

Neurodivergent Thinking in Food Safety: Implications for Practice, Performance, and Inclusion

May 20, 2026

WEBINAR MODERATOR: Rounaq Nayak, University of West England, Bristol

Organized by the Diversity, Equity and Inclusion Council

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- It is important to note that all opinions and statements are those of the individual making the presentation and not necessarily the opinion or view of IAFP.
- All attendees are muted. Questions should be submitted to the presenters during the presentation via the Q&A section on your screen. Questions will be answered at the end of the presentations.
- This webinar is being recorded and will be available for access by IAFP members within one week.

Why Diversity, Equity and Inclusion are so Important to IAFP



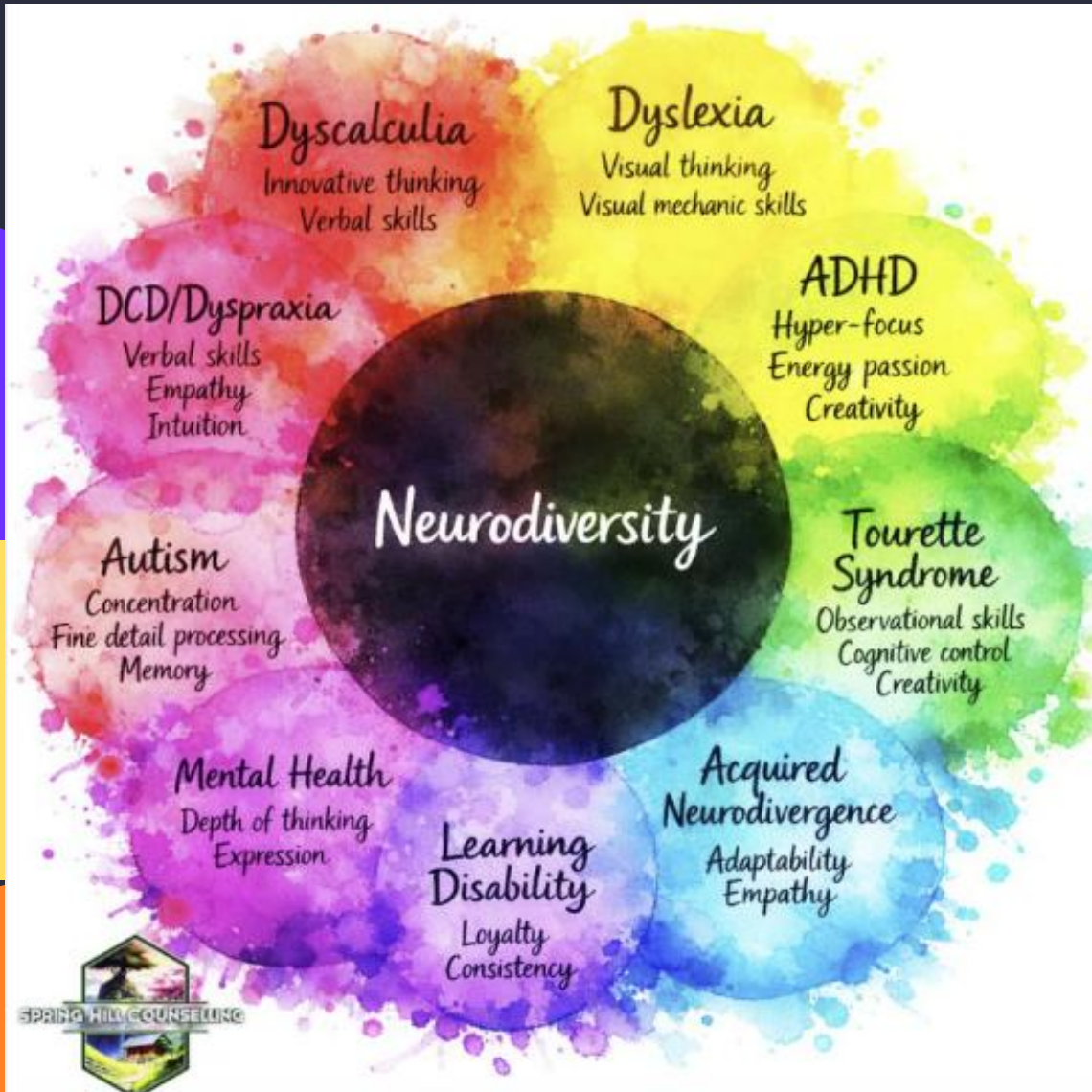
FEATURED SPEAKERS

Andrea Brock, Thriveworks Counseling and Psychiatry

Deanna Zenger, Food Processing Skills Canada

An abstract graphic design on the left side of the slide. It features a large purple semi-circle at the top left, a teal rectangle below it, a blue circle to the right of the teal rectangle, an orange semi-circle at the bottom left, and a yellow semi-circle to the right of the orange one. The background is a dark blue-grey color.

Basics of Neurodiversity



01. **Definition**
02. **Multiple forms and origins**



Developmental Neurodiveristy

01. **Most common types**
02. **Basics of ADHD and Best Fits**
03. **Basics of Autism and Best Fits**



Mood Based Neurodiversity

01. **Most Common Types**
02. **Basics of Major Depressive Disorder and Best Fits**
03. **Basics of Generalized Anxiety Disorder and Best Fits**



Acquired Neurodiversity

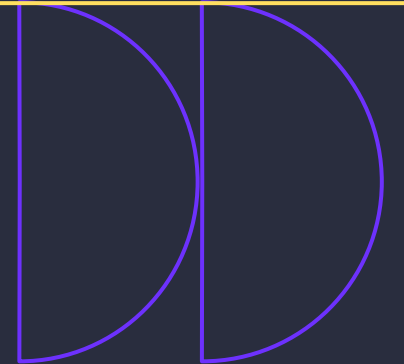
01. **Most Common Types**
02. **Basics of Brain Injury and Best Fits**
03. **Basics of Post-Traumatic Stress Disorder**



Basic Best Practices

01. **Person-first language**
02. **Thoughtful assignment**
03. **Patient communication**

Thank you!



NEURODIVERGENT THINKING IN FOOD SAFETY

Implications for Practice, Performance and Inclusion



International Association for
Food Protection (IAFP)



May 20, 2026



Deanna Zenger - FoodAbility



FoodAbility is brought to you by
Food Processing Skills Canada





descript

Today...we challenge you to **see**
what others are missing!



The **Case** for Change

Finding talent others miss



This isn't only a talent shortage — it's a talent **visibility** problem.

THE CHALLENGE

FOOD SAFETY DEMANDS EXCEPTIONAL PRECISION

Today's food supply chain is more complex than ever. Higher standards. Higher risks. Zero room for error.



Complex regulations



Zero margin for error



Rising consumer expectations



Increasing operational pressure



THE LABOUR CHALLENGE

The labour crisis is real — and food safety roles are under pressure.



2.1M

U.S. manufacturing jobs unfilled by 2030

— Deloitte, 2023



\$1T

cost to U.S. economy if gap persists

— Deloitte, 2023



622K

food manufacturing positions unfilled (Jan 2024)

— The Manufacturing Institute



142K

Canadian F&B workers needed by 2030

— Food and Beverage Canada



Sources: Deloitte, industry labour reports, food manufacturing workforce data.



FOODABILITY
• A P T A L I M E N T •

THE WORKFORCE OPPORTUNITY

THE FOOD MANUFACTURING TALENT LANDSCAPE



15–20% of the global population is neurodivergent.



That is the workforce.
Right there. Waiting.



By 2030, millions more manufacturing roles will go unfilled.



Inclusive hiring unlocks talent, strengthens performance, and protects the food supply.



The cultural fit interview may be
screening out some of your best food safety candidates.



When Different Thinking Becomes an Advantage



WHAT ARE WE TALKING ABOUT?



Autism Spectrum Disorder

Pattern recognition • Procedural precision • Sensory acuity • Rule-based thinking



ADHD

Hyperfocus • Creative connections • Divergent thinking • Urgency response



Dyslexia

Visual-spatial thinking • Big-picture synthesis • 3D problem solving



Dyscalculia / OCD-Spectrum

Precision • Consistency • Thoroughness • Resistance to shortcuts

~15–20% of the global population. Not a niche. Not a rounding error.

WHERE NEURODIVERSITY AND FOOD SAFETY INTERSECT

Different ways of thinking. One shared purpose: **Safer food for everyone.**

NEURODIVERSE STRENGTHS



PATTERN RECOGNITION

Seeing details others may miss.



DEEP FOCUS

Sustained attention to detail and accuracy.



CONSISTENCY

Reliable, repeatable performance.



ANALYTICAL THINKING

Data-driven insights and problem solving.



PROCESS MASTERY

Thriving in structure, systems, and rules.

PRECISION
AWARENESS
INTEGRITY
IMPACT

FOOD SAFETY EXCELLENCE

HAZARD IDENTIFICATION

Recognizing risks early through keen observation.

TESTING & ANALYSIS

Accurate, detailed testing and data interpretation.

QUALITY CONTROL

Consistent checks to ensure product safety and integrity.

TRACEABILITY

Following the data to ensure transparency and accountability.

CONTINUOUS IMPROVEMENT

Learning, adapting, and strengthening every day.



**STRONGER TOGETHER.
SAFER FOR EVERYONE.**

When diverse minds are empowered, food safety becomes stronger, smarter, and more resilient.



DIFFERENT
PERSPECTIVES



STRONGER
SYSTEMS



SAFER
OUTCOMES



HEALTHIER
WORLD

TRADITIONAL HIRING VS. FOOD SAFETY REALITY



Different minds. Stronger food systems.

What traditional hiring screens out



Doesn't make small talk in interviews



Asks literal, specific questions



Prefers written communication



Notices everything



Won't let something slide to keep the peace

What food safety actually needs



Rigorous documentation



Literal interpretation of critical limits



Clear written SOPs and records



Anomaly detection — every deviation



Impartial standards enforcement



The 'cultural fit' interview can **screen out some of your best food safety candidates.**

INDUSTRY NEEDS NEW THINKING

The demand for food safety excellence continues to rise, but traditional talent pipelines aren't keeping pace.

It's time to look beyond the usual.



TALENT PIPELINES ARE LIMITED

Narrow talent pools lead to recurring gaps in critical QA roles.



COMPLIANCE PRESSURES ARE RISING

Increasing regulations demand more precision, documentation, and speed.



WORK IS BECOMING MORE COMPLEX

Advanced technologies and evolving risks require new skills and fresh perspectives.



INNOVATION NEEDS DIVERSE PERSPECTIVES

Different ways of thinking unlock better problem solving and stronger outcomes.



THE GAP ISN'T JUST ABOUT HEADCOUNT.
IT'S ABOUT CAPABILITY, PERSPECTIVE, AND POTENTIAL.

RISING DEMANDS



Stricter Regulations



Advanced Technologies



Complex Supply Chains



Higher Quality Expectations



NEW CHALLENGES REQUIRE
NEW WAYS OF THINKING.

The future of food safety depends on recognizing potential where others overlook it.



LOOK DIFFERENTLY



THINK BOLDLY



BUILD INCLUSIVELY



ACHIEVE EXCELLENCE

A futuristic, metallic robot with glowing orange eyes and a chest panel labeled 'PINKY' stands in a laboratory. It is surrounded by scientists in white lab coats and hairnets. The robot's right hand is extended towards the scientists. The scene is lit with a cool blue light, creating a high-tech atmosphere.

**HOW LONG
BEFORE...**

THE FUTURE OF FOOD MANUFACTURING IS ABILITY FOCUSED

By embracing neurodiverse talent, we build stronger teams, safer products, and a more innovative industry.



STRONGER TEAMS

Different minds bring unique strengths that elevate everyone.



SAFER FOOD

Precision, attention to detail, and consistency reduce risk.



MORE INNOVATION

Diverse thinking drives smarter solutions and continuous improvement.



SUSTAINABLE GROWTH

Inclusive workplaces attract talent, build loyalty, and future-proof our industry.



DIFFERENT MINDS.
STRONGER FUTURE.



When we **focus on abilities**, we unlock potential, create safer foods, and build a better future—for our people, our industry, and our world.



INCLUSIVE
CULTURE



OPERATIONAL
EXCELLENCE



SUSTAINABLE
IMPACT



BUSINESS
GROWTH



A BETTER
WORLD

8 ROLES. 8 NATURAL FITS.

Where neurodivergent strengths map directly onto food manufacturing demands.

Role	Key Neurodivergent Strength	Performance Lift
1 Production Operator	Hyperfocus • SOP precision • pattern detection	↓ Defects 20%+
2 Packaging Technician	Detail orientation • systematic design	↓ Recall risk
3 QA / QC Auditor	Anomaly detection • impartial standards	90–140% ↑ productivity
4 Maintenance Technician	Systems thinking • fault diagnosis • PM adherence	↓ 18% downtime
5 Warehouse / Materials	Workflow optimisation • inventory accuracy	99.8% accuracy
6 Food Safety Specialist ★	Rule-based precision • pattern focus • hyperfocus	↓ 40% non-conform.
7 Process Engineer / CI	Deep data analysis • spatial problem-solving	↑ 30% productivity
8 Line Planner / Scheduler	Multi-variable logic • scenario planning	↓ 23% sched. errors

*JPMorgan Chase Autism at Work (2021) — QA/data-analysis roles

NEURODIVERSE TALENT IN ACTION

Precision. Focus. Impact. Every Day.



**DIFFERENT STRENGTHS.
ONE SHARED MISSION.**



MICROBIAL TESTING
Detecting risks others may miss.



MOLECULAR ANALYSIS
Deep focus for accurate and reliable results.



DATA VALIDATION
Finding patterns. Ensuring accuracy.



PACKAGING INSPECTION
Keen attention to detail. Consistent standards.



ALLERGEN CONTROL
Rigorous verification for consumer safety.



LINE MONITORING
Real-time checks. Quality in every step.



EVERY CHECK. EVERY STEP. EVERY PERSON.
Working together for safer food.



INCLUSION



FOCUS



PRECISION



INTEGRITY



IMPACT

ROLE SPOTLIGHT: QA / QC AUDITOR

The role with the highest published evidence base for neurodivergent performance gains



Anomaly Detection

Autistic QC analyst catches fat content trend 48 hours before breach — while automated alert is still silent.



Sensory Acuity

Neurodivergent panelist detects off-note in fruit beverage traced to residual cleaning agent; batch saved, consumer protected.



Systems Thinking

ADHD auditor redesigns HACCP verification checklist — finds gap the standard template had never caught in 5 years.



Impartial Standards

Autistic QA author refuses to release borderline batch despite production pressure. Every. Single. Time.



JPMorgan Chase Autism at Work: autistic QA staff were 90–140% more productive in precision roles.

SPOTLIGHT ROLE

Food Safety Specialist

The role where neurodivergent strengths matter most.

- ✓ **HACCP precision** — zero tolerance for procedural shortcuts
- ✓ **GMP adherence** — documented, not improvised
- ✓ **Allergen management** — 9 U.S. allergens (FASTER Act), zero margin for error
- ✓ **Environmental monitoring** — pattern recognition across 100s of swab data points
- ✓ **Audit readiness** — rigorous analysis, zero ambiguity
- ✓ **Internal auditing** — impartial, resistant to social pressure



40% ↓











Reduction in
non-conformances

90%+

Retention

HACCP WAS DESIGNED FOR NEURODIVERGENT THINKING

They just didn't know it yet.

HACCP PRINCIPLE		ALIGNED NEURODIVERGENT STRENGTH	
	Conduct Hazard Analysis	>	 Systematic, exhaustive thinking
	Identify CCPs	>	 Precision identification
	Establish Critical Limits	>	 Exact numerical thresholds
	Monitor CCPs	>	 Sustained attention and vigilance
	Corrective Actions	>	 Consistent documented response
	Recordkeeping	>	 Thorough documentation
	Verification	>	 Independent impartial review



Food safety systems reward **precision, pattern recognition, consistency, and procedural discipline.**

THE SENSORY SCIENCE PLOT TWIST

When “outliers” may be your earliest warning system

Autistic individuals may have enhanced olfactory and gustatory sensitivity. In sensory and QA environments, heightened sensitivity can reveal risks others miss.

The person who notices what no one else does can become your most valuable panelist — not a problematic outlier.

Application examples: off-notes, cleaning agent residues, packaging taints, allergen cross-contact signals, and product consistency.



FOOD SAFETY CULTURE

What does it have to do with neurodiversity?

“ Food safety equals behaviour — patterned ways of thought and behaviour that characterize a social group.

— Frank Yiannas,
former FDA Deputy Commissioner |
IAFP Past President

Autistic professionals follow patterns. Precisely.
Consistently. Without shortcuts.
That is food safety culture, built into the brain.





SLIDE 8

DIFFERENT WAYS OF THINKING CREATE STRONGER OUTCOMES

Traits that are often misunderstood can become extraordinary strengths in food safety, quality assurance, and innovation.

1



DEEP FOCUS

Ability to sustain attention on detailed tasks for extended periods

- Supports accuracy
- Strengthens inspection quality
- Improves consistency

2



PATTERN RECOGNITION

Exceptional ability to identify anomalies, trends, and inconsistencies

- Detects quality deviations early
- Enhances risk prevention
- Strengthens data analysis

3



DIRECT COMMUNICATION

Clear, honest, and precise communication style

- Reduces ambiguity
- Supports compliance clarity
- Improves operational transparency

4



PROCESS COMMITMENT

Strong preference for structure, routines, and standards

- Reinforces SOP adherence
- Improves repeatability
- Supports food safety integrity

5



INNOVATIVE PROBLEM SOLVING

Unique perspectives that challenge conventional thinking

- Encourages continuous improvement
- Identifies overlooked solutions
- Drives innovation

6



HIGH INTEGRITY AND RELIABILITY

Strong commitment to accuracy, fairness, and doing things correctly

- Builds trust
- Supports accountability
- Strengthens quality culture



What may be misunderstood in one environment can become a **critical strength** in another.



DIFFERENT MINDS. STRONGER FOOD SYSTEMS.



INCLUSION DRIVES MEASURABLE RESULTS

The business case



+28%

Higher revenue



+30%

Higher profit margins



90-140%

Productivity lift in precision roles



90%+

One-year retention



\$300

Median cost of paid accommodations



61% of workplace adjustments cost **nothing**.

THE BUSINESS IMPACT



Stronger quality outcomes



Lower risk and waste



Stronger brand trust



Sustainable growth



Sources: Accenture, Deloitte, SAP Autism at Work, JPMorgan Chase Autism at Work, Job Accommodation Network.

THE EXPERIENCE GAP

Why hiring is not enough

Simply hiring neurodivergent professionals and leaving them in a broken workplace is not a strategy. It is a waste.

25%

Sense of belonging among employees with disabilities

57%

Feel their career is stalled

~50%

Report ideas being overlooked

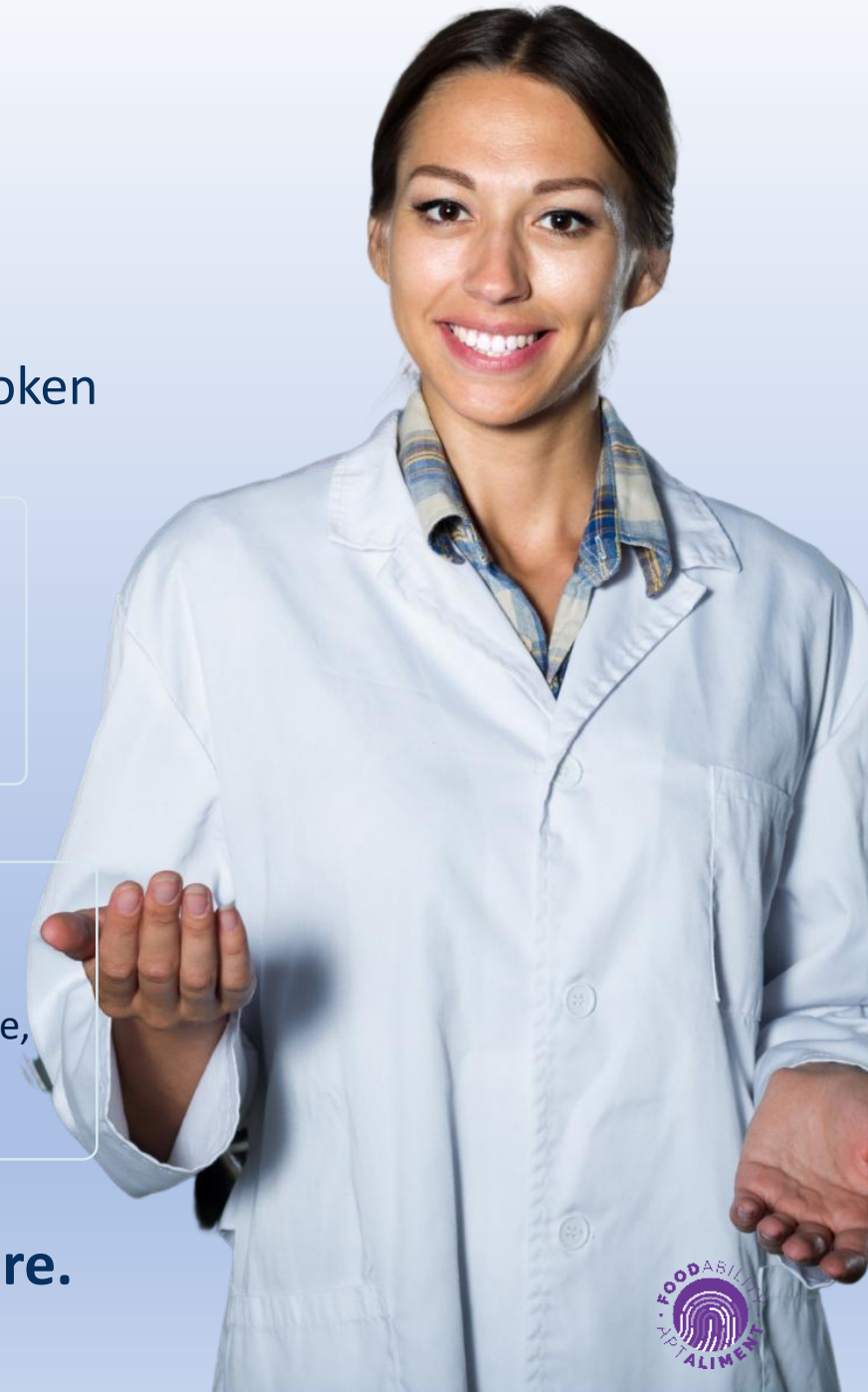
◆ Design matters

Clear expectations, predictable feedback, and sensory-aware workspaces improve performance.

➤ Retention matters

Supportive workplaces retain knowledge, SOP familiarity, and HACCP culture.

The engagement gap is a culture failure, not a capability failure.





Do you feel you
have to **adapt to fit**
into your
workplace?



WHAT THE EXPERTS SAY



Diversity isn't a nice-to-have, it's a business imperative.

—
Richard Stier
Food Safety Magazine



Neurodivergent talent brings innovation, loyalty and exceptional performance.

—
Deloitte



Autistic employees consistently outperform in precision and attention to detail.

—
JPMorgan Chase
Autism at Work

JPMorganChase



The future of work is about building workplaces that work for everyone.

—
Jennefer Griffith
Executive Director
Food Processing
Skills Canada



Food safety equals behaviour – patterned ways of thought and behaviour.

—
Frank Yiannas
IAFP Past President



CHANGE



LOADING...



Start Small - Stay Intentional - Lead differently

MONDAY MORNING: What Can Organizations Do?



Redesign interviews —
Focus on ability, not small talk



Rewrite job descriptions —
Highlight strengths, not personality



Create sensory-friendly workspaces —
Lighting, noise, and predictability matter



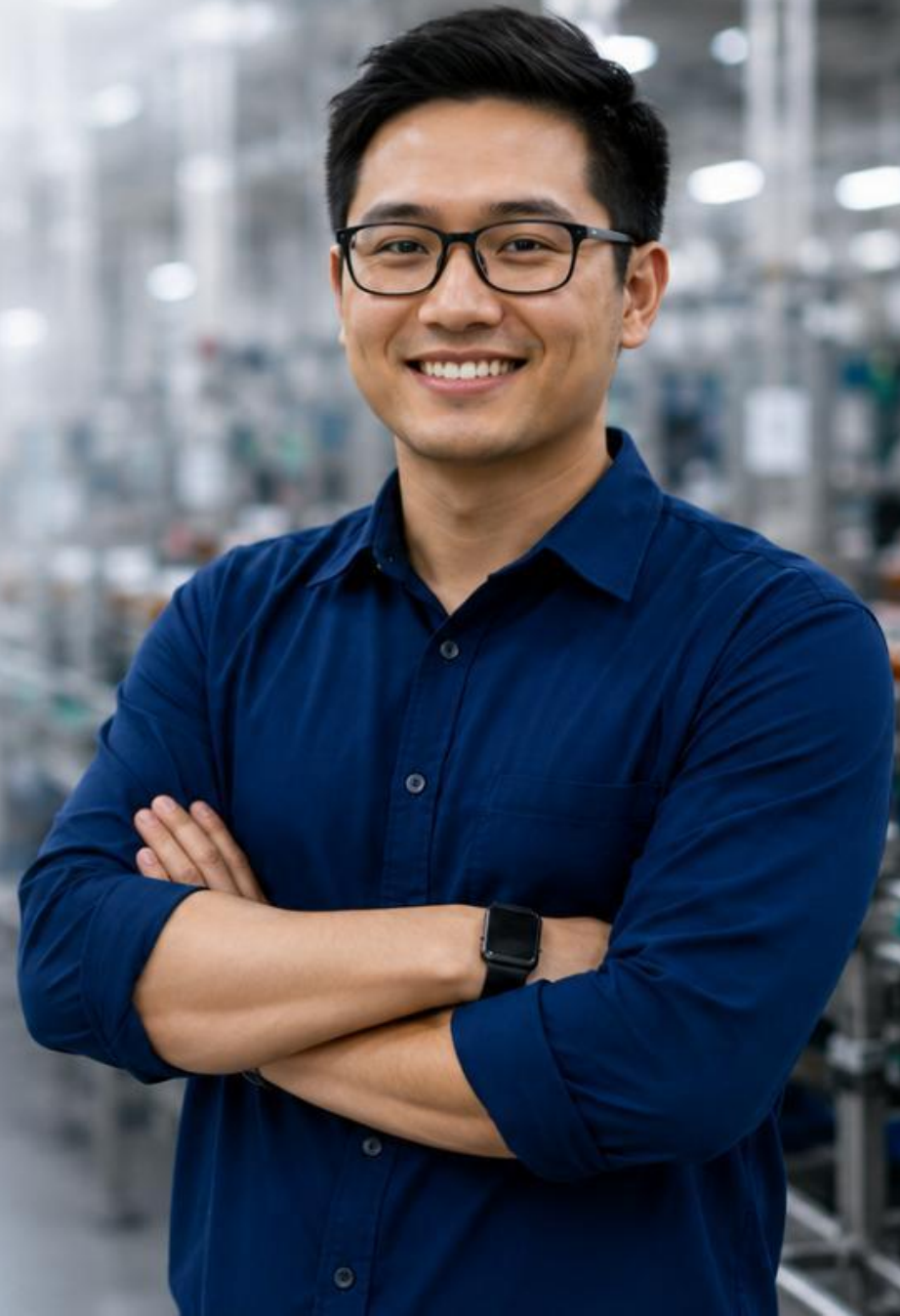
Provide clear structure & expectations —
Clarity unlocks performance



Measure what matters —
Precision, quality, and outcomes



Embed into food safety culture —
Make inclusion part of your system





“When a **workplace** sees everyone,
everyone wins.”

THE FUTURE IS ABILITY-FOCUSED

Neurodivergent professionals bring the cognitive strengths food safety was built upon.

Building workplaces where these minds are recognized, recruited and retained is not just good HR practice — it is a food safety strategy.

#DifferentMindsSaferFoods



FoodAbility
foodability.ca



Deanna Zenger - Food Processing Skills Canada -
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THANK YOU!



Q & A

WWW.FOODPROTECTION.ORG

Join Us



JULY 26 – 29, 2026

<https://foodprotection.org/annualmeeting/>

Upcoming Food Safety Webinars (April – June 2026)

Date	Time (Eastern Time)	Webinar Title
May 28	1:00 PM – 2:00 PM	Using Data Trends to Improve Microbial Risk Detection in Food Safety Systems
May 29	2:00 PM - 3:30 PM	How FSMA Qualified Exempt and Not Covered Produce Growers are Filling Learning Gaps Using Innovative Education Program Delivery Methods
June 10	1:00 PM – 2:00 PM	The State of Food Safety Professionals in a High-Risk World (IAFP and Partnership for Food Safety Education)

This webinar is being recorded and will be available for access by **IAFP members** at www.foodprotection.org within one week.

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For more information go to: www.FoodProtection.org/membership/

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