

Candidat
Conf. dr. Brîndușa Alina PETRE

Fișa de îndeplinire a standardelor minimale de Abilitare pe domeniul Chimie ale Universității „Alexandru Ioan Cuza” din Iași

I. Îndeplinirea standardelor minimale obligatorii stabilite de comisia Chimie din cadrul CNATDCU;



Criterii Habilitare	N _{max} ^(*)	FIC ^(**)	FIC _D ^(***)	FIC _{AP} ^(****)	FIC _{AC} ^(*****)	h index
Cerințe	50	100	70	50	25	13
Realizate	43	161.3	156.7	59.0	47.4	Scopus - 17, WOS - 16, Google scholars - 19

(*) N_{max} - primele maxim N lucrări, organizate în ordinea descrescătoare a factorilor de impact a revistelor în care au fost publicate;

(**) FIC - factorul de impact cumulat minimal al revistelor în care s-au publicat lucrările în cauză;

(***) FIC_D - factorul de impact cumulat minimal din publicații în domeniile de cercetare declarate;

(****) FIC_{AP} - factorul de impact cumulat minimal din publicații în calitate de autor principal (prim-autor și autor de corespondență);

(*****) FIC_{AC} - factorul de impact cumulat minimal din publicații în calitate de autor de corespondență.

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I.1. Îndeplinirea Factorului de impact cumulat:

Lista articole în ordinea descrescătoare a factorilor de impact:

Nr. crt.	Articolul	Factor impact 2022*
1	N. N. Condurache, I. Aprodu, L. Grigore-Gurgu, B. A. Petre , E. Enachia, G. Râpeanu, G. E. Bahrma, N. Stănciuc, Fluorescence spectroscopy and molecular modeling of anthocyanins binding to bovine lactoferrin peptides, <i>Food Chemistry</i> , (2020), 318, 126508, https://doi.org/10.1016/j.foodchem.2020.126508	8,8
2	G. Drochioiu, C. I. Ciobanu, S. Bancila, L. Ion, B. A. Petre , C. Andries, R. V. Gradinaru, M. Murariu, “Ultrasound-based protein determination in maize seeds”, <i>Ultrasonics Sonochem.</i> (2016), 29, 93–103. https://doi.org/10.1016/j.ultsonch.2015.09.007	8,4
3	R. S. Boiangiu, M. Mihasan, L. D. Gorgan, B. A. Stache, B. A. Petre , L. Hritcu, Cotinine and 6-hydroxy-L-nicotine reverses memory deficits and reduces oxidative stress in A β 25-35-induced rat model of Alzheimer’s disease, <i>Antioxidants (Basel)</i> , (2020), 9(8): 768, https://doi.org/10.3390/antiox9080768	7,0
4	Darie-Ion L, Petre BA* , “An update on multiplexed mass spectrometry- based lysosomal storage disease diagnosis.” <i>Mass Spectrometry Reviews</i> , (2023), 1-15, https://doi.org/10.1002/mas.21864	6,6
5	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Petre, B.A. ; Neagu, A.-N.; Darie, C.C. “Two-Dimensional Polyacrylamide Gel Electrophoresis Coupled with Nanoliquid Chromatography–Tandem Mass Spectrometry-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in the MCF7 Breast Cancer Cell Line Transfected for Jumping Translocation Breakpoint Protein Overexpression.” <i>Int. J. Mol. Sci.</i> 2023, 24, 14714. https://doi.org/10.3390/ijms241914714	5,6
6	L. Darie-Ion, M. Jayathirtha, G. E. Hitruc, M.-M. Zaharia, R. V. Gradinaru, C. C. Darie, A. Pui and B. A. Petre* , A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, <i>Biomolecules</i> , (2021), 11, 1838. https://doi.org/10.3390/biom11121838	5,5
7	Grigore-Gurgu L, Crăciunescu O, Aprodu I, Bolea CA, Iosăgeanu A, Petre BA , Bahrim GE, Oancea A, Stănciuc N. Tailoring the Health-Promoting Potential of Protein Hydrolysate Derived from Fish Wastes and Flavonoids from Yellow Onion Skins: From Binding Mechanisms to Microencapsulated Functional Ingredients, <i>Biomolecules</i> (2020), 7;10(10):1416. https://doi.org/10.3390/biom10101416	5,5
8	S. C. Jitaru, A. Neamtu, G. Drochioiu, L. Darie-Ion, I. Stoica, B.-A. Petre* , V.-R. Gradinaru, A diphenylalanine based pentapeptide with fibrillating self-assembling properties, <i>Pharmaceutics</i> 2023, 15(2), 371; https://doi.org/10.3390/pharmaceutics15020371	5,4
9	Postu, J. Noumedem, O. Cioanca, M. Hancianu, M. Mihasan, B. A. Petre , L. Hritcu, Lactuca capensis reverses memory deficits in A β 1-42-induced an animal model of Alzheimer's disease, <i>J. Cell. Mol. Med.</i> (2018), 22(1), 111-122, https://doi.org/10.1111/jcmm.13299	5,3
10	R. Ionita, P. A. Postu, G. J. Beppe, M. Mihasan, B. A. Petre* , M. Hancianu, O. Cioanca, L. Hritcu, “Cognitive-enhancing and antioxidant activities of the aqueous extract from Markhamia tomentosa (Benth.) K. Schum. stem bark in a rat model of scopolamine”, <i>Behavioral and Brain Functions</i> , (2017), 13:5, https://doi.org/10.1186/s12993-017-0123-6	5,1
11	Ulrich*, M., Petre A* , N. Youhnovski, D. Worlitzsch, M. Schirle, M. Schumm J. Lee, J. Checkel, M. Dinauer, P. Schmid, F. Ratjen, M. Przybylski, G. Döring, “Post-translational tyrosine nitration of eosinophil granule toxins mediated by eosinophil peroxidase”, <i>J. Biol. Chem.</i> (2008), 283 (42): 28629-28640. https://doi.org/10.1074/jbc.M801196200	4,8
12	Schmidt P., Youhnovski N., Daiber A., Balan (Petre) A. , Arsic M., Przybylski M. Ullrich V., “Specific nitration at tyrosine-430 revealed by high resolution mass spectrometry as basis for redox regulation of bovine prostacyclin synthase”, <i>J. Biol. Chem</i> , (2003), 278: 12813-12819. https://doi.org/10.1074/jbc.M208080200	4,8
13	Jitaru, S.-C.; Enache, A.-C.; Cojocar, C.; Drochioiu, G.; Petre, B.-A. ; Gradinaru, V.-R. “Self-Assembly of a Novel Pentapeptide into Hydrogelated Dendritic Architecture: Synthesis, Properties, Molecular Docking and Prospective Applications.” <i>Gels</i> 2024, 10, 86. https://doi.org/10.3390/gels10020086	4,6
14	Iavorschi, M.; Lupăescu, A.-V.; Darie-Ion, L.; Indeykina, M.; Hitruc, G.E.; Petre, B.A.* Cu and Zn	4,6

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	Interactions with Peptides Revealed by High-Resolution Mass Spectrometry. <i>Pharmaceuticals</i> , (2022), 15, 1096. https://doi.org/10.3390/ph15091096	
15	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Sullivan, I.; Petre B.A.* ; Darie, C.C.; Neagu, A.-N. “Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in MCF7 Breast Cancer Cells Transfected for JTB Protein Silencing.” <i>Molecules</i> , 2023, 28, 7501. https://doi.org/10.3390/molecules28227501	4,6
16	Darie-Ion, L.; Whitham, D.; Jayathirtha, M.; Rai, Y.; Neagu, A.-N.; Darie, C.C.; Petre, B.A.* Applications of MALDI-MS/MS-Based Proteomics in Biomedical Research, <i>Molecules</i> (2022), 27, 6196 https://doi.org/10.3390/molecules27196196	4,6
17	A.-N. Neagu, M. Jayathirtha, E. Baxter, M. Donnelly, B. A. Petre and C. C. Darie, Applications of Tandem Mass Spectrometry (MS/MS) in Protein Analysis for Biomedical Research, <i>Molecules</i> (2022), 27, 2411 https://doi.org/10.3390/molecules27082411	4,6
18	D.-A. Blaj, M. Balan-Porcarasu, B. A. Petre , V. Harabagiu, C. Peptu, MALDI mass spectrometry monitoring of cyclodextrin-oligolactide derivatives synthesis, <i>Polymer</i> (2021), 233, https://doi.org/10.1016/j.polymer.2021.124186	4,6
19	C. S. Mocanu, L. Darie-Ion, B. A. Petre , V. R. Gradinaru, G. Drochioiu, A computational study of metal ions interaction with amyloid-b 1–42 peptide structure in hyperpyrexia: Implications for Alzheimer disease, <i>Journal of King Saud University Science</i> 34 (2022) 102184, https://doi.org/10.1016/j.jksus.2022.102184	3,8
20	Drochioiu G., Manea M., Dragusanu M., Murariu M., Dragan E.S., Petre B.A. Mezo G., Przybylski M., “Interaction of beta-amyloid (1-40) peptide with pairs of metal ions: An electrospray ion trap mass spectrometric model study”, <i>Biophysical Chemistry</i> , (2009), 144(1-2) 9-20. https://doi.org/10.1016/j.bpc.2009.05.008	3,8
21	Schreier V. N., Pethő L, Orbán E., Marquardt A., Petre B.A. , Mező G. and Manea M., “Protein expression profile of HT-29 human colon cancer cells after treatment with a cytotoxic daunorubicin-GnRH-III derivative bioconjugate”, <i>PLoS ONE</i> , (2014), 9(4):e94041 https://doi.org/10.1371/journal.pone.0094041	3,7
22	C. S. Mocanu, B. A. Petre , L. Darie Ion, G. Drochioiu, M. Niculaua, I. Stoica, M. Homocianu, L. E. Nita, and V. R. Gradinaru, Structural Characterization of a New Collagen Biomimetic Octapeptide with Nanoscale Self-assembly Potential: Experimental and Theoretical Approaches, <i>ChemPlusChem</i> , (2021), https://doi.org/10.1002/cplu.202100462	3,4
23	A.-N. Neagu, M. Jayathirtha, D. Whitham, P. Mutsengi, I. Sullivan, B-A. Petre , C. C. Darie, “Proteomics-Based Identification of Dysregulated Proteins in Breast Cancer”, <i>Proteomes</i> (2022), 10, 35. https://doi.org/10.3390/proteomes10040035	3,3
24	EJ. Dupree, M. Jayathirtha, H Y., B-A. Petre* , M. Mihasan, C. C. Darie, “A critical review of bottom-up proteomics: the good, the bad, and the future of this field”, <i>Proteomes</i> , (2020), 8(14). https://doi.org/10.3390/proteomes8030014	3,3
25	Vlad C., Lindner K., Karreman C., Schildknecht S., Leist M., Tomczyk N., Rontree J., Langridge J., Danzer K., Ciossek T., Petre A. , Gross M., Hengerer B., Przybylski M. “Autoproteolytic Fragments are Intermediates in the Oligomerization- Aggregation of Parkinson’s Disease Protein Alpha-Synuclein as Revealed by Ion Mobility Mass Spectrometry”, <i>ChemBioChem</i> (2011), 12(18):2740-4 https://doi.org/10.1002/cbic.201100569	3,2
26	Petre* B.A. , Ulrich M., Stumbaum M., Bernevic ., Moise A., Döring G., Przybylski M. When is Mass Spectrometry Combined with Affinity Approaches Essential? A Case Study of Tyrosine Nitration in Proteins, <i>J. Am. Soc. Mass Spectrom</i> , (2012), 23(11): 1831-1840. https://doi.org/10.1007/s13361-012-0461-4	3,2
27	M. Drăgușan, B.A Petre , S. Slamnoiu, T. Tu, M. Gross, M. Przybylski “Online bioaffinity–electrospray mass spectrometry for structure identification and quantification of protein-ligand interactions”, <i>J. Am. Soc. Mass Spectrom.</i> (2010), 21(10): 1643-8. https://doi.org/10.1016/j.jasms.2010.06.011	3,2
28	Tu T., Drăgușanu M., Petre B.A. , Rempel D., Przybylski M., Gross M., “Protein-peptide affinity determination using an H/D exchange dilution strategy: Application to antigen-antibody interactions”, <i>J. Am. Soc. Mass Spectrom.</i> (2010), 21(10):1660-7. https://doi.org/10.1016/j.jasms.2010.03.030	3,2
29	P.A. Postu, L. Ion, G. Drochioiu, B.A. Petre* , and M. O. Glocker, “Mass Spectrometric Characterization of the Zein Protein Composition in Maize Flour Extracts upon Protein Separation by	2,9

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	SDS-PAGE and 2 D Gel Electrophoresis”, <i>Electrophoresis</i> , (2019), 40, 2747–2758, https://doi.org/10.1002/elps.201900108	
30	M. Jayathirtha, E. J. Dupree, Z. Manzoor, B. Larose, Z. Sechrist, A. Neagu, B-A. Petre , C. C. Darie, Mass Spectrometric (MS) Analysis of Proteins and Peptide, <i>Current Protein & Peptide Science</i> , (2021), https://doi.org/10.2174/1389203721666200726223336	2,8
31	Darie-Ion, A. Neamtu, R. Iliescu, B. A. Petre* , Immuno-Affinity Study of Oxidative Tyrosine Containing Peptides, 2022, <i>International Journal of Peptide Research and Therapeutics</i> (2022) 28:41, https://link.springer.com/article/10.1007/s10989-021-10329-2 ; https://doi.org/10.1007/s10989-021-10329-2	2,5
32	Habasescu, L., Jureschi, M., Petre, B. A. , Mihai, M., Gradinaru, RV., Murariu, M., Drochioiu, G., “Histidine-Lacked A beta(1-16) Peptides: pH-Dependent Conformational Changes in Metal Ion Binding”. <i>Int. J. Peptide Research and Therapeutics</i> . (2020), https://doi.org/10.1007/s10989-020-10048-0	2,5
33	A. Lupaescu, M. Jureschi, C.-I. Ciobanu, L. Ion, G. Zbancioc, B.A. Petre , G. Drochioiu, “FTIR and MS Evidence for Heavy Metal Binding to Anti-amyloid NAP-Like Peptides, <i>Int. J. Peptide Research and Therapeutics</i> , (2019), 25, 303–309 https://doi.org/10.1007/s10989-018-9672-2	2,5
34	Maeser S, Petre BA* , Ion L, Rawer S, Kohlschütter A, Santorelli FM, Simonati A, Schulz A, Przybylski M., Enzymatic diagnosis of neuronal lipofuscinoses in dried blood spots using substrates for concomitant tandem mass spectrometry and fluorimetry. <i>J Mass Spectrom.</i> (2021), 29:e4675. https://doi.org/10.1002/jms.4675	2,3
35	Dragusanu M., Petre B.A. , Przybylski M. Epitope motif of an anti-nitrotyrosine antibody specific for nitrotyrosine- modified peptides revealed by affinity-mass spectrometry, <i>J. Pept. Sci.</i> (2011), 17(3): 184-191. https://doi.org/10.1002/psc.1298	2,1
36	C. A. Okai, M. Wölter, M. Russ, C. Koy, B.A. Petre , W. Rath, U. Pecks, M. O. Glocker, Profiling of intact blood proteins by matrix-assisted laser desorption/ionization mass spectrometry without the need for freezing – Dried serum spots as future clinical tools for patient screening. <i>Rapid Commun Mass Spectrom.</i> (2021), 35:e9121, https://doi.org/10.1002/rcm.9121	2,0
37	Bernevic B., Petre B.A. , Galetskiy D., Werner C., Wicke M., Schellander K., Przybylski M., “Degradation and oxidation postmortem of myofibrillar proteins in porcine skeleton muscle revealed by high resolution mass spectrometric proteome analysis”, <i>Int. J. Mass Spectrom.</i> (2011), 305 (2-3):217-227 https://doi.org/10.1016/j.ijms.2010.11.010	1,8
38	Jung, J. E., Cárdenas V., Petre BA* , “Epitope identification of a Lys63 linkage ubiquitin antibody by mass spectrometric epitope excision and extraction approaches.” <i>European journal of mass spectrometry</i> , (2023), https://doi.org/10.1177/14690667231199012	1,3
39	A-V. Lupaescu, I. Humelnicu, B. A. Petre , C-I. Ciobanu and G. Drochioiu, “Direct evidence for binding of aluminum to NAP anti-amyloid peptide and its analogs”, <i>Eur. J. Mass Spectrom.</i> , (2020), 26(2):106-116, https://doi.org/10.1177/1469066719877714	1,3
40	Petre B.A* , Youhnovski N., Lukkari J., Weber R., Przybylski M., “Structural Characterisation of tyrosine-nitrated peptides by ultraviolet and infrared matrix-assisted laser desorption/ionization Fourier transforms ion cyclotron resonance mass spectrometry”, <i>Eur. J. Mass Spectrom.</i> (2005), 11, 513-518. https://doi.org/10.1255/ejms.777	1,3
41	Jureschi, M., Humelnicu, I., Petre, B. A* , Ciobanu, C. I., Murariu, M., Drochioiu, G. Solid phase synthesis of four analogs of amyloid- β (9-16) peptide: MS and FT-IR characterization. <i>Rev. Roum. Chim.</i> , (2019), 64(5), https://doi.org/10.33224/rch.2019.64.5.07	0,5
42	Lupaescu, A. V., Ciobanu, C. I., Humelnicu, I., Petre, B. A* , Murariu, M., Drochioiu, G., Design and synthesis of new anti-amyloid NAP-based/like peptides. <i>Rev. Roum. Chim.</i> , (2019), 64(6), 535-546. https://doi.org/10.33224/rch.2019.64.6.10	0,5
43	Murariu, M., Ion, L., Ciobanu, C.I., Petre, B.A. and Drochioiu, G., “MS, CD, and FT-IR characterization of five newly synthesized histidine-containing Ala- and Gly-based peptides”, <i>Rev. Roum Chim</i> , (2017), 62(3), 277-289 https://revroum.lew.ro/wp-content/uploads/2017/3/Art%2010.pdf	0,5
Factor impact cumulativ (FIC)		161.3
Cerința 100 - Realizat 161.3, Criteriul I.1. îndeplinit		

*conform actualizării Clarivate din 2023

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I.2. Îndeplinirea Factorului de impact pe domeniu de cercetare declarat**:

Lista articole în ordinea descrescătoare a factorilor de impact:

Nr. crt.	Articolul	Factor impact 2022*
1	N. N. Condurache, I. Aprodu, L. Grigore-Gurgu, B. A. Petre , E. Enachia, G. Râpeanu, G. E. Bahrima, N. Stănciuc, Fluorescence spectroscopy and molecular modeling of anthocyanins binding to bovine lactoferrin peptides, <i>Food Chemistry</i> , (2020), 318, 126508, https://doi.org/10.1016/j.foodchem.2020.126508	8,8
2	G. Drochioiu, C. I. Ciobanu, S. Bancila, L. Ion, B. A. Petre , C. Andries, R. V. Gradinaru, M. Murariu, “Ultrasound-based protein determination in maize seeds”, <i>Ultrasonics Sonochem.</i> (2016), 29, 93–103. https://doi.org/10.1016/j.ultsonch.2015.09.007	8,4
3	R. S. Boiangiu, M. Mihasan, L. D. Gorgan, B. A. Stache, B. A. Petre , L. Hritcu, Cotinine and 6-hydroxy-L-nicotine reverses memory deficits and reduces oxidative stress in Aβ25-35-induced rat model of Alzheimer’s disease, <i>Antioxidants (Basel)</i> , (2020), 9(8): 768, https://doi.org/10.3390/antiox9080768	7,0
4	Darie-Ion L, Petre BA* , “An update on multiplexed mass spectrometry- based lysosomal storage disease diagnosis.” <i>Mass Spectrometry Reviews</i> , (2023), 1-15, https://doi.org/10.1002/mas.21864	6,6
5	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Petre, B.A. ; Neagu, A.-N.; Darie, C.C. “Two-Dimensional Polyacrylamide Gel Electrophoresis Coupled with Nanoliquid Chromatography–Tandem Mass Spectrometry-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in the MCF7 Breast Cancer Cell Line Transfected for Jumping Translocation Breakpoint Protein Overexpression.” <i>Int. J. Mol. Sci.</i> 2023, 24, 14714. https://doi.org/10.3390/ijms241914714	5,6
6	L. Darie-Ion, M. Jayathirtha, G. E. Hitruc, M.-M. Zaharia, R. V. Gradinaru, C. C. Darie, A. Pui and B. A. Petre* , A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, <i>Biomolecules</i> , (2021), 11, 1838. https://doi.org/10.3390/biom11121838	5,5
7	Grigore-Gurgu L, Crăciunescu O, Aprodu I, Bolea CA, Iosăgeanu A, Petre BA , Bahrim GE, Oancea A, Stănciuc N. Tailoring the Health-Promoting Potential of Protein Hydrolysate Derived from Fish Wastes and Flavonoids from Yellow Onion Skins: From Binding Mechanisms to Microencapsulated Functional Ingredients, <i>Biomolecules</i> (2020), 7;10(10):1416. https://doi.org/10.3390/biom10101416	5,5
8	S. C. Jitaru, A. Neamtu, G. Drochioiu, L. Darie-Ion, I. Stoica, B.-A. Petre* , V.-R. Gradinaru, A diphenylalanine based pentapeptide with fibrillating self-assembling properties, <i>Pharmaceutics</i> 2023, 15(2), 371; https://doi.org/10.3390/pharmaceutics15020371	5,4
9	Postu, J. Noumedem, O. Cioanca, M. Hancianu, M. Mihasan, B. A. Petre , L. Hritcu, Lactuca capensis reverses memory deficits in Aβ1-42-induced an animal model of Alzheimer's disease, <i>J. Cell. Mol. Med.</i> (2018), 22(1), 111-122, https://doi.org/10.1111/jcmm.13299	5,3
10	R. Ionita, P. A. Postu, G. J. Beppe, M. Mihasan, B. A. Petre* , M. Hancianu, O. Cioanca, L. Hritcu, “Cognitive-enhancing and antioxidant activities of the aqueous extract from Markhamia tomentosa (Benth.) K. Schum. stem bark in a rat model of scopolamine”, <i>Behavioral and Brain Functions</i> , (2017), 13:5, https://doi.org/10.1186/s12993-017-0123-6	5,1
11	Ulrich*, M., Petre A* , N. Youhnovski, D. Worlitzsch, M. Schirle, M. Schumm J. Lee, J. Checkel, M. Dinauer, P. Schmid, F. Ratjen, M. Przybylski, G. Döring, “Post-translational tyrosine nitration of eosinophil granule toxins mediated by eosinophil peroxidase”, <i>J. Biol. Chem.</i> (2008), 283 (42): 28629-28640. https://doi.org/10.1074/jbc.M801196200	4,8
12	Schmidt P., Youhnovski N., Daiber A., Balan (Petre) A. , Arsic M., Przybylski M. Ullrich V., “Specific nitration at tyrosine-430 revealed by high resolution mass spectrometry as basis for redox regulation of bovine prostacyclin synthase”, <i>J. Biol. Chem.</i> , (2003), 278: 12813-12819. https://doi.org/10.1074/jbc.M208080200	4,8
13	Jitaru, S.-C.; Enache, A.-C.; Cojocaru, C.; Drochioiu, G.; Petre, B.-A. ; Gradinaru, V.-R. “Self-Assembly of a Novel Pentapeptide into Hydrogelated Dendritic Architecture: Synthesis, Properties, Molecular Docking and Prospective Applications.” <i>Gels</i> 2024, 10, 86. https://doi.org/10.3390/gels10020086	4,6
14	Iavorschi, M.; Lupăescu, A.-V.; Darie-Ion, L.; Indeykina, M.; Hitruc, G.E.; Petre, B.A.* Cu and Zn Interactions with Peptides Revealed by High-Resolution Mass Spectrometry. <i>Pharmaceutics</i> , (2022), 15, 1096. https://doi.org/10.3390/ph15091096	4,6

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15	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Sullivan, I.; Petre B.A.* ; Darie, C.C.; Neagu, A.-N. “Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in MCF7 Breast Cancer Cells Transfected for JTB Protein Silencing.” <i>Molecules</i> , 2023 , 28, 7501. https://doi.org/10.3390/molecules28227501	4,6
16	Darie-Ion, L.; Whitham, D.; Jayathirtha, M.; Rai, Y.; Neagu, A.-N.; Darie, C.C.; Petre, B.A.* Applications of MALDI-MS/MS-Based Proteomics in Biomedical Research, <i>Molecules</i> (2022), 27, 6196 https://doi.org/10.3390/molecules27196196	4,6
17	A.-N. Neagu, M. Jayathirtha, E. Baxter, M. Donnelly, B. A. Petre and C. C. Darie, Applications of Tandem Mass Spectrometry (MS/MS) in Protein Analysis for Biomedical Research, <i>Molecules</i> (2022), 27, 2411 https://doi.org/10.3390/molecules27082411	4,6
18	C. S. Mocanu, L. Darie-Ion, B. A. Petre , V. R. Gradinaru, G. Drochioiu, A computational study of metal ions interaction with amyloid-b 1–42 peptide structure in hyperpyrexia: Implications for Alzheimer disease, <i>Journal of King Saud University Science</i> 34 (2022) 102184, https://doi.org/10.1016/j.jksus.2022.102184	3,8
19	Drochioiu G., Manea M., Dragusanu M., Murariu M., Dragan E.S., Petre B.A. Mezo G., Przybylski M., “Interaction of beta-amyloid (1-40) peptide with pairs of metal ions: An electrospray ion trap mass spectrometric model study”, <i>Biophysical Chemistry</i> , (2009), 144(1-2) 9-20. https://doi.org/10.1016/j.bpc.2009.05.008	3,8
20	Schreier V. N., Pethő L, Orbán E., Marquardt A., Petre B.A. , Mező G. and Manea M., “Protein expression profile of HT-29 human colon cancer cells after treatment with a cytotoxic daunorubicin-GnRH-III derivative bioconjugate”, <i>PLoS ONE</i> , (2014), 9(4):e94041 https://doi.org/10.1371/journal.pone.0094041	3,7
21	C. S. Mocanu, B. A. Petre , L. Darie Ion, G. Drochioiu, M. Niculaua, I. Stoica, M. Homocianu, L. E. Nita, and V. R. Gradinaru, Structural Characterization of a New Collagen Biomimetic Octapeptide with Nanoscale Self-assembly Potential: Experimental and Theoretical Approaches, <i>ChemPlusChem</i> , (2021), https://doi.org/10.1002/cplu.202100462	3,4
22	A.-N. Neagu, M. Jayathirtha, D. Whitham, P. Mutsengi, I. Sullivan, B.-A. Petre , C. C. Darie, “Proteomics-Based Identification of Dysregulated Proteins in Breast Cancer”, <i>Proteomes</i> (2022), 10, 35. https://doi.org/10.3390/proteomes10040035	3,3
23	EJ. Dupree, M. Jayathirtha, H Y., B.-A. Petre* , M. Mihasan, C. C. Darie, “A critical review of bottom-up proteomics: the good, the bad, and the future of this field”, <i>Proteomes</i> , (2020), 8(14). https://doi.org/10.3390/proteomes8030014	3,3
24	Vlad C., Lindner K., Karreman C., Schildknecht S., Leist M., Tomczyk N., Rontree J., Langridge J., Danzer K., Ciossek T., Petre A. , Gross M., Hengerer B., Przybylski M. “Autoproteolytic Fragments are Intermediates in the Oligomerization- Aggregation of Parkinson’s Disease Protein Alpha-Synuclein as Revealed by Ion Mobility Mass Spectrometry”, <i>ChemBioChem</i> (2011), 12(18):2740-4 https://doi.org/10.1002/cbic.201100569	3,2
25	Petre* B.A. , Ulrich M., Stumbaum M., Bernevic ., Moise A., Döring G., Przybylski M. When is Mass Spectrometry Combined with Affinity Approaches Essential? A Case Study of Tyrosine Nitration in Proteins, <i>J. Am. Soc. Mass Spectrom.</i> (2012), 23(11): 1831-1840. https://doi.org/10.1007/s13361-012-0461-4	3,2
26	M. Drăgușan, B.A Petre , S. Slamnoiu, T. Tu, M. Gross, M. Przybylski “Online bioaffinity–electrospray mass spectrometry for structure identification and quantification of protein-ligand interactions”, <i>J. Am. Soc. Mass Spectrom.</i> (2010), 21(10): 1643-8. https://doi.org/10.1016/j.jasms.2010.06.011	3,2
27	Tu T., Drăgușanu M., Petre B.A. , Rempel D., Przybylski M., Gross M., “Protein-peptide affinity determination using an H/D exchange dilution strategy: Application to antigen-antibody interactions”, <i>J. Am. Soc. Mass Spectrom.</i> (2010), 21(10):1660-7. https://doi.org/10.1016/j.jasms.2010.03.030	3,2
28	P.A. Postu, L. Ion, G. Drochioiu, B.A. Petre* , and M. O. Glocker, “Mass Spectrometric Characterization of the Zein Protein Composition in Maize Flour Extracts upon Protein Separation by SDS-PAGE and 2 D Gel Electrophoresis”, <i>Electrophoresis</i> , (2019), 40, 2747–2758, https://doi.org/10.1002/elps.201900108	2,9
29	M. Jayathirtha, E. J. Dupree, Z. Manzoor, B. Larose, Z. Sechrist, A. Neagu, B.-A. Petre , C. C. Darie, Mass Spectrometric (MS) Analysis of Proteins and Peptide, <i>Current Protein & Peptide Science</i> , (2021), https://doi.org/10.2174/1389203721666200726223336	2,8
30	Darie-Ion, A. Neamtu, R. Iliescu, B. A. Petre* , Immuno-Affinity Study of Oxidative Tyrosine Containing Peptides, 2022, <i>International Journal of Peptide Research and Therapeutics</i> (2022)	2,5

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	28:41, https://link.springer.com/article/10.1007/s10989-021-10329-2 ; https://doi.org/10.1007/s10989-021-10329-2	
31	Habasescu, L., Jureschi, M., Petre, B. A. , Mihai, M., Gradinaru, RV., Murariu, M., Drochioiu, G., “Histidine-Lacked A beta(1-16) Peptides: pH-Dependent Conformational Changes in Metal Ion Binding”. <i>Int. J. Peptide Research and Therapeutics</i> . (2020), https://doi.org/10.1007/s10989-020-10048-0	2,5
32	A. Lupaescu, M. Jureschi, C.-I. Ciobanu, L. Ion, G Zbancioc, B.A. Petre , G. Drochioiu, "FTIR and MS Evidence for Heavy Metal Binding to Anti-amyloid NAP-Like Peptides, <i>Int. J. Peptide Research and Therapeutics</i> , (2019), 25, 303–309 https://doi.org/10.1007/s10989-018-9672-2	2,5
33	Maeser S, Petre BA* , Ion L, Rawer S, Kohlschütter A, Santorelli FM, Simonati A, Schulz A, Przybylski M., Enzymatic diagnosis of neuronal lipofuscinoses in dried blood spots using substrates for concomitant tandem mass spectrometry and fluorimetry. <i>J Mass Spectrom.</i> (2021), 29:e4675. https://doi.org/10.1002/jms.4675	2,3
34	Dragusanu M., Petre B.A. , Przybylski M. Epitope motif of an anti-nitrotyrosine antibody specific for nitrotyrosine- modified peptides revealed by affinity-mass spectrometry, <i>J. Pept. Sci.</i> (2011), 17(3): 184-191. https://doi.org/10.1002/psc.1298	2,1
35	C. A. Okai, M. Wölter, M. Russ, C. Koy, B.A. Petre , W. Rath, U. Pecks, M. O. Glocker, Profiling of intact blood proteins by matrix-assisted laser desorption/ionization mass spectrometry without the need for freezing – Dried serum spots as future clinical tools for patient screening. <i>Rapid Commun Mass Spectrom.</i> (2021), 35:e9121, https://doi.org/10.1002/rcm.9121	2,0
36	Bernevic B., Petre B.A. , Galetskiy D., Werner C., Wicke M., Schellander K., Przybylski M., “Degradation and oxidation postmortem of myofibrillar proteins in porcine skeleton muscle revealed by high resolution mass spectrometric proteome analysis”, <i>Int. J. Mass Spectrom.</i> (2011), 305 (2-3):217-227 https://doi.org/10.1016/j.ijms.2010.11.010	1,8
37	Jung, J. E., Cárdenas V., Petre BA* , “Epitope identification of a Lys63 linkage ubiquitin antibody by mass spectrometric epitope excision and extraction approaches.” <i>European journal of mass spectrometry</i> , (2023), https://doi.org/10.1177/14690667231199012	1,3
38	A-V. Lupaescu, I. Humelnicu, B. A. Petre , C-I. Ciobanu and G. Drochioiu, ”Direct evidence for binding of aluminum to NAP anti-amyloid peptide and its analogs”, <i>Eur. J. Mass Spectrom.</i> , (2020),26(2):106-116, https://doi.org/10.1177/1469066719877714	1,3
39	Petre B.A* , Youhnovski N., Lukkari J., Weber R., Przybylski M., “Structural Characterisation of tyrosine-nitrated peptides by ultraviolet and infrared matrix-assisted laser desorption/ionization Fourier transforms ion cyclotron resonance mass spectrometry”, <i>Eur. J. Mass Spectrom.</i> (2005), 11, 513-518. https://doi.org/10.1255/ejms.777	1,3
40	Jureschi, M., Humelnicu, I., Petre, B. A* , Ciobanu, C. I., Murariu, M., Drochioiu, G. Solid phase synthesis of four analogs of amyloid- β (9-16) peptide: MS and FT-IR characterization. <i>Rev. Roum. Chim.</i> , (2019), 64(5), https://doi.org/10.33224/rch.2019.64.5.07	0,5
41	Lupaescu, A. V., Ciobanu, C. I., Humelnicu, I., Petre, B. A* , Murariu, M., Drochioiu, G., Design and synthesis of new anti-amyloid NAP-based/like peptides. <i>Rev. Roum. Chim.</i> , (2019), 64(6), 535-546. https://doi.org/10.33224/rch.2019.64.6.10	0,5
42	Murariu, M., Ion, L., Ciobanu, C.I., Petre, B.A. and Drochioiu, G., “MS, CD, and FT-IR characterization of five newly synthesized histidine-containing Ala- and Gly-based peptides”, <i>Rev. Roum Chim</i> , (2017), 62(3), 277-289 https://revroum.lew.ro/wp-content/uploads/2017/3/Art%2010.pdf	0,5
Factor impact cumulat în domeniile de cercetare declarate (FIC_D)		156.7
Cerința 70 - Realizat 156.7, Criteriul I.2. îndeplinit		

*conform actualizării Clarivate din 2023

** Domeniul de cercetare declarat: Chimia biomacromoleculor: peptide și proteine

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I.3. Îndeplinirea IF în calitate de autor principal (prim-autor și autor de corespondență):

Lista articole în ordinea descrescătoare a factorilor de impact:

Nr. crt.	Articolul	Factor impact 2022*
1	Darie-Ion L, Petre BA* , “An update on multiplexed mass spectrometry- based lysosomal storage disease diagnosis.” <i>Mass Spectrometry Reviews</i> , (2023), 1-15, https://doi.org/10.1002/mas.21864	6,6
2	L. Darie-Ion, M. Jayathirtha, G. E. Hitruc, M.-M. Zaharia, R. V. Gradinaru, C. C. Darie, A. Pui and B. A. Petre* , A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, <i>Biomolecules</i> , (2021), 11, 1838. https://doi.org/10.3390/biom11121838	5,5
3	S. C. Jitaru, A. Neamtu, G. Drochioiu, L. Darie-Ion, I. Stoica, B.-A. Petre* , V.-R. Gradinaru, A diphenylalanine based pentapeptide with fibrillating self-assembling properties, <i>Pharmaceutics</i> 2023, 15(2), 371; https://doi.org/10.3390/pharmaceutics15020371	5,4
4	R. Ionita, P. A. Postu, G. J. Beppe, M. Mihasan, B. A. Petre* , M. Hancianu, O. Cioanca, L. Hritcu, “Cognitive-enhancing and antioxidant activities of the aqueous extract from Markhamia tomentosa (Benth.) K. Schum. stem bark in a rat model of scopolamine”, <i>Behavioral and Brain Functions</i> , (2017), 13:5, https://doi.org/10.1186/s12993-017-0123-6	5,1
5	Ulrich*, M., Petre A* , N. Youhnovski, D. Worlitzsch, M. Schirle, M. Schumm J. Lee, J. Checkel, M. Dinauer, P. Schmid, F. Ratjen, M. Przybylski, G. Döring, “Post-translational tyrosine nitration of eosinophil granule toxins mediated by eosinophil peroxidase”, <i>J. Biol. Chem.</i> (2008), 283 (42): 28629-28640. https://doi.org/10.1074/jbc.M801196200	4,8
6	Iavorschi, M.; Lupăescu, A.-V.; Darie-Ion, L.; Indeykina, M.; Hitruc, G.E.; Petre, B.A.* Cu and Zn Interactions with Peptides Revealed by High-Resolution Mass Spectrometry. <i>Pharmaceutics</i> , (2022), 15, 1096. https://doi.org/10.3390/ph15091096	4,6
7	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Sullivan, I.; Petre B.A.* ; Darie, C.C.; Neagu, A.-N. “Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in MCF7 Breast Cancer Cells Transfected for JTB Protein Silencing.” <i>Molecules</i> , 2023, 28, 7501. https://doi.org/10.3390/molecules28227501	4,6
8	Darie-Ion, L.; Whitham, D.; Jayathirtha, M.; Rai, Y.; Neagu, A.-N.; Darie, C.C.; Petre, B.A.* Applications of MALDI-MS/MS-Based Proteomics in Biomedical Research, <i>Molecules</i> (2022), 27, 6196 https://doi.org/10.3390/molecules27196196	4,6
9	EJ. Dupree, M. Jayathirtha, H Y., B.-A. Petre* , M. Mihasan, C. C. Darie, “A critical review of bottom-up proteomics: the good, the bad, and the future of this field”, <i>Proteomes</i> , (2020), 8(14). https://doi.org/10.3390/proteomes8030014	3,3
10	Petre* B.A. , Ulrich M., Stumbaum M., Bernevic ., Moise A., Döring G., Przybylski M. When is Mass Spectrometry Combined with Affinity Approaches Essential? A Case Study of Tyrosine Nitration in Proteins, <i>J. Am. Soc. Mass Spectrom</i> , (2012), 23(11): 1831-1840. https://doi.org/10.1007/s13361-012-0461-4	3,2
11	P.A. Postu, L. Ion, G. Drochioiu, B.A. Petre* , and M. O. Glocker, “Mass Spectrometric Characterization of the Zein Protein Composition in Maize Flour Extracts upon Protein Separation by SDS-PAGE and 2 D Gel Electrophoresis”, <i>Electrophoresis</i> , (2019), 40, 2747–2758, https://doi.org/10.1002/elps.201900108	2,9
12	Darie-Ion, A. Neamtu, R. Iliescu, B. A. Petre* , Immuno-Affinity Study of Oxidative Tyrosine Containing Peptides, 2022, <i>International Journal of Peptide Research and Therapeutics</i> (2022) 28:41, https://link.springer.com/article/10.1007/s10989-021-10329-2 ; https://doi.org/10.1007/s10989-021-10329-2	2,5
13	Maeser S, Petre BA* , Ion L, Rawer S, Kohlschütter A, Santorelli FM, Simonati A, Schulz A, Przybylski M., Enzymatic diagnosis of neuronal lipofuscinoses in dried blood spots using substrates for concomitant tandem mass spectrometry and fluorimetry. <i>J Mass Spectrom.</i> (2021), 29:e4675. https://doi.org/10.1002/jms.4675	2,3
14	Jung, J. E., Cárdenas V., Petre BA* , “Epitope identification of a Lys63 linkage ubiquitin antibody by mass spectrometric epitope excision and extraction approaches.” <i>European journal of mass spectrometry</i> , (2023), https://doi.org/10.1177/14690667231199012	1,3
15	Petre B.A* , Youhnovski N., Lukkari J., Weber R., Przybylski M., “Structural Characterisation of tyrosine-nitrated peptides by ultraviolet and infrared matrix-assisted laser desorption/ionization Fourier	1,3

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	transforms ion cyclotron resonance mass spectrometry”, <i>Eur. J. Mass Spectrom.</i> (2005), 11, 513-518. https://doi.org/10.1255/ejms.777	
16	Jureschi, M., Humelnicu, I., Petre, B. A* , Ciobanu, C. I., Murariu, M., Drochioiu, G. Solid phase synthesis of four analogs of amyloid- β (9-16) peptide: MS and FT-IR characterization. <i>Rev. Roum. Chim.</i> , (2019), 64(5), https://doi.org/10.33224/rch.2019.64.5.07	0,5
17	Lupaescu, A. V., Ciobanu, C. I., Humelnicu, I., Petre, B. A* , Murariu, M., Drochioiu, G., Design and synthesis of new anti-amyloid NAP-based/like peptides. <i>Rev. Roum. Chim.</i> , (2019), 64(6), 535-546. https://doi.org/10.33224/rch/2019.64.6.10	0,5
Factor impact cumulat din publicații în calitate de autor principal (FIC _{AP})		59.0
Cerința 50 – Realizat 59.0, Criteriul I.3. îndeplinit		

*conform actualizării Clarivate din 2023

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I.4. Îndeplinirea Factorului de impact în calitate de autor de corespondență:

Lista articole în ordinea descrescătoare a factorilor de impact:

Nr. crt.	Articolul	Factor impact 2022*
1	Darie-Ion L, Petre BA* , “An update on multiplexed mass spectrometry- based lysosomal storage disease diagnosis.” <i>Mass Spectrometry Reviews</i> , (2023), 1-15, https://doi.org/10.1002/mas.21864	6,6
2	L. Darie-Ion, M. Jayathirtha, G. E. Hitruc, M.-M. Zaharia, R. V. Gradinaru, C. C. Darie, A. Pui and B. A. Petre* , A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, <i>Biomolecules</i> , (2021), 11, 1838. https://doi.org/10.3390/biom11121838	5,5
3	S. C. Jitaru, A. Neamtu, G. Drochioiu, L. Darie-Ion, I. Stoica, B.-A. Petre* , V.-R. Gradinaru, A diphenylalanine based pentapeptide with fibrillating self-assembling properties, <i>Pharmaceutics</i> 2023, 15(2), 371; https://doi.org/10.3390/pharmaceutics15020371	5,4
4	R. Ionita, P. A. Postu, G. J. Beppe, M. Mihasan, B. A. Petre* , M. Hancianu, O. Cioanca, L. Hritcu, “Cognitive-enhancing and antioxidant activities of the aqueous extract from Markhamia tomentosa (Benth.) K. Schum. stem bark in a rat model of scopolamine”, <i>Behavioral and Brain Functions</i> , (2017), 13:5, https://doi.org/10.1186/s12993-017-0123-6	5,1
5	Iavorschi, M.; Lupăescu, A.-V.; Darie-Ion, L.; Indeykina, M.; Hitruc, G.E.; Petre, B.A.* Cu and Zn Interactions with Peptides Revealed by High-Resolution Mass Spectrometry. <i>Pharmaceutics</i> , (2022), 15, 1096. https://doi.org/10.3390/ph15091096	4,6
6	Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Sullivan, I.; Petre B.A.* ; Darie, C.C.; Neagu, A.-N. “Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in MCF7 Breast Cancer Cells Transfected for JTB Protein Silencing.” <i>Molecules</i> , 2023, 28, 7501. https://doi.org/10.3390/molecules28227501	4,6
7	Darie-Ion, L.; Whitham, D.; Jayathirtha, M.; Rai, Y.; Neagu, A.-N.; Darie, C.C.; Petre, B.A.* Applications of MALDI-MS/MS-Based Proteomics in Biomedical Research, <i>Molecules</i> (2022), 27, 6196 https://doi.org/10.3390/molecules27196196	4,6
8	EJ. Dupree, M. Jayathirtha, H Y., B.-A. Petre* , M. Mihasan, C. C. Darie, “A critical review of bottom-up proteomics: the good, the bad, and the future of this field”, <i>Proteomes</i> , (2020), 8(14). https://doi.org/10.3390/proteomes8030014	3,3
9	P.A. Postu, L. Ion, G. Drochioiu, B.A. Petre* , and M. O. Glocker, “Mass Spectrometric Characterization of the Zein Protein Composition in Maize Flour Extracts upon Protein Separation by SDS-PAGE and 2 D Gel Electrophoresis”, <i>Electrophoresis</i> , (2019), 40, 2747–2758, https://doi.org/10.1002/elps.201900108	2,9
10	Darie-Ion, A. Neamtu, R. Iliescu, B. A. Petre* , Immuno-Affinity Study of Oxidative Tyrosine Containing Peptides, 2022, <i>International Journal of Peptide Research and Therapeutics</i> (2022) 28:41, https://link.springer.com/article/10.1007/s10989-021-10329-2 ; https://doi.org/10.1007/s10989-021-10329-2	2,5
11	Jung, J. E., Cárdenas V., Petre BA* , “Epitope identification of a Lys63 linkage ubiquitin antibody by mass spectrometric epitope excision and extraction approaches.” <i>European journal of mass spectrometry</i> , (2023), https://doi.org/10.1177/14690667231199012	1,3
12	Jureschi, M., Humelnicu, I., Petre, B. A* , Ciobanu, C. I., Murariu, M., Drochioiu, G. Solid phase synthesis of four analogs of amyloid- β (9-16) peptide: MS and FT-IR characterization. <i>Rev. Roum. Chim.</i> , (2019), 64(5), https://doi.org/10.33224/rch.2019.64.5.07	0,5
13	Lupaescu, A. V., Ciobanu, C. I., Humelnicu, I., Petre, B. A* , Murariu, M., Drochioiu, G., Design and synthesis of new anti-amyloid NAP-based/like peptides. <i>Rev. Roum. Chim.</i> , (2019), 64(6), 535-546. https://doi.org/10.33224/rch.2019.64.6.10	0,5
Factor impact cumulativ din publicații în calitate de autor de corespondență (FIC_{AC})		47.4
Cerința 25 – Realizat 47.4, Criteriul I.4. îndeplinit		

*conform actualizării Clarivate din 2023

I.5. Îndeplinirea Indicelui Hirsch (h index):

Cerința h-index*	Realizat h-index	
13	Scopus - 17, WOS - 16, Google scholars - 19	îndeplinit

* h-index conform Web of Science

Candidat**Conf. dr. Brîndușa Alina PETRE****II. Îndeplinirea standardelor minimale obligatorii suplimentare pe domeniul chimie ale Universității „Al. I. Cuza” Iași;****II.1. Granturi naționale sau internaționale, câștigate prin competiție, ca director de proiect:**

Lista granturi naționale sau internaționale, câștigate prin competiție, ca director de proiect:

1. Contract **PN-II-RU-TE-2011-3-0038**, "*Noi abordări mass-spectrometrice pentru elucidarea modificărilor oxidative în protein*", 2011 - 2014; **Director de proiect**
2. Contract **PN-II-RU-TE-2014-4-0920**, "*Caracterizarea prin metode de bio-afinitate și spectrometrie de masă a unor proteine modificate patofiziologic*", 01.10.2015 – 30.09.2017; **Director de proiect**

Cerut 2 Realizat 2, Criteriul II.1. îndeplinit**II.2. Un grant internațional, câștigat prin competiție, ca membru/director de proiect:**

Identifizierung und Struktur/Funktionsanalyse der Protein-Nitrierung in eosinophilen Granulozyten und in chronisch entzündetem murinem und humanem Lungengewebe durch hochauflösende Proteomanalyse; Deutsche Forschungsgemeinschaft (DFG) - Projektnummer 47653256, 2008-2012; Director de proiect – Prof. Dr. Michael Przybylski; B.A. Petre – membru în echipa proiectului

Cerut 1 Realizat 1, Criteriul II.2. îndeplinit**II.3. Cărți/ capitole de carte/ cursuri/ manuale de exerciții și probleme:**

Lista cărți/ capitole de carte/ cursuri/ manuale de exerciții și probleme:

1. M. Jureschi, A. V. Lupaescu, L. Ion, **B. A. Petre***, and G. Drochioiu, Stoichiometry of Heavy Metal Binding to Peptides Involved in Alzheimer's Disease: Mass Spectrometric Evidence, **Advances in experimental medicine and biology – Springer, (2019)**, 401-415; doi.org/10.1007/978-3-030-15950-4_23
2. Ion, Laura, and **Brîndușa Alina Petre***, "Immuno-Affinity Mass Spectrometry: A Novel Approaches with Biomedical Relevance." **Advances in experimental medicine and biology– Springer, (2019)**: 377-388.
3. **Petre*, B.A.** Affinity – mass spectrometry approaches for elucidating structures and interactions of protein – ligand complexes in **Advances in experimental medicine and biology – Springer, (2014)**, 806:129-151. DOI: 10.1007/978-3-319-06068-2_7.
4. **Petre B. A.**, Drăgușanu M., Przybylski M. (2008), Molecular recognition specificity of anti-3-nitrotyrosine antibodies revealed by affinity- mass spectrometry and immunoanalytical methods in: "Applications of Mass Spectrometry in Life Sciences", Springer - ISBN 978-1-4020-8811-7, page 55-67.

Cerut 3 Realizat 4, Criteriul II.3. îndeplinit

Candidat**Conf. dr. Brîndușa Alina PETRE****II.4. Minim 200 de puncte de la ultima promovare**

Lista cu punctajele obținute la autoevaluarea anuală de la ultima promovare (August 2020):

- ✓ Punctaj autoevaluare 2021 pentru 2020 – 1013 puncte*;
- ✓ Punctaj autoevaluare 2022 pentru 2021 – 98,65 puncte;
- ✓ Punctaj autoevaluare 2023 pentru 2022 – 99,07 puncte;
- ✓ Punctaj autoevaluare 2024 pentru 2023 – 98,83 puncte;
- Obs: *până în anul 2020 inclusiv, punctajele totale nu erau normalizate până la maximum 100 puncte.
- ✓ Total punctaj autoevaluare 2020 - 2023 – **1309,55 puncte**;

Cerut mai mult de 200 Realizat 1309,55, Criteriul II.4. îndeplinit**II.5. Activitatea științifică trebuie să fie obligatoriu în profilul postului:**

Activitatea științifică, reprezentată prin lucrări științifice publicate în jurnale de specialitate sau prezentate la conferințe precum și de contractele de cercetare, este elaborată în **Domeniul de doctor vizat – Chimie / subdomeniul de cercetare declarat: Chimia biomacromoleculor: peptide și proteine**

- ✓ **42 de articole** în reviste cu factor de impact în domeniul **Chimia biomacromoleculor: peptide și proteine** (Conform Criteriului I.2. și Lista de lucrări);
- ✓ **Selecție lucrări prezentate la conferințe** naționale și internaționale în domeniul **Chimia biomacromoleculor: peptide și proteine - ultimii 5 ani** (Conform Criteriului I.2. și Lista de lucrări);
- ✓ **8 granturi** dintre care **2 granturi** câștigate prin competiție **ca director de proiect** și alte **6 granturi ca membru** în domeniul Chimia biomacromoleculor: peptide și proteine:
 - Director de proiect "Caracterizarea modificărilor proteinelor patofiziologice prin metode spectrometrice de masă de bio-afinitate", UEFSCDI - CNCS RO, (PN-II-RU-TE-2014-4-0920), 2015 -2017;
 - Director de proiect: "Noi abordări mass-Spectrometrice pentru elucidarea modificărilor oxidative în proteine", UEFSCDI - CNCS RO (PN-II-RU-TE-2011-3-0038), 2011-2014;
 - Membru în echipa proiectului "DECIDE- Dezvoltare prin educație antreprenorială și cercetare inovativă doctorală și postdoctorală", Universitatea "Ștefan cel Mare" din Suceava, RO; 2022;
 - Membru în echipa proiectului "Conceperea de platforme peptidice moderne inspirate din lumea vie - Bio-PASCAL", UEFSCDI -RO (PN-III-P2-2.1-PED-2019-2484), 2020-2022;
 - Membru în echipa proiectului "Impact of heavy metal accumulation on the environment and productivity of forestry ecosystems: Non-conventional remediation technologies of contaminated forests", PN-II-PT-PCCA-2013-4-1149, UEFSCDI –RO, 2014 -2017;
 - Membru în echipa proiectului "Process for one-step production of two different high quality corn flours by non expensive screening and eco-friendly chemical separation (QUALIFARIN), Institute of Macromolecular Chemistry "Petru Poni" Iasi, Finantator- Romanian–American Foundation - ARTIE POC program, 2014;
 - Membru în echipa proiectului "Schimbări conformaționale induse de metale și pH ale peptidelor asociate cu patologii neurodegenerative", UEFSCDI-CNCS RO (PN-II-ID-PCE-2011-3-0628), 2011-2014;
 - Membru în echipa proiectului "Identifizierung und Struktur / Funktionsanalyse der Protein-Nitrierung in eosinophilen Granulozyten und in chronisch entzündetem murinem und humanem Lungengewebe", Fundația Germană de Cercetare (DFG), University of Konstanz, DE, 2008-2012;

Observație Criteriul II.5. îndeplinit**Data:****19.04.2024****Semnătura****Conf.dr. Brîndușa Alina PETRE**