

# **INTERNATIONAL CONFERENCE ON 'ADVANCES IN CHEMISTRY AND BIOLOGY OF CARBOHYDRATES' (CARBO XXXV)**

*Organized by*

Chemistry & Bioprospecting Division, Forest Research Institute, Dehradun  
*in association with*

Association of Carbohydrate Chemists and Technologists (India)  
in commemoration of 75<sup>th</sup> year of India's Independence  
(*Azadi ka Amrit Mahotsav*)

**Date:** December 04-05, 2021

**I**

**Venue:** ICFRE Board Room, Dehradun

## **DAY 1 (December 04, 2021)**

### **Inaugural Session**

9:20–9:30 hrs	Assemblage at the web
9:30–9:35 hrs	Welcome address and Introductory note by Dr. Vineet Kumar, Scientist-G & Organizing Secretary, Chemistry and Bioprospecting Division, FRI, Dehradun
9:35–9:40 hrs	ACCTI and its activities by Prof. G.S. Chauhan, Vice President, ACCTI and Emeritus Professor, Himachal Pradesh University, Shimla
9:40–9:45 hrs	Journey of 'Trends in Carbohydrate Research' by Dr. P.L. Soni, Chief Editor, e-TCR and Chief Advisor, ACCTI
9.45–9.55 hrs	Inaugural Address by the Chief Guest Sh. A.S. Rawat, IFS, Director General, Indian Council of Forestry Research & Education, Dehradun.
9.55–10.00 hrs	Vote of Thanks by Dr. Y.C. Tripathi, Head, Chemistry and Bioprospecting Division, FRI, Dehradun

### **Technical Session-I**

**Chairpersons:** Prof. K.P.R. Kartha and Dr. V.K.Varshney

Time Duration	Presentation Title & Speaker
10:00–10:20 hrs <b>Opening Lecture</b>	<b>An Overview of Carbohydrate Research at FRI, Dehradun</b> — Dr. Vineet Kumar, Chemistry and Bioprospecting Division, FRI
10:20–10: 55 hrs <b>IL-2</b>	<b>Chemoenzymatic synthesis and applications of carbohydrates and glycoconjugates</b> — Prof. Xi Chen Department of Chemistry, University of California-Davis, One Shields Avenue, Davis, CA95616, USA
10:55–11:30 hrs <b>IL-3</b>	<b>Carbohydrates: The Sweet World</b> — Prof. Balaram Mukhopadhyay, Sweet Lab, Department of Chemical Sciences, Indian Institute of Science Education and Research, Kolkata, India
11:30–12:05 hrs <b>IL-4</b>	<b>Glycoproteomic profiling of plasma, synovial fluid cell of Rheumatoid Arthritis and their glyco based mechanistic study: A Potential Prognostic Marker identification</b> — Dr. Sagarika Biswas, Institute Of Genomics And Integrative Biology (CSIR-IGIB), New Delhi, India

12:05–12:40 hrs <b>IL-5</b>	<b>Carbohydrate based molecules of therapeutic potential – Prof. Anup Kumar Misra, Bose Institute, Division of Molecular Medicine, Kolkatta, India</b>
12:40–13:00 hrs <b>SL-1</b>	<b>Polysaccharides role in bridging gut and brain functions – Dr. Harish Parshanth, Functional Biopolymer Lab, Department of Biochemistry, CSIR-Central Food Technological Research Institute, Mysore 570020, India</b>

## Technical Session-II

**Chairpersons: Dr. Vineet Kumar and Dr. Amit Bhatt**

14:00–14:35 hrs <b>IL-6</b>	<b>Structure and Function of Synthetic Polysaccharides and Glycopeptides – Prof. Dr. Peter H. Seeberger, Max-Planck Institute for Colloids and Interfaces Am Mühlenberg, Potsdam (Germany) and Department of Chemistry, Freie Universität Berlin (Germany); Editor in Chief, Beilstein Journal of Organic Chemistry</b>
14.35–15.10 hrs <b>IL-7</b>	<b>Novel glycan-based fluorescent nanoprobes for biological applications from mammalian cells to plants – Prof. M. Carmen Galan, School of Chemistry, University of Bristol and Editor-in Chief, Carbohydrate Research</b>
15.10–15.30 hrs <b>SL-2</b>	<b>Efficient utilization of <i>Bacillus licheniformis</i> from hot-spring for cellulase production and generation of bioethanol from algal waste – Dr. Debrata Baishya, School of Chemistry, University of Bristol and Editor-in Chief, Carbohydrate Research</b>
15.30–15.50 hrs <b>SL-3</b>	<b>Can nature-inspired sugar-based ionic molecules provide a sustainable future? – Dr. S. Rajasekhara Reddy School of Advanced Sciences, Department of Chemistry, VIT University, Vellore-632014, India.</b>
15.50–16.25 hrs <b>IL-8</b>	<b>The use of multivalent carbohydrates against pathogenic targets</b> – Prof. Roland J. Pieters, Department of Chemical Biology & Drug Discovery, Utrecht Institute for Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands
16.25–17.00 hrs <b>IL-9</b>	<b>Food industry byproducts, a source of polysaccharides for sustainable and added value applications – Prof. Manuel A. Coimbra, LAQV-REQUIMTE, Department of Chemistry, University of Aveiro, Portugal and Editor-in Chief, Carbohydrate Polymers</b>
17.00–17.20 hrs <b>SL-4</b>	<b>Properties Evaluation of Indian Flax Fibre for Application in Textile – Dr. Kartick K. Samanta by ICAR-National Institute of Natural Fibre Engineering and Technology, Kolkata- 700040, West Bengal, India</b>
17.20–17.55 hrs <b>IL-10</b>	<b>Putting cellulose from bacteria and plants to work – Prof. Richard A. Gross, Rensselaer Polytechnic Institute (RPI), Constellation Chair: Biocatalysis and Metabolic Engineering, Center for Biotechnology and Interdisciplinary Studies; Professor, Department of Chemistry and Biology, Professor of Biomedical Engineering, New York</b>

## DAY 2 (December 05, 2021)

9:10–9:20 hrs	Assemblage at the web
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## Technical Session-III

<b>Chairpersons: Dr. P.K. Gupta and Dr. Vikas Rana</b>	
9:20–9:50 hrs <b>IL-11</b>	<b>Nanocellulose as a promising reinforced material for the papermaking process – Dr. R.M. Mathur</b> , Avantha Centre for Industrial Research & Development (ACIRD), Thapar Institute of Engineering & Technology, Patiala, India
9:50–10:20 hrs <b>IL-12</b>	<b>Synthesis of Janus-faced Homoazanucleosides and Study of their Self Organization through Watson-Crick and Hoogsteen Base Pairing – Namakkal G. Ramesh</b> , Department of Chemistry, Indian Institute of Technology Delhi, Hauz Khas, New Delhi, India
10:20–10:40 hrs <b>SL-5</b>	<b>Understanding Relationship between Properties of V-type Starch Crystal and Enzyme Resistant Starch Type V – Soumya Ranjan Purohit</b> , South Dakota State University, USA
<b>Technical Session-IV</b>	
<b>Chairpersons: Prof. K.P.R. Kartha and Prof. G.S. Chouhan</b>	
10.40–13.10 hrs	Oral Presentation by Young Researchers
<b>Technical Session-V</b>	
<b>Chairpersons: Dr. Vasudev Singh, Dr. S.S. Bisht and Dr. K. Murli</b>	
14:05–16: 25hrs	<b>Poster Presentations</b>
<b>Valedictory Session</b>	
16.25–17.00 hrs	<ul style="list-style-type: none"> <li>– Remarks on the Conference</li> <li>– Remarks by Participants</li> <li>– Concluding Remarks of ACCTI</li> <li>– Valedictory Speech</li> <li>– Vote of Thanks</li> </ul>

#### **Presentation-wise adherence to time duration**

Presentation Type	Time allotted (min)	Breakup of Allotted time (min)		
		Speaker's Introduction	Presentation	Discussion (Q/A)
Invited Lecture (IL)	35	2	25-28	5
Short Lecture (SL)	20	2	15	3
Oral Presentation (OP)	10	0	8	2

**All presenters are requested to adhere with the allotted time.**

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