Curriculum Vitae

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Personal information

First name(s) / Surname(s)	**Szedlacsek Ştefan Eugen**
Address(es)	Institute of Biochemistry of the Romanian Academy, Splaiul Independenței 296, 060031 Bucharest (România), stefan.szedlacsek@biochim.ro; https://www.biochim.ro; https://www.biochim.ro/researchers-staff/stefan.szedlacsek/
Telephone(s)	+40-21-223 9069
Fax(es)	+40-21-223 9068
Mobil phone	x
Nationality	Romanian
Date of birth	October 1, 1952
Gender	Male

Work experience

Dates	**1990-present**
Occupation or position held	Head, Department of Enzymology, Institute of Biochemistry of the Romanian Academy, Bucharest
Main activities and responsibilities	Structural and functional studies of enzymes involved in signal transduction; Studies on structure-function relationship in protein tyrosine phosphatases; 3D structure determination of some enzymes;
Name of employer	Institute of Biochemistry of the Romanian Academy; Bucharest, (Romania)
Type of business or sector	Research
Dates	**2008-2015**
Occupation or position held	Full professor
Main activities and responsibilities	"Recombinant DNA Technology" Course / Director at the Biological Chemistry division
Name of employer	Ecole Normale Superieure Bucharest, Romania
Type of business or sector	Education/ Teaching
Dates	**2003-present**
Occupation or position held	Full professor
Main activities and responsibilities	"Biochemistry" Course
Name of employer	"Sapientia" University – Miercurea-Ciuc (Romania)
Type of business or sector	Education / Teaching
Dates	**1990-1991/ 2005-2006**
Occupation or position held	Associate professor
Main activities and responsibilities	"Enzymatic reactions mechanisms" Course, "Recombinant DNA Technology" Course
Name of employer	University of Bucharest (Romania)
Type of business or sector	Education / Teaching
Dates	**1994-2007**
Occupation or position held	Associate professor
Main activities and responsibilities	"Recombinant DNA technology" Course
Name of employer	Polytechnic University – Bucharest, (Romania)
Type of business or sector	Education / Teaching
Dates	**1983-1990**
Occupation or position held	Senior Biochemist
Main activities and responsibilities	Protein purification by affinity and hydrophobic chromatography. Theoretical and experimental studies of kinetics and mechanisms of enzymatic-reactions. Studies of enzymatic kinetics for tight-binding inhibitors. New models for enzymatic catalysis analyzed from the point of view of chain reactions.
Name of employer	Institute of Biological Sciences, Biochemistry
Type of business or sector	Department Research

Dates	**1979-1983**
Occupation or position held	Researcher Biochemist
Main activities and responsibilities	Biochemical studies realized: new methods for nicotinamide adenine dinucleotide-(NAD)-purification. Process optimization of proteolysis used in the preparation of culture media. Optimization of cultivation of "difficult" microorganism at industrial scale. Improving the composition of culture media for vaccine production. Theoretical and experimental studies concerning bacterial growth. Studies of UV-induced mutagenesis on freeze-dried bacteria.
Name of employer	"Pasteur" Institute, Calea Giulești nr. 333, Zip code 060269, Bucharest, România
Type of business or sector	Research
Dates	**1976-1979**
Occupation or position held	Chemical Engineer,
Name of employer	Sintofarm Pharmaceuticals, Bucharest, Romania
Type of business or sector	Drug synthesis and production

Education and training

Dates	**1990**
Title of qualification awarded	Ph.D. in Biotechnology
Principal subjects	"Theoretical and experimental models of enzyme reactions"
Name and type of organisation providing education and training	Polytechnic University of Bucharest
Dates	**1976-1981**
Title of qualification awarded	M.S. in Mathematics
Principal subjects	"Aplications of Markov's chains theory in the study of enzymatic reactions"
Name and type of organisation providing education and training	University of Bucharest, Department of Mathematics and Computer Sciences
Dates	**1971-1976**
Title of qualification awarded	M.S., Diplom engineer
Principal subjects	Organic Synthesis
Name and type of organisation providing education and training	Polytechnic University of Bucharest, Chemical Engineering Faculty, Section of Organic Compounds Synthesis

National ranking **Head of promotion**

PERSONAL SKILLS	Understanding				Speaking					Writing
Mother language(s):	Hungarian, Romanian									
Other language(s) Self-assessment European level (*)		Listening		Reading	Spoken interaction		Spoken production			
English	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
French	A2	Basic user	B1	Independent user	A2	Basic user	A2	Basic user	B1	Independent user
German	B1	Independent user	B1	Independent user	A2	Basic user	A2	Basic user	A2	Basic user

Fellowships / Grants

Year/ Period	Research Program	Host Institution / Position
22.08.2022 21.02.2023	Fulbright Visiting Scholar Program: Grant No. 779/14.06.2022 / Project Title: Biochemical and Cellular Investigations on the Potential Use of AFFIBODYs in Leukemia Therapy	University of Texas, MD Anderson Cancer Center (USA), Department of Leukemia / Professor
09.12.2009 19.12.2009	Grant for P-CUBE TNA Project (FP7) under the NATO Linkage Grant Program	Wellcome Trust Centre for Human Genetics, Division of Structural Biology, University of Oxford, UK / Fellow
30.06.2008 01.08.2008	Collaboration Grant No. MRTN-CT-2006-035830 (FP6), acronym PTPNET	Wellcome Trust Centre for Human Genetics, Division of Structural Biology, University of Oxford, UK / Research Scientist
16.04.2007 12.07.2007	Marie Curie Excellence Grant, Group Leader: Daniel Funeriu	Technical University of Munich, Department of Chemistry, Germany / Research Scientist
01.02.2005 30.04.2005	Grant from the German Research Foundation (DFG)	Department of Structural Biology, Saarland University, Faculty of Medicine, Homburg, Germany / Research Scientist
01.06.2004 30.07.2004	Grant from the German Research Foundation (DFG)	Department of Structural Biology, Saarland University, Faculty of Medicine, Homburg, Germany / Research Scientist
2001 - 2002	NATO Linkage Grant Program and 'Alexander von Humboldt' Research Fellowship	Max Planck Institute of Molecular Physiology, Dortmund, Germany / Research Scientist
18.02.2000 29.04.2000	EMBO Research Fellowship	Max Planck Institute of Molecular Physiology, Dortmund, Germany / Research Scientist
1998 - 1999	NATO Linkage Grant Program and 'Alexander von Humboldt' Research Fellowship	Max Planck Institute of Molecular Physiology, Dortmund, Germany / Research Scientist
15.05.1997 14.08.1997	'Alexander von Humboldt' Research Fellowship	Department of Molecular Membrane Biology, Max Planck Institute of Biophysics, Frankfurt/Main, Germany / Research Scientist
05.07.1996 20.12.1996	'Alexander von Humboldt' Fellowship	Department of Molecular Membrane Biology, Max Planck Institute of Biophysics, Frankfurt/Main, Germany / Fellow
01.11.1992 30.11.1993	'Alexander von Humboldt' Fellowship	Institute of Biochemistry, Christian Albrechts University, Kiel, Germany / Fellow
01.07.1991 31.08.1992	Postdoctoral Research Fellowship	Burnsides Research Laboratory, University of Illinois at Urbana-Champaign, USA / Postdoc
15.10.1988 12.12.1988	FEBS Fellowship	FEBS Fellow at CNRS Molecular Biology Center, Marseille, France

International grants

Period	Project Name / Acronym	Grant No. / Involved Institutions	Project Role
2022-2024	Radiolabeling of Affibody for Tumor Diagnosis and Theranostic Applications in Nuclear Medicine	2886/2021 Bilateral Agreement for Joint Research Project between: Romanian Academy: Institute of Biochemistry, Hungarian Academy of Sciences: ATOMKI Research Institute in Debrecen, University of Debrecen - Volunteer Partner	Project Coordinator for Romania
2021-2022	Next Generation Drug Targets for Schizophrenia / NEXTDRUG	EEA-RO-NO-2018-0535 No.:34SEE/2021	Professor / Group Leader
2019-2022	New Radiolabeled Affibody for Imaging and Targeted Therapy	3698/2018 Bilateral Agreement for Joint Research Project between: Romanian Academy: Institute of Biochemistry, Hungarian Academy of Sciences: ATOMKI Research Institute in Debrecen, University of Debrecen - Volunteer Partner	Project Coordinator for Romania
2017-2018	Compound for Inhibiting Certain Signaling Processes Related to Cognitive Process Evolution	327/2017 Research Funding Agreement with CRU Ltd Hungary	Project Coordinator for Romania
2007-2011	Protein Tyrosine Phosphatases: Structure, Regulation, and Biological Function / PTPNET	MRTN-CT-2006-No.: 035830; Marie Curie Research Training Networks, Framework Program 6, funded by the European Commission	Partner Project Manager

National Grants

2021-2022 PN-III-P4-ID-PCE-2020-2411 (no: 147/2021) "Identification and characterization of the receptor for neuropathy of CART", Experienced researcher;

2020-2022 PN-III-P2-2.1-PED-2019-4184 (no: 548/2020, "The Development in Oncology of Novel Radiopharmaceuticals and Nuclear Techniques for Diagnostic Imaging and Personalized Treatment at Molecular Level'' (NARAD); Partner project manager;

2018-2021 PN-III-P1-1.2-PCCDI-2017-0737 (no:35/2018), "Genomic mapping of population from polluted area with radioactivity and heavy metals to increase national security'' (ARTEMIS), Partner project manager;

2018-2021 PN-III-P1-1.2-PCCDI-2017-0769 (no:64/2018), "The Development in Oncology of Novel Radiopharmaceuticals and Nuclear Techniques for Diagnostic Imaging and Personalized Treatment at Molecular Level" (ONCORAD), Partner project manager;

2012-2016 PNII-ID-PCE-2011-0024, (no:2/2012), „V(D)J Recombination Targeted in Cis by Transcription Induced DNA Supercoiling", Partner project manager;

2012-2016 PN-II-PT-PCCA-2011-3.1-0688(no:79/2012), „Preclinical model of cell therapy involving the interaction between tyrosine phosphatase proteins and microRNA to optimize neovascularization" (THERION), Partner project manager;

2011-2016 PN-II-ID-PCE-2011-3-0743 (no:296/2011), "Reconstruction of Ancestor of Receptor Protein Tyrosine Phosphatase Catalytic", Project coordinator;

2008-2010 Pi-CD-PNII (Investitii), (no:194 CPI/2008), "Laboratory for determining the three-dimensional structure of proteins by X-ray diffraction" (DIPROXAL), Project coordinator;

2007-2010 PN-II-ID-PCE-2007-877, (no:210/2007), “Determination of threedimensional structure for some interesting proteins by X ray diffraction“, Project coordinator;

2007-2010 PNCDI-II-04-3452, (no:41-038/2007), “Evaluation of the substrate specificity of several protein tyrosine phosphatases involved in diseases” (FOSFOTIR), Partner;

2007-2010 PN-II-PCCA, (no.: 61-027/.2007, “Redesigning enzymatic specificity by guided evolution: development of a specific serine protease for C-terminal cleavage of phosphotyrosine” (PHOSPHOTYRASE), Partner project manager;

2006-2009 CNCSIS766, (no:11GR/2006, "Enzymatic caracterization and identification of potential native substrates for Eyes absent, protein responsible for Branchio-Oto-Renal syndrome“ (BOR), Project coordinator;

2006-2008 CEEX-M1-C2-2380-2-CEx06-11-no:97/2006, "New mathematical approaches in biology, with applications" (BIOMAT), Partner project manager;

2006-2008 CEEX P-CD-o61126/2006, "Mathematical analysis of response experiments in chemical and biochemical kinetics, genetics and molecular biology" (RESPONSE), Partner project manager;

2005-2008 CEEX-BIOTECH-PC-D02-PT1 1248(no:1/2005), “Molecular optimization of a central enzyme in the metabolic pathway of the xylose conversion. Optimized reactor for the enzymatic transformation of the xylose originating from cellulose wastes “ (OMEXIL), Project coordinator;

2005-2008 CEEX-BIOTECH-PC-D02-PT08-985, (no:17/2005, "Key elements in the control strategy of respiratory viruses in pigs by identifying the etiopathogenetic differences associated with circulating viral pathotypes in Romania” (VIRORESP), Partner project manager;

2004-2006 PED-VIASAN, (no:ASM353/2004), "Molecular analysis of the involvement of protein tyrosine phosphatase PRL-3 in colorectal cancer metastasis"(FOSFOMETACOL), Project coordinator;

2004-2006 P-CD CEEX BIOTECH, (no:91/2004), "Human fetal liver stem cells - characterization and conditioning for cell transplantation" (HEPSTELLS), Partner project manager;

2004-2005 CNCSIS, (no:1490/2004), "Mathematical modeling of biological processes", Participant;

2004-2004 Romanian Academy, (no:60/2004), "Optimization of PRL3 expression in prokaryotic and eukaryotic system and purification of the protein thus obtained", Project coordinator;

2002-2004 PNCDI-PED-02-02, (no:427/2002), “Gene cloning, expression, purification and characterization of bacterial phosphoketolase. Laboratory plant for its use in the conversion of xylose into compounds of biotechnological importance” (BIOTECH), Project coordinator;

International conferences, lectures, invitations, posters

2024 RomanianSpeaker- HSP Virtual Mentorship Series on Safeguarding University Technology Transfer & Intellectual Property; organized by Health Security Partners (HSP)-USA; 12 november.

2024 FRONTIERS IN BIOCHEMISTRY: ROMANIA-CHINA COLLABORATIVE PERSPECTIVES“ Ion Heliade Radulescu Auditorium”, Romanian Academy- Oral presentation: "Rationally-Designed Targeting Agents in Cancer and Neurodegenerative Disorders"- 2 september.

2024 Romanian Speaker - Workshop "Safeguarding University Technology Transfer and Intellectual Property"; online; oral lecture on: " "ROMANIA Perspective: To Roles and Responsibilties, and Important Players"; organized by Health Security Partners (HSP)-USA; 23 May.

2024 Successful R&I in Europe 2024: 11th European Networking Event: Cluster 1: Health; Oral lecture on: „DEVELOPING SMART PEPTIDES: A NEW FRONTIER IN COMBATING MILD COGNITIVE IMPAIRMENT"; organized by ZENIT GmbH; Germany, Dusseldorf; 15-16 February.

2023 Selection and presentation of two posters at the 37th Annual Symposium of the Protein Society, Boston, USA, July 14-17:

a) Nr poster ABS#501: „Rationally Designed Peptides Improve Cognitionin Rats" https://od.lk/f/NF8yODM2MTk5Njhf

b) Nr.poster: ABS#490: „An In-Vitro Investigation of Tau Protein Auto-acetylation" https://od.lk/f/NF8yODM2MTk5Njhf

2023 Oral presentation: „Targeting AMPA Receptor Endocytosis for Cognitive Enhancement and Behavioral Modulation", Profesor Szedlacsek Ștefan; University Debrecen; 17 mai;

2023 Visiting Lecturer in the Fulbright Visiting Scholar Program at Seton Hall University, Department of Chemistry and Biochemistry, South Orange, New Jersey (USA); The title of the oral presentation " „Rationally Designed Peptides Improve Cognition in Rats"; 22-26 January.

2023 Invited Lecturer in the Fulbright Visiting Scholar Program for the Chemistry Seminar Series at Clarkson University, NY (USA); two oral presentations: "Molecular Vehicles for targeted diagnostics and Therapy of Cancer" and "Applications of Synthetic Biology: Rationally Designed Peptides and Affibodies for Biomedical Applications"; January 20-21.

2022 Participant as „Fall 2022 Cleveland Fulbright Scholar Enrichment Seminar", Marriott Key Tower Downtown, Cleveland, Ohio (USA); 07-10 december.

2022 Participant in the program Fulbright Visiting Scholar to „Eastern Analytical Symposium", Crowne Plaza Princeton, New Jersey (USA); 14-16 november.

2019 Symposium in collaboration with: Institute of Biochemistry of the Romanian Academy, Bucharest, Romania; "Horia Hulubei" National Research and Development Institute for Physics and Nuclear Engineering, Bucharest, Romania; ATOMKI Nuclear Research Institute, Debrecen, Hungary and Riken Institute for Physical and Chemical Research, Japan; Oral presentation: "Molecular vehicles for diagnosis and targeted therapy" Venue: Institute of Biochemistry of the Romanian Academy, Bucharest, Romania;

2019 Participation in the inter-academic exchanges with the Hungarian Academy of Sciences, regarding the collaboration stage (joint project, Bilateral agreement no.3698/13.09.2018), Oral presentation: "New radiolabeled affibodies for imaging and targeted therapy", Venue: Nuclear Research Institute (ATOMKI), Debrecen, Hungary, Sept.29 - 05 oct.

2018 Participation as guest at the "A.Xth Meeting on neurodegenerative diseases; Biology & Therapy ", Venue: New York, U.S.A., Organizer: Cold Spring Harbor Laboratory (USA), Nov.28 – Dec.01.

2016 Holding a lecture on "New results in the field of STEP inhibitors and synaptic enlargement"; Sept 07-09th;Venue: Proteomics Laboratory of the Institute of Biology at Eötvös Loránd University in Budapest, Hungary;

2011 "A universal protein tyrosine dephosporylating enzyme"; P-CUBE Users Meeting (financed by EC, FP7), September(5), Zürich (Switzerland),

2009 "Interface Analysis of the Complex between ERK2 and PTP-SL"; EMBO Conference "Europhosphatase 2009" on Protein phosphatases in development and disease June 14-19th, Egmond aan Zee, (The Netherlands);

2009 "Structural studies on the catalytic domain of protein tyrosine phosphatase-BL"INSTRUCT "Central-Eastern European INSTRUCT Workshop, March 29th – April 1st, Budapest (Hungary);

2008 Presented a seminar entitled "Purification and crystallization of proteins" during the PTPNET-Marie Curie training network "Bioinformatics and Crystallography Workshop", held in Manchester between June 13-18.

2008 Posters Osaka (on PTPs) "Structure-function analysis of Eyes absent proteins - aspartate dependent protein tyrosine phosphatases", poster authors: Mihaela Pascaru, Stefan E. Szedlacsek, Congress of the International Union of Crystallography, 23-31 august, Osaka, Japan.

2007 “Structural studies on KIM-containing protein tyrosine phosphatases” – Institute of Enzymology of the Hungarian Academy, September 14th, Budapest (Hungary);

2006 “When the complex of proteins with known structures does not crystallize”; Sofia school of protein science – September 27-30th, Sofia (Bulgaria);

2003 Organizer/Invited speaker at FEBS Advanced Theoretical and Practical Course: “ Recombinant Technology and Protein Expression”, Bucharest, Romania - September 21-27

2003 ”Cloning, expression and preliminary characterization of xylulose 5-phosphate phosphoketolase from Lactococcus lactis”, 13th Balkan Biochemical Biophysical Days & Meeting Metabolic, October 12-15th, Kuşadası (Turkey);

2001 “Crystal Structure of Protein Tyrosine Phosphatase SL/BR7 and implications in regulation of ERK2 MAP Kinase Regulation”, EMBO Conference on <Protein Phosphorylation and Protein Phosphatases> Marburg-(Germany).

2001 Organizer/Invited speaker at FEBS Advanced Theoretical and Practical Course: “Recombinant DNA Technology” Bucharest, Romania- September 2 – 7, 2001

1994 Invited speaker at “Kinetics of slow and tight-binding enzyme inhibition”, Satellite Meeting Molecular Mechanisms of Enzyme Action with IUBMB Conference, September 23-25, Bangalore (India).

1993 “Enzyme reactions as chain reactions” Biochemistry Institute - “Christian Albrechts” University of Kiel (Germany);

1991 Invited speaker: “New aspects in enzyme reaction kinetics” Burnsides Research Laboratory - University of Illinois - Urbana Champaign (USA).

Awards, titles, distinctions

2019: "Bercsényi Miklós" Award from “József Wildt” Science Foundation
2010: "Top-Cited Paper Award" FEBS Journal for the paper “Protein tyrosine phosphatases: structure-function relationships”; FEBS J. (2008) 275, 867-82
2003: "Emanoil Teodorescu" Award of the Romanian Academy "
2000: "Medal For scientific merit" - Awarded by the Government of Romania, with the rank of "Knight"

Member of scientific associations:

1997-present member Romanian Society of Biochemistry and Molecular Biology (Founding member and President from 1997 to 1999)
American Association for the Advancement of Science
Romanian Researchers Association "Ad Astra”, România
The Scientific Research Society “Sigma Xi” (USA)

Member in scientific organizations:

January 2025 – present**:** Honorary Advisor for Research, Development, and Innovation: Ministry of Education and Research, Romania
January 2025 – present: Member of the National Council for Ethics of Scientific Research, Technological Development and Innovation, Romania
2023 – 2024: Member of the National Council for Ethics of Scientific Research, Technological Development and Innovation, Romania
2020-2023: Vicepresident of the National Council for Ethics of Scientific Research, Technological Development and Innovation, Romania
2012-2013: Member of the Biological Security Commission, Romania
2000: External member of the public body of the Hungarian Academy of Sciences

Scientometric indicators:

Hirsch WOS Index (Clarivate Analytics): 16.
Google scholar: 19.
WOS Citations: 877.
Book chapters at international publishers: 3.
National patents: 8
International patent:1.

Editorial boards:
Associate Editor - Journal of Cellular and Molecular Medicine - John Wiley & Sons Ltd Publishing
Associate Editor - Frontiers in Pharmacology

ANNEX: List of publications- Szedlacsek Ștefan Eugen

1 "*Mn(II)-based diagnostic agents: from basic research to targeted diagnostic procedures"*: Balázs Váradi, Gergő Zoltán Sajtos, Károly Brezovcsik, Zoltan Szűcs, Stefan Szedlacsek, Gábor Nagy, Gyula Tircso; Scientia et Securitas; 25 Nov 2024; DOI: https://doi.org/10.1556/112.2024.00208

2 *Editorial: „Molecular targets in oncological and hematological disease management: innovations in precision medicine"*; Adrian Bogdan Tigu, Gregory Wiedman, Stefan Eugen Szedlacsek; Frontiers in Pharmacology; IF: 4.40 AI: 1.63; 2024 Sep; DOI: https://doi.org/10.1556/112.2024.00208

3 "*Synthesis and characterization of a novel $^{[52Mn]}$Mn-labelled affibody based radiotracer for HER2+ targeting*" Váradi, B., Brezovcsik, K., Garda, Z., Madarasi, E., Szedlacsek, H., Badea, R.-A., Vasilescu, A.-M., Puiu, A.-G., Ionescu, A., Sima, L.-E., Munteanu, C., V.-A., Călăraș, S., Vagner, A., Szikra, D., Toàn, N., M., Nagy, T., Szűcs, Z., *Szedlacsek, S., E*., Nagy, G., Tircsó, Inorganic Chemistry Frontiers, 2023; https://doi.org/10.1039/D3QI00356F,

4 "*Designed Peptide Inhibitors of STEP Phosphatase-GluA2 AMPA Receptor Interaction Enhance the Cognitive Performance in Rats*", Szedlacsek HS, Bajusz D, Badea RA, Pop A, Bică CC, Ravasz L, Mittli D, Mátyás D, Necula-Petrăreanu G, Munteanu CVA, Papp I, Juhász G, Hritcu L, Keserű GM, *Szedlacsek SE*. J Med Chem. 2022; https://pubmed.ncbi.nlm.nih.gov/34962802/

5 "*Trojan horse treatment based on PEG-coated extracellular vesicles to deliver doxorubicin to melanoma in vitro and in vivo*" Patras L, Ionescu AE, Munteanu C, Hajdu R, Kosa A, Porfire A, Licarete E, Rauca VF, Sesarman A, Luput L, Bulzu P, Chiroi P, Tranca RA, Meszaros MS, Negrea G, Barbu-Tudoran L, Potara M, *Szedlacsek S*, Banciu M; Cancer Biol Ther. 2021; https://pubmed.ncbi.nlm.nih.gov/34964693/

6 "*Regulation of TRPM8 Channel activity by Src-mediated Tyrosine Phosphorylation*", Manolache, A., Selescu, T., Maier, G., M., Mentel, M., Ionescu, A., E., Neacșu , C., Babeș, A., *Szedlacsek, S., E*.. Journal of Cellular Physiology; 2020; https://pubmed.ncbi.nlm.nih.gov/31729029/

7 „*Analysis of EYA3 phosphorylation by Src kinase identifies residues involved in cell Proliferation*", Ionescu, A., E., Mentel, M., Munteanu, C., V., A., Sima, L., E., Martin, E., C., Necula-Petrareanu, G., *Szedlacsek, S., E*.. International Journal of Molecular Sciences, Volume 20, Issue 24, 6307; 2019; https://pubmed.ncbi.nlm.nih.gov/31847183/

8 „*Biological and molecular modifications induced by cadmium and arsenic during breast and prostate cancer development*" ENVIRONMENTAL RESEARCH; By:Zimta, AA; Schitcu, V; Gurzau, E; Stavaru, C ; Manda, G; *Szedlacsek, S*; Berindan-Neagoe, Volume: 178, Article Number: 108700, DOI: 10.1016/j.envres; 2019; https://pubmed.ncbi.nlm.nih.gov/31520827/

9 "*Crystal structure of a xylulose 5-phosphate phosphoketolase. Insights into the substrate specificity for xylulose 5-phosphate*", Journal of Structural Biology: Scheidig, AJ ; Horvath, D; *Szedlacsek, SE* , Volume 207, Issue 1, Page 85-102; 2019; https://pubmed.ncbi.nlm.nih.gov/31059775/

10 *"Collagen regulates the ability of endothelial progenitor cells to protect hypoxic myocardium through a mechanism involving miR-377/VE-PTP axis*", Rosca AM, Mitroi DN, Cismasiu V, Badea R, Necula-Petrareanu G, Preda MB, Niculite C, Tutuianu R, *Szedlacsek S*, Burlacu A. J Cell Mol Med. 22, 4700-4708; 2018; https://pubmed.ncbi.nlm.nih.gov/30044046/

11 *''WDR1 is a novel EYA3 substrate and its dephosphorylation induces modifications of the cellular actin cytoskeleton*", Mentel M, Ionescu AE, Puscalau-Girtu I, Helm MS, Badea RA, Rizzoli SO, *Szedlacsek SE*. Sci Rep. 8, 2910; 2018; https://pubmed.ncbi.nlm.nih.gov/29440662/

12 "*Phosphoketolases from Lactococcus lactis, Leuconostoc mesenteroides and Pseudomonas aeruginosa: dissimilar sequences, similar substrates but distinct enzymatic characteristics*", Petrareanu G, Balasu MC, Vacaru AM, Munteanu CV, Ionescu AE, Matei I, *Szedlacsek SE*. Appl Microbiol Biotechnol. 98, 7855-67; 2014; https://pubmed.ncbi.nlm.nih.gov/24740691/

13 "*Protein tyrosine phosphatase structure-function relationships in regulation and pathogenesis*", Böhmer F, *Szedlacsek S*, Tabernero L, Ostman A, den Hertog J., FEBS J. 280, 413-31; 2013; https://pubmed.ncbi.nlm.nih.gov/22682070/

14 "*Preliminary X-ray crystallographic analysis of the D-xylulose 5-phosphate phosphoketolase from Lactococcus lactis*", Petrareanu, G, Balasu, MC, Zander, U, Scheidig, AJ and *Szedlacsek, S.E.*, Acta Cryst. F66, 805–807; 2010; https://pubmed.ncbi.nlm.nih.gov/20606278/

15 "*Interface Analysis of the Complex between ERK2 and PTP-SL*". Balasu MC, Spiridon LN, Miron S, Craescu CT, Scheidig AJ, Petrescu AJ, *Szedlacsek SE*. PLoS One. 4(5), e5432; 2009; https://pubmed.ncbi.nlm.nih.gov/19424502/

16 "*Analysis of Molecular Determinants of PRL-3*" Pascaru M, Tanase C, Vacaru AM, Boeti P, Neagu E, Popescu I, *Szedlacsek SE*., J Cell Mol Med. 13(9B), 3141-50; 2009; https://pubmed.ncbi.nlm.nih.gov/19040419/

17 "*Protein tyrosine phosphatases, structure-function relationships*", Tabernero L, Aricescu AR, Jones EY, *Szedlacsek SE*. FEBS J. 275, 867-82; 2008 https://pubmed.ncbi.nlm.nih.gov/18298793/

18 "A microarray strategy for mapping the substrate specificity of protein tyrosine phosphatase", Köhn M, Gutierrez-Rodriguez M, Jonkheijm P, Wetzel S, Wacker R, Schroeder H, Prinz H, Niemeyer CM, Breinbauer R, *Szedlacsek SE*, Waldmann H. Angew Chem Int Ed Engl. 46, 7700-3; 2007; https://pubmed.ncbi.nlm.nih.gov/17726672/

19 "*Functional, fractal nonlinear response with application to rate processes with memory, allometry, and population genetics*." Vlad MO, Morán F, Popa VT, *Szedlacsek SE*, Ross J. Proc Natl Acad Sci USA., 104, 4798-803; 2007; https://pubmed.ncbi.nlm.nih.gov/17360340/

20 "*Identification and specificity profiling of protein prenyltransferase inhibitors using new fluorescent phosphoisoprenoids*", Dursina B, Reents R, Delon C, Wu Y, Kulharia M, Thutewohl M, Veligodsky A, Kalinin A, Evstifeev V, Ciobanu D, *Szedlacsek SE*, Waldmann H, Goody RS, Alexandrov K. J Am Chem Soc. 128, 2822-35; 2006; https://pubmed.ncbi.nlm.nih.gov/16506760/

21 "*Fisher's theorems for multivariable, time- and space-dependent systems, with applications in population genetics and chemical kinetics*" , Vlad MO, *Szedlacsek SE*, Pourmand N, Cavalli- Sforza LL, Oefner P, Ross J Proc Natl Acad Sci USA. 102, 9848-53; 2005; https://pubmed.ncbi.nlm.nih.gov/15994224/

22 "*The MAM (Meprin/A5-protein/PTPmu) Domain Is a Homophilic Binding Site Promoting the Lateral Dimerization of Receptor-like Protein-tyrosine Phosphatase μ*", V.B. Cismasiu, S.A. Denes, H. Reilander, H. Michel, and *S.E. Szedlacsek*. J. Biol. Chem. 279, 26922-26931; 2004; https://pubmed.ncbi.nlm.nih.gov/15084579/

23 "Synthesis and biological applications of a new 1,2,5-oxadiazolo[3,4-c]pyridine fluorescent marker", M.C. Balasu, I. Costea, R. Fratila, A. Popescu, C. Draghici and *S.E. Szedlacsek*. Rev. Roum. Chim., 49, 309-315; 2004

24 "*Protein Tyrosine Phosphatase Inhibitors*", M.C. Balasu and S.E. *Szedlacsek*. Rev. Chim. 53, 315- 323; 2002

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