization (EMBO) International Workshop on Mechanisms of Cell-mediated Cytotoxicity, Leiden, The Netherlands

1997
Basel Institute of Immunology, Basel, Switzerland

1997
Glaxo Institute for Molecular Biology, Geneva, Switzerland

1997
Sigma Xi Distinguished Lecturer Series, Transplant Immunology & Immunogenetics Program, State University of New York Health Sciences Center at Brooklyn

1998
International Conference on Effects of Extracellular Nucleotides, Ferrara, Italy

1999
Uniformed Services University of the Health Sciences, F. Edward Hebert School of Medicine, Bethesda, Maryland

1999
National Cancer Institute, Frederick, MD

2000
3rd International Symposium of Nucleosides and Nucleotides, Madrid, Spain

2001
University of Pennsylvania Immunology, Colloquium

2002
International Workshop on Extracellular Nucleotides, Gold Coast, Australia

2002
International Workshop on Extracellular Nucleotidases, Woods Hole, MA

2002
Department of Neurology, Boston University School of Medicine, Boston

2002
Boston University Seminar Series, Boston

2002
International Workshop, Purine Club, Forli-Cessna, Italy

2002
New York University Medical Center, Immunology Club Seminar Series, New York

2002
John Hopkins University Medical Center, Immunology Seminar Series, Baltimore

2003
Role of Adenosine Receptors in Inflammation, Mayo Clinic, Rochester, Minnesota

2003
Advances in Targeted Therapies, Vienna Academy, St. Martin

2003
National Institutes of Health, Clinical Center Grand Rounds

2003
New York University Medical Center, Grand Rounds in Clinical Pharmacology Seminar Series, New York

2003
American Society of Nephrology Symposium, Breckenridge, Colorado

2003
Sir William Dunn School of Pathology, Oxford University, Oxford, England

2003
36th Annual Meeting of the Society for Leucocyte Biology, Philadelphia

2003
Sixth World Congress on Inflammation, Vancouver, British Columbia

2004
Conference on Mechanisms of Vasculatis, Cambridge University, Birmingham, United Kingdom

2004
International Symposium, Frontiers in Innate Immunity: Reading and Interpreting the Pathogenic Barcode, Schloss Elmau, Bavaria, Germany

2004
International Symposium, Mechanisms of autoimmune and viral hepatitis, Freiburg, Germany

2005
Seminar Series, Beth Israel-Deaconess Medical Center, Harvard Medical School

2005
AMGEN Seminar Series, Seattle

2005
International Conference, Advances in Science for Drug Discovery, Moscow, Russia

2006
Ohio State University Medical Center 5th Annual Graduate and Postgraduate Research Day, Columbus

2006
Third European Nephropathology and Nephrology Workshop, Berlin

2006
Johns Hopkins University Medical School, Baltimore, MD

2006
8th International Symposium on Adenosine and Adenine Nucleotides, Ferrara, Italy

2006
Mayo Foundation, Mayo Clinic, Department of Biochemistry and Molecular Biology

2007
Annual Meeting of the Shock Society, 30th Annual Conference on Shock, Baltimore

2007
Life Sciences 2007 Series, Glasgow, Scotland

2007
Damage Associated Molecular Pattern Molecules Satellite Symposia, Cosponsored by Clinical Immunology Society and International Society for Biological Therapy of Cancer, San Diego, CA

2007
37th Meeting of the German Society of Immunology, Heidelberg Germany

2007
University of Miami/Sylvester Comprehensive Cancer Center
Department of Microbiology and Immunology Distinguished Lecture Series

2008
Keystone Symposium on Molecular Cellular, Physiological, and Pathogenic Responses to Hypoxia
2008
Dana Farber Cancer Institute, Immunology Seminar Series, Boston

2008
International Purine Meeting, Copenhagen

2008
University of Pittsburgh Medical Center, DAMP and Alarmin Symposium, Pittsburgh

2008
Cancer Research Institute, International Immunotherapy Symposium, New York City

2008
Biosymposia, Inc., Hypoxia, Ischemia, and Inflammation, Boston

2009
Cancer and Immunology Colloquium Seminar Series at Cedars Sinai Center for Advanced Cancer Biology, Los Angeles, CA

2009
Burnham Institute for Medical Research, 2009 Symposium, La Jolla, CA

2010
Experimental Biology, Anaheim CA

2010
4th Symposium on Anaesthesia and Intensive Care Medicine
University of Heidelberg, Mannheim, Germany

2010
48th Annual Nobel Forum "Frontiers in Medicine," Karolinska Institutet Stockholm

2010
Co-Chair of Session, Purines and Cancer
Purines 2010, Barcelona Spain

2010
Immunology Seminar Series, Institut Pasteur, Paris

2011
Helmholtz Institute, Munich, Germany

2011
Oncotyrol Meeting**,** Innsbruck, Austria

2011
Biocluster for Modernization of Medicine in Russia
Skolkovo Foundation, Moscow

2012
Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology
National Academy of Sciences, Kiev, Ukraine

2012
Grand Rounds, Moffitt Cancer Center, Tampa FL

2012
University of Rome La Sapienza, Rome, Italy

2012
Tufts Medical School, Boston MA

2013
Gene and Cell Therapies Seminar Series,
Baylor College of Medicine, Houston, Texas

2013
Annual Meeting of American College of Rheumatology, San Diego, CA

2013
Seminar of the 15th International Congress of Immunology – ICI 2013
University of Siena Medical School and Hospital, Italy, Milan, Italy

2014
Purines 2014: International Conference on Nucleotides, Nucleosides and Nucleobases
Plenary Lecture, "Therapeutic Manipulation of the Hypoxia-A2-Adenosinergic Suppression and Redirection of Immune Response", Bonn, Germany

2015
Pharmaceutical Institute, University of Bonn, Bonn, Germany

2015
Wistar Institute Fall 2015 Tumor Immunology Colloquium, Philadelphia, PA

2015
8th International Symposium on Translational Research in Oncology Plenary Speaker: Conceptually Novel "Anti-A2A-Adenosinergic" Molecular Motivation to Oxygenate Hypoxic Tumors in Communication with Immunotherapies of Cancer, Dublin, Ireland

2015
Keystone Sympsoium
Plenary Speaker: Conceptually Novel "Anti-A2A-Adenosinergic" Molecular Motivation to Oxygenate Hypoxic Tumors in Communication with Immunotherapies of Cancer

2016
Keystone Symposia on Purinergic Signaling, Vancouver, BC

2017
The 1st International Symposium Anti-Hypoxia-A2A-Adenosinergic Immunotherapies of Cancer: "Anti-Hypoxia-A2-Adenosinergic Co-adjuvants to Enable the Maximal Tumor Rejection by Immunotherapeutic Tumor-reactive T Cells"
Northeastern University, Boston, MA

2018
2nd Annual Anti-Hypoxia-A2A-Adenosinergic Immunotherapies of Cancer Mini-Symposium – Part 1: "Anti-Hypoxia-A2-Adenosinergic Co-adjuvants to Enable the Maximal Tumor Rejection by Immunotherapeutic Tumor-reactive T Cells"
Northeastern University, Boston, MA

2018
Friends of Cancer Research, Washington D.C.

2018
11th International Symposium on Translational Research in Oncology, Dublin, Ireland

2018
3rd Annual Anti-Hypoxia-A2A-Adenosinergic Immunotherapies of Cancer Mini-Symposium – Part 2: "Anti-Hypoxia-A2-Adenosinergic Co-adjuvants to Enable the Maximal Tumor Rejection by Immunotherapeutic Tumor-reactive T Cells"
Northeastern University, Boston, MA

2018
4th Annual Anti-Hypoxia-A2A-Adenosinergic Immunotherapies of Cancer Mini-Symposium – Part 3: "Anti-Hypoxia-A2-Adenosinergic Co-adjuvants to Enable the Maximal Tumor Rejection by Immunotherapeutic Tumor-reactive T Cells"
Northeastern University, Boston, MA

2022
"Adenosine-Pathway Targeted Cancer Immunotherapy Summit", May 10 - 12, 2022 Boston, MA. Maximize the Clinical & Commercial Opportunity of the Adenosine-Pathway as a Second-Generation Immuno-Oncology TargetA plethora of showstopping clinical trial data readouts are being met with refreshed excitement, enthusiasm and R&D investment for adenosine-pathway targets, one of the most validated and established oncology pathways. The inaugural Adenosine-Pathway Targeted Cancer Immunotherapy Summit has arrived as the definitive conference dedicated to optimizing efficacy of adenosine-pathway targeted drugs, overcoming challenges of resistance and immunosuppression and supercharging therapeutics into the clinic.

2.b. Professional and educational leadership roles related to teaching

1989
7th International Congress of Immunology, West Berlin, Germany,
Co-Chairman of workshop, The Molecular Mechanisms of Cellular Cytotoxicity

1990
American Association of Immunologists, Annual meeting, New Orleans, Louisiana,
Co-Chairman of symposium, Molecular Basis of Subset-specific T-cell Functional Responses

1990
4th International Cell Mediated Cytotoxicity Workshop. West Virginia
Co-Chairman of session on Selective Gene Expression in Cytotoxic Cells, and session on Receptors and Intracellular Signaling Mechanisms

1992
Federation of American Society of Experimental Biology (FASEB) Meeting
Anaheim, California
Co-Chairman of Session on Cytotoxic Cells

1993
National Institutes of Health, Research Festival, Bethesda, MD
Co-Chair, Mechanisms of Cell-mediated Cytotoxicity Workshop

1994

National Institutes of Health, Research Festival, Bethesda, MD
Co-Chair, T-Cell Signaling and Cell Biology, Cytokines Workshop

1998
International Conference on Effects of Extracellular Nucleotides, Ferrara Italy
Chairman and Invited Speaker

1999
Second International Workshop on Ecto-ATPases and Related Ecto-nucleotides, Diepenbeek, Belgium
Member of Scientific Committee

2000
3rd International Symposium of Nucleosides and Nucleotides, Madrid, Spain
Chair of Session and Invited Speaker

2000
International Workshop on Nucleotides and Their Receptors in the Immune System Ferrara, Italy
Advisory Board and Chairman of Session

2006
8th International Workshop on Nucleotides and Their Receptors in the Immune System Ferrara, Italy
Advisory Board and Chairman of Session

2009
Chair, Oncotyrol International Scientific Strategy Board
Innsbruck, Austria

E. Report of Clinical Activities

Clinical contributions ***(e.g., introduction of new methods of clinical diagnosis, prevention, treatment, care delivery)***

- Development of novel adjuvanting protocols to improve cancer immunotherapy in patients with lung cancer and ovarian cancer.

- Development of safer supplemental oxygen protocols during episodes of acute inflammation.

PART III BIBLIOGRAPHY

***Original Articles*, i.e., reports of original investigations in refereed journals.**

Publications 1-21 are in Russian.

1. **Sitkovsky MV**, Kagan VE. The lipid peroxidation of tissue and subcellular organelles during tumor growth. Proc. Moscow Univ 1970; 117.

2. Davilov VS, **Sitkovsky MV**, Kozlov YuP, Kagan VE. The study of lipid peroxidation by polarography with mercury-drop electrode. Reports Acad Sci USSR 1972;4:574.

3. Blocha VV, Kagan VE, **Sitkovsky, MV**, Kozlov YuP, Kols OR. Lipid peroxidation and spreading of excitation in frog muscles. Biofizika J Acad Sci USSR 1973;17:553.

4. **Sitkovsky MV**, Trovetsky VB, Danilov VS, Kozlov YuP. Peroxidation of mitochondria lipids in different functional states. Reports Acad. Sci USSR 1973;1:65.

5. Danilov VS, Kagan VE, **Sitkovsky MV**, Kozlov YuP. The peroxidation of phospholipids in subcellular membranes and its role in tumor growth. Proc Acad Sci USSR 1973;208:733.

6. Kotelevtsev CV, Danilov VS, **Sitkovsky MV**, Kagan VE. Lipid peroxidation in microsomes. Problem Med Chem J Acad Med Sci USSR 1973;19:227.

7. **Sitkovsky MV**, Danilov VS, Poltorac OM, Ismailova VN, Maso VK, Kamishny AS. The influence of hydroperoxide groups on the interaction of lipids with immobilized and soluble proteins. Proc. Acad Sci USSR 1973;208:566.

8. Turovetsky VB, **Sitkovsky MV**, Danilov VS, Kozlov YuP. Lipid peroxidation in mitochondria under normal and pathological conditions. Reports Acad Sci USSR 1974; 4:595.

9. Maso VK, **Sitkovsky MV**, Ismailova VN, Janushin MF, Kozlov YuP. The conformational changes in bovine serum albumin and chymotrypsin absorbed on different solid surfaces. Proc. Moscow Univ 1974;208**.**

10. Kamishny A, **Sitkovsky MV**, Poltorac OM, Danilov VS, Kozlov YuP, Chuchrai ES. Absorption and catalytical properties of cholinesterase on monolayers of phospholipids with different degrees of oxidation. Biofizika J Acad Sci USSR 1975;20:441.

11. Markova EE, **Sitkovsky MV**, Danilova RS. The structural changes in membrane-bound proteins of synapses in the rat brain during education. J. Higher Nervous Behavior Acad. Sci. USSR 1976; 36:1306.

12. **Sitkovsky MV**, Makarenko I, Kozlov YuP. Mobility of the surface components of plasma membranes. Proc Moscow Univ 1977;2:7.

13. Jakimenko EF, Rudinsky TD, Kuprina MJ, **Sitkovsky MV**. Phospholipid haptens: cross-reactivity of cardiolipin and phosphatidyl- inositol. Bull Exp Biol Med 1978;7:46.

14. **Sitkovsky MV**, Vardanan IK, Golubeva NN, Kozlov YuP. Antigen-induced lateral diffusion of Concanavalin A and immunoglobulins on the surface of lymphocyte plasma membranes. Biofizika J Acad Sci USSR 1979;24:938.

15. **Sitkovsky MV**, Shestakova SV, Kozlov YuP. Interaction of mitogenic lectins with lymphocyte plasma membranes. Bull Exp Biol Med J Acad Med Sci. USSR 1979;7: 89.

16. Agibalov YuV, **Sitkovsky MV**, Baranova FS, Tsypin AB, Kozlov YuP. The use of fluorescein isothiocyanate to label plasma membranes of lymphocytes. Appl Biochem. Microbiol 1979;15:576.

17. Lavrov G, Shestakova SV, **Sitkovsky MV**, Golubeva NN. Electrophoretic separation of rat spleen and thymus lymphocytes and their responses to mitogens in vitro. Bull Exp Biol Med J Acad Med Sci USSR 1979;9:322.

18. Vardanan IK, Golubeva NN, Seslavina LS, **Sitkovsky MV**. Interaction of norepinephrine and alpha-adrenoblocking agents with lymphoid cells. J Physiol Acad Sci USSR 1979;15:627.

19. Sergeeva NS, Klebanov GI, **Sitkovsky MV**. Use of fluorescent probes in studies of interactions between Concanavalin A and lymphocyte plasma membrane. Biofizika J Acad Sci USSR 1980;25:508.

20. **Sitkovsky MV**, Sergeeva NS, Bejavsky MA, Kozlov YuP. Cell-surface associated calcium and calcium influx during incubation of the lymphocytes with mitogenic lectins. Biofizika J Acad Sci USSR 1981;26:358.

21. **Sitkovsky MV**, Shestakova SV, Kozlov YuP. The special role of modulation-resistant receptors in lymphocyte activation. Proc Acad Sci USSR 1981;4:308.

22. **Sitkovsky MV**, Pasternack MS, Eisen HN. Inhibition of cytotoxic T lymphocyte activity by Concanavalin A. J Immunol 1982;129:1372.

23. Pasternack MS, **Sitkovsky MV**, Eisen HN. The site of action of N- tosyl-L-lysylchloromethyl ketone (TLCK) on cloned cytotoxic T lymphocytes. J Immunol 1983;131:2477.

24. **Sitkovsky MV**, Pasternack MS, Lugo J, Klein J, Eisen HN.:Isolation and partial characterization of the Concanavalin A receptors on the surface of the cloned cytotoxic T lymphocytes. Proc Natl Acad Sci USA 1984;1519-23.

25. Kranz DM, Sherman DH, **Sitkovsky MV**, Pasternack MS, Eisen HN. Immunoprecipitation of cell surface structures of cloned cytotoxic T lymphocytes by clone-specific antisera. Proc Natl Acad Sci USA 1984;81:573-7.

26. **Sitkovsky MV**, Schwartz MA, Eisen HN. Cell-cell contact proteins in antigen-specific and antigen-nonspecific cellular cytotoxicity. Adv Exp Med Biol 1985;184:429-47.

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38. Trenn G, Takayama H, **Sitkovsky MV**. Antigen receptor regulated exocytosis of cytolytic granules may not be required for target cell lysis by cytotoxic T-lymphocytes. Nature 1987;330:72-4.

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