Seda Victori Marutyan

Faculty of Biology
Chair of Biochemistry, Microbiology, and Biotechnology
Associate professor

Faculty of Biology
Chair of Biochemistry, Microbiology, and Biotechnology
Associate professor

STEM School
Group Leader

Faculty of Biology
Research Institute of Biology
Basic and Pathological Biochemistry Laboratory
Scientific Worker

48-79
marsed@ysu.am

Education

Institution	Yerevan State University
Faculty	Biology
Date	1989 - 1992
Degree name	PhD student

Institution	Yerevan State University
Faculty	Biology
Date	1984 - 1989
Degree name	Qualified specialist

Scientific Rank/degree

Institution	Yerevan State University
Date	2007
Degree name	Associate professor

Institution	Yerevan State University
Date	1999
Degree name	Candidate
Scientific Supervisor	Davtian Misak Arshami, Navasardyan Liparit Hayrapeti
Research Topic	The influence of X-radiation onthe survival of yeasts Candida guilliermondii NP-4 and on some physical-chemical properties of DNA

Institution	Yerevan State University

Date	2022
Degree name	Doctor
Research Topic	The metabolic changes and DNA structural damages in X-irradiated yeasts Candida guilliermondii NP-4

Language skills

English Русский Deutsch

Work experience

Institution	Yerevan State University
Period of time	2016 till now
Rank/degree	Department of Biochemistry, Microbiology, and Biotechnology, Assosiate Professor

Institution	Yerevan State University
Period of time	2016 till now
Rank/degree	Departmernt of Biochemistry, Microbiology and Biotechnology, Associate Professor

Institution	Yerevan State University
Period of time	2007 - 2016
Rank/degree	Departmernt of Biochemistry, Associate Professor

Participation in international conferences and seminars

21/05/2003 - 25/05/2003	3rd congress on radiation research Kiev National University Ukraine
08/09/2005 - 11/09/2005	2nd International Conference "Modern Problems of Genetics, Radiobiology, Radioecology and Evolution" Joint Institute of Nuclear Research Russian Federation (the)
02/04/2007 - 04/04/2007	International Symposium "Problems of Biochemistry, Molecular, Radiation Biology and Genetics" Yerevan State University Armenia
29/05/2012 - 01/06/2012	24th Russian Conference on Electron Microscopy Russian Institute of Problems of Technology, Microelectronics and Superfine Materials Russian Federation (the)

10/09/2018 - 14/09/2018	8th International Congress "Low and Superlow Fields and Radiations in Biology and Medicine" Saint-Petersburg Polytechnical University Russian Federation (the)
16/09/2021 - 17/09/2021	International Conference on Microbiology "Biology and Biotechnology of Microorganisms", IUMBB 2021 Institute of Microbiology AS of Uzbekistan Uzbekistan
07/06/2021 - 11/06/2021	XII International Scientific Conference "Microbe Biotechnology: Fundamental and Applied Aspects" Institute of Microbiology of NAS of Belarus Belarus
09/07/2022 - 14/07/2022	25th IUBMB Congress, the 46th FEBS Congress and the 15th PABMB Congress Portugal Biochemistry Society Portugal

Membership

Institution	MESKS RA, international Jury of IBO
Period of time	2019 - 2024
Institution	Yerevan State University, 150 Scientific Specialized Council on Biophysics of SCC of RA
Period of time	2023 till now

Publications

Article

The Influence of Dicranum scoparium Moss Extract on the Growth of Yeasts Candida guilliermondii NP-4

Gayane Henrik Semerjyan, Inessa Henrik Semerjyan, Syuzan Ashot Marutyan,

Hripsime Masis Ter- Sahakyan, Hasmik Maenlest Karapetyan, Seda Victor Marutyan

Biological Science and Innovation for Achieving the Sustainable Development Goals 2026 131-150

https://www.igi-global.com/book/biological-science-innovation-achieving-sustain...

Article

Royal jelly induces coordinated redox and energy metabolic responses in Candida guilliermondii NP-4

Seda Victor Marutyan, Syuzan Ashot Marutyan, Anna Muradyan, Meri Hayrapetyan, Gayane Semerjyan,

Hasmik Karapetyan

World Journal of Microbiology and Biotechnology 2026 349

https://doi.org/10.1007/s11274-026-05080-z

Conference

The Influence of Dicranium scoparium Moss Extract on the Growth of the Yeast Candida guilliermondii NP-4

Gayane Semerjyan, Inesa Semerjyan, Syuzan Marutyan, Hasmik Karapetyan, Hripsime Ter-Sahakyan,

Seda Marutyan

2025 30-30

http://bioenv-sdg.ysu.am

Conference

Changes in ATPase and Antioxidant Enzymes Activities in Yeast Candida guilliermondii NP-4 Exposed to Millimeter Waves

Muradyan Anna, Marutyan Syuzan, Hayrapetyan Meri, Karapetyan Hasmik, Marutyan Seda

2025 82 - 82

http://bioenv-sdg.ysu.am

Conference

The Effect of Ionizing and Non-ionizing Radiation on the Quantitative Change of Proline in C. guilliermondii NP-4 Yeasts

Anahit Khnkoyan, Seda Marutyan, Hasmik Karapetyan

2025 83 - 83

http://bioenv-sdg.ysu.am

Conference

Royal Jelly Enhances Recovery from UV-Induced Metabolic and Oxidative Stress in Candida guilliermondii NP-4

Syuzan A. Marutyan, Anna Muradyan, Meri Hayrapetyan, Hasmik Karapetyan, Seda V. Marutyan

2025 102 - 102

http://bioenv-sdg.ysu.am

Conference

Effect of Royal Jelly on Antioxidant Enzymes and ATPase Activity of C.guilliermondii NP-4 Yeast Exposed to X-Ray Radiation

Seda Marutyan, Hasmik Karapetyan, Syuzan Marutyan, Anna Muradyan, Mery Hayrapetyan

2025 74 - 74

http://bioenv-sdg.ysu.am

Article

Changes in ATPase activity, antioxidant enzymes and proline biosynthesis in yeast Candida guilliermondii NP-4 under X-irradiation

Hasmik Karapetyan, Syuzan Marutyan, Anna Muradyan, Hamlet Badalyan, Seda Marutyan,

Karen Trchounian

Journal of Bioenergetics and Biomembranes 2024 1-8

Article

The antimicrobial efects of silver nanoparticles obtained through the royal jelly on the yeasts Candida guilliermondii NP-4

Seda Marutyan, Hasmik Karapetyan, Lusine Khachatryan, Anna Muradyan, Syuzan Marutyan,

Anna Poladyan, KarenTrchounian

Scientific Reports 2024 19163

Article

THEREGULATION OF DEAMINATION OF ADENINE COMPOUNDS IN BREASTANDLIVERIN DMBA-INDUCED BREASTCANCERRATS TREATED BYHYPERICUM ALPESTRE

G. H. PETROSYAN, S. V. MARUTYAN, N. V. AVTANDILYAN

Proceedings of the YSU B Chemical and Biological Sciences 2024 17-26

Article

Royal Jelly–Mediated Silver Nanoparticles Show Promising Anticancer Effect on HeLa and A549 Cells Through Modulation of the VEGFa/PI3K/Akt/MMP-2 Pathway

Meri Kocharyan, Syuzan Marutyan, Edita Nadiryan, Mikayel Ginovyan, Hayarpi Javrushyan,

Seda Marutyan, Nikolay Avtandilyan

Applied Organometallic Chemistry 2024 1-11

Conference

Influence of UV-irradiation on lipid peroxidation processes and the activity of plasmatic and mitochondrial ATPases oy yeasts Candida guilliermondii NP-4

S. Marutyan, H. Karapetyan, S. Marutyan, A. Muradyan, T. Manutsyan

2024 518 - 518

https://febs.onlinelibrary.wiley.com/doi/10.1002/2211-5463.13856

Conference

The effect of royal jelly on biomass accumulation and antioxidant enzyme activity of the yeast C. guilliermondii NP-4

Marutyan S., Muradyan A., Karapetyan H., Marutyan S.

2024 446 - 446

https://febs.onlinelibrary.wiley.com/doi/10.1002/2211-5463.13837

Conference

The Effect of 51.8 GHz Microwaves on Nucleotide Deamination and ATPase Activity in C. guilliermondii NP-4 Yeast in the Presence of Royal Jelly

Marutyan S.A., Muradyan A., Hayrapetyan M., Marutyan S.V.

2024 100-101

https://www.agrophys.ru/Congress-2024

Conference

Influence of silver nanoparticles obtained by the presence of royal jelly on survival of yeasts Candida guilliermondii NP-4 and on the activity of antioxidant enzymes

S. Marutyan, H. Karapetyan, S. Marutyan, L. Khachatryan

2023 211 - 211

https://2023.febscongress.org

Conference

Influence of X-irradiation on the activity of ATPase and enzymes of antioxidant system in yeasts Candida guilliermondii NP-4

S. Marutyan, A. Muradyan, H. Karapetyan, V. Khalantaryan, S. Marutyan, L. Khachatryan

2023 226 - 227

https://2023.febscongress.org/

Conference

ROYAL JELLY AS A MEANS OF REGULATING PROCESSES DISTURBED BY EXPOSED MILLIMETER

WAVES
Marutyan S.A., Karapetyan H.M., Muradyan A.R., Khachatryan L.D, Kalantaryan V.P., Marutyan S.V.

2023 229 - 229

https://newtrendschem.org

Article

ALTERATION OF TOTAL AND MITOCHONDRIAL ATPASE ACTIVITY IN THE BREAST AND LIVER IN BREAST CANCER-INDUCED RATS
Seda V. Marutyan, Gayane A. Petrosyan, Anna R. Muradyan, Lilit A. Marutyan, Syuzan A. Marutyan,

Nikolay V. Avtandilyan

Proceedings of the YSU B Chemical and Biological Sciences 2022 151-160

Conference

Changes in some metabolic processes of yeasts Candida guilliermondii NP-4 under influence of microwaves with a frequency of 51.8GHz
Marutyan S.V., Petrosyan G.A., Karapetyan H.M., Marutyan S.A., Khachatryan L.D., Kalantaryan V.P.,

Muradyan A.

2022 1

https://2022congress.febs-iubmb-pabmb.org/

Conference

Deamination of adenine compounds in different organs of rats with DMBA-induced cancer
G.Petrosyan, N.Avtandilyan, S.Marutyan

2022 1

https://2022congress.febs-iubmb-pabmb.org/

Article

Changes in growth kinetic parameters, morphology and mitotic activity of yeasts Candida guilliermondii exposed to the low-intensity waves of 51.8-GHz frequency
Seda Marutyan, Syuzan Marutyan, Liparit Navasardyan, Karlen Hovnanyan, Armen Trchounian

Archives of Microbiology 2021 3707-3714

Article

51,8 ԳՀց հաճախականությամբ էլեկտրամագնիսական ճառագայթների ազդեցությունը C. Guilliermondii NP-4 խմորասնկերի լիպիդային գերօքսիդացման գործընթացների և կատալազիակտիվության վրա
Հ.Մ. Կարապետյան, Է.խ. Բարսեղյան, Ս.Վ.Մարության

Biological Journal of Armenia 2021 67-71

Conference

Влияние миллиметровых волн на активность антиоксидантных ферментов дрожжей Candida guilliermondii NP-4
Карапетян А.М, Марутян С.В, Барсегян Э.Х.

2021 32-33

http://mbio.bas-net.by/2021/index.php

Conference

INFLUENCE OF NON-IONIZING RADIATION ON LIPID PEROXIDATION PROCESSES IN YEAST C. guilliermondii NP-4
H. Karapetyan, L.Anikyan, S. Marutyan

2021 57

https://ecobiomeuz.com/f/abstract_book_last_last.pdf

Conference

Royal jelly as a means of regulating lipid peroxidation processes of C. Guilliermondii НП-4 yeast exposed to X-rays

Hasmik Karapetyan, Seda Marutyan

2021 48-49

https://biotechnology-spib-2021.com/program/

Conference

The effect of Royal Jelly (RJ) on the biomass amount and colony forming ability of yeasts C.guilliermondii NP-4

Navasardyan L.H., Marutyan S.V., Marutyan S.A.

2021 1

https://ecobiomeuz.com/f/abstract_book_last_last.pdf

Article

Ultrastructural investigation of acidocalcisomes and ATPase activity in yeasts Candida guillermondii NP-4 as “complementary” stress-targets

Marutyan S., Marutyan S., Navasardyan L., Trchounian A., Hovnanyan K., Hovnanyan M.

Letters in Applied Microbiology 2020 413-419

Conference

Influence of Royal Jelly on the Growth of Yeasts Candida guilliermondii Exposed to Electromagnetic Radiation

S. Marutyan, S.A.Marutyan, S. Gevorgyan, L. Navasardyan, A. Trchounian

2020 98-99

https://www.bioicbh.com/abstract-book

Article

ВЛИЯНИЕ РЕНТГЕНОВСКОГО И МИКРОВОЛНОВОГО ИЗЛУЧЕНИЙ НА ДЕЗАМИНИРОВАНИЕ ПУРИНОВЫХ НУКЛЕОТИДОВ В ДРОЖЖЕВЫХ КЛЕТКАХ CANDIDA GUILLIERMONDII НП-4

S. Marutyan, G. Petrosyan, S. Marutyan, L. Navasardyan, A. Trchounian

IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY KHIMIYA KHIMICHESKAYA TEKHNOLOGIYA 2019 48-52

Article

COMPARATIVE STRUCTURAL ANALYSIS OF YEASTS CANDIDA GUILLIERMONDII NP-4 CULTIVATED WITH AND WITHOUT NITROGEN SOURCE

K. O. HOVNANYAN, H. V. GASPARYAN, S. V. MARUTYAN, L. H. NAVASARDYAN, A. H. TRCHOUNIAN

Proceedings of the YSU B Chemical and Biological Sciences 2019 53-58

Article

ԱԵՖ-ազային ակտիվության փոփոխությունը ռենտգենյան ճառագայթահարման ենթարկված Candida guilliermondii НП-4 խմորասնկերի միտոքոնդրիումներում

Ս.Վ.Մարության

Biological Journal of Armenia 2019 97-99

Conference

Влияние рентгеновского облучения и микроволн на морфологию дрожжевых клеток

C.guilliermondii НП-4
С.В. МАРУТЯН, С.А. МАРУТЯН, Л.А. НАВАСАРДЯН, К.О. ОВНАНЯН

2019 94-97

Conference

Влияние рентгеновского облучения и микроволн на АТФ-азную активность митохондрий дрожжей C.guilliermondii НП-4
Л.А.Навасардян, С.В. Марутян, С.А. Марутян, Г.А.Петросян

2019 97-99

Article

Invwstigation of DNA isolated from yeasts CANDIDA GUILLIERMONDII NP-4 and from bacteria Escherichia Coliby fluorescence analyses
Marutyan S.V., Navasardyan LH.

THE NEW ARMENIAN MEDICAL JOURNAL 2018 78-85

Conference

Влияние микроволнового излучения на рост и ферментативную активность дрожжей Candida guilliermondii НП-4
Марутян С.В., Петросян Г.А., Марутян С.А., Навасардян Л.А., Трчунян А.А.

2018 57

http://cong-2018.biophys.ru/index.php/archive-cong/cong-2018

Article

Միլիմետրական և դեցիմետրական տիրույթների ճառագայթահարման ազդեցությունը պուրինային նուկլեոտիդների դեզամինացման վրա C.guilliermondii НП-4 խմորասնկային բջիջներում
Մարության Ս.Վ., Պետրոսյան Գ.Հ., Մարության Ս.Ա., Նավասարդյան Լ.Հ.

Биологический журнал Армении 2017 6-9

https://www.google.am/search?q=%D5%B0%D5%A1%D5%B5%D5%A1%D5%BD%D5%BF%D5%A1%D5%B6…

Article

Survival and changes in morphology, mitotic and metabolic activity of yeast Candida guilliermondii exposed to X-irradiation
Navasardyan L., Marutyan S., Hovnanayan K., Trchounian A.

Indian Journal of Biochemistry and Biophysics 2017 273-280

http://nopr.niscair.res.in/handle/123456789/34

Article

COMPARATIVE INVESTIGATION OF WATER-SOLUBLE PROTEINS OF X-RADIATED YEASTS CANDIDA GUILLIERMONDII NP-4 BY ELECTROPHORESIS
Gayane Petrosyan, Syuzan Marutyan, Lilit Arshakyan, Seda Marutyan

ԵՊՀ ՈՒԳԸ գիտական հոդվածների ժողովածու 2017 157-163

Conference

Ֆլյուրեսցենտային սպեկտրոմետրիայի մեթոդի կիրառությունը կենսաքիմիայի ուսուցման գործընթացում
Մարության Ս.Վ., Նավասարդյան Լ.Հ.

2017 168-170

http://www.bnaget.am/#/conferences/:2017

Article

Влияние рентгеновского облучения на структуры ДНК дрожжей C.guilliermondii НП-4
С.В.Марутян, Л.А.Навасардян, Бадалян Г.Г., М.А. Шагинян

Химия и химическая технология 2016 90-94

http://elibrary.ru/title_about.asp?id=50556

Article

Ռենտգենյան ճառագայթման ազդեցությունը C.Guilliermondii НП-4 խմորասնկային քրոմատինի ֆլյուորեսցենտային ցուցանիշների վրա
Ս.Վ.Մարության, Լ.Հ.Նավասարդյան

Գիտաբժշկական հանդես 2016 28-32

http://nih.am/journal/

Article

իոնացնող ճառագայթների ազդեցությունը բջիջների բազմացման վրա
Ս.Վ.Մարության
Բնագետ 2016 62-65

http://www.ysu.am/bnaget

Article

Влияние рентгеновского иблучения на флюоресцентные параметры ДНК дрожжей, облученных при разных температурах
С.В.Марутян, А.Л.Навасардян, Л.А.Навасардян

Химия и химическая технология 2015 5-7

http://elibrary.ru/title_about.asp?id=50556

Article

Հիվանդ և առողջ մարդկանց աղիքային միկրոֆլորայի Escherichia coli բջիջների ԴՆԹ-ի ուսումնասիրությունը ֆլյուորեսցենտային մեթոդով
Ս.Վ.Մարության
Գիտաբժշկական հանդես 2015 34-38

http://nih.am/journal/

Article

Transmission and Scanning Electron Microscopy of Contacts between Bacterial and Yeast Cells in Biofilms on Different Surfaces
Karlen Hovnanyan, Seda Marutyan, Liparit Navasardyan, Astghik Pepoyan, Armen Trchounian

Open Access Library Journal 2015 e1492.

http://www.scirp.org/journal/oalibj/

Article

Impact of Lactobacillus acidophilus INMIA 9602 Er-2 and Escherichia coli M-17 on some clinical blood characteristics of familial Mediterranean fever disease patients from the Armenian cohort
Seda Marutyan, Marine Balayan, Anahit Manvelyan, Marianna Isajanyan, Vardan Tsaturyan,

Astghik Pepoyan, Francesco Marotta, Tamas Torok

International Journal of Probiotics & Prebiotics 2015 91-96

http://www.scimagojr.com/journalsearch.php?q=12100157221&tip=sid

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Conference

DNA Fluorescence Parameters and Methylation Levels of Gut Commensal Escherichia coli from Crohn's Disease Patients
Marutyan S.V., Pepoyan A., Manvelyan A.M., Balayan M.H., Minasbekyan L.A., Hwvnanajan K.O.,

Tsaturyan V.
2015 314a

https://doi.org/10.1016/j.bpj.2014.11.1708

Conference

The investigation of guanine compounds deamination intensity after the influence of X-ray irradiation and repair in Candida yeasts
Marutyan S.V.,, Navasardyan L.A., Navasardyan A.L., Arshakyan L.

2015 99

http://armbiotech.am/arm/conf/conf3/index.html

Article

ВЛИЯНИЕ РЕНТГЕНОВСКОГО ОБЛУЧЕНИЯ НА ДЕЗАМИНИРОВАНИЕ ЦИТИДИНОВЫХ СОЕДИНЕНИЙ В ДРОЖЖЕВЫХ КЛЕТКАХ
Марутян С.В., Навасардян Л.А., Навасардян А.Л., Аршакян Л.

Biological Journal of Armenia 2014 75-78

http://www.flib.sci.am/eng/Biology/

Conference

The changes of deamination intensity of purine compounds in yeasts Candida guilliermondii under influence of X-radiation and postradiation repair
Marutyan S.V., Navasardyan A.L., Arshakyan L., Navasardyan L.A.

2014 35

http://tmmb.ysu.am/files/TMMB

Conference

Imaging analysis by electron microscopy of volutin granules formation in some species of bacteria during the growth, yeast and protozoa after the stresses
K.O. Hovnanyan, K.A. Sargsyan, N.L. Hovnanyan, S.V. Marutyan, M.K. Hovnanyan, A.A. Trchounian,

L.H. Navasardyan
2012 1-2

https://www.emc2012.org.uk/

Article

Изучение влияния рентгеновского облучения на ультраструктурную организацию волютинообразования у Candida guilliermondii
Овнанян К.О., Навасардян А.Л., Саргсян К.А., Овнанян М.К., Навасардян Л.А., Марутян С.В.

Вестник МАНЭБ 2011 34-37

Article

ՌԵՆՏԳԵՆՅԱՆ ՃԱՌԱԳԱՅԹՄԱՆ ԵՆԹԱՐԿՎԱԾ C. guilliermondii ՀՊ-4 ԽՄՈՐԱՍՆԿԱՅԻՆ ԲՋԻՋՆԵՐԻ ԿԵՆՍԱԿԱՆ ԱԿՏԻՎՈՒԹՅԱՆ ՀԱՄԵՄԱՏԱԿԱՆ ՈՒՍՈՒՄՆԱՍԻՐՈՒԹՅՈՒՆԸ
Ա.Լ.Նավասարդյան, Ս.Վ.Մարության, Լ.Հ.Նավասարդյան, Մ.Ա.Դավթյան

ԵՊՀ Գիտական տեղեկագիր, Բնական գիտություններ 2011 46-49

Article

Տարբեր օրգանիզմների ԴՆԹ-ի համեմատական ուսումնասիրումը ֆլյուրեսցենտային անալիզի

եղանակով

Մ. Ա. Դավթյան, Լ. Հ. Նավասարդյան, Ս. Վ. Մարության, Ա. Լ. Նավասարդյան

Biological Journal of Armenia 2010 86-89