

# ISLAMIC UNIVERSITY OF SCIENCE AND TECHNOLOGY

AWANTIPORA, KASHMIR

DEPARTMENT OF FOOD TECHNOLOGY

## DETAILS OF RESEARCH PROJECTS

(ONGOING/COMPLETED/SUBMITTED DURING THE LAST 03 YEARS)



### ONGOING

Type	Project Title	Funding Agency	Amount of Sanctioned Grant	Date of Sanction	Duration	PI and Co-PI
External	Ultrasound and infrared assisted post-harvest processing of indigenous aromatic rice ( <i>Oryza sativa</i> var mushkbudji): An approach to enhance quality and shelf life	SERB SURE	28.34	08-05-2023	3 years	Dr. Thameed Aijaz/Dr. Hilal Ahmad Makroo
External	Development and Characterization of active and composite edible packaging from	SERB SURE	23.67	08-05-2023	3 Year	Dr. Aamir Hussain Dar/Dr. Tariq Ahmad Ganaie

	underutilized cereals "vetch" ( <i>Vicia villosa</i> ) by incorporating polyphenolic compounds from hack berries ( <i>Celtis australis</i> )					
External	Formulation, characterization, stability and bio accessibility of nano encapsulated grape pomace polyphenols using whey protein and their incorporation in development of novel functional food	ICMR	12.69	20-05-2022	3 Years	Dr. Tehmeena Ahad
External	Formulation of novel infant food using triacylglycerol oil synthesized from agri-food waste and by-products by oleaginous yeast	ICMR	21.24	20-06-2022	3 Years	Dr. Shafiya Rafiq
External	Development of process technology for the nano encapsulation of quercetin and quercetin glycosides from sprouted onion	DST, GOI	27.34665	27-12-2022	3 Year	Dr. Ishrat Majid

External	Extraction, Characterization and Encapsulation of Natural Bio-Active Compounds from Rheum emodi and Urtica dioica for the Development of Novel Nutraceutical Bakery product	DBT	49.24	10-03-2022	2 years	Dr. Darakshan Majid
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COMPLETED

Type	Project Title	Funding Agency	Amount of Sanctioned Grant (Rs)	Date of Sanction	Duration	PI and Co-PI
External	Evaluation and encapsulation of bioactive components of Himalayan medicinal plant of Kashmir and their utilization in the development of novel functional foods	ICMR	30.17	20-05-2022	3 Years	Dr. Insha Zahoor
External	Circular economy approach to recover pectin, cellulose and starch like industrially important polymeric compounds from early drop wasted apples	SERB	32.95	30-12-2021	2 years	Dr. Hilal Ahmad Makroo/Dr. Basharat Nabi Dar/Prof. H.R.Naik
External	Elucidating Nutraceutical Properties of Traditional Apple Cultivars of Kashmir as Potential Functional Food	JKST&IC	9.1	10/29/2021	2 years	Dr. Munib UR Rehman/ Dr. Basharat Nabi Dar

External	Extraction characterization and antimicrobial activity of walnut hull: Studies on its food and nonfood applications	JKST&IC	7.52	11/30/2021	2 years	Dr. Hilal Ahmad Makroo/ Dr. B.N.Dar/Prof. H.R.Naik
External	Design and Development of Phase change Material based greenhouse solar dryer for walnut drying	JKST&IC	6.09	11/30/2021	2 years	Dr. Aamir Hussain Dar
External	Circular Economy Approach to Recover Pectin, Cellulose and Starch Like Industrially Important Polymeric Compounds from Early Drop Wasted Apples	SERB-DST	32.95	12/30/2021	2 years	Dr. Hilal Ahmad Makroo/Dr. Basharat Nabi Dar/Prof. H.R.Naik

## SUBMITTED

Type	Project Title	Funding Agency	Amount of Proposed Grant	Date of Submission	PI and Co-PI
External	Exploitation of Chilli Waste for Recovery of Capsinoids, Revealing the Therapeutic Potential and Electrospinning Nano-Encapsulation for Target Delivery	SERB POWER	2700000.00	14-02-2024	Dr. Darkshan Majid Dr. Farhana Mehraj
External	Developing Innovative Approaches to Addressing Dysphagia through 3D-Printed Designer Foods using Highland Barley, Mushroom, and Whey Protein	SERB POWER	2600000.00	30-01-2024	Dr. Farhana Mehraj Dr. Darkshan Majid
External	Valorization of poultry and Dairy waste into Ecofriendly pH-sensitive Active Food Packaging Systems for Enhanced Consumer Safety: A Circular Economy Approach	SERB SURE	3333000.00	14-12-2023	Dr. Basharat Nabi Dar /Dr. Darkshan Majid
External	Detailed Study on Characteristics of Himalayan Millets for the Development	SERB	2968000.00	29-11-2023	Dr. Darkshan Majid/ Dr. Basharat Nabi Dar Dr. Hilal Ahmad Makroo

	of Low Glycaemic Food Formulation				
External	Development and Characterization of Saffron Petal extract-Zein Nanocomplex and their application in preservation Kashmiri Himalayan Snow Trout (Schizothorax Plagiostomus) fillets	SERB SURE	3000000.00	13-11-2023	Dr. Tariq Ahmad Ganaie/ Dr. Basharat Nabi Dar Dr. Insha Zahoor Dr. Aamir Hussain Dar
External	Evaluation and Impact Analysis of NEP 2020 Implementation in Education system of J&K	ICSSR	2500000.00	18-10-2023	Dr. Thameed Aijaz/ Dr. Gohar Abbas Khan Dr. Mubashir Majid Baba
External	Preparation and characterization of novel anti-diabetic peptides from millet proteins and their utilization for the development of nutraceutical foods	ICMR	3150000.00	27-04-2023	Dr. Farhana Mehraj /Dr. Nisar Ahmad Mir
External	Development and Characterization of composite iron rich personalized based diet for adolescents and pregnant women by application of 3D-Food Printing Technology	ICMR	5574000.00	20-04-2023	Dr. Tariq Ahmad Ganaie/Dr. Nisar Ahmad Mir/Dr. Basharat Yousuf

External	Application of walnut hull extract as anti-microbial and anti-cancer agent: Oral health solution by local approach	ICMR	4500000.00	20-04-2023	Dr. Hilal Ahmad Makroo/ Dr. Basharat Nabi Dar Dr. Muzafar Ahmad Macha
External	Healthy and Nutritious Food Formulation prepared from Himalayan Fruits and Vegetables to combat Child Malnutrition	SHRI-DST	4300000.00	19-04-2023	Dr. Darkshan Majid/ Dr. Basharat Nabi Dar Dr. Hilal Ahmad Makroo
External	A Longitudinal study on celiac disease in Indian population potential implications of gut microbiome and metabolites	ICMR	4517000.00	19-04-2023	Dr. Basharat Nabi Dar/ Dr. Arsheed Ahmad Ganaie
External	Transformation of weed to worth: sustainable production of novel Biopeptides form duckweed and exploring their therapeutic potential	SERB	3000000.00	16-03-2023	Dr. Basharat Nabi Dar/ Dr. Darkshan Majid Dr. Hilal Ahmad Makroo
External	Harnessing the nutraceutical and nutritney and wild edible fruits of Kashmiri Himalayan region through their combined utilization for the development of second-generation potential of organic hoation functional foods	SERB Core	4342000.00	16-03-2023	Dr. Tariq Ahmad Ganaie/ Dr. Basharat Nabi Dar Dr. Farhana Mehraj Dr. Insha Zahoor



External	Extraction of Carotenoids from Food Waste and By-products by Coiled flow Inverter	SERB	3000000.00	16-03-2023	Dr. Thameed Aijaz/ Dr. Hilal Ahmad Makroo
External	Developing next generation sustainable and personalized plant-based diets from modified millet proteins using 3D Food Printing Technology	SERB Core	4372000.00	16-03-2023	Dr. Farhana Mehraj/ Dr. Tariq Ahmad Ganaie Dr. Darkshan Majid Dr. Nisar Ahmad Mir
External	Microbial analysis of fresh-cut vegetable and use of plant extracts and biocontrol agent as controlling measures	SERB SURE	2975000.00	06-10-2022	Dr. Suman Vikas Bhat
External	Evaluating the inhibitory effect of Bioactive extracts from wild berries of Himalayan origin against advance Glycation end products (AGEs) to combat chronic diseases	SERB POWER	2550000.00	30-09-2022	Dr. Farhana Mehraj/ Dr. Tariq Ahmad Ganaie Dr. Basharat Nabi Dar Dr. Insha Zahoor
External	Next generation Unani formulation containing nano encapsulated Escin extracted from Indian horse chestnut with potential anti-diabetic and anti-inflammatory properties	(CCRUM) Ministry of AYUSH, GoI	2805000.00	28-09-2022	Dr. Farhana Mehraj/ Dr. Tariq Ahmad Ganaie Dr. Darkshan Majid

External	Nano-Encapsulation of Saffron extract and its application in preservation of Kashmiri Himalayan snow trout (schizothorax plagiostomus) fillets and eco-friendly processing of its bio-remains for generation of circular economy	SERB SURE	2990000.00	16-09-2022	Dr. Tariq Ahmad Ganaie/ Dr. Arsheed Ahmad Ganaie
External	Exploring the natural antioxidant potential of Kashmiri saffron extract for improving the oxidative stability of Mustard oil	JK ST&IC	1200000.00	30-05-2022	Dr. Darkshan Majid/ Dr. Basharat Nabi Dar Dr. Hilal Ahmad Makroo Dr. Farhana Mehraj
External	Solving Saffron Authenticity problem by utilizing camera images and Novel Spectroscopy Techniques using Artificial Intelligence Technology	JK ST&IC	1195000.00	26-05-2022	Dr. Tariq Ahmad Ganaie /Dr. Muzafar Rasool Bhat Dr. Assif Assad
External	Grapes to raisins: drying kinetics and quality evaluation	JK ST&IC	1200000.00	26-05-2022	Dr. Thameed Aijaz
External	Fortification of wheat Flour with Nano Encapsulated Vitamin D3: Study on Product characterization and stability in bakery products	SERB	5845000.00	21-04-2022	Dr. Aamir Hussain Dar /Dr. Tariq Ahmad Ganaie
External	Ultrasound Assisted Production of Biopeptides from Fruits and Vegetable based Agro-Wastes and their	SERB	7000000.00	13-04-2022	Dr. Basharat Nabi Dar /Dr. Darkshan Majid Dr. Hilal Ahmad Makroo

	utilization: An Innovative Approach for Sustainable Production of Novel Biopeptides				
External	Development of Novel Nutraceutical Rich Freeze-Dried Infant Formula from Fruits and Vegetables of Himalayan region of Kashmir Valley, India	SERB	6500000.00	13-04-2022	Dr. Darkshan Majid/ Dr. Basharat Nabi Dar Dr. Hilal Ahmad Makroo
External	Coiled Flow Inverter for Extraction of Carotenoids from Food Waste and By-products	SERB	8985000.00	13-04-2022	Dr. Thameed Aijaz/Dr. Hilal Ahmad Makro
External	Characterization of honey and wild edible fruits of Kashmiri Himalayan forests and their utilization for development of immune boosting functional foods	SERB	4342000.00	13-04-2022	Dr. Tariq Ahmad Ganaie/ Dr. Arsheed Ahmad Ganaie