

Curriculum vitae Europass



General Information

Name Petrescu, Andrei-Jose
Address Institute of Biochemistry of the Romanian Academy - IBAR
Phone (+4).021.223.90.69
Fax (+4).021.223.90.68
E-mail a p @ biochim . ro
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.
Institutie 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 Somanian 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 Pannel III - Biomedical Sciences*
- *Member of the National Council for Scientific Research - Biology Commission*
- *Member of the Comitee 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](#) ; Orchid: [0000-0002-4478-3946](#) ;

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 (ISI): 74
 - Book Chapters: 4
 - Articles in national scientific journals: 23
- *Patents:* 4

Research Impact:

- *Hirsh Index Web of Science (WoS)* 29
- *Citations (WoS - all Data Bases)* >3000
- *Average Impact Factor (IF) - per article* 6.1
- *Average Article Influence (AI) - per article* 2.5
- *Articles Highly Cited (> 100 WoS-allDB cit.)* 7
- *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 - București*
- Course in Bioinformatics and Molecular Modeling in Biochemistry (2009 - present)
- *International FEBS Course "Recombinant DNA Technology & Protein Expression"*
- Lectures in Bioinformatics, 2003,2005,2008;

PaA

Selection of significant publications

1. [Martin EC](#), [Ion CE](#), [Ifrimescu F](#), [Spiridon L](#), Bakker J, Govere A, [Petrescu AJ](#). "NLRscape: an atlas of plant NLR proteins". *Nucleic Acids Res.* **51**(D1):D1470-D1482 (2023).
2. Papadopoulos N, Nédélec A, Derenne A, [Sulea TA](#), Pecquet C, Chachoua I, Vertenoel G, Tilmant T, [Petrescu AJ](#), Mazzucchelli 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)
3. Chiritoiu GN, [Munteanu CVA](#), [Sulea TA](#), [Spiridon 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)
4. [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).
5. [Martin EC](#), [Spiridon L](#), Govere 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).
6. 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)
7. [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).
8. Manica G, Ghenea S, [Munteanu CVA](#), [Martin EC](#), [Butnaru 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).
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)
10. 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)
11. [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).
12. [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)
13. [Martin EC](#), Sukarta OCA, [Spiridon L](#), Grigore LG, [Constantinescu V](#), [Tacutu R](#), Govere A, [Petrescu A-J](#), "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)
14. 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)
15. 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).
16. 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)
17. 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)
18. 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).
19. [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)
20. Wróblewski 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 coiled-coil NLR-type pathogen receptors reveal essential roles of their N-terminal domain in oligomerization, networking, and immunity." *PLOS Biology* **16**(12): e2005821 (2018)
21. Sloopweg EJ, [Spiridon LN](#), [Martin EC](#), Tameling WIL, Townsend PD, Pomp R, Roosien J, Drawska O, Sukarta OCA, Schots A, Borst JW, Joosten MHAJ, Bakker J, Smart G, Cann MJ, [Petrescu AJ](#), Govere 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)
22. Norris EJ, Jones WD, [Surleac MD](#), [Petrescu AJ](#), Destephanis 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).
23. 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 IIa and topoisomerase IIβ in regulation of the decatenation checkpoint. *Nucleic Acids Res.* **45**(10):5995-6010 (2017)
24. [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)

25. 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)
26. 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).
27. 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)
28. 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)
29. 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)
30. 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)
31. 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)
32. 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)
33. 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)
34. Slootweg EJ, Spiridon LN, Roosien 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)
35. 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.Acids.Res.**, **41(4)**, 2437-2425 (2013)
36. 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- nanoelectrospray multistage MS2-MS4 and high resolution mass spectrometry."*, **Electrophoresis**, **34(11)**, 1581-1592 (2013)
37. Sela H, Spiridon LN, Petrescu A-J, Akerman M, Mandel-Gutfreund Y, Nevo E, Loutre C, KSela H, Spiridon 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)
38. Marin MB, Ghenea S, Spiridon LN, Chiritoiu GN, Petrescu A-J, Petrescu SM. *"Tyrosinase degradation is prevented when EDEM1 lacks the intrinsically disordered region"*, **PLoS One**, **7(8)**, e42998 (2012)
39. Cioaca D, Ghenea S, Spiridon 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)
40. Maekawa T, Cheng W, Spiridon LN, Töller 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)
41. 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)
42. Slootweg E, Roosien J, Spiridon LN, Petrescu A-J, Tameling W, Joosten M, Pomp R, vanSchaik C, Borst JW, Smant G, Schots A, Bakker J, Goverse 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)
43. Postma W, Tytgat T, Prins P, Qin L, Overmars H, Vossen J, Spiridon L, Petrescu AJ, Goverse 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)
44. Balasu MC, Spiridon LN, Miron S, Craescu CT, Scheidig AJ, Petrescu AJ, Szedlaczek SE. *"Interface analysis of the complex between ERK2 and PTP-SL."*, **PLoS One**, **4(5)**, e5432 (2009)
45. Kammenga JE, Doroszuk A, Riksen JA, Hazendonk E, Spiridon 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)

46. Kudla U, Milac AL, Qin L, Overmars H, Roze E, Holterman M, Petrescu A-J, Goverse A, Bakker J, Helder J, Smart 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)
47. Petrescu A-J, Wormald MR, Dwek RA. "Structural aspects of glycomes with a focus on N-glycosylation and glycoprotein folding.", *Curr Opin Struct Biol*. **16**(5): 600-607 (2006)
48. Paduraru C, Spiridon 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)
49. 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)
50. 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)
51. Kudla U, Qin L, Milac AL, Kielak A, Maissen C, Overmars H, Popeijus H, Roze E, Petrescu A-J, Smart 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)
52. 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)
53. 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)
54. Wormald M, Petrescu A-J, Pao Y-L, Glythero A, Elliot T, Dwek RA, "Conformational Studies of Oligosaccharides and Glycopeptides: Complementarity of NMR, X-Ray Crystallography and Molecular Modelling", *Chem.Rev.*, **102**, 371-387 (2002)
55. Hinsen K, Petrescu A-J, Dellerue S, Bellissent-Funel MC, Kneller, GR, "Liquid-like and solid-like motions in proteins", *J.Mol. Liquids*, **98-99**, 381-398 (2002)
56. Dellerue S, Petrescu AJ, Smith JC, Bellissent-Funel MC, "Radially softening diffusive motions in a globular protein." *Biophys. J.*, **81**, 1666-1676 (2001)
57. Bondar A-N, Daniel R, Finney JL, Fischer S, Kataoka M, Petrescu A-J & Smith JC, "Protein Folding and Dynamics - New Insights from Computer Simulation and Scattering Experiments." *J. Phys. Soc. Japn.* **70** (Suppl. A), 392-395 (2001).
58. Petrescu A-J, Calmettes P, Durand D, Receveur V, Smith JC, "Change in backbone torsion angle distribution on protein folding" *Protein Sci.*, **9**, 1129-36 (2000)
59. Hinsen K, Petrescu A-J, Dellerue S, Bellissent-Funel M-C. & Kneller G "Harmonicity in slow protein dynamics". *Chem.Phys.* **261**, 25-37 (2000)
60. Dellerue S, Petrescu A-J, Smith JC, Longeville S, Bellissent-Funel M-C "Collective dynamics of a photosynthetic protein probed by neutron spin-echo spectroscopy and molecular dynamics simulation" *Physica B*, **276-278**, 514-515 (2000)
61. Petrescu, S.M, Petrescu A-J, Platt F.M., Dwek, R.A., "Glycosylation and glycoprotein folding", *Wellcome Trust Reviews*, 41-42 (2000)
62. Branza-Nichita N., Petrescu A-J, Negroiu G., Dwek RA., Petrescu SM, "N-glycosylation processing and glycoprotein folding-lessons from the tyrosinase- related proteins", *Chem. Rev.*, **100**, 4697-4711 (2000)
63. Petrescu S.M., Branza-Nichita N., Negroiu G., Petrescu A-J, Dwek R.A.; "Tyrosinase and Glycoprotein Folding: Roles of Chaperones ", *Biochemistry* **39**; 5229-5237, (2000)
64. Branza-Nichita N., Negroiu G., Petrescu A-J, Garman E.F., Platt F.M., Wormald M., Dwek R.A., Petrescu S.M. "Mutations at Critical N-Glycosylation Sites Reduce Tyrosinase Activity by Altering Folding and Quality Control", *J.Biol.Chem.*, **275**, 8169-8175 (2000)
65. Petrescu A-J, Petrescu S.M., Dwek R.A., Wormald M.R., "A Statistical Analysis of N- and O-glycan linkages from crystallographic data" *Glycobiology*, **9**, 343-352 (1999)
66. Nichita-Branza N., Petrescu A-J, Dwek R.A., Wormald M., Platt F., Petrescu S.M., "Tyrosinase folding and copper loading in vivo: a crucial role for calnexin and β -glucosidase II" *Biochem.Biophys.Res.Commun.*, **261**, 720-725 (1999)
67. Negroiu G., Branza-Nichita N., Petrescu A-J, Dwek RA., Petrescu SM, "Protein specific N-glycosylation of tyrosinase and TRP-1 in B16 cells", *Biochemical J.*, **344**, 659-665 (1999)
68. Negroiu G, Branza-Nichita N, Costin G, Titu H, Petrescu A-J, Dwek RA, Petrescu S-M. "Investigation of the Intracellular Transport of Tyrosinase and TRP-1 the effect of the ER Glucosidases Inhibition" *Mol.Cell.Biol*, **45**, 1001-1010 (1999)
69. Smith J.C., Lamy A, Kataoka M, Yunoki J, Petrescu A-J, Receveur V, Calmettes P, Durand D, "Motions in native and denatured proteins" *Physica B*, **241-243**, 1110-1114 (1998)
70. Petrescu A-J, Calmettes P, Receveur V., Durand D., Smith J., "Excluded Volume in the Configurational Distribution of a Strongly Denatured Protein", *Protein. Sci.*, **7**, 1396-1403, (1998)
71. Petrescu A-J, Butters T.D., Reinkensmeier G., Petrescu S.M., Platt F.M., Dwek R.A., Wormald M.R., "The Solution NMR Structure of Glc_3Man_9 unit in $Glc_3Man_7GlcNAc_2$ ", *EMBO J.*, **16**, 4302-4310 (1997)
72. Petrescu, S.M, Petrescu A-J, Titu H., Dwek, R.A., Platt, F.M. "Inhibition of N-Glycan Processing in B16 Melanoma Cells Results in Inactivation of Tyrosinase but Does not Prevent its Transport to the Melanosome", *J.Biol.Chem.*, **272**, 15796-803 (1997)

73. Petrescu A-J, Receveur V., Calmettes P., Durand D., Desmadril M., Roux B., Smith J.C., "Small Angle Neutron Scattering By a Strongly Denatured Protein: Analysis using Random Polymer Theory", **Biophysical J.**, **72**, 335-342 (1997)
74. Petrescu S.M., Branza-Nichita N., Nita-Lazar M., Petrescu A-J, Motas C., "Immunoaffinity Chromatography on Antibodies Immobilized on Nitrocellulose Powder", **Analytical Biochem.** **229**, 299-303 (1995)
75. Petrescu Ş.M., Petrescu A-J, Rudiger H., "Purification and Partial Characterisation of a lectin from *Datura innoxia* seeds", **Phytochemistry**, **34**, 343- 348 (1993)

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