13137 S Hallet Ct, Olathe, KS 66062 712-301-4923 • Mindi.L.McKibbin@gmail.com

Innovative, dependable product development leader with 20 years of progressive food industry experience in quality, research & development, product & process development and technical service roles. Broad knowledge of food and health & nutrition applications from ideation to bench to scale-up and commercialization. Proven track record of new product launches and process improvements to generate profitable income for employers. Well respected leader that motivates team members through respect, clear communication and project prioritization to achieve highest performance.

Key Skill Areas:

Product DevelopmentIngredient ModificationProcess ImprovementProcess DevelopmentDepartment LeadershipTraining & DevelopmentCross Functional Project ManagementStage GateIntellectual Property Protection

Product Application Expertise:

Protein & Cereal Bars Protein Shakes (DBB) Nutritional & Plant-based Beverages (RTD)

Confections Dairy Bakery

Emulsions (mayo, sauces, dressing)

Pet Foods / Treats

Meat / Meat Alternatives

Protein Fortification

Hydrocolloids

Fermented Food & Beverages

Education

Bachelor of Science, Buena Vista University, Storm Lake, IA

May 2004

Double Major: Chemistry and Mathematics

GPA: 3.87

Honors: All-Science Student of the Year, Chemistry Student of the Year, Alpha Chi Member (National Honor's Society), Dean's List, Presidential Scholarship Recipient, Dean's Fellow of Science

University of Nebraska, Lincoln, NE

May 2008

UNL Workshop: Ingredients & Ingredient Functionality Course

Certified Food Scientist Program, Institute of Food Technologists

Nov 2013

CFS Certified Food Scientist.

BrewingX: Beer: the Science of Brewing

Feb 2021

A course of study offered by KULeuvenX, an online learning initiative of KU Leuven

K-State Extrusion Processing: Technology & Commercialization Short Course 4-Day Classroom and Hands-on workshop offered at the KSU IGP Center

Aug 2022

Professional Experience

Director, R&D and Innovation

PureField Ingredients, Lenexa, Kansas

Apr 2022-Present

Responsibilities:

- Serve as the strategic leader for the company's Research & Development / Innovation direction and execution to build and broaden the company's wheat protein product portfolio and application technology expertise.
- Oversee strategic innovation product development initiatives (gluten, wheat protein isolates, textured proteins, enhanced functionality) from development through successful commercialization in collaboration with and under the guidance of senior leadership.
- Lead innovation projects by establishing and managing timelines, regularly updating platform status, and ensuring projects stay within scope, timing, and customer's needs through a rolling 36-month Stage-Gate process.

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- Coordinate / align R&D effort with commercial priorities, inclusive of technical service, confirmed customer value alignment, and end-application evaluations.
- Build and train innovation team and function in support of innovation value creation pipeline.
- Manage relationships with external innovation partners (universities, co-manufacturers, innovation and pilot facilities) to fast-track R&D efforts.
- Manage budget, tax-credit, and intellectual property for the R&D team.

Key Accomplishments:

- Launched two new protein ingredients in the first two years with the company.
- Built out applications laboratory in Russell, KS.
- Expanded external R&D partnerships.
- Hired and trained bakery application technologist.

Principal Scientist, Beverage Innovation, Creation & Design (IC&D)

IFF, Inc (formerly Dupont Nutrition & Biosciences), New Century, Kansas

Nov 2018-Mar 2022

Responsibilities:

- Beverage application support for customers developing dry-beverage-blends and ready-to-drink beverages (neutral, acidic and cultured/fermented) with functional ingredients (plant-based proteins, probiotics, cultures, hydrocolloids, enzymes, etc.) from bench to scale-up production.
- Support business units and sales to deliver customer beverage concepts, support at tradeshows and customer visits, and seminar speaking engagements to deliver annual financial targets.
- Mentor junior members of the innovation application team.
- Leader for company's global beverage knowledge team for knowledge sharing on new products, global key account activities, innovation initiatives and beverage industry plans.
- Partners with Technology & Innovation teams to assess new ingredients under development for application performance and intellectual property assessment.

Director, Research & Development

Rembrandt Foods, Spirit Lake, Iowa

Jan 2017-Oct 2018

Directed all activities related to New Product and Process Development and Innovation in turn providing technical and strategic business leadership necessary to support the overall product and objective goals of the customer and the Company. In so doing developed and implemented a systematic approach to New Product & Process Development working directly with the customer in order to develop new product formulas, test ingredients, schedule trial runs and report test results.

Responsibilities:

- Responsible for managing and developing a team of scientists, technicians and pilot plant manager. Mentored Ph.D.,
 M.Sc. and B.Sc. food scientists and biosystems engineers to grow in their career development and scientific acumen.
 Managed and assigned projects and coordinated all activities with lab technicians and pilot plant manager to deliver
 projects on time and within budget and scope of work.
- Responsible for the R&D pilot plant, test kitchen and analytical laboratories. Pilot plant included Microthermics egg
 processor, UF/MF/NF filtration, enzyme-modification, and spray drying capabilities. The test kitchen was used for
 customer product development activities (e.g. baked goods, nutrition bars and snacks, sauces and dressings) and the
 analytical laboratory had capabilities to support both the test kitchen and pilot plant in protein, moisture, fat, particle
 size, and texture analysis.
- Responsible for the Stage Gate process [from ideation to product development through to commercialization] and Project Management of each project to ensure management alignment of priorities, timelines and budget including assembling cross functional teams from quality, supply chain, operations, legal, marketing, sales and R&D.
- Ensure intellectual property protection for new products and processes when deemed necessary either via trade secret process or patent protection.
- Work with sales staff to understand customer products lines and develop strategies to reduce costs.

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- Research products/customers that the company should work with on development projects.
- Actively participate in strategy, executive, business development and operational excellence team meetings.
- Managed an annual budget of ~\$2MM.

New Product & Process Development Manager

Rembrandt Foods, Spirit Lake, Iowa

June 2014-Dec 2016

- Managed the new product and process development team at Rembrandt Foods focusing on development of valueadded liquid and dried egg ingredients for bakery, emulsion (mayo, sauces, dressings), meat, confectionery, beverage, nutritional supplement and pet food applications.
- Day to day management of the R&D pilot plant, test kitchen and analytical laboratories.
- Used Stage Gate Process to ensure management alignment of priorities, timelines and budget including assembling cross functional teams from quality, supply chain, operations, legal, marketing, sales and R&D.
- Ensure intellectual property protection for new products and processes when deemed necessary either via trade secret process or patent protection.
- Ensure product / process development or improvement meets requirements needed for USDA and/or FDA including experimental design and data submissions needed to achieve approvals.
- Coordinate and execute functional product testing.
- Travel to customers to make functional project presentations. Represent the company at technical tradeshows and conferences including speaking at events.
- Establishes and held accountable for budgeting of projects and R&D department.
- Research competitive egg and protein products and execute side by side comparisons.
- Mentor and provide guidance to product development scientists, pilot plant manager and technicians.

Manager, Edible Technical Services

GELITA, Sergeant Bluff, Iowa

Sept 2007-June 2014

- Manage all activities of the technical service food applications laboratory.
- Responsible for technical service calls and visits to customers in the USA and Canada. Represent technical service edible applications at conferences, conventions, and internal audits by customers.
- Responsible for completion of all edible application projects for internal and customer requests including optimizing customer formulations, troubleshooting issues and new product development.
- Frequent collaboration with sales, marketing and production teams to bring concepts to realization.
- Responsible for testing, reporting, and training of sensory panel.
- Innovation champion for North America. In this role, the goals are to facilitate innovation in the organization by holding brainstorming sessions, encouraging ideation and team building, and being an expert in the Stage Gate Process and respective software system.
- Expertise in confectionery products including gummies, functional/fortified gummies, and chewy candy; nutrition, protein, and cereal bars; and beverages including ready to drink and powder blend formulations. Familiarity with dairy applications including yogurt and ice cream; desserts including dry mixes and ready-to-eat; pharmaceutical and supplement applications including hard and soft capsules and tablets.
- Expertise in collagen proteins including gelatine and gelatine hydrolysate/hydrolyzed collagen including: Production
 processes (extraction, purification, hydrolysis using proteolytic enzymes, concentration, drying (including traditional,
 spray drying, drum drying), ion exchange, and blending/milling). Application / formulation science using these products
 including confectionery, dairy, beverages, protein/cereal bars, sports nutrition, supplements, meats, petfood/treats
 and bakery.

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QC Lab Technician: GELITA, Sergeant Bluff, Iowa

June 2004-Sept 2007

- Perform daily testing on gelatin to assure quality and customer specifications.
- Fully trained in both the physical and chemical departments of the QC laboratory.
- Experienced in training of new and current employees.

Internship: Pure Fishing, Spirit Lake, Iowa

Jan 2004

- Assisted in the chemistry research lab by doing research related to new Gulp! Bait.
- Performed research on competitor products using FTIR, GC, and DSC instrumentation.
- Troubleshoot problems in manufacturing and quality of products.
- Performed RV (relative viscosity) on nylon line.

Lab Assistant: Mangold Environmental Testing, Storm Lake, Iowa

May 2003-May 2004

 Assisted with reagent preparation, oil and grease determination, eColi, turbidity, BOD reading, pH reading, and autoclaving of water and wastewater samples.

Equipment and Instrumentation:

GELITA, Sergeant Bluff, Iowa

- Experience with HPLC-SEC including method development and analysis of collagen peptides. Research project completed on the development of an HPLC-SEC method to better determine molecular weight distribution profiles for low molecular weight hydrolyzed gelatine (collagen peptides): <5000Da.
- Instrumentation: UV-Vis, Brookfield viscometers, Texture Technologies Texture Analyzer, pH meter, water activity meter, Kjeldahl nitrogen / protein analysis, Soxhlet fat extraction, and ash analysis.
- Application equipment including chocolate tempering, starch molding (for confections), bench gummy candy
 processing, Mondo mixer for marshmallow and aerated confections, and dissolution equipment for testing soft
 capsules active ingredient release in simulated gastric fluid.

Rembrandt Foods, Spirit Lake, Iowa

- Management of pilot plant including liquid egg pasteurizer, filtration (RO, UF, NF, MF), fermentation / enzyme processing, spray drying, pre-cooked egg patty oven, and dry blending equipment.
- Analytical equipment: pH meters, texture analyzer, viscometer, water activity meter, shelf-life chambers, colorimeter, Malvern particle size analyzer, and CEM rapid analyzers for solids, protein, fat.
- Functional/Application equipment including Stephan mixer (for emulsions), Reed oven (for bakery), Hobart mixers, and other basic kitchen equipment.

IFF, Inc, New Century, Kansas

- Assisted in pilot plant including Microthermics UHT/HTST beverage processing, fermentation / enzyme beverage processes, spray drying, and dry blending equipment.
- Analytical equipment: pH meters, texture analyzer, Brookfield viscometer, water activity meter, shelf-life and fermentation chambers, colorimeter, Horiba particle size analyzer, and CEM rapid analyzers for solids, protein, fat.

PureField Ingredients, Lenexa, Kansas

- Analytical equipment: texture analyzer, Brookfield viscometer, mixograph, RVA, Glutomatic gluten index, pH meters, ash, IR moisture and LECO protein analysis.
- Application equipment: lab milling, rotary and convection ovens, pup loaf volumeter, Hobart mixer, dough sheeter, bakery proofer, Kitchenaid mixer with various attachments, and freeze dryer.

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Patents:

Degn, Peter, Ewert, Jacob, Kjaer, Karina, Lentz, Collette, McKibbin, Mindi. Preparation of plant-based fermented products employing combination of microorganism and protease enzyme, preferably metalloprotease. WO2022251580A1. Issued Dec 1, 2022.

McKibbin, Mindi, Montgomery, Michelle, Waller, Ginger, Yezdimer, Eric. Discontinuous Gummy Delivery Systems. US20220339097A1. Issued Oct 27, 2022.

Cepeda, Jihan and McKibbin, Mindi. Deflavored Egg Protein Isolate, Products Made with Protein Isolates and Methods of Making Same. US 2017/0223989 A1. 10 August 2017.

Memberships

IFT (Institute of Food Technologists) Member ACS (American Chemical Society) Member University of Minnesota PPIC Technical Committee Member 2007-2019, 2021-2022 2009-2019 2024-present