

Board of Directors: Daniel Merenstein MD, President; Maria Marco PhD, Vice-President; Seppo Salminen PhD, Past-President; Gabriel Vinderola PhD, Secretary; Daniel Tancredi PhD, Treasurer; Members at Large: Robert Hutkins PhD (through June 2022), Karen Scott PhD, Eamonn Quigley MD, Colin Hill PhD, Sarah Lebeer PhD, Hania Szajewska MD, Kelly Swanson PhD and Anisha Wijeyesekera PhD. Mary Ellen Sanders PhD, Executive Science Officer.

Highlights of ISAPP Activities 2022

ISAPP celebrated its 20th anniversary in 2022. Although ISAPP was conceived in 2000, we mark the beginning of the organization in 2002 with its inaugural meeting. Some of the early ISAPP champions share their reflections on the organization here and here.

Facts about ISAPP in the past and present:

- 2002: 7 industry members, 68 participants in the annual meeting, website www.isapp.net.
- 2022: 63 industry members, 168 people at the annual meeting, website <u>www.isappscience.org</u>. To
 date, over 79 peer reviewed papers, over 200 blog posts, 7 informational videos, 19 infographics,
 reaches 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'.

Our <u>industry partners</u> support these activities through their insights and financial contributions. 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 <u>United States Pharmacopeia</u> (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 <u>comprehensive article on probiotic safety</u> produced by a subteam of this committee. A paper on plate count analytics was also published by this expert panel: <u>Improving and Comparing Probiotic Plate Count Methods by Analytical Procedure Lifecycle Management</u>.

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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 <u>LinkedIn</u>. ISAPP also shares important developments through press releases via the
EurekAlert platform.

Advancing the Science

- 2022 annual meeting. Even with the threat of the pandemic, 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 <u>annual report</u> to review the different topics and activities from the meeting. Slides and abstracts are available on a <u>password-protected site</u> for all industry members. Reach out to <u>MaryEllen@isappscience.org</u> to gain access.
- Adequate intake of live dietary microbes. ISAPP has extended efforts to explore the role of live dietary microbes and health. Underway is an assessment 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. The first paper in this assessment has been <u>published</u> and a second paper discussing links to health parameters is in progress. 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 <u>scoping review of published research</u> that might inform on this question. Some members of the ISAPP board co-authored a <u>paper that calls for investigation of evidence for links between live dietary microbes and health</u>.
- Collaboration with the Institute for the Advancement of Food and Nutrition Sciences. Mary Ellen Sanders represents ISAPP on the IAFNS <u>Gut Microbiome Committee</u>, 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 <u>Gut Microbiota for Health</u> platform.
- SFA engagement. ISAPP's <u>Students and Fellows Association</u> 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.

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

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- 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? To be held October 19, 10
 AM EDT. Register here.

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 <u>43 volunteer translators</u>, ISAPP continues to expand the offering of its 19 <u>infographics</u> 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 <u>ISAPP videos</u>: <u>What is a Postbiotic</u>?

2022 Papers from ISAPP Activities (See <u>full list of ISAPP's 70+ peer-reviewed publications here</u>)

- 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
- Roe AL, Boyte ME, Elkins CA, Goldman VS, Heimbach J, Madden E, Oketch-Rabah H, Sanders ME, Sirois J, Smith A. <u>Considerations for determining safety of probiotics: A USP perspective</u>. Regul Toxicol Pharmacol. 2022 Oct 4;136:105266. https://doi.org/10.1016/j.yrtph.2022.105266
- Salminen S, Vinderola G, Sanders ME.
 Commentary on: functional food science and gastrointestinal physiology and function. Br J Nutr.
 2022 Jul 28;128(2):179-182. https://doi.org/10.1017/S0007114522001520
- Vinderola, G.; Sanders, M.E.; Salminen, S. <u>The Concept of Postbiotics</u>. Foods 2022, 11, 1077. https://doi.org/10.3390/foods11081077

Several additional papers are in preparation.