#### **CURRICULUM VITAE**

### PERSONAL DETAILS

Name: **Harun Kurtagić**, Ph.D.

Date of birth: 22.01.1964

Nationality: Bosnian

Address: Osik 409, 71 210 Ilidža, Bosnia and Herzegovina

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#### WORK EXPERIENCE

2017 – present **Professor of Biochemistry and AnalyticalChemistry,** Faculty of Pharmacy and

Health, Travnik, Bosnia and Herzegovina

 Responsible for organizing conducting lectures, overseeing exams and developing lecture and coursework materials

Mentoring of MSc and PhD students

- Regular member of a PhD and MSc committees

2012 – present **Head of Department of Foodstuff Control** in Laboratory of Federal Institute for

Agriculture Sarajevo, Bosnia and Herzegovina

Responsible for managing staff, finances and performance of department

 Personally developed, validated and accredited important methods for food&feed analysis (e.g.pesticide residues in fruits and vegetables, cow milk, HMF in bee honey and diastase in bee honey)

- Actively participated in setting up new methods in laboratory analysis

Responsible for department system accreditation EN/ISO 17025

2006–2012 **Expert associate for residue of pesticides**in Department for Foodstuff Control of FederalInstitute for Agriculture Sarajevo, Bosnia and Herzegovina

 Overall responsibility for development and implementation of methodologies for for food&feed analysis of pesticide residues in fruits

and vegetables by GCMS and LCMS/MS Agilent equipment's and setting up methods for fatty acids analysis

 Actively participated in setting up new methods in other laboratory analysis and managed laboratory data analysis

Senior Associate for quality control of raw materials and finished products in Department of Quality Control in Pharmaceutical Company BosnalijekDD Sarajevo, Bosnia and Herzegovina

 Developed and verified methods for Thin Layer chromatography by CAMAG equipment for substances in finished pharmaceutical forms
 Evaluated and verified methods for FT NIR method identification ofraw materials by Perkin Elmer equipment in Pharmaceutical Industry
 Managed particle size analysis by Particle Sizer Analyser of Malvern
 Responsible for HPLC analysis by equipment Shimadzu

2000 - 2004 **Head of In –process quality control** in Department of Quality Control in Pharmaceutical Company BosnalijekDD Sarajevo, Bosnia and Herzegovina

- Responsible for managing staff, materials and work of department
- Actively participated in setting up ISO 9001 and ISO 14001 Certification in Bosnalijek Company
- Responsible for equipmentin dealing with In-process quality control for all forms in Pharmaceutical Industry of Bosnalijek

**Associate for In- process quality control of finished products** in Department of Quality Control in Pharmaceutical Company Bosnalijek DD Sarajevo, Bosnia and Herzegovina

 Responsible In-process quality control for all forms in Pharmaceutical Industry of Bosnalijek and related scientific equipment

**Technologist for Chemical Synthesis** in Pharmaceutical Company Bosnalijek Sarajevo, Bosnia and Herzegovina

 Responsible for chemical synthesis of vitamin B1 in cooperation with Swedish Astra Company using various chemical reactions and methods of separation (extraction, destilation, chromatography, etc.)

#### **EDUCATION**

1989 - 1992

1998 - 2000

2017 – present **Professor of Biochemistry and Analytical Chemistry** in Faculty of Pharmacy and Health, Travnik, Bosnia and Herzegovina

### 2008 – 2015 **PhD, Biological Sciences**

Faculty of Science and Mathematics, University of Sarajevo, Bosnia and Herzegovina

Biology Department: Ecology

Thesis: Flavonoids as bio indicators of pollen contents and ecological quality of honey from Bosnia and Hezegovina

Based on given resultsit can be concluded that the hypothesis of this doctoral thesis was confirmed. It has been shown that specific Bosnian honey contains flavonoids quercetin and naringenin, regardless of geographical or botanical origin. General conclusion is that Bosnian bee honey is very healthy for consumers.

# 1991 – 2003 MSc, Chemical Science

Faculty of Science and Mathematics, University of Sarajevo, Bosnia and Herzegovina

Chemistry Department: Organic and Biochemical analytics

Thesis:Influence of particle size on the degree of dissolution of active ingredients in some drugs, which was conducted in Bosnalijek pharma company Sarajevo

# 1984 – 1989 Bachelor's degree in Chemical engineering

Faculty of Science and Mathematics, University of Sarajevo, Bosnia and Herzegovina

Chemistry Department: Phisical Chemistry

Harun Kurtagić, PhD - CV

PROFESSIONAL SKILLS AND KNOWLEDGE Expertin dealing with most analytical methods and scientific and research equipment with special skills in chromatography, mass spectrometry and spectroscopic analytical techniques using in drug and food analysis

MAIN SCIENTIFIC RESEARCH FIELDS

Pesticide residues in food&feed, Flavonoids, Pollen Analysis, Traditional Medicine, Phytochemicals, Antioxidant Activity, Natural Product Chemistry,

Phytochemical Analysis, Chromatography, Natural Product Pharmacology, Soxhlet

Extraction, Natural Chemistry, Agricultural Chemistry, Medicinal and

Pharmaceutical Chemistry, Anthocyanins, Physicochemical Analysis, Metabolite

Identification

Present SCIENTIFIC ACTIVITY

Active member of European Cooperation for Science and Technology (COST) –

COST CA 22105 BeSafeBeeHoney

**LANGUAGES** Bosnian – Native

English - Fluent German- Advanced Russian - Basic

**HOBBIES** Spending time with friends and family, riding a bike, history and geography

OTHERS
PROFESSIONAL SKILLS

(with Certificate)

HPLC Shimadzu LC-10 System

AND KNOWLEDGE

TLC (Thin Layer Chromatography) Scanner 3 with software win Cats CAMAG

FT NIR Perkin Elmer instrumentwithAssured System FT-IR spectrometer Spectrum 1000 – Perkin Elmer

pH metre SEVEN EASY Multymeter ISO/IEC 17025:2005 / internal Auditor

Pelkin Elmer Egipments: UV/Vis Lambda 25; AAS Analyst 100; GC Autosystem

Particle size analyses in pharmaceutical Industry - PSA mastersizer 2000 Malvern

XL

HPLC Agilent 1200

MSD Chemstation and LC Chemstation software Agilent Validation of Chromatographic Analytical Methods

LCMSMS- u Agilent 1260 Infinity, 6420 tiple Quad / Method development and validation of pesticide residues by LCMSMS- u Agilent 1260 Infinity, 6420 triple

Quad

BAS EN ISO 9001:2015

New technics of Karl Fischer method

EN/ISO 17025:2017 - Reporting of results/statements of conformity

### **BIBLIOGRAPHY**

# Original scientific papers:

- 1. Ismet Tahirovića \*, **Harun Kurtagić**<sup>b</sup>, Narcisa Smječanin<sup>a</sup>, Aldina Aldžić-Baltić<sup>c</sup>, Zehrina Bajramović<sup>a</sup>, Jasmin Toromanović<sup>c</sup>, Amira Čopra-Janićijević<sup>a</sup>, Muamer Dizdar<sup>a</sup>, Nermin Buza<sup>d</sup> (**2023**). Correlations of flavonoids content and antioxidant activity in bee honey from Bosnia and Herzegovina. Emirates Journal of Food and Agriculture. 35(4): 262-270.
- 2. Harun Kurtagić, Edita Sarić, Nevzeta Abdelfattah and Nađa Muratbegović (2021). Determination of Hydroxymethylfurfural Content (HMF) in Fresh Bee Honey Produced in Bosnia and Herzegovina (B&H) by HPLC DAD Method. *International Journal of Environmental Sciences & Natural Resources*, 26 (5): 175-180.

- 3. Viktor Landeka<sup>1</sup>\*, **Harun Kurtagić**<sup>1</sup>, Jovica Pažin<sup>1</sup>, Edita Sarić<sup>1</sup> (**2021**). Determination of honey quality in the context of physico-chemical and microbiological data in Bosnia and Herzegovina. Croatian Journal of Food Technology, Biotechnology and Nutrition vol.16 (1-2), 2021
- 4. Kahrović, Emira, Adnan Zahirović, Aleksandar Višnjevac, Irnesa Osmanković, Emir Turkušić and **Harun Kurtagić**. "Chalcone and Flavonol Copper(II) Complexes Containing Schiff Base Co-Ligand: Synthesis, Crystal Structures and Catecholase-like Activity." *Croatica Chemica Acta*, 91(2), (2018): 1-13.
- 5. **Harun Kurtagić**<sup>1</sup>, Erna Skenderović<sup>2</sup>, (**2017**) Quality determination of honey produced in Bosnia and Herzegovina (B&H) based on phisico-chemical data, Book of abstracts and full papers from second congressof beekeeping and bee products with international participation BEEKEEPING AND BEE PRODUCTS, 2(1): 84 89.
- 6. **Harun Kurtagić**, (**2017**) Polyphenols and flavonoids in honey- review paper. Food in Health and Disease, scientific professional journal of nutrition and dietetics, 6(1): 28 -35. Review paper.
- 7. **Kurtagić** H.<sup>a</sup>, Čopra-Janićijević A.<sup>b</sup>, (**2016**) Determination of Pesticide Residues in Honey using GC-MS Techniques, Bulletin of Chemists and Technologists of Bosnia and Herzegovina, 46: 39 42.
- 8. **H. Kurtagić**<sup>1</sup>, M. Memić<sup>2</sup>& S. Barudanović<sup>2</sup>, (**2016**) Determination of type of honey produced in the different climatic regions of Bosnia and Hezegovina, International Journal of Environmental Science and Technology, 13(11): 2721 -2730.
- 9. **Harun Kurtagić**<sup>1</sup>, Senka Barudanović<sup>2</sup> and Velida Durmić<sup>2</sup> (**2015**) Determination of Rutin, Quercetin, Naringenin and Hesperetin in the Honey from Bosnia and Herzegovina(B & H) in Relation to the Composition of Pollen, Journal of Environmental Science and Engineering A, 4 (12): 615-622.
- 10. Karalija E.a, **Kurtagić H.b**, Parić A.a\* (**2014**) Kinetin Induced Changes in Rutin content in *Knautia sarajevensis* (G. Beck) Szabó Shoot Cultures, Bulletin of Chemists and Technologists of Bosnia and Herzegovina, 42: 45 48.
- 11. **Kurtagić** H., Redžić S., Memić M., Sulejmanović J. (**2013**) Identification and Quantification of Quercetin, Naringenin and Hesperetin by RP LC DAD in Honey Samples from B&H, Bulletin of Chemists and Technologists of Bosnia and Herzegovina, 40: 25 30.
- 12. **Kurtagic H**., Memić M., Selović A. (**2013**) Effect of particle size on the dissolution of glibenclamide, International Journal of Pharmacy and Pharmaceutical Sciences, Vol 5 (3): 775 -779.

## Congress communications in the form of posters and abstracts:

- 1. **Harun Kurtagić**\* Determination of the content of hydroxymethylfurfural (HMF) in fresh bee honey produced in Bosnia and Herzegovina (B&H) by HPLC DAD method, Book of Abstracts, H29 General Food of Analysis, 9<sup>th</sup> International Symposium on Recent Advances in Food Analysis, Prague Czech Republic, 5-8 November 2019.
- 2. **Harun Kurtagić**\*Xenobioticsas a danger of bee honey toxicity, Proceedings and abstracts from the third congress on beekeeping and bee products with international participation, 4 5 (2018), Bihać 2018.
- 3. Amna Bijedić<sup>1</sup>, **Harun Kurtagić**, Technological quality of pomegranate marmelade on the market of Mostar, 1<sup>st</sup> International Balkan Chemistry Congress (M6-PS1-19285), 17-20 September 2018, Edirne, Turkiye.
- 4. **Kurtagić H.**, Redžić S., Đelilović M. (2011). International Conference of Medical and Aromatic plants in generating of new values in 21<sup>st</sup> century, Academy of Sciences and Arts of Bosnia and Herzegovina, Simultenious Determination of some flavonoids in some honey by RP LC DAD. Book of Abstracts 18: 254 255.
- 5. MANDAL, Sacira, CAUSEVIC, Adlija, VELIJA ASIMI, Zelija, **KURTAGIC**, **Harun**, ABDELFATTAH, Nevzeta, ADILOVIC, Muhamed, BRKOVIC, Esad, SEMIZ, Sabina. Association of free fatty acids with leptin in newly diagnosed Type 2 diabetes. *42nd FEBS CONGRESS*, *Biochemistry for Tomorrow's Medicine*, *September 03-08,2016*, *Kusadasi*, *Turkey*, The FEBS Journal 2016; 283(1): 244.
- 6. **Harun Kurtagić**<sup>1</sup>, Suad Habeš<sup>2</sup>, Erna Skenderović<sup>3</sup> (2016) Quality assessment of honey produced in Bosnia and Herzegovina (B&H) based on physico–chemical data. Congress of Bosnian-Herzegovinian American Academy of Arts and Sciences (BHAAAS), Neum, BiH, 26. 29. May 2016. Oral presentation.
- 7. BuzaN., Subašić M., **Kurtagić H.**, Toromanović J., Tahirović I. (2014) Quantification of proline in samples of honey using HPLC ED. 1<sup>st</sup> Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, B&H, 10-12. October, PP-BB-09.
- 8. Redžić S., **Kurtagić H.**, Prazina N., Tuka M., Avdagić T. (2011) The antimicrobial activity of honey in relation to the composition of pollen (Bosnia-Herzegovina, W. Balkan). Planta Medica 12 (77): 1259–SL62.

- 9. Šaciragić B.S., Redzić S., **Kurtagić H**. (2011) The contents of heavy metal (Pb, Cd and Zn) in plant Taraxacum officinale Weber. Planta Medica 12 (77): 1365 PJ12.
- 10. Redžić S., **Kurtagić H.**, Sejdić N., Palić A. (2011) Plant pigments in some medical plants of family *Lamiaceae* (Bosnia and Herzegovina, W. Balkans). Planta Medica, 12 (77): 1388 PL63.

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- 2. A. Bijedić<sup>1</sup>, A. Mičijević<sup>1</sup>, **H. Kurtagić<sup>1</sup>**, H. Omanović<sup>1</sup> (2016). VII International Scientific Agriculture Symposium "Agrosym 2016", Jahorina, 2016. Bosnia &Herzegovina. Physical and Chemical characteristics of floral, meadow and forest honey in the area of Goražde municipality (Bosnia and Herzegovina). Book of Proceedings, 1295 1298.
- 3. **Kurtagić H.**, Salman N. (2012) Methodology for control of pesticide residues in and on food in the context of European directives. IX symposium for plant protection in Bosnia and Herzegovina, Plant Protection Society in Bosnia and Herzegovina; Teslić, 06-08. November 2012. Oral presentation, Proceedings, 105 106.

#### Books:

1. **Harun Kurtagić (2024).** Flavonoids as Key Medicinal Components in Honey, Cambridge Scolars Publishing, ISBN (10): 1-5275-7576-4

## Reviewer of scientific papers:

- 1. **Food Chemistry (2023)**, Electrochemical biosensor based on NAD(P)H-dependent Quinone Reductase for rapid and efficient detection of vitamin K3, Majd Khalife<sup>1</sup>, Dalibor Stankovic<sup>2</sup>, Vesna Stankovic<sup>3</sup>, Julia Danicka<sup>1,4</sup>, Francesco Rizzotto<sup>1</sup>, Vlad Costache<sup>1</sup>, Anny Slama Schwok<sup>5</sup>, Philippe Gaudu<sup>1</sup>, Jasmina Vidic<sup>1</sup>,\*, FOODCHEM-D-23-04036R1.
- 2. **Food Chemistry** (2023), Effects of Various Extraction Conditions on Phenolic Compounds in Turkish Pine Honey, Huseyin Sahin1\*, Ayca Aktas Karacelik1, Kaan Kaltalioglu1, FOODCHEM-D-23-01659.
- 3. Cogent Food & Agriculture (2022), Physico-chemical and microbiological characteristics of honey produced by stingless bees from the Oromia Region, Ethiopia, Teferi Damto\*, Deresa Kebeba, Meseret Gemeda, COGENTAGRI-2022-1108.
- 4. **Food Chemistry** (2022), Multiresidue analysis of pesticides in four different pomegranate cultivars: investigating matrix effect variability by GC-MS/MS and LC-MS/MS, Rahul Damale1,2†, Anirban Dutta3†, Nasiruddin Shaikh1†, Anita Pardeshi1, Raviraj Shinde1, Kaushik Banerjee1\* FOODCHEM-D-22-05763.
- 5. **Food Chemistry (2022),** A Comprehensive Quality Evaluation and Lipase Inhibitory Activity of Different Grades of Sennae Folium Integration of UPLC-Q-TOF/MS and MS/MS-Based Mass Spectral Molecular Networking. D. Zhang, L. Guo et all. Manuscript number: FOODCHEM-D-22-00741.
- 6. **Food Chemistry** (2020), Comprehensive approach for simultaneous analysis of all main water-soluble vitaminsin multivitamin preparations by stability-indicating HPLC-DAD method, Žane Temova Rakuša, Andrej Grobin, Robert Roškar\*, Manuscript Number: FOODCHEM-D-19-06053.
- **7.** Food Chemistry(2019), Cross sectional study of Lead traces in honey samples of SAN LUIS (ARGENTINA) using a spectrofluorimetric method, María Carolina Taliob, Mariano Acostaa, Liliana P. Fernández1 a,b. Manuscrip No. FOODCHEM-D-18-06994.
- 8. **Food Chemistry (2019)**, A simple, accurate and sensitive analytical strategy for propoxurdetermination in raisin samples using gas chromatography-masss spectrometry with matrix matching method after vortex assisted dispersive liquid-liquid microextraction and assessment of green profile, Tülay Borahana, Zeynep Tekina, Buse Tuğba Zamana, Dotse Selali Chormeya, Sezgin Bakirderea\*, FOODCHEM-D-19-01492.

- **9. Infrared Physics &Technology** (2017), VIS/NIR Imaging Application for Honey Floral Origin Determination, Saied Manaia, Ashamed Shaniera\*, Gerri Polder, Nasrallah Moghadam-Charkaric, Saskia van Ruthde, Mohsen Barzegarf, Javad Zahirig, Martin Alewijne, Piotr M. Kuśdh, Manuscrip No. INFPHY\_2017\_217.
- **10. Journal of Apicultural Research** (**2016**), A review of methods for honey sensory analysis, Gian Luigi Marcazzan, Carla Mucignat, Carla Marina Marchese, Lucia Piana, Manuscrip No. TJAR-2016-0098

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