Adil Gani (*Fulbright, USA*)

University of kashmir, India

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Scopus (QR-Code)

EXPERIENCE

- Food Science and Technology, University of Kashmir, India
- Visting Scientist at **Rutgers University, NJ, USA**
- Curtin University, Australia— ***University Associate 2021-22***
- Govt Women's Polytechnic Sgr J & K, India—*Lecturer, 2004*

EDUCATION

- Post Doc , Cornell University NYC, USA
- Post Doc , Rutgers University NJ, USA
- Sam Higginbottom University of Agriculture, Technology And Sciences—*PhD (Food Technology)*, 2008
- CCS University Meerut, India—*M.Sc (Food Technology)*, 2003

ONGOING PROJECTS (Extramural)

1. Stabilization and valorization of seed oils from stone fruits by developing nano-pickering emulsions. *Department of Biotechnology Govt. of India (DBT)*
2. Encapsulation of polyphenols from traditional medicinal plants in chitosan-based nano-fibers for delivery using 3D printing. Indian Council of Medical Research (*ICMR)*
3. Nutritional, nutraceutical and techno-functional potential of millets and its constituent macromolecules for designing of personalized nutrition using innovative 3-D Printing. *Department of Biotechnology Govt. of India (DBT)*
4. Effect of polyphenols from Himalayan medicinal plants of Kashmir and whey protein nano-fibers on gut microbiota. Indian Council of Medical Research (*ICMR)*
5. Resistant starch from lotus: Nano-reduction and its impact on

RESEARCH INDICES

Google Scholar

H index: 55

Citations: 8500

Publications: 215

PATENTS: 05

Grants: 8,42,105 USD

AWARDS

Ist Runner up for the prestigious NASI-Elseveir Scopus Young Scientist Award-2022.

Awarded with Prof. Carl Hoseny Award 2019 AFSTI.

technofunctional and nutraceutical properties. Indian Council of Medical Research (*ICMR).*

6. Technological innovations for developing functional foods from ethnic fermented foods of the Indian Himalayas. *Department of Biotechnology Govt. of India (DBT)*
7. Effect of polyphenols from Himalayan medicinal plants of Kashmir and whey protein nano-fibers on gut microbiota. Indian Council of Medical Research (*ICMR)*
8. Exploitation of Shikonin from Arnebia Bethami for its possible utilization in the development of anti-diabetic snacks. Indian Council of Medical Research (*ICMR).*

Awarded with Fulbright Fellowship Research and Academic Excellence in the USA.

Awarded as Young Scientist Award (Innovations in Research Career) at ICFP-2018.

Certificate of Honor /Award (Outstanding scientist) University of Kashmir, Dec, 2022

Best paper award 2015, Journal of Food Science and Technology, Springer

Figures in top 2% of Scientists of world

MEMBERSHIPS

President Association of Food Scientists and Technologists, Jammu and Kashmir Chapter (India)

Lifetime Association of Food Scientists and Technologists India (AFST) member.

REFERENCE

Professor Qingrong Huang
Department of Food Science
Rutgers University
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New Brunswick, NJ 08901
USA
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Email:qhuang@sebs.rutgers.e

EXPERTISE AND CAREER SUMMARY

I am involved in teaching at the Department of Food Science & Technology, University of Kashmir, Since 2008. Currently, I assume the charge of "coordinator" of the department. In addition to excellence in teaching, I have managed to maintain an active research reputation at University of Kashmir (KU). In this period of my academic and research career at KU, I was successful in securing fourteen research fundings, eleven as PI and three as Co-PI amounting to approximately 6.0 crore INR funded by Govt. of India. I have supervised 9 PhD and Post Doc scholars. Currently and 7 scholars are under my supervision. I have Google Scholar h index of 56, cumulative Index of 747.337 and total citations of 8500. My research interests include characterization of major components of food like proteins, starch, dietary fibre mainly β-glucan, encapsulation and targeted delivery of bioactive compounds like probiotics and phenolics through gastro-intestinal tract, development and characterization of active packaging films, fortification of bakery foods with protein concentrates, development of functional foods with anticancer and antioxidant activity, nutraceutical potential of bioactive peptides. From the last six years, I have published more than 200 research and review articles in high impact journals of international reputation like Food Chemistry, Food Hydrocolloids, Carbohydrate polymers, Innovative Food Science and Technology, Royal society of Chemistry, etc. Under the collaborative research on fermented foods, its nutraceutical potential impacts on generating employment for tribal women, I have come out with significant research findings. My research team has also filed a patent for automation of *Kaladi* making process making the research findings more applicable in current scenario. With the support of my colleagues, scholars and students our department was nominated for IFT graduate programme. I have had also the privilege of establishing Food Technology labs at Govt. polytechnic for women, Srinagar funded by the World Bank, and a founding member for the establishment of Dept. of Food science and Technology at University of Kashmir.

On international level, I have been awarded with Fulbright Post Doc fellowship for research and Academic Excellence in USA, 2017-2018 at Cornell University and Rutgers University. I was also honored with Young Scientist Award (Innovations in Research Carrier) at ICFP-2018 in UAE and Prof. Carl Hoseny Award 2019 by Central Executive Committee of AFST (I). Besides this, I was listed among top 2% Scientists in 2021 and 2022 by Standford University. Presently my research pursuits include development of personalized nutrition using 3D printing and vegan meat production exploiting alternate source of protein by using high moisture extrusion. I have also been approached by Pepsico USA for research collaboration in the area of functional beverages using encapsulation technology.

ACADEMIC STATEMENT

I have had the privilege of serving as an educator and researcher at the Department of Food Science & Technology, University of Kashmir, since 2008, and it has been an enriching and fulfilling journey. Throughout my academic career, my commitment to education and the pursuit of knowledge has been unwavering. In my role as an educator, I have consistently aimed not only to impart knowledge but also to inspire a passion for learning and critical thinking among my students. I believe that education is a transformative journey, and I strive to create an engaging and intellectually stimulating environment where students can explore the intricacies of Food Science and technology. The interactions with my students, both in and outside the classroom, have been a source of great satisfaction, and witnessing their growth and achievements has been the most rewarding aspect of my academic career. As an educator, I have strived to provide students with a comprehensive understanding of Food Science and technology, offering a range of courses that are foundational to our discipline. These include **Principles of Food Science, Food Analysis, Food Processing, Food Chemistry, Advanced Techniques in Food Analysis, and Cereal Science**. These courses are designed to equip students with a strong theoretical and practical foundation, essential for their future careers in the field. In addition to teaching existing courses, I have actively contributed to curriculum development and revision, ensuring that our academic programs remain current and relevant. I have developed **courses such as Principles of Food Science, Food Chemistry, and Advanced Techniques in Food Analysis**, aligning our curriculum with the latest advancements in our dynamic field. I have also been involved in the revision and co-revision of courses like **Cereal Science, Principle of Food Science, Food Analysis, and Food Processing**, adapting them to the evolving needs of our students and the industry. My dedication to education extends to mentorship, where I have had the privilege of guiding numerous students and scholars in their academic and research pursuits. **I have supervised the research of nine PhD and Post-Doctoral scholars**, and **I am currently guiding seven more**, fostering their growth as future researchers and professionals.

My role as an educator and mentor has allowed me to contribute to the development of future leaders in our field, while my dedication to curriculum development and research has empowered me to push the boundaries of knowledge and contribute to the broader academic community. I am deeply passionate about the intersection of education and research, and I am committed to continuing my academic journey with the same vigor and enthusiasm that have defined my career thus far.

RESEARCH PURSUITS

I have maintained an active and influential presence in the realm of research. My work has been marked by a distinguished record of securing research funding, enabling a diverse range of innovative projects within the domain of Food Science and Technology. I have successfully secured fourteen

research fundings, with eleven as the Principal Investigator and three as the Co-Principal Investigator, amounting to approximately 6.0 crore INR funded by the Government of India. My research has been widely recognized through scholarly metrics, boasting a Google Scholar **h-index of 56, a cumulative index of 747.337, and a substantial total of 8500 citations**. The impact of my research extends to over 200 publications in esteemed, high-impact international journals, such as Food Chemistry, Food Hydrocolloids, Carbohydrate Polymers, Innovative Food Science and Technology, and the Royal Society of Chemistry, among others. I have also been actively involved in collaborative research initiatives with a particular focus on fermented foods and their nutraceutical potential. These efforts have yielded significant findings and even led to patent applications, enhancing the applicability of our research in real-world scenarios. Internationally, I have received esteemed honors, including the **Fulbright Post-Doctoral Fellowship** in 2019-2020 at Cornell University and Rutgers University, **the Young Scientist Award** for Innovations in Research Carrier at ICFP-2018 in the UAE, and the **Prof. Carl Hoseny Award** in 2019 from the Central Executive Committee of the Association of Food Scientists and Technologists (India). Currently, my research pursuits continue to break new ground, encompassing the development of personalized nutrition using 3D printing and the production of vegan meat, exploiting alternative sources of protein through high-moisture extrusion. I am also excited to embark on a research collaboration with Pepsico USA in the area of functional beverages using encapsulation technology, highlighting the real-world applications and industry relevance of my work.

In conclusion, my academic and research journey is characterized by an unyielding commitment to education, curriculum development, mentorship, and advancing the field of Food Science and technology through pioneering research. This holistic approach underscores my dedication to knowledge dissemination and the practical application of our findings, ultimately contributing to the betterment of society and the field itself.

INTERNATIONAL PROJECT GRANTS

1. ASEAN-India Research Grant Application No. RTF/2022/000217
2. **PEPSI CO** International Grant : Novel Encapsulation Technologies for Functional (and other) Beverage Ingredients **(Under Consideration)**

PROJECT MENTOR

1. Dr. Mehvesh Mushtaq Wani. Validation of Himalayan cheese kalari as a possible healthy substitute to Mozzarella for socioeconomic up-gradation of tribes involved in its production Project cost 45 lacs. **DST/WOS-A/ET-81/2021**

PROJECTS COMPLETED (Extramural funding) as PI

1. Nutraceutical potential of β- glucan, its utilization for making functional foods, and as an encapsulating material for target delivery of probiotics, (2013)- *Department of Biotechnology Govt. of India (DBT)* completed in 03 years

2. Wheat flour modification by bacterial, enzymatic, and chemical interventions to combat celiac disorders, (2016)- *Department of Biotechnology Govt. of India (DBT)* completed in 01 year

3. Extraction of resistant starch from rice and horse chestnut and its utilization as an Encapsulating agent for targeted delivery into the colon, (2014)-*MOFPI funded*: completed in 03 years

4. Fortification of active ingredients from saffron and sea buckthorn for development of novel functional foods, (2018) *DST, SERB funded*: completed in 03 years

5. Safety, Quality, and Nutraceutical Status of *Kradi* - A traditional Dairy-based Fermented food of Himalayan Regions of J & K, (2017)- Indian Council of Medical Research (*ICMR)*: completed in 03 years

6. Technological interventions and their application for sustainable livelihood of women folk involved in the production of various traditional milk-based fermented foods of the Himalayan belt of J&K (2018)-*NMHS- PMU* funded: completed in 03 years

7. Encapsulation of sea buckthorn polyphenols and their interaction with milk proteins for their stability and sustainable release in the gut, (2019)- Indian Council of Medical Research (*ICMR) funded*: completed in 03 years

8. Characterization of Macromolecules from underutilized millets, their nano-reduction and utilization as bioactive nano-carrier for development of functional foods, (2019)- Indian Council of Medical Research (*ICMR)* completed in 03 years

9. Nano scale reduction of starch macromolecules, its characterization and utilization as bioactive nanocarrier for development of functional foods, (2018)- Indian Council of Medical Research (*ICMR)* completed in 03 years

PROJECT COORDINATED

CRG-OEB-Plant Science Meeting scheduled to be held on 24-25 July at University of Kashmir **(SERB)**

Fund for improvement of Science and Technology Infrastructure **(FIST Program)** 2019- Level-1

PROJECTS COMPLETED (EXTRAMURAL FUNDING) AS CO-PI

1. Stability of phytochemicals during processing and storage of perishable temperate fruits, (2013)- *Department of Biotechnology Govt. of India (DBT)*
2. Use of enzymes and protective micro-organisms in enhancing nutraceutical quality of traditional meat products of India, (2013)- *Department of Biotechnology Govt. of India (DBT)*
3. Enhancing the shelf life of fresh fruit by application of edible coating containing nano-encapsulated bioactive compounds. 2016. *Department of Biotechnology Govt. of India (DBT)*
4. Risk management of fresh walnut kernels by modified atmospheric storage and edible nanocoating- *Rastriya utcharakshiksha abhiyan (RUSA) 2.0*

POST DOC FELLOWS UNDER SUPERVISION

1. **Dr. Romee Jan**

   Effect of polyphenols from Himalayan medicinal plants of Kashmir and whey protein nano-fibers on gut microbiota- Indian Council of Medical Research (*ICMR)*

2. **Dr. Bilal Ashwar**

   Encapsulation of Sea buckthorn polyphenols and their interaction with milk proteins for their stability and sustainable release in the gut- Indian Council of Medical Research (*ICMR)*

3. **Dr. Nasser Bhat**

   Exploitation of Shikonin from *Arnebia Bethami* for its possible utilization in the development of anti-diabetic snacks: mechanism of shikonin-starch interaction in a food matrix- Indian Council of Medical Research (*ICMR)*

4. **Dr. Nisar Mir**

   Characterization of Nano-reduced pseudocereal proteins, their restructuring, and utilization as nano-carriers of bioactive for the development of second-generation nutraceutical foods-N-pdf, Science and Engineering board, Govt. of India *(SERB)*

5. **Dr Lubna Masoodi**

   Development and characterization of Monoglyciride Oleogels and their utilization in bakery products. Indian Council of Medical Research (*ICMR)*

INTERNATIONAL SCHOLARS AND POST DOC

1. Dr Umar Zahoor **Curtin University, Australia**
2. **Syed Mudabir Bukhari, Cyprus**
1. Ryan Haryo **National Agency of Research and Innovation Republic of Indonesia**
2. Dr Asir **Prince of Songkla University. Hat Yai, Thailand**

RESEARCH SUPERVISION ON TOPICS OF CONTEMPORARY RESEARCH

COMPLETED

1. Safety, quality and nutraceutical status of Kradi-a traditional dairy fermented food of J & K **(Mehvesh Mushtaq, 2019)**
2. Nano-scale reduction of starch macromolecules, its characterization and utilization as bioactive nanocarrier for the development of functional foods **(Mudasir Ahmed, 2021)**
3. Production of resistant starch from locally grown rice varieties for use in functional foods and as an encapsulating agent award date **(Bilal Ashwar, 2019)**
4. Characterization of macromolecules from underutilized millets, their nano- reduction and utilization as bio-active nano-carrier for development of functional foods (**Faiza Jhan, 2022)**
5. Extraction of resistant starch from *Nelumbo nucifera.* L (Lotus): Its nano reduction for changing technofunctional and nutraceutical properties **(Nairah Noor, 2022)**
6. Characterization and Nutraceutical Potential of Beta-glucan form Selected Fungi & its Interaction With Dairy Proteins. **(Dr. Asma Ashraf Khan,2015)**
7. Encapsulation of polyphenols from traditional medicinal plants in chitosan-based nanofibers for target delivery using 3D printing (**Ifrah Hassan, 2024**)
8. Physici-chemical, nutritional and nutraceutical properties of commenly cultivated oats cultivars Kashmir and their processing potential. **(Dr Asima Shah)**
9. Optimisation of Preparation and the Characterization of Microparticles from Sorghum Dried Distillers Grain with Soluble Protein. **(Dr Umar Zahoor, 2022)**
10. Designing of Novel Micro- and Nanoemulsion Based Composite Hydrogels for Encapsulation, Stabilization, and Delivery of Bioactive Molecules in Sustainable Food System. **(Dr Pawandeep Kaur , 2023)**

UNDER SUPERVISION

1. Exploitation of encrypted bioactive peptides from pulses using bioassay-guided isolation/artificial intelligence **(Zanoor ul Ashraf)**

2. Exploration of millets and invasive plants of Kashmir for designing of personalized foods **(Aneesa Ayoub)**
3. Protein-starch nanocomplex from underutilized sources as stabilizers for pickering emulsions made by using apricot (*Prunus armenia* L.) and Sea buckthorn (*Hippophae rhamnoids* L.) seed oils **(Rahiya Rayees)**
4. Screening and quantification of anti-biotic residues in different animal-based food by liquid chromatography **(Mohd Masarat)**

SUPERVISION OF SENIOR RESEARCH FELLOWS

1. Ifra Hassan (ICMR-SRF)
2. Rahia Rasool (Inspire-DST)
3. Nairah Noor (Inspire-DST)

CONFERENCE/WORKSHOPS/SEMINARS ORGANIZED

1. Organizing secretary of 2nd National conference and workshop on Advances in Biopolymers, 2018, University of Kashmir, Srinagar, India.
2. Organizing secretary of International conference on Advances in Biopolymers , 2021University of Kashmir, Srinagar, India. iii) Organizing secretary of International conference on interface between agriculture, food , chemical and biological sciences, University of Kashmir, Srinagar, India.
3. Convener of 14 day Workshop (KARYASHALA) on Active nano-packaging films loaded with bioactive components for increasing the shelf life of foods , University of Kashmir and and SERB, India.
4. Hands on Training on the Development and Characterization of Millet-Based Extruded Products" from 23rd November 2023 to 6th December 2023

EXEMPLARY ACADEMIC GUIDANCE AND STUDENT SUCCESS

AWARDS ACHIEVED BY STUDENTS UNDER MY GUIDANCE

1. **Mudasir Ahmad:** Young Investigator Award 2015 presented by the International Union of Food Science and Technologists (IUFOST)
2. **Asima Jan- INSPIRE** Faculty position- Department of Food Science and Technology-J and K India
3. **Bilal Ahmed Ashwar**: Alltech Young Scientist Award secured 3rd place in South Asia region
4. **Mudasir Ahmad:** Best paper award 2015, Journal of Food Science and Technology, Springer
5. **Mudasir Ahmad**: Young investigator award 2017 by 5thEPNOE International Polysaccharides Conference 22-24 August 2017 Jena, Germany

6. **Mehvish Mushtaq:** Best Paper award 2018, ICFP, Sharjah, UAE

TECHNOLOGY TRANSFER (MANPOWER TRAINED)

1. Jenno J.L.H
2. Reyan
3. Irfan
4. Dr Asir Gani
5. Dr Nisar (NPDF)
6. Dr Lubna Masoodi

SKILLED MANPOWER GENERATION

Guided 86 Master's dissertations related to Food Science that are working across the globe.

1. Qazi Mubarak Food Processing and packaging industry-Qatar Middle East
2. Saniya Shakeel -leading food processing industry Snowcap India
3. Firdous Ahamd Ahanger- Food Safety Officer-Department of Health J andK, India
4. Nayeem Ahmad Lone- Food Safety Officer-Department of Health J andK, India
5. Mariya Batool- Quality controller, Kanwal Agro Foods Industries, India
6. Ishfaq Mohiddin- Project officer, Indian Agribusiness System Ltd
7. Ouzma Jan- Food Scientist zum zum industries-Jand K, India

INDUSTRY SOLUTIONS: SUCCESSFUL CONSULTANCY CASE STUDIES

1. **Royal Heritage Foods Ltd., Srinagar, India**
   Challenge: Resolving quality issues in retorted traditional meat products during storage.
   Duration: 22-01-2016 to 22-07-2016
2. **Himalayan Feeds Pvt. Limited**
   Challenge: Utilizing local agro wastes for efficient cattle feed production.
   Duration: A few months
3. **Al Rasheed Food World, Khonomoh, Srinagar**
   Challenge: Addressing technical problems related to product storage.
   Duration: A few months
4. **Directorate of Food Civil Supplies and Consumers Affairs Department Kashmir**
   Challenge: Quality evaluation of sugar and rice.
   Duration: A few months

5. **Jungle Foods, Khonomoh, Srinagar**

   Challenge: Overcoming challenges in pickle processing.

   Duration: A few months

6. **Global Sales, 55A-Nirmal Vihar, Ambala**

   Challenge: Walnut Fudge shelf-life extension

   Ongoing

CONFERENCES AND INVITED TALKS

INTERNATIONAL COUNTRIES

1. Ist International Conference on Food Properties Kuala Lumpur **Malaysia**, Jan 24- 26 (ICFP2014)
2. International Conference on Innovations in Food packaging, shelf life and Food Safety, 15-09-2015 to 17- 09-2015, Munich **Germany**
3. International Conference on Food Factors (ICOFF 2015) 22-25-2015 **South Korea**, November
4. Invited lecture in Department of Food Technology, 25/12/2016 to 02-01/ 2017, Prince of Songkhla University, **Thailand**
5. 3rd International Conference on Food Properties, Jan 24-26, UAE, (ICFP, 2018) **UAE**.

NATIONAL

1. Presented a poster at the 6th World Congress on Nanomedical Sciences, Jamia Hamdard & University of Delhi.
2. Presented a paper in 6th JK Science Congress, 2010, University of Kashmir, Srinagar, India.
3. Presented a paper in the 9th JK Science Congress, 2013, and regional Science Congress, University of Kashmir, Srinagar, India.
4. Presented a paper in ICNBL, 2021, NIT, Srinagar, India.
5. Presented a paper at the 8th International Food Convention from 12-15 December 2018 at CSIR-CFTRI, Mysore, India.
6. Presented paper at the two-day National Conference on Recent Advances in Understanding the Role of Phytochemicals in Human Health (RAURPHH), Department of Food Science &Technology, University of Kashmir, 25th and 26th July 2018.

INVITED TALKS

1. Innovative & safe solutions for agro and marine food processing to achieve sustainable nutritional security "5S') at 29th Indian Convention of Food Scientist & Technologists, AFSTI, HQ(Mysore), 5th-7th Jan 2023.

2. One-week FDP, Azadi ka Amrit Mahotsav, organized by the Department of Bioresources, University of Kashmir Srinagar sponsored by Govt of Jammu & Kashmir UT, Science, Technology & Innovation Council, Sep, 2022 (awarded **Certificate of Appreciation)**.
3. SERB sponsored High-End Workshop (Karyashala) on "utilization of Green techniques for extraction of functional ingredients from fruit and vegetable By-products for development of edible coating in fresh-cut produce" 17^{th}-28^{th} August 2023.

WORKSHOPS AND ORIENTATIONS

1. Attended four-week UGC sponsored 63rd General Orientation Course (19-12-2013 to 20-01-2014).
2. Participated in a two-day workshop on ''Dietary Trends in Kashmir'' held at the University of Kashmir, Srinagar from 23rd to 24th March 2009.
3. Attended a three-week special Winter School Refresher Course (ID) organized by UGC-Academic Staff College, University of Kashmir, Srinagar from 06th February 2014 to 26th February 2014.
4. Attended a three-week refresher course in Gender studies (Interdisciplinary) from March 08, 2018, to March 28th, 2018.
5. Contributed to E-content as a subject expert in B.Sc. Food Science and Technology developed under the National Mission of Education through Information Communication Technology (NME-ICT) Launched by the Ministry of Human Resource Development GOI.

INDUSTR –ACADEMIA WORKSHOPS

1. Food and Bakery Expo, 2023 at University of Kashmir in which more than 100 National and Multinational Industries participated
2. Organizing member of one day seminar on "Institute-Industry Interaction "from 22-23rd February, 2017 in which various MNCs, food processing industries, financial institutions and govt. organizations participated.
3. Organizing member of one day seminar on "Institute-Industry Interaction" in 2010 in which various food processing industries, financial institutions and govt. organizations participated.
4. Organizing member of one day seminar on "Institute-Industry Interaction "on 21st April, 2016 in which various MNCs, food processing industries, financial institutions and govt. organizations participated.

EDITORIAL BOARD MEMBER OF THE INTERNATIONAL JOURNALS

1. Editorial Board and Ad Hoc Reviewers, 2018
2. Scientific Reports
3. Measurment: Food
4. Foods

REVIEWER OF THE INTERNATIONAL JOURNALS

1. Food Chemistry
2. Carbohydrate Polymers
3. Foods
4. Journal of Food Science and Technology
5. International Journal of Biological macromolecules
6. LWT-Food Science &Technology
7. ACS Food Science &Technology
8. Food measurements and characterization
9. Food Hydrocolloids
10. Food Research International
11. Food Bioscience
12. Scientific reports
13. Food packaging and shelf life
14. Ultrasonics Sonochemistry
15. Bioactive carbohydrates and dietary fiber

LIST OF PATENTS FILED

1. SEMI-AUTOMATIC KRADI MAKING MACHINE, Indian Patent Application No. 202211057391, National Research Development Corporation (NRDC), Ministry of Science and Technology, GOI, 2021
2. Development of functional milk product by inclusion of nano-encapsulated Sea buckthorn polyphenols: Techno-functional and nutraceutical properties. Reference No/Application No: TEMP/E-1/69513/2023-DEL. Inventors: Bilal Ahmad Ashwar, Asima Shah, Adil Gani
3. Formulation design, development, and optimization for commercialization of lab-validated fruit and yogurt-based amoxicillin melt for pediatrics. Inventors: Dr. Asima Shah, Rabiah Bashir, Dr. Adil Gani.
4. Electrospun-resistant starch from Himalayan lotus stem as a scaffold for delivery of probiotics Inventors: Nairah Noor, Adil Gani, Naseer Ahmad Bhat, Irfan Ahmad Raina

LIST OF BOOKS

1. Food Hydrocolloids as Encapsulating Agents in Delivery Systems. Adil Gani, F.A. Masoodi, Umar Shah,Shah Asima, 9781138600140, Taylor and Francis.

2. Food biopolymers: Structural, functional and nutraceutical properties. Dr. Adil Gani, Idrees Ah. Wani, 978-3-030- 27060-5.

3. Starch A Hydrocolloid. ISBN: 978-81-928671-1-3 , CRS Press.

LIST OF BOOKS CHAPTERS

1. **Adil Gani,** F. A. Masoodi, Umar Shah, Shah Asima (2019). Food Hydrocolloids as Encapsulating Agents in Delivery Systems. CRC Press, ISSN: 781-138-60014-0.

2. Asima Shah, Bilal Ashwar, Asir Gani, **Adil Gani**, F.A.Masoodi (2019). Starch -A Hydrocolloid-Structure, Properties, Modifications and Applications in Foods SciMedTech Publishing, ISBN:978-81-9286 71-1-3.

3. Asima Shah, F.A.Masoodi, **Adil Gani**, Zanoorul Ashraf, Nairah Noor (2021). Arabinoxylans. Springer, ISSN: 978-3-030-27060-5.

4. Zanoor ul Ashraf, Asima Shah, F.A. Masoodi, **Adil Gani**, Nairah Noor (2020). Mosambi (Sweet Lime). Antioxidants in Fruits: Properties and Health Benefits, Springer, ISSN: 978-981-15-7285-2.

5. Nusrat Jan, Touseef Ahmed Wani, F.A.Masoodi, **Adil Gani**, H.R.Naik (2021). Beta-glucan. Food biopolymers: Structural, functional and nutraceutical properties. Springer, ISSN: 978-3-030-27060-5.

6. Resistant Starch and Slowly Digestible Starch. Bilal Ahmad Ashwar, **Adil Gani**, Asima Shah, Mudasir Ahmad, Asir Gani, Faiza Jhan et al, Pages 19-39. Food biopolymers: Structural, functional and nutraceutical properties, Springer International Publishing.

7. Recent Advances in the Application of Starch and Resistant Starch and Slowly Digestible Starch. Mudasir Ahmad, Sayeed Rukhsaar, **Adil Gani**, Bilal Ahmad Ashwar, Touseef Ahmed Wani, Umar Shah & Faiza Jhan, 59-90. Springer International Publishing

8. Beta-Glucans. Nusrat Jan, Touseef Ahmed Wani, F. A. Masoodi, **Adil Gani**, H. R. Naik Pages 93-125. Food biopolymers: Structural, functional and nutraceutical properties, Springer International Publishing

9. Pectin. Nairah Noor, Asima Shah, Asir Gani, **Adil Gani**, Faiza Jhan, Zanoor ul Ashraf et al. Pages 127-171. Food biopolymers: Structural, functional and nutraceutical properties, Spinger publications.

10. Arabinoxylans. Asima Shah, F. A. Masoodi, Asir Gani, **Adil Gani**, Zanoor ul Ashraf, Nairah Noor et al. Pages 173-186. Food biopolymers: Structural, functional and nutraceutical properties, Spinger publications.

11. Dietary Gums. Prakhar Chatur, Umar Shah, Asir Gani, Mudasir Ahmad, **Adil Gani**, Zakir Khan Pages 187-208. Food biopolymers: Structural, functional and nutraceutical properties, Spinger publications.

12. Nisar Ahmad Mir, Mamta Bharadwaj, Basharat Yousuf, Khalid Gul, Charanjit Singh Riar, Sukhcharan Singh Pages 211-229. Food Biopolymers: Structural, Functional, and Nutraceutical Properties: Food Proteins: An Overview.

13. Recent Advances in Analysis of Food Proteins. Mehnaza Manzoor, Jagmohan Singh, Aratrika Ray, **Adil Gani**. Pages 269-298. Food Biopolymers: Structural, Functional, and Nutraceutical Properties: Food Proteins: An Overview.

14. Advances in the Application of Food Proteins and Enzymes. Faiza Jhan, Nusrat Jan, **Adil Gani**, Nairah Noor, Mudasir Ahmad, Naseer Ahmad Bhat et al. Pages 339-386. Food Biopolymers: Structural, Functional, and Nutraceutical Properties: Food Proteins: An Overview.

15. Khalid Muzaffar, Romee Jan, Naseer Ahmad Bhat, **Adil Gani,** Mudasir Ahmed Shagoo. Chapter 25 - Commercially Available Probiotics and Prebiotics Used in Human and Animal Nutrition, *Advances in Probiotics Microorganisms in Food and Health*, 2021, Pages 417-435. Academic Press.

16. Gazalla Akhtar, Naseer Ahmad Bhat, F.A. Masoodi, **Adil Gani.** Chapter 23 - Small- and Large-Scale Production of Probiotic Foods, Probiotic Potential and Nutritional Benefits. Advances in Probiotics Microorganisms in Food and Health, 2021, Pages 365-395. Academic Press.

17. Ifra Hassan, **Adil Gani,** Zanoor Ul Ashraf. Chapter 3 - Simulated Gastrointestinal System to Assess the Probiotic Properties Modified to Encapsulation of Probiotics and Their Survival Under Simulated Gastrointestinal System. Advances in Probiotics Microorganisms in Food and Health, 2021, Pages 37-44. Academic Press.

18. Nanomaterials in Food Packaging Nairah Noor, Asima Shah, **Adil Gani**, Zanoor Ul Ashraf, FA Masoodi, 2021. 270-287.IGI Global.

19. Kour, J., **Gani, A.** (2021). Nigella sativa Seed Cake: Nutraceutical Significance and Applications in the Food and Cosmetic Industry. In: Fawzy Ramadan, M. (eds) Black cumin (Nigella sativa) seeds: Chemistry, Technology, Functionality, and Applications. Food Bioactive Ingredients. Springer, Cham.

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ABSTRACTS/ ARTICLES IN CONFERENCE PROCEEDINGS

1. **F**. A. Masoodi, S.M. Wani, **Adil Gani** & Sajad Ahmad Rather (2013). Status of apple storage & processing in India. Accepted for presentation in "*3rd Incoftech*" held at Indian Institute of Crop Processing Technology, Tamil Naidu, on 3rd-4th Jan., 2013.
2. Zohra Tabasum, F. A. Masoodi, S. M. Wani, B. A. Ganaie & **Adil Gani** (2013). Effect of microwave treatment on PPO activity & antioxidant potential of apple. Paper present at*"Ninth JK Science Congress & Regional Science Congress"* held at University of Kashmir on Octobar 1st -3rd, 2013.
3. Mehvish Mushtaq, **Adil Gani**, S. M. Wani, I. A. Wani, &F. A. Masoodi (2013). Nutraceutical potential of milk based fermented product of J & K: Kradi. Paper present at *"Ninth JK Science*

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4. Asma Ashraf Khan, **Adil Gani**, F. A. Masoodi**,** S. M. Wani, & I. A. Wani (2013). Prebiotics from fungal sources- review of recent advances. Paper present at *"Ninth JK Science Congress & Regional Science Congress"* held at University of Kashmir on October 1st -3rd, 2013.
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9. Sheeba Shah, **Adil Gani** & F. A. Masoodi (2013). Comparative study of Green & Black tea with respect to antioxidant & antiproliferative activity. Paper present at *"Ninth JK Science Congress & Regional Science Congress"* held at University of Kashmir on Octobar1st-3rd, 2013.
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12. Umaya Riyaz, S. M. Wani, **Adil Gani,** F. A. Masoodi and AmreenNazir (2013). Processing of Apricots (*Prunus armeniaca* cv. *Narmo*). Paper present at *"Ninth JK Science Congress & Regional Science Congress"* held at University of Kashmir on Octobar 1st -3rd,2013.
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17. Azra Hussain, F.A. Masoodi and **Adil Gani** (2012). Effect of diameter of lotus stem on dehydration characteristics and physicochemical properties of its starch. Paper present at *"8th JK Science Congress"* held at University of Kashmir on Sep. 17 -19, 2012.
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22. Asma Ashraf Khan, **Adil Gani,** F. A. Masoodi, Furheen Amin (2014). Antioxidant and functional properties of yeast β-glucan obtained from the local market of Srinagar. Accepted for presentation in "*Recent Developments in Human Nutrition*" held at Department of Food Science &Nutrition, University of Veterinary & Animal Sciences, Lahore on 19-20th March,2014.
23. Sajad A. Rather, Rehana Akhter, F.A. Masoodi, **Adil Gani** and S.M. Wani (2015). Effects of Double Alginate Coatings on Gastrointestinal Digestion and Thermal Tolerance of Lactic Acid Bacteria. Presented at "Biotechnological Interventions for upgradation of Food Products of India" in University of Kashmir, on 9-10th September 2015.

24. **Adil Gani**, Asima Shah, F. A. Masoodi (2015). Biopolymer based active packaging films-Development and characterization and release kinetics. *International Conference on Innovations in Food packaging, shelf life and Food safety* organized by Elsevier held at Munich Germany on 15-09-2015 to17-09-2015.

25. **Adil Gani**, Asima Shah, Mudasir Ahmad, F. A. Masoodi (2015). DNA scission inhibition, antioxidant, and antiproliferative activities of water chestnut (*Trapa natans*) extracted in different solvent*. Ist international conference on Food Properties,* Kuala lumpur Malaysia, Jan 24-26 (ICFP2014) held at University of Malaysia, Kuala lumpur Malaysia on 24-26 2014.

26. **Adil Gani**, Asima Shah, Mudasir Ahmad, F. A. Masoodi (2015). Utilization of Cereal Based Macromolecules for Microencapsulation and Active Packaging Material.*6thInternational conference on Food Factors (ICOFF2015) held at Korean Society of Food Science and Technology* held at Seoul, South Korea on 22 to 25, November 2015.