



## **Farm to Table and Back to Farm: Food Recalls, Genomics and Tracing**

### **Speakers**

Greg Thompson, Associate General Counsel/Chief Food Law Counsel,  
General Mills

Ryan Roth, Senior Vice President, Marsh & McLennan

Mike Droke, Partner, Dorsey & Whitney

Mark Kaster, Partner, Dorsey & Whitney, Moderator

### **Materials**

Program PowerPoint Presentation

## **Food Risk Summit**

### **Farm to Table and Back to Farm: Food Recalls, Genomics and Tracking How can the Risks be Managed**

**Greg Thompson, General Mills**  
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### **How are Food Companies Managing Food Safety Risks**

- **FSMA**
- **Preventive Controls/GMPs**
- **Internal Policies and Procedures**
- **Quality Controls and Testing**
- **Sanitation Practices**
- **Pack and Hold Procedures**
- **Hot Rooms**
- **Environmental and Product Testing / Swabathons**
- **Periodic Third Party Audits**
- **Periodic Compliance Assessment**
- **Supply Chain Assessments**

## What is Whole Genome Sequencing

- **Whole Genome Sequencing is a relatively new and now inexpensive method of revealing the complete DNA make-up of a pathogen.**
- **FDA is using WGS to perform basic foodborne pathogen identification during foodborne illness breakouts.**
- **An isolated pathogen taken from a clinical sample can be reliably linked back to a geographic location and tracking down the source.**
- **The FDA is working with public health officials and the CDC to build a genomic reference database called Genome Trakr that can be used to help identify and understand the source of foodborne illnesses.**

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## How are Genomics Affecting Food Safety Practices

- **The use of WGS is rapidly progressing. The FDA database now has completed DNA analysis on over 100,000 isolates.**
- **WGS can be used to:**
  - Track and trace pathogens in the food supply
  - Evaluate claims by consumers regarding alleged pathogens in food products
  - Supply chain testing of ingredients to confirm that they are free from pathogens, and if pathogens are present, that the kill step is sufficient
  - Testing of environmental samples to verify the effectiveness of processing and sanitation controls
  - Screening of pathogen strains
  - Evaluation of persistence of pathogens in the environment
  - Monitor emerging pathogens and resistant pathogens

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## WGS – Legal Risks

- WGS is a powerful tool.
- Public Health officials see it as a method to rapidly respond to foodborne illness outbreaks.
- One test yields information about serotype, resistance, virulence, etc.
- WGS could be used against the food industry and from a legal liability perspective might be used to impute “knowledge” of a systemic problem. WGS could also cause a problem you thought was long closed to be reopened, presenting liability risks years later.
- How the WGS tool will be used and the legal ramifications are still playing out.

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## How are Food Safety Risks Being Addressed Through the Supply Chain

- Under FSMA, companies are proactively identifying and responding to food safety risks.
- Companies are reviewing their food safety and quality culture.
- There will be continued internal and external food safety challenges facing the food and beverage manufacturers, restaurants and retailers.
- There will be an increase push to incorporating the internet of things, blockchain and AI as valuable methods to improve food safety.
- The ability to use WGS for Food Pathogen Traceability is here to stay.

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## Common Challenges

- **Costs reduction and margin efficiencies vs risk management and risk mitigation.**
- **Capital costs for food safety improvements.**
- **Innovation.**
- **Recall management.**
- **Supply chain controls.**
- **Changing market demands.**

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## Insurance in the WGS Era

- **Food companies will continue to see increasing risks in operations and regulations in the industry.**
- **WGS is a game changer.**
- **Increasing number of food recalls – no sign of reversing the trend.**
- **Global implications.**
- **Ingredient exposures – multiplier effect.**

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## Current Recall Insurance Options

The insurance market has tools and policies to help protect against the potential risks associated with food product recalls. As WGS continues to develop, companies need to consider the potential for recall events to impair a company's financial position. The risks are ever-present for the unwary.

While the recall insurance market is changing, current tools include:

- First and Third Party Recall Costs
- Replacement Costs
- Brand Rehabilitation
- Loss of Profits
- Third Party Financial Costs

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## Q & A

The Panel is happy to respond to questions, or you can contact any of the panelists directly after the program.

**Greg Thompson**  
General Mills  
greg.thompson@genmills.com

**Ryan Roth**  
Marsh & McLennan  
ryan.roth@marsh.com

**Mike Droke**  
Dorsey & Whitney  
droke.michael@dorsey.com

**Mark Kaster**  
Dorsey & Whitney  
kaster.mark@dorsey.com

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