

INTERNATIONAL CARBOHYDRATE CONFERENCE
on

"EMERGING FRONTIERS IN CARBOHYDRATE CHEMISTRY AND GLYCOBIOLOGY"

(EFCCG-2019)



**DECEMBER 5-7, 2019** 

Jointly Organized by



Chemistry Department, University of Lucknow, Lucknow (India),

National Institute of Pharmaceutical Education and Research, Raebareli (India)

and

Association of Carbohydrate Chemists and Technologists of India (ACCTI)



Venue:

Malviya Hall
University of Lucknow, Lucknow-226007

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#### WELCOME TO CARBO-XXXIV

To commemorate the centenary year celebrations of University of Lucknow, Chemistry Department, University of Lucknow; National Institute of Pharmaceutical Education and Research, Raebareli and Association of Carbohydrate Chemists & Technologists of India (ACCTI) jointly announce to host the International Carbohydrate Conference (CARBO-XXXIV), which will be held on December 5-7, 2019 at University of Lucknow, Lucknow. The Carbohydrate Conference (CARBO) is one of the most important events organized annually under the auspices of the ACCTI. For CARBO-XXXIV annual event, we welcome you all to University of Lucknow.

The CARBO-XXXIV will encompass recent developments in all areas of carbohydrates including glycobiology. Some of the important scientific topics are listed below. The Conference will bring together with established and emerging researchers, scientists, technologists and industrialists to serve as a forum for deliberation and discussions on the progress in all major areas of carbohydrates.

#### ABOUT THE CONFERENCE

The Association of Carbohydrate Chemists and Technologists of India (ACCTI) is a scientific body of academicians, researchers, technologists and industrialists involved in the research and development of carbohydrate chemistry, biology and technology development in the country. Since 1984, the Association is organizing carbohydrate conference (CARBO series) in collaboration with various universities and research institutes in India with the aim of developing sustainable platform for intellectual interaction between industry and academia.

Although carbohydrates are ubiquitous in both prokaryotic and eukaryotic cells, an appreciation of their varied function is only beginning to emerge in last few decades. The carbohydrates are information rich molecules vital to recognition process in biological system. Errors in glycosylation of biomolecules in cell system have severe implications and may lead to the serious disorders, such as, cancer, diabetes, etc. This implies that there is a tremendous potential for the development of carbohydrate based therapeutics or drugs to combat various diseases. Carbohydrates are multifunctional complex molecules and need special attention for their manipulation for different applications. We have gathered much of what we know today about carbohydrate functions but needs to explore more from studies involving methods of organic & analytical chemistry, structural biology, biochemistry, genetics and cell biology.

#### **TOPICS TO BE COVERED**

- **Structures & Synthesis of Complex Carbohydrates**
- **♣** Plant & Microbial Polysaccharides: Isolation, Characterization, Structure Elucidation & Utilization
- **Transition Metal Saccharides Chemistry and Biochemistry**
- **↓** Carbohydrates for Green Energy
- **↓** Glyco-Nanotechnology
- **↓** Carbohydrates in Drug Development
- Carbohydrate based Biopolymers: Modifications and Applications
- **Traditional Nutraceuticals and Complex Carbohydrates**



### LIST OF CONFIRMED SPEAKERS

Dr. Raju Adhikari	RMIT University, School of Science Cluster, School Office-Science, Australia		
Prof. Indrapal Singh Aidhen	Professor, Department of Chemistry, Indian Institute of Technology, Chennai, India		
Prof. Hiromune Ando	Professor, Department of Applied Bio-organic Chemistry, Faculty of Applied Biological Sciences, Gifu University, Japan		
Prof. Nicolai V. Bovin	Director of Department (Laboratory of Carbohydrate), Shemykain-Ovchinnikov Institute of Bioorganic Chemistry, Russian academy of science, Russia		
Prof. Tushar K. Chakraborty	Professor, Department of Organic Chemistry Indian Institute of Science, Bangalore, India		
Prof. Vito Ferro	Associate Professor, School of Chemistry & Molecular Biosciences Chemistry Building University of Queensland, Brisbane, Australia		
Prof. David W. Gammon	Professor, University of Cape Town, South Africa		
Prof. Srinivas Hotha	Professor, IISER, Dr. Homi Bhabha Road, Pashan, Pune, India		
Dr. Jeyakumar Kandasamy	Department of Chemistry, IIT (BHU)-Varanasi, India		
Prof. Suvarn S. Kulkarni	Professor,Department of Chemistry Indian Institute of Technology Bombay Powai, Mumbai, India		
Prof. Bruno J. Linclau	Professor of Organic Chemistry, Department of Chemistry, University of Southampton, Highfield Southampton		
Prof. Serge Mignani	Professor, Development Scientific Montreal, Canada		

\*In alphabetical order by Surname

Dr. Anil K. Mishra	Scientist G Head, Division of Radiopharmacy and Cyclotron Additional Director Institute of Nuclear Medicine and Allied Sciences (INMAS), New Delhi, India	
Dr. Ram Sagar Misra	Banaras Hindu University, Varanasi, India	
Dr. Laurence Mulard	Unite de Chimie des Biomolecules, Institut Pasteur, France	
Prof. Paul V. Murphy	Professor, School of Chemistry Arts/Science Building NUI Galway	
Dr. Christain M. Pedersen	Professor, Organic section, University of Copenhagen, Universitetsparken, Denmark	
Prof. Roland J. Pieters	Professor, Department of Medicinal Chemistry & Chemical Biology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University, The Netherlands	
Dr. Kikkeri Raghavendra	IISER, Dr. Homi Bhabha Road, Pashan, Pune, India	
Prof. N. G. Ramesh	Professor, Department of Chemistry, Indian Institute of Technology, Delhi, India	
Prof. C. P. Rao	Professor, Department of Chemistry, Indian Institute of Technology Bombay, Powai, Mumbai, India	
Dr. S. Rajaekhara Reddy	VIT University, Vellore, India	
Prof. Rene Roy	Emeritous Professor, Department of Chemistry, Université du Québec à Montréal, Montréal, Canada	
Prof. Richard R. Schmidt	Professor, Konstanz University, Konstanz, Germany	
Prof. M.S. Shashidhar	Professor, Division of Organic chemistry National Chemical Laboraotry Pune, India	
Prof. Mathieu Sollogoub	Professor, Sorbonne Universite- UPMC Univ Paris 06 Institute Parisien de chimie Molculaire Paris, France	
Prof. Dr. Valentin Wittmann	Professor, Fachbereich Chemie, Universität Konstanz, Germany	

#### ABOUT UNIVERSITY OF LUCKNOW

The University of Lucknow was established in the year 1920. It is one of the oldest universities of State of Uttar Pradesh. Amongst the prestigious awards of India, University Alumini got two Padam Vibhushan, four Padam-Bhushan, eighteen Padam Shri, alongwith B.C. Roy, and a Shanti Swaroop Bhatnagar awards. The University has honoured some of its distinguished alumini like Dr. Shankar Dayal Sharma (Ex-President of India), Dr. K.C. Pant (Ex-Deputy Chairman, Planning commission), Acharya Narendra Dev, Shri A.S. Anand (Ex-Chief Justice of India), Mr. Surjeet Singh Barnala (Ex-Governor of Tamil Naidu). It is also a matter of pride, that Prof. T.N. Majumdaar, Prof. D.P. Mukherjee, Prof. Camron, Prof. Birbal Sahani, Prof. Radha Kamal Mukherjee, Prof. Radha Kumud Mukherjee, Prof. Sidhant, Prof. Kali Prasad, Prof. M.P. Khare, Prof. Surya P. Dixit, Dr. Naresh Trehan, Prof. Bhumitra Prasad and many more have enlightened the lamp of Lucknow University by their knowledge and teaching. Currently, Prof. Dinesh Sharma from Department of Commerce, is the Deputy Chief Minister of the state. Tagore Central library is one of the richest libraries of India. It houses not only large number of books but also has a good collection of e-books, manuscripts, paintings, arts, objects, ancient coins, theses and research journals.

#### **ABOUT NIPER-RAEBARELI**



National Institute of Pharmaceutical Education and Research, Raebareli (NIPER-R) was created by an Act of Parliament in 2008. It functions as an autonomous institute under the aegis of Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt. of India and declared it as "Institute of National Importance". It is currently situated in its New Transit campus in Lucknow, Uttar Pradesh. NIPERs were created to bring excellence in pharmaceutical education and research from the global perspective due to India's leading role in drug-manufacturing worldwide. In a span of ten years, NIPER-R has already played a leading role in providing skilled and industry-oriented human resource to the country.



From the research point of view, it has contributed in all sectors of pharmaceutical drug development from hit discovery to formulation development leading to technologies for the future which are currently being further optimized. With the aim to create a world-class platform for synergizing academia and industry through training and research in pharmaceutical sciences, it has transformed itself into a premier centre of education and research in pharmaceutical sciences and has forged fruitful collaboration with many research organizations across India.

### ABOUT CHEMISTRY DEPARTMENT (UNIVERSITY OF LUCKNOW)



The Chemistry Department of Lucknow University came into existence in 1927. The first Head of the Department was Prof. P.S. McMahon, FNI who was also one of the founder members of the Indian Science Congress Association. The Department has been fortunate in having on its roll a distinguished staff, to name a few, Prof. S.M. Zaheer, Prof. G.S. Siddhu (Ex-Director

General, CSIR), Prof. A. C. Chatterjee, Prof. S.N. Shukla, Prof. T.N. Srivastava, Prof. M.P. Khare and many more. This is the largest department of the science faculty with strength of about 2500 Post Graduate and Under Graduate students, and about 85 research scholars. It imparts teaching both to the Biology as well as the Mathematics group students. It forms a subject combination with every subject in the science faculty. A well equipped Wi-Fi LAN setup and CLUSTER facility have been generated to be utilized by the Faculty, Research Scholars and Post Graduate Students of the Department. Department has also successfully installed recently 300 MHz NMR Spectrometer and FT-IR Spectrometer under DST-PURSE Programme. Additionally, in the Centre of Excellence Program funded by the State Government, Department had purchased some other state of art instruments. At present, the department is headed by Prof. Naveen K. Khare, the Organizing Secretary of International Carbohydrate Conference (EFCCG-2019).



#### **Scientific Information**

Call for Abstracts: All participants are invited to present their scientific contribution in the form of a poster. Abstracts must be written using MS-Word in English in one page only in Times New Roman font with 12 point size and 1.5 line spacing (Images should be sent in Tiff file format). Name of the presenting author must be underlined. The author(s) are requested to send a soft copy of the abstract through e-mail: (34carbo@gmail.com) and by post to Prof. Naveen K. Khare, Organizing Secretary (CARBO-XXXIV), Head of the Chemistry Department, University of Lucknow, Lucknow-226007.

The last date for the submission of the abstract is **October 31, 2019**.

#### **Poster Presentation Instructions**

The size of the poster should not exceed 1.00 m (height) and 0.80 m (width). Abstracts scheduled for presentation in poster sessions will be grouped by topic, numbered and listed in the final program. Awards for the best posters under different categories will be given during the conference.

#### **Awards**

Out of all the posters presented in the conference, approx ten best posters will be selected for oral presentation of ten minutes duration (8 minutes for presentation and 2 minutes for discussion). Out of all oral presentations of posters, three best presentations will be awarded. Therefore all the poster presenters are advised to bring power-point presentation of their poster.

#### **Travel**

Lucknow is well connected to all major cities in the country by air, rail & roadways. Direct flight/Trains are available to Lucknow from major cities of India. Some important road distances are Delhi 500 km, Agra 370 km, Allahabad 235 km, Kanpur 85 km, Varanasi 286 km, Ayodhya 155 km, Haridwar 500 km.

#### **VISA**

All foreign participants will require a valid passport and entry visa for India. Please consult your travel agency or nearest Indian Embassy / Consulate office.

#### Weather

Beginning of December in Lucknow will be pleasantly cold during day and subtle dip in temperature during evening. Light woolen will be required in the evening and blankets at night.





### **Registration Fees\***

Categories	Indian (INR)			Foreign (USD)	
	Before November 15, 2019		On Spot Registration	Before November 15, 2019	On Spot Registration
	ACCTI MEMBERS	NON-ACCTI MEMBERS	Additional charges		Additional charges
Students	4000	4500	+500	300	+50
Academia	4500	5500	+500	400	+50
Industries	6000	7000	+500	400	+50
Accompanying Person	3000			300	

<sup>\*</sup> Non-Refundable

Students and Post-docs are requested to submit a letter in support of their bonafide status from their respective Institution Heads.

#### **ACCOMMODATION**

The registration fee does not include accommodation charges. Participants requiring accommodation may forward their requests to the Organizing Secretary/ Convener, latest by **November 15, 2019** for making arrangements on their behalf. The local organizing committee has reserved rooms for participants in nearby hotels, guest houses and hostels; these rooms are available on first-come-first-served basis. The charges depend on category of accommodation as mentioned below:

### Category Price (INR) per night

Students Hostel Rs 600/- (limited accommodation) Budgetary Hotel Rs.3,500/-Hotels Rs. 9,000-12,000/-

#### **ONLINE PAYMENT DETAILS**

Mode of payment & Account Details		
Name of account	CARBO - XXXIV	
Name of the Bank	HDFC BANK	
Bank Address	HDFC BANK LTD, Vikrant Khand, Gomti Nagar Branch, Lucknow-226010	
Account Number	50200040547051	
IFSC Code	HDFC0003802	
MICR CODE	226240055	

Registration fee includes conference kit and book of abstracts, as well as access to the lectures and the poster sessions. It also includes tea/ coffee, conference lunch, dinner with banquet dinner. Accompanying persons do not have the right of admission to the scientific sessions and conference kit.



### **SPONSORSHIP**

SPONSORSHIP CATEGORIES	CONTRIBUTION (IN	RUPEES)
BY SPONSORING THE ITEMS/ ACTIVITIES		
Conference Kit [400 piece@ Rs. 1000.00]	4,00,000.00	
High Tea for 3 days[400@ Rs. 50.00]	20,000.00	(per day)
Lunch for 3 days [400@ Rs. 800.00]	3,20,000.00	(per day)
Dinner on Dec. 5, 2019 [400@ Rs. 1000.00]	4,00,000.00	
Banquet Dinner on Dec. 6, 2019 [500@ Rs. 1300.00]	6,50,000.00	
OTHER SPONSORSHIP CATEGORIES		
Commercial Stall [6ftx6 ft]	50,000.00	
Banner [3ftx5ft]	15,000.00	
Stand Banner	20,000.00	
TARIFF FOR ADVERTISEMENT IN SOUVENIER		
<b>Back Cover Color Page</b>	50,000.00	
<b>Back Cover Inner Color Page</b>	30,000.00	
Front Inner color page	30,000.00	
One Full Color Page	20,000.00	
Half Color Page	10,000.00	

#### **DATES TO REMEMBER**

<b>Abstracts Submission Deadline</b>	October 31, 2019	
Registration Deadline	November 15, 2019	

Send the Registration Form / Internet Banking Details by e-mail & Speed Post to:

### **CORRESPONDENCE ADDRESS**

PROF. NAVEEN K. KHARE
ORGANIZING SECRETARY (CARBO-XXXIV)
HEAD OF THE CHEMISTRY DEPARTMENT
UNIVERSITY OF LUCKNOW, LUCKNOW-226007
E-MAIL ID: 34carbo@gmail.com
MOBILE NO. +91-9451307971, +91-9415006072



### REGISTRATION FORM/ SPONSORSHIP FORM\*

### CARBO-XXXIV



International Carbohydrate Conference on "Emerging Frontiers in Carbohydrate Chemistry and Glycobiology" Organized by

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#### UNIVERSITY OF LUCKNOW, LUCKNOW

In association with

National Institute of Pharmaceutical Education and Research (NIPER), Raebareli and Association of Carbohydrate Chemists & Technologists of India (ACCTI)

December 5-7, 2019

1. Name in B	lock Letters:			
First		Middle	Surname	
(Institute/O		,		
3. Residentia	al Address:	••••••	••••••	•••••
			one/Mobile:	
4. Accompan	nying person (s), if an	y (Name/Relation)		•••••
5. I would lik	With Poster Co-sponsor Confe Advertise in Souve	Without erence Event/ Techn enir/Abstract book/	ical Session	
6. Accommo	odation Required:	Yes/No		
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8. Payment	details/Internet banl	king Transfer detail	s:	
Bank:	•••••	Amount (Rs.	):	•••••
Transaction	No	Dat	e:	•••••
Date:			Signature	of Applicant

\*To be sent by E-mail: 34carbo@gmail.com and by Speed Post to Organizing Secretary



### ABOUT LUCKNOW

Lucknow, the city of rejoices, syncretic of various cultures and mughlai cuisines and is also the administrative capital of Uttar Pradesh. It is the 12<sup>th</sup> most populous city in India. Part of the princely state of Oudh, the city has various attractions which can mesmerize the viewers and tourists across the world. Such magnificent structures across the downtown and suburbs add flavors to the existing Ganga-Jamuni Tehzeeb. Better known for its delicious cuisine and chikan embroidery. Lucknow also facilitates the positive vibrations across the Gomti river, where all the fantastic architecture can be traced existing there for the last 400 years. Indeed a unique city located in the midst of state with access to all the major destinations across the country overnight. We do take this opportunity to present some of the pictures of this city that are unique of their kind and popular amongst tourists visiting Lucknow.

