

## **Curriculum Vitae**

### **PERSONAL DATA**

Name and surname **Višnja Stepanić**  
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WWW <http://www.irb.hr/eng/People/Visnja-Stepanic>  
Citizenship Croatian  
Date and place of birth 28/02/1970, Zagreb

### **WORK EXPERIENCE**

Date (from – until) 2009-today  
Institution Ruđer Bošković Institute, Division of Molecular Medicine,  
Laboratory for Epigenomics  
Work field Natural Sciences, Basic Medical Sciences

Date (from – until) 2006– 2008  
Institution GlaxoSmithKline Research Centre Zagreb Ltd.  
Work field Natural Sciences, Basic Medical Sciences

Date (from – until) 2002 – 2006  
Institution Research & Development, PLIVA Int., Zagreb  
Work field Natural Sciences, Basic Medical Sciences

Date (from – until) 1998 – 2002  
Institution Ruđer Bošković Institute  
Work field Natural Sciences

Date (from – until) 1994 – 1998  
Institution Ruđer Bošković Institute  
Work field Natural Sciences

### **EDUCATION**

Date 1998-2001  
Place Zagreb  
Institution Faculty of Sciences University of Zagreb  
Title of qualification awarded Ph.D. degree

Date 1994-1997  
Place Zagreb  
Institution Faculty of Sciences University of Zagreb  
Title of qualification awarded M. Sc. Degree

Date	1988-1993
Place	Zagreb
Institution	Faculty of Sciences University of Zagreb
Title of qualification awarded	B. Sc. Degree

## LANGUAGES

MOTHER TONGUE	Croatian
ENGLISH LANGUAGE	yes
speaking	excellent
writing	excellent
reading	excellent
GERMAN LANGUAGE	yes
writing	good
reading	good

## RESEARCH AND OTHER PROJECTS

### **Programmes of Ministry of Science, Education and Sport of RH:**

- 1) 2009–today "Epigenetic and immunomodulatory changes in malignant head and neck tumors " (098–0982464–2511, PI Koraljka Gall Trošelj)
- 2) 2012–today "Developing methods for modelling properties of bioactive molecules and proteins" (098-1770495-2919, PI dr. sc. Bono Lučić)
- 3) 1998–2001 "Isotopical labelling and molecular spectroscopies" (00980802, PI Goran Baranović)
- 4) 1998 "Theoretical study of protonated diimide cations", Young investigator project, manager
- 5) 1996–1998 "Study of static and dynamical properties of molecules " (00980605, PI Aleksandar Sabljic)
- 6) 1991–1995 "Development and application of models in chemistry " (PI academician Nenad Trinajstić)

### **Programmes in Research institute of Pliva d.o.o. and GlaxoSmithKline Research Centre Zagreb Ltd:**

- 1) 2007- 2008 "Macrolides with anti-inflammatory activity", GSK Research Centre Zagreb Ltd.
- 2) 2006 – 2008 "Pharmacokinetic behaviour of macrolides", GSK Research Centre Zagreb Ltd.
- 3) 2006 – 2008 "Platform for generating macrolide hit molecules ", GSK Research Centre Zagreb Ltd.
- 3) 2006 – 2008 "Novel macrolide antibiotics", Research institute of Pliva d.o.o./ GSK Research Centre Zagreb Ltd.
- 4) 2002 – 2003 "Novel antibiotics targets ", R&D PLIVA Int.
- 5) 2006 – 2008 "Novel macrolide antibiotics", Research institute of Pliva d.o.o./ GSK Research Centre Zagreb Ltd.
- 6) 2004 – 2005 "New program generating platform ", Research institute of Pliva d.o.o.

## TEACHING

### *Undergraduate study:*

- 2012 – today participation in course "IME6852Z Instrumental methods", of Specialist study of environmental health engineering on University of applied health studies, Zagreb

### *Graduate study:*

- 2013 – today participation in course "P4 in medicine: Predictive, preventive, personalized and participatory medicine ", of graduate study Medical studies in Croatian on School of medicine, University of Zagreb

- 2011– today participation in course "Biologically active compounds in food", of graduate study Medical studies in Croatian on School of medicine, University of Zagreb

- 1998–2001 participation in courses "Molecular spectroscopy" and "Chemical kinetics" of graduate study on Faculty of natural sciences, University of Zagreb

### *Workshops:*

- 2014 – lecturer at the workshop Molecular modelling organized together with dr. Sanja Tomić and Croatian association for cancer research

## AWARDS AND RECOGNITIONS

- 2008 GLAXOSMITHKLINE Exceptional Science Award

## MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

- Croatian chemical society
- Croatian society for biochemistry and molecular biology
- Croatian biophysical society
- Croatian association for cancer research and EACR
- MC member of COST Action BM1203 EU-ROS
- MC member of COST Action CM1106 Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells

## PAPERS

### *CC scientific papers – 10 representative:*

- 1) T. Gazivoda Kraljević, N. Ilić, V. Stepanić, L. Sappe, J. Petranović, S. Kraljević Pavelić, S. Raić-Malić. Synthesis and in vitro antiproliferative evaluation of novel N-alkylated 6-isobutyl- and propyl pyrimidine derivatives. *Bioorganic & Medicinal Chemistry Letters*. 24(13) (2014) 2913-2917; IF = 2.331, Times cited WoS 0, Q2
- 2) A. Amić, Z. Marković, J. Dimitrić Marković, V. Stepanić, B. Lučić, D. Amić. Towards an improved prediction of the free radical scavenging potency of flavonoids: The significance of double PCET mechanisms. *Food Chemistry*. 152 (2014) 578-585. IF = 3.259, Times cited WoS 2, Q1
- 3) D. Amić, V. Stepanić, B. Lučić, Z. Marković, J. Dimitrić Marković, PM6 study of free radical scavenging mechanisms of flavonoids: why does O–H bond dissociation enthalpy effectively represent free radical scavenging activity? *Journal of molecular modeling*. 19 (2013) 2593-2603; IF = 1.867, Times cited WoS 5; Q2.
- 4) V. Stepanić, K. Gall Trošelj, B. Lučić, Bono; Z. Zoran; D. Dragan. Bond dissociation free energy as a general parameter for flavonoid radical scavenging

- activity. Food chemistry. 141 (2013) 1562-157; IF = 3.259 (2012); Times cited WoS 7; Q1.
- 5) V. Munić Kos, S. Koštrun, A. Fajdetić, M. Bosnar, Ž. Kelnerić, V. Stepanić, V. Eraković Haber, Structure-property relationship for cellular accumulation of macrolones in human polymorphonuclear leukocytes (PMNs). European journal of pharmaceutical sciences. 49 (2013) 206-219; IF = 2.987; Times cited WoS 0; Q2.
  - 6) Z. Marković, D. Milenković, J. Đorović, J.M. Dimitrić Marković, V. Stepanić, B. Lučić, D. Amić, PM6 and DFT study of free radical scavenging activity of morin. Food Chemistry 134 (2012) 1754-1760; IF = 3.259; Times cited WoS 23; Q1.
  - 7) V. Stepanić, D. Žiher, V. Gabelica-Marković, D. Jelić, S. Nunhuck, K. Valko, S. Koštrun. Physicochemical profile of macrolides and their comparison with small molecules. European Journal of Medicinal Chemistry 47 (2012) 462-472; IF = 3.346; Times cited WoS 3; Q1.
  - 8) D. Verbanac, C. Jain, Subhash N. Jain, M. Chand, H. Čipčić Paljetak, M. Matijašić, M. Perić, V. Stepanić, L. Saso, An efficient and convenient microwave-assisted chemical synthesis of (thio)xanthenes with additional in vitro and in silico characterization. Bioorganic & medicinal chemistry. 20 (2012) 3180-3185; IF = 2.903; Times cited WoS 1; Q2.
  - 9) Z. Marković, D. Milenković, J. Đorović, J. Dimitrić Marković, V. Stepanić, B. Lučić, D. Amić, Free radical scavenging activity of morin 2'-O- phenoxide anion. Food chemistry. 135 (2012) 2070-2077; IF = 3.259; Times cited WoS 5; Q1.
  - 10) V. Stepanić, S. Koštrun, I. Malnar, M. Hlevnjak, K. Butković, I. Čaleta, M. Dukši, G. Kragol, O. Makaruha-Stegić, L. Mikac, J. Ralić, I. Tatić, B. Tavčar, K. Valko, S. Zulfikari, V Munić. Modeling Cellular Pharmacokinetics of 14- and 15-membered Macrolides with Physicochemical Properties. Journal of medicinal chemistry. 54 (2011) 719-733; IF = 5.207; Times cited WoS 14; Q1.
  - 11) D. Verbanac, D. Jelić, V. Stepanić, I. Tatić, D. Žiher, S. Koštrun. Combined in silico and in vitro Approach to Drug Screening. Croatica chemica acta. 78 (2005) 133-139; IF = 0.763; Times cited WoS 16; Q2.
  - 12) V. Stepanić, G. Baranović. Ground and excited states of isodiazene - an ab initio study. Chemical physics. 254 (2000) 151-168; IF = 2.028; Times cited WoS 10; Q3.

#### **Book chapter:**

Stepanić V, Novak Kujundžić R, Gall Trošelj K. Epigenome, Cancer Prevention and Flavonoids and Curcumin // Epigenetics and Epigenomics / Christopher J. Payne (ur.). Rijeka : InTech, 2014. Pp. 173-209

#### **Other scientific papers:**

D. Verbanac, V. Stepanić, Novi pogled na istraživanje lijekova – nove formulacije i kombinacije. Farmaceutski tehničar : stručno informativni časopis farmaceutskih tehničara Hrvatske. 63 (2013) 7-12.

V. Stepanić, N. Došlić, Teorijski pristupi kemijskoj reaktivnosti. 1. Dinamički pristup. Kemija u industriji. 49 (2000) 467–476.

V. Stepanić, S. Sekušak, Teorijski pristupi kemijskoj reaktivnosti. 2. Statistički pristup. Kemija u industriji. 49 (2000) 519–525.

#### **OTHER RESEARCH ACTIVITIES**

Reviewer for Croatica Chemica Acta, European Journal of Medicinal Chemistry, Journal of Medicinal Plants Research, Journal of Separation Science, Molecules