

Technology Development efforts in Health, Food and Agriculture

engineered by Bio-Science research at BARC

We are delighted to bring out this issue of BARC Newsletter on the momentous occasion of 'National Technology Day' (NTD). Every year, May 11 is celebrated as National Technology Day to commemorate the successful execution of "Operation Shakti", which constituted a series of nuclear explosions conducted at Pokhran in Rajasthan, on May 11 and May 13, 1998. These nuclear tests proved the country's technological and scientific prowess and had established India as a self-reliant and responsible nuclear power.

It is our honor to contribute to this special issue of BARC Newsletter as Associate Editors. Some of the important scientific and technological achievements of BARC in the field of nuclear science encompassing health, agriculture, food, and water have been curated in this issue. Supported by decades of high-quality pure and applied research in Bio-Sciences, BARC has achieved significant milestones in these areas of national importance. This has translated into a high degree of self-reliance in the development of affordable nuclear medicines, cancer therapeutics and radiation-guided diagnosis as well as therapy. Furthermore, mutation breeding for crop improvement, devising sustainable technologies for crop protection, radiation processing to extend the shelf-life of foods, and water/waste treatment are some of the diverse areas of societal applications wherein BARC has developed a unique pan-India footprint. We have attempted to cover this wide expanse of R&D work in BARC in this thematic issue. In this regard, four articles highlight the contemporary biological research and technologies evolved in the area of health, while six articles emphasize new approaches in the field of food and agriculture, whereas one article deals with seawater desalination technologies. We are hopeful that this issue will enlighten and stimulate young researchers, invigorating them to take up challenging research problems for wider societal benefit.

On behalf of the Bio-science Group (BSG), BARC we sincerely thank all the authors for their active participation and enthusiastic support. Our heartfelt, special thanks to Dr. S. Adhikari, Director, Knowledge Management Group (KMG), for extending this opportunity and guiding us throughout publication process. We also take this opportunity to thank Mr. Manoj Singh, Head, Scientific Information Research Division, KMG. We're extremely thankful to the services of Mr. Madhav N of SIRD and the Editorial Team of SIRD for their meticulous effort in curating the content, designing/formatting the articles in their final form and for providing proofs in a timely manner.

We are thankful to Associate Director, Bio-Science Group, BARC for his unstinting support in bringing out this thematic issue of newsletter.

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