

1. Informatii personale

Prenume, nume de familie: Norica Beatrice NICHITA

Data si locul nasterii: 12 Aprilie 1970, Bacau, Romania

Pozitie academica ocupata in prezent: Cercetator stiintific II, Sef Departament Glicoproteine Virale, Institutul de Biochimie, Academia Romana.

Adresa: Departament Glicoproteine Virale, Institutul de Biochimie, Splaiul Independentei 296, Sector 6, Bucuresti, <http://www.biochim.ro/ib/departaments/virglyco/virglyco.php>

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2. Educatie

2000-2001 Studii postdoctorale, Universitatea Oxford, Departamentul Biochimie, Anglia

1997-2000 Studii doctorale, Institutul de Biochimie, Academia Romana

1993-1994 Student TEMPUS, Universitatea Catolica Leuven, Departamentul Genetica Umana, Belgia

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

1984-1988 Bacalaureat, Liceul 'Vasile Alecsandri', Bacau.

3. Experienta profesionala

2007-prezent Cercetator stiintific II, Sef Departament Glicoproteine Virale, Institutul de Biochimie, Bucuresti. Grupul este implicat in studiul morfogenezei HBV, dezvoltarea de strategii noi pentru imbunatatirea transportului compusilor antivirali in celulele infectate si investigarea la nivel molecular a etapelor timpurii caracteristice infectiei cu HBV.

2002-2007 Cercetator stiintific, Institutul de Biochimie, Bucuresti si Wellcome Trust "Academic Visitor" (3 luni/an), Universitatea Oxford, Departamentul de Biochimie, Institutul de Glicobiologie. Proiectele de cercetare s-au concentrat asupra rolului a-glucozidazelor din RE in asamblarea virusurilor anvelopate si mecanismului de actiune a iminoglicidelor cu activitate antivirala fata de HBV.

2000-2001 Cercetator postdoctoral, bursier Royal Society, Universitatea Oxford, Departamentul de Biochimie, Institutul de Glicobiologie. Proiectul postdoctoral a avut ca subiect determinarea cailor de pliere a proteinelor de anvelopa a BVDV (pestivirus folosit ca model surogat *in vitro*, pentru studierea HCV) si de asemenea, dezvoltarea de derivati iminoglicidici ca inhibitori ai asamblarii virale (Prof. Raymond Dwek).

1997-1999 Asistent cercetare, Institutul de Biochimie Bucuresti si bursier NATO-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 (Prof. Cecilia Motas/Prof. Raymond Dwek).

1996 (6 luni) Asistent cercetare (bursa PECO), Laboratorul de Chimie Biologica, Universite des Sciences et Technologies, Lille, Franta. Proiectul primit a avut ca subiect clonarea si caracterizarea unor variante mutante derivate de la lactoferina umana (Prof. Genevieve Spik).

1995 (3 luni) Asistent cercetare (bursa PICS), Centre de Recherches sur les Macromolécules Végétales-CNRS, Université Joseph Fourier, Grenoble, France. Tema de cercetare s-a referit la identificarea unor liganzi specifici lectinei izolate din *Datura innoxia* (Prof. Yvette Lienart).

4. Zece publicatii selectate

1. 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*, 2010, 107(40), pp. 17176-81.
2. 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, *Journal of Virology*, 2010, 84, pp. 243-253.
3. 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 Research*, 2007, 76, pp. 30-37 .
4. 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, *Biochemical and Biophysical Research Communications*, 2006, 346, pp. 1083-1090.
5. **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), *Biochemical and Biophysical Research Communications*, 2004, 319, pp. 655-662.
6. 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* , 2003, 314, pp. 669-675.
7. **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, *Biochemical and Biophysical Research Communications* , 2002, 296, pp. 470-476.
8. **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, *Journal of Virology*, 2001, 75, pp. 3527-3536.
9. **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, *Journal of Biological Chemistry*, 2000, 275, pp. 8169-8175.
10. **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*, 2000, 100, pp. 4697-4702.

5. Domenii stiintifice de interes

Mecanismul de actiune a derivatilor iminoglucidici, dezvoltarea unor sisteme noi pentru imbunatatirea transportului intracelular al compusilor antivirali, internalizarea virusurilor anvelopate si evenimentele timpurii asociate infectiei celulei gazda.

6. Responsabilitati academice complementare

- Secretar stiintific al Societatii Romane de Biochimie si Biologie Moleculara
- Organizator al cursurilor internationale FEBS avansate, teoretice si practice, "Recombinant DNA Technology and Protein Expression", 2003, 2005, 2008.
- Membru in comitetul de redactie "Open Virology Journal" (Bentham Science Publishers) si Romanian Journal of Biochemistry (Editura Academiei).
- Referent stiintific pentru jurnale internationale din domeniul biochimiei si virusologiei: "Trends in biotechnology", "Virology", "Molecular biology reports", "Current HIV research", "Melanoma research", "Proteome science", "Open Virology Journal".