



Thursday, September 11, 2008 Monterey Plaza Hotel & Spa , Monterey, California	
7:30 am to 8:00 am	Registration and Continental Breakfast
8:00 am to 8:15 am	Welcome and Conference Purpose Jim Lugg, Executive Vice-president, Science & Quality Fresh Express; President TransFRESH Michael Osterholm, PhD, MPH, University of Minnesota
8:15 am to 10:15 am	RESEARCH PRESENTATIONS - I Introductions (5 min): Rob Tauxe, MD, MPH, moderator Michael Doyle, PhD, University of Georgia (30 min) Subsurface contamination and internalization of <i>Escherichia coli</i> O157:H7 in pre-harvest lettuce (<i>Priority Area 1</i>) Manan Sharma, PhD, Agricultural Research Service, USDA (30 min) A novel approach to investigate internalization of <i>Escherichia coli</i> O157:H7 in lettuce and spinach (<i>Priority Area 1</i>) Jorge Girón, PhD, University of Arizona (30 min) Interaction of <i>Escherichia coli</i> O157:H7 with fresh leafy green produce (<i>Priority Areas 1 and 2</i>) Q&A (25 min)
10:15 am to 10:30 pm	Morning Break
10:30 am to 12:30 pm	RESEARCH PRESENTATIONS - II Introductions (5 min): Bob Buchanan, PhD, moderator Ahmed Yousef, PhD, Ohio State University (30 min) Sanitization of leafy vegetables by integrating gaseous ozone treatment into produce processes (<i>Priority Area 2</i>) Elliot Ryser, PhD, Michigan State University (30 min) Quantifying the risk of transfer and internalization of <i>Escherichia coli</i> O157:H7 during processing of leafy greens (<i>Priority Areas 1, 2, and 3</i>) Jacqueline Fletcher, PhD, Oklahoma State University (30 min) Movement of <i>Escherichia coli</i> O157:H7 in spinach and dissemination to leafy greens by insects (<i>Priority Areas 1 and 3</i>) Q&A (25 min)

12:30 pm to 1:30 pm	Buffet Luncheon
1:30 pm to 3:30 pm	<p>RESEARCH PRESENTATIONS - III Introductions (5 min): Jeff Farrar, DVM, PhD, MPH, moderator</p> <p>Linda Harris, PhD, University of California–Davis (30 min) Factors that influence the ability of <i>E. coli</i> O157:H7 to multiply on lettuce and leafy greens (<i>Priority Area 4</i>)</p> <p>Mark Harrison, PhD, University of Georgia (30 min) Fate of <i>Escherichia coli</i> O157:H7 on fresh and fresh-cut iceberg lettuce and spinach in the presence of normal background microflora (<i>Priority Area 4</i>)</p> <p>Xiuping Jiang, PhD, Clemson University (30 min) Determining the environmental factors contributing to the extended survival or regrowth of foodborne pathogens in composting systems (<i>Priority Area 5</i>)</p> <p>Q&A (25 min)</p>
3:30 pm to 3:45 pm	Afternoon Break
3:45 pm to 4:45 pm	<p>PANEL DISCUSSION Michael Osterholm, PhD, MPH, University of Minnesota (moderator) Robert Buchanan, PhD, Food and Drug Administration/CFSAN Jeff Farrar, DVM, PhD, MPH, California Department of Public Health Robert Gravani, PhD, Cornell University Craig Hedberg, PhD, University of Minnesota Robert Tauxe, MD, MPH, Centers for Disease Control and Prevention</p>
4:45 pm to 5:00 pm	<p>Wrap-up Jim Lugg, Executive Vice-president, Science & Quality Fresh Express; President TransFRESH</p>
5:00 pm to 7:00 pm	Reception (cash bar)



Research Priority Areas Summary

Five research priorities were identified for funding by the voluntary Fresh Express Scientific Advisory Panel. Each research project was expected to address one or more of these priorities. Of the 65 proposals received, nine research projects were selected independently by the Fresh Express Scientific Advisory Panel, totaling \$2 million dollars. The research priorities are:

1. Determine the potential for the internalization of *Escherichia coli* O157:H7 into lettuce and/or tissue spinach during the growth of plants and their subsequent harvesting, cooling, processing and transport/distribution. This work should include the consideration of factors affecting internalization as a function of plant varieties, plant age, growing conditions, plant variety, growing season, method of harvest, etc;
2. Identify new mitigation strategies and technologies or significant improvements in existing technologies for improved intervention to reduce the levels/frequency of *E. coli* O157:H7 and other enteric pathogens both on and in fresh leafy green produce;
3. Conduct field studies to identify sources and vectors/vehicles for *E. coli* O157:H7 in the environment and factors that affect the degree and extent of contamination into the produce (particularly lettuce and spinach) field or processing locations. These studies should consider some or all of the following factors on the risk of contamination of ground-grown leafy green produce: the impact of production field flooding, water source (well, irrigation source) and method of water distribution (furrow, sprinkler or drip irrigation), the role of wild animals present in the fields and the presence of cattle and other agricultural animals in locations near production fields;
4. Determine the ability of *E. coli* O157:H7 to multiply in the presence of normal background flora during transportation from harvest field to the cooler, while at the cooler, and during transportation either as finished packaged salads or cored product in a low oxygen, high carbon dioxide atmosphere, or in open 20 pound returnable plastic totes in temperature regimes commonly used, as well as, temperatures considered abusive; and
5. Determine the ability of *E. coli* O157:H7 and other enteric pathogens to survive composting processes, including those for "green compost" and leafy green field waste and potential for multiplication of the surviving pathogens in composted materials in the fields under optimal conditions.