

Curriculum vitae Europass



General Information

Name Petrescu, Andrei-Jose
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Web Page <https://www.biochim.ro/department-5/>
<https://www.biochim.ro/group-bioinformatics-structural-biochemistry/>
Nationality Romanian

Position

Position Head of the Department of Bioinformatics & Structural Biochemistry (DBSB)
Period 2000 - present
Institute Institute of Biochemistry of the Romanian Academy - IBAR,
 Splaiul Independentei 296,
 060031 Bucharest 17

Responsibilities Coordination of structural biology research programs of DBSB-IBAR.
 PhD Coordinator - at the School of Advanced Studies of the Romanian Academy (SCOSAAR)
 Lectures at Undergraduate, MSc, PhD and Post Doc level

Expertise

Bioinformatics / Biocomputing / Structural Biology / Physical Biochemistry / Glycobiology

Education

Degree PhD in Physics, Subject - Biophysics "Protein Structure and their Ligand Interactions"
Institution University of Bucharest, Faculty of Physics

Affiliations

Membership in societies and organisations

- SCR (Senior Common Room) Member, Corpus Christi College, Oxford - in 1998
- Glycobiology Institute, Department of Biochemistry, University of Oxford
- Biochemical Society, UK
- Romanian Society of Biochemistry and Molecular Biology

Responsibilities

- Vice-president of CNATDCU Panel III - Biomedical Sciences
- Member of the National Council for Scientific Research - Biology Commission
- Member of the Committee of European Bioinformatics Communities in - ELIXIR
- Member of the Editorial Board of - Rom. J. Biochem. Molecular Life
- Romanian Grants Evaluator for CNCSIS, UEFISCDI & Romanian Academy
- Reviewer of BMC Bioinformatics, QSAR & Combinatorial Science etc

Research

Invited research Stages >25

- 1991 Faculty of Pharmacy, Wurzburg - Department of Biochemistry, 3 months
- 1993 - 2009 Department of Biochemistry of the University of Oxford, 1-4 mnth/year
- 1994 - 1999 CEA-Saclay - Lab L.Brilluoin, Lab Sim.Mol, 5 EU stages 4-6 months
- 1999 - 2000 IWR Biocomputing, University of Heidelberg
- 2005 - 2014 University of Wageningen, FP5, FP6 Grants



Research profiles: Scopus Auth ID: [7102461242](#) WoS Core Collection ID: [G-4576-2016](#) OrCID: [0000-0002-4476-3946](#)

Mendeley [Petrescu A-J profile](#) Google Scholar [Petrescu A-J profile](#)

Research Management DBBS-IBAR research co-ordinator

Research Grant Coordination

- Research within the frame of Romanian Academy Plans (per annum) 1
- National Grants and Contracts - last 5 years 11
- International Grants 5
 - 1998-1999 NATO-CNS 971675 - "Computer Networking"
 - 2000 Wellcome Trust: "Computing Equip. for Molec. Modeling"
 - 2002-2005 Wellcome Trust: "A DB of structural information on glycoproteins"
 - 2002-2004 FP5-EU "NONEMA"
 - 2005-2010 FP6-EU "BIOEXPLOIT" (WP2.4 Coordinator)

Member of Organising Committee:

- EMBL-EBI-RSBI Course & Workshop "Bioinformatics", Bucharest, Sep (2018)
- COST Workshop "Structure-Guided Investigation of Effector Recognition", Bucharest, Sep (2014)
- FEBS Course "Recombinant DNA Technology", Bucharest, Sep (2008, 2005, 2003)
- FEBS-IUBMB Meeting "Protein Folding in Health & Disease", Bucharest, Jun (2005)
- International Meeting "Glycosylation & Disease", Bucharest, June (2004)
- Workshop "Molecular basis of Plant Defence Mechanisms", Bucharest, Feb (2003)
- 12th Balkan Biochem Biophys Days, Bucharest, May (2001)
- 1st International Meeting of SRBBM, Bucharest, Sep (1998)
- TEMPUS Workshop "Protein Structure and Function", Bucharest, Aug (1998)
- 1st British-Rom. Workshop "Perspectives in Glycobiology", Bucharest, May (1997)

Research Results

Scientific Papers

- Published Papers 101
 - Articles in Main International Journals (Web of Science) 76
 - Book Chapters 4
 - Articles in national scientific journals 23
- Patents 4

Research Impact

- Hirsch Index Web of Science (WoS - all Data Bases) 33
- Citations (WoS - allDB) >3500
- Average Impact Factor (IF) - per article 6.1
- Average Article Influence (AI) - per article 2.5
- Articles Highly Cited (> 100 WoS-allDB cit.) 10
- Article in High Impact Journals (AI > 3.0) 12

Research Awards

- The "N. Simionescu" Award of the Romanian Academy, 2000
"For Contributions in Protein Folding"
- The Ministry of Research Award 2006
"For International Collaboration within EU-FP6"

Educational Activities:

- PhD Coordinator of SCOSAAR - the Advanced Studies School of the Romanian Academy
- PostDoc Coordinator - in the Program "Cellular & Molecular Biotechnologies for Medicine"
- Coordinator of the Bioinformatics module in EU-ERASMUS Programme "International MSc on Infectious Diseases and One Health" 2015-2018
- MSc Courses: I. "Biocomputing" II. "Interactomics" - University of Bucharest 2020 -
- MSc Lectures at the Normal Superior School - Bucuresti
 - Course in Bioinformatics and Molecular Modeling in Biochemistry (2009 - 2015)
- International FEBS Course "Recombinant DNA Technology & Protein Expression"
 - Lectures in Bioinformatics, 2003, 2005, 2008;

(Signature)

Selection of significant publications

Most Relevant Publications

1. Sulea TA, Martin EC, Bugeac CA, Bectas FS, Iacob AL, Spindon L, Petrescu AJ. "Lessons from Deep Learning Structural Prediction of Multistate Multidomain Proteins-The Case Study of Coiled-Coil NOD-like Receptors." *Int J Mol Sci*. **26**(2) 500 (2025).
doi: 10.3390/ijms26020500
AI: 1.05 / Q1 FI: 4.90
2. Sulea TA, Draga S, Mernea M, Corlan AD, Radu BM, Petrescu AJ, Amuzescu B. "Differential Inhibition by Cenobamate of Canonical Human Nav1.5 Ion Channels and Several Point Mutants." *Int J Mol Sci*. **26**(1) 358 (2025).
doi: 10.3390/ijms26010358
AI: 1.05 / Q1 FI: 4.90
3. Martin EC, Ion CF, Iftimeșcu F, Spindon L, Bakker J, Govers A, Petrescu AJ. "NLRscape: an atlas of plant NLR proteins." *Nucleic Acids Res*. **51**(D1) D1470-D1482 (2023).
doi: 10.1093/nar/gkac1014
AI: 5.51 / Q1 FI: 19.16
4. Papadopoulos N, Nédélec A, Derenne A, Sulea TA, Pecquet C, Chachoua I, Vertenoeil G, Tilmant T, Petrescu AJ, Mazzucchi G, Iorga BI, Vertommen D, Constantinescu SN. "Oncogenic CALR mutant C-terminus mediates dual binding to the thrombopoietin receptor triggering complex dimerization and activation." *Nat Commun*. **14**(1) 1881 (2023).
doi: 10.1038/s41467-023-37277-3
AI: 5.61 / Q1 FI: 17.69
5. Chiritoiu GN, Munteanu CVA, Sulea TA, Spindon L, Petrescu AJ, Jandus C, Romero P, Petrescu SM. "Methionine oxidation selectively enhances T cell reactivity against a melanoma antigen." *iScience*. **26**(7), 107205 (2023).
doi: 10.1016/j.isci.2023.107205
AI: 1.63 / Q1 FI: 5.80
6. Munteanu CVA, Chiritoiu GN, Petrescu AJ, Petrescu SM. "Defining the altered glycoproteomic space of the early secretory pathway by class I mannosidase pharmacological inhibition." *Front Mol Biosci*. **9** 1064868 (2023).
doi: 10.3389/fmolb.2022.1064868
AI: 1.33 / Q2 FI: 6.11
7. Martin EC, Spindon L, Govers A, Petrescu AJ. "NLRexpress-A bundle of machine learning motif predictors-Reveals motif stability underlying plant Nod-like receptors diversity." *Front Plant Sci*. **13**, 975888, (2022).
doi: 10.3389/fpls.2022.975888
AI: 1.17 / Q1 FI: 6.63
8. van Grinsven IL, Martin EC*, Petrescu AJ*, Kormelink R*. "Tsw - A case study on structure-function puzzles in plant NLRs with unusually large LRR domains." *Front Plant Sci*. **13**, 983693, (2022).
doi: 10.3389/fpls.2022.983693
AI: 1.17 / Q1 FI: 6.63
9. Mernea M, Martin EC, Petrescu AJ*, Avram S*. "Deep learning in the quest for compound nomination for fighting COVID-19." *Curr Med Chem*. **28**(28) 5699-5732 (2021).
doi: 10.2174/0929867328666210113170222
AI: 0.90 / Q2 FI: 4.20
10. Munteanu CVA, Chiritoiu GN, Chiritoiu M, Ghenea S, Petrescu AJ, Petrescu SM. "Affinity Proteomics and Deglycoproteomics Uncover Novel EDEM2 Endogenous Substrates and an Integrative ERAD Network." *Mol Cell Proteomics*. **20**, 100125 (2021).
doi: 10.1016/j.mcpro.2021.100125
AI: 2.00 / Q1 FI: 7.38
11. Manica G, Ghenea S, Munteanu CVA, Martin EC, Butnary C, Surleac M, Chiritoiu GN, Alexandru PR, Petrescu AJ, Petrescu SM. "EDEM3 Domains Cooperate to Perform Its Overall Cell Functioning." *Int J Mol Sci*. **22**(4) 2172 (2021).
doi: 10.3390/ijms22042172
AI: 1.06 / Q1 FI: 6.21
12. Baudin M, Martin EC, Sass C, Hassan JA, Bendix C, Saucedo R, Diplock N, Specht CD, Petrescu AJ, Lewis JD. "A natural diversity screen in *Arabidopsis thaliana* reveals determinants for HopZ1a recognition in the ZAR1-ZED1 immune complex." *Plant Cell Environ*. **44**(2) 629-644 (2021).
doi: 10.1111/pce.13927
AI: 1.80 / Q1 FI: 6.40
13. Martin EC, Vicari C, Tsakou-Ngouafo L, Pontarotti P, Petrescu AJ, Schatz DG. "Identification of RAG-like transposons in protostomes suggests their ancient bilaterian origin." *Mob DNA*. **11**, 17 (2020).
doi: 10.1186/s13100-020-00214-y
AI: 0.90 / Q1 FI: 5.80

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14. Martin EC, Sukarta OCA, Spiridon L, Grigore LG, Constantinescu V, Tacutu R, Goverse A, Petrescu AJ. "LRRpredictor - A New LRR Motif Detection Method for Irregular Motifs of Plant NLR Proteins Using an Ensemble of Classifiers". *Genes* **11**(3): 286-300 (2020)
doi: 10.3390/genes11030286
AI: 0.90 / Q2 FI: 3.70
15. Spiridon L, Sulea TA, Minh DDL, Petrescu AJ. "Robosample: A rigid-body molecular simulation program based on robot mechanics". *Biochim Biophys Acta Gen Subj*. **1864**(8): 129616. (2020)
doi: 10.1016/j.bbagen.2020.129616
AI: 1.80 / Q2 FI: 3.40
16. Baudin M, Schreiber KJ, Martin EC, Petrescu AJ, Lewis JD. "Structure-function analysis of ZAR1 immune receptor reveals key molecular interactions for activity". *Plant J* **101**(2): 352-370 (2020)
doi: 10.1111/tpj.14547
AI: 2.10 / Q1 FI: 6.10
17. Zhang Y, Cheng TC, Huang G, Lu Q, Surleac MD, Mandell JD, Pontarotti P, Petrescu AJ, Xu A, Xiong Y, Schatz DG. "Transposon molecular domestication and the evolution of the RAG recombinase". *Nature* **569**: 79-84 (2019)
doi: 10.1038/s41586-019-1093-7
AI: 22.20 / Q1 FI: 42.70
18. Sarbu M, Ica R, Petrut A, Vukelić Ž, Munteanu CVA, Petrescu AJ, Zamfir AD. "Gangliosidome of human anencephaly: A high resolution multistage mass spectrometry study". *Biochimie*. **163**: 142-151 (2019)
doi: 10.1016/j.biochi.2019.05.017
AI: 0.90 / Q3 FI: 3.10
19. Sarbu M, Dehelean L, Munteanu CVA, Ica R, Petrescu AJ, Zamfir AD. "Human caudate nucleus exhibits a highly complex ganglioside pattern as revealed by high-resolution multistage Orbitrap MS". *J. Carb. Chem.* **38**(9): 531-551 (2019)
doi: 10.1080/07328303.2019.1669632
AI: 0.00 / Q3 FI: 0.80
20. Ciubotaru M, Musat MG, Surleac M, Ionita E, Petrescu AJ, Abele E, Abele R. "The Design of New HIV-IN Tethered Bifunctional Inhibitors using Multiple Microdomain Targeted Docking". *Curr Med Chem* **26**(15): 2574-2600 (2019)
doi: 10.2174/0929867325666180406114405
AI: 0.90 / Q2 FI: 4.20
21. Munteanu CVA, Chiritoiu GN, Petrescu AJ, Petrescu SM. "Profiling Optimal Conditions for Capturing EDEM Proteins Complexes in Melanoma Using Mass Spectrometry". *Adv Exp Med Biol.* **1140**: 155-167 (2019)
doi: 10.1007/978-3-030-15950-4_9
AI: 0.60 / Q3 FI: 2.40
22. Wroblewski T, Spiridon L, Martin EC, Petrescu AJ, Cavanaugh K, Jose-Truco M, Xu H, Gozdowski D, Pawlowski K, Michelmore RW, Takken FLW. "Genome-wide functional analyses of plant CCNLR-type pathogen receptors reveal essential roles of their N-ter domain in oligomerization, networking, and immunity". *PLOS Biology* **16**(12): e2005821 (2018)
doi: 10.1371/journal.pbio.2005821
AI: 5.60 / Q1 FI: 9.10
23. Slootweg EJ, Spiridon LN, Martin EC, Tameling WIL, Townsend PD, Pomp R, Roosien J, Drawska O, Sukarta OCA, Schots A, Bors J, Joosten MHAJ, Bakker J, Smant G, Cann MJ, Petrescu AJ, Goverse A. "Distinct Roles of Non-Overlapping Surface Regions of the Coiled-Coil Domain in the Potato Immune Receptor Rx1". *Plant Physiol* **178**(3): 1310-1331 (2018)
doi: 10.1104/pp.18.00603
AI: 2.20 / Q1 FI: 6.90
24. Norris EJ, Jones WD, Surleac MD, Petrescu AJ, Destephani D, Zhang Q, Hamadeh I, Kneisl J, Livasy CA, Ganapathi RN, Tait DL, Ganapathi MK. "Clonal lineage of high grade serous ovarian cancer in a patient with neurofibromatosis type 1". *Gynecol Oncol Rep* **23**: 41-44 (2018)
doi: 10.1016/j.gore.2018.01.005
AI: 0.00 / Q3 FI: 1.00
25. Butnaru CM, Chiritoiu MB, Chiritoiu GN, Petrescu SM, Petrescu AJ. "Inhibition of N-glycan processing modulates the network of EDEM3 interactors". *Biochem Biophys Res Commun*. **486**(4): 978-984 (2017)
doi: 10.1016/j.bbrc.2017.03.143
AI: 0.70 / Q3 FI: 2.30
26. Kozuki T, Chikamori K, Surleac MD, Micluta MA, Petrescu AJ, Norris EJ, Elson P, Hoeltge GA, Grabowski DR, Porter ACG, Ganapathi RN, Ganapathi MK. "Roles of the C-terminal domains of topoisomerase I α and topoisomerase I β in regulation of the decatenation checkpoint". *Nucleic Acids Res*. **45**(10): 5995-6010 (2017)
doi: 10.1093/nar/gkx325
AI: 3.60 / Q1 FI: 10.20

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27. Ruta LL, Kissen R, Nicolau I, Neagoe AD, Petrescu AJ, Bones AM, Farcasanu IC. Heavy metal accumulation by *Saccharomyces cerevisiae* cells armed with metal binding hexapeptides targeted to the inner face of the plasma membrane. *Appl Microbiol Biotechnol.* 101(14): 5749-5763 (2017)
doi: 10.1007/s00253-017-8335-0
AI: 1.00 / Q2 FI: 3.30
28. Rajaraman J, Douchkov D, Hensel G, Stefanato FL, Gordon A, Ereful N, Caldararu OF, Petrescu AJ, Kumlehn J, Boyd LA, Schweizer P. "An LRR/Malectin Receptor-Like Kinase Mediates Resistance to Non-adapted and Adapted Powdery Mildew Fungi in Barley and Wheat." *Front Plant Sci.* 7: 1836-1844 (2016).
doi: 10.3389/fpls.2016.01836
AI: 1.30 / Q1 FI: 4.30
29. Diaz-Granados A, Petrescu AJ, Goverse A, Smant G. "SPRYSEC Effectors: A Versatile Protein-Binding Platform to Disrupt Plant Innate Immunity." *Front Plant Sci.* 7: 1575-1588 (2016)
doi: 10.3389/fpls.2016.01575
AI: 1.30 / Q1 FI: 4.30
30. De Oliveira AS, Koolhaas I, Boiteux LS, Caldararu OF, Petrescu AJ, Oliveira Resende R, Kormelink R. Cell death triggering and effector recognition by Sw-5 SD-CNL proteins from resistant and susceptible tomato isolines to Tomato spotted wilt virus. *Mol Plant Pathol.* 17(9): 1442-1454 (2016)
doi: 10.1111/mp.12439
AI: 1.30 / Q1 FI: 4.70
31. Sueldo DJ, Shimels M, Spiridon LN, Caldararu O, Petrescu AJ, Joosten MH, Tameling WI. "Random mutagenesis of the nucleotide-binding domain of NRC1 (NB-LRR Required for Hypersensitive Response-Associated Cell Death-1), a downstream signalling nucleotide-binding leucine-rich repeat (NB-LRR) protein, identifies gain-of-function mutations in the nucleotide-binding pocket." *New Phytol.* 208(1): 210-223 (2015)
doi: 10.1111/nph.13459
AI: 2.50 / Q1 FI: 7.70
32. Zhang YH, Shetty K, Surleac MD, Petrescu AJ, Schatz DG. "Mapping and Quantitation of the Interaction between the Recombination Activating Gene Proteins RAG1 and RAG2." *J. Biol. Chem.* 290(19): 11802-17. (2015)
doi: 10.1074/jbc.M115.638627
AI: 2.00 / Q1 FI: 4.60
33. Ciubotaru M, Surleac MD, Metskas LA, Koo P, Rhoades E, Petrescu A-J, Schatz DG. "The architecture of the 12RSS in V(D)J recombination signal and synaptic complexes." *Nucleic Acid Res.* 43(2): 917-931 (2015)
doi: 10.1093/nar/gku1348
AI: 3.60 / Q1 FI: 9.20
34. Sarbu M, Munteanu CVA, Dehelean L, Petrescu AJ, Jasna PK, Zamfir AD. "Identification and structural characterization of novel O- and N-glycoforms in the urine of a Schindler disease patient by Orbitrap mass spectrometry." *J. Mass Spectrometry.* 50(9): 1044-1056 (2015)
doi: 10.1002/jms.3616
AI: 0.70 / Q3 FI: 2.40
35. Sela H, Spiridon LN, Ashkenazi H, Bhullar NK, Brunner S, Petrescu A-J, Fahima T, Keller B, Jordan T. "3D modeling and diversity analysis reveals distinct AVR recognition sites and evolutionary pathways in wild and domesticated wheat Pm3 R genes." *Mol Plant Microbe Interact.* 27(8): 835-845 (2014)
doi: 10.1094/MPMI-01-14-0009-R
AI: 1.50 / Q1 FI: 4.40
36. Slootweg EJ, Spiridon LN, Roosiën J, Butterbach P, Pomp R, Westerhof L, Wilbers R, Bakker E, Bakker J, Petrescu A-J, Smant G, Goverse A. "Structural Determinants at the Interface of the ARC2 and LRR Domains Control the Activation of the NB-LRR Plant Immune Receptors Rx1 and Gpa2." *Plant Physiol.* 161(3): 1510-1528 (2013)
doi: 10.1104/pp.113.218842
AI: 2.20 / Q1 FI: 7.40
37. Ciubotaru M, Trexler AJ, Spiridon LN, Surleac MD, Rhoades E, Petrescu A-J, Schatz DG. "RAG and HMGB1 create a large bend in the 23RSS in the V(D)J recombination synaptic complexes." *Nucl. Acid. Res.* 41(4): 2437-2425 (2013)
doi: 10.1093/nar/gks1294
AI: 2.60 / Q1 FI: 8.80
38. Flangea C, Petrescu A-J, Seidler DG, Munteanu CVA, Zamfir AD. "Identification of an unusually sulfated tetrasaccharide chondroitin/dermatan motif in mouse brain by combining chip- nano electrospray multistage MS2-MS4 and high resolution mass spectrometry." *Electrophoresis.* 34(11): 1581-1592 (2013)
doi: 10.1002/eips.201200704
AI: 0.60 / Q3 FI: 3.10

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39. Mann MB, Ghenea S, Spindon LN, Chirtoiu GN, Petrescu A-J, Petrescu SM. "Tyrosinase degradation is prevented when EDEM1 lacks the intrinsically disordered region", *PLoS One* 7(8): e42998 (2012)
doi: 10.1371/journal.pone.0042998
AI: 1.80 / Q1 FI: 3.70
40. Sela H, Spindon LN, Petrescu A-J, Akerman M, Mandel-Gutfreund Y, Nevo E, Loutre C, KSeia H, Spindon LN, Petrescu A-J, Akerman M, Mandel-Gutfreund Y, Nevo E, Loutre C, Keller B, Schulman AH, Fahima T. "Ancient diversity of splicing motifs and protein surfaces in the wild emmer wheat (*Triticum dicoccoides*) LR10 coiled coil (CC) and leucine-rich repeat (LRR) domains" *Mol. Plant Pathol.* 13(3): 276-287 (2012)
doi: 10.1111/j.1364-3703.2011.00744.x
AI: 1.20 / Q1 FI: 3.90
41. Cioca D, Ghenea S, Spindon LN, Marin M, Petrescu A-J, Petrescu SM. "C-terminus glycans with critical functional role in the maturation of secretory glycoproteins." *PLoS One* 6(5): e19979 (2011)
doi: 10.1371/journal.pone.0019979
AI: 1.80 / Q1 FI: 4.00
42. Maekawa T, Cheng W, Spindon LN, Toller A, Lukasik E, Saijo Y, Liu P, Shen Q-H, Micluta MA, Somssich IE, Takken FLW, Petrescu A-J, Chai J, Schulze-Lefert P. "Coiled-coil domain-dependent homodimerization of intracellular MLA immune receptors defines a minimal functional module for triggering cell death". *Cell Host-Microbe* 9(3): 187-199 (2011)
doi: 10.1016/j.chom.2011.02.008
AI: 6.90 / Q1 FI: 13.50
43. Grozav AG, Willard BB, Kozuki T, Chikamori K, Micluta MA, Petrescu A-J, Kinter M, Ganapathi R, Ganapathi MK. "Tyrosine 656 in topoisomerase II β is important for the catalytic activity of the enzyme: identification based on artifactual +80-Da modification at this site". *Proteomics* 11(5): 829-842 (2011)
doi: 10.1002/pmic.201000194
AI: 1.20 / Q1 FI: 4.50
44. Smitweg E, Roosien J, Spindon LN, Petrescu A-J, Tameing W, Joosten M, Pomp R, van Schaik C, Borst JW, Smant G, Schots A, Bakker J, Govers A. "Nucleocytoplasmic Distribution Is Required for Activation of Resistance by the Potato NB-LRR Receptor Rx1 and Is Balanced by Its Functional Domains." *Plant Cell* 22(12): 4195-4215 (2010)
doi: 10.1105/tpc.110.077537
AI: 4.00 / Q1 FI: 9.40
45. Rehman S, Postma W, Tytgat T, Prins P, Qin L, Overmars H, Vossen J, Spindon L, Petrescu A-J, Govers A, Bakker J, Smant G, Rehman S. "A secreted SPRY domain-containing protein (SPRYSEC) from the plant-parasitic nematode *Globodera rostochiensis* interacts with a CC-NB-LRR protein from a susceptible tomato." *Mol Plant Microbe Interact.* 22(3): 330-340 (2009)
doi: 10.1094/MPMI-22-3-0330
AI: 1.60 / Q1 FI: 4.40
46. Balasu MC, Spindon LN, Miron S, Craescu CT, Scheidig AJ, Petrescu A-J, Szedlaczek SE. "Interface analysis of the complex between ERK2 and PTP-SL". *PLoS One* 4(5): e5432 (2009)
doi: 10.1371/journal.pone.0005432
AI: 1.90 / Q1 FI: 4.30
47. Kammenga JE, Doroszuk A, Rijsen JA, Hazendonk E, Spindon L, Petrescu A-J, Tijsterman M, Plasterk RH, Bakker J. "A *Caenorhabditis elegans* wild type defies the temperature-size rule owing to a single nucleotide polymorphism in *tra-3*". *PLoS Genet.* 3(3): e34 (2007)
doi: 10.1371/journal.pgen.0030034
AI: 6.00 / Q1 FI: 8.90
48. Kudla U, Milac AL, Qin L, Overmars H, Roze E, Holterman M, Petrescu A-J, Govers A, Bakker J, Helder J, Smant G. "Structural and functional characterization of a novel, host penetration-related pectate lyase from the potato cyst nematode *Globodera rostochiensis*". *Mol. Plant Pathol.* 8(3): 293-305 (2007)
doi: 10.1111/j.1364-3703.2007.00394.x
AI: 1.10 / Q1 FI: 3.00
49. Petrescu A-J, Wormald MR, Dwek RA. "Structural aspects of glycomics with a focus on N-glycosylation and glycoprotein folding." *Curr Opin Struct Biol.* 16(5): 600-607 (2006)
doi: 10.1016/j.sbi.2006.08.007
AI: 5.30 / Q1 FI: 9.50
50. Milac AL, Avram S, Petrescu A-J. "Evaluation of a neural networks QSAR method based on ligand representation using substituent descriptors Application to HIV-1 protease inhibitors." *J Mol Graph Model.* 25(1): 37-45 (2006)
doi: 10.1016/j.jmgm.2005.09.014
AI: 1.00 / Q1 FI: 2.30
51. Paduraru C, Spindon L, Yuan W, Bricard G, Valencia X, Porcelli S, Besra G, Petrescu SM, Petrescu A-J, Cresswell P. "An N-linked glycan modulates the interaction between the CD1d heavy chain and beta 2-microglobulin." *J Biol Chem.* 281(52): 40369-78 (2006)
doi: 10.1074/jbc.M608518200
AI: 2.40 / Q1 FI: 5.80

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52. Costin GE, Valencia JC, Wakamatsu K, Ito S, Solano F, Milac A-L, Vieira WD, Petrescu A-J, Lamoreux ML, Hearing VJ. "Mutations in dopachrome tautomerase (*Dct*) affect eumelanin/pheomelanin synthesis, but do not affect intracellular trafficking of the mutant protein". *Biochem J* **391**, 249-259 (2005)
doi: 10.1042/BJ20042070
AI: 1.80 / Q1 FI: 4.20
53. Kudla U, Qin L, Milac AL, Kielak A, Maissen C, Overmars H, Popeljus H, Roze E, Petrescu A-J, Smant G, Bakker J, Helder J. "Origin, distribution and 3D-modelling of Gr-EXP1: an expansin from the potato cyst nematode *Globodera rostochiensis*". *FEBS Lett* **579**, 2451-2457 (2005)
doi: 10.1016/j.febslet.2005.03.047
AI: 1.50 / Q1 FI: 3.40
54. Jaubert S, Milac A-L, Petrescu A-J, de Almeida-Engler J, Abad P, Rosso M-N. "In Planta Secretion of a Calreticulin by Migratory and Sedentary Stages of Root-Knot Nematode". *Mol. Plant-Microbe Int.* **18**, 1277-1284 (2005)
doi: 10.1094/MPMI-18-1277
AI: 1.50 / Q1 FI: 3.90
55. Petrescu A-J, Milac A-L, Petrescu SM, Dwek RA, Wormald M.R. "Statistical analysis of the protein core around N-glycosylation sites: Implications on occupancy, folding and function". *Glycobiology*, **14**, 103-114 (2004)
doi: 10.1093/glycob/cwh008
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