Dear Editor-in-Chief

Dr. Olgica Nedić

We are sending You a corrected manuscript “Fatty acid composition including trans-fatty acids in salty snack foods from Serbian market” written by the authors Jasmina Timić, Ivana Đuričić, Danijela Ristić-Medić and Slađana Šobajić. We have made a list of all corrections that we have made in the text according to your comments and suggestions.

Best regards

Jasmina B. Timić

2nd April 2018.

**Answers to the comments made by reviewer D:**

1. **General comments/suggestions:
I think that an abbreviation section should be added at the beginning of the
article. It will be much simpler to understand each part of the article.**

We have included the abbreviation section at the beginning of the article (page 2)

**Answers to the comments made by reviewer E:**

1. **Is the quality of the figures (including legends and axes labelling)
satisfactory?:       no**

Resolution for our figures is 600 dpi which is above the recommended minimum horizontal and vertical resolution of 300 dpi.

1. **Corrections of English language :**

We have changed word „reach“ to „rich“ (page 2)

We have changed word „Malysia“ to „Malaysia“ (page 2)

1. **53 – and Portugal (ref9)**

We have added the reference for Portugal (page 2)

1. **62 – ref for the few studies should be given.**

We have included 2 new references:

1. M. Barać, M. Kresojević, B. Špirović-Trifunović, M. Pešić, T. Vučić, A. Kostić, S. Despotović, *Mljekarstvo* **68** (2018) 37
2. S. Kravić, N. Marjanović,  Z. Suturović,  J. Švarc-Gajić,  Z. Stojanović, M. Pucarević,   *Acta Alimentaria* **39** (2010) 413 (page 3)
3. **Corrections of English language**

We have corrected the term „productsalso” to “products also” (page 10)

1. **TFA are not considered “Nutrients” and are not included in the
most recent European labelling legislation (they cannot be labelled).**

Reviewer E is correct, tFAs are not considered nutrients and in EU, as well as in Serbia, they are not included into nutritional tables. However, due to their well-established negative health effects, many countries and international bodies such as EFSA are considering new strategies to decrease their intake in general population. Some of the proposed methods are mandatory labelling of tFA content on foods (Canada has already applied this method), mandatory limits for tFAs in foods (applied in Denmark and Austria) or voluntarily product reformulation.

We have made correction in the last sentence of the conclusion and mentioned one of these new strategies (page 14):

*Better education about importance of healthy eating habits and mandatory limiting of tFA content in final products are two strategies that could be used in improving dietary habits.*

1. **113 Why chloroform for fat extraction? Method basis?**

 We have added text to the Experimental Section / Total fat content in order to explain the use of chloroform for the fat extraction (page 5):

*Total fat content was determined gravimetrically, after chloroform extraction, according to the modified Soxlet method14, recognized by the Analytical Chemists Association as standard method for analyzing the content of total lipids in samples of plant and animal origin. About 10 g of homogenized sample was extracted for 4-5 hours. Chloroform (min. 99 % purity, provided from Sigma-Aldrich,* [*St. Louis, Missouri*](https://en.wikipedia.org/wiki/St._Louis%2C_Missouri)*, USA) is one of commonly used non-flammable non-polar organic solvents for total fat extraction. Results were expressed in %.*

1. **Why only C18:1 - 9t and C18:2 - 9t, 12t were identified? And only these were
quantified? This could represent a reduction on actual contents because
other isomeric forms are usually present and a 100m column is able to
distinguish them. Please include a chromatogram as example for a more clear
understanding on what was quantified as tFA.**

C18: 1 - 9*t* and C18: 2 - 9*t*, 12*t* were the only identified *trans*-isomers presented in measurable concentrations in our analyzed samples of salty snack products, and that is also supported with similar studies. We have mentioned this in the Results&Discussion Section on page 10:

*Only two trans-isomers, elaidic (C18:1 - 9t) and linolelaidic fatty acids (C18:2 - 9t, 12t), were identified in 38 out of 58 analyzed snack products (Tables II-IV).*

We have also included chromatogram showing detected *trans-* isomers (page 13).

1. **How was the FID calibrated?**

The flame-ionization detector (FID) was calibrated according to the type of method applied for fatty acids analysis in selected matrix. We added such explanation to the text:

*For the applied method FID detector was calibrated under the following conditions: FID detector temperature was 270 °C , makeup gas N2; H2 flow-30 ml/min; air flow- 400 ml/min; make-up flow-25 ml/min. (page 6)*

1. **Based on table 1 it seems that the only fat source in cracker was palmolein.
Is this true? All the samples list all the possibilities for fat sources?
Because the results gave a high amount of TFA when the fat source is not
expected to have them. Or it includes also non-labelled sources? This should
be made clearer.**

Table 1 listed the type and content of all fats/oils in analyzed products that were mentioned on food labels.

1. **252-258 – the FA increase under processing is very small in comparison
with the results expected from a source of fat. This should be made clear
and not used as justification for the huge amount of tFA found in some
unexpected samples. The 6% mentioned or the presence of high tFA in palm
products can solely be mislabelling.**

Since inadequate or incomplete labeling of all ingredients can not be excluded we have added such comment in the Results&Discussion Section (page 12):

*In our investigation expanded rice and rice cakes are rare products with no added fats that had average tFAs content of 6.2 % which could be explained with the effect of expanding process on the basic ingredients. In the group of clipsy and flips products only palm oil or palm fats were listed on the labels but these products had surprisingly high levels of tFAs which points to the fact that the conditions of the production process also significantly affect tFAs formation, but, like in expanded products, can also indicate possible incomplite or inadequate labeling of ingredients.*

1. **The intake seems to have been calculated on a 100g basis. Although uniform,
for potential ingestion it should be calculated on a dose basis. For ships,
for instance, or cracked snacks, it is usually more near 30g, not 100g. What
was the basis for the dose decision? This can alter in a huge way the
estimated ingestion and potential risk…**

Taking into account the fact that salty snack products analyzed in our study included a full range of different weights, from 20 grams to 250 grams, for calculations of tFA intake an average weight of 100 grams was taken.

**All changes made in the manuscript are marked with red bold letters.**