



## PERSONAL INFORMATION

## ZAUUU, John-Lewis Zinia



Kumasi-Ghana

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Sex Male | Date of birth 28/11/1990 | Nationality Ghanaian

## WORK EXPERIENCE

Current Occupation (November, 2021 – Present)

## Lecturer

Department of Food Science & Technology, Kwame Nkrumah University of Science & Technology

## Role

- Chairman of Laboratory Committee, Department of Food Science and Laboratory, KNUST
- Spearheading research in food quality
- Expert in food and pharmaceutical analysis with Near Infrared Spectroscopy and electronic tongue
- Expert in chemometric modelling and multivariate data analysis for food quality control
- Thesis supervision
- Teaching and mentoring
- Taught courses: Research Design and Implementation, Food Analysis, Food Additives, Food Modelling, Food Preservation
- Project managements

Current Occupation (July, 2021 – Present)

Researcher  
Independent

## Role

- Spearheading research in food quality
- Pioneer member of the Food fraud research team at the Department of Measurement and Process and Control, Hungarian University of Agriculture and Life Sciences
- Expert in food and pharmaceutical analysis with Near Infrared Spectroscopy and electronic tongue
- Expert in chemometric modelling and multivariate data analysis for food quality control
- Masters student supervision and thesis review (Supervised 4 masters thesis)
- Teaching R studio statistical tools to undergraduate and master's students
- Teaching process control and quality management to undergraduate and master's students
- Peer reviewer for 15 journals from Wiley, Elsevier, Taylor and Francis, Springer and MDPI publishers
- Project managements

June, 2016 – September, 2017

## Freelance Researcher (Food Science and Technology)

## Role

- Peer reviewer for the Journal of the Institute of Brewery (impact factor journal)
- Project facilitator for the Building Stronger Universities (BSU) Gari facility improvement
- Food business consultancy
- Educating the public on aflatoxin control in maize products
- Proof reading and review of thesis and other journal manuscripts
- Marketing baked products from favour company
- Training of sensory panellists
- Assistance in student thesis and project supervision
- Tutorials
- Mentoring of students

January, 2016 – July, 2016

## Voluntary Services



Department of Food Science and Technology, Kwame Nkrumah University of Science and Technology, KNUST-Kumasi.

### Role

- Aflatoxin extraction and quantification in the mycotoxin lab
  - Organizing laboratory practical for both postgraduate and undergraduate students
  - Assistance in student supervision
  - Assisting lecturers in research and preparing lecture notes
  - Assisting students with their final year project and laboratory works
  - Performing field surveys and data analysis
  - Physico-chemical and nutritional analysis of food products
  - Organization of research seminars, conference and workshops
  - Peer review of manuscripts for journal publication
  - Writing and reviewing research proposals for the department
- Government Institution (University)

September, 2014 – January, 2016

### Graduate Projects and Research Assistance

Department of Food Science and Technology, Kwame Nkrumah University of Science and Technology, KNUST-Kumasi. Government Institution (University)

#### Role: Team Leader: Preliminary Research on food fraud in Kumasi and Tamale markets

- Designed and Implemented systematic research approaches
- Compiled research results
- Prepared report, abstract and conference presentation

#### Role: Team Coordinator: Effects of Climate Change on crops in Northern Ghana

- Data collection and project supervision

#### Role: Team Member: Nutritional value of bread baked from composite wheat flour and cassava flour

- Dough preparation and laboratory analysis of flour samples. Sensory analysis of the baked bread
- Laboratory analysis on baked bread: Proximate, bulk density, water and oil absorption etc

#### Role: Team Member: Impact of low-quality water on the nutritional safety of vegetables grown in Kumasi

- Data collection (questionnaires) and 5 markets in Kumasi
- Data analysis using the @RISK statistical tool

September, 2013 – August, 2014

### National Service

Volta River Authority Hospital Pharmacy, Akosombo, E/R-Ghana

#### Role: Quality Analyst

- Conducting quality checks on drug stocks
- Keeping stock of new drugs, expired drugs and emergency drugs
- Attending drug safety workshops
- Recording drug reactions and allergy symptoms from patients
- Data entry records for the national health insurance scheme (NHIS) for refund

Government Institution (Health facility)

February, 2013 – June, 2013

### Internship

Office National de Sanitaire et de Sécurité Alimentaire, Casablanca, Morocco

#### Role: Laboratory Technician

- Validating histamine levels in fish products by spectrophotometry
- Extraction of histamine using affinity chromatography
- Microbial analysis of food products
- Monitoring and ensuring proper stacking of quality compliant supplies
- Maintaining adequate housekeeping and reporting damages and unsafe situations
- Ensuring compliance with quality procedures and safety signs

Government Research institution (Biochemistry department)

## EDUCATION AND TRAINING



September, 2017- July, 2021

## PhD Food Science

Hungarian University of Agriculture and Life Sciences, Budapest campus, Department of Measurement and process control, Institute of Food Science

**Thesis:** Application of Electronic Tongue and Near Infrared Spectroscopy to Detect Adulteration of Some Foods with High Economic Value

September, 2013 – June, 2016

## Master of Science Degree in Food Science and Technology

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

**Thesis:** Processing methods, microbial and aflatoxin analysis of pito (an indigenous African beer) at selected sites in Ghana

### Some courses

- Food engineering, Food Processing Technology, Sensory Evaluation of Foods, Statistical Methods for Research, Food Packaging, Advanced Postharvest Technology, Fermentation, Food Chemistry, Food Analysis, Advanced Microbiology, Quality Assurance, Food Additives and Preservatives, Food Safety and Toxicology.

August, 2008 – May, 2012

## Bachelor of Science Degree in BioAnalysis and Quality (Second Class Division)

Université Hassan II, Mohammedia, Morocco

**Thesis:** Validation de l'histamine dans le produit pêche par spectrofluorimetry (Validation of histamine in fish products using spectrometry)

### Some courses

- Biochemistry, Microbiology, Chemistry (organic and inorganic), Pharmacology, Research and Analytical Methods, Bio-Industrial professional qualification, Toxicology, Probability and statistics, cellular and molecular biology, Thermodynamics, ICT, plant and animal biology, Quality and Bio-Industrial technology, Cellular and Molecular Biology, Thermodynamics

## PERSONAL SKILLS

**Mother tongue(s)** Dagaare (A language in Nandom, Upper West Region, Ghana)

**Other language(s)**

English and French

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English and French	B2	C1	C1	B2	C1
Certificate of Proficiency in English and French					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

**Communication skills**

A good listener, emotional awareness, able to manage stress, good communication and presentation skills, recognizing and understanding of some non-verbal communication. All gained through:

- My university education, conference and poster presentations and Taking leadership positions in team research projects

**Organisational / managerial skills**

Integrity, Action planning to save time and effort, coordinating resources, Time management and ability to supervise and mentor. All gained through:

- Leadership positions (where I coordinated research teams)
- Coursework and project works in undergraduate and postgraduate levels
- Graduate/Teaching and Research Assistantship

**Job-related skills**

Proactive, Resilient, curious, dynamic, fast learner, problem solver, some secretarial skills, teamwork and ability to work with little supervision, supervise and teach. All gained through:

- Leadership positions taken in undergraduate and postgraduate levels
- Coursework in my first and second degree
- Graduate/Teaching and Research Assistantship



## Computer skills/Statistical tools

R Studio  
 SPSS (Statistical Package for Social Sciences)  
 AtRisk  
 XLstat  
 Microsoft Office tools: Word, Excel, PowerPoint and Publisher.

## Other skills

- Proposal writing, Data gathering and Analysis
- Drawing and handling budget
- Arrange social functions and run or chair meetings
- Training and workshop planning
- Adaptability (keen to try new approaches employs agile thinking, flexible and open to change)
- Innovative and Creative (intellectual curiosity, proven problem solver)
- Accountability (ensures work quality, organisational skills)

Q-ranked and Impact Factor  
Journal Publications

1. Sohn, Soo-In, Subramani Pandian, Young-Ju Oh, **John-Lewis Zinia Zaukuu**, Yong-Ho Lee, and Eun-Kyoung Shin. 2022. "Discrimination of Brassica juncea Varieties Using Visible Near-Infrared (Vis-NIR) Spectroscopy and Chemometrics Methods" *International Journal of Molecular Sciences* 23, no. 21: 12809. <https://doi.org/10.3390/ijms23211280>. **Q1, IF: 6.208**
2. Nath, Arijit, Burak A. Eren, **John-Lewis Zinia Zaukuu**, András Koris, Klára Pásztorné-Huszár, Emőke Szerdahelyi, and Zoltan Kovacs. 2022. "Detecting the Bitterness of Milk-Protein-Derived Peptides Using an Electronic Tongue" *Chemosensors* 10, no. 6: 215. <https://doi.org/10.3390/chemosensors10060215> **Q2, IF: 3.398**
3. **Zaukuu, John-Lewis Z.**, Eszter Benes, György Bázár, Zoltán Kovács, and Marietta Fodor. 2022. "Agricultural Potentials of Molecular Spectroscopy and Advances for Food Authentication: An Overview" *Processes* 10, no. 2: 214. <https://doi.org/10.3390/pr10020214>. **Q2, IF: 2.847**
4. Sohn, Soo-In, Subramani Pandian, Young-Ju Oh, **John-Lewis Z. Zaukuu**, Chae-Sun Na, Yong-Ho Lee, Eun-Kyoung Shin, Hyeon-Jung Kang, Tae-Hun Ryu, Woo-Suk Cho, and Youn-Sung Cho. 2022. "Vis-NIR Spectroscopy and Machine Learning Methods for the Discrimination of Transgenic Brassica napus L. and Their Hybrids with B. juncea" *Processes* 10, no. 2: 240. <https://doi.org/10.3390/pr10020240>. **Q2, IF: 2.847**
5. Aouadi, Balkis, Flora Vitalis, Zsanett Bodor, **John-Lewis Zinia Zaukuu**, Istvan Kertesz, and Zoltan Kovacs. 2022. "NIRS and Aquaphotomics Trace Robusta-to-Arabica Ratio in Liquid Coffee Blends" *Molecules* 27, no. 2: 388. <https://doi.org/10.3390/molecules27020388>. **Q2, IF: 4.412**
6. Sohn, Soo-In, Subramani Pandian, **John-Lewis Z. Zaukuu**, Young-Ju Oh, Soo-Yun Park, Chae-Sun Na, Eun-Kyoung Shin, Hyeon-Jung Kang, Tae-Hun Ryu, Woo-Suk Cho, and Youn-Sung Cho. 2022. "Discrimination of Transgenic Canola (*Brassica napus* L.) and their Hybrids with *B. rapa* using Vis-NIR Spectroscopy and Machine Learning Methods" *International Journal of Molecular Sciences* 23, no. 1: 220. <https://doi.org/10.3390/ijms23010220>. **Q1, IF: 5.92**
7. Sohn, Soo-In, Young-Ju Oh, Subramani Pandian, Yong-Ho Lee, **John-Lewis Z. Zaukuu**, Hyeon-Jung Kang, Tae-Hun Ryu, Woo-Suk Cho, Youn-Sung Cho, and Eun-Kyoung Shin. 2021. "Identification of Amaranthus Species Using Visible-Near-Infrared (Vis-NIR) Spectroscopy and Machine Learning Methods" *Remote Sensing* 13, no. 20: 4149. <https://doi.org/10.3390/rs13204149>. **Q1, IF: 4.848**
8. Surányi, József, **John-Lewis Z. Zaukuu**, László Friedrich, Zoltan Kovacs, Ferenc Horváth, Csaba Németh, and Zoltán Kókai. 2021. "Electronic Tongue as a Correlative Technique for Modeling Cattle Meat Quality and Classification of Breeds" *Foods* 10, no. 10: 2283. <https://doi.org/10.3390/foods10102283>. **Q1, IF: 4.350**
9. Sohn, Soo-In, Subramani Pandian, Young-Ju Oh, **John-Lewis Z. Zaukuu**, Hyeon-Jung Kang, Tae-Hun Ryu, Woo-Suk Cho, Youn-Sung Cho, Eun-Kyoung Shin, and Byoung-Kwan Cho. 2021. "An Overview of Near Infrared Spectroscopy and Its Applications in the Detection of Genetically Modified Organisms" *International Journal of Molecular Sciences* 22, no. 18: 9940. <https://doi.org/10.3390/ijms22189940>. **Q1, IF: 5.92**
10. **Zaukuu, John-Lewis Zinia.**; Gillay, **Zaukuu, John-Lewis Zinia.**; Gillay, Zoltan. 2021. "Standardized Extraction Techniques for Meat Analysis with the Electronic Tongue: A Case Study of Poultry and Red Meat Adulteration" *Sensors* 21, no. 2: 481. <https://doi.org/10.3390/s21020481>. **Q1, IF: 3.576**
11. Tjandra Nugraha, David; **Zaukuu, John-Lewis Zinia.**; Aguinaga Bósquez, Juan P.; Bodor, Zsanett; Vitalis, Flora; Kovacs, Zoltan. 2021. "Near-Infrared Spectroscopy and Aquaphotomics for Monitoring Mung Bean (*Vigna radiata*) Sprout Growth and Validation of Ascorbic Acid Content" *Sensors* 21, no. 2: 611. <https://doi.org/10.3390/s21020611>. **Q1, IF: 3.576**



12. **Zaukuu, John-Lewis Zinia**; Aouadi, Balkis; Lukács, Mátyás; Bodor, Zsanett; Vitális, Flóra; Gillay, Biborka; Gillay, Zoltan; Friedrich, László; Kovacs, Zoltan. 2020. "Detecting Low Concentrations of Nitrogen-Based Adulterants in Whey Protein Powder Using Benchtop and Handheld NIR Spectrometers and the Feasibility of Scanning through Plastic Bag" *Molecules* 25, no. 11: 2522. <https://doi.org/10.3390/molecules25112522>. **Q1** , **IF: 4.411**
13. Kovacs, Zoltan; Bodor, Zsanett; **Zaukuu, John-Lewis Zinia**; Kaszab, Timea; Bazar, George; Tóth, Tamás; Mohácsi-Farkas, Csilla. 2020. "Electronic Nose for Monitoring Odor Changes of Lactobacillus Species during Milk Fermentation and Rapid Selection of Probiotic Candidates" *Foods* 9, no. 11: 1539. <https://doi.org/10.3390/foods9111539>. **Q2**, **IF: 4.350**
14. Kovacs, Zoltan; Szöllősi, Dániel; **Zaukuu, John-Lewis Zinia**.; Bodor, Zsanett; Vitális, Flóra; Aouadi, Balkis; Zsom-Muha, Viktória; Gillay, Zoltan. 2020. "Factors Influencing the Long-Term Stability of Electronic Tongue and Application of Improved Drift Correction Methods" *Biosensors* 10, no. 7: 74. <https://doi.org/10.3390/bios10070074>. **Q2**, **IF: 5.519**
15. Sipos, László; Végh, Rita; Bodor, Zsanett; **Zaukuu, John-Lewis Zinia**.; Hitka, Géza; Bázár, György; Kovacs, Zoltan. 2020. "Classification of Bee Pollen and Prediction of Sensory and Colorimetric Attributes—A Sensometric Fusion Approach by e-Nose, e-Tongue and NIR" *Sensors* 20, no. 23: 6768. <https://doi.org/10.3390/s20236768>. **Q1**, **IF: 3.576**
16. Vitalis, Flora; **Zaukuu, John-Lewis Zinia**.; Bodor, Zsanett; Aouadi, Balkis; Hitka, Géza; Kaszab, Timea; Zsom-Muha, Viktoria; Gillay, Zoltan; Kovacs, Zoltan. 2020. "Detection and Quantification of Tomato Paste Adulteration Using Conventional and Rapid Analytical Methods" *Sensors* 20, no. 21: 6059. <https://doi.org/10.3390/s20216059>. **Q1**, **IF: 3.576**
17. Aouadi, Balkis; **Zaukuu, John-Lewis Zinia**.; Vitális, Flora; Bodor, Zsanett; Fehér, Orsolya; Gillay, Zoltan; Bazar, George; Kovacs, Zoltan. 2020. "Historical Evolution and Food Control Achievements of Near Infrared Spectroscopy, Electronic Nose, and Electronic Tongue—Critical Overview" *Sensors* 20, no. 19: 5479. <https://doi.org/10.3390/s20195479>. **Q1**, **IF: 3.576**
18. **Zaukuu, John-Lewis Zinia**, Zsanett Bodor, Flora Vitalis, Victoria Zsom-Muha, Z Kovacs. Near infrared spectroscopy as a rapid method for detecting paprika powder adulteration with corn flour. *Acta Periodica Technologica*. Pages 346-352 (2019) <https://doi.org/10.2298/APT1950346Z>. **Q4**, **IF: 0.20**
19. **Zaukuu, John-Lewis Zinia**, George Bazar, Zoltan Gillay, Zoltan Kovacs. Emerging Trends of Advanced Sensor Based Instruments for Meat, Poultry and Fish Quality— A Review. *Critical Reviews in Food Science and Nutrition*. <https://doi:10.1080/10408398.2019.1691972>. **D1**, **Q1**, **IF: 11.176**
20. **Zaukuu, John-Lewis Zinia**, Soós János, Zsanett Bodor, Felföldi, József, Ildikó Magyar, Zoltan Kovacs. Authentication of Tokaj Wine (Hungaricum) with The Electronic Tongue and Near Infrared Spectroscopy. *Journal Of Food Science*. <https://doi:10.1111/1750-3841.14956>. **Q2**, **IF: 3.167**
21. Dzenifer Németh , Gabor Balazs, Hussein G. Daood, Zoltan Kovacs, Zsanett Bodor, **Zaukuu, John-Lewis Zinia**, Viktor Szentpeteri, Zoltan Kokai and Noemi Kappel. Standard Analytical Methods, Sensory Evaluation, NIRS and Electronic Tongue for Sensing Taste Attributes of Different Melon Varieties. *SENSORS* (2019), 19, 5010; <https://doi:10.3390/s19225010>. **Q1**, **IF: 3.576**
22. Bodor; Csilla, Benedek; Timea, Kaszab; **Zaukuu, John-Lewis Zinia**; István, Kertész ; Zoltan, Kovacs. Classical and correlative analytical methods for origin identification of Hungarian honeys. *Acta Alimentaria: An International Journal Of Food Science* 50 (4). Pages 346-352 (2019) <https://doi.org/10.2298/APT1950346Z> - **Q3**, **IF: 0.65**
23. **Zaukuu, John-Lewis Zinia**., Oduro Ibok., Ellis, William.Otoo., (2016), Processing methods and microbial analysis of pito (an African indigenous beer) at selected production sites in Ghana. *Journal of The Institute Of Brewery*, Vol. 122, Issue 4. PAGES 736-744. <https://doi:10.1002/jib.373>. **Q4**, **IF: 1.759**

#### Non-Impact Factor Journal Publications

1. Zsanett, **Zaukuu, John-Lewis Zinia** Viktória Muha Zsom, Zoltán Gillay, László Baranyai, and Zoltan Kovacs. "The Second Aquaphotomics European Conference." *NIR News* 31, no. 3–4 (June 2020): 12–18. <https://doi.org/10.1177/0960336020910075>.
2. Dzenifer Németh, Németh, D., Balázs, G., Bodor, Z., **Zaukuu, John-Lewis Zinia**., Kovács, Z., & Kappel, N. (2020). Food quality attributes of melon (*Cucumis melo* L.) influenced by grafting, *Progress in Agricultural Engineering Sciences Progress*, 16(S1), 53-66. Retrieved Mar 1, 2021, from <https://akjournals.com/view/journals/446/16/S1/article-p53.xml>
3. Bodor Zsanett, **Zaukuu, John-Lewis Zinia**, Timea Kaszab, Anikó Lambert-MereteiMahmoud, Said Rashed, Zoltan Kovacs, Csilla Mohácsi Farkas, Eszter Vozáry (2020). Monitoring Lactobacillus Bulgaricus Growth in Yoghurt by Electrical Impedance. In: Bertemes-Filho P. (eds) 17th International Conference on Electrical Bioimpedance. ICEBI 2019. IFMBE Proceedings, vol 72. Springer, Singapore. [https://doi.org/10.1007/978-981-13-3498-6\\_24](https://doi.org/10.1007/978-981-13-3498-6_24)





4. Bodor, Z. and Ghdir, C. and **Zaukuu, J.L.Z.** and Benedek, Cs. and Kovacs, Z. (2019) Detection of heat treatment of honey with near infrared spectroscopy. HUNGARIAN AGRICULTURAL ENGINEERING, 36. pp. 57-62. ISSN 0864-7410 (print); 2415-975. <http://doi.org/10.17676/HAE.2019.36.57>
5. **Zaukuu, J.L.Z.** and Bodor, Z. and Laryea, D. and Wireko-Manu, F. and Vitalis, F. and Zsomné Muha, V. and Gillay, Z. and Kovacs, Z. (2019) Spectroscopy as a rapid detecting paprika powder adulteration. HUNGARIAN AGRICULTURAL ENGINEERING, 36. pp. 38-43. ISSN 0864-7410 (print); 2415-9751 (online). <http://doi.org/10.17676/HAE.2019.36.38>
6. Aouadi, B. and **Zaukuu, J.L.Z.** and Gillay, Z. and Gillay, B. and Fodor, M. and Kovacs, Z. (2019) Quantification of multiple adulterants in beef protein powder by FT-NIR. HUNGARIAN AGRICULTURAL ENGINEERING, 36. pp. 44-50. ISSN 0864-7410 (print); 2415-9751. <http://doi.org/10.17676/HAE.2019.36.44>
7. Bodor., Z., Koncz, F. A., **Zaukuu, J. L. Z.**, Kertész, I., Gillay, Z., Kaszab, T., Kovács, Z., Benedek, Cs. (2018) Effect of heat treatment for chemical, and sensory properties of honeys. Animal Welfare, Etology and Housing Systems. 13(2), 39- 48. <https://doi:10.17205/SZIE.AWETH.2017.2.039>
8. Kaszab, Tímea and Szigeti, F. and Bodor, Zsanett and **Zaukuu, John-Lewis Zinia** and Rashed, M. S. and Mohácsi-Farkas, Csilla and Kovács, Zoltán (2018) Monitoring of probiotic and non-probiotic Lactobacillus strains' growth by different physico-chemical parameters. In: Researched Risk Factors of Food Chain. Szent István Egyetemi Kiadó, Gödöllő, pp. 61-66. ISBN 9789632697758. <http://real.mtak.hu/id/eprint/101115>
9. F. A. Koncz, Zs. Bodor, T. Kaszab, I. Kertész, **J. L. Z. Zaukuu**, Cs. Benedek, Z. Gillay. Z. Kovacs (2017), Prediction of Main Analytical and Physical Parameters of Honey with Electronic Tongue. Journal Of Hungarian Agricultural Engineering, Vol 32/2017, pages 38-43. HU ISSN 0864-7410 (Print) / HU ISSN 2415-9751(Online). <https://doi:10.17676/HAE.2017.32.38>
10. Frances Wendy Grant, Ibok Oduro, Faustina D Wireko-Manu and **John-Lewis Z Zaukuu (2017)**, A Traditional Biscuit Fortified with Orange-Fleshed Sweet Potato Puree and Cowpea Flour. Food Science And Nutrition Technology ISSN: 2574-2701. Volume 2, Issue 2, Pages 2 - 11

#### Book Chapter Publications

1. Benedek, C., **Zaukuu, J.-L. Z.**, Bodor, Z., Zoltan, K. Honey - based polyphenols: extraction, quantification, bioavailability and biological activities. In PLANT- BASED FUNCTIONAL FOODS AND PHYTOCHEMICALS: Traditional Knowledge to Present Innovation. Apple Academic Press. ISBN 9781003055419. <https://doi.org/10.1201/9781003055419>
2. Bodor, Z., Benedek, C., Zoltan, K., **Zaukuu, J.-L. Z.**, - Identification of botanical and geographical origin of honey based on polyphenols. In PLANT-BASED FUNCTIONAL FOODS AND PHYTOCHEMICALS: Traditional Knowledge to Present Innovation. Apple Academic Press. ISBN 9781003055419. <https://doi.org/10.1201/9781003055419>
3. **Zaukuu, J.-L. Z.** Bodor Z., Zoltan K. Innovative plant-based food and medicine adulteration techniques and their advanced detection methods: Innovations in Plant Science for Better Health: From Soil to Fork. *Currently in the press:* Apple Academic Press. ISBN: 9781774914540. <https://www.appleacademicpress.com/sustainable-and-functional-foods-from-plants-/9781774914540>
4. Damian Laryea, Sarah Theodora Esi Mills, Charles Dapuliga **Zaukuu, J.-L. Z.** Millet: new horizons for food and nutrient security. Innovations in Plant Science for Better Health: From Soil to Fork. *Currently in the press:* Apple Academic Press. ISBN: 9781774914540. <https://www.appleacademicpress.com/sustainable-and-functional-foods-from-plants-/9781774914540>
5. Charles D., **Zaukuu, J.-L. Z.**, Damian L., Yaw G.A., Faustina W., Ibok O. Glycemic index of root and tuber crops and its increasing relevance in diet. Innovations in Plant Science for Better Health: From Soil to Fork. *Currently in the press:* Apple Academic Press. ISBN: 9781774914540. <https://www.appleacademicpress.com/sustainable-and-functional-foods-from-plants-/9781774914540>
6. Damian Laryea, Sarah Theodora Esi Mills, Charles Dapuliga **Zaukuu, J.-L. Z.** Millet: food diversification and effects of processing techniques. Innovations in Plant Science for Better Health: From Soil to Fork. *Currently in the press:* Apple Academic Press. ISBN: 9781774914540. <https://www.appleacademicpress.com/sustainable-and-functional-foods-from-plants-/9781774914540>
7. Bodor Z., **Zaukuu, J.-L. Z.** Balkis A., Zoltan K., Csilla B. Honey nutritional composition and its determination with different analytical methods. Innovations in Plant Science for Better Health: From Soil to Fork. *Currently in the press:* Apple Academic Press. ISBN: 9781774914540. <https://www.appleacademicpress.com/sustainable-and-functional-foods-from-plants-/9781774914540>

#### Editorial Positions



1. Guest editor for the special issue "Advances in Nutrition, Food Processing and Monitoring". MDPI-Processes. Frontiers in Nutrition, 2022. <https://www.frontiersin.org/research-topics/38427/advances-in-nutrition-food-processing-and-monitoring>.
2. Guest editor for the special issue: "Applications of Molecular Spectroscopy in Agri-Food Science and Manufacturing Processes". MDPI-Processes [https://www.mdpi.com/journal/processes/special\\_issues/Food\\_Manufacturing](https://www.mdpi.com/journal/processes/special_issues/Food_Manufacturing)

## Conference Papers

1. **John-Lewis Zinia Zaukuu**, Abena Boakye, Tenge Theophilus, Adjei-Boateng Daniel, Antoinette Simpah, Selassie Kaanan, Tetteh Eric, Lois Adofowaa, Ellis William Otoo and Ibok Oduro Developing rapid monitoring methods for fish. 4th FoodConf - International Conference on Food Science and Technology, Budapest Hungary, 10-11 June 2022. ISBN 978-615-01-5422-0.
2. Zsanett Bodor, **John-Lewis Zinia Zaukuu**, Flóra Vitális, Balkis Aouadi, Zoltan Gillay, Benedek, Csilla, Zoltan Kovacs: Application of NIRS and aquaphotomics for the detection of honey, paprika and tomato paste adulteration. Scientific Meeting for Young Researchers (ITT), 9<sup>th</sup> December, 2019, Budapest, Hungary.
3. **John-Lewis Zinia Zaukuu**, Flóra Vitális, Zsanett Bodor, Balkis Aouadi, Zoltan Gillay, Zoltan Kovacs: Authentication of tomato paste concentrate with near-infrared spectroscopy. The 2<sup>nd</sup> European Aquaphotomics Conference. 2-3 December, 2019, Budapest, Hungary. ISBN 978-963-269-848-9
4. Zoltan Kovacs, **John-Lewis Zinia Zaukuu**, Zsanett Bodor, Balkis Aouadi, Flóra Vitális, Zoltan Gillay: Aquaphotomics and its recent applications in the field of food science. The 2<sup>nd</sup> European Aquaphotomics Conference. 2-3 December, 2019, Budapest, Hungary. ISBN 978-963-269-848-9
5. Flóra Vitális, Zsanett Bodor, **John-Lewis Zinia Zaukuu**, Balkis Aouadi, Tímea Kaszab, Zoltan Kovacs: Detection of multiple adulterants in tomato paste using near infrared spectroscopy. The 2<sup>nd</sup> European Aquaphotomics Conference. 2-3 December, 2019, Budapest, Hungary. ISBN 978-963-269-848-9
6. Dzsénifer Németh, Gábor Balázs, Zoltán Kovács, Zsanett Bodor, **John-Lewis Zinia Zaukuu**, Noémi Kappel: Using NIR for sensing taste attributes of different melon varieties. The 2<sup>nd</sup> European Aquaphotomics Conference. 2-3 December, 2019, Budapest, Hungary. ISBN 978-963-269-848-9
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8. **John-Lewis Zinia Zaukuu**; Zsanett Bodor; Laryea Damian; Wireko-Manu Faustina; Flora Vitalis; Victoria Zsom-Muha; Gillay Zoltan; Zoltan Kovacs. Near Infrared Spectroscopy as a Rapid Method for Detecting Paprika Powder Adulteration with Corn Flour. VI. International Conference: Synergy in the Technical Development Engineering, Agriculture and Green Industry Innovation. Gödöllő, Hungary • November 4-6, 2019
9. Aouadi, Balkis; **John-Lewis Zinia Zaukuu**; Zoltan Gillay; Gillay, Biborka; Fodor Marietta; Zoltan Kovacs. Quantification of Multiple Adulterants in Beef Protein Powder by Ft-Nir. VI. International Conference: Synergy in the Technical Development Engineering, Agriculture and Green Industry Innovation. Gödöllő, Hungary • November 4-6, 2019
10. Zsanett Bodor; Ghdír Chiraz; **John-Lewis Zinia Zaukuu**; Benedek, Csilla; Zoltan Kovacs. Detection of heat treatment of honey with Near Infrared Spectroscopy. VI. International Conference: Synergy in the Technical Development Engineering, Agriculture and Green Industry Innovation. Gödöllő, Hungary • November 4-6, 2019
11. **John-Lewis Zinia Zaukuu**; Zsanett Bodor; Flora Vitalis; Victoria Zsom-Muha; Zoltan Kovacs. Near Infrared Spectroscopy as a Rapid Method for Detecting Paprika Powder Adulteration with Corn Flour. 1st International Conference on Advanced Production and Processing, October 10 - 11, 2019, Novi Sad, Serbia.
12. Bodor, Zsanett; **Zaukuu, John-Lewis Zinia** ; Gillay, Zoltán ; Benedek, Csilla ; Kovács, Zoltán Paradiicsom- és paprikaporok hamisításának detektálhatósága gyors módszerekkel In: Gelencsér, Éva; Lugasi, Andrea; Rurik, Imre (eds.) Táplálkozástudományi Kutatások Ix. Phd Konferencia Programja És Előadás Összefoglaló Budapest, Hungary: Magyar Táplálkozástudományi Társaság, (2019) pp. 7-7. , 1 p. Publication:30633197 Approved Core Conference paper
13. Bodor, Zsanett ; **Zaukuu, John Lewis Zinia** ; Benedek, Csilla ; Kovács, Zoltán Az elektronikus nyelv alkalmazási lehetősége mézек eredetvizsgálatában In: I. FKF Szimpózium Előadás Összefoglalók (2019) p. 36 , 1 p. Publication:30681357 Approved Core Conference paper (Abstract )
14. Bodor Zsanett; **John, Lewis Zinia Zaukuu** ; Benedek, Csilla ; Kovács, Zoltán Detection of Heat Treatment of Honey by Rapid Correlative Techniques In: International Honey, Commission - 5th International Symposium on Bee Products Book of Abstracts Sliema, Malta (2019) pp. 33-34. , 2 p. Publication:30702871 Approved Core Conference paper (Abstract )
15. Bodor Zsanett **John-Lewis Zinia Zaukuu**, Gillay Zoltán, Benedek Csilla, Kovács Zoltán Paradiicsom- és paprikaporok hamisításának detektálhatósága gyors módszerekkel. A Magyar Táplálkozástudományi Társaság és a Budapesti Gazdasági Egyetem, Kereskedelmi, Vendéglátóipari és Idegenforgalmi Kar közös



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16. Bodor, Zsanett ; **Zaukuu, John-Lewis Zinia** ; Benedek, Csilla ; Gillay, Báborka ; Gillay, Zoltán ; Kovács, Zoltán [Korrelatív, gyors módszerek fejlesztése élelmiszerhamisítás detektálására](#) (2019)
  17. **Zaukuu Z. John-Lewis**; Zsanett Bodor; Zoltan Kovacs. Authentication of Tokaj wine with aquaphotomics. The 3rd Aquaphotomics International Symposium, December 2 - 6, 2018, Osaka, Japan.
  18. Zsanett Bodor; Tímea Kaszab; **John-Lewis Zinia Zaukuu**; Zoltan Kovacs. Monitoring of Lactobacillus bacteria growth by physical parameters. Third International Conference on Food Science and Technology, Budapest, Hungary, 29 November - 1 December, 2018
  19. **Zaukuu Z. John-Lewis**; Zsanett Bodor; Zoltan Kovacs. Capabilities of The Electronic Tongue for The Authentication of Wine, Fish and Honey. Third International Conference on Food Science and Technology, Budapest, Hungary, 29 November - 1 December, 2018
  20. Bodor Zsanett, **John-Lewis Zinia Zaukuu**, Gillay Báborka, Gillay Zoltán, Kovács Zoltán Gyors mérési módszereken alapuló modellek fejlesztése élelmiszerhamisítás detektálására. ITT conference, Budapest, Hungary, 30 November, 2018
  21. **Zaukuu Z. John-Lewis**; Soós János; Ildikó Magyar; Zoltan Kovacs. Authentication of Tokaj Wines with the electronic tongue. 5th ISEKI International Conference. Stuttgart, Germany. 1-6 July, 2018. ISBN 978-3-900932-57-2.
  22. **Zaukuu Z. John-Lewis**; Soós János; Ildikó Magyar; Zoltan Kovacs. Application of The Electronic Tongue to Detect Adulteration In Selected Tokaj Wines (Hungaricum). Biosystems And Food Engineering International Conference. Budapest, Hungary. 8th June, 2018 (**BEST ORAL PRESENTATION AWARD**)
  23. **Zaukuu Z. John-Lewis**; Bodor Zsanett; Kovacs Zoltan. The potential of the electronic tongue in discriminating six compounds with basic taste characteristics. II Young Researchers International Conference on Chemistry and Chemical Engineering (YRICCCE II), Budapest, Hungary. ISBN 978-963-9970-78-6, Page 83. May 3-5, 2018
  24. **John-Lewis Zinia Zaukuu**, Görgy Bázár, Zoltán Gillay, Zoltán Kovács, Electronic Sensors and Meat Quality. 6th International Scientific Day Of Animal Breeding In Gödöllő, Hungary, November, 2017
  25. Zsanett Bodor, Fanni Adrienn Koncz, **John-Lewis Zinia Zaukuu**, István Kertész, Zoltán Gillay, Tímea Kaszab, Zoltan Kovacs, Csilla, Effect of heat treatment on chemical and sensory properties of honeys, 6th International Scientific Day Of Animal Breeding In Gödöllő, Hungary, November, 2017.
  26. F. A. Koncz, Zs. Bodor, T. Kaszab, I. Kertész, **J. L. Z. Zaukuu**, Cs. Benedek, Z. Gillay Z. Kovacs. Prediction Of Main Analytical And Physical Parameters Of Honey With Electronic Tongue. Synergy International Conferences - Engineering, Agriculture and Green Industry Innovation Gödöllő, Hungary, October 16-19. 2017
  27. **John-Lewis Zinia Zaukuu**, Stanley Boakye-Achampong, Charles Dapuliga, Damian Laryea, John Barimah, Joseph O. Darko, Ibok Oduro, Baseline assessment of the Socio-Economic conditions and production constraints of a gari facility at Anloga, Kumasi, Ghana Science Association (GSA) 6th Ghana Science Association one-day research seminar and poster presentations, KNUST, April, Ghana 2017
  28. Frances Wendy Grant, Ibok Oduro, Faustina D. Wireko-Manu, **John-Lewis Z. Zaukuu**, Fortification of a Traditional Cassava Snack with Cowpea and Sweetpotato, Ghana Science Association (GSA) 6th Ghana Science Association one-day research seminar and poster presentations, KNUST, Ghana, April, 2017
  29. Stanley Boakye-Achampong, **John-Lewis Zinia Zaukuu**, Charles Dapuliga, Damian Laryea, John Barimah, Joseph O. Darko, Ibok Oduro, upgrading an indigenous small scale gari factory at anloga-Kumasi for use as a resource centre, Building Stronger Universities (BSU II) Conference, GOLDEN BEAN-KUMASI, Ghana, March, 2017
  30. **Zaukuu, J.L.**, Oduro I., Ellis, W.O., (2016), Processing methods and microbial analysis of pito (an African indigenous beer) at selected production sites in Ghana, 5th Ghana Science Association one-day research seminar and poster presentations, held at BRRI-CSIR, Fumesua, Ghana April, 2016.
  31. **Zaukuu J.L.**, Grant F.W., Awaitey B., Adubuffour S., Gyamfi A., Alhassan K., Awudzi-yeboah M., Okyere F., Akraasi J., Abubakar Y., Akomea-frempong S., Oduro I., and Wireko-manu F., (2016), Food Fraud, is it a reality?, 1<sup>st</sup> National Conference on of Food Fraud, KNUST, Ghana April, 2016. (**BEST ORAL PRESENTATION AWARD**)
  32. Abubakari Y., **Zaukuu, J.L.**, Oduro I., Ellis, W.O., (2016), Aflatoxin assessment in peanut butter samples from Northern Ghana, 5th Ghana Science Association one-day Research Seminar and Poster Presentations, held at BRRI-CSIR, Fumesua, Ghana April, 2016.

## Certificates

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1. **Certificate of top downloaded paper in the Journal of Food Sciences (Wiley publishers).** 4<sup>th</sup> May, 2020
2. **Certificate of training in sensory analysis I and sensory analysis II** by the sensory laboratory of Szent Istvan University (now Hungarian University of Agriculture and Life Sciences), 4<sup>th</sup> May, 2018





3. **Best Oral Presentation**; Biosystems And Food Engineering International Conference. Budapest, Hungary. 8th June, 2018
4. **Certificate of Merit** for the short course – Water and Sanitation. Organized by KNUST and DANIDA at KNUST- Kumasi, April, 2016
5. **Certificate of Appreciation** for your active and invaluable participation in the “5-Day training on Food scape studies at KNUST”, 15<sup>th</sup> – 19<sup>st</sup> February, 2016, organised by DANIDA and KNUST.
6. **Certificate of Achievement**, online course “AuthorAID Course in Research Writing, 25<sup>th</sup> November 2015.
7. **Certificate of Honour “BEST ORAL PRESENTATION”**, the 4<sup>th</sup> Research Seminar and Poster Presentation organized by the Ghana Science Association (GSA), April, 2015.
8. **Certificate of Participation** 8<sup>th</sup> Annual GRASAG-KNUST Research conference with the theme “A search for sustainable Development” organised the Graduate school and Graduate Students Association (GRASAG), KNUST, April, 2015
9. **Certificate of Participation, Short course in Food Extrusion Technology**, 6<sup>th</sup> – 9<sup>th</sup> August, 2014, Organized by Department of Food Science and Technology, KNUST and Premium Foods Limited, Kumasi.
10. **National Service Certificate**, Ghana National Service Scheme, 2013/2014.

### Outreach and Training Programs

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1. **Scientific Research Night**, Szent Istvan University. Spectroscopy for the detection of food adulteration. 27 September 2019 Budapest Hungary. <https://www.kutatokejszakaja.hu/esemeny/infravoros-fennyel-az-elelmiszerhamisitas-ellen/>
2. **Hungarian National Scientific Day**, Eötvös Loránd University (ELTE), Budapest. Demonstration of electronic tongue functionality. 21 September 2019, Budapest, Hungary
3. **Scientific Research Night**, Szent Istvan University. Applications of spectroscopy in food quality. 27 September 2018, Budapest Hungary.
4. **Food Scape studies at KNUST**”, 15<sup>th</sup> – 19<sup>st</sup> February, 2016, organised by DANIDA and KNUST.
5. **Short course in Food Extrusion Technology**, 6<sup>th</sup> – 9<sup>th</sup> August, 2016, Organized by Department of Food Science and Technology, KNUST and Premium Foods Limited, Kumasi.

### Achievements, Awards and Leadership Roles

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1. [Local organising committee member, 2<sup>nd</sup> European Aquaphotomics conference, Budapest, Hungary, 4-6<sup>th</sup> December, 2019](#)
2. **Local organising committee member, 1<sup>st</sup> international Conference for Ghanaian students in Hungary.** 6<sup>th</sup> March 2019, Budapest, Hungary
3. **Team member** for the Building Stronger Universities (BSU II) Initiative project: Upgrading an indigenous small scale gari factory at anloga-Kumasi for use as a resource center. sponsored by the Danish Government
4. [Coordinated a team of postgraduate students that made discoveries about adulterated palm oil, pepper powder, groundnut paste and fish powder \(Graphic, “THE MIRROR”, Friday, February 5-11, 2016, Page 3\).](#)
5. **“Best Oral Presentation”**, the 4<sup>th</sup> Research Seminar and Poster Presentation organized by the Ghana Science Association (GSA), April, 2015
6. **Graduate Student Research coordinator** on the impact of Climate Change on the crops and livelihood of farmers in Northern Ghana, 2015.
7. **Assistant class captain:** MSc Food Science and Technology, 2014-2016 class, Department of Food Science and Technology, KNUST
8. **National Service Personnel Organiser** for Volta River Authority Hospital, 2013-2014
9. **City leader for Ghanaians under the Government of Ghana Scholarship** in Morocco, 2010-2013.

### Grants and Scholarship Awards

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1. **Facilitator for Erasmus Mobility Grant** between the Department of Food Science and Technology, Kwame Nkrumah University of Science and Technology and the Department of Measurements and Process and Control, Hungarian University of Science and Technology.
2. **Travel grant from the International Society of Aquaphotomics** for 2nd International Aquaphotomics Symposium, Japan, 2018



3. **European Social Fund grant agreement (EFOP 3.6.3)- VEKOP- 16-2017-0005** Élelmiszertudomány területén kiváló Kutatócsoport/Tehetségpont támogatása 2020 tavasz Dr. Kovács Zoltán:Paradicsomsűrítmények hamisításának kimutatásastandard és gyors módszerekkel
4. **European Social Fund grant agreement (EFOP 3.6.3)- VEKOP- 16-2018-0005** Élelmiszertudomány területén kiváló Kutatócsoport/Tehetségpont támogatása, 2019 ősz, Dr. Kovács Zoltán: Különböző oltott és saját gyökerű sárgadinnye fajták összehasonlítása és tárolás során bekövetkező minőség változásának nyomkövetése műszeres módszerekkel
5. **European Social Fund grant agreement (EFOP 3.6.3)- VEKOP- 16-2019-0005** Élelmiszertudomány területén kiváló Kutatócsoport/Tehetségpont támogatása, 2018 ősz, Dr. Kovács Zoltán: Paprika és paradicsom porok hamisításának detektálása és mennyiségi meghatározása gyors módszerekkel
6. **Stipendium Hungaricum Scholarship for PhD studies** in Hungary, 2017-2021
7. **Government of Ghana Scholarship** for brilliant but needy students (Undergraduate degree), to the Kingdom of Morocco. 2009-2013.
8. **Ghana Cocobod Senior High School Scholarship** for needy but brilliant students. 2005-2008
9. **Stipendium Hungaricum Scholarship for PhD scholarship in Hungary**, Szent Istvan University. 2017-2021
10. **Government of Ghana Scholarship for brilliant but needy students (Undergraduate degree)**, to the Kingdom of Morocco. 2009-2013.

### Professional Memberships

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1. Project Management Institute (PMI), January 2021 - Present
2. Institute of Food Technologists (IFT), November 2019 – Present
3. International Society of Aquaphotomics, December 2018 - Present
4. Agriculture, Nutrition and Health Academy, February 2017- Present
5. Agriculture-Nutrition Community of practice, September 2016- Present

### Websites

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1. [Google Scholar](#)
2. [ResearchGate](#)
3. [LinkedIn](#)
4. [Orcid](#)

### Referees

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