

# Dunja Šamec

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## PERSONAL INFORMATION:

Date and place of birth: 15. October 1984, Varaždin, Croatia

Marital status: married

## FORMAL EDUCATION

2009-2013	Ruder Boskovic Institute/University J.J. Strossmayer Osijek/University of Dubrovnik, Doctoral study of Molecular Bioscience, Croatia	<b>PhD Biology</b>
2003-2008	University of Zagreb, Faculty of Food Technology and Biotechnology, Croatia	<b>MSc Food Engineering</b>
2003-2008	University of Zagreb, Faculty of Food Technology and Biotechnology, Croatia	<b>MSc Nutrition</b>

## PROFESIONAL EXPERIENCE

2017-now	<b>Research Associate</b>	Institute Rudjer Boskovic, Molecular Biology Department, Laboratory for Chemical Biology, Zagreb, Croatia
2014-2017 (on leave from 11/14-10/16)	<b>Senior Research Assistant</b>	Institute Rudjer Boskovic, Molecular Biology Department, Laboratory for Chemical Biology, Zagreb, Croatia <b>PI: Branka Salopek Sondi</b>
2014-2016	<b>Postdoctoral Research Associate</b>	Washington State University, Institute of Biological Chemistry, Pullman-WA, USA <b>PI: Bernd Markus Lange</b>
2009-2014	<b>Research Assistant</b>	Institute Rudjer Boskovic, Molecular Biology Department, Laboratory for Chemical Biology, Zagreb, Croatia <b>PI: Branka Salopek Sondi</b>

## INTERNATIONAL RESEARCH EXPERIENCE AS VISITING SCIENTIST

2014-2016 (24 months) 2010/2011 (6 months)	Washington State University, Institute of Biological Chemistry, Pullman-WA, USA <b>PI: Bernd Markus Lange</b>
2014 (2 weeks) 2012 (2 months) 2011 (4 weeks)	Technical University Dresden, Institute of Botany, Dresden, Germany <b>PI: Jutta Ludwig-Müller</b>
2009/2010 (3 months)	Faculty of Science, Palacký University and the Institute of Experimental Botany, Academy of Sciences of the Czech Republic, Laboratory of Growth Regulators, Olomouc, Czech Republic <b>PI: Miroslav Strnad</b>

## PARTICIPATION AT SCIENTIFIC PROJECTS

### Principal investigator:

- 2017-2019, "Metabolic and transcriptomic response of kale to low temperature stress", 1C My First Collaboration Grant, Unity trough knowledge fund
- 2014-2017, "Evaluating Metabolic Diversity to Understand Plant Adaptations to a Changing Environment- Plant MS"-NEWFELPRO Marie Curie FP7-PEOPLE-2011-COFUND
- 2010/2011, "Identification of bioactive metabolites in medicinal plants and there In vitro propagation" 2A Gaining Experience Grant, Unity trough knowledge fund
- 2010/2011, "Isolation and characterization of bioactive metabolites from medicinal plants grown in the greenhouse and in vitro by plant tissue culture", Fellowship for doctoral students, Croatian Science Foundation
- 2009/2010, "Bioactive compounds and antimicrobial activity of plants" Fellowship for doctoral students, Croatian Science Foundation

### Research Associate:

- 2014-2019, 'Phytohormons in abiotic stress of *Brassica* crops: mechanism of tolerance and application` Croatian Science Foundation (PI Salopek-Sondi B.)
- 2012-2015, "Study of plant enzymes from metallopeptidase families M20 and M49", Alexander von Humboldt foundation (PIs Tomić S., Ludwig-Muller J., Co-PIs: Abramić M., Salopek-Sondi B., Wade R.).
- 2013-2014, Commercial project-collaboration with food industry Podravka, 2013-2014. (PI Salopek-Sondi B.)
- 2012-2014, "Phenolic derivatives in *Physcomitrella patens* Hedw.: profile, hormonal regulation and role in biotic stress", DAAD collaboration, (PIs Ludwig-Muller J. and Rusak G., Co-PI: Salopek-Sondi B.),.
- 2011-2012, "Endogenous antimicrobial compounds in Chinese cabbage (*Brassica rapa* L.) upon viral and bacterial infections", DAAD collaboration, (PIs Ludwig-Muller J. and Rusak G., Co-PI: Salopek-Sondi B.),
- 2012, "RAPD analysis of white cabbage cultivars"", Varazdinska zupanija (PI Salopek-Sondi B.)
- 2012, "Analysis of plant hormones in *Brassica rapa*", HAZU (PI Salopek-Sondi B.)
- 2009-2013, "Molecular regulation of plant development", MZOS (PI Salopek-Sondi B.)

## SCHOLARSHIPS, TRAVEL GRANTS AND AWARDS

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| 2017 | • <b>Marie Curie Alumni Association Micro Travel grant</b> for attending G4G in Olomouc, Czech Republic   |
| 2016 | • <b>ASPB (American Society of Plant Biologists) travel grant</b> for attending Plant Biology 2016 in Austin-TX, USA  |
|      | • <b>Croatian Women of Influence Award</b> in the fields of science and technology  |
| 2015 | • <b>Croatian National Science Award</b> - the highest scientific honor for Junior Researchers in Croatia   |
| 2013 | • <b>FEBS (Federation of European biochemical societies) Bursaries grant</b> for attending 38th FEBS Congress in Saint Petersburg, Russia                     |
|      | • <b>BioVision Next Fellowship</b> for 100 the best young scientiest in the field of Life sciences for attending Biovision Life Science Forum in Lyon, France |
| 2012 | • <b>FESPB (Federation of European Societies of Plant Biology) travel grant</b> for   |

- attending Plant Biology Congress 2012 in Freiburg, Germany
- 2011 • **IUPAC travel grant** for attending Euroanalysis 16 in Belgrade, Serbia
- 2009 • **Certificate** from **Rotary club Varaždin** as finalist of the competition for the best diploma theses in 2008
- 2008 • **Top 10% of 2008 graduating class** at Faculty of Food Technology and Biotechnology
- First place and **gold medal** in undergraduate student research at the XII. International competition in student research projects
- **Dean's award**
- **First place** in "Case study" competition at **BEST Engineers days**
- 2007 • **Scholarships** for the best student attending a biotech faculty from the **Biotechnical Foundation**
- **Rector's award**
- 2004 • **Scholarship for the best Croatian students** awarded by the Ministry of Science of the Republic of Croatia

## PUBLICATIONS

According to the Google Scholar (November 2017) h-index is 9 and number of citation 363.

### Book chapters:

1. Salopek-Sondi, B., Pavlović, I., Smolko, A., **Šamec, D.** Auxin as a mediator of abiotic stress responses // Mechanism of Plant Hormone Signaling under Stress// Pandey, G. (Ed.). Wiley-Blackwell, accepted, publication planned for August 2016.
2. Piljac-Žegarac, J., **Šamec, D.**, Piljac A. Herbal Teas: A Focus on Antioxidant Properties // Tea in Health and Disease Prevention / Preedy, Victor (Ed.). London: Academic Press, 2013. Str. 129-140.

### Research articles in peer-reviewed journals:

1. Nabavi, S.F., Khan, H., D'onofrio, G., **Šamec, D.**, Shirooie, S., Dehpour, A.R., Castilla, S.H., Habtemariam, S., Sobarzo-Sanchez, E. (2017) Apigenin as Neuroprotective Agent: of mice and men. *Pharmacological research*, in press, doi: 10.1016/j.phrs.2017.10.008
2. Budzynska, B., Faggio, C., Kruk-Slomka, M., **Šamec, D.**, Nabavi, S.F., Sureda, A., Devi, K.P., Nabavi, S.M. (2017) Rutin as neuroprotective agent: from bench to bedside. *Current medicinal chemistry*, in press, doi: 10.2174/0929867324666171003114154
3. Žiberna, L., **Šamec, D.**, Mocan, A., Nabavi, S.F., Bishayee, A., Farooqi, A.A, Sureda, A., Nabavi, S.M. (2017) Oleanolic Acid Alters Multiple Cell Signaling Pathways: Implication in Cancer Prevention and Therapy. *International journal of molecular sciences* 18, 3, 643.
4. Lange B.M., Fishedick J.T., Lange M.F., Srividya N., **Šamec D.**, Poirier B.C. (2017) Integrative Approaches for the Identification and Localization of Specialized Metabolites in Tripterygium Roots. *Plant Physiology* 173, 456-469.
5. Ahmed, T., Javed, S., Javed, S., Tariq, A., **Šamec, D.**, Tejada, S., Nabavi, F.S., Braidly, N., Nabavi, S.M. (2016) Resveratrol and Alzheimer's Disease: Mechanistic Insights. *Molecular Neurobiology*, doi: 10.1007/s12035-016-9839-9.
6. **Šamec, D.**, Pavlović, I., Salopek-Sondi, B. (2016) White cabbage (*Brassica oleracea* var. *capitata* f. *alba*): botanical, phytochemical and pharmacological overview. *Phytochemistry reviews*, 54, 4; 2622-2635.
7. **Šamec, D.**, Valek Žulj, L., Martinez, S., Gruz, J., Piljac, A., Piljac Žegarac, J. (2016) Phenolic acids significantly contribute to antioxidant potency of *Gynostemma pentaphyllum* aqueous and methanol extracts. *Industrial Crops and Products* 84, 104-107.

8. Šamec, D.\*, Maretić, M., Lugarić, I., Mešić, A., Salopek-Sondi, B., Duralija, B. (2016) Assessment of the differences in the physical, chemical and phytochemical properties of four strawberry cultivars using principal component analysis. *Food Chemistry*, 194, 828-834.
9. Šamec, D.\*, Durgo, K., Gruz, J., Kremer, D., Kosalec, I., Piljac Žegarac, J., Salopek Sondi, B. (2015) Genetic and phytochemical variability of six *Teucrium arduini* L. populations and their antioxidant/prooxidant behavior examined by biochemical, macromolecule- and cell-based approaches, *Food Chemistry*, 186, 298-305.
10. Meriño-Gergichevich, C., Ondrasek, G., Zovko, M., Šamec, D., Alberdi, M., Reyes-Díaz, M. (2015) Comparative study of methodologies to determine antioxidant capacity in Al-toxified blueberry amended with calcium sulphate. *Journal of Soil Science and Plant Nutrition*, 15(4), 965-978.
11. Šamec, D., Gruz, J., Durgo, K., Kremer, D., Kosalec, I., Valek Žulj, L., Martinez, S., Salopek-Sondi, B., Piljac-Žegarac, J. (2015) Molecular and cellular approach in the study of antioxidant/prooxidant properties of *Micromeria croatica* (Pers.) Schott. *Natural Product Research*, 29(18), 1770-1774.
12. Šamec, D., Piljac Žegarac, J. (2015) Fluctuations in the levels of antioxidant compounds and antioxidant capacity of ten small fruits during one year of frozen storage. *International journal of food properties*, 18(1), 21-32.
13. Šamec, D., Bogović, M., Vincek, D., Martinčić, J., Salopek-Sondi, B. (2014) Assessing the authenticity of the white cabbage (*Brassica oleracea* var. capitata f. alba) cv. 'Varaždinski' by molecular and phytochemical markers, *Food Research International*, 60, 266-272.
14. Salopek-Sondi, B., Šamec, D., Mihaljević, S., Smolko, A., Pavlović, I., Janković, I., Ludwig-Müller, J. (2013) Influence of stress hormones on the auxin homeostasis in *Brassica rapa* seedlings. *Plant cell reports*, 32, 1031-1042.
15. Piljac Žegarac, J., Piljac, A., Basha, S., Pinter, M., Šamec, D., Petravić Tominac, V. (2012) Degradation kinetics of total phenols, anthocyanins and antiradical activity of blackcurrant nectars stored at room and refrigerator temperatures. *Italian journal of food science*, 24, 345-351.
16. Šamec, D., Kremer, D., Grúz, J., Jurišić Grubešić, R., Piljac-Žegarac, J. (2012) *Rhamnus intermedia* Steud. et Hochst. – a new source of bioactive phytochemicals. *Croatica chemica acta*, 85, 2; 125-129
17. Šamec, D., Piljac Žegarac, J. (2011) Postharvest stability of antioxidant compounds in hawthorn and cornelian cherries at room and refrigerator temperatures – comparison with blackberries, white and red grapes. *Scientia horticulturae*. 131; 15-21.
18. Piljac Žegarac, J., Šamec, D., Piljac, A., Mešić, A., Tkalčec, Z., (2011) Antioxidant properties of methanol and water extracts of three wild mushroom species: *Auricularia auricula-judae* (Bull.) Quél., *Sarcoscypha austriaca* (Sacc.) Boud, and *Strobilurus esculentus* (Wulfen). *International Journal of Medicinal Mushrooms*. 13(3); 257-264.
19. Šamec, D., Piljac Žegarac, J., Bogović, M., Habjanič, K., Grúz, J., (2011) Antioxidant potency of white (*Brassica oleracea* L. var. capitata) and Chinese (*Brassica rapa* L. var. pekinensis Lour.) cabbage: The influence of development stage, cultivar choice and seed selection. *Scientia Horticulturae*. 128; 78-83.
20. Piljac Žegarac, J., Šamec, D., (2010) Antioxidant stability of small fruits in postharvest storage at room and refrigerator temperatures. *Food Research International*. 44(1); 345-350.
21. Zovko Končić, M., Kremer, D., Gruz, J., Strnad, M., Biševac, G., Kosalec, I., Šamec, D., Piljac Žegarac, J., Karlović, K. (2010) Antioxidant and antimicrobial properties of *Moltkia petraea* (Tratt.) Griseb. flower, leaf and stem infusions. *Food and Chemical Toxicology*. 48 (6); 1537-1542.
22. Šamec, D., Gruz, J., Strnad, M., Kremer, D., Kosalec, I., Jurišić Grubešić, R., Karlović, K., Lučić, A., Piljac Žegarac, J. (2010) Antioxidant and antimicrobial properties of *Teucrium*

arduini L. (Lamiaceae) flower and leaf infusions. *Food and Chemical Toxicology*. **48** (1); 113-119.

#### **Lectures at research institutions or professional associations:**

1. *Why understanding of the plant-environment interactions is important for health and beauty?*, Croatian Botanical Society, Zagreb-Croatia, October 2017
2. *Plant molecules for health and beauty*, Green Festival, National and University Library, Zagreb-Croatia, September 2017
3. *Hyphenated techniques and their applications in plant metabolomics*, 17th International Chromatography School, Faculty of Chemical Engineering and Technology, Zagreb-Croatia, June 2017
4. *Plant metabolomics: different approaches and applications*. Croatian Society of Plant Biologist, Zagreb-Croatia, April 2014
5. *Plant secondary metabolites-potent new drugs for tomorrow's medicine?*, Summer School of Science, Višnja-Croatia, July 2011.
6. *Bioactive compounds in plant- isolation and characterization*, Student association of biotechnology-Helix, Zagreb-Croatia, April 2011
7. *Phenolic acids: Qualitative and quantitative analysis by UPLC-MS/MS*, Croatian Society of Plant Biologist, Zagreb-Croatia, July 2010
8. *Quantifying antioxidants and their potency in foods and plant material*, Faculty of Science, Palacky University, Olomouc- Czech Republic, January 2010
9. *Dietary guidelines - USDA My Pyramid*, Science Festival, Zagreb-Croatia, April, 2009
10. *Dietary guidelines for students*, First Gymnasium Varaždin, Varaždin-Croatia, March 2009

#### **Presentations at scientific meetings:**

1. **Šamec, D.** 'Hyphenated techniques and their applications in plant metabolomics', 17th International Chromatography School, 6-7.7.2017, Zagreb-Croatia (oral presentation)
2. **Šamec, D.**, Lange, B.M. 'Spatial mapping of whisk fern specialized metabolites using MALDI Imaging', 4th Meeting on Biotechnology of Plant Products- Green for Good IV, 19-22.06.2017., Olomouc-Czech Republik (oral presentation)
3. **Šamec, D.**, Lange, B.M. 'Phytochemistry of whisk fern *Psilotum nudum* (L.) P. Beauv` 2017 MCAA Conference and General Assembly, 24.-25.03.2017., Salamanca-Spain (poster presentation)
4. **Šamec, D.**, Lange, I., Johnson, S., Lange, B.M. 'Evaluating the evolution of metabolic diversity in early vascular plants: *Psilotum nudum* (L.) P. Beauv as a model system` 9-13.07.2016., ASPB Plant Biology 2016, Austin-TX, USA (poster presentation)
5. **Šamec, D.**, Pierz, V., Lange, B. M. 'A multi-analytical approach for metabolomic profiling of the whisk fern, *Psilotum nudum* (L.) P. Beauv.` *Annual Western Section Meeting of American Society of Plant Biologists.*, 26.-28. June 2015, Pullman- WA, USA. (poster presentation)
6. **Šamec, D.**, Pierz, V., Lange, B. M. 'Comprehensive metabolomics analysis of the whisk fern, *Psilotum nudum* (L.) P. Beauv.` *6th Annual Conference of American Council for Medicinally Active Plants.* 9-12. June 2015. Spokane-WA, USA. (poster presentation)
7. **Šamec, D.**, Durgo, K., Gruz, J., Kremer, D., Salopek Sondi, B., Piljac Žegarac, J., 'Antioxidant/pro-oxidant activity of *Teucrium arduini* L.: phytochemical, molecular and cell-based approaches,, *Trends in Natural Products Research 2014*, 23.-26. June. 2014, Olomouc-Czech Republic (invited lecture)
8. **Šamec, D.**, Salopek-Sondi, B., Salopek, I., Cuthbertson, D., Lange, B.M., Piljac-Žegarac, J. 'The effect of grafting on metabolite profile and antioxidant activity of black chokeberries (*Aronia melanocarpa* L., var. Viking)“, *Plant Biology Congress Freiburg 2012*, 29. July-3. August 2012, Freiburg-Germany, (poster presentation)

9. Šamec, D., Smolko, A., Ludwig-Müller, J., Salopek-Sondi, B. „Identification and quantification of plant hormones auxins in *Brassica rapa* seedlings using GC-MS“ *13th International Chromatography School*, 18.-19. June 2012, Zagreb-Croatia (poster presentation)
10. Šamec, D., Piljac-Žegarac, J. “Fluctuations in antioxidant capacity and polyphenolic content of small fruits in storage at -20°C for one year“ *Euroanalysis 2011*, 11.-15. September 2011, Belgrade-Serbia. (poster presentation)
11. Šamec, D., Brcko, A. “Bioactive plant compounds: from regulation of plant development to health benefits“, *Scientific Encounters of the Third Kind*, 7.-8. July 2011, Zagreb-Croatia (poster presentation)
12. Šamec, D., Kremer, D., Piljac, A., Valek-Žulj, L., Martinez, S., Piljac Žegarac, J. „Antioxidant capacity of medicinal plants: a comparative study using five in vitro antioxidant assays“, *YISAC 2011*, 28. June- 1. July 2011, Novi Sad-Serbia. (oral presentation)
13. Šamec, D., Kremer, D., Gruz, J., Piljac Žegarac, J., „Free phenolic acids in *Micromeria Croatica* (Pers.) Schott measured by UPLC-MS/MS“ *12th International School of Ion Chromatography*, 30. June- 1. July 2011, Zagreb-Croatia (poster presentation)
14. Piljac-Žegarac, J., Šamec, D., Lange, B.M. “In vitro propagation and callus induction in *Tripterygium regelii*“, *WSU Plant Sciences Retreat 2011*, 4.-5. March 2011, Pullman, WA-USA. (poster presentation)
15. Šamec, D., Martinez, S., Piljac, A., Gruz, J., Piljac-Žegarac, J. “Comparative antioxidant capacity of Jiaogulan (*Gynostemma pentaphyllum*) water and methanol extracts measured by various tests“, *5th Slovenian Symposium on Plant Biology with International Participation*, 6.-9. September 2010, Ljubljana-Slovenia (poster presentation)
16. Šamec, D., Gruz, J., Piljac-Žegarac, J. “UPLC-MS/MS determination of free phenolic acids in small fruit“, *10th International Symposium and Summer School on Bioanalysis*, 7.-14. June 2010, Zagreb-Croatia (poster presentation)
17. Šamec, D., Piljac-Žegarac, J., Bogović, M. “Antioxidant activity of white cabbage and sauerkraut“, *The first Students Congress on Clinical Nutrition and diet therapy*, 14.-16. May 2010, Rijeka-Croatia (oral presentation)
18. Šamec, D., Salopek, I., Salopek-Sondi, B., Piljac Žegarac, J. „Grafting black chokeberry (*Aronia melanocarpa* L., var. *Viking*) onto European rowan (*Sorbus aucuparia* L.) yields fruit with superior phytochemical content and bioactivity“ *Ist International Symposium of Biotech Students*, 24.-26. September 2009, Zagreb- Croatia (poster presentation)
19. Šamec, D., Kremer, D., Piljac-Žegarac, J. „Antioxidant properties of *Teucrium arduini* L. flower and leaf infusions“, *EMBO Young Scientists Forum*, 15-17 June 2009, Zagreb- Croatia (poster presentation)
20. Šamec, D., Piljac-Žegarac, J. „Antioxidant capacity evolution during maturation of cabbage varieties (*Brassica oleracea* and *Brassica Rapa*)“ *YISAC 2009*, 29. June- 2. July 2009, Graz-Austria, (oral presentation)
21. Šamec, D., Piljac-Žegarac, J. „The influence of extraction solvent on the antioxidant activity of wild and cultivated Croatian mushrooms“ *YISAC 2008*, , 2-5- July 2008, Ljubljana-Slovenia (oral presentation)
22. Šamec, D. „The influence of extraction solvent on the antioxidant activity of wild and cultivated mushrooms“ *XII. Tehnologijada*, , 23-28. May 2008, Rovinj-Croatia. (oral presentation)
23. Šamec, D. „Changes in phenolic profile and antioxidant activity during the production of concentrate cherry juice“, *XI. Tehnologijada*, 28 May- 4 June 2007, Rovinj-Croatia. (oral presentation)

## OTHER PROFESSIONAL ACTIVITIES:

### Educational and teaching activities:

**2017-now-** participation in the European Social Fund project JAraSTEM

- holding a workshops about plants and plants molecules for teachers and students in order to encourage talented and gifted students for STEM fields

**2016-now-** participation in the project 'Exploring Worlds of Science and Innovation' jointly launched by the Znanje na Djelu Foundation and the Ruđer Bošković Institute with the aim to familiarize young people with the STEM fields

- holding a workshops about plants and plants molecules for primary and secondary school teachers and high school students

**2012-2014-** teaching assistant in course: Methods for determination of antioxidant capacity in plant products. (course leader: Piljac-Žegarac J.), Interdisciplinary doctoral study Molecular biosciences (MOBI), Ruder Boskovic Institute/University J.J. Strossmayer Osijek/University of Dubrovnik

**2009-now-** participation in diploma and master thesis preparation and student internship supervising:

- participation in supervising four students during preparation master thesis- Jurić A. (Faculty of Food Technology and Biotechnology, 2009), Lucić A. (Faculty of Pharmacy and Biochemistry, 2009), Janković I. (Faculty of Science, 2012), Bahun V. (Faculty of Science, 2017) and one bachelor thesis -Sabolić, I. (Faculty of Chemical Engineering and Technology, 2012).
- guiding internship students from Technical University of Dresden (Germany) during their one-month stay at RBI within DAAD collaboration at 2010. and 2011.

### Science popularization and communication activities:

- 2017**
- Participation at Science is Wonder-ful! event in Brussels, Belgium organized by European Commission- stand presentation *Plants molecules in everyday life* and hands on experiments
  - Participation at Green festival with oral presentation
  - MSCA "Fellow of the Week" on Facebook at 17.3.2017.
  - participation at Open Days of Institute Ruđer Bošković-
    - leader of the stand
    - guest at TV show *Good Morning Croatia* at Croatian National TV (HRT)
  - participation at the Open Doors Day in the Office of the President of the Republic of Croatia dedicated to the popularization of STEM fields- talk about plant and plant molecules
- 2016**
- interview for journal Universitas as a receiver of National Science Award about research and future plans
- 2015**
- participation at EXCEL (EXploring College Emerging Leaders) program designed to encourage and promote higher education for Native American students at Washington State University- talk about plant evolution
  - interview for Croatian weekly newspaper *Varaždinske vijesti* in lifestyle section about research and life of young scientist in US
- 2013**
- guest in the popular science TV show *Znanstveni krugovi* (engl. *Scientific circles*) at Croatian National TV (HRT) in the topic about assessing the authenticity of plant based food
  - involved in *Researchers Night 2013* (FP7 Marie Curie Actions *People*) in Zagreb:

- leader of working unit *Polyphenols as antioxidants*
- guest on the Dnevnik 3 (informative programme) at Croatian National TV (HRT)
- participation in the promotional video shooting
- leader of stand *The magnificent world of plant molecules* at Open days of Institute Ruđer Bošković 2013
- popular science lecture for primary school students *Plant secondary metabolites-magic plant compounds* at Open days of Institute Ruđer Bošković 2013
- 2012** ● participation in the realization of TV show *Školski sat* (engl. *Lesson*) at the Croatian National TV (HRT) entitled *Plant components for health*
- 2011** ● popular science lecture *Plant secondary metabolites-potent new drugs for tomorrow's medicine?*, for high school students participants at Summer School of Science in Višnjan-Croatia
- 2009** ● popular science lecture *Dietary guidelines - USDA My Pyramid* at Science Festival in Zagreb
- 2008** ● columnist in news papers Regionalni tjednik about new scientific evidence about food and nutrition
- 2007** ● participation in activities related to the popularization of study programs at Faculty of Food Technology and Biotechnology- lectures for high school students etc.

#### **Participation at committees and boards:**

- 2017-now, representative of Croatia at Program Committee for the European Union Framework Program for Research and Development - Horizon 2020, section Excellent Science- Marie Skłodowska-Curie Actions.
- 2013-2014, representative of assistants of Department of Molecular biology at RBI Council of Biology
- member of the organization committee for the scientific meeting *Scientific Encounters of the Third Kind* held in Zagreb at Ruđer Bošković Institute, July 7-8., 2011.
- member of the organization committee for the scientific meeting *1st International Symposium of Biotech Students* held in Zagreb at Faculty of Food Technology and Biotechnology, from September 24-26, 2009

#### **Memberships:**

- Marie Curie Alumni Association
- Phytochemical Society of Europe
- Croatian Society for Plant Biology
- Croatian Society of Biochemistry and Molecular Biology

#### **Ad- hoc reviewer for international scientific journals:**

Acta Physiologiae Plantarum, Acta Botanica Croatica, Applied Biological Research, Canadian Journal of Plant Science, Journal of Pharmacognosy and Phytotherapy, Natural Product Research, Scientific Reports, Phytochemistry Reviews, Molecules, Journal of Medicinal Plant Research, Food Chemistry, Scientia Pharmaceutica, Food Biophysics, Current Pharmaceutical Biotechnology, Current Drug Discovery Technologies, Current Medicinal Chemistry