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HORIZON 2020 - Partner Profile Form
Expression of Interest

1) ORGANISATION INFORMATION

Organisation name (English)	**Rudjer Boskovic Institute**
Organisation name (Croatian)	**Institut Ruđer Bošković**
Organisation acronym (English)	**RBI**
Organisation acronym (Croatian)	**IRB**
Organisation address	**Bijenicka 54, Zagreb, Croatia**
Organisation website	**www.irb.hr**
Type of organisation (Enterprise, SME, Academic, Research institute, Public body, Other - specify)	**Research institute**
Department/Unit/ Laboratory	**Department of Molecular Biology/Laboratory of evolutionary genetics**
Contact person (incl. Title)	**Dr. sc. Đurđica Ugarković**
Position (Function)	**Head of Laboratory**
Telephone number	**+385-1-4561197**
Fax number	**+385-1-4561117**
E-mail address	**ugarkov@irb.hr**

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Description of the organisation (up to 500 characters)

Ruđer Bošković Institute is the largest Croatian research centre in sciences and science applications. In the multi-disciplinary environment of the Institute more than 500 academic staff and graduate students work on problems in physics, chemistry, molecular biology and medicine, environmental research and computer science and electronics. Within Croatia, RBI is a national institution dedicated to research, higher education and provision of support to the academic community and to technology-based industry.

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

Laboratory of Evolutionary Genetics has long tradition in investigation of noncoding satellite DNA structure, function and evolution. The research team is very well trained in basic molecular biological methods and techniques as well as in bioinformatics involving statistical analysis of DNA sequences, phylogenetics, comparative and evolutionary genomics. The Laboratory is very well equipped for experimental and bioinformatic work.

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

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

Thematic areas: Health, environment, food, biotechnology,
Topic: Metagenomics as innovation driver, H2020-LEIT-BIO-2015-1, BIOTEC-6-2015

MARIE SKŁODOWSKA-CURIE ACTION: INNOVATIVE TRAINING NETWORKS (ITN), H2020-MSCA-ITN-2014

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

Our research aim is to understand the molecular mechanisms by which environment influences (hetero)chromatin structure and dynamics. The special emphasis is given to the role of dispersed non-coding repetitive elements (satellite DNA-related) in the regulation of protein-coding genes' expression. We use the following techniques: bisulfite sequencing; analysis of histone marks by ChiP and confocal microscopy; real-time qPCR; high-throughput analysis of small RNAs; Hybridization (Northern, Southern, in situ), pulsed-field gel electrophoresis; in vitro system for genetic alterations: siRNA

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

Epigenetics, heterochromatin, repetitive DNA, non-coding RNAs, histone methylation, DNA methylation, gene expression

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

1. EC FP6 Marie Curie Transfer of Knowledge Project "Structural and functional analysis of noncoding heterochromatic DNA in insect Tribolium castaneum" (2006-2010, coordinator Đ. Ugarković)
2. EC FP6 Network of Excellence "The Epigenome" (2004-2009, associate member Đ. Ugarković)
3. FP7 Network of Excellence "EpiGeneSys" (2011-2015): WP4: Signalling to the Epigenome: project "Non-coding RNA and environmental adaptation" (associate member Đ. Ugarković),

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

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

YES