

2022 Annual Report

January 1-December 31, 2022



ISAPP 2022 Meeting – Dolce Hotel, Sitges, Barcelona, Spain

OVERVIEW



*ISAPP Students & Fellows Association meeting participants
Dolce Hotel, Sitges, Spain*

2022 was a productive and enjoyable year for ISAPP. The ISAPP community was pleased to be able to resume its flagship activity, the in-person annual meeting. A global group of board members, invited experts, and students and fellows gathered to celebrate ISAPP's 20th anniversary in Sitges, Spain, in June 2022. This report features highlights of ISAPP accomplishments during 2022, including the progress made at the meeting and beyond.



OVERVIEW, CONT.

ISAPP is an international, non-profit collaboration of scientists, which exists to advance scientific excellence in probiotics and prebiotics. Following from discussions started in 1999, the organization was incorporated in 2002 with the goal of being the leading scientific organization dedicated specifically to probiotics and prebiotics. In recent years, ISAPP has expanded its reach to other 'biotic' substances, including synbiotics and postbiotics, as well as fermented foods. To achieve its goals, ISAPP brings together scientists from all pertinent disciplines, including microbiology, immunology, biochemistry, nutrition, molecular biology and food science, as well as healthcare professionals in fields such as family medicine, gastroenterology, pediatrics and infectious disease.

As a scientific society, ISAPP ensures its activities are focused on science, not promotion of any commercial products or advocacy of any categories. The activities of ISAPP are dictated by an academic board of directors, and facilitated by the ISAPP's Executive Science Officer, Mary Ellen Sanders, PhD (see page 10 for the complete list of board members). In 2022 ISAPP added MaryAnne Bobrow as its new business manager while saying goodbye to Marion Vinck, who served in that role since ISAPP's inception. In addition, Laura Tiernay came on board as the new Executive Coordinator, supporting the executive director, aiding the ISAPP communications functions, facilitating the annual meeting and handling travel booking for ISAPP events. Joy Yiu and Heather McCallin have moved on to new endeavours.

The board approved a dues increase for member companies effective in 2023. Dues had not increased for over 15 years.

Additional costs associated with hiring a new executive director in 2023 as well as expanded ISAPP activities necessitated the increase so that ISAPP could maintain a balanced budget. Invoices were sent in late 2022 and ISAPP did not see a decrease in the number of member companies as a result of this dues increase.

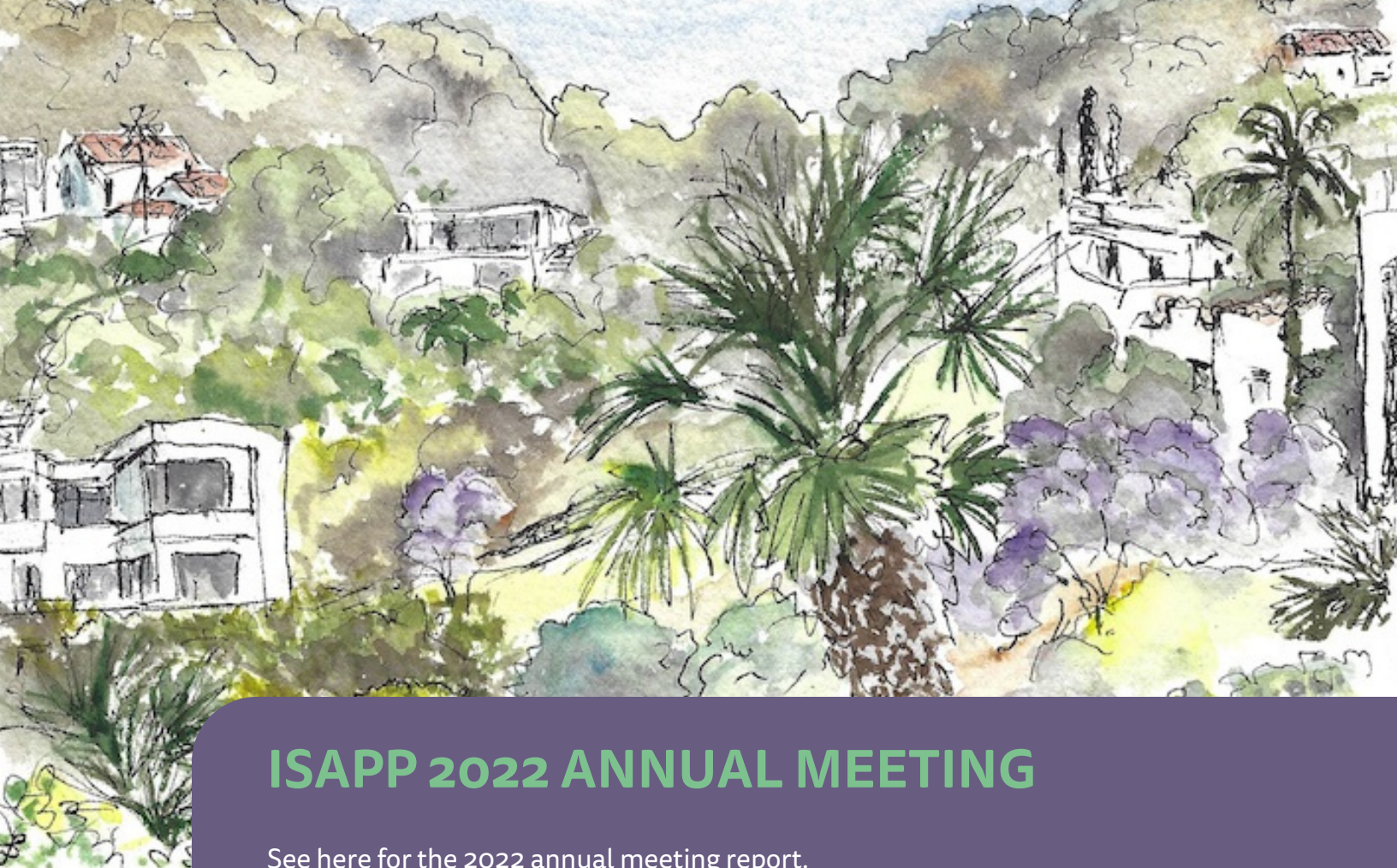
Dues paid by industry members fund ISAPP's efforts. Industry scientists from corporate member companies comprise the ISAPP Industry Advisory Committee (IAC), which offers industry perspectives for consideration by the board of directors. Each year, the IAC elects a representative to serve in a non-voting, advisory capacity to the Board of Directors. At the 2019 annual meeting, Marla Cunningham assumed the position of senior IAC representative. She has worked diligently (even attending board meetings at midnight her time in Northgate, Australia) to represent industry perspectives and provide valuable input into ISAPP projects, initiatives and communications. Because in-person meetings were not held in 2020 and 2021, Marla agreed to continue in the IAC representative role. A junior IAC representative, Dr. Mariya Petrova, was elected prior to the 2022 annual meeting.

The ISAPP Students and Fellows Association (SFA) is a group of young scientists in fields related to ISAPP's purview. They gather at the annual ISAPP meeting and participate as speakers, poster presenters and discussants. Dr. Daragh Hill from University College Cork, led the SFA through the 2022 annual meeting. Dr. Brendan Daisley took over as president for the remainder of 2022. Prof. Sarah Lebeer is the liaison to the SFA from the ISAPP board of directors. See the [SFA website](#) for further details about the executive committee in charge of SFA activities.

BENEFITS OF ISAPP MEMBERSHIP

The following are some of the benefits for ISAPP member companies:

- Participation in ISAPP's Industry Advisory Committee (IAC). This group advises ISAPP on issues of interest and helps shape the organization's activities. Regular calls for input are shared in the monthly members-only newsletter, open to everyone at an ISAPP member company.
- Participation of 2 member company representatives in the ISAPP annual meeting with full membership. No registration fee for this meeting is charged. Attendance at ISAPP's annual meeting is usually restricted to globally-recognized academic experts invited for their knowledge of the topics being addressed at the meeting, as well as IAC members and students. Find out more about ISAPP's annual meeting [here](#).
- Participation as a collaborative group of ISAPP industry and academic scientists in advancing the science of probiotics, prebiotics, and related substances. Opportunities to cooperate on peer-reviewed publications, webinars, infographics, meeting planning and others are available to interested IAC members.
- IAC members can connect with ISAPP's network of students and fellows to build relationships with some of the rising stars in related scientific fields.
- IAC members have access to [member-only content](#) including webinars and monthly newsletters, to keep members apprised of the cutting-edge scientific discussions and gather input on various ISAPP initiatives. A password-protected archive of this members-only newsletter can be found [here](#). (IAC members, please contact info@isappscience.org for access.)
- Through their support of ISAPP, member companies make possible ISAPP's many activities that advance science and knowledge more generally, including publishing consumer-friendly [infographics](#) and [videos](#), peer reviewed [publications](#) on timely scientific and regulatory topics, [blog posts](#) on current issues, and much more (see www.isappscience.org).



ISAPP 2022 ANNUAL MEETING

See [here](#) for the 2022 annual meeting report.

Watercolor of Sitges, Spain by meeting guest, Dr. Laurel Beckett.

WHAT PEOPLE ARE SAYING ABOUT ISAPP

ISAPP Industry Member

"ISAPP is an invaluable resource for keeping up to date in the fast-moving probiotic & prebiotic space and for separating the facts from the fiction when it comes to the capabilities of those technologies. The annual meetings are can't miss events for anyone wanting to network with all the best-informed academics and most responsible and innovative companies in the "biotics" category. Any company who wants to "skate to where the puck is going" will be well served by what their membership dollars will get them."

ISAPP Student and Fellows Association Member

"ISAPP-SFA provides a positive and encouraging environment to interact among aspiring researchers at different stages of their scientific careers. I enjoyed learning from the experiences of my fellow peers and I look forward to the SFA meeting each year."

ISAPP Board Member

"ISAPP is the trusted source of information on prebiotics and probiotics."

ISAPP'S ACTIVITIES: STEWARDSHIP, ADVANCING THE SCIENCE, AND EDUCATION

ISAPP as an organization flourished throughout 2022. Industry membership hit 63 companies, communications activities across all channels reached 57,000 impressions per month, accesses of the 5 ISAPP consensus papers reached close to half million, and 157 scientists from 23 countries attended ISAPP's 2022 annual meeting. Further, ISAPP has expanded its public purview beyond probiotics and prebiotics to embrace the broader scope of 'biotics' in general. Our [industry partners](#) support these activities through their insights and financial contributions.

ISAPP celebrated its 20th anniversary as an organization, marking two decades since its inaugural meeting in 2002. Some early ISAPP champions share their reflections on the organization [here](#) and [here](#). Facts about ISAPP in the past and present:

- 2002: Website www.isapp.net, 7 industry members, 68 participants in the annual meeting, and 0 publications, infographics, blogs, videos, newsletters, or social media connections.
- 2022: 63 industry members, 157 people at the annual meeting, website www.isappscience.org with multiple active social media and communication channels. To date, over 79 peer reviewed papers, 7 informational videos, 19 infographics, 2 monthly newsletters, 167 blog posts – reaching over 57,000 individuals per month with communications.

With the help of 31 individuals who have held a position as an ISAPP board member over the years, as well as numerous engaged industry scientists, committed member companies and active young scientists in the Students and Fellows Association, ISAPP has come a long way. Thank you to everyone who has made ISAPP the authoritative, vibrant organization it is today!

ISAPP continues to focus on our core values: **Stewardship, Advancing the Science, and Education**. ISAPP strives to advance and recognize excellence in science in the 'biotics' field by being a trusted authority, developing and promoting science-based communications, fostering scientific collaborations and educating about evidence-based use of 'biotics'.



Below is a short summary of how ISAPP promoted its core values over the past year.

Stewardship

- ISAPP consensus definition panels. ISAPP's five consensus papers [[probiotics](#) (2014), [prebiotics](#) (2017), and [synbiotics](#) (2020), [fermented foods](#) (2021) and [postbiotics](#) (2021)] have together amassed almost half million accesses online. Our aim is to encourage proper use of the terms scientifically, commercially and in regulatory frameworks. ISAPP hosted a [webinar](#) for members only, which addressed how to implement these ISAPP definitions.
- Advocating for improved probiotic quality. Mary Ellen Sanders continues to serve as chair of the Expert Panel on probiotics for the [United States Pharmacopeia](#) (USP), working with industry and government scientists and USP staff to develop quality standards for probiotic supplements. Mary Ellen was a co-author on a 2022 [comprehensive article on probiotic safety](#) produced by a subteam of this committee. A paper on plate count analytics was also published by this expert panel: [Improving and Comparing Probiotic Plate Count Methods by Analytical Procedure Lifecycle Management](#).
- Media and social media presence. ISAPP furthers its efforts to spread the word on 'biotics by engaging on social media platforms including Twitter (@ISAPPscience), Instagram (@ISAPPscience) and now [LinkedIn](#). ISAPP also shares important developments through press releases via the EurekAlert platform, with media coverage often resulting from these efforts.

Advancing the Science

- 2022 annual meeting. Even with the threat of COVID-19, the board made the decision to convene our 2022 meeting in-person. We were rewarded with a long overdue and very productive meeting in Sitges, Spain! See the [meeting report](#) to review the different topics and activities from the meeting. Slides and abstracts are available on a [password-protected site](#) for all industry members. Reach out to MaryEllen@isappscience.org to gain access.



- **Adequate intake of live dietary microbes.** ISAPP has extended efforts to explore the role of live dietary microbes and health. An assessment was undertaken of NHANES data to determine if there is sufficient evidence linking live dietary microbe intake and health in Americans to support an official dietary recommendation. Two papers have been published: one evaluating the quantities of live dietary microbes consumed in the US cohort, and one linking these levels of consumption to health parameters. ISAPP is also collaborating with Institute for the Advancement of Food and Nutrition Sciences (IAFNS) on a Live Dietary Microbes subcommittee of their Gut Microbiome committee. This subcommittee has funded a scoping review of published research that might inform on this question
- **Collaboration with the Institute for the Advancement of Food and Nutrition Sciences.** Mary Ellen Sanders represents ISAPP on the IAFNS Gut Microbiome Committee, for which she co-chairs the Live Dietary Microbe subcommittee. Comprising industry, government, non-profit organization and academic experts, the Gut Microbiome Committee addresses translation of gut microbiome research into actionable items related to the food industry.
- **Collaboration with GMFH.** As a representative of ISAPP, Mary Ellen Sanders serves on the Board of Experts for the Gut Microbiota for Health platform.
- **SFA engagement.** ISAPP's Students and Fellows Association encompasses a global network of 630 early career professionals who will be the leaders in 'biotics' fields in the future. IAC dues directly support the SFA (\$500/membership). SFA members actively participate in the annual meeting and provide access to cutting-edge science by early career researchers.
- **Glenn Gibson Early Career Researcher Prize.** ISAPP recognizes outstanding early career research in the field of 'biotics. See here for the 2021 and 2022 award winners.

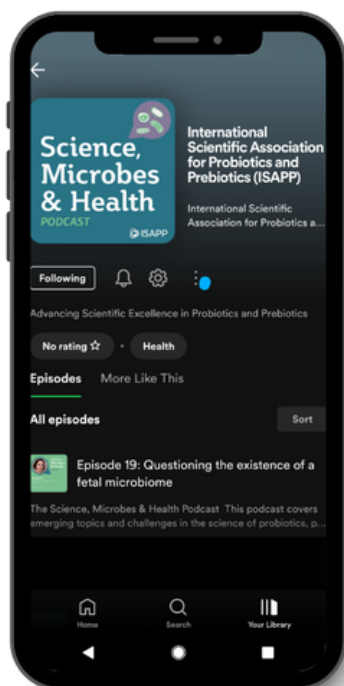


ISAPP 2022 Meeting Interactive Session



Education

- WGO probiotic and prebiotic guidelines. ISAPP collaborated with the World Gastroenterology Organisation to update their very popular Global Guidelines for Probiotics and Prebiotics. The 2022 update is expected to be published by year-end. ISAPP board members Dan Merenstein, Hania Szajewska and Seppo Salminen served on the review team for this update and Mary Ellen Sanders co-chaired the effort.



- Science, Microbes and Health podcast. In 2022, ISAPP launched a podcast featuring some of the best emerging stories in the 'biotics' fields. Access these ~30-minute episodes on our website [here](#) or click through to your preferred podcast platform.
- Webinars. ISAPP offered several webinars – all free for participants - in 2022:
 - [The prebiotic potential of polyphenols](#)
 - [Synbiotics: Definitions, Characterization, and Assessment](#)
 - [Fermented Foods and Health — Does Today's Science Support Yesterday's Tradition?](#) This webinar, in collaboration with Today's Dietitian, provides 1.0 continuing education credits to dietitians through April 2023.
 - [Human milk oligosaccharides: Prebiotics in a class of their own?](#)

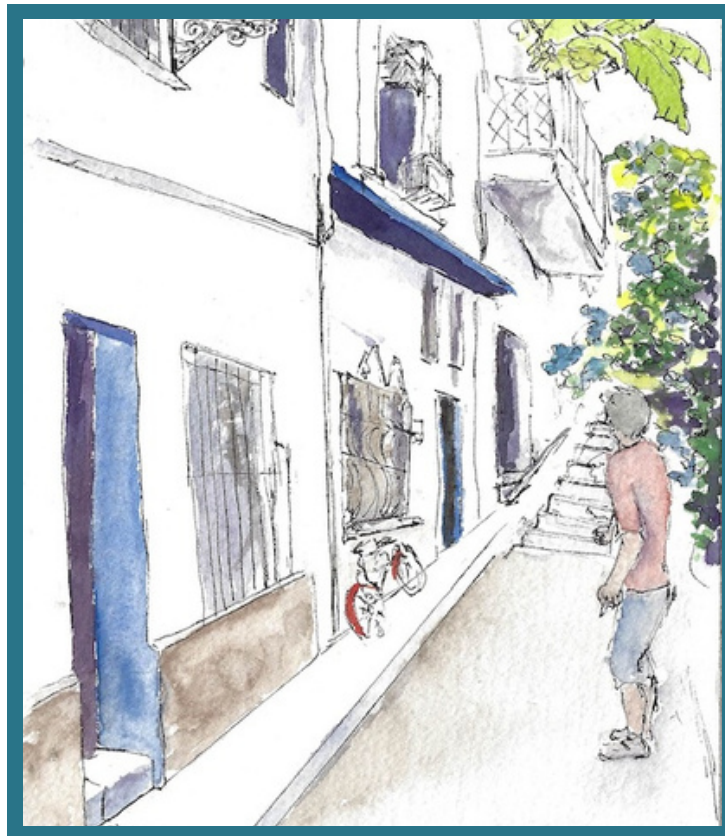
Check [here](#) for a listing of all of ISAPP's open-access virtual content.

- Blogs. ISAPP board members and guests contribute their valuable perspectives in [blog posts on our website](#). Topics include "[Why researchers need to understand more about the small intestinal microbiome](#)" and "[Are probiotics effective in improving symptoms of constipation?](#)".
- Infographics. Through the effort of [43 volunteer translators](#), ISAPP continues to expand the offering of its 19 [infographics](#) in a variety of languages. New in 2022 is the addition of the first African language, Igbo. ISAPP infographics are downloaded 3000+ times each month.
- New ISAPP video. Check out the latest in the series of short, concise [ISAPP videos](#): [What is a Postbiotic?](#)



2022 Papers from ISAPP Activities (See [full list of ISAPP's 70+ peer-reviewed publications](#))

- Vinderola, G.; Sanders, M.E.; Salminen, S; Szajewska, H. 2022. Postbiotics: The concept and their use in healthy populations. *Front. Nutr.* 9:1002213. <https://doi.org/10.3389/fnut.2022.1002213>.
- Marco ML, Hutkins R, Hill C, Fulgoni VL, Cifelli CJ, Gahche J, Slavin JL, Merenstein D, Tancredi DJ, Sanders ME. A classification system for defining and estimating dietary intake of live microbes in US adults and children. *J Nutr*, 18 May 2022. <https://doi.org/10.1093/jn/nxac074>.
- Vinderola, G.; Sanders, M.E.; Salminen, S. The Concept of Postbiotics. *Foods* 2022, 11, 1077. <https://doi.org/10.3390/foods11081077>.
- Roe AL, Boyte ME, Elkins CA, Goldman VS, Heimbach J, Madden E, Oketch-Rabah H, Sanders ME, Sirois J, Smith A. Considerations for determining safety of probiotics: A USP perspective. *Regul Toxicol Pharmacol.* 2022 Oct 4;136:105266. <https://doi.org/10.1016/j.yrtph.2022.105266>



Watercolor of Sitges, Spain by meeting guest, Dr. Laurel Beckett.

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