



PMCA

Professional Manufacturing Confectioners Association

LEARN. CONNECT. GROW.

Symposium: Cannabis in Confections & Snacks Program Book



Tuesday, June 7 - Wednesday, June 8, 2022

Hyatt Regency Buffalo Hotel & Convention Center

Buffalo, NY

Table of Contents

PMCA Symposium: Cannabis in Confections & Snacks

June 7-8, 2022

Hyatt Regency Buffalo Hotel & Convention Center

Buffalo, New York

Schedule of Events.....	2
Meet the Committee.....	3
Tuesday Morning Sessions.....	4-5
Tuesday Afternoon Sessions.....	6-7
Wednesday Morning Sessions.....	8-9
Event Sponsors.....	10
Meet the Speakers.....	11-17

PMCA does not endorse or promote the use of cannabis in confections or snacks. PMCA does, however, continue to be focused on technical and production issues related to the addition of all unique ingredients and processes relating to confection and snack products.

Schedule of Events

Monday, June 6

Welcome Reception - Ellicott Room, Second Floor

6:00pm-7:00pm.....Hors d'oeuvres/cash bar

*Attendees to make their own dinner arrangements

Tuesday, June 7

Registration Desk - Regency Ballroom Foyer, First Floor

8:30am.....Refreshments available

Morning Technical Session - Regency Ballroom, First Floor

9:00am - 9:15am.....Welcome & Opening Remarks

9:15am - 9:45am.....Perceptions of Cannabis & Edibles North America

9:45am - 10:15am.....Cannabis Infused Products: Infusion Options & Manufacturing Challenges

10:15am - 10:30am.....Break

10:30am - 11:00am.....Emulsion Technology: Introducing Cannabinoids & Functional Ingredients to Products

11:00am - 11:25am.....Morning Technical Panel Q&A

Networking Lunch - Grand Ballroom A, First Floor

11:30am - 12:30pm.....Buffet Lunch

Afternoon Technical Session - Regency Ballroom, First Floor

12:35pm - 12:40pm.....Afternoon Opening Remarks

12:40pm - 1:10pm.....Chocolate and Cannabis

1:10pm - 1:40pm.....Cannabis Agrochemicals: An Unusual Scaffold for Trace Heavy Metal Contamination

1:40pm - 2:00pm.....Afternoon Technical Panel Q&A

2:00pm - 2:10pm.....Break

2:10pm - 3:10pm.....Industry & Regulatory Panel

Afternoon Applied Techniques Session - Tomric Systems Facility Visit, Bus Transportation Provided

4:00pm - 5:30pm.....Applied Techniques for Infused Products

Networking Reception - Ellicott Room, Second Floor

6:15pm - 7:15pm.....Hors d'oeuvres/cash bar

*Attendees to make their own dinner arrangements

Wednesday, June 8

Registration Desk - Regency Ballroom Foyer, First Floor

9:00am.....Refreshments available

Morning Technical Session - Regency Ballroom, First Floor

9:30am - 9:45am.....Opening Remarks

9:45am - 10:15am.....Cannabis as an Ingredient & the Future of Hyper-Focus Cannabis Products

10:15am - 10:45am.....New Horizons: Opportunities, Challenges & Considerations in \$25B Industry

10:45am - 11:00am.....Break

11:00am - 11:30am.....The Future of Cannabis: So.Many.Possibilities

11:30am - 11:50am.....Morning Technical Session Panel Q&A

12:00pm.....Adjourn

Meet the Committee: Research Symposium

Committee Chair

Eric Schmoyer

Barry Callebaut

Members

Jenna Derhammer.....*Blommer Chocolate Company*

Nigel Sanders*Smart Confectionery Solutions, Inc.*

Adrian Timms*The Pennsylvania State University*

Ed Wilson.....retired, *AAK USA*

PMCA Staff

Yvette Thomas

Chief Operating Officer

Brandy Kresge

Project Manager & Operations Assistant

TUESDAY, JUNE 7

8:30am	Registration	Regency Ballroom Foyer
9:00am	Welcome & Opening Remarks Adrian Timms, <i>The Pennsylvania State University</i>	Regency Ballroom
9:15am 1	Perceptions of Cannabis & Edibles North America Brian Sterling, <i>SCS Consulting</i> New cannabis products with (frequently) exaggerated claims about the health benefits appear almost daily in media. At the same time, consumers remain largely uneducated about cannabis. This has created markets in which folklore, misinformation, and guesswork fill the void. So, it would be useful to have clear data about what consumers perceive regarding cannabis and edibles. Edible cannabis products are already legal in many US states and across Canada; however, they are still banned in many regions and their future legitimacy remains unclear. This leaves both consumers and edible makers in a tough spot: On one hand, data tell us that edible forms of cannabis are becoming more popular, as consumers want to move away from smoking and have more discreet forms of indulging. On the other, cannabis prohibition during most of the past century in North America has created serious gaps in our knowledge of the effects of cannabis, and how to incorporate cannabinoids into commercial edibles. All these issues pose challenges for confectionery companies that seek new ways to grow and appeal to new consumer tastes. This segment will take a look at recent market trends and consumer attitudes and perceptions around cannabis to set the stage for discussion of how to succeed with edibles infused with cannabinoids.	
9:45am 2	Cannabis Infused Products: Infusion Options & Manufacturing Challenges Peggy Moore, <i>Love's Oven LLC</i> This presentation will focus on cannabis edibles infusion methods, how infusion concentrates are created and how to determine what infusion method works best for various edibles. In addition we will examine efficacy for the various infusion methods, manufacturing challenges and what the future holds for cannabis infused edibles.	
10:15am	Break	

10:30am **Emulsion Technology: A Method for Introducing Cannabinoids & Functional Ingredients to Confectionery Products**
3

Hilary Brown, *SôRSE Technology*

While today's consumers are focused on their health and wellbeing and are more aware of the ingredients in the foods they ingest, they still love confections including chocolate that tastes great and offers health benefits. Emulsification technology can allow us to provide a stable, homogenous, and efficacious product that will allow functional ingredients like cannabinoids to be included in fat-based products without compromising flavor or texture.

The presentation will begin with an explanation of why oil-based ingredients are hard to work with. Following this, we'll discuss why emulsion technology works best for incorporating functional ingredients like cannabinoids in chocolate and confections, including information on how the technology impacts texture, taste profile, and levels of absorption.

11:00am **Morning Technical Panel Q&A**

Hilary Brown, *SôRSE Technology*

Peggy Moore, *Love's Oven LLC*

Brian Sterling, *SCS Consulting*

BUFFET LUNCH

Grand Ballroom A • 11:30am - 12:30pm



TUESDAY, JUNE 7

12:35pm **Afternoon Opening Remarks**
Adrian Timms, *The Pennsylvania State University*

12:40pm **Chocolate and Cannabis**
4 Joel Fink, *Fantasy Candies Chocolate Factory*

Chocolates are among the top sellers when it comes to cannabis infused treats. They combine the decadence of an ages-old treat with the benefits of cannabinoids. Advancements in nano encapsulations and emulsifiers have opened new opportunities for chocolatiers. Combining CBD and/or THC (both delta-9 and delta-8) into chocolate, using different ratios, can address a broad range of consumer recreational and health needs.

While progress with chemistry has helped, today's presentation will focus on other challenges of producing perfect infused chocolates. It will include how to determine the best cannabis ingredient to accomplish desired finish, such as complete homogenization and retention of the taste and texture of fine chocolate edibles. Joel will explore the flavors and textures of full spectrum cannabis extracts vs. isolates of specific compounds and how they are perceived by the consumer. The addition of other functional ingredients (probiotics, melatonin, and omega fats) to achieve specific results (sleep, energy, etc.) will also be reviewed.

Trusted partnerships are critical to making fine chocolates. The presentation will examine sourcing, tracking, and working with and testing a variety of cannabis ingredients, allergens, declarations, and cleanup. It will wrap up by covering the production of infused chocolate, how to incorporate different ingredients, the types of equipment which work best, and other production practices.

1:10pm **Cannabis Agrochemicals: An Unusual Scaffold for Trace Heavy Metal Contamination**
5 Louis Bengyella Ph.D., and John E Kaminski, *The Pennsylvania State University*

The grain and glandular trichome in cannabis is a functional scaffold for cannabinoids biosynthesis but is associated with Heavy metals (HMs) accumulation that is easily passed on to end-users. This trend may impact the cannabis bioeconomy negatively by 2025 should stakeholders fail to regulate excessive lead (Pb), chromium (Cr), arsenic (As), zinc (Zn), cadmium (Cd), copper (Cu), mercury (Hg), and nickel (Ni), primarily at the agronomic level and upstream during processing. While cannabis consumers benefit significantly from the biological properties of cannabinoids, terpenoids, and their derivatives, the inherent abilities of Cannabaceae to naturally bioaccumulate HMs in grains, flowers, leaves, and stem, calls for a serious rethinking about consumer safety. In this talk, scaffolds for HMs in cannabis and a new perspective in reducing Pb, Cr, As, Zn, Cd, Hg, Ni, and Cu at the agronomic level are discussed.

1:40pm **Afternoon Technical Panel Q&A**
Louis Bengyella, *The Pennsylvania State University*
Joel Fink, *Fantasy Candies Chocolate Factory*

2:00pm **Break**

2:10pm **Industry & Regulatory Panel - Tomric Systems**

Moderator: Timothy Thill, *Tomric Systems*

Panelists: Regulatory Affairs - Sam Hoyt, *Upstate Strategic Advisors, LLC*
Legal Landscape - Sam Schafer, *Lippes Mathias' Corporate Practice Team*
Confectionery Production - Tyler Cooke, *Cannabis Industry Consultant*
Formulations & Efficacy - Jeff Lokken, *Chocolate Delivery Systems*
Agriculture & Extraction - Paal Elfstrum, *Wheatfield Gardens Greenhouse*

This informative panel will be available to provide a practical perspective on emerging issues within the infused products segment. Bring your questions regarding legislative issues, product formulation, the evolving legal environment as well as processing questions relating to extraction and confectionery processing.

3:30pm **Board Bus for Tomric Systems**

4:00pm **Applied Techniques for Infused Products - Tomric Systems**

Attendees will rotate through three simultaneous (30 minute) sessions dealing with the following topics:

Basics of Chocolate & Cannabis - Session Lead Brian Donaghy in Teaching Lab

- Base line information about the properties of chocolate and confectionery coatings
- Creating an Emulsification with Cannabis
- Introduction of Infused Emulsifications to Chocolate

Additives for Chocolate & Cannabis - Session Lead Tyler Cooke in One Shot Lab

- Formulation of Infused Emulsions
- Filled Chocolates
- Solid Chocolates

Economics of Scale for Tablet Production - Session Lead Jeff Lokken in Molding/Enrobing Lab

- Techniques & Challenges for moving from low-volume to high-volume output
- Single station vs automated production demonstrations
- Bar wrapping options

5:30pm **Board Buses Back to Hyatt Regency Hotel & Convention Center**

NETWORKING RECEPTION

Ellicott Room ● 6:15pm - 7:15pm

WEDNESDAY, JUNE 8

9:00am	Registration	Regency Ballroom Foyer
--------	--------------	------------------------

9:30am	Closing Remarks Adrian Timms, <i>The Pennsylvania State University</i>	Regency Ballroom
--------	--	------------------

9:45am	Cannabis as an Ingredient & The Future of Hyper-Focus Cannabis Products Carolina Vasquez-Mitchell, <i>Cienca Labs</i>	
--------	---	--

6

All cannabis plants produce cannabinoids, terpenes, and flavonoids (cannaflavins) in different proportions. Each of these molecules has particular pharmacological effects, health benefits, and side effects. If used in the correct ratio, with the proper matrix or pharmaceutical formulation, and in combination with other natural products, these cannabis derived compounds can create hyper-focus edibles to target specific health concerns. In the presentation we will talk about different approaches to formulate such hyper-focus products.

10:15am	New Horizons: Opportunities, Challenges & Considerations in \$25B+ Cannabis Industry Chris Walsh, <i>MJBiz</i>	
---------	--	--

7

This presentation will cover the overall size and scope of the cannabis industry, (THC, CBD), including retail sales and projections. A short legal and regulatory overview including market data /trends for infused products with a focus on confectionery/snack products will be provided. We will also review challenges such as product development and formulations, legal uncertainties, marketing, and consistency. Finally, we will discuss the keys to success in developing and selling cannabis ingestible.

10:45am	Break	
---------	-------	--

11:00am	The Future of Cannabis: So. Many. Possibilities Millie Montana, <i>Guilty Pleasures by Millie Brands</i>	
---------	--	--

8

The clear and defined future is federal legalization, but everything between now and then is unknown and extremely unpredictable. Where does that leave us? How do we prepare? What do we need to know? While the path is unclear, there are still many things to consider. Unfortunately, we will all be susceptible to supply chain issues that can compromise our businesses. This talk will dive into the roadmap to the future from an Infused Cannabis business perspective to uncover possible strategies that will be helpful on the road to national expansion and possibly importing and exporting.

11:30am **Morning Technical Panel Q&A**
Millie Montana, *Guilty Pleasures by Millie Brands*
Carolina Vasquez-Mitchell, *Cienca Labs*
Chris Walsh, *MJBiz*

12:00pm **Adjourn**

LET US HELP MAKE YOUR
PRODUCT LOOK AS GOOD
AS YOUR CUSTOMERS FEEL

NATURAL AND ORGANIC INGREDIENTS

ORGANIC COLORS

ORGANIC ANTI-STICK
AGENTS

ORGANIC
CANDY POLISHES

NATURAL COLORS

NATURAL LECITHINS


WWW.IFC-SOLUTIONS.COM

EVENT SPONSORS



MEET THE SPEAKERS

Adrian Timms

The Pennsylvania State University

Symposium Moderator

Adrian Timms is Assistant Teaching Professor, Agribusiness Management at The Pennsylvania State University. He teaches undergraduate courses in strategic management, business, and innovation topics.



Adrian had technical and consumer business roles in all aspects of innovation with Hershey Company, with Cadbury in the USA, and in the UK, working with familiar brands in several confectionery, snack and food product categories. After Hershey, he was Senior Director, Confections for Chew LLC, where his team developed products for global food company clients. Then, as an independent consultant, he provided innovation strategy and technical consulting services to startups, and small to large companies, before commencing his teaching career with Penn State.

Adrian's academic background includes BSc Honors in Food Science (University of Leeds, UK) and Master's in Food Marketing (St. Joseph's, Philadelphia, PA).

A 2018 inductee to Candy Hall of Fame for his services to the confectionery industry, Adrian has a long affiliation with PMCA. He is a past Chairman of the Research Committee, past President and Chairman of the Association. He has most recently been Chairman of Long-Range Planning and still serves on Marketing and other committees.

Louis Bengyella Ph.D

The Pennsylvania State University

Presentation: Cannabis Agrochemicals: An Unusual Scaffold for Trace Heavy Metal Contamination



Bengyella completed his Ph.D. in Biotechnology at the University of Burdwan, West Bengal, India, and his Post-graduate in Biochemistry at the University of Yaoundé 1, Cameroon. He currently serves as Assistant Research Professor at Penn State, Plant Science, Department. His research interests lie in the area of plant-pathogen interactions, crop protection, microbial biotechnology, and proteomics.

As of 2021, Dr. Bengyella has authored over 50 scientific articles, and he is active in cannabis seed proteome research.

MEET THE SPEAKERS

Hilary Brown

SQRSE Technology

Presentation: Emulsion Technology: A Method for Introducing Cannabinoids & Functional Ingredients to Confectionery Products



Hilary Brown brings over 20 years of experience in the culinary industry, with extensive knowledge in product development and the cannabis industry. Her unique background in developing safe, consistent, and scalable products makes her a valuable resource for SQRSE customers. Hilary specializes in the application of our emulsion into products to ensure stability and designs studies to increase a product's success. Prior to SQRSE, she was the Head of Research and Development at Botanica Seattle where she focused on flavor palatability and supported the development of multiple award-winning products. Hilary also owned a chocolate company, Restless Chocolates.

Tyler Cooke

Cannabis Industry Consultant

Presentation: Industry Update Panel & Applied Techniques - Additives for Chocolate & Cannabis



Mr. Cooke is a cannabis industry consultant with an expertise in the product ideation and operational process improvement areas. Recently, Mr. Cooke was selected to work with a Michigan-based vertically integrated producer in the areas of talent recruitment, product development, innovation and applied sciences. Additionally, he developed training aids and led onsite training across all 17 of the company's retail locations.

Brian Donaghy

Tomric Systems, Inc.

Presentation: Applied Techniques - Basics of Chocolate & Cannabis



Brian Donaghy is currently the corporate chocolatier and innovation center manager for Tomric Systems, Inc. of Buffalo, NY. At Tomric he is responsible for training and customer support of all Tomric products but spends most of his time coaching and training on Selmi chocolate handling equipment in Buffalo and throughout North America. His passport includes numerous stamps from cacao origin countries and has been in more chocolate plants than he remembers. Prior to his time with Tomric, Brian worked for a Swiss chocolate import company, The Ritz-Carlton and was a culinary instructor. When not working with, eating or cleaning up chocolate, you will find him on adventures with his family or on a squash court.

Paal Elfstrum

Wheatfield Gardens Greenhouse

Presentation: Industry Update Panel



Mr. Elfstrum is the Founder/CEO of Wheatfield Gardens Greenhouse, one of the first licensed Adult-Use cannabis cultivators in the New York State. Following a 15-year career in the traditional bio-pharmaceutical industry, Mr. Elfstrum shifted focus to plant-based medicines in 2014 and assembled a team of experts in agronomy and horticulture to grow plants at high density with less energy, water and waste.

Joel Fink

Fantasy Candies Chocolate Factory

Presentation: Chocolate & Cannabis



Joel Fink has over 30 years of innovation in the chocolate industry. As founder of Fantasy Candies Chocolate Factory in 1990, he began developing a wide range of chocolate products; many of which revolved around healthy inclusions. In 2007, Joel took his research on the health benefits of dark chocolate to the Cleveland Clinic Wellness department where they teamed up to develop a line of chocolates created to meet their healthy eating guidelines. Joel soon began working with probiotics as an inclusion, which required him to develop a system to homogenize ingredients, while keeping the chocolate perfect in taste and texture. After joining a research team in 2017 to develop an all natural chocolate to help children with autism, Joel discovered CBD had been used successfully in improving autistic behavior. He dedicated the next year to understanding CBD and how to work with it safely and effectively. Joel, a member of IFT, (International Food Technologists) and RCI, (Retail Confectioners International) is a consultant to the medical marijuana industry in the state of Ohio. Working with several vertically-integrated cannabis facilities, he produced the first certified cannabis edible chocolate for the Medical Marijuana program. Joel started Chocolate Inclusion Solutions in 2018 to develop and produce cannabis-infused chocolates, sustainably grown, traceable and tested for compliance. He teaches a class called "CBD 101: Truth vs. Myth" to encourage public education in the area of cannabis along with educational seminars to the industry.

Sam Hoydt

Upstate Strategic Advisors, LLC

Presentation: Industry Update Panel



Mr. Hoyt is the President of Upstate Strategic Advisors, LLC, a full-service governmental relations, lobbying and public relations firm designed to navigate legislative, policy, political and administrative issues. Mr. Hoyt is an experienced government professional having served in the NYS Assembly for nearly two decades and as the regional president of Empire State Development under Governor Andrew Cuomo.

MEET THE SPEAKERS

Jeff Lokken

Chocolate Delivery Systems

Presentation: Industry Update Panel & Applied Techniques - Economies of Scale for Tablet Production

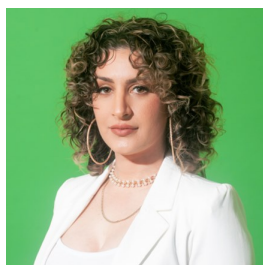


Mr. Lokken is the Director of R&D and Quality for Chocolate Delivery Systems, a chocolate shaping, flavoring and fortification company. Mr. Lokken has a wide range of experiences with the infused products category, having served as the VP of R&D for Charlotte's Web, the largest retailer of CBD products in the United States. Additionally, he holds 12 international patents and has developed hundreds of formulas for hemp, cannabis, personal care and oral care products as well as dietary supplements.

Millie Montana

Guilty Pleasures by Millie Brands

Presentation: The Future of Cannabis: So. Many. Possibilities



Millie Montana's passion for Cannabis was the driving force that got her an early foot into the industry working in all areas from cultivation to retail- she's had her hands in cannabis for over 10 years. While attending Barry University in Miami, she quickly realized that Cannabis was a fast growing industry and the time to get in was now. After living around the country, from east to west coast, Millie took what she learned navigating each state's constantly changing cannabis laws and returned to her home state, Michigan, to run her own business in Detroit. Guilty Pleasures By Millie™ was founded in 2015. What began as a one woman show quickly became a growing company, which now serves provisioning centers all across Michigan. She currently has a lineup of 42 quality products across 3 brands: Guilty Pleasures by Millie™, Cannatropics™, and Mudira™ that cater to both the THC and CBD markets. The product lineup consists of edibles, concentrates, flower, skincare, and cosmetics. Millie is now the founder and CEO of Millie Montana Industries™, the largest female owned license holder in Michigan, primarily focused on outdoor cultivation and processing. She is projecting to grow 80,000 Medical and Recreational plants yielding approximately half a million pounds of biomass for the 2022 outdoor season. Millie prides herself in her grassroots history with experience built in the trenches of the fast growing and changing industry.

Peggy Moore

Love's Oven LLC

Presentation: Cannabis Infused Products: Infusion Options & Manufacturing Challenges



Peggy Moore is the majority owner and Chief Executive Officer of Love's Oven, LLC, a medical and retail marijuana-infused products manufacturer located in Denver, CO with distribution to 400+ locations throughout the state. She also serves as the Board Chair for the Colorado Cannabis Manufacturers Association and participates in various State and Local industry workgroups. Love's Oven was founded in 2009 and Peggy joined the team as an investor/advisor in 2011. In May of 2014, Peggy retired after 33 years from an illustrious career in the highly regulated health insurance industry with United Health Group where she held two primary positions - one as Director of Operations where she led post-merger/acquisition operational integration projects for the past 15 years and also managed claim and customer service operations for the first 17 years of her career. One accomplishment in the cannabis industry that Peggy is most proud of is being one of the first manufacturers in the industry to build the Love's Oven infused products manufacturing facility in Colorado to full FDA compliance ahead of Federal regulation.

Joseph Schafer

Lippes Mathias' Corporate Practice Team

Presentation: Industry Update Panel



Mr. Schafer, an attorney with Lippes Mathias' Corporate Practice Team, assists clients with mergers & acquisitions, business formation and structuring, licensing, contract review and other general matters. As a member of the firm's Cannabis Practice Team, Mr. Schafer has advised clients on hemp regulations, the Marijuana Regulation and Taxation Act and has handled litigation matters for clients involved in the cannabis industry.

Brian Sterling

SCS Consulting

Presentation: Perceptions of Cannabis & Edibles North America



Brian Sterling is founding partner and President of SCS Consulting, an international management consulting company specializing in strategic issues concerning the food industry, including cannabis-infused products. Until 2021 he was acting Vice President of GS1's cannabis value chain optimization program aimed at creating a globally scalable traceability infrastructure for cannabis products in Canada. He was previously first President and Chief Executive Officer Safe Food Canada, an organization dedicated to strengthening the quality and consistency of food safety education. For almost three years prior to that, he was Managing Director of the Global Food Traceability Center located in Washington, DC. From 2006 to 2012, he was the first Chief Executive Officer of Ontario's food traceability company, OnTrace. He has held senior management roles in several larger consulting firms, including IBM Canada and Fujitsu Consulting. He began his career with the DuPont Company.

MEET THE SPEAKERS

Timothy Thill

Tomric Systems Inc.

Presentation: Industry Update Panel Moderator



Mr. Thill is a member of the Tomric Systems leadership team; Tomric is a manufacturer and distributor of polycarbonate molds, plastic packaging as well as chocolate handling equipment throughout the United States and Canada. Mr. Thill has extensively researched the needs of the infused confections market segment and brings a wealth of knowledge with regard to product development, operational excellence and industry trends.

Carolina Vasquez-Mitchell

Cienca Labs

Presentation: Cannabis as an Ingredient & The Future of Hyper-Focus Cannabis Products



Carolina Vasquez Mitchell, MS is Chief Scientific Officer for Cienca Labs and the creator of dreamt and LUCHADOR. Carolina was the Lab Director for a cannabis testing facility. Prior to that, Carolina was the Chief Scientific Officer for KushyPunch, and the Head of Research for Power Brands, America's leading beverage consultancy firm. During her tenure, she led several projects for companies like Taco Bell, Pepsi, Quaker, and Gatorade. She is also a founding chair of the Legalization of Cannabis & Hemp Edibles division of the Institute of Food Technologists. To date, she has developed more than 100 cannabis products. A gifted academic with deep experience in the developing regulatory standards of the cannabis industry, Carolina's areas of specialty include organic chemistry and biochemistry research, laboratory testing and operations, good manufacturing practices, good laboratory practices, quality assurance, and R&D for cannabis products, pharmaceuticals, foods, and beverages. She has more than 20 years of experience with organic synthesis and extractions and has extracted DNA, RNA, proteins, terpenes, and other pharmacologically active molecules. As Chief Scientific Officer at KushyPunch, Carolina oversaw the development, improvement and overall compliance of all products, and ensured that the company continued to lead the market in product innovation whilst upholding the highest standards of compliance and food safety. Prior to joining KushyPunch, Carolina was the Head of Research for Power Brands, America's leading beverage consultancy firm. During her tenure, she led more than ten projects for a broad spectrum of companies, nurtured a concept to commercialization for Taco Bell, and developed products Pepsi, Quaker, and Gatorade. Before that, Carolina founded the consultancy firm KitChem to support companies in the formulation and process development of cannabis edibles, supplements, foods, and beverages, assisting a variety of cannabis companies with their product formulation, quality control, testing, and manufacturing processes. Originally from Guadalajara, Carolina received her BS in Chemistry Pharmacobiology and a degree in Industrial Chemistry from the University of Guadalajara. After completing the Chemistry Ph.D. classwork at the University of Southern California, Carolina decided to start her consulting firm and left the Ph.D. program early with a Masters degree in Chemistry. During her tenure researching at USC, Carolina published in three consecutive years and managed projects funded by the National Science Foundation, obtained awards for over \$1,000,000, trained laboratory instructors, and taught organic chemistry, biochemistry, and neurosciences. Carolina has been featured in Forbes, mg, Golden State, and Dope Magazine, where she was named one of the "Outstanding Women in Cannabis" for 2018, as well as Rolling Stone, Entrepreneur, on Cheddar TV, and other publications and news sources.

Chris Walsh

MJBiz

Presentation: New Horizons: Opportunities, Challenges & Considerations in \$25B+ Cannabis Industry



Chris served as the founding editor of Marijuana Business Daily during the company's launch in 2011, becoming the first journalist in the United States to focus exclusively on covering the business of cannabis. As CEO of MJBiz, he now guides the strategic vision of the company and its sister publication – Hemp Industry Daily – while educating mainstream industries about the marijuana and hemp sectors. He's also the host of the podcast Seed to CEO. Chris has been quoted as one of America's foremost cannabis industry analysts by dozens of media outlets, including Harvard Business Review, NPR, CNBC and the New York Times. He earned an MBA in international business from Regis University.



PMCA

Professional Manufacturing Confectioners Association

LEARN. CONNECT. GROW.

PO Box K

Bath, PA 18014

Tel & Fax: 610-625-4655

Email: info@pmca.com

pmca.com

