

Parkash

Consultant Food Technologist | Researcher | Lab Analyst | Research Associate

Food & Marine Resource Research Centre, PCSIR Labs. Complex, Karachi

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Research Interests: Valorization, Recipe development, Nutrition, Food Composition, Protein Isolation, extraction, protein hydrolysate, Phenolic Content, Milk Adulteration, drying of foods, Processing, recipe development, consultancy.

EDUCATION

University of Karachi, Pakistan.

2021-2023

M.Phil. (Hons.) Completed Course work, **engaged in Research**

Sindh Agriculture University, Tandojam, Pakistan.

2017-2020

B. Sc. (Hons.) 1st Division.

EXPERIENCE

▪ Principal Consultant

July- Nov 2022

Welthungerhilfe (WHH, a German organization)

Responsibilities:

- ✓ Understanding composition of existing recipes.
- ✓ Assessment of ingredients quality.
- ✓ Cooking practices, hygiene parameters and product quality.
- ✓ Eating pattern and consumer preferences.
- ✓ Improvement of recipes ingredients to meet RDA.
- ✓ Diet advocacy.
- ✓ WHO guidelines.
- ✓ Modified cooking practices with respect to safety and quality.
- ✓ Organized awareness session among different villages of Tharparkar.
- ✓ Recorded feedback and suggested healthy diets.
- ✓ Report writing and formatting.

▪ Research Associate

March-2021 to date

Pakistan Council of Scientific and Industrial Research, Labs.

Complex, Karachi, Government of Pakistan.

Responsibilities:

- ✓ Sampling.
- ✓ Samples preparations.
- ✓ Proximate analysis of different samples.
- ✓ Protein hydrolysate from fish waste, chicken feather, meals etc.
- ✓ Mineral analysis of treated juices through flame photometry.
- ✓ Process development.
- ✓ Quality assurance practices.
- ✓ Development of analytical methods.
- ✓ Fiber extractions.
- ✓ Ezymatic activities.
- ✓ Determination of phenolic contents by spectrophotometer.
- ✓ Infant products formulation.
- ✓ Analysis of acidity, brix, FFA etc.
- ✓ Sonication techniques.

▪ **Quality Assurance Officer**

June-Sept-2021

Hanson Foods Pvt Limited.

Responsibilities:

- ✓ Supervision of processing line.
- ✓ Assessment of ingredients quality.
- ✓ Assessment of raw materials quality.
- ✓ Analysis of acidity of developed paste and syrups.
- ✓ Traceability
- ✓ Quality maintainance.

▪ **Enumerator & Data Entry Operator**

Jan-2021

Thardeep Rural Development Program TRDP

▪ **Edible Oil Processing Unit (Internee)**

Oct-Nov 2020

Unique Foods Private Limited Kotri

▪ **Internee: (Virtual)**

Oct-Nov 2020

Halal Research Council

▪ **Internee**

April-May 2019

Food Technology section, Food, and Marine Resource Research Centre, Pakistan Council of Scientific and Industrial Research Laboratories Complex Karachi.

▪ **Qualitative Study (Internee)**

June-July-2018

National Foods Pvt. Limited Karachi.

▪ **Project Work:**

July-Aug 2018

A one-month field survey conducted at different farmers and stakeholders.

PUBLICATIONS

1. Muhammad Shakir, Asia Akbar Pahnwar, Asif Irshad, Saghir Ahmed Shaikh, **Parkash Meghwar**, Alam Khan, Imtiaz Ghafoor, Ayaz Ali. Effect of different Pectin levels on the physicochemical characteristics of Banana Jam. **Proceedings of the Pakistan Academy of Sciences. (HEC Recognized X category & Scopus Indexed).**
2. Waseem Khalid, Aristide Maggiolino, Jasmeet Kour, Muhammad Sajid Arshad, Noman Aslam, Muhammad Faizan Afzal, **Parkash Meghwar**, Pasquale De Palo, Sameh A. Korma. A Narrative Review of Dynamic Alterations in Protein, Sensory, chemical, and oxidative properties occurring in meat during thermal and non-thermal processing techniques. **Frontier in Nutrition. Under-Review**
3. Darshna Kumari, Imran Ishrat, Sunil Kumar and **Parkash Meghwar**. Incidence of Cutaneous Leishmaniasis in Coastal Areas (Winder, Uthaland Lasbela) of Balochistan Pakistan. **Pak-Euro Journal of Medical and Life Sciences. (HEC Y-Cat).**<http://10.31580/pjmls.v5i2.2557>
4. **Parkash Meghwar & Preeti Dhanker**. Prosopis Cineraria (Khejri/Kandi) Fabaceae: Phytochemical study- A mini-review. **Agricultural Reviews. (Well-Indexed).**<https://arccjournals.com/journal/agricultural-reviews/RF-233>
5. Misbah Mahtab, Ravi Prakash Jha, Nida Schair, Ayesha Anwar, **Parkash Meghwar, et al., (2022).** Utilization of almond kernel for the enhancement of the biological and functional properties of the food items. **Current Research in Nutrition & Food Science. (IF 1.21, WoS, Scopus, HEC Y-Cat.) Accepted.**
6. **Parkash Meghwar**, Umed Ali Soomro, Omer Mukhtar Tarar, Muhammad Samee Haider, Nida Saleem, and Waqas Afzal. **Control of Enhancement of Sodium and Potassium in Apple Juice**

during Processing. **Proceedings of the Pakistan Academy of Sciences. (HEC Recognized X category & Scopus Indexed). Under-Review**

7. **Parkash Meghwar**, Nadeem Asghar Shar, Saghir Ahmed Shaikh, Allah Bux Baloch, Dileep Kumar, Preeti Dhanker, and Ahsan Ali Depar. (2021). The traditional process of dates, COVID-19 pandemic observation, and challenges in Sindh. **Proceedings of the Pakistan Academy of Sciences. (HEC Recognized X category & Scopus Indexed).**
8. **Parkash Meghwar**, Saghir Ahmed Sheikh, Bushra Hussain, Nida Saleem, Piar Ali Shar and Ahsan Ali Depar. (2021). Assessment of quality parameters of underground drinking water from Diplo area of Sindh. **Scientific Inquiry and Review. (HEC Recognized, Y-Category)**
9. Azeem A, Panhwar AA, **Meghwar P**, Irshad A, Soomro UA, Zahra SM. Effect of Various Drying and Dehydration Techniques on The Organoleptic Quality of Mango Leathers. **RADS J Biol Res Appl Sci. 2021; 12(1):1-9 (HEC Recognized Y-Category)**
10. **Parkash Meghwar (2021).** Nutritious Nature-Malnutrition in the People of Tharparkar. **International Journal of Food Chemistry and Human Nutrition. 1(1); 1-3.**
11. **Meghwar et al. 2021.** Biofortification-A Sustainable Agricultural Strategy for Reducing Micronutrient Malnutrition. **Asian Journal of Advances in Medical Science (AJOAIMS) 3(1): 9-13, 2021. (Well-Indexed)**
12. Shar, P. A., Shar, A. H., Memon, S., Soomro, A. A., Naich, S. A., Rind, N. A., Asadullah Laghari, A. & Rind, K. H., **Meghwar, P., & Otho, S. A. (2021).** Morpho-physiological responses in wheat (*Triticum aestivum* L) influenced by normal and water stress conditions. **Journal of Agriculture and Applied Biology, 2(1): 135 - 144. DOI: 10.11594/jaab.02.01.03 (Well-Indexed)**
13. **Parkash Meghwar**, Allah Bux Baloch, Ahsan Ali Depar, Dileep Kumar, Syeda Mahvish Zahra, Rabia Noreen. (2021). An overview on vital role of banana and its valorization. **International Journal of Food Chemistry and Human Nutrition, 1(1): 38-49.**
14. **Parkash Meghwar**, Ahsan Ali Depar, Nizamudin Chaniho & Heeranand (2021). Food Poisoning and Public Health-an editorial note. **Acta Scientific Microbiology (Impact Factor 1.17).**
15. **Parkash Meghwar & Allah Jurio Khaskheli (2020);** Neem – A Tree Can Solve Current Global Problem of Coronavirus Outbreak. **IAR J Agri Res Life Sci, 1(5)136-138. (Well-Indexed)**
16. **Parkash Meghwar | Dileep Kumar | Preeti Dhanker | Mukesh Kumar** “Food Safety Practices among Street Food Vendors in Diplo, Sindh, Pakistan” Published in **International Journal of Trend in Scientific Research and Development (ijtsrd)**, ISSN: 2456-6470, Volume-4 | Issue-6, October 2020, pp.1630-1634, URL: (12OR IF 6+)
17. **Parkash Meghwar (2020).** An Emerge need of artificial meat, ensure public health and animal welfare-a review. **Journal of Current Research in Food Science. 1(2): 22-26. (Well-Indexed)**

ABSTRACT

1. **Nutritional management during viral infection in Pakistan.** 2-days International Conference on Nutrition 22nd -23rd July 2020 organized by The Nutrition Times, Pakistan.

ARTICLES

1. **Increased burden of disease by 2050** published with Technology Times Islamabad.
2. **Understanding the world of antioxidants to prevent chronic diseases** published with Technology Times, Islamabad. <https://technologytimes.pk/2022/08/23/understanding-world-of-antioxidants-to-prevent-chronic-diseases/>

3. **The Role of Valuable Edible plants in Thar Desert** published with Technology Times Islamabad on 9th June 2022. <https://technologytimes.pk/2022/06/09/role-of-valuable-edible-plants-in-thar-desert-parkash-meghwar-food-technologist/>
4. **Safer food, better health** publish with Sindh Courier on 8th June 2022 <https://sindhcourier.com/safer-food-better-health/>
5. **Unhealthy world of fats** published with DAWN Newspaper on 20th April 2022. <https://www.dawn.com/news/1685917/unhealthy-world-of-fats>
6. **“Healthy benefits and way of utilization of peels of citrus fruits, banana and pomegranates”** has been published on www.agrimoon.com India.
7. **“Banana-A gift of nature”** has been published on www.agrimoon.com India.
8. **“Food Safety Trainings for Street Food Vendors are mandatory in Sindh”** has been published on www.foodsciencenews.com
9. **Impact of hazardous chemicals used in milk on human health** published with **Zarai Sciences Magazine**, Sindh Agriculture University, Tandojam. 1st August 2021. www.sau.edu.pk
10. **Food Adulteration and its simple assessment at home** published with **Zarai Sciences Magazine**, Sindh Agriculture University, Tandojam. 1st October 2021. www.sau.edu.pk
11. **World Food Day and message for Public** published with **Zarai Sciences Magazine**, Sindh Agriculture University, Tandojam. 1st November 2021. www.sau.edu.pk
12. **Dried powder of Banana** published with **Zarai Sciences Magazine**, Sindh Agriculture University, Tandojam. March 2022. www.sau.edu.pk
13. **Traditional Foods need to be adapted** published with Sind Courier <https://sindhcourier.com/>
14. **Dietary Fiber and rising diseases** published with Sindh Courier <https://sindhcourier.com/>

PROJECTS (R&D)

1. Exploring indigenous solutions of hunger and malnutrition in Tharparkar District (PAK-1093) **(On-going)**
2. Control of enhancement of sodium and potassium in Apple juice during processing (IA & Co.) **Completed.**
3. Observation of formalin adulteration in peeled garlic & ginger, milk, fish, and shrimps as well as its quantification. **Completed**
4. Fish Meal hydrolysis and protein digestibility and its optimization. **Completed.**
5. Optimization of protein isolation from cold pressed cakes (canola, sesame, mustard, and almond). **Completed.**
6. Optimization of protein isolation from guar meal and its characterization. **Completed.**
7. Curcumin ratio in different processed and natural turmeric samples. **Completed.**
8. Phytochemicals analysis of banana roots samples and diseases relationship. **Completed.**
9. Acid Detergent Fiber (ADF) and Neutral Detergent Fiber (NDF) estimation using different sonication techniques **(Completed).**
10. Hydrolysis of Leather Shaving dust a by-product to get protein content. **Completed.**
11. Chromium removal from Leather Shaving Dust using analytical methods. **Completed.**
12. Protein isolation from Chicken feathers by hydrolysis using salts and enzymes **Completed.**
13. Nano-emulsion and oil absorption characteristics of different products. **Completed.**
14. Protein hydrolysis of meat meal, rice meal & canola meal. **Completed.**

AWARDS

- Awarded with **PM Laptop** in February 2019.
- Awarded with **HEC-NEED BASED SCHOLARSHIP**
- Awarded with **Recognized Reviewer Certificate** from Links Researchers, United Kingdom.

SCIENTIFIC REVIEWER/EDITOR

- Pakistan Journal of Agriculture Research, NARC, Islamabad. (**HEC recognized & Scopus**).
- Journal of Innovative Sciences (**HEC Recognized**)
- International Scientific Research Journal of Agroforestry and Life Sciences Bangladesh.
- Acta Scientific Microbiology (ASMI) (**IF 1.17**)
- Acta Scientific Agriculture (ASAG) (ISSN: 2581-365X) (**IF 0.734**)
- International Journal of Food Chemistry & Human Nutrition, China.
- 1st International Conference on Advance in Research in Pure & Applied Science, IRAQ.
- American Society for Nutrition-2021 Conference.
- Journal of Current Research in Food Science.
- International Journal of Multidisciplinary Research and Explorer
- Research and Scientific Innovation Society
- International Associations of Journals and Conferences
- Journal of Applied Agriculture & Biology- Indonesia. (**Cross-Ref**).

SCIENTIFIC SKILLS

- Nutritional Assessment (BMI, MAUC, Dietary intake, healthy activities etc.)
- Questionnaire designing to collect Nutrition related data.
- Data analysis using SPSS and Statistix 8.1& Organizing Data.
- UV-Spectrophotometer (Formalin quantification in milk, ginger, garlic, fish & shrimps; curcumin in turmeric; Total phenolic contents in tea, and banana tissues).
- HPLC, GC-MS (sample preparation of Fatty acids in Ghee)
- Spray drying technique. (Honey, Tea Extract, Milk, Shaving leather hydrolysate, fish hydrolysate, chicken feather hydrolysate etc.)
- Proximate Analysis of different food matrix (Protein estimation of canola, almond sesame, and mustard cold press cake samples, guar meal sample, meat sample, fish meal, chicken meal, feather meal, wild melo, and other samples by Kjeldahl; Fat in these samples, moisture in wheat flour, different meals, wild-melo and others; Ash; and others).
- Minerals Analysis using Flame Photometric method (Na, & K in apple juice, Maple syrup).
- Other qualitative as well as quantitative parameters of different food items including SO₂ in pastes,
- FTIR analysis of flour and oil samples.
- Acidity estimation in different food products.
- Nutritional evaluation of the cooked recipes.
- Report writing and documentations.
- Product development with reference to Recommended Daily Allowance (RDA).
- Recipes formulation.

REFERENCES

Dr. Omer Mukhtar Tarar

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Food Technology and Nutrition Section,
PCSIR, Labs Complex, Karachi, Pakistan.

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Sindh Agriculture University, Tandojam, Pakistan.

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