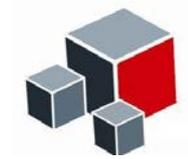


Curriculum Vitae
HRZZ Form



PERSONAL INFORMATION

Name and surname **Mirjana Pavlica**
 Academic title Ph.D.
 Year and institution 1993, Faculty of Science University of Zagreb
 of PhD obtained
 Address Horvatovac 102a, Zagreb
 Phone + 385 1 46 06 266
 Fax + 385 1 46 06 286
 E-mail mpavlica@zg.biol.pmf.hr
 Personal web page
 Citizenship Croatian
 Date and place of birth August 22 1963, Zagreb

WORK EXPERIENCE¹
(CHRONOLOGICALLY*)

Date (from – until) 2011-present
 Institution Faculty of Science, Division of Biology, Department of Molecular Biology
 Position Full professor
 Work field Research (genetic toxicology, ecotoxicology) and education

Date (from – until) 2003-2008; 2008-2011
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Associate professor
 Work field Research (genetic toxicology, ecotoxicology) and education

Date (from – until) 1997-2003
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Assistant professor
 Work field Research (genetic toxicology, ecotoxicology) and education

Date (from – until) 1994-1997
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Assistant
 Work field Research (genetic toxicology) and education

Date (from-until) 1991-1994
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Researcher
 Work field Research (genetic toxicology) and education

Date (from-until) 1989-1991
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Junior researcher
 Work field Research (genetic toxicology) and education

^{1,2,3} Please add rows to enter all required information

* all information in the document should be entered chronologically – from the most recent to the oldest

Date (from-until) 1987-1991
 Institution Faculty of Science, Division of Biology, Department of Mol. Biol.
 Position Junior researcher
 Work field Research (genetic toxicology) and education

EDUCATION² (CHRONOLOGICALLY)

Date 1993
 Place Zagreb
 Institution Faculty of Science University of Zagreb
 Title of qualification Ph.D. in Natural Sciences

Date 1990
 Place Zagreb
 Institution Faculty of Science University of Zagreb
 Title of qualification Mr. Sc. In Natural Sciences

Date 1986
 Place Zagreb
 Institution Faculty of Science University of Zagreb
 Title of qualification B. Sc. In Biology

TRAINING (CHRONOLOGICALLY)

Year 1993 (3 months)
 Place Landskrona, Sweden
 Institution Laboratory for Cell Biology, Hilleshög AB
 Subject and skills covered Cell Biology; genetic toxicology

Year 1992 (one month)
 Place Landskrona, Sweden
 Institution Laboratory for Cell Biology, Hilleshög AB
 Subject and skills covered Cell Biology; genetic toxicology

Year 1991 (4 months)
 Place Landskrona, Sweden
 Institution Laboratory for cell Biology, Hilleshög AB
 Subject and skills covered Cell Biology; genetic toxicology

LANGUAGES

MOTHER TONGUE Croatian
ENGLISH LANGUAGE Yes
 Speaking Excellent (C2)
 Writing Excellent (C2)
 Reading Excellent (C2)

OTHER FOREIGN LANGUAGES³

Language French
 Speaking A1
 Writing B1

Reading B2

RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

2007-2013: senior researcher on project funded by MZOŠ (Ministry of Science, Education and Sports Republic of Croatia): „Effects of environmental contamination on genetic structure of aquatic organisms“ (leader: prof. dr. sc. G. Klobučar)

2002-2006 – senior researcher on project funded by MZOŠ: „Diversity, structure and evolution of genomes of higher plants and some animals“ (leader: prof. dr. sc. D. Papeš)

2002-2005- senior researcher on bilateral croatian-norwegian project „CROWAT – An integrated environmental monitoring system for Croatian freshwater, estuarine and coastal marine areas“ funded by Research Council of Norway under the frame of „Cooperation programme with South-east Europe“

1996-2002 – senior researcher on project funded by MZOŠ: „Chromatin organisation variability in higher plants“ (leader: prof. dr. sc. D. Papeš)

1997-2000 – leader of project for young investigators funded by MZOŠ „Plant test systems in genotoxicity investigations“

1991-1996 junior researcher on project funded by MZOŠ: „Chromatin organization and gene expression in developmental processes“ (leader: prof. dr. sc. D. Papeš)

1987-1990 junior researcher on project funded by MZOŠ: „Evolution of nucleus genome in the processes of growth and development“ (leader: prof. dr. sc. D. Papeš)

TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE, POSTGRADUATE STUDY PROGRAMMES)

2009 – present: postgraduate doctoral programme biology, course: Biomarkers in biomonitoring of polluted environment

2007 – present: elective course Biotests for undergraduate students of Molecular Biology

2006 – present: obligatory course Genetics for undergraduate students of Biology and Environmental Sciences

1997-2005 – obligatory course Genetics for undergraduate students of Biology and Chemistry

1987-1997 – practical course Genetics for undergraduate students of Biology

MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS

(CHRONOLOGICALLY)

Mentorships:

Sonja Tolić: Effect of copper on the toxicity and genotoxicity of cadmium in duckweed (*Lemna minor* L.), Master of Science Thesis, Faculty of Science University of Zagreb, 2009.

Petra Cvjetko: Toxicity of thallium(I) acetate in tobacco, *Nicotiana tabacum* L., Doctoral Thesis, Faculty of Science, University of Zagreb, 2010.

Sonja Tolić: Stress related biomarkers in tobacco following mixed exposure to cadmium and copper, Doctoral thesis, Faculty of Science, University of Zagreb, 2011.

VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

1993 – 4-months visit to Laboratory for Cell Biology Hillesthög AB, Swedish Institute Grant

AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS)

2014- Head of Department of Biology Faculty of Science University of Zagreb

2012-2014 Deputy Head of Department of Biology Faculty of Science University of Zagreb

2009- member of Organizational and Scientific committee 10th Congress of Croatian Biological Society

2008 - member of Organizational committee 38th Annual Meeting of European Environmental Society

2006 - member of Scientific committee 9th Congress of Croatian Biological Society

2002 - member of Organizational committee 1th Congress of CCOMLIS

2000 - member of Organizational committee 2nd Croatian Congress of Toxicology (CROTOX)

MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

- Croatian Biological Society 1885
- Croatian Genetical Society
- Croatian Toxicological Society
- Croatian Society for Plant Physiology – since 2009. Croatian Plant Biology Society

COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

2013 - president of Scientific field committee of Agency for Science and Higher Education Croatia – Biology

2005 – 2007 - member of work group for evaluating scientific programmes and projects in natural sciences - biology funded by Ministry of Science, Education and Sports.

2002-2006 president of the State committee for competition in Biology (elementary and high-school level); 2002-2009 member

PAPERS

(CHRONOLOGICALLY; RESEARCH BOOKS, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS; PLEASE WRITE THEIR IMPACT FACTOR)

Original scientific papers in Current Contents:

1. Cvjetko, P., Balen, B., Peharec Štefanić, P., Debogović, L., Pavlica, M., Klobučar, G. 2014. Dynamics of heat-shock induced DNA damage and repair in senescent tobacco plants. *Biologia plantarum*. **Biol Plant 58 (1)**: 71-79.
2. Balen, B., Tkalec, M., Šikić, S. Tolić, S., Cvjetko, P., Pavlica, M., Vidaković-Cifrek, Ž. 2011. Biochemical responses of *Lemna minor* experimentally exposed to cadmium and zinc. **Ecotoxicol 20(4)**: 815-826; DOI: 10.1007/s10646-011-0633-1.
3. Pavlica, M., Štambuk, A., Malović, L., Mladinić, M. Klobučar, G.I.V. 2011. DNA integrity of chub erythrocytes (*Squalius cephalus* L.) as an indicator of pollution-related genotoxicity in

- the River Sava. **Environ. Monit. and Assess.** 177(1-4): 85-94; DOI: 10.1007/s10661-010-1620-3.
4. Mlinarec, J., Mužić, M., Pavlica, M., Šrut, M., Klobučar, G.I.V., Maguire, I. 2011. Comparative karyotype investigations in the European crayfish *Astacus astacus* and *A. leptodactylus* (Decapoda, Astacidae). **Crustaceana** (Leiden) 84 (12/13): 1497-1510. 
 5. Pavlica, M., Štambuk, A., Malović, L., Mladinić, M. Klobučar, G.I.V. 2010. DNA integrity of chub erythrocytes (*Squalius cephalus* L.) as an indicator of pollution-related genotoxicity in the River Sava. **Environ. Monit. and Assess.** DOI: 10.1007/s10661-010-1620-3.
 6. Klobučar, G.I.V., Štambuk, A., Pavlica, M., Sertić Perić, M., Kutuzović Hackenberger, B., Hylland, K. 2010. Genotoxicity monitoring of freshwater environments using caged carp (*Cyprinus carpio*). **Ecotoxicol.** **19 (1)**: 77-84.
 7. Radić, S., Stipaničev, D., Cvjetko, P., Lovrenčić Mikelić, I., Marijanović Rajčić, M., Širac, S., Pevalek-Kozlina, B., Pavlica, M. 2009. Ecotoxicological assessment of industrial effluent using duckweed (*Lemna minor* L.) as a test organism. **Ecotoxicol.** **19 (1)**: 216-222.
 8. Babić M., Radić S., Cvjetko P., Roje V., Pevalek-Kozlina B., Pavlica M. 2009. Antioxidative response of *Lemna minor* plants exposed to thallium(I) acetate. **Aquat. Bot.** **91**: 166-172.
 9. Radić S., Cvjetko P., Glavaš K., Roje V., Pevalek-Kozlina B., Pavlica M. 2009. Oxidative stress and DNA damage in broad bean (*Vicia faba* L.) seedlings induced by thallium. **Environ. Toxicol. Chem.** **28(1)**: 189-196.
 10. Štambuk A., Pavlica M., Vignjević G., Bolarić B., Klobučar G.I.V. 2009. Assessment of genotoxicity in polluted freshwaters using caged painter's mussel, *Unio pictorum*. **Ecotoxicol.** **18(4)**: 430-439.
 11. Tkalec M., Malarić K., Pavlica M., Pevalek-Kozlina B., Vidaković-Cifrek Ž. 2009. Effects of radiofrequency electromagnetic fields on seed germination and root meristematic cells of *Allium cepa* L. **Mutat. Res. – Genetic Toxicology and Environmental Mutagenesis** **672(2)**: 76-81.
 12. Klobučar, G.I.V., Štambuk A., Hylland K., Pavlica M. 2008. Detection of DNA damage in haemocytes of *Mytilus galloprovincialis* in the coastal ecosystems of Kaštela and trogir bays, Croatia. **Sci. Total Environ.** **405**: 330-337.
 13. Pavlica M., Podrug M., Štambuk A., Cvjetko P., Klobučar G.I.V. 2008. Seasonal variability in micronuclei induction in haemocytes of mussels along the eastern adriatic coast. **Polish J Environ. Studies** **17(5)**: 765-771.
 14. Štambuk, A., M. Pavlica, L. Malović and G.I.V. Klobučar 2008. Persistence of DNA damage in freshwater mussel *Unio pictorum* upon exposure to ethyl methanesulphonate and hydrogen peroxide. **Environ. Mol. Mutagen.** **49 (3)**: 217-225.
 15. Bornman, C.H., Devillard C., Pavlica M., Botha A.-M. 2005. Protoplasts allow tracing of early somatic embryo development in the conifer. **SAJB** **71 (3-4)**: 359-36.
 16. Radić, S., Prolić M., Pavlica M., Pevalek-Kozlina B. 2005. Cytogenetic stability of *Centaurea ragusina* L. long-term culture. **Plant Cell, Tissue and Organ culture** **82 (3)**: 343-348.
 17. Radić, S., Prolić M., Pavlica M., Pevalek-Kozlina B. 2004. Cytogenetic effects of osmotic stress on the root meristem cells of *Centaurea ragusina* L. **Environ. Exp. Bot.** **54 (3)**: 213-218.
 18. Klobučar, G.I.V., Pavlica M., Erben R., Papeš D. 2003. Application of the micronucleus and comet assay to mussel *Dreissena polymorpha* haemocytes for genotoxicity monitoring of freshwater environments. **Aquat. Toxicol.** **64**: 15-23.

19. Vidaković-Cifrek, Ž., Pavlica M., Regula I., Papeš D. 2002. Cytogenetic damage in shallot (*Allium cepa*) root meristems induced by oil industry "high density brines". **Arch. Environ. Contam. Toxicol.** **43 (3)**.
20. Pavlica, M., Klobučar G.I.V., Mojaš N., Erben R., Papeš D. 2001. Detection of DNA damage in haemocytes of zebra mussel using comet assay. **Mutat. Res.** **490**: 209-214.
21. Pavlica, M., Besendorfer V., Roša J., Papeš D. 2000. The cytotoxic effect of wastewater from the phosphoric gypsum depot on common oak (*Quercus robur* L.) and shallot (*Allium cepa* var. *ascalonicum*). **Chemosphere** **41**: 1519-1527.
22. Pavlica, M., Klobučar G.I.V., Vetma N., Erben R., Papeš D. 2000. Detection of micronuclei in haemocytes of zebra mussel and great ramshorn snail exposed to pentachlorophenol. **Mutat. Res.** **465 (1-2)**: 145-152.
23. Pavlica, M., Pevalek-Kozlina B. 1999. Cytological changes in callus culture of *Allium commutatum* Guss. **Phyton Horn (Austria)** **39(3)**: 301-304.
24. Pevalek-Kozlina, B., Pavlica M., Vujević M. 1999. Micropropagation of *Degenia velebitica* (Deg.) Hay., a Croatian endemic species. **Phyton Horn (Austria)** **39(3)**: 293-296.
25. Pavlica, M., Hsiao K.-Ch., Papeš D., Bornman C.H. 1998. Observation on the effects of 2,4-D and trifluralin on the cell cycle and microtubule morphology of shallot root tip and Chinese hamster fibroblast cells. **Biologia** **53(1)**: 91-98.
26. Pavlica, M., Vasilevska J., Papeš D. 1998. Genotoxicity of pentachlorophenol revealed by *Allium* chromosome aberration assay. **Acta Biologica Cracoviensia Series Botanica** **40**: 85-90.
27. Franekić, J., Bratulić N., Pavlica M., Papeš D. 1994. Genotoxicity of dithiocarbamates and their metabolites. **Mutat. Res.** **325**: 65-74.
28. Pavlica, M., Papeš D., Franekić J., Nagy B. 1992. Effects of benzyladenine on prokaryotic and eukaryotic cells. **Mutat. Res.** **281**: 277-282.
29. Pavlica, M., Papeš D., Nagy B. 1991. 2,4-Dichlorophenoxyacetic acid causes chromatin and chromosome abnormalities in plant cells and mutation in cultured mammalian cells. **Mutat. Res.** **263**: 77-81.

SCI scientific papers

1. Cvjetko P., Tolić S., Šikić S., Balen B., Tkalec M., Vidaković-Cifrek Ž., Pavlica M. 2010. Effect of copper on the toxicity and genotoxicity of cadmium in duckweed (*Lemna minor* L.). **Arhiv za higijenu rada i toksikologiju** **61 (3)**: 287-295.
2. Cvjetko P., Cvjetko I., Pavlica M. 2010. Thallium Toxicity in Humans. **Arhiv za higijenu rada i toksikologiju** **61 (1)**: 111-119.
3. Šrut M., Štambuk, A., Pavlica, M., Klobučar, G.I.V. 2010. Cage exposure of European seabass (*Dicentrarchus labrax*) for *in situ* assessment of pollution-related genotoxicity. **Arhiv za higijenu rada i toksikologiju** **61 (1)**: 29-36.
4. Prolić M., Radić S., Pavlica M., Pevalek-Kozlina B. 2002. Cytogenetic stability of *Allium commutatum* Guss. callus tissue. **Period. biol.** **104(4)**: 463-467.
5. Vujević M., Pevalek-Kozlina B., Pavlica M., Šolić M.E. 1999. Shoot and root regeneration from callus tissue of *Allium commutatum* Guss. **Acta Bot. Croat.** **58**: 57-64.
6. Pavlica M., Papeš D. 1997. Trifluralin and thiram cause aneugenic effect in shallot (*Allium ascalonicum* auct.). **Acta Biologica HAZU** **19(2)**: 21-30.
7. Pavlica, M., Srećec S., Papeš D. 1996. Genotoxicity of herbicide dicuran observed in bread

wheat seedlings. **Period. biol.** **98(3)**: 387-390.

8. Pavlica M., Ljubešić N., Papeš D. 1995. Effects of thiram on shallot root-tip cells. **Acta Pharm.** **45**: 347-350.
9. Pavlica M., Puizina J., Papeš D. 1995. Differences in response to Maleic hydrazide observed in diploid and triploid shallot root-tip cells. **Period. biol.** **97(4)**: 337-342.
10. Papeš D., Besendorfer V., Pavlica M. 1991. Nuclear changes in European black pine seedlings caused by growth regulators. **Acta Bot. Croat.** **50**: 31-36.

Abstracts in CC journals

1. Cvjetko P., Tkalec M., Šikić S., Tolić S., Vidaković-Cifrek Ž., Pavlica M. 2009. Genotoxicity Assessment of heavy Metal Mixtures by Lemna minor. **Environ. Mol. Mutagen.** **50**: 574-574.
2. Cvjetko P., Tkalec M., Šikić S., Cvjetko P., Balen B., Peharec P., Pavlica M. 2008. The effect of heat shock on DNA integrity in leaves of Nicotiana tabacum L. **Environ. Mol. Mutagen.** **49**: 570-570.
3. Radić S., Stipaničev D., Cvjetko P., Marijanović Rajčić M., Širac S., Pevalek-Kozlina B., Pavlica M. 2008. Cytotoxic And Genotoxic Potential Of Surface And Waste Waters Using The Allium And Comet Tests. **Environ. Mol. Mutagen.** **49**: 568-568.
4. Cvjetko P., Radić S., Malarić K., Tkalec M., Pavlica M. 2007. Evaluation of genotoxic potential of radiofrequency electromagnetic field (RF-EMF) in duckweed. **Environ. Mol. Mutagen.** **48**: 614-614.
5. Klobučar G.I.V., Štambuk A., Pavlica M., Erben R. 2006. Genotoxicity monitoring of freshwater environment: Comet and micronucleus assays. **Marine Environ. Res.** **62**: S314-S315.
6. Radić S., Prolić M., Pavlica M., Pevalek.Kozlina B. 2004. Cytogenetic effects of osmotic stress on the root meristem cells of *Centaurea ragusina* L. **Acta Physiol. Plant.** **26**, suppl. 3: 195-196.

OTHER RESEARCH ACTIVITIES

(CHRONOLOGICALLY; CHIEF EDITOR OR EDITOR OF RESEARCH BOOK, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS AND OTHER)

2008 – present: member of editorial board for journal Archives of Industrial Hygiene and Toxicology

2009 – present: section editor (toxicology) for journal Acta Botanica Croatica

COMPUTER SKILLS

Operational systems Windows, MS Office, Internet, Photoshop, STATISTICA

OTHER IMPORTANT SKILLS AND COMPETENCES

Driving licence, category B

ADDITIONAL INFORMATION AND NOTES**BRIEF DESCRIPTION OF MAJOR ACHIEVEMENTS**

The field of research covers genetic toxicology and ecotoxicology. M. Pavlica started to work on the effects of pesticides and growth regulators on the plant genome at the level of chromosome changes. Her further research of genotoxic impact of model chemicals and environmental pollution included detection of DNA damage using biomarkers of genotoxic effect (comet assay for detection of single stranded breaks and other structural damage of DNA and micronucleus test for revealing clastogenic or aneugenic effects) on freshwater molluscs, fish and some terrestrial and aquatic plant species. Her group was among the first to implement the freshwater invertebrates and biomarkers of genotoxic effects in genotoxicity monitoring of freshwater and marine environments. Her group has started to work on plant species as a model objects for detection of heavy metals' stress 7 years ago. They cover area from genomics (DNA damage and polymorphism) to proteomics (activity of antioxidant enzymes and nonenzymatic molecules, measurement of damaged proteins and lipids).

So far she published as a co-author 29 scientific papers in Current contents and 10 SCI scientific papers in the field of genetic toxicology and ecotoxicology.