

Curriculum Vitae

JANET QUAISIE (Ph.D.)

Personal Biodata

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Permanent address: Department of Food Science and Technology, Kwame Nkrumah
University of Science and Technology, Kumasi, Ghana

Academic career

1. **Doctor of Philosophy (Ph.D.) in Food Science and Engineering** Sept 2018-Dec. 2021 at Jiangsu University, Zhenjiang, China
2. **Master of Science (MSc.) in Food Science and Engineering** from Sept. 2015-June 2018 at Hunan Agricultural University, Changsha, China
3. **Bachelor of Science (BSc.) in Agricultural Engineering** from Sept. 2007 – June 2011, at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
Graduated with a 2nd Class (Upper Division)

Research, Scientific Publications, Conferences and Workshops

ResearchGate: https://www.researchgate.net/profile/Janet-Quaisie-2?ev=hdr_xprf

Google scholar: <https://scholar.google.com/citations?user=jzGzZ0cAAAAJ&hl=en>

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OWSD: <https://owsd.net/node/95613>

(a) Publications

1. Tuly, J. A., Ma, H., Zabed, H. M., Qi, X., Asif, M., Xinyan, Z., ... & **Janet, Q.** (2025). Combinatorial radiation-induced mutagenesis of *Bacillus licheniformis* and comparative whole genome sequencing to elucidate mutagenic effects on protease production. **Food Bioscience**, 106163.
2. **Quaisie, J.**, Wu, W., Nai, D. A., Tuly, J. A., & Igbokwe, C. J. (2024). Quality Characteristics of Gluten-Free Noodles Prepared from Rice and Underutilised Ghanaian Crops. **Agricultural and Food Science Journal of Ghana**, 16(1), 1665-1680.
3. Igbokwe, C. J., Feng, Y., Louis, H., Benjamin, I., **Quaisie, J.**, Duan, Y., ... & Zhang, H. (2024). Novel antioxidant peptides identified from coix seed by molecular docking, quantum chemical calculations and invitro study in HepG2 cells. **Food Chemistry**, 440, 138234.

4. Ding, Y., Han, P., Ma, H., **Quaisie, J.**, & Tuly, J. A. (2024). Process control of rice protein enzymolysis by field monitoring. **Current Research in Biotechnology**, 7, 100171.
5. Tuly, J.A., Ma, H., Zabed, H.M., **Janet, Q.**, Godana, E.A., Chen, G. and Ekumah, J.-N. (2023). Potentiality assessment of microbial action on combined agri-food industrial wastes in amino acids catabolism. **Journal of Functional Foods**, 100, p.105377. doi: 10.1016/j.jff.2022.105377.
6. **Quaisie J.**, Ma H., Yiting G., Tuly J.A., Igbokwe C. J., Ekumah J-N., Akpabli-Tsigbe N.D.K, Ding Y. and Dandan L. (2022). Highly Stable, Antihypertensive, and Antioxidative Peptide Production from *Apostichopus japonicus* by Integrated Enzymatic Membrane Reactor and Nanofilter-Purification Mechanism. **Food and Function**. <https://doi.org/10.1039/D1FO02779D> (accepted for publication; available online)
7. **Quaisie, J.**, Ma, H., Yiting, G., Tuly, J. A., Igbokwe, C. J., Zhang, X., Ekumah J-N., Akpabli-Tsigbe, N. D. K and Nianzhen, S. (2021). Impact of sonication on slurry shear -thinning of protein from sea cucumber (*Apostichopus japonicus*): Proteolytic reaction kinetics, thermodynamics, and conformational modification. **Innovative Food Science & Emerging Technologies**, 70(1466-8564), 102678.
8. **Quaisie, J.**, Ma, H., Golly, M. K., Tuly, J. A., Amaglo, N. K., and Jiaqi, Z. (2021). Effect of ultrasound-microwave irradiation hybrid technique on extraction, physicochemical, antioxidative, and structural properties of stearic acid-rich *Allanblackia parviflora* seed oil. **Chemical Papers**, 75(9), 4527–4541. <https://doi.org/10.1007/s11696-021-01666-z>
9. Tuly, J. A., Ma, H., Zabed, H. M., Dong, Y., **Janet, Q.**, Golly, M. K., Feng, L., Li T. and Chen, G. (2021). Harnessing the Keratinolytic Activity of *Bacillus licheniformis* Through Random Mutagenesis Using Ultraviolet and Laser Irradiations. **Applied Biochemistry and Biotechnology**. <https://doi.org/10.1007/s12010-021-03697-4>
10. Tuly, J. A., Zabed, H. M., Nizami, A.-S., Mehedi Hassan, M., Roknul Azam, S. M., Kumar Awasthi, M., **Quaisie J.**, Gu C., Nelson D. K. A., Ma, H. (2022). Bioconversion of agro-food industrial wastes into value-added peptides by a *Bacillus sp.* mutant through solid-state fermentation. **Bioresource Technology**, 126513. doi.org/10.1016/j.biortech.2021.126513.
11. Zhang, X., Ma, H., Quaisie, J., Gu, C., Guo, L., Liu, D., ... Zhang, T. (2022). Tea saponin extracted from seed pomace of *Camellia oleifera* Abel ameliorates

- DNCB-induced atopic dermatitis-like symptoms in BALB/c mice. **Journal of Functional Foods**, 91, 105001. <https://doi.org/10.1016/j.jff.2022.105001>
12. Ding, Y., Wang, Y., Qu, W., Ren, X., Lu, F., Tian, W., **Quaisie, J.**, Azam, S.M.R. and Ma, H., Effect of innovative ultrasonic frequency excitation modes on rice protein: Enzymolysis and structure, **LWT - Food Science and Technology** (2022), doi: <https://doi.org/10.1016/j.lwt.2021.112435>.
 13. Zhu, J., Li, J., Guo, Y., **Quaisie, J.**, Hong, C., and Ma, H. (2021). Antihypertensive and Immunomodulatory Effects of Defatted Corn Germ Hydrolysates: An in vivo Study. **Frontiers in Nutrition**, 8. <https://doi.org/10.3389/fnut.2021.679583>.
 14. Ekumah, J.-N., Ma, Y., Akpabli-Tsigbe, N. D. K., Kwaw, E., Jie, H., **Quaisie, J.**, Xu M., and Johnson Nkuma, N. A. (2021). Effect of selenium supplementation on yeast growth, fermentation efficiency, phytochemical and antioxidant activities of mulberry wine. **LWT**, 146, 111425. <https://doi.org/10.1016/j.lwt.2021.111425>.
 15. Akpabli-Tsigbe, N. D. K., Ma, Y., Ekumah, J.-N., Osabutey, J., Hu, J., Xu, M., Johnson Nkuma, N. A., **Quaisie, J.** (2021). Two-step optimization of solid-state fermentation conditions of heilong48 soybean variety for maximum chlorogenic acid extraction yield with improved antioxidant activity. **Industrial Crops and Products**, 168, 113565. <https://doi.org/10.1016/j.indcrop.2021.113565>.
 16. Golly, M. K., Ma, H., Yuqing, D., Dandan, L., **Quaisie, J.**, Tuli, J. A., Mintah B.K., Dzah S.C., Agordoh, P. D. (2020). Effect of multi-frequency countercurrent ultrasound treatment on extraction optimization, functional and structural properties of protein isolates from Walnut (*Juglans regia L.*) meal. **Journal of Food Biochemistry**, 44(6).
 17. **Janet, Q.**, Luyan, L., & Weiguo, W. (2017). Effect of blending ginger starch (*Zingiber officinale*) on the dynamic rheological, pasting and textural properties of rice flour. **African Journal of Food Science**, 11(8), 263–272. <https://doi.org/10.5897/ajfs2017.1596>.

(b) Conferences

1. **Janet Quaisie**, Haile Ma, Jamila Akter Tuly, Benjamin Kumah Mintah, Chidimma Juliet Igbokwe, Mokhtar Dabbour, Yanhua Ding In (2024). Situ and Real-Time Monitoring of Proteolysis of Sea Cucumber Protein using Miniature NIR Spectroscopy

Coupled with a Fiber-Optic Probe: In Vitro Digestibility and Amino Acid Distribution of Peptide Fractions. CSIR-Research Staff Association (RSA) 35th Annual General Meeting And 6th Scientific Conference.

2. Janet Quaisie, Ma Haile, Chidimma Juliet Igbokwe. Superlative Techno-functional, Antioxidative and Structural Conformational Characteristics Exhibited by *Apostichopus japonicus* Viscera over its Whole body and Body wall. 4th Food Innovation and Engineering (FOODIE), USA (virtual platform). 6-7 December 2021.

3. Igbokwe, Chidimma Juliet and **Quaisie Janet**. Blockchain Technology Application in the Food Industry. 4th Food Innovation and Engineering (FOODIE), USA (virtual platform). 6-7 December 2021.

4. Igbokwe, Chidimma Juliet and **Quaisie Janet**. Surface Plasmon Resonance Biosensors: Application in Food Safety: Theme: Biotechnology; A post pandemic remedy for food and energy insecurity, Hosted by South East Zonal Biotechnology centre University of Nigeria, Nsukka, Virtual, Date: 8-10 Nov. 2021.

(c) Workshops

- Riscam Workshop and Capacity Building Training Programme. Heritors Lab at CSIR-Science and Technology Policy Research Institute. 25th - 26th Oct. 2023
- Capacity Training Workshop: Quality Assurance at CCST for Department Staff. CCST Registry Department. 25th - 26th Oct. 2023
- Produce Safety Alliance Grower Training Course. PSA Lead Trainers and Tuskegee University. 9th-12th January 2024
- Africa Research and Innovation Commercialization Summit 2024 (ARICS). Heritos lab. 28th February 2024
- Investing in Women Innovators: From Research to Realization. Mawazu Institute, RISA. 5-7th March 2024
- Access Support and Effective Use of Research4Life Resources. Research4Life, Ghana Library Association and CSIR. 10th & 11th July, 2024

Fields of Interest

- Food Physical Processing and Engineering (develop enhanced multifunctional and bioactive ingredients from various agricultural materials using green techniques)
- Valorization of agricultural products
- Food Physics and analysis
- Natural Spices (Antioxidant and antimicrobial agent)
- Fats and oil

Laboratory Techniques

- Trained in variety of novel green techniques such as Ultrasound Instrument, NIR spectroscopy, Spectrophotometer, Ultrafilter membrane separator, Nanofilter purification system, Particle size analyser

Experience Profile

Dec, 2024-Date: Food Science and Technology Department, KNUST

Lecturer (Full-Time)

- Undergraduate courses (Packaging and Shelf-life studies, New Product Development, Postharvest Technology)
- Postgraduate courses (Food Biotechnology, Advanced Food Engineering, Non-Thermal Food Processing)

Nov, 2023-2024: Food Science and Technology Department, KNUST

Lecturer (Part-Time)

- Undergraduate courses (Packaging and Shelf-life studies)
- Postgraduate courses (Food Engineering, Non-Thermal Food Processing)

Oct, 2022-2024: Council for Industrial Research-Food Research Institute

Research Scientist

- Write research proposals for grant acquisition
- Conduct research and publish research findings
- Spear-head various projects at the institute
- Serve on various committees

Sept. 2016-2017: Hunan Agricultural University, Hunan, Changsha English Department

Voluntary service as Oral English teacher

- Taught spoken English
- Organized oral test for the students
- Assessed the students through assignments and examination

Oct. 2011- August 2012: University of Cape Coast, Agricultural Engineering Department

Teaching and Research Assistant (National Service)

- Organized tutorials for students
- Assisted students in research and practical work
- Invigilation of examinations.

- Marked assignments and reports and recorded results.

August 2009-May 2011 Student Representative Council (College of Engineering), KNUST.

Agricultural engineering class representative (President)

- Represented the class on both departmental and college meeting
- Assisted in making decisions on issues concerning students during college meeting
- Channeled students' problems to the appropriate quarters to receive the needed attention

June 2010 - Aug. 2010 Grains and Legumes Development Board Kumasi Ghana
Trainee Engineer

- Assisted the engineer in managing the transport and mechanization section of the agency.
- Assisted in assembling a newly imported multi crop thresher (Aspra Major Thresher)
- Serviced threshers for processing operations

Project Management

- Ability to synthesize and integrate literature into current science to find gaps and take up research work in those gaps.

Computing

- Origin pro, 2019
- Sound working knowledge in Microsoft Office Suit
- Confident user of SPSS

Funding and Awards

- Hunan Provincial Scholarship (2017-2018)
- Jiangsu Provincial Key R &D Plan (BE2018368)
- Jasmine Talent Selection Program, TSP (2018-2021)

Communication and Presentation

- Excellent oral and written communication skills developed through active participation in seminars and conferences

Reference

It will be provided upon request

