



Alexandru Bogdan Stache

Date of birth: 12/04/1992 | **Place of birth:** Piatra Neamt, Romania | **Nationality:** Romanian |

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WORK EXPERIENCE

 **REGIONAL INSTITUTE OF ONCOLOGY IASI** – IASI, ROMANIA

SCIENTIFIC RESEARCH ASSISTANT – 01/04/2020 – 28/09/2025

Scientific research assistant, biology specialty (COR 213137), within the Molecular Biology department of the "Center of fundamental research and experimental development in translational medicine - TRANSCEND"

 **DEXTER COM S.R.L.** – BUCHAREST, ROMANIA

SALES REPRESENTATIVE – 30/09/2016 – 23/11/2019

EDUCATION AND TRAINING

30/09/2018 – 04/09/2023 Iasi, Romania

DOCTORATE "Alexandru Ioan Cuza" University of Iasi, Faculty of Biology, Doctoral School of Biology

Doctoral studies in the field of Biology

Title of thesis: „*The evaluation of non-thermal atmospheric pressure plasma treatment effects on in vitro cellular models*”

09/2014 – 07/2016 Iasi, Romania

MASTER'S DEGREE "Alexandru Ioan Cuza" University of Iasi, Faculty of Biology

Field of study: Biology

Specialization: Molecular Genetics

05/2015 – 08/2015 Konstanz, Germany

ERASMUS+ INTERSHIP University of Konstanz, Limnological Institute

Participation in the summer school "Limnology of the Lakes and Dynamics of Aquatic Systems".

09/2011 – 07/2014 Iasi, Romania

BACHELOR'S DEGREE "Alexandru Ioan Cuza" University of Iasi, Faculty of Biology

Field of study: Biology

Specialization: Biology

08/2007 – 07/2011 Piatra Neamt, Romania

BACCALAUREATE DIPLOMA AND PROFESSIONAL CERTIFICATE IN COMPUTER SCIENCE National College of Informatics

Real profile, Intensive Mathematics-Informatics.

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

SKILLS

Microsoft/ Microsoft Office | Browsing the Internet (experienced) | Origin software (data processing and analysis) | GraphPad Prism | Corel (CorelDRAW, Corel VideoStudio) | R-Studio (basic) | Mendeley Citation Management | HTML (Basics) | C++ (beginner) | SQL (beginner) | Social Media

DRIVING LICENCE

Driving Licence: B

PROFESSIONAL COMPETENCIES

Organizational skills

- Organizer of the seminar *Analysis of Gene Expression and Regulation on Several Levels*, presented by Mr. Dr. Oleksii Ivanov - Promega GmbH, in Iasi.
- Secretary of the Organizing Committee of the "FACULTY OF BIOLOGY ANNUAL SCIENTIFIC MEETING - FBASM 2016" conference.
- Secretary of the Scientific Council at the Regional Oncology Institute, Iasi.

CERTIFICATIONS

22/06/2021

European Structural and Cohesion Funds Access Expert

22/06/2021

Project Manager

COURSES

16/02/2022

Real-Time Live-Cell Imaging and Analysis for Drug Discovery

Organizer: Promega

Speakers: Terry Riss and Christian Oberdanner

10/02/2021

NGSO (Next-Gen Sequencing Oligos) for Consistent and Proper Sequence Assembly

Organizer: Millipore Sigma

Speaker: Tom Russell

04/10/2020 – 05/10/2020

Sensitivity you can count on with Merck ELISA and SMC™ assays for protein biomarker detection

Organizer: Merck Romania

Speaker: Igor Pongrac

23/07/2020 – 24/07/2020

Scopus - importanta metricilor

Organizing: Elsevier Romania

Speaker: Dr. Horea Gurgu

13/07/2020

Rethink Western blotting with Merck

Organizer: Merck Romania

Speaker: Igor Pongrac

25/06/2020

Cultivate Reality – Take Advantages of Using 3D Cell Culture

Organizer: Merck Romania

Speaker: Igor Pongrac

09/06/2020

Restart Cell Culture with Merck

Organizer: Merck Romania

Speaker: Igor Pongrac

03/04/2019 – 04/04/2019

5th @RoBioinfo Seminar: Bioinformatics tools for exploring protein biology

Organizer: Romanian Society of Bioinformatics

09/05/2018

Analysis of Gene Expression and Regulation on Several Levels

Organizer: Promega

Speaker: Oleksii Ivanov

● CONFERENCES & SEMINARS

20/11/2024 – 23/11/2024 Iasi

CONFER 2024

Participation with poster.

A.B. STACHE, LOREDANA MIHAIELA DRAGOS, A. TIRON, I.C. IVANOV, I. TOPALA, I. MIHAILA, D.L. GORGAN - Comparative analysis of cytotoxicity induced in various cancer cell lines by direct and indirect cold atmospheric plasma treatments

22/11/2023 – 25/11/2023 Iasi

CONFER 2023

Participation with presentation.

A.B. STACHE, LOREDANA MIHAIELA DRAGOS, I.C. IVANOV, I. TOPALĂ, I. MIHĂILĂ, C.T. MIHAI, D.L. GORGAN - Exploring cold atmospheric plasma treatment effects on osteosarcoma and osteoblast cells

24/11/2022 – 26/11/2022 Iasi

CONFER 2022

Participation with poster.

A.B. STACHE, LOREDANA MIHAIELA DRAGOS, I.C. IVANOV, I. TOPALĂ, I. MIHĂILĂ, C.T. MIHAI, D.L. GORGAN - Evaluation of the intracellular reactive oxygen and nitrogen species induced by cold atmospheric plasma treatment

18/11/2021 – 21/11/2021 Iasi

CONFER 2021

Participation with e-poster (on-line).

A.B. STACHE, LOREDANA MIHAIELA DRAGOS, I.C. IVANOV, I. TOPALĂ, I. MIHĂILĂ, C.T. MIHAI, D.L. GORGAN - Cold atmospheric plasma indirect treatment generates different anti-apoptotic genetic response in osteoblasts and osteosarcoma cells

28/10/2021 – 29/10/2021 Iasi

New trends in Biology: from molecules to complex systems

Participation with e-poster (on-line).

ALEXANDRU BOGDAN STACHE, LOREDANA MIHAIELA DRAGOS, IONUȚ TOPALĂ, ILARION MIHĂILĂ, COSMIN TEODOR MIHAI, DRAGOȘ LUCIAN GORGAN - The impact of cold atmospheric plasma treatment on the expression of genes associated with the control of apoptosis

19/11/2020 – 22/11/2020 Iasi

CONFER 2020

Participation with e-poster (on-line).

A.B. STACHE, LOREDANA MIHAIELA DRAGOS, I.C. IVANOV, I. MIHAILA, I. TOPALA, C.T. MIHAI, D.L. GORGAN - The impact of two different cold atmospheric plasma-exposed media treatments on the osteosarcoma cells viability

22/10/2020 – 23/10/2020 Iasi

CONFERINȚA ȘCOLILOR DOCTORALE DIN CADRUL UNIVERSITĂȚII „ALEXANDRU IOAN CUZA” DIN IAȘI

Participation with presentation (on-line).

A.B. STACHE, L. M. DRAGOS, I. MIHAILA, I. TOPALA, D.L. GORGAN - CAP treatment modulates the apoptosis and cell cycle control in a human osteosarcoma cell line

20/06/2019 – 23/06/2019 Constanta

11TH NATIONAL CONGRESS WITH INTERNATIONAL PARTICIPATION AND 37TH ANNUAL SCIENTIFIC SESSION OF ROMANIAN SOCIETY FOR CELL BIOLOGY

Participation with poster.

ALEXANDRU BOGDAN STACHE, LOREDANA DRAGOȘ, ILARION MIHĂILĂ, IONUȚ TOPALĂ, LUCIAN DRAGOȘ GORGAN - Cold plasma-induced apoptosis in osteosarcoma cells

02/11/2017 – 04/11/2017 Bacau

SYMPOSIUM 'ECOLOGY AND PROTECTION OF ECOSYSTEMS' THE XII TH EDITION

Participation with poster.

ALEXANDRU-BOGDAN STACHE, MITICĂ CIORPAC, LUCIAN DRAGOȘ GORGAN - The dynamics of cytochrome b and MHC class II genes correlation to the specific life environment in *Carassius gibelio*

12/10/2016 – 13/10/2016 Chisinau

International Conference of Zoologists "SUSTAINABLE USE, PROTECTION OF ANIMAL WORLD AND FOREST MANAGEMENT IN THE CONTEXT OF CLIMATE CHANGE" THE IX TH EDITION

Participation with poster.

Alexandru B. Stache, Mitica Ciorpac, Ovidiu A. Popescul, Lucian D. Gorgan - Dynamics of cytochrome B and MHC class II genes of *Carassius gibelio* species correlated with the specific life environment

05/11/2015 – 07/11/2015 Bacau

SYMPOSIUM 'ECOLOGY AND PROTECTION OF ECOSYSTEMS' THE XI TH EDITION

Participation with poster.

Alexandru Bogdan STACHE, Mitică CIORPAC, Lucian Dragoș GORGAN - A new insight on *Carassius gibelio* phylogeography

● PROJECTS

10/03/2025 – CURRENT

Medical Applications of High-Power Lasers - Dr. LASER

Project Code: SMIS 326475

Position in the Project: Scientific Researcher

Project Activities:

- Isolation and purification of DNA and RNA
- PCR amplification
- Gene expression analysis
- Genotoxicity assessment
- Evaluation of oxidative stress

29/01/2025 – 31/12/2025

Development of the Monitoring Station for migratory fish: sturgeon and mackerel - Isaccea

Cod SMIS 2021+ 321108

Position in the Project: Scientific Research Assistant

Project activities:

- DNA isolation and purification
- PCR amplification
- Analysis of microsatellite markers.

01/10/2023 – 08/04/2025

Enhancing and Strengthening the Excellence in Interdisciplinary Biomedical Research at TRANSCEND (ESEI-BioMed)

Reference number of the project: 952390/09.06.2020

Position in the Project: Scientific Research Assistant

Project activities:

- extensive literature reviews to gather relevant information and support ongoing research initiatives
- analysis of various biological fluids and exosomes using MALDI-TOF and HPLC for the detection and molecular characterization of tumor biomarkers.

2022 – 2023

Active targeted drug delivery systems based on peptide-functionalized magnetic nanoparticles for the treatment of inner ear diseases (TargEar)

Project code: RO-NO-2019-0187

Position in the Project: Scientific Research Assistant

Project activities:

- evaluation of molecular targets of interest by western blot analysis of cell culture lysates.

2022 – 2023

Development of the Monitoring Station for migratory fish: sturgeon and mackerel - Isaccea

Cod SMIS 2014+ 136849

Position in the Project: Scientific Research Assistant

Project activities:

- DNA isolation and purification
- PCR amplification
- Analysis of microsatellite markers.

PUBLICATIONS

2025

[Sweroside Modulates Oxidative Stress and Neuroplasticity-Related Gene Expression in Scopolamine-Treated Zebrafish](#)

Ion Brinza, **Bogdan Alexandru Stache**, Marius Mihasan, Dragos Lucian Gorgan, Mohamed A. El Raey, Walaa El-Kashak. CNS & Neurological Disorders - Drug Targets, Volume 24, Issue 12, Page: [921 - 930].

2024

[Rhoifolin, baicalein 5,6-dimethyl ether and agathisflavone prevent amnesia induced in scopolamine zebrafish \(Danio rerio\) model by increasing the mRNA expression of bdnf, npy, egr-1, nfr2α, and creb1 genes](#)

Ion Brinza, Razvan Stefan Boiangiu, Marius Mihasan, Dragos Lucian Gorgan, **Alexandru Bogdan Stache**, Ahmed Abd-Alkhalek, Heba El-Nashar, Iriny Ayoub, Nada Mostafa, Omayma Eldahshan, Abdel Nasser Singab, Lucian Hritcu. European Journal of Pharmacology, Volume 984, 2024, 177013.

2024

[The Distinct Biological Effects of 6-Hydroxy-L-Nicotine in Representative Cancer Cell Lines](#)

Paula Alexandra Postu, Razvan Stefan Boiangiu, Marius Mihasan, **Alexandru Bogdan Stache**, Adrian Tiron, Lucian Hritcu. 2024 Nov 26;29(23):5593.

2024

[Comparative In Vitro Study between Biocompatible Chitosan-Based Magnetic Nanocapsules and Liposome Formulations with Potential Application in Anti-Inflammatory Therapy](#)

Vochița, G.; Cadinoiu, A.N.; Rață, D.-M.; Atanase, L.I.; Popa, M.; Mahdieh, A.; Mihai, C.-T.; **Stache, A.-B.**; Moldovan, C.-V.; Băcăiță, E.S.; et al. *Int. J. Mol. Sci.* 2024, 25, 8454.

2023

Optimization of Indirect CAP Exposure as an Effective Osteosarcoma Cells Treatment with Cytotoxic Effects

Stache, A.B.; Mihăilă, I.; Gerber, I.C.; Dragoș, L.M.; Mihai, C.T.; Ivanov, I.C.; Topală, I.; Gorgan, D.-L. *Appl. Sci.*, 13, 7803. .

2023

Cold atmospheric plasma treatment modulates the expression of cdk1, tnfa and tp53 genes in human osteosarcoma cells

Stache, A.B.; Mihăilă, I.; Gerber, I.C.; Dragoș, L.M.; Mihai, C.T.; Ivanov, I.C.; Topală, I.; Gorgan, D.-L. *J Exp Molec Biol* 24(3):175-194.

2022

Prognostic Value of Association of Copy Number Alterations and Cell-Surface Expression Markers in Newly Diagnosed Multiple Myeloma Patients

Dragoș, M.L.; Ivanov, I.C.; Mențel, M.; Văcărean-Trandafir, I.C.; Sireteanu, A.; Titianu, A.A.; Dăscălescu, A.S.; **Stache, A.B.**; Jitaru, D.; Gorgan, D.L. *Int. J. Mol. Sci.*, 23, 7530

2021

Anxiolytic, Promnesic, Anti-Acetylcholinesterase and Antioxidant Effects of Cotinine and 6-Hydroxy-L-Nicotine in Scopalamine-Induced Zebrafish (Danio rerio) Model of Alzheimer's Disease

Boiangiu, R.S.; Mihasan, M.; Gorgan, D.L.; **Stache, B.A.**; Hritcu, L. *Antioxidants*, 10, 212.

2020

Cotinine and 6-Hydroxy-L-Nicotine Reverses Memory Deficits and Reduces Oxidative Stress in Aβ25-35-Induced Rat Model of Alzheimer's Disease

Boiangiu, R.S.; Mihasan, M.; Gorgan, D.L.; **Stache, B.A.**; Petre, B.A.; Hritcu, L. *Antioxidants*, 9, 768.