

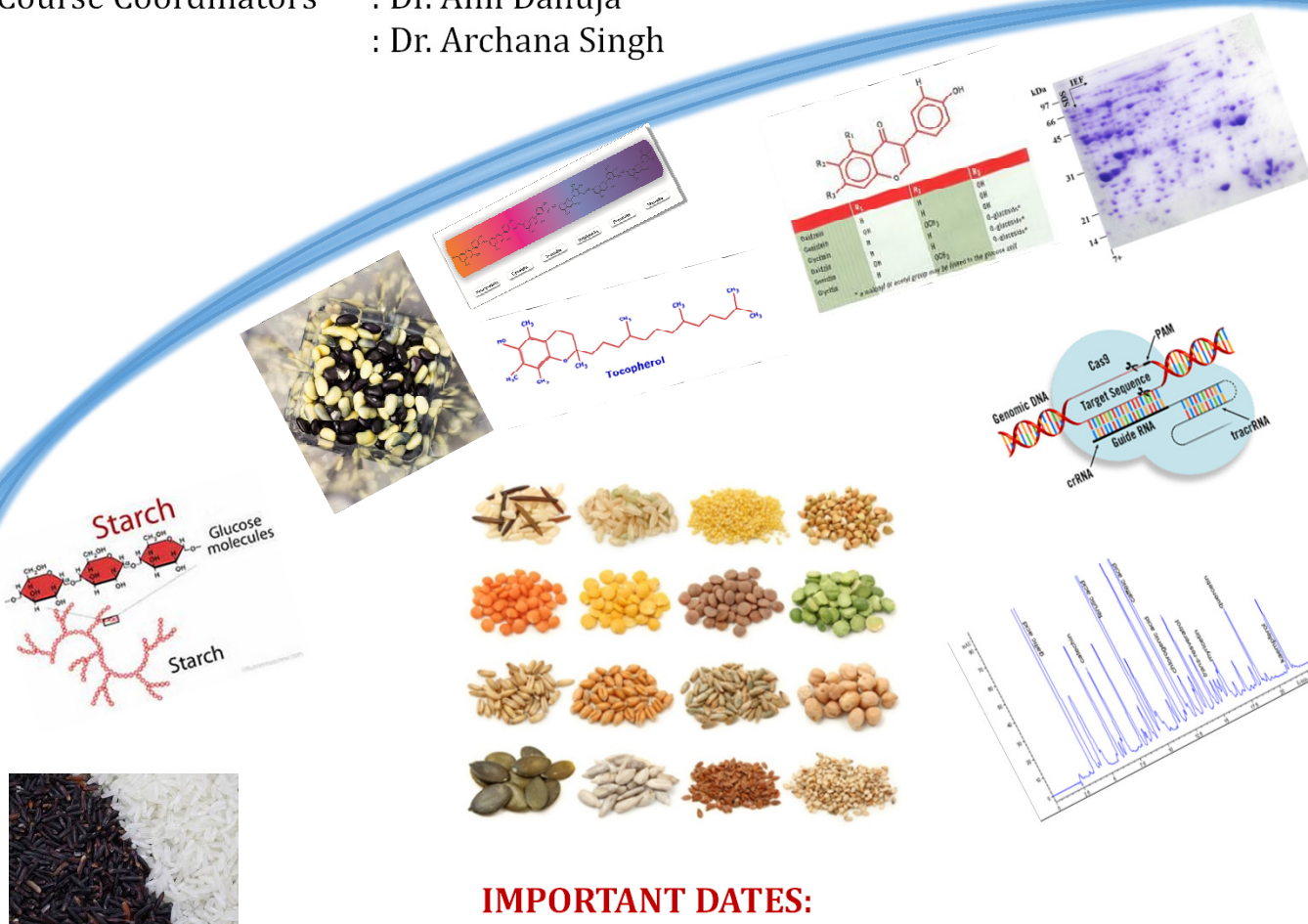
# CIRCULAR AND REGISTRATION FORM

CAFT 2017-18

## Recent techniques and tools for nutritional quality assessment and enhancement of food crops (January 23 – February 12, 2018)



Course Director : Dr. Shelly Praveen  
Course Coordinators : Dr. Anil Dahuja  
: Dr. Archana Singh



### IMPORTANT DATES:

Last date for receipt of application : 30-11-2017  
Intimation of selection : 07-12-2017  
Confirmation of participation by candidates : 15-12-2017

Sponsored by:

**Indian Council of Agricultural Research**

**Division of Biochemistry  
ICAR-Indian Agricultural Research Institute  
New Delhi-12**



The ICAR-Indian Agricultural Research Institute, New Delhi, invites applications from faculty members, and researchers of State Agricultural Universities/ICAR institutions under NARES system for a 21-day advanced training programme on, "**Recent techniques and tools for nutritional quality assessment and enhancement of food crops**" sponsored by the Indian Council of Agricultural Research, New Delhi, scheduled from **23<sup>rd</sup> January to 12<sup>th</sup> February, 2018**.

### About the Institute

The Indian Agricultural Research Institute (IARI) is the country's premier institution for agricultural research, education and extension. It has been serving the cause of science and society with distinction through basic research, generation of appropriate technologies and development of human resources. Recognizing the importance of biochemical studies in crop research, the Division of Biochemistry was created in 1966 with major emphasis on plant biochemistry, molecular biology and nutrition. Since its inception, the Division has acquired the best research, teaching and training facilities, and take legitimate pride in being recognized as the only Centre of Advanced Faculty Training in Biochemistry in NARS by ICAR ever since 1995.

### Introduction about the training programme

The current nutritional deficiency statistics claim that 842 million people around the globe are undernourished and close to 2 billion are suffering from "hidden hunger" due to inadequate intake of essential micronutrients. These alarming statistics of nutritional deficiency underscores the unpalatable fact that "Green Revolution" yielded only partial and short-term relief to the problem of hunger. Low dietary diversity and major dependence on calorie-rich diets are mainly responsible for high malnutrition rate especially in Asian and African countries. The development of nutritionally-dense and -diverse crop plants through biofortification seems to be the only sustainable solution to this nutritional predicament having far-reaching consequences. However, the nutritional quality assessment of the various food and horticultural crops is the first and foremost step towards this direction followed by elucidation of metabolic pathways involved in the biosynthesis and accumulation of nutritionally important phytonutrients and their further manipulation through genetic engineering. However, to accomplish this herculean task trained human resource in the area of nutritional biochemistry would be required, which unfortunately is inadequate at present. Over the years, the faculty in the Division of Biochemistry, ICAR-IARI, New Delhi has acquired requisite expertise in this area and most of the infrastructure needed for this purpose has been put in place in the division. We have also conducted many basic training programmes on this aspect during recent years. Currently, the Division is ambitiously pursuing the research

in this field. The current training programme has, therefore, been planned with an objective to expose and train more number of teachers/researchers from ICAR and SAUs in this area for their better understanding of food and nutritional security.

### **Objective**

The major objective of the training programme is to provide hands-on-training to the young scientists, faculty and researchers on recent techniques and tools for nutritional quality assessment and enhancement of food crops. The training programme will focus on providing practical experience to the participants on the emerging biochemical/molecular biology tools and techniques in addition to lectures by experts in the area so as to enable them to use the techniques in their crop improvement research programmes.

### **Duration and content of the course**

The training programme, comprising of lectures and practicals relevant to the title of course has been planned for 21 days. The lectures/practicals pertaining to estimation, quantification and importance of nutritionally important biomolecules/antioxidants such as, anthocyanins, tocopherol, isoflavones, resistant starch etc. as well as anti-nutrients like phytic acid and BOAA will be delivered / conducted by experts from IARI and other premier institutes. Furthermore, participants will also be exposed to advanced proteomics and genome editing tools.

### **Eligibility**

- I. Master's Degree in Plant Biochemistry, Plant Molecular Biology & Biotechnology and related disciplines.
- II. The scientist must have 2 years working experience on biochemical/molecular biology techniques, and
- III. Working not below the rank of Assistant Professor and equivalent in the above mentioned subject under Agricultural University / ICAR Institutes

### **Mode of application and selection**

The scientists interested in participating CAFT course should apply through proper channel in the given proforma. The application from the candidates will be received online (ICAR mandate) using CBP vortal through <http://iasri.res.in/cbp> or under the link Capacity Building Programme at <http://icar.org.in>. After filling the online applications, take a printout of the application and get it approved by the competent authority of the organization and upload the scanned copy of application through CBP vortal on or

before **30.11.2017**. However, an advance copy (via email) of the same may directly be sent to the Course Coordinators ([ad\\_bio@yahoo.com](mailto:ad_bio@yahoo.com) or [sarchana19@gmail.com](mailto:sarchana19@gmail.com)). Selection of participants will be from online applications. A total of 25 candidates will be selected for this course. The selection of the candidates will be done by a screening committee constituted for this purpose by the competent authority as per the ICAR guidelines. The list of selected candidates will be uploaded/displayed on the cbp portal of ICAR on **07-12-2017**. The selected candidates will be informed individually also through E-mail. The participants are requested to keep in contact with the Director/Coordinators regarding their selection status.

### TA/DA and Accommodation

The participants will be provided to-and-fro fare restricted, however, to AC-II-Tier train fare by the shortest route or as per actual whichever is lesser. The reimbursement will be made as per the stipulated ICAR guidelines in this regard. Participants should produce a certificate that they have not been given TA/DA by their host institute (Head of the Department/Institute) and the training period should be considered 'On Duty' by the participant's parent institution. Boarding and lodging for the participants will be provided at the IARI guest house and the charges will be met by the training programme.

### Contact Details

Course Director	Course Coordinator
<p><b>Dr SHELLY PRAVEEN</b>  <b>CAFT Director &amp; Head</b>  <b>Division of Biochemistry, ICAR-IARI</b>  <b>New Delhi-12</b></p> <p><a href="mailto:shellypraveen@hotmail.com">shellypraveen@hotmail.com</a>  <a href="mailto:shellypraveen@gmail.com">shellypraveen@gmail.com</a>  <a href="mailto:head_biochem@iari.res.in">head_biochem@iari.res.in</a>  <b>Mobile: 9868033132;</b>  <b>Tel (O): 011-25842038</b></p>	<p><b>Dr ANIL DAHUJA</b>  <b>Principal Scientist,</b>  <b>Division of Biochemistry,</b>  <b>ICAR-IARI, New Delhi-12</b>  E-mail : <a href="mailto:ad_bio@yahoo.com">ad_bio@yahoo.com</a>  <a href="mailto:anilda@iari.res.in">anilda@iari.res.in</a>  Mobile : 9818379701</p> <p><b>Dr ARCHANA SINGH</b>  <b>Principal Scientist</b>  <b>Division of Biochemistry</b>  <b>ICAR-IARI, New Delhi-12</b>  E-mail : <a href="mailto:sarchana19@gmail.com">sarchana19@gmail.com</a>  Mobile : 9810424146</p>



**Centre for Advanced Faculty Training  
Division of Biochemistry  
ICAR-Indian Agricultural Research Institute  
New Delhi 110 012**



**Application form for training programme  
On**

**Recent techniques and tools for nutritional quality assessment and  
enhancement of food crops**

1. Name of the applicant (in block letters) :
2. Designation :
3. Present employer address :
4. Address to which reply should be sent :
- Phone: Office \_\_\_\_\_ Residence \_\_\_\_\_
- Mobile: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_
5. Permanent Address :
6. Age and Date of Birth :
7. Sex :
8. Marital status :
9. Educational qualifications (graduation onwards)

Degree	Subject	Year	Percentage of marks/Division	Name of the University/Institution

10. Teaching/Research/Professional experience (mention post held):
  - a) Area of research
  - b) Publications during last five years (please attach list)
  - c) Indicate the future plans on utilizing the technical expertise gained from the training programme in your research (attach separate sheet, if necessary)
11. Indicate whether you have attended any Summer/Winter school/Short course/training programme during last five years under ICAR or any other organization

**Signature of the Applicant**

**12. Recommendations of the forwarding Institute**

Signature

Designation:

Address:

Date:

It is certified that the information was furnished by the office record and was found correct.