

1. Raziskovalna organizacija (*Research organisation*):

Univerza v Ljubljani, Biotehniška fakulteta  
*University of Ljubljana, Biotechnical Faculty*

2. Ime in priimek mentorja (*Name and surname of a mentor*):

Jasna Bertoncej

3. Področje znanosti iz šifranta ARRS (*Primary research field*):

4.02 Živilska produkcija in predelava  
*4.02 Animal production*

4. Kontaktni e-naslov mentorja (*Contact of a mentor*):

jasna.bertoncej@bf.uni-lj.si

5. Kratek opis programa usposabljanja (*Short description of the program*):

SLO

Usposabljanje mladega raziskovalca/ke (MR) bo potekalo na Katedri za tehnologijo mesa in vrednotenje živil Oddelka za živilstvo Biotehniške fakultete v okviru programske skupine Integrirano živilstvo in prehrana (P4-0234). Področje raziskav bo usklajeno z raziskavami v okviru programske skupine.

V programu usposabljanja se bo kandidat ukvarjal s problematiko določanja prehranske vlaknine (PV). PV je heterogena skupina spojin, kot so celuloza, hemiceluloza, pektin, oligosaharidi, beta-glukani, inulin, rezistentni škrob, z različnimi kemijskimi in fiziološkimi lastnostmi. Za PV so bile razvite številne definicije in analitske metode v zadnjih desetletjih, posledica so pogosto nasprotujoči si podatki o vsebnosti PV v živilih, ki so dostopni v znanstveni literaturi in podatkovnih bazah o sestavi živil. Te pa se uporabljajo za delo na področju znanosti o hrani in prehrani, pri epidemioloških raziskavah, razvoju novih živilskih izdelkov, označevanju živil in v prehranski politiki. Zato problematika določanja PV v živilih ostaja aktualna in zahteva nove pristope v analitiki.

MR bo v sklopu raziskav kritično ovrednotil različne AOAC metode za določanje vsebnosti skupne PV, kot tudi topne in netopne PV in posameznih komponent PV (rezistentnega škroba in posameznih nizkomolekularnih komponent PV) v izbranih skupinah živil. MR bo na podlagi ugotovitev tudi ocenil kakovost (zanesljivost) podatkov o vsebnosti PV v živilih v slovenski in tujih podatkovnih bazah o sestavi živil. Dodatno bo ovrednotil vnos PV pri izbrani populacijski skupini prebivalcev Slovenije.

V času usposabljanja se bo MR naučil samostojnega planiranja eksperimentalnega dela, kritičnega razmišljanja in objektivnega ovrednotenja ter predstavitve znanstvenih rezultatov.

ANG

Training of young researcher will be held at the Chair of meat technology and food assessment at the Department of Food Science and Technology, Biotechnical Faculty within the research programme Integrated Food technology and nutrition (P4-0234). The research work of candidate will be in accordance with researches conducted under the programme.

During the training young researcher will focus on the complex field of the dietary fibre (DF) determination. DF is a heterogeneous group of compounds, such as cellulose, hemicellulose, pectin, oligosaccharides, beta-glucans, inulin, resistant starch, with different chemical and physiological properties. For DF several definitions and analytical methods were developed over the past decades,

sometimes resulting in conflicting information about the reported food DF content in the scientific literature and food composition databases that are used for food and nutrition research, epidemiological studies, development of new food products, food labelling and nutrition policies. Therefore, the problem of DF determination in foods remains a challenge and requires new approaches to analysis.

Young researcher will critically evaluate various AOAC methods for determination of the total DF, as well as soluble and insoluble DF, and individual components of DF (resistant starch and low molecular weight dietary fibres) of selected food groups. Based on the findings the quality (reliability) of the data about DF content in foods in Slovenian and foreign food composition databases will be assessed. Further, the DF intake in a selected Slovenian population group will be evaluated.

During the training young researcher will learn about independent planning of experimental work, critical thinking and objective evaluation and presentation of scientific results.