

## HORIZON 2020 - Partner Profile Form Expression of Interest

### 1) ORGANISATION INFORMATION

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|---|---|
| <b>Organisation name<br/>(English)</b>  | University of Rijeka<br>School of Medicine  |
| <b>Organisation name<br/>(Croatian)</b>   | Sveučilište u Rijeci<br>Medicinski fakultet   |
| <b>Organisation acronym<br/>(English)</b>   | medri   |
| <b>Organisation acronym<br/>(Croatian)</b>  | medri   |
| <b>Organisation address</b>   | Brace Branchetta 20,<br>51 000 Rijeka<br>Croatia  |
| <b>Organisation website</b>   | <a href="http://www.medri.hr">http://www.medri.hr</a>   |
| <b>Type of organisation<br/>(Enterprise, SME, Academic,<br/>Research institute, Public<br/>body, Other - specify)</b> | Academic/Research institution   |
| <b>Department/Unit/<br/>Laboratory</b>  | Department of Chemistry and Biochemistry  |
| <b>Contact person<br/>(incl. Title)</b>   | Full Professor Čedomila Milin, PhD  |
| <b>Position (Function)</b>  | Chair of Department of Chemistry and<br>Biochemistry<br>Vice Dean for Postgraduate University Study<br>Sanitary Engineers   |
| <b>Telephone number</b>   | +385 51 651 135   |
| <b>Fax number</b>   | +385 51 678 895   |
| <b>E-mail address<br/>personal pages</b>  | <a href="mailto:cedomila.milin@medri.uniri.hr">cedomila.milin@medri.uniri.hr</a><br><a href="http://www.medri.uniri.hr/~cedo/cv.html">http://www.medri.uniri.hr/~cedo/cv.html</a> |

### Description of the organisation (up to 500 characters)

The School of Medicine is a public higher education institution that as part of Rijeka University organises university and professional courses, and develops educational and scientific activities in the biomedical and healthcare areas.

### Description of the department/unit/laboratory (up to 500 characters)

The Department of Chemistry and Biochemistry is a multidisciplinary department providing quality education in different domains, offering professional services of waste water testing and conducting interdisciplinary research. Selected research lines are Nutrition and Health, Health and Environment, Management of Inflammatory Bowel Disease and Polymer Science.

## 2) SPECIFIC INTEREST (Call, Topic) and EXPERTISE OFFERED

### Relevant topic(s) in the Work Programme (Thematic area, Call, Topic)

#### Societal Challenge 2 - Call for Sustainable Food Security

H2020-SFS-2015-1 Sub call of: H2020-SFS-2014-2015

- SFS-14b-2015: Authentication of food products

AND

H2020-SFS-2014-2 Sub call of: H2020-SFS-2014-2015

- SFS-14a-2014: Authentication of olive oil

### Description of the expertise offered related to the topic (up to 1000 characters)

Department of chemistry and biochemistry has the expertise in:

➤ **olive oil chemical analysis:**

- acidity, peroxide value and UV absorption
- methyl esters of FATTY ACIDS, composition and content of STEROLS (cholesterol, brassicasterol, campesterol, stigmasterol,  $\beta$ -sitosterol,  $\Delta$ -sitosterol) and ALIPHATIC ALCOHOLS, SATURATED FATTY ACIDS IN THE POSITION 2 OF TRIACYLGLYCEROLS, SQUALENE and  $\alpha$ -TOCOPHEROL by Gas Chromatography and Flame Ionisation Detection (GC-FID)
- determination of TRIACYLGLYCEROL composition in terms of their equivalent carbon number and the TRILINOLEIN composition by High Performance Liquid Chromatography and refractive index detection (HPLC-RI)

➤ **analysis/techniques applicable for olive oil characterisation:**

- determination of residues of neonicotinoid PESTICIDES in the soil, oil and biological tissues by HPLC-UV/VIS
- trace and heavy METAL analysis in the soil and biological tissues by Inductively Coupled Plasma Spectroscopy (ICP) and Atomic Absorption Spectroscopy (AAS)
- measuring the antioxidant capacity/oxidative stability by Electron Paramagnetic Spectroscopy (EPR)
- assessment of phase transition by Differential Scanning Calorimetry (DSC)

➤ **we can provide olive oil samples from autochthonous Croatian cultivars**

### Keywords describing the expertise offered related to the topic (up to 10 words)

**olive oil chemical analyses, pesticide and metal analyses, Croatian autochthonous cultivars**

### Experience in previous Framework Programmes (participation in projects) (Thematic area, Call, Topic, Project full title & acronym, Role in the project)

**Experience of cooperation with the industry - incl. SMEs  
(Programme, Thematic area, Project full title & acronym, Type of cooperation)**

1999 – 2005: **Primorsko-Goranska County Program for Revitalisation of Olive Cultivation and Olive Oil Processing** (*Program praćenja revitalizacije i razvoja maslinarstva i prerade maslina u Primorsko-goranskoj županiji*) funded by the Primorsko-Goranska County, Republic of Croatia.

- new data on the chemical characterization of the **typical virgin olive oils** produced from various olive cultivars in the northern Adriatic region (**Debela, Naska, Rosulja, Slatka, Plomina, Buga, Carbonera, Bianchera, Leccino**).

1999 – 2001: **Scientific cooperation program between the Italo-Croatian National Institute of Nutrition (INN) and the University of Rijeka**

- identifying the optimum period for olive fruit harvesting based on the physico-chemical characteristics of olives and olive oil from local Croatian mono-cultivars

2001 – 2005: **Food testing laboratory recognized by the Croatian Ministry of Health**

- chemical analyses of locally produced olive oils

**I agree to have this partner profile (expression of interest) published and shared**

**YES**