

Curriculum vitae Europass

Inserați fotografia



Informații personale

Nume / Prenume **Nichita Norica-Beatrice (Branza-Nichita anterior)**
Adresă(e) Institutul de Biochimie, Splaiul Independenței 296, Sector 6, București
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Naționalitate(-ități) romana
Data nașterii 12.04.1970

Locul de muncă vizat /
Domeniul ocupațional Conducător doctorat, domeniul Biologie, SCOSAAR

Experiența profesională



Perioada	2016- prezent
Funcția sau postul ocupat	Conducător de doctorat, Domeniul Biologie, SCOSAAR
Activități și responsabilități principale	7 doctoranzi în diferite stadii de pregătire
Numele și adresa angajatorului	Sustinere curs Biologie celulară, organizări activități Journal club, evaluări proiecte cercetare doctoranzi.
Tipul activității sau sectorul de activitate	
	2015-2021
	Cadru didactic asociat Universitatea POLITEHNICA din București, Facultatea de Știința și Ingineria Materialelor, anul IV Inginerie Medicală, curs „Biologie celulară”.
	2014-prezent
	CSI, Șef Departament Glicoproteine Virale, Institutul de Biochimie al Academiei Române (IBAR) Coordonarea activității de cercetare a departamentului. Grupul este implicat în studiul morfogenezei HBV și HCV, dezvoltarea de strategii profilactice (vaccinuri) și antivirale investigarea la nivel molecular a interacției celulei gazdă cu HBV/HCV. Coordonare granturi naționale și internaționale.
	2011-prezent
	Director-adjunct IBAR Activități de control intern managerial, Registrul rezultatelor cercetării, organizarea seminariilor IBAR
	2004-2014
	Cercetător Științific gradul II, Șef Departament Glicoproteine Virale, IBAR Coordonarea activității de cercetare a Departamentului de Glicoproteine Virale, coordonare teze master, supervizare teze doctorat, coordonare granturi cercetare internaționale și naționale, susținere de cursuri master Universitatea București, Facultatea de Chimie.

2001-2004
Cercetator Stiintific gradul III, IBAR
Coordonare grant international „Wellcome Trust- International Research Development Award”, pe tema plierii glicoproteinelor virusurilor anvelopate, coordonare proiect „United Therapeutics”, pe tema identificarii de compusi cu activitate antivirala si mecanism de actiune.

2000-2001
NATO/Royal Society Postdoctoral Fellow
Universitatea Oxford, Departamentul de Biochimie, Institutul de Glicobiologie
Activitati de cercetare privind dezvoltarea unui model viral surogat (BVDV) pentru studierea HCV in vitro.

1997-1999
Cercetator Stiintific, IBAR si doctorand bursier NATO la Universitatea Oxford, Departamentul de Biochimie, Institutul de Glicobiologie (3 luni/an. Teza de doctorat s-a focusat pe descifrarea mecanismelor moleculare care controleaza plierea proteinelor in RE si intelegerea rolului glucidelor N-legate in acest proces.

1992-1996
Cercetator stagiar (1992-1993), Asistent cercetare stagiar (1993-1994), Asistent cercetare (1994-1997), pozitii detinute la IBAR; Asistent cercetare (bursa PECO), Laboratorul de Chimie Biologica, Universite des Sciences et Technologies, Lille, Franta (1996, 6 luni). Proiectul primit a avut ca subiect clonarea si caracterizarea unor variante mutante derivate de la lactoferina umana; Asistent cercetare (bursa PICS), Centre de Recherches sur les Macromolécules Végétales-CNRS, Université Joseph Fourier, Grenoble, France (1995, 3 luni). Tema de cercetare s-a referit la identificarea unor liganzi specifici lectinei izolate din Datura innoxia.

Educație și formare

Perioada
Calificarea / diploma obținută
Disciplinele principale studiate/
competențe profesionale dobândite
Numele și tipul instituției de
învățământ / furnizorului de formare
Nivelul în clasificarea națională sau
internațională

2015
Abilitare conducere doctorat in domeniul Biologie, OM 4718/11.08.2015

2000
Doctorat in Biologie, IBAR, Academia Romana: „Investigarea mecanismului de pliere a tirozinazel, prin mutageneza in situ”

1993-1994
Student TEMPUS, Laboratorul de Oncologie Moleculara, Departamentul de Genetica Umana, Universitatea Catolica Leuven, Belgia. Insusirea de tehnici avansate de biologie moleculara: clonare, PCR, secventiere si hibridizari de acizi nucleici, screening de biblioteci genetice de cromozomi artificiali si cDNA.

1988-1993
Licenta in Biochimie
Universitatea Bucuresti, Facultatea de Biochimie
Sef de promotie

1984-1988
Bacalureat Stiintele naturii/reale
Colegiul „Vasile Alecsandri” Bacau
Sef de promotie

Aptitudini și competențe personale

Limba(i) maternă(e) Română
Limba(i) străină(e) cunoscută(e) Engleza fluent (vorbit, citit, scris), Franceza foarte bine (vorbit, scris, citit), rusa satisfăcător (citit, scris)

Competențe științifice

Biologie celulară și moleculară, **virusologie moleculară**, proteine eucariote și virale: biosinteză, glicozilare, pliere, degradare, trafic intracelular, secreție, prezentare antigen, **dezvoltare de vaccinuri**; morfologie virală; identificare de compuși cu activitate antivirală, mecanism de acțiune; tehnologia ADN recombinat

Competențe ca expert evaluator

2021-prezent
Expert evaluator FNRS Belgia
2016 – prezent
Expert evaluator Comisia Europeană, Marie Curie Fellowships, EIC Pathfinder
2007- prezent
Teze de doctorat internaționale
Evaluare implementare granturi în competiții naționale (IDEI, TE, PD)
2014-2015
Expert evaluator proiecte USA-Israel Binational Science Foundation
2004- prezent
Evaluare pentru jurnale internaționale (peer-reviewer): Nature Communications, Scientific reports, Hepatology, Autophagy, PlosOne, Gene, Trends in Biotechnology, Journal of Cellular and Molecular Medicine, Frontiers Microbiology, Molecular Biology Reports, Antiviral Research, Virology, Liver International, Biomolecules, Current HIV Research, Proteome Science, Melanoma Research, Journal of Gastroenterology and Hepatology, Bioorganic and Medicinal Chemistry, etc.
2023
PhD External Examiner Universitatea Oxford, Co-examiner: Prof. Justin Benesch, candidat PhD student Fergus Bremner
2021
PhD External Examiner Universitatea Oxford, Co-examiner: Prof. Mark Wormald, candidat PhD student Juli Brun
2019
PhD External Examiner Universitatea Oxford, Co-examiner: Prof. Bridget Wills, candidat PhD student Nilanka Perera
2014
PhD External Examiner Universitatea Oxford, Co-examiner: Prof. Sir Andrew Mc. Michael, candidat PhD student Simon Spiro.

Competențe ca expert în comisii naționale

2020- 2022
Membru al Consiliului Național al Cercetării Științifice (CNCS), Președinte al Comisiei de Biologie a CNCS
2016-2020
Vicepreședinte al Comisiei de Biologie și Biochimie a Consiliului Național de Atestare a Titurilor, Diplomelor și Certificatelor Universitare (CNATDCU)
2006-2015
Secretar Științific al Societății Române de Biochimie și Biologie Moleculară (SRBBM)
2011- 2013
Membru al Consiliului Național al Cercetării Științifice (CNCS), Președinte al Comisiei de Biologie a CNCS
2011-2013
Membru al Comisiei de Biologie și Biochimie a CNATDCU

Informații

Referințe: Professor Raymond Dwek, Universitatea Oxford (raymond.dwek@exeter.ox.ac.uk)

suplimentare
Indicatori I
scientometrici

Indice Hirsh: **25**, conform WOS; search for: AUTHOR: (Nichita N*) OR AUTHOR: (Branza-Nichita N*) OR AUTHOR: (Branza N*); Indice Hirsh **30**, conform Google Scholar.

Articole ISI in extenso: **60**

Citări (WOS): total: **1740**/ fara autocitari: **1600**; citari (Google Scholar): **2520**

Factorul de impact insumat al lucrarilor publicate: > 240

Capitole carti: **4**

Brevete internationale: **3**

Granturi de cercetare ca director
de proiect

2019-2024 EEA Research Programme: "Next Generation Viral Hepatitis B and C vaccine development in plants and algae using advanced biotechnological tools" (SmartVac). Eur 1.500.000
2014-2017 EEA Research Programme: "Development of a cost effective Romania-Norway joint plant-based technology platform for production of vaccines against Human Hepatitis viruses B (HBV) and C (HCV)" (GreenVac). Eur 1.121.000,00
2004-2007 Collaborative Research Initiative Grant, Wellcome Trust: "Mechanism of antiviral activity of iminosugar derivatives against Hepatitis B virus". £ 94.750
2001-2004 International Research Development Award, Wellcome Trust: "Effect of a-glucosidase inhibitors on the morphogenesis of enveloped viruses". £ 85.560
2010-2011 United Therapeutics Grant: "Development of liposome-incorporated iminosugars, as antivirals against HBV". £ 10.000
2004-2005 United Therapeutics Grant: "Screening of antiviral drugs using BVDV as a model for HCV", £ 10.000
Lista Publicatii, granturi de cercetare ca director de proiect

1.08.2024

Norica-Beatrice Nichita- Full list of publications

a) Book chapters

1. „Production of Chimeric Hepatitis B Virus Surface Antigens in Mammalian Cells”. Authors: Dobrica Mihaela-Olivia, Catalin Lazar and **Norica Nichita**. Methods in Molecular Biology, Blaine Pfeifer and Andrew Hill (eds.). Springer Science. ISBN: 978-1-0716-0794-7. Vol. 2183, 83-94. Series Title: Vaccine Delivery Technology: Methods and Protocols) (2021)
2. “Antiviral Activity of Lactoferrin: From Basic Research to Medical Applications”. Authors: Paula E Florian, Catalin Lazar, **Norica Nichita** and Anca Roseanu, Nova Science Publishing (NY, USA), ISBN 971-1-63117-221-2, Chapter 3, 205-246 (2014)
3. “Using proteomics to unravel the mysterious steps of the HBV life-cycle”. Authors: **Norica Branza-Nichita**, Catalina Petrareanu, Catalin Lazar, Izabela Sokolowska and Costel C. Darie. Advancements of Mass Spectrometry in Biomedical Research, Alisa G. Woods & Costel C. Darie (eds). Series Title: Advances in Experimental Medicine and Biology, Springer Science, ISBN: 978-3-319-06067-5 (Print), Chapter 22, 453-481 (2014)
4. “Caveolae-Dependent Endocytosis in Viral Infection”. Authors: **Norica Branza-Nichita**, Alina Macovei and Catalin Lazar. Molecular Regulation of Endocytosis, Brian Ceresa (ed), Intech, ISBN 978-953-51-0662-3, 155-182. DOI: 10.5772/48538 (2012).

b) Peer-reviewed papers in international journals (* corresponding author)

1. Hammel A, Cucos L-M, Caras I, Ionescu I, Tucureanu C, Tofan V, Costache A, Onu A, Hoepfner L, Hippler M, Neupert J, Popescu C-I, Stavaru C, **Branza-Nichita N***, Bock R. „The red alga *Porphyridium* as a host for molecular farming: Efficient production of immunologically active hepatitis C virus glycoprotein”. Proc Natl Acad Sci U S A 121(24):e2400145121 (2024).
2. Pantazica AM, van Eerde A, Dobrica MO, Caras I, Ionescu I, Costache A, Tucureanu C, HSteen H, Lazar C, Haldal I, Haugstien S, Onu A, Stavaru C, **Nichita N***, Liu Clarke J. “The “humanized” N-glycosylation pathway in CRISPR/Cas9-edited *Nicotiana benthamiana* significantly enhances the immunogenicity of a S/preS1 Hepatitis B Virus antigen and the virus-neutralizing antibody response in vaccinated mice”. Plant Biotechnology Journal, 21:1176–1190 (2023).
3. Hang Su, André van Eerde, Espen Rimstad, Ralph Bock, **Norica Nichita**, Igor A Yakovlev, Jihong Liu Clarke . “Plant-made vaccines against viral diseases in humans and farm animals”, Frontiers in Plant Science (14:1170815), doi: 10.3389/fpls.2023.1170815 (2023).
4. Pantazica A-M, Dobrica MO, Lazar C, Scurtu C, Tucureanu C, Caras I, Ionescu I, Costache A, Onu A, Liu Clarke J, Stavaru C, **Branza-Nichita N***. “Efficient cellular and humoral immune response and production of virus-neutralizing antibodies by the Hepatitis B Virus S/preS116-42 antigen”. Frontiers in Immunology, 13:941243 (2022).
5. Popescu MA, Patriche D, Dobrica MO, Pantazica AM, Flintoaca Alexandru PR, Rouillé Y, Popescu CI, **Branza-Nichita N***. “Sac1 phosphatidylinositol 4-phosphate phosphatase is a novel host cell factor regulating Hepatitis B Virus particles assembly and release”. FEBS Journal, 289 (23): 7486-7499 (2022).
6. Bucataru I, Dragomir I, Asandei A, Pantazica A-M, Ghionescu A, **Branza-Nichita N**, Park Y, Tudor Luchian T . “Probing the Hepatitis B Virus E-Antigen with a Nanopore Sensor Based on Collisional Events Analysis”. Biosensors, 596(12):1-15 (2022).
7. Pantazica, A.-M.M.; Cucos, L.-M.; Stavaru, C.; Clarke, J.-L.; **Branza-Nichita, N***. “Challenges and Prospects of Plant-Derived Oral Vaccines against Hepatitis B and C Viruses. Plants, 10, 2037. <https://doi.org/10.3390/plants10102037> (2021).

8. Dobrica MO, van Eerde A, Tucureanu C, Onu A, Paruch L, Caras I, Vlase E, Steen H, Haugslie S, Alonzi D, Zitzmann N, Bock R, Dubuisson J, Popescu CI, Stavaru C, Liu-Clarke J, **Branza-Nichita N***. „Hepatitis C virus E2 envelope glycoprotein produced in *Nicotiana benthamiana* triggers humoral response with virus-neutralizing activity in vaccinated mice”. *Plant Biotechnology Journal*, 19: 2027–2039. <https://doi.org/10.1111/pbi.13631> (2021).
9. Dobrica MO, Lazar C, **Branza-Nichita N***. „N-Glycosylation and N-Glycan Processing in HBV Biology and Pathogenesis”. *Cells*, 9, 1404; doi:10.3390/cells9061404 (2020).
10. Dobrica MO, Lazar C, Paruch L, van Eerde A, Liu-Clarke J, Tucureanu C, Caras I, Ciulean S, Onu A, Tofan V, Branzan A, Urban S, Stavaru C, **Branza-Nichita N***. „Oral administration of a chimeric Hepatitis B Virus S/preS1 antigen produced in lettuce triggers infection neutralizing antibodies in mice”. *Vaccine* 36, (38), 5789-5795 (2018).
11. Liu Clarke J, Paruch L, Dobrica MO, Caras I, Tucureanu C, Onu A, Ciulean S, Stavaru C, Eerde A, Wang Y, Steen H, Haugslie S, Petrareanu C, Lazar C, Popescu CI, Bock R, Dubuisson J and **Branza-Nichita N***. „Lettuce-produced hepatitis C virus E1E2 heterodimer triggers immune responses in mice and antibody production after oral vaccination”. *Plant Biotechnology Journal* 15, 1611-1621 (2017).
12. Dobrica MO, Lazar C, Paruch L, Skomedal H, Steen H, Haugslie S, Tucureanu C, Caras I, Onu A, Ciulean S, Branzan A, Liu Clarke J, Stavaru C, **Branza-Nichita N***. „A novel chimeric Hepatitis B virus S/preS1 antigen produced in mammalian and plant cells elicits stronger humoral and cellular immune response than the standard vaccine-constituent, S protein”. *Antiviral Research*, 144, 256-265 (2017).
13. Lazar, C, Uta, M, Petrescu, SM, **Branza-Nichita, N***. „Novel function of the endoplasmic reticulum degradation-enhancing alpha-mannosidase-like proteins in the human hepatitis B virus life cycle, mediated by the middle envelope protein”. *Cell. Microbiol.*, 19, e12653, DOI: 10.1111/cmi.12653 (2017)
14. Uta M, Sima LE, Hoffmann P, Dinca V, **Branza-Nichita N***. „Development of a DsRed-expressing HepaRG cell line for real-time monitoring of hepatocyte-like cell differentiation by fluorescence imaging, with application in screening of novel geometric microstructured cell growth substrates”. *Biomed Microdevices* 19, DOI: 10.1007/s10544-016-0146-z (2017).
15. Florian P, Rouille Y, Ruta S, **Nichita N**, Roseanu A. „Recent advances in human viruses imaging studies”. *Journal of Basic Microbiology*, DOI: 10.1002/jobm.201500575 (2016).
16. Carja G, Grosu EF, Petrareanu C, **Nichita N**. „Self-assemblies of plasmonic gold/layered double hydroxides with highly efficient antiviral effect against the hepatitis B virus.”, *Nano. Res.*, 8, 3512-3523 (2015)
17. Lazar C, Uta M, **Branza-Nichita N***. „Modulation of the unfolded protein response by the human hepatitis B virus”. *Frontiers Microbiology* 2014;5:433. doi: 10.3389/fmicb.2014.00433. eCollection (2014).
18. Rocha L, Paius C-M, Luca-Raicu A, Resmerita E, Rusu A, Moleavin I-A, Hamel M, **Branza-Nichita N***, Hurduc N. „Azobenzene based polymers as photoactive supports and micellar structures for applications in biology.”, *J.Photochem.Photobiol.*, 291, 16-25 (2014)
19. Hurduc N, Donose BC, Macovei A, Paius C, Ibanescu C, Scutaru D, Hamel M, **Branza-Nichita N***, Rocha L. „Direct observation of athermal photofluidisation in azo-polymer films.”, *Soft Matter.*, 10(26), 4640-4647 (2014)

20. Rowe IA, Galsinh SK, Wilson GK, Parker R, Durant S, Lazar C, **Branza-Nichita N**, Bicknell R, Adams DH, Balfe P, McKeating JA. "Paracrine signals from liver sinusoidal endothelium regulate hepatitis C virus replication", *Hepatology*, 59 (2): 375-384(2014).
21. Petrareanu C, Macovei A, Sokolowska I, Woods AG, Lazar C, Radu GL, Darie CC and **Branza-Nichita N***. „Comparative Proteomics Reveals Novel Components at the Plasma Membrane of Differentiated HepaRG Cells and Different Distribution in Hepatocyte- and Biliary-Like Cells". *PLoS One*, 20;8(8):e71859 (2013).
22. Macovei A, Petrareanu C, Lazar C, Florian P and **Branza-Nichita N*** „Regulation of hepatitis B virus infection by rab5, rab7, and the endolysosomal compartment". *Journal of Virology*, 87(11):6415-27 (2013).
23. Florian PE, Macovei A, Lazar C, Milac AL, Sokolowska I, Darie CC, Evans RW, Roseanu A and **Branza-Nichita N***. „Characterization of the anti-HBV activity of HLP1-23, a human lactoferrin-derived peptide". *Journal of Medical Virology*, 85(5):780-8 (2013).
24. C. Ignea, C. Dorobanțu, C. Mintoff, N. **Branza-Nichita**, M. Ladomery, P. Kefalas, V. Chedea, "Modulation of the antioxidant / pro-oxidant balance, cytotoxicity and antiviral actions of grape seed extracts", *Food Chemistry*, 141:3967-76 (2013).
25. Hurduc N, Macovei A, Paius C, Raicu A, Moleavin I, **Branza-Nichita N**, Hamel M, Rocha L. "Azo-polysiloxanes as new supports for cell cultures." *Mat.Sci.Eng.C.*, 33(4), 2440-2445 (2013).
26. Florian P, Macovei A, Sima L, **Nichita N**, Mattsby-Baltzer I, Roseanu A. „Endocytosis and trafficking of human lactoferrin in macrophage-like human THP-1 cells". *Biochem Cell Biol.*, 90(3):449-55 (2012).
27. Lazar C, Macovei A, Petrescu S and **Branza-Nichita N***. „Activation of ERAD pathway by human hepatitis B virus modulates viral and subviral particle production." *PLoS One*;7(3):e34169 (2012).
28. Sokolowska I, Dorobantu C, Woods AG, Macovei A, **Branza-Nichita N***, Darie CC. „Proteomic analysis of plasma membranes isolated from undifferentiated and differentiated HepaRG cells." *Proteome Sci*;10(1):47 (2012).
29. Cristina-Maria Păiuș, Alina Macovei, **Norica Branza-Nichita**, Licinio Rocha, Nicolae Hurduc. „Nanostructured azo-polysiloxanic films for biological applications", *Env. Eng.Man.J*, 2012, 11, (11): 2029-2034.
30. Dorobantu C, Macovei A, Lazar C, Dwek RA, Zitzmann N and **Branza-Nichita N***. „Cholesterol depletion of hepatoma cells impairs hepatitis B virus envelopment by altering the topology of the large envelope protein." *J Virol*. 85(24):13373-83 (2011).
31. A. Raicu Luca, L. Rocha, A.-M. Resmerita, A. Macovei, M. Hamel, A.-M. Macsim, N. **Nichita**, N. Hurduc. „Rigid and flexible azopolymers modified with donor/acceptor groups. Synthesis and photochromic behavior", *eXPRESS Polymer Letters*, 5, (11): 959–969 (2011).
32. Epure, Elena-Luiza; Moleavin, Ioana Andreea; Taran, Elena, Ahn V. Nguyen, **Norica Nichita**, Nicolae Hurduc, „Azo-polymers modified with nucleobases and their interactions with DNA molecules „ *POLYMER BULLETIN*, 67 (3): 467-478 (2011).
33. Pollock S, **Nichita NB**, Böhmer A, Radulescu C, Dwek RA, Zitzmann N. „Polyunsaturated liposomes are antiviral against hepatitis B and C viruses and HIV by decreasing cholesterol levels in infected cells". *Proc Natl Acad Sci U S A*. 107(40):17176-81 (2010).



34. Pollock S, Antrobus R, Newton L, Kampa B, Rossa J, Latham S, **Nichita NB**, Dwek RA, Zitzmann N. "Uptake and trafficking of liposomes to the endoplasmic reticulum". *FASEB J.*, 24(6):1866-78 (2010).
35. Macovei A, Radulescu C, Lazar C, Petrescu S, Durantel D, Dwek R, Zitzmann N and **Branza-Nichita N***. "Hepatitis B virus requires intact caveolin-1 function for productive infection in HepaRG cells". *J. Virol.*, 84, 243-253 (2010).
36. Woodhouse, S.D, Smith C, Michelet M, **Branza-Nichita N**, Hussey M, Dwek RA, Zitzmann N. "Iminosugars in combination with interferon and ribavirin permanently eradicate noncytopathic bovine viral diarrhea virus from persistently infected cells", *Antimicrobial Agents and Chemotherapy* 52, 1820-1828 (2008).
37. Lazar, C., D. Durantel, A. Macovei, N. Zitzmann, F. Zoulim, R.A. Dwek and **N. Branza-Nichita***. "Treatment of Hepatitis B virus- infected cells with alpha-glucosidase inhibitors results in production of virions with altered molecular composition and infectivity", *Antiviral Res.* 76, 30-37 (2007).
38. Moriarty RM, Mitan CI, **Branza-Nichita, N**, Phares KR, Parrish, D. "exo-Imino to endo-aminocyclitol rearrangement. A general route to five-membered antiviral azasugars". *Org Lett.* 3, 3465-3467 (2006).
39. Macovei A., Zitzmann N., Lazar C., Dwek R.A. and **Branza-Nichita N***. "Brefeldin A inhibits pestivirus release from infected cells, without affecting its assembly and infectivity" *Biochem. Biophys. Res. Commun.* 346, 1083-1090 (2006).
40. **N. Branza-Nichita**, Lazar C, Dwek RA, Zitzmann N. "Role of N-glycan trimming in the folding and secretion of the pestivirus protein E(rns)." *Biochem. Biophys. Res. Commun.* 319, 655-662 (2004).
41. Durantel, D., S. Carrouee- Durantel, **N.Branza-Nichita**, R.A. Dwek, N. Zitzmann. "Effect of interferon, ribavirin and iminosugar derivatives on viral infection in cells persistently infected with non-cytopathic BVDV: a comparative study". *Antimicrobial Agents and Chemotherapy* 48, 497-504 (2004).
42. C.Lazar, N. Zitzmann, R.A. Dwek and **N.Branza-Nichita***, "The pestivirus Erns glycoprotein interacts with E2 in both infected cells and mature virions", *Virology* 314, 669-675, (2003).
43. Costin G.E, M. Trif, **N. Nichita**, R.A. Dwek, S.M. Petrescu, "pH-sensitive liposomes are efficient carriers for endoplasmic reticulum-targeted drugs in mouse melanoma cells", *Biochem. Biophys. Res. Commun.*, 293, 918-923 (2002).
44. **N.Branza- Nichita**, Lazar C, Durantel D, Dwek RA, Zitzmann N. "Role of disulfide bond formation in the folding and assembly of the envelope glycoproteins of a pestivirus." *Biochem. Biophys. Res. Commun.*, 296, 470-476 (2002).
45. D. Durantel, **N.Branza- Nichita**, S. Durantel, R.A. Dwek, N. Zitzmann, "Study of the Mechanism of Antiviral Action of Iminosugar Derivatives against Bovine Viral Diarrhea Virus", *J. Virol.*, 75, 8987 (2001).
46. **N.Branza-Nichita**, D. Durantel, S. Durantel, R.A. Dwek, N. Zitzmann, "Antiviral Effect of N-Butyldeoxyjirimycin against Bovine Viral Diarrhea Virus Correlates with Misfolding of E2

Envelope Proteins and Impairment of their Association into E1-E2 Heterodimers", *J. Virol.*, 75, 3527 (2001).

47. **N.Branza-Nichita**, A.J. Petrescu, G. Negroiu, R.A.Dwek, S.M. Petrescu, "N-Glycosylation Processing and Glycoprotein Folding- Lessons from the Tyrosinase-Related Proteins", *Chemical Reviews* 100, 4697 (2000).

48. **N.Branza-Nichita**, G. Negroiu, A.J. Petrescu, E. Garman, F.M. Platt, M.R. Wormald, R.A.Dwek, S.M. Petrescu, "Mutations at Critical N-Glycosylation Sites Reduce Tyrosinase Activity by Altering Folding and Quality Control", *J. Biol. Chem.*, 275, 8169 (2000).

49. Petrescu S.M., **N.Branza-Nichita**, Negroiu G., Petrescu A.J., Dwek R.A., "Tyrosinase and Glycoprotein Folding: Roles of Chaperones That Recognize Glycans", *Biochemistry*, 39, 5229-5237 (2000).

50. **N.Branza-Nichita**, A.J. Petrescu, R.A.Dwek, M.R. Wormald, F.M. Platt, S.M. Petrescu, "Tyrosinase Folding and Copper Loading in vivo: A crucial Role for Calnexin and α -Glucosidase II", *Biochem. Biophys. Res. Commun.*, 261, 720 (1999).

51. Sallmann F., S.B. Descamps, F. Pattus, V. Salmon, **N. Branza**, G. Spik, D. Legrand, "Porins OmpC and PhoE of *Escherichia coli* as Specific Cell-surface Targets of Human Lactoferrin", *J. Biol. Chem.*, 274, 16107 (1999).

52. Negroiu G., **N.Branza-Nichita**, A.J. Petrescu, R.A. Dwek, S.M. Petrescu, "Protein specific N-glycosylation of tyrosinase and TRP-1 in B16 F1 mouse melanoma cells", *Biochemical J.*, 344, 659 (1999).

53. Negroiu G., **N.Branza-Nichita**, G.E. Costin, H. Titu, A.J. Petrescu, R.A.Dwek, S.M. Petrescu, "Investigation of the intracellular transport of tyrosinase and Tyrosinase Related Protein (TRP-1).The effect of the ER- glucosidases inhibition", *Cell. Mol. Biol.*, 45, 7 (1999).

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c) International Grants as project director

2019-2024 **EEA Research Programme**: "Next Generation Viral Hepatitis B and C vaccine development in plants and algae using advanced biotechnological tools" (SmartVac). **Eur 1.500.000**

2014-2017 **EEA Research Programme**: "Development of a cost effective Romania-Norway joint plant-based technology platform for production of vaccines against Human Hepatitis viruses B (HBV) and C (HCV)" (GreenVac). **Eur 1.121.000,00**

2004-2007 **Collaborative Research Initiative Grant, Wellcome Trust**: "Mechanism of antiviral activity of iminosugar derivatives against Hepatitis B virus". **£ 94.750**

2001-2004 **International Research Development Award, Wellcome Trust**: "Effect of α -glucosidase inhibitors on the morphogenesis of enveloped viruses". **£ 85.560**

2010-2011 **United Therapeutics Grant**: "Development of liposome-incorporated iminosugars, as antivirals against HBV", **£ 10.000**



2004-2005 **United Therapeutics Grant: "Screening of antiviral drugs using BVDV as a model for HCV", £ 10.000**

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