

## Curriculum Vitae



### **Dr. Szedlacsek Stefan Eugen**

Head, Department of Enzymology, Institute of Biochemistry of the Romanian Academy, Splaiul Independenței 296; 060031; Bucharest (România),

Telephone(s): +40-21-223 9069; Fax(es): +40-21-223 9068; Mobil phone: +40-722-366-074  
[stefan.szedlacsek@biochim.ro](mailto:stefan.szedlacsek@biochim.ro); <https://www.biochim.ro>; [szedlacs@yahoo.co.uk](mailto:szedlacs@yahoo.co.uk)

### **Work experience:**

- 1990-present** Head, Department of Enzymology, Institute of Biochemistry of the Romanian Academy, Bucharest, Romania;
- 2008-2015** Full professor, Ecole Normale Supérieure, Bucharest, Romania; “Recombinant DNA Technology” Course / Director at the Biological Chemistry division;
- 2003-present** Full professor, “Sapientia” University – Miercurea-Ciuc, Romania; “Biochemistry” Course;
- 2005-2006** Associate professor; University of Bucharest, Romania, “Enzymatic reactions mechanisms” Course, “Recombinant DNA Technology”
- 1994-2007** Associate professor; University of Bucharest, Romania; “Enzymatic reactions mechanisms” Course, “Recombinant DNA Technology”
- 1990-1991** Associate professor; University of Bucharest, Romania; “Enzymatic reactions mechanisms” Course, “Recombinant DNA Technology”, Course;
- 1983-1990** Senior Biochemist, Department Research, Institute of Biological Sciences, Biochemistry, Bucharest, Romania;
- 1979-1983** Researcher Biochemist; “Pasteur” Institute, Bucharest, Romania;
- 1976-1979** Chemical Engineer; Sintofarm Pharmaceuticals, Bucharest, Romania;

### **Education and training:**

- 1990** Ph.D. in Biotechnology; “Theoretical and experimental models of enzyme reactions”, “Politehnica” University of Bucharest;
- 1976-1981** M.S. in Mathematics “Applications of Markov’s chains theory in the study of enzymatic reactions” University of Bucharest, Department of Mathematics and Computer Sciences;
- 1971-1976** M.S., Diplom engineer, Organic Synthesis, “Politehnica” University of Bucharest, Chemical Engineering Faculty, Section of Organic Compounds Synthesis

**National ranking** Head of promotion

### **Awards, titles, distinctions:**

- 2019** "Bercsényi Miklós" Science Award from the Wildt, Brasov, Romania;
- 2015** Inclusion in the Dictionary of successful people in Romania, Contemporary biographies, made by the National Biographical Editorial Office under the auspices of the European Association for Biographical Development, mecAtrin Publishing House, ISBN 978-606-92609-8-2, Bucharest, Romania;
- 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 ", Bucharest, Romania;
- 2000** "Medal for scientific merit" - Awarded by the Government of Romania, with the rank of "Knight", Bucharest, Romania.

### **Fellowships and International Grants:**

- 2021-2023:** EEA-RO-NO-2018-0535 (no.:34SEE/2021); "Next generation of drug targets for schizophrenia"(NEXTDRUG), *Professor/Supervisor Team leader*;
- 2019-2021:** Bilateral agreement between Romanian Academy and Hungarian Academy of Sciences (no: 3698/2018), "Novel radiolabeled affibodies for targeted imaging and therapy" application for the Romanian Academy - Hungarian Academy of Sciences Joint research project, *Romanian Project Leader*;
- 2017-2018:** Funding Research between the Company CRU Hungary SRL, Hungary and The Biochemistry Institute of Romanian Academy (no.: 327/2017), "Compound for inhibition of certain signaling processes related to the evolution of the cognitive processes"; *Project coordinator*;
- 2007-2010:** Marie Curie Research Training Networks, Framework Program 6, financed by the European Community; (MRTN-CT-2006-no.: 035830, PTPNET), "Protein Tyrosine Phosphatases: Structure, Regulation and Biological Functions"; *Partner project manager*
- 2005(4months)** *Team member* - Marie Curie Excellence, Technical University Munchen, in the IGGSE (International Graduate School of Science and Engineering, Technical University Munchen); Project Coordinator: Daniel Funeriu;
- 2004-2008:** Grant from the Deutsche Forschungsgemeinschaft (DFG); (no.: 5421388), International research cooperation financed by Alexander von Humboldt Foundation" with University of Saarland, School of Medicine, Dept of Structural Biology – Homburg (Germany): "On the structural and kinetic analysis of the functional complex between PTP-SL and ERK2 MAP kinas", *Romanian Head of Project*;
- 2002-2004:** Max-Planck-Institut für Molekulare Physiologie „Kinetic and structural analysis of potential modulators of PTP-SL”, *Romanian Head of Project*;
- 2001-2004:** *“EMBO Fellowship”* at Max-Planck Institut für Molekulare Physiologie, Dortmund (Germany);
- 1998-1999:** "NATO Linkage Grant" at Max-Planck Institut für Molekulare Physiologie, Dortmund, (Germany), *Partner*;

- 1996-1997:** Fellowship Max-Planck Institute of Biophysics, Department of Molecular Biology of Membranes, Frankfurt/Main, Germania
- 1992-1993:** "Alexander von Humboldt Fellowship" Institute of Biochemistry, University of Kiel, Germany, Scholarship;
- 1991-1992:** "Post-doctoral fellowship" at Burnside's Research Laboratory, University of Illinois at Urbana - Champaign, U.S.A.
- 1988-1989:** FEBS scholarship at the Center for Molecular Biology CNRS Marseille-France;

### Grants national

- 2021-2023** 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** CNCISIS766, (no:11GR/2006, "Enzymatic characterization 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;

**Conferences: International/national lectures, invitations, posters**

- 2020** The annual scientific meeting of the National Institute of Pathology "Victor Babeş" & the 13th National Symposium of Pathology, Bucharest, Participation with online poster: "Mass spectrometric analysis of differential expression of proteins in the blood plasma of healthy versus cancerous individuals in regions contaminated by radioactivity and / or heavy metals"
- 2019** Participation in the "Health Brokerage Event - RoHealth Health Cluster" with: Oral presentation on: The Institute of Biochemistry of the Romanian Academy; Oral presentation on: Ongoing projects within the Department of Enzymology, Venue: University of Medicine and Pharmacy Iasi, Romania
- 2019** Mini-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.
- 2019** Participation as: guest at the International Conference "Sustainable Development in the Black Sea"; Venue: Ministry of Research and Innovation - General Directorate for Research and Innovation and the Presidency of Romania at the Council of Europe; Project name: "Connecting between meta-humans and marine geosciences for exploration microbial diversity in Black Sea ecosystems "; Collaboration with Babeş Bolyai University of Cluj and the National Research-Development Institute for Marine Geology and Geoecology "Geoecomar", Bucharest, Romania;8-9 may

- 2018** Participation in the 13th international symposium "Academician Nicolae Cajal"; Oral presentation: "WDR1 is a new substrate of EYA3. Implications for the actin cytoskeleton." Venue: Library of the Romanian Academy, Bucharest, Romania, 22-24 march
- 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** Invited 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** Invited speaker : "A universal protein tyrosine dephosphorylating enzyme"; P-CUBE Users Meeting (financed by EC, FP7), September(5), Zürich (Switzerland)
- 2009** Invited speaker; "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** Invited speaker : "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** Invited speaker : "Structural studies on KIM-containing protein tyrosine phosphatases" – Institute of Enzymology of the Hungarian Academy, September 14th, Budapest (Hungary);
- 2009** Invited speaker : "When the complex of proteins with known structures does not crystallize"; Sofia school of protein science – September 27-30th, Sofia (Bulgaria);
- 2003** Organization/Invited speaker FEBS Advanced Theoretical and Practical Course: " Recombinant Technology and Protein Expression", Bucharest, Romania (speaker) - September 21-27
- 2003** Invited speaker: "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** Invited speaker : "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** Organization/Invited speaker FEBS Advanced Theoretical and Practical Course: "Recombinant DNA Technology" Bucharest, Romania (organizer/ speaker) - September 2 – 7
- 1994** Invited speaker: "Kinetics of slow and tight-binding enzyme inhibition", Satellite Meeting Molecular Mechanisms of Enzyme Action with IUBMB Conference, September 23-25, Bangalore (India);
- 1993** Invited speaker; "Enzyme reactions as chain reactions" Biochemistry Institute - "Christian Albrechts" University of Kiel (Germany);
- 1991** Invited speaker; "New aspects in enzyme reaction kinetics " Burnsid's Research Laboratory - University of Illinois - Urbana Champaign (USA);

### **Member of scientific associations:**

- 1.) Romanian Society of Biochemistry and Molecular Biology (President from 1997 to 1999) /
- 2.) American Association for the Advancement of Science /
- 3.) Romanian Researchers Association "Ad Astra"/
- 4.) The Scientific Research Society "Sigma Xi" (USA)

### **Member in scientific organizations:**

**2020-present:** Vicepresident of the National Council for Ethics of Scientific Research, Technological Development and Innovation, Bucharest, Romania;

**2000- present:** Member of the Faculty of the Hungarian Academy of Sciences, Budapest, Hungary;

**2012-2013:** Member of the Biological Security Commission, Bucharest, Romania;

**2003:** Scientific secretary of the Commission for Genetically Modified Organisms within the Romanian Academy;

**2001:** Member of the National Commission for Biosafety, Bucharest, Romania;

### **Scientometric indicators:**

**Hirsh WOS Index (Clarivate Analytics): 13 / Google scholar: 15 / WOS Citations: 690 / Book chapters at international publishers: 3 / National patents: 3 (98370/1989, 85131/1984, 9480/1987) / Innovator certificates: 8 (1202/1989, 1190/1989/, 1187/1989, 1186/1989, 857/1988, 855/1988, 451/1986, 1/1982)**

**Editorial Boards:** Associate Editor - Journal of Cellular and Molecular Medicine - John Wiley & Sons Ltd Publishing

**Mother language(s):** Hungarian, Romanian

### **Other language(s):**

Self-assessment European level (*)	Understanding			Spoken interaction	Speaking			Writing		
	Listening		Reading		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

### **Books and Book chapters:**

**2016** Chapter title: Expression, Purification, and Kinetic Analysis of PTP Domains, METHODS IN MOLECULAR BIOLOGY, Volume 1447, Page 39-66, (Humana Press): Mentel M, Badea RA, Petrareanu G, Sujay TM, Ionescu AE, Szedlacsek S;

**2005** Book „Molecular biology, small illustrated dictionary”, Anton Gabriela, Szedlacsek S, Plesa A, Szedlacsek D, Repanovici R, Ed. Enciclopedica, Bucuresti, 141 p, ISBN 973-45-0512-2 (2005)

**2000** Chapter title: “Time-dependent or steady-state control of metabolic systems?”; author: S. E. Szedlacsek, p. 251-258 in Technological and Medical Implications of Metabolic Control Analysis, Edited by: A.Cornish-Bowden and M.L.Cardenas, NATO Science Series, 3.High Technology-Vol.74, (Kluwer Academic Publishers),,

- 1995** Chapter title: Kinetics of slow and tight-binding inhibitors; ACADEMIC PRESS INC, 525 B STREET, SUITE 1900, SAN DIEGO, CA 92101-4495, ENZYME KINETICS AND MECHANISM, PT D, Volume 249, Page 144-180
- 1992** Book “Egg-white avidin purification by affinity elution from CM-cellulose”, C. Borza, B. Borza, F. Nitu, S. E. Szedlacsek, Rev. Roum. Biochim., 29, 97-99 /

**List of publications:**

- 1.) 1976:** “A chemical application of solving the diophantic equations” (in Romanian), S.E. Szedlacsek; Journal of Physics and Chemistry, 12 (1975) and 1 (1976);
- 2.) 1982:** “A model of bacterial-cell growth” SZEDLACSEK, S; REVUE ROUMAINE DE BIOCHIMIE, Volume: 19, Issue: 2, Pages: 151-159;
- 3.) 1984:** “Aspects concerning preparation and characteristics of cross-linked amylose as substrate of an amylase” (in Romanian); V. Ostafe, S.E. Szedlacsek & M.A. Mateescu, Stud. cercet. Biochim. 27, 149-157;
- 4.) 1986:** “A kinetic method for the simultaneous determination of iso-enzymes activities in mixture. Application to A2 and A3 horseradish peroxidases”, S.E. Szedlacsek; V. Ostafe; S. Mogos, S.A; Hulea; Biochem. Int., 12, 279-289;
- 5.) 1986:** “Peculiar aspect of a UV fluence-survival curve for *Pasteurella multocida*, with possible involvements in mutagenesis”, S.E. Szedlacsek, D. Szedlacsek; M.D. Nicu; U. Fierlinger; Photobiochem. Photobiophys., 11, 123-128 ;
- 6.) 1986:** “Hydrophobic chromatography” (in Romanian); , H.D. Schell, V. Ostafe, S.E. Szedlacsek, Stud. cercet. Biochim. 29, 82-93;
- 7.) 1986:** “Guanine+Cytosine content in bacterial DNA – as differentiation criterium for species of *Pasteurella haemolytica* and *Pasteurella multocida*” (in Romanian), D. Szedlacsek, S.E. Szedlacsek, Stud. cercet. Biochim. 29, 75-81;
- 8.) 1986:** “Purification of bovine trypsin by affinity chromatography on affinity support obtained by coupling aprotinin to cross-linked polyvinyl alcohol” (in Romanian), H.D. Schell, V. Ostafe, S.E. Szedlacsek; Stud. cercet. Biochim. 29, 99-204;
- 9.) 1987:** „Non-linear regression-analysis of progress curves using a modified form of the integrated Michaelis-Menten equation”, SZEDLACSEK, SE; OSTAFE, V; REVUE ROUMAINE DE BIOCHIMIE; Volume 24, Issue 4, pages 347-351;
- 10.) 1987:** “Biotechnological achievements in Romania”, V. Ostafe, S.E. Szedlacsek, D. Ostafe, H.D. Schell; Studii cercet. Biotehnologie, 19, 77;
- 11.) 1987:** “Computer analysis of a modified form of integrated Michaelis-Menten equation, using a non-linear regression method” (in Romanian); , S.E. Szedlacsek, V. Ostafe, M.D. Nicu, D. Ostafe; Studii cercet. Biotehnologie. 19, 71;
- 12.) 1987** “Non-linear regression analysis of progress-curves using a modified form of the integrated Michaelis-Menten equation”, S.E. Szedlacsek, V. Ostafe; Rev. Roum. Biochim. 24, 347-351;
- 13.) 1988:** “A re-evaluation of the kinetic equations for hyperbolic tight-binding inhibition”; S.E. Szedlacsek, V. Ostafe, M. Serban, M.O. Vlad; Biochem. J. 254, 311-312 ;
- 14.) 1989:** „A study on the interaction of concanavalin A with some affinity adsorbents”; OSTAFE, V; PETRESCU, AD; SZEDLACSEK, SE; SCHELL, HD; REVUE ROUMAINE DE BIOCHIMIE; Volume 25; Issue 1, pages 47-52;
- 15.) 1989:** „Hydrophobic polyvinyl-alcohol derivatives used in hydrophobic interaction chromatography .1. n-alkyl hydrophobic gels”, SCHELL, HD; OSTAFE, V; SZEDLACSEK, SE; REVUE ROUMAINE DE BIOCHIMIE; Volume 26; Issue 2, pages 153-158;
- 16.) 1989:** “Computer-aided simulation of Michaelis-Menten kinetics” (in Romanian), V. Ostafe, S.E. Szedlacsek, Stud. cercet. Biochim. 32, 155-162;
- 17.) 1989:** “Preliminary results concerning the presence of secretory immunoglobulin A (sIgA) in the serum of patients with IgA myeloma”, L. Buzila, H.D. Schell, I. Funduc, V. Ostafe, S.E. Szedlacsek; Arch. Roum. Path. Exp. Microbiol. 48, 163-170;

- 18.)1990: "Purification of aprotinin from bovine lung extracts" (in Romanian), H.D. Schell, S.E. Szedlacsek si V. Ostafe, Stud. cercet. Biochim. 33, 1-82;
- 19.)1990: "Progress-curve equations for reversible enzyme-catalysed reactions inhibited by tight-binding inhibitors", S.E. Szedlacsek, V. Ostafe, R.G. Duggleby, M. Serban, M.O. Vlad; Biochem. J., 265, 647-653;
- 20.)1990: "Very large response coefficients in interconvertible enzyme cascades", A. Cornish-Bowden, S. E. Szedlacsek; Biomed. Biochim. Acta, 49, 829-837;
- 21.)1991: "Enzyme catalysis as a chain reaction", S. E. Szedlacsek, R. G. Duggleby, M.O.Vlad, Biochem. J., 279, 855-861;
- 22.)1992: "Egg-white avidin purification by affinity elution from CM-cellulose", C. Borza, B. Borza, F. Nitu, S. E. Szedlacsek, Rev. Roum. Biochim., 29, 97-99;
- 23.)1992: "Response coefficients of interconvertible enzyme cascades towards effectors that act on one or both modifier enzymes"; S. E. Szedlacsek, M.-L. Cardenas, A. Cornish-Bowden, Eur. J. Biochem., 204, 807-813;
- 24.)1994: "Kinetic analysis of reversible closed bicyclic enzyme cascades covering the whole course of the reaction"; R. Varon, B.H. Havsteen, M. Molina-Alarcon, S.E. Szedlacsek, F. Garcia-Canovas; Int. J. Biochem, 26, 787-797;
- 25.)1994: "Steady-state analysis of the reversible closed bicyclic enzyme cascades", VARON, R; HAVSTEEN, BH; SZEDLACSEK, SE; GARCIA-MORENO, M; MOLINA-ALARCON, M; SANCHEZ-GRACIA, A; Volume: 90, Issue: 1, Pages: 48-53;
- 26.)1995: "Kinetics of slow and tight-binding inhibitors", S.E. Szedlacsek, R.G. Duggleby, Methods Enzymol., 249, 144-180;
- 27.)1995: "Esterification of oxysterols by human plasma lecithin cholesterol acyltransferase", S.E. Szedlacsek, E. Wasowicz, H. Nishida, S.A. Hulea, F. A. Kummerow, T. Nishida, J. Biol. Chem. 270, 11812-11819;
- 28.)1996: "pH-dependent hysteretic behaviour of human myeloblastin (leucocyte proteinase 3)", A. Baici, S.E. Szedlacsek, H. Früh, B.A. Michel; Biochem. J., 317, 901-905;
- 29.)1996: "Time-dependent control of metabolic systems by external effectors", S.E. Szedlacsek, A.R. Aricescu, B.H. Havsteen; J. theor. Biol. 182, 341-350;
- 30.)2001: "Intramolecular interactions in protein tyrosine phosphatase RPTP $\mu$ , Kinetic evidence", A.R Aricescu, T.A Fulga, V., Cismasiu, R.S. Goody, S.E. Szedlacsek. Biochem. Biophys. Res. Comm. 280, 319-327;
- 31.)2001: "Crystal structure of PTP-SL/BR7 catalytic domain, Implications for MAP kinase regulation", S.E. Szedlacsek, A.R. Aricescu, T.A Fulga, L. Renault, A.J. Scheidig. J. Mol. Biol. 311, 557-568;
- 32.)2002: "Protein Tyrosine Phosphatase Inhibitors", M.C. Balasu and S.E. Szedlacsek. Rev. Chim. 53, 315- 323;
- 33.)2004: "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;
- 34.)2004: "The MAM (Meprin/A5-protein/PTP $\mu$ ) Domain Is a Homophilic Binding Site Promoting the Lateral Dimerization of Receptor-like Protein-tyrosine Phosphatase  $\mu$ ", V.B. Cismasiu, S.A. Denes, H. Reilander, H. Michel, and S.E. Szedlacsek. J. Biol. Chem. 279, 26922-26931;
- 35.)2005: "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;
- 36.)2006: "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;
- 37.)2007: "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;



- 38.)2007:** “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;
- 39.)2008:** “Protein tyrosine phosphatases, structure-function relationships”, Tabernero L, Aricescu AR, Jones EY, Szedlacsek SE. *FEBS J.* 275, 867-82;
- 40.)2009:** “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;
- 41.)2009:** “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;
- 42.)2010:** “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;
- 43.)2013:** “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;
- 44.)2014:** “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;
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