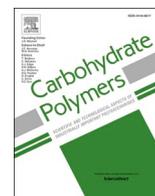




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Editorial: ICPNB 2019

This special issue is dedicated to the participants of *The International Conference on Polysaccharides for Nutraceuticals and Biomaterials* (ICPNB-2019). ICPNB-2019 was held successfully during November 1–3, 2019 in Shenzhen, China. It was jointly organized by The Hong Kong Polytechnic University (PolyU), Shenzhen Polytechnic (SZPT), Dongguan Polytechnic (DGUT), Nanchang University (NCU), Zhengzhou University of Light Industry (ZZULI), and Nanjing University of Finance & Economics (NUFE). The conference provided a unique and valuable opportunity for scholars and scientists worldwide to share their creative ideas and new findings on the function and application of natural polysaccharides for improving human health and quality of life. More than 200 local and overseas participants attended the conference. There were 33 plenary, and invited lectures and 35 oral, and 42 poster presentations, covering the novel structures and valuable functions of polysaccharides and other relevant topics.

This special issue contains a total of 19 original research papers which fall within the following areas:

- 1 Structural characteristics and biological activities of polysaccharides extracted and purified from various sources.
- 2 Modified natural polysaccharides through probiotic fermentation, gastrointestinal digestion and partial degradation by oxidative, enzymatic and ultrasonic treatment.
- 3 Manipulation and characterization of the technological properties of food polysaccharides through molecular interaction and complexation.
- 4 Fabrication of polysaccharide-based complexes, hydrogels and nanostructures for biomedical and other valuable functions.

In addition to the well documented immunomodulatory, anti-

inflammatory, anti-proliferative activities bioactivities of natural polysaccharides, considerable attention has been paid to their prebiotic function or modulation of the gut microbiota and the possible connection with the beneficial effects on gut health and treatment of metabolic diseases such as type 2 diabetes. The findings reported in these papers are of special interest and significance for better understanding of the structure-function relationships and for more effective utilization of natural polysaccharides in nutraceutical products and functional biomaterials.

It is a great honor for me to act as the Conference Chair of ICPNB-2019 and the Guest Editor of this special issue. I would like to make grateful acknowledgements to: all the sponsors, organizing committee members, colleagues and friends who had made the ICPNB-2019 event possible; Dr. Manuel A. Coimbra, Chief Editor of *Carbohydrate Polymers* for providing this valuable opportunity of publishing this VSI for our conference on this highly respected research journal in polymer science, and for his timely and adept help in my handling the manuscripts; all the authors and reviewers of the manuscripts for their contribution and cooperation during the repeated review, revision and resubmission cycles to retain the high quality of each accepted manuscript.

Finally, let's continue making our efforts and contributions to the advancement of the science, technology and application of polysaccharides for improvement of human health and life.

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