

Ivana Carev, PhD

NAOS-ILS Croatia Research Manager; Group leader, Skin Eco-Biology and Biochemistry.

Experience:

Mediterranean Institute for Life Sciences (MedILS): 10/2020 – present
NAOS-ILS Croatia Research Manager/ Group leader / Skin Eco-Biology and Biochemistry research group

Department of Biochemistry, Faculty of Chemistry and Technology, University of Split:
Post-doc in Chemistry/Biochemistry. Research of bio-active compounds from Dalmatian plants: their antioxidant potential, enzyme inhibition and health application, 2016-2020.

Department of Biochemistry, Faculty of Chemistry and Technology, University of Split:
PhD student in Chemistry/Biochemistry: Antioxidative constituents and cholinesterase inhibitors from aromatic plants, 2009-2016.

Northwestern University, Department of Chemistry, Chicago, US, 2018:
Professional Fellowship with a scholarship of US State Department.

Laboratory for Plant Ecology, Systematics and Evolution; University Paris Sud, Orsay and C.N.R.S. Institute in Gif sur Yvette, France:
Post-doc research (2016) and **PhD student** (scholarship of French Government, 2013): chemical and biological activity of selected plant species and their extracts.

Education:

University of Zagreb, Faculty of Pharmacy and Biochemistry, 2020.
Science Associate in the section of Biomedicine and Healthcare, field of Pharmacy,

University of Split, Faculty of Chemistry and Technology, 2018.
Science Associate in the section of Natural Sciences, field of Chemistry.

University of Zagreb, Faculty of Natural Sciences, 2016.
Doctor of Philosophy (PhD), Chemistry, Biochemistry

Centre of Excellence for Biosensors, Instrumentation and Process Control, Slovenia, 2015.
Managerial/Business Skills Development for researchers (MBSDr)

University of Split, Faculty of Natural Sciences, Mathematics and Education, 2005.
Master's Degree, Chemistry and Biology

University of Molise, Italy, 2005.
Bachelor's Degree, Science and Technology of the Environment and Territory

References:

Prof. Mladen Miloš: head of the Chemistry/Biochemistry projects at the Department of Biochemistry, Faculty of Chemistry and Technology, University of Split.

mladen.milos@ktf-split.hr

Prof. Sonja Siljak Yakovlev, Prof Emeritus CNRS, AgroParisTech, Ecologie Systématique Evolution, Université Paris-Saclay, 91405 Orsay, France.

sonia.yakovlev@u-psud.fr

Prof. Mile Dželalija, head of Education section in Center of Excellence for Science and Technology integrating Mediterranean region (STIM); Faculty of Natural Sciences, University of Split.

mile@pmfst.hr

Publications:

1. **Carev, Ivana**; Maravić, Ana; Ilić, Nada; Čikeš Čulić, Vedrana; Politeo, Olivera; Zorić, Zoran; Radan, Mila: UPLC-MS/MS Phytochemical Analysis of Two Croatian Cistus Species and Their Biological Activity // *Life*, **10** (2020), 7; 112-125 doi:10.3390/life10070112
2. Politeo, Olivera; **Carev, Ivana**; Veljaca, Anita: Phytochemical composition, antiradical and anticholinesterase potentials of *Centaurea alba* and *Centaurea jacea* volatile oils // *Croatica chemica acta*, **92** (2019), 1; 1-5 doi:10.5562/cca3458
3. Ana Maravic, Tomislav Rončević, Lucija Krce, Nada Ilić, Borivoj Galić, Vedrana Čikeš Čulić, **Ivana Carev**: Halogenated boroxine dipotassium trioxohydroxytetrafluorotriborate K₂[B₃O₃F₄OH] inhibits emerging multidrug-resistant and β -lactamase-producing opportunistic pathogens // *Drug development and industrial pharmacy*, **1** (2019), 1; 1-17 doi:10.1080/03639045.2019.1656736
4. Politeo, Olivera; Bektašević, Mejra; **Carev, Ivana**; Jurin, Mladenka; Marin Roje: Phytochemical Composition, Antioxidant Potential and Cholinesterase Inhibition Potential of Extracts from *Mentha pulegium* L. // *Chemistry & biodiversity*, **15** (2018), 1-9 doi:10.1002/cbdv.201800374
5. **Carev, Ivana**; Maravić, Ana; Bektašević, Mejra; Ruščić, Mirko; Siljak- Yakovlev, Sonja; Politeo, Olivera: *Centaurea rupestris* L. ; cytogenetics, essential oil chemistry and biological activity // *Croatica chemica acta*, **91** (2018), 1; 11-18 doi:10.5562/cca3205
6. Politeo, Olivera; Maravić, Ana; Burčul, Franko; **Carev, Ivana**; Kamenjarin, Juraj: Phytochemical Composition and Antimicrobial Activity of Essential Oils of Wild Growing Cistus species in Croatia // *Natural product communications*, **13** (2018), 6; 771-774 doi:10.1177/1934578X1801300631
7. **Carev, Ivana**; Pustahija, Fatima; Ruščić, Mirko; Siljak-Yakovlev, Sonja: Chromosome number and ploidy level in seven *Centaurea* species from Croatia // *Flora Mediterranea*, **27**(2017), 1; 289-294 doi:10.7320/FIMedit27.289
8. Bektašević, Mejra; **Carev, Ivana**; Roje, Marin; Jurin, Mladenka; Politeo, Olivera: Phytochemical Composition and Antioxidant Activities of the Essential Oil and Extracts of

- Satureja subspicata* Vis. Growing in Bosnia and Herzegovina // *Chemistry & biodiversity*, **14** (2017), 10; e1700239, 9 doi:10.1002/cbdv.201700239
9. Radan, Mila; **Carev, Ivana**; Tešević, Vele; Politeo, Olivera; Čikeš Čulić, Vedran: Qualitative HPLC-DAD-ESI-TOF-MS analysis, cytotoxic and apoptotic effects of Croatian endemic *Centaurea ragusina* L. aqueous extracts // *Chemistry & biodiversity*, **14** (2017), 9; e1700099, 9 doi:10.1002/cbdv.201700099
 10. **Carev, Ivana**; Ruščić, Mirko; Skočibušić, Mirjana; Maravić, Ana; Siljak-Yakovlev, Sonja; Politeo, Olivera: Phytochemical and cytogenetic characterization of *Centaurea solstitialis* L. (Asteraceae) from Croatia // *Chemistry & biodiversity*, **14** (2017), 2; e1600213-1 doi:10.1002/cbdv.201600213.
 11. Politeo, Olivera; Skočibušić, Mirjana; **Carev, Ivana**; Burčul, Franko; Jerković, Igor; Sarolić, Mladenka; Miloš, Mladen: Phytochemical Profiles of Volatile Constituents from *Centaurea ragusina* Leaves and Flowers and their Antimicrobial Effects // *Natural product communications*, **7** (2012), 8; 1087-1090.
 12. Jukić, Mila; Burčul, Franko; **Carev, Ivana**; Politeo, Olivera; Miloš, Mladen: Screening for acetylcholinesterase inhibition and antioxidant activity of selected plants from Croatia // *Natural product research*, **26** (2012), 18; 1703-1707, doi:10.1080/14786419.2011.602639
 13. Politeo, Olivera; Botica, Irena; Bilušić, Tea; Jukić, Mila; **Carev, Ivana**; Burčul, Franko; Miloš, Mladen: Chemical composition and evaluation of acetylcholinesterase inhibition and antioxidant activity of essential oil from Dalmatian endemic species *Pinus nigra* Arnold ssp. *dalmatica* (Vis.) Franco // *Journal of Medicinal Plants Research*, **5** (2011), 30; 6590-6596 doi:10.5897/JMPR10.289.

The whole list of publications is available here:

<https://bib.irb.hr/lista-radova?autor=314363>

<https://scholar.google.hr/citations?user=WWkRH2gAAAAJ&hl=hr>

LinkedIn: <https://www.linkedin.com/in/ivanacarev>

Additional Education:

- 2020. „Analysis and quantification of the chemical compounds in samples using GC/MS/MS; HPLC/DAD and LC/MS/MS coupled techniques“, Faculty of Chemistry and Technology, University of Split.
- 2019. "Analysis, identification and quantification of proteins coupled liquid chromatography and mass spectrometry methods" BioCenter, Zagreb, Croatia.
- 2016. "10th summer school: Mass Spectrometry in Biotechnology and Medicine" (MSBM), Dubrovnik, Croatia.
- 2014. Scholarship of French Biochemical Society for participation in FEBS EMBO conference in Paris, France
- 2013–2015. Instrumentalia&Waters Analytical Solutions workshops: „From preparation to LCMS/MS analysis"; New trends in LC i LC-MS/MS Analysis, Split.
- 2013: Workshop on Intellectual Property and Rights, Split Technology Transfer Office and European IPR Helpdesk, Split.

Other projects and activities:

Higher Education Quality Assurance projects

- 2016 -18. University of Split: Erasmus+: "Developing organizational and financial models for including non-formal sector qualifications in National Qualifications Frameworks", University of Split, partners from Ireland, Poland, Czech Republic, France and Scotland.
- 2014-15. University of Split: trainer in the training and piloting recognition and validation of nonformal and informal learning on the EU funded project "Competitive Croatian Higher Education for Better Employment", developed by Agency for Science and Higher Education.
- 2016. University of Zagreb, Croatia, Agency for Science and Higher Education: consultant and member re-accreditation committee for quality assurance of doctoral studies.
- 2015 -16. University of Split, Croatia: expert in training of teachers and development of new curriculum through the project "Modern Competences for Modern Gymnasium", EU funded project, ESF fund.
- 2014. University of Split: „Self-Management"; „Career-Building"; „Leadership" and „Professional Effectiveness"; project "The modernization of doctoral education through the implementation of the Croatian Qualifications Framework (MODOC)", EU funded.

Service-Learning projects and development of student's soft skills:

- 2019-20. SEA EU European University of the Sea, EU funded initiative: member of a working group for service – learning.
- 2018-20: Practical-Active-Together-Interdisciplinary! – Service learning programs for the environment and sustainable development; Association for Nature, Environment and Sustainable Development Sunce and University of Split. International project, Croatia - Germany; funded by the European Social Fund.
- 2016-18: "Students learn citizenship - Service-Learning for nature conservation and environmental protection developed by Association for Nature, Environment and Sustainable Development Sunce and Deutsche Gesellschaft fuer Umwelteziehung at University of Split (DGU) International project, Croatia - Germany.
- 2014. – 2019. "Basic Skills Workshop"; workshop on self development, self presentation, CV and cover letter writing with preparation for a job interview, supported by Croatian Chemical Society and ALUMNI KTF, Faculty of Chemistry and Technology, University of Split.

Science popularization projects:

- 2017-2018, University of Split, School of Medicine: Team member on project "A healthy diet – science or science fiction?" funded by Ministry of Science and Education of Republic of Croatia.
- 2013. – 2015. University of Split: Researchers Night Croatia, HORIZON 2020 project.
- 2009- - 2019. University of Split: Festival of Science.
- 2009. – 2020. University of Split: Open Day of Faculty of Chemistry and Technology.

Teaching, mentoring and lectures:

- **2009 – 2020. Teaching in Biochemistry lab work and seminars:**
 - Department of Biochemistry, Faculty of Chemistry and Technology
 - graduate and undergraduate studies of Chemistry
 - graduate and undergraduate studies of Chemical Engineering
 - undergraduate studies of Food Processing
 - integrated graduate studies of Pharmacy
 - Department of Health Studies, University of Split
 - undergraduate health studies
 - School of Medicine, University of Split
 - integrated graduate studies of Medicine
 - integrated graduate studies of Stomatology

- **Mentor in following the students generation's progress** at Faculty of Chemistry and Technology in academic year: 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 i 2017/18, 2018/19, 2019/20.

- **2009 -2020. Mentor in practical work at final Bachelor and Master thesis:**
 1. Katarina Jovanović: Cytotoxic activity of sesquiterpene lactones cynaropicrin and costunolide, 2020., Master thesis, Faculty of Chemistry and Technology, Split.
 2. Marina Velić: Review of methods in cytogenetics, 2020. Bachelor thesis, Faculty of Chemistry and Technology, Split.
 3. Franka Delonga: The role of catalase in cells, 2020. Bachelor thesis, Faculty of Chemistry and Technology, Split.
 4. Zvonimir Jažo: Cytotoxic activity of sage (*Salvia officinalis* L.) and immortelle (*Helichrysum italicum* (Roth) G. Don.) essential oils, 2019. Master thesis, Faculty of Chemistry and Technology, Split.*
 5. Klaudia Tutek: Selection of biologically active components from plant extracts, 2019. Master thesis, Faculty of Chemistry and Technology, Split.*
 6. Tutek, Klaudia: The chemical composition and anticholinesterase activity of the essential oils from Dalmatian pyrethrum plant, 2017., Bachelor thesis, Faculty of Chemistry and Technology, Split.
 7. Anita Veljača: Antioxidant and acetylcholinesterase inhibitory potential of eighth *Centaurea* species, 2015. Bachelor thesis, Faculty of Chemistry and Technology, Split.*
 8. Brahović, Ivana: Superoxide Radical Scavenging Properties of Volatile Compounds from Plants of *Centaurea* Genus by New WST Method, 2014. Master thesis, Faculty of Chemistry and Technology, Split.
 9. Jurišić, Mia: Expression of Superoxide dismutase Enzyme in Animal Tissues in Stress Condition, 2014. Master thesis, Faculty of Chemistry and Technology, Split.
 10. Tea Vukić: Chemical and biological profile of nonvolatile chemical compounds from *Cistus* species, 2013., Master thesis, Faculty of Chemistry and Technology, Split.
 11. Irena Žderić: Chemical composition of volatile extracts from *Cistus* species, 2013., diplomski rad, Master thesis, Faculty of Chemistry and Technology, Split.

12. Marija Novokmet: *Edraianthus pumilio* (Portensschl.) DC.: The chemical and biological profile, 2011. Master thesis, Faculty of Chemistry and Technology, Split.
13. Petra Tomasović: *Campanula Portenschlagiana* Schult.: A chemical and biological profile, 2011. Master thesis, Faculty of Chemistry and Technology, Split .
14. Joško Barbarić: Biological activity of volatile compounds from Dalmatian black pine *Pinus nigra* ssp. *dalmatica*, 2010., Master thesis, Faculty of Chemistry and Technology, Split.
15. Jelena Gojsalić: Kinetic studies for the acetylcholinesterase-catalyzed hydrolysis of acetylcholin iodide, 2010. Master thesis, Faculty of Chemistry and Technology, Split.
16. Tadijana Vrdoljak: Antioxidant and antiacetylcholinesterase activity of artichoke extracts, 2010., Master thesis, Faculty of Chemistry and Technology, Split.
17. Gorana Jakus: Biological activity of extracts from fennel and sea fennel, 2010., Master thesis, Faculty of Chemistry and Technology, Split.
18. Ajduković, Petra: Acetylcholinesterase inhibition and antioxidant activity of extracts from willow bark (*Salix alba* L.) and dandelion (*Taraxacum officinale* Web.), 2009. Master thesis, Faculty of Chemistry and Technology, Split.
19. Lejla Ferhatović: Biological activity of volatile compounds of *Asteraceae* family, 2009., Master thesis, Faculty of Chemistry and Technology, Split.

**Work has been published as a scientific article in international double-blinded peer review journal or awarded for excellence by Rector's award.*

- 2020. Scientific lecture for Croatian Chemical Society Split: "Phytochemical profile of selected *Centaurea* species (*Asteracea*).
- 2020. "Personalized Medicine Inquiry-Based Education" (PROMISE), ERASMUS project; educator.
- 2020, Private primary school Harfa
 - Associate Teacher in Science workshops
 - member of School Board.
- 2016. – 20: number of popular-scientific lectures for Split – Dalmatia County Expert Board in the processes of professional lifelong learning for primary and high-school teacher in Chemistry, Biology, Physics of Split-Dalmatia County.
- 2019. Plenary lecture at 6 th International Conference and Workshop 'Plant – the source of research material', Lublin, Poland: Carev Ivana: "Plant secondary metabolites: case of *Centaurea* genus."
- 2005-2009. Professor of Biology and Chemistry in several schools in Split area.

Peer review process:

- 2020. Member of Editorial Board in „Plants“, (ISSN 2223-7747; CODEN: PLANCD) an international, scientific, peer-reviewed, open access journal published monthly online by MDPI.
- Industrial Crops and Products (2020)
- Scientia Pharmaceutica (2018)
- Botanica Serbica (2018)
- Chemistry & Biodiversity (2018-2020)

Membership

- Croatian Society of Molecular Biologists and Biochemists:
 - active member 2009- today.
 - member of Education Board, 2020-today.
- Croatian Society of Chemists, Zagreb and Split:
 - active member, 2009-today.
- Alumni of Faculty of Chemistry and Technology, Split:
 - active member 2013-today.
 - member of Managing board, 2015-2019.
- Association for Nature, Environment and Sustainable Development Sunce, Split:
 - active member, 2005-today.
 - member of Managing Board, 2019-today.
- Association of Pregnant Women and Parents, Split (APWP):
 - active member 2007-today.
 - member of Managing Board (2012-today).
 - Breastfeeding advisor for parents
 - Mentor for a breastfeeding advisors of APWP Split
 - Coordinator of the volunteering counseling in breastfeeding in APWP Split
- Croatian Mountaineering Club "Ante Bedalov", Kaštel Kambelovac
 - active member 2013. – today.
 - member of Executive Board, 2014-today).
 - lecturer in a hiking school 2013-2019.
 - leader of a hiking school in 2019.

Other skills

Languages: Croatian (native); English (fluent); French (beginner), Italian (beginner).

Driving licence B

Interests and hobbies

- Painting
 - Solo exhibition in Town of Split's library, 2020.
 - Solo exhibition "First flight", NGO Mi, Split, 2019.
 - Group exhibitions in Town of Split's Library 2018 and 2019.
 - Instagram page: <https://www.instagram.com/art.nscience/>
- Hiking