



NEWSLETTER

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<http://euchis.org>

• Editorial	2
• 14 th International EUCHIS Chitin/Chitosan Conference	3
• Travel Awards: Call for Applications	4
• Braconnot Prize 2020: Call for Nominations	5
• Poster Prize Announcement	5
• Affiliation Agreement MDPI-IJMS	6
• Books on Chitin/chitosan 2019	8
• Events	11



December 2019
No. 45

Editorial

A declaration of interest by *International Journal of Molecular Sciences* (IJMS), to establish a link with EUCHIS was discussed by e-mail correspondence in the Board. An agreement then was signed in June 2019. The full text of this agreement is included in the Newsletter. It provides several benefits for EUCHIS members, such as a discount for article processing charges (APC) and support for conferences. Though the APC is quite high, it is competitive, and we encourage EUCHIS members to consider publication of manuscripts in IJMS. The 2018 impact factor of the journal is 4.183.

Organization of the 14th EUCHIS Conference proceeds smoothly. Important information about the timeline, travel awards for graduate and PhD students is given in this Newsletter. We strongly encourage all qualifying persons to submit the application for travel awards and/or ask the supervisor to be nominated for the Braconnot prize. The latter includes in 2020 a prize money of 1000 Euro.

A new Board will be elected in the General Assembly on September 9, 2020, in Kazan. Eight members must be elected, while eight will leave the Board or move to different tasks. Any active and donor EUCHIS member may be nominated, also by self-nomination. Please indicate your interest by e-mail to the Secretary. The General Assembly will vote by secret ballot.

An increasing number of books about chitin/chitosan appeared in 2019. A brief overview of titles and tables of contents is presented and a list of conferences concludes this Newsletter.

Last not least, the Special Issue "*Chitosan for the Future*" in the journal *Reactive and Functional Polymers*, dedicated to the memory of Kjell M. Vårum and George A.F. Roberts took shape and will appear probably in spring 2020. It will contain several interesting reviews and original research papers.

Thanks to all EUCHIS members for continuing support.

With Season's greetings, we wish you a Happy New Year 2020 ! Looking forward to meeting you again in Kazan !

Münster and Bonn, 2019 / 12 / 18

Bruno M. Moerschbacher
President
Martin G. Peter
Secretary



The 14th International Conference of the European Chitin Society will continue a series of conferences on chitin and chitosan started in 1977 in Cambridge, USA. Recent EUCHIS conferences were hosted by Porto, Portugal (2013), Münster, Germany (2015), and Seville, Spain (2017). This conference and satellite events will take place at the Grand Hotel Kazan, Kazan, Russia.

Co-Chairs: Svetlana Bratskaya, Vladivostok, Oleg Sinyashin, Kazan, and Valery Varlamov, Moscow; Honorary Chair: Bruno M. Moerschbacher, Münster

EUCHIS 2020 will cover the following topics:

- Sources of chitin, preparation/production, and characterization of chitosan
 - Chitinolytic and related enzymes, including pseudoenzymes
 - Chitosan derivatization and chitosan-based functional materials (non-biomedical applications)
 - Oligosaccharides: preparation, characterization and bioactivities
 - Biomedical applications of chitin/chitosan and derivatives
 - Agricultural applications
 - Biorefinery, green energy, and green catalysis
- Contributions in other fields of chitin and chitosan research are also welcomed!

Satellite events of EUCHIS 2020

- International Young Researchers Symposium on Marine and Plant Polysaccharides (MPP 2020)
- Companies Meeting – 6th September, 2020
- General Assembly of the EUCHIS, 9th September, 2020

The official language of EUCHIS and satellite events will be English

Important dates:

Abstract submission deadline — March 15th, 2020

Decision notification — May 1st, 2020

Early bird registration — May 15th, 2020

Late registration — July 30th, 2020

For more information, see <https://euchis2020.ru/conference>

Contact: info@euchis2020.ru

Travel Awards

EUCHIS'20, Kazan, Russia

Call for Applications

Travel Awards are intended to enable graduate and doctoral student members of EUCHIS, regardless of their country of origin, to present their work in EUCHIS conferences, including Young Researchers Symposia.

Conditions

- Student Membership must be active for a minimum of two years (2019 and 2020). Applicants registering for membership in 2020 shall pay a two-year student membership subscription for 2020 and 2021 (32 EURO).
- Travel Awards will consist of:
 - a lump sum of Euro 500 to cover part of the travel expenses
 - Conference registration fee.
- Applications must be sent (**Deadline January 31, 2019**) by e-mail, ideally as **one** ZIP file, virus scanned, to the President (moersch@uni-muenster.de) **AND** to the Secretary (martin.peter@uni-potsdam.de), with the following documents enclosed
 - full name, address (residential and institutional), contact (e-mail), short C.V.
 - letter of application explaining the motivation to attend the EUCHIS conference
 - supporting letter of PhD supervisor
 - list of publications, if any
 - abstract of presentation to be submitted
 - copy of student ID
 - declaration of commitment to accept and observe the statutes of EUCHIS
 - declaration of acceptance of the conditions of the travel award.
- The Deadline for Applications is **January 31, 2020**. All applications are evaluated by the Board of Directors of EUCHIS. Decision will be communicated by February 29, 2020. Awards will be paid by bank transfer or by cheque after the conference.
- The concession of a Travel Award from EUCHIS ("The European Chitin Society") must be acknowledged in the presented Poster/Talk as well as in any resulting publication in Proceedings or Scientific Journals. Within a month after the Conference, the award-winner must submit a one A4 page with a portrait photo, a short biographical sketch including a short description of their research work and a ca. 500 words essay of their experience in the Conference. This will be published in the next issue of the EUCHIS Newsletter.
- EUCHIS reserves the right to reject applications without justification.

Braconnot Prize

Call for Nominations

The Braconnot Prize will be awarded in 2020 during the 14th EUCHIS Conference in Kazan. It consists of a certificate with the name of the recipient, a prize money in the amount of 1000 Euro, and an invitation to present the Work of excellence in a plenary lecture, the "Braconnot Lecture".

For the rules, see <http://euchis.org>. Some essentials are:

- The recipient of the Braconnot award must be no more than 36 years old during the year of the award.
- Every member of EUCHIS has the right to suggest an awardee to the President of the committee at any time. This suggestion must be accompanied in written form by a C.V. of the candidate, a list of publications, if any, abstracts of a thesis and/or publications, and a letter with arguments why the suggested candidate should be eligible for the Braconnot Prize. Candidates may not suggest themselves.
- The nominated person must be a member of the EUCHIS.

Deadline for nominations and submission of documents is February 28, 2020. They must be submitted to the President (moersch@uni-muenster.de) **AND** to the Secretary (martin.peter@uni-potsdam.de). Abstract(s) of a PhD thesis and/or publications of the winner will be reprinted in the Newsletter scheduled for April 2020.

Poster Awards

A jury will be formed to select the three best posters presented during EUCHIS'19. The winners will be honored during the conference closing ceremony and will receive a prize money (first prize 300 / second 200 / third 100 Euro) and a certificate.

MDPI-IJMS

Affiliation Agreement

The journal will display on their websites a text saying that the European Chitin Society (EUCHIS) is affiliated to *International Journal of Molecular Sciences (IJMS, ISSN 1422-0067)*. The society will display a similar text on its website. *IJMS* are published in open access model, which means:

- everyone has free and unlimited access to the full-text of all articles published in the journals;
- everyone is free to re-use the published material if proper accreditation/citation of the original publication is given;
- the authors retain the copyright of their work instead of transferring it to the publisher;
- open access publication is supported by article processing charges paid by the authors, upon acceptance of their article. However, most of the funding is ensured by the authors' institutes or research funding agencies.

Publication in open access model gives a higher visibility to the research published in the journal, by enabling researchers and practitioners from all over the world to have free access to scientific information.

Benefits for the EUCHIS

1. A 15% discount for article processing charges to all society members to publish in *IJMS*;
2. Possibility to set up dedicated Special Issues related to the society conferences, to include selected papers published in open access form, at a discounted fee. The Special Issue can be printed in book format, e-book can be downloaded for free, and hardcover can be ordered on Amazon, Apple books;
3. Publication of full conference proceeding in the journal [Proceedings](#) at preferential rates;
4. Meeting reports of society conferences will be published for free in *IJMS*;
5. Possibility to publish open access books and book series at discounted rates. Published books can be downloaded for free and printed versions can be ordered at a price;
6. [Sciforum.net](#) platform for organizing the society conferences and conference organising services at preferential rates. The society as well as each individual member can use this platform free of charge if self-managed;
7. Promotion of the conferences on the website of the journal;

8. *IJMS* will sponsor different activities at the society conferences (e.g., keynote speaker, travel grant for PhD students or Postdocs, best poster awards, coffee breaks, etc.) depending on the annual marketing budget of the journals;
9. Possibility to advertise society news on the websites of the journals and their social media channels;
10. Possibility for the society and its members to post job announcements free of charge on the websites of *IJMS*;
11. Promotion of the society to all authors submitting to *IJMS*, thus helping increase the society's visibility and hopefully attracting more members to the society.

What the EUCHIS could do for *IJMS*

1. The society will recommend *IJMS* to its members as preferred/affiliated journals;
2. The society will display the *IJMS* logo and a description of these journals on its website. The society will also display a text introducing *IJMS* as affiliated journals;
3. Set up Special Issues with society conferences and collect selected papers from these conferences;
4. Promote the Special Issues at the society conferences;
5. Display the *IJMS* logo at the society conferences.

The affiliation is a non-binding, non-exclusive agreement and involves only mutual benefits.

The agreement is valid for an unlimited period of time, unless a notification is given by either party. Any of the parties can cancel the agreement at any point in time.

On behalf of MDPI AG:
Wuhan, China
June 14, 2019

On behalf of EUCHIS:
Münster and Bonn, Germany
June 05, 2019

Dr. Rui Liu
MDPI Publisher, MDPI AG

Prof. Dr. Bruno M. Moerschbacher
President, EUCHIS
Prof. Dr. Martin G. Peter
Secretary, EUCHIS

* If authors' institutions are part of the MDPI Institutional Open Access Program and already enjoy a discount, the highest discount will apply. Discounts cannot be cumulated.

Chitin/Chitosan Books 2019

- Liming Zhao (Ed.), **Oligosaccharides of Chitin and Chitosan: Bio-manufacture and Applications**, Springer, Singapore, 2019. <https://doi.org/10.1007/978-981-13-9402-7>; Print ISBN 978-981-13-9401-0; Online ISBN 978-981-13-9402-7

Contents

Part I Introductory and Background Information

The History of Chito/Chitin Oligosaccharides and Its Monomer

Zhen Qin and Liming Zhao

Current Studies of Chito/Chitin Oligosaccharides and Its Monomer

Qiming Chen and Liming Zhao

Part II Bio-Manufacturing of Chito/Chitin Oligosaccharides and Its Monomer

Preparation of Chitooligosaccharides and Its Monomer

Weizhi Liu, Qianqian Lyu, and Zhen Qin

Preparation of Chitin Oligosaccharides and Its Monomer

Shaoqing Yang, Zhengqiang Jiang, Yihao Liu, and Shuai Ma

Detection and Separation of Chito/Chitin Oligosaccharides

Zhen Qin, Yanying Hou, Waheed Ahamed, Yun Li, and Liming Zhao

Cleaner Production Guide of Chito/Chitin Oligosaccharides and Its Monomer

Xiangzhao Mao, Na Guo, and Jianan Sun

Modification of Chitosan/Chitin and Its Oligosaccharides

Xiaoli Liu and Qixing Jiang

Part III The Application of Chito/Chitin Oligosaccharides and Its Monomer

Biological Activities and Potential Application in Food Industry

Mengyao Zhao and Liming Zhao

The Application of Chitooligosaccharides on Biomaterials

Qiming Chen and Liming Zhao

The Application of Chito/Chitin Oligosaccharides as Plant Vaccines

Xiaoming Zhao, Mengyu Wang, Wenxia Wang, Qishun Liu, Jianguo Li, and Heng Yin

The Application of Oligosaccharides in Breeding Industry

Qingsong Xu, Lunxue Wang, and Yuguang Du



- Qing Yang, Tamo Fukamizo (Eds.), **Targeting Chitin-containing Organisms** (Advances in Experimental Medicine and Biology, Vol. 1142). Springer, Singapore, 2019. <https://doi.org/10.1007/978-981-13-7318-3>; Print ISBN 978-981-13-7317-6; Online ISBN 978-981-13-7318-3.

Contents

An Introduction to the Book

Qing Yang and Tamo Fukamizo

Chitin: Structure, Chemistry and Biology

Bernard Moussian

Chitin Prevalence and Function in Bacteria, Fungi and Protists

Lea Steinfeld, Ali Vafaei, Janin Rösner, and Hans Merzendorfer

Immune Responses of Mammals and Plants to Chitin-Containing Pathogens

Xi Jiang, Han Bao, Hans Merzendorfer, and Qing Yang

Chitin Organizing and Modifying Enzymes and Proteins Involved in Remodeling of the Insect Cuticle

Subbaratnam Muthukrishnan, Hans Merzendorfer, Yasuyuki Arakane, and Qing Yang

Chitin-Active Lytic Polysaccharide Monooxygenases

Gaston Courtade and Finn L. Aachmann

- Bacterial Chitinase System as a Model of Chitin Biodegradation
Takafumi Itoh and Hisashi Kimoto
- Chitin Synthesis and Degradation in Fungi: Biology and Enzymes
Jinkui Yang and Ke-Qin Zhang
- Chitin in Arthropods: Biosynthesis, Modification, and Metabolism
Xiaojian Liu, Jianzhen Zhang, and Kun Yan Zhu
- Nematode Chitin and Application
Qi Chen and Deliang Peng
- Human Chitinases: Structure, Function, and Inhibitor Discovery
Ashutosh Kumar and Kam Y. J. Zhang
- Chitin/Chitosan-Active Enzymes Involved in Plant–Microbe Interactions
Tamo Fukamizo and S. Shinya
- Chitinous Structures as Potential Targets for Insect Pest Control
Guillaume Tetreau and Ping Wang



- G. Crini, E. Lichtfouse (Eds.), **Chitin and Chitosan: History, Fundamentals and Innovations** (Sustainable Agriculture Reviews, Vol. 35). Springer, Cham, 2019. <https://doi.org/10.1007/978-3-030-16538-3>, Print ISBN 978-3-030-16537-6, Online ISBN 978-3-030-16538-3.

Contents

- Historical Landmarks in the Discovery of Chitin
Grégorio Crini
- Fundamentals and Applications of Chitosan
Nadia Morin-Crini, Eric Lichtfouse, Giangiacomo Torri, and Grégorio Crini
- Biocatalytic Production of Hetero-Chitosan Oligosaccharides as Anti-oxidants
Swati Jaiswal, Pushplata Tripathi, and Sujata Sinha
- Enzyme Immobilization on Chitin and Chitosan-Based Supports for Biotechnological Applications
Madan L. Verma, Sandeep Kumar, Anamika Das, Jatinder S. Randhawa, and Munusamy Chamundeeswari
- Chitin and Chitosan Derivative Membranes in Resources, Energy, Environmental and Medical Field
Tadashi Uragami
- Utility of Chitosan for 3D Printing and Bioprinting
Thomas J. Kean and Maya Thanou
- The Contribution of D-Glucosamine to Cell Membrane Stability: Mechanisms and Applications in Regenerative Medicine
Yoshihiko Hayashi
- Manufacture Techniques of Chitosan-Based Microcapsules to Enhance Functional Properties of Textiles
Daniele Massella, Stéphane Giraud, Jinping Guan, Ada Ferri, and Fabien Salaün



- G. Crini, E. Lichtfouse (Eds.), **Chitin and Chitosan: History, Fundamentals and Innovations** (Sustainable Agriculture Reviews, Vol. 36). Springer, Cham, 2019.

Contents

- Nutritional and Additive Uses of Chitin and Chitosan in the Food Industry
Carla Harkin, Norbert Mehlmer, Dirk V. Woortman, Thomas B. Brück, and Wolfram M. Brück
- Chitosan for Seafood Processing and Preservation
Piotr Kulawik, Ewelina Jamróz, and Fatih Özogul
- Applications of Chitosan as Food Packaging Materials
Patricia Cazón and Manuel Vázquez

- Applications of Chitin in Agriculture
Julia L. Shamshina, Tetyana Oldham (Konak), and Robin D. Rogers
- Chitosan-Based Hydrogels
Janaina Oliveira Gonçalves, Vanessa Mendonça Esquerdo, Tito Roberto Sant'Anna Cadaval Jr, and Luiz Antonio de Almeida Pinto
- Chitin and Chitosan in Drug Delivery
Rabinarayan Parhi
- Application of Chitosan-Based Formulations in Controlled Drug Delivery
Jacques Desbrieres, Catalina Peptu, Lacramiora Ochiuz, Corina Savin, Marcel Popa, and Silvia Vasiliu
- Design of Nano-Chitosans for Tissue Engineering and Molecular Release
Sheriff Adewuyi, Iriczalli Cruz-Maya, Onome Ejeromedoghene, and Vincenzo Guarino
- Chitosan for Direct Bioflocculation Processes
Eric Lichtfouse, Nadia Morin-Crini, Marc Fourmentin, Hassiba Zemmouri, Inara Oliveira Carmo do Nascimento, Luciano Matos Queiroz, Mohd Yuhyi Mohd Tadza, Lorenzo A. Picos-Corrales, Haiyan Pei, Lee D. Wilson, and Grégorio Crini
- Cross-Linked Chitosan-Based Hydrogels for Dye Removal
Grégorio Crini, Giangiacomo Torri, Eric Lichtfouse, George Z. Kyzas, Lee D. Wilson, and Nadia Morin-Crini



- M. S. Thomas, R. R. Koshy, S. K. Mary, S. Thomas, L. A. Pothan, **Starch, Chitin and Chitosan Based Composites and Nanocomposites**, Springer, Cham, 2019. <https://doi.org/10.1007/978-3-030-03158-9>; Print ISBN 978-3-030-03157-2; Online ISBN 978-3-030-03158-9.

Contents

Introduction
Processing Techniques
Properties of Composites
Applications of Polysaccharide Based Composites
Conclusion



- L. A.M. van den Broek, C. G. Boeriu (Eds.), C. V. Stevens (Series Ed.), **Chitin and Chitosan: Properties and Applications**, Wiley Series in Renewable Resource, Wiley & Sons Ltd., Hoboken, 2019/2020. ; Print ISBN:9781119450436, Online ISBN:9781119450467. <https://doi.org/10.1002/9781119450467>

Contents

Sources of Chitin and Chitosan and their Isolation
Leen Bastiaens, Lise Soetemans, Els D'Hondt, and Kathy Elst

Methods of Isolating Chitin from Sponges (Porifera)
Sonia Żóltowska, Christine Klinger, Iaroslav Petrenko, Marcin Wysokowski, Yvonne Joseph, Teofil Jesionowski, and Hermann Ehrlich

Physicochemical Properties of Chitosan and its Degradation Products
Karolina Gzyra-Jagiela, Bożenna Pęczek, Maria Wiśniewska-Wrona, and Natalia Gutowska

New Developments in the Analysis of Partially Acetylated Chitosan Polymers and Oligomers
Stefan Cord-Landwehr, Anna Niehues, Jasper Wattjes, and Bruno M. Moerschbacher

Chitosan-Based Hydrogels
Zhengke Wang, Ling Yang, and Wen Fang

Beneficial Health Effects of Chitin and Chitosan
Liyou Dong, Harry J. Wichers, and Coen Govers

- Antimicrobial Properties of Chitin and Chitosan
Magdalena Kucharska, Monika Sikora, Kinga Brzoza-Malczewska, and Monika Owczarek
- Enzymes for Modification of Chitin and Chitosan
Gustav Vaaje-Kolstad, Tina Rise Tuveng, Sophanit Mekasha, and Vincent G.H. Eijssink
- Chitin and Chitosan as Sources of Bio-Based Building Blocks and Chemicals
Malgorzata Kaisler, Lambertus A.M. van den Broek, and Carmen G. Boeriu
- Chemical and Enzymatic Modification of Chitosan to Produce New Functional Materials with Improved Properties
Carmen G. Boeriu and Lambertus A.M. van den Broek
- Chitosan-Based Drug Delivery Systems
Cristian Peptu, Andra Cristina Humelnicu, Razvan Rotaru, Maria Emilian Fortuna, Xenia Patras, Mirela Teodorescu, Bogdan Ionel Tamba, and Valeria Harabagiu
- The Application of Chitin and its Derivatives for the Design of Advanced Medical Devices
Marcin H. Struszczyk, Longina Madej-Kiełbik, and Dorota Zielińska
- Food Applications of Chitosan and its Derivatives
Suse Botelho da Silva, Daiana de Souza, and Liziane Dantas Lacerda
- Potential of Chitosans in the Development of Edible Food Packaging
Véronique Coma and Artur Bartkowiak
- The Use of Chitosan-Based Nanoformulations for Controlling Fungi During Storage of Horticultural Commodities
Silvia Bautista-Baños, Zormy Nacary Correa-Pacheco, and Rosa Isela Ventura-Aguilar
- Chitosan Application in Textile Processing and Fabric Coating
Thomas Hahn, Leonie Bossog, Tom Hager, Werner Wunderlich, Rudi Breier, Thomas Stegmaier, and Susanne Zibek
- Chitin and Chitosan for Water Purification
Petrisor Samoila, Andra Cristina Humelnicu, Maria Ignat, Corneliu Cojocaru, and Valeria Harabagiu
- Chitosan for Sensors and Electrochemical Applications
Suse Botelho da Silva, Guilherme Lopes Batista, and Cristiane Krause Santin
- Marketing and Regulations of Chitin and Chitosan from Insects
Nathalie Berezina and Antoine Hubert

Events

- 15th International Hydrocolloids Conference, March 2–5, 2020, Melbourne, Australia; <https://www.elsevier.com/events/conferences/international-hydrocolloids-conference>
- 30th International Carbohydrate Symposium (ICS2020), July 12-17, 2020, Shanghai, China. ics2020.sioc.ac.cn
- 13th Asia-Pacific Chitin Chitosan Symposium (APCCS 2020), June 21-24, 2020, Jeju, Korea. <http://www.apccs2020.org/>
- 14th EUCHIS Conference (EUCHIS 2020), 06-10 September, 2020, Kazan, Russia. <http://euchis2020.ru>
- 21st European Carbohydrate Symposium (Eurocarb 21), Paris, France, 2021.
- 15th International Congress on Chitin and Chitosan, joint with 9th Symposium of the Iberoamerican Chitin Society (15th ICCS / 9th SIAQ symposium), Mexico, 2021.