



MEMORANDUM FOR AMI SCIENTIFIC AFFAIRS ADVISORY COMMITTEE

FROM: RANDY HUFFMAN, DANE BERNARD, JOHN BUTTS

SUBJECT: MINUTES – MARCH 15 - 16, 2006 MEETING, WASHINGTON DC

COMMITTEE MEMBERS IN ATTENDANCE:

Wafa Birbari, Sara Lee Corp.	Kathleen O'Donnell, Wegmans
Michael Bradley, Premium Standard Farms	Kevin Ladwig, Johnsonville Sausage, Inc.
John Butts, Land O'Frost	Ann Marie McNamara, Silliker Inc.
Jackie Caplinger, Kunzler, Inc.	Phil Minerich, Hormel Foods Corp.
George Cocoma, Professional Resource Org.	Alan Oser, Hatfield Quality Meats
Warren Dorsa, John Morrell and Co.	Dennis Stifler, Coleman Natural Meats
Bill Eisel, Fresh Mark Inc.	Bill Sveum, Kraft / Oscar Mayer
Margaret Hardin, Boars Head Provisions	Steve Quickert, Kraft / Oscar Mayer
Brian McFarlane, Tyson Fresh Meats	Patricia Wester, SGS

GUESTS (in order of attendance during the meeting):

Dr. David Goldman, Associate Administrator OPHS-FSIS
Phil Derfler, Assistant Administrator, OFO-FSIS
Dr. John Sofos, Colorado State University
Dr. Martin Wiedmann, Cornell University
FMI Staff and FMI Food Protection Committee members (see Appendix III for list of FMI attendees)
Scott Brennan, Ecolab

AMI STAFF:

Randy Huffman
Skip Seward

Day 1

The AMI Scientific Affairs Advisory Committee (SAC) met on March 15 - 16, 2006, at the AMI Office in Washington, DC. The materials from the meeting have been posted as a PDF file on www.meatami.com with "members only" security access. The file can be located under the "committee resources" section, under the Scientific Affairs section, key documents.

John Butts, former Chair of SAC, filled in for Chairman Dane Bernard who was unable to attend. John opened the meeting with a welcome and an overview of the agenda, which was accepted.

FSIS Update

The first item on the agenda was a FSIS science policy update from Dr. David Goldman, and Phil Derfler, of FSIS. Highlights of this discussion are provided below.

Baseline data collection update:

Microbiological (including *E. coli* O157) baseline for Raw Ground Beef Components:

- Started in mid November 2005
- The goal is 250 samples/month or 3000 samples/year
- No positive results for *E. coli* O157 to date
- Additional general microbiological data is being collected in companion samples and to date have not been reported by the 3rd party lab

Future Raw Ground Beef Components baselines are being contemplated at the direction of the National Advisory Committee for Microbiological Criteria for Foods (NACMCF). These include the following potential components: AMR, LTRB, Imported beef, weasand / head / cheek meat. No timeline has been set by the agency at this point with respect to these baselines.

Young chicken baseline:

- 90 day “shakedown” period will commence in mid-April
- Will be a 12 – 36 month sampling period
- Will follow similar format to O157 baseline data collection
- Prevalence of Salmonella, including serotype, as well as quantitation of general microbiological data

Risk Assessments currently in progress at FSIS

- Salmonella in Raw products
 - Raw Beef
 - Raw poultry
- Further enhancement of Lm verification model is a high priority
 - Data gaps – validation of interventions is a key data gap recognized by the agency
- Harvard BSE reassessment is a key priority
 - A public meeting on the updated BSE risk assessment will be held within 2 months
- *E. coli* O157 risk assessment – will incorporate plant characteristics to stratify producers of ground beef
 - Past history
 - Production volume
- NAFS *Listeria* deli study, conducted by University of Tennessee, Auburn University, Michigan State University and University of California, Davis.
 - Comparative risk assessment of *Listeria* in retail vs. plant
 - Results to be presented during summer 2006 meetings, including the Conference on Food Protection.
- Building risk assessment for cross contamination beyond the plant floor to consumer practices

Note: AMIF requested a meeting with FSIS risk assessment division (Janell Kause) to discuss the AMIF submission of new data and FSIS risk assessment critique by Exponent Inc. This meeting will occur in Early May with key FSIS staff.

Research priorities

- While FSIS does not have authority to conduct research, they do from time to time establish research priorities based upon the needs of the agency
- December, 2004 last time FSIS provided priorities that were shared with sister agency, ARS
- FSIS developing improved relationship with CSREES
- In early March 2006, FSIS met with ARS for annual research sharing meeting. Below are some key highlights from that meeting:
 - Heavy focus on *Salmonella* at this meeting
 - Attribution of sources of *Salmonella* to human illness contribution was a key issue
 - Methods for *Salmonella* enumeration discussed
 - New methods for characterization of pathogens were discussed, i.e. genomics
 - Food defense – detection methods, vulnerability assessments
- Residues and HACCP – also discussed with ARS
 - ARS to work on live animal screening methods
 - Veal calf issue has generated this need – medium priority issue, but important
 - Agency is concerned about future violations related to residues
- FSIS has discussed the need for a consistent cycle of communicating research needs.

Dioxin Reassessment

- NAS review of the EPA Dioxin risk assessment is set for end of April (*recently postponed until June, 2006*)
- NAS is putting the finishing touches on the peer review questions
- FSIS will not get much of a heads up on the content of the report, with an embargoed release of the report 1 day in advance to FSIS
- Interagency Working Group has developed a Q&A document
- HHS – USDA – EPA coordinated response is desired
- FSIS response is unknown at this point since they have not yet viewed the NAS report and will have limited time with the document
- The recommendation from NAS could be the risk assessment should be sent back to EPA, but is unlikely to go that extreme
- In terms of FSIS response, the agency tentatively plans to conduct a follow up survey of dioxin in livestock species – likely 2007 – 2008. This will be part of the agency response, i.e. they will continue to conduct periodic surveys on about a 5 year basis

NACMCF

- Meeting in Arlington, VA, mid March.
- The Subcommittee on Safe Cooking Temperatures for Poultry has been meeting and they will finalize the report. This will be presented to the full committee on Friday
- The NACMCF will receive new work charges during the plenary session. The following are on the list of potential charges:
 - MAP – mycobacterium paratuberculosis
 - Other potential charges, not final
 - Determination for micro sampling methods – mapping studies for FSIS baseline studies
 - Determination of appropriate microbial subtyping, i.e. genomics
 - Non-O157 STEC's (CDC rates show these going up)
 - Change reporting for O157:H7 to include non-O157 STEC
 - This could really change the regulatory issue, but NACMCF will be given the charge

Dr. Goldman and Mr. Derfler fielded questions from the group and departed the meeting.

Preparation for Joint FMI meeting on Lm at retail

The committee had discussions concerning preparation for the joint meeting with FMI Food Protection Committee. After working lunch, the group traveled to Hogan and Hartson for the joint meeting.

The joint meeting agenda is attached as an appendix to these minutes. Presentations were made by Bill Sveum, Kraft-Oscar Mayer, John Butts, Land O'Frost, and Tracie Sheehan, Sara Lee Foods on various in-plant aspects of Listeria control. Roger Hancock of Albertsons provided a retail perspective on Listeria control. Dr. Martin Weidman and Dr. John Sofos provided an overview of research efforts related to evaluating the Listeria risk in retail delis. (all PowerPoint presentations are available for download at

http://www.meatami.com//Template.cfm?Section=Scientific_Advisory_Committee&Template=/MembersOnly.cfm&NavMenuID=615&ContentID=4504&DirectListComboInd=D

The proposed AMIF funded retail deli study was presented by Dr. Ann Marie McNamara of Silliker Laboratories and significant discussion ensued. The outcome of these discussions was the suggestion that AMI and FMI should establish a small working group to determine what the needs of each group are and design a study to address those needs.

During the wine and cheese reception, Randy Huffman gave a presentation on the current issues involving the use of low-oxygen carbon monoxide MAP with fresh meat. This was followed by an extensive question and answer session.

Day 2

The meeting began with a wrap-up of day 1 joint meeting with FMI Food Protection Committee. The detailed agenda is attached as an appendix to this document. Generally, SAC members expressed that the meeting was a very worthwhile endeavor and good dialog was had between the two groups.

With respect to the *Listeria* at retail deli survey, the outcome of the discussion was that FMI felt that the proposal needed modification. As a result, a task force of 4 members, led by Warren Dorsa as co-chair was formed to work with a group of 4 FMI members. The joint task force will invite Dr. Weidman and Dr. Sofos to participate as science advisors on the task force to develop a valid and useful protocol for further understanding *Listeria* sources within the deli operation. Other volunteers in addition to Warren Dorsa were: Wafa Birbari, Sara Lee; Margaret Hardin, Boars Head Provision; Ann Marie McNamara, Silliker, Inc. The task force will convene via conference call to develop the protocol.

John Butts moved a resolution that the AMI SAC should continue active dialog with FMI Food Protection Committee and work to form an on-going partnership to address food safety or technical issues of mutual concern. This resolution was passed unanimously.

New Listeria Intervention Research –

Scott Burnett of Ecolab presented new data on the effectiveness of a surface treatment based upon octanoic acid chemistry that has recently received FSIS letter of no objection as a post lethality

treatment. Scott presented the recent data and answered questions for the group related to this technology.

Process Lethality spreadsheet upgrade

Report from Dr. Brad Marks, Michigan State University.

Dr. Brad Marks joined via conference call and provided an overview of the AMIF – funded research project to enhance the AMI process lethality spreadsheet. The 2 – year project is now complete. Dr. Marks is seeking input on how to make the model upgrades applicable and appropriate for use in industry. He has some reservations about the use of the spreadsheet as currently constructed, since frequently processors are using model reference values that may not reflect true conditions in the product and/or process. Currently, the model reference values are only comprised of ground beef and poultry meat data and only fat and moisture variables are known due to the limited data availability that met the requirements for use. He stressed concern over the uncertainty of many data sources that could be used from the literature, such as, lab variables, different lab methods, (e.g. selective media, TSA plates, irradiated products to eliminate background), different cocktails of *Salmonella*, methods for growing cultures, and incubation times. These are some examples of data uncertainty that he believes may lead to uncertainty in lethality prediction for certain product types. The modified model incorporates the concept of confidence intervals around the lethality estimate, and given the variability in the data sets included, Dr. Marks has concern over the width of these confidence bands.

Dr. Marks proposed that a collaborative study could address these data gaps, by using multiple labs using same methods, same samples, isolates, etc. This would help define the true uncertainty of the method, rather than the uncontrollable factors. This has been proposed in a NIFSI-USDA study that MSU has submitted to USDA.

Committee members provided comment and suggestions on the project. It was pointed out that in industry settings, it is not standard practice for process authorities to consider confidence intervals, and this would be a new concept. The question was raised about how FSIS would deal with this concept.

IARC monograph on ingested nitrites and nitrates—

Steve Quickert, Kraft Oscar Mayer, provided the SAC with an overview of the recent announcement by the International Agency for Research on Cancer (IARC) that they will be publishing a monograph concerning the carcinogenicity of ingested nitrites and nitrates. Since IARC is viewed as an authoritative body globally by many government agencies, the implications for a negative outcome of the monograph committee conclusions could have significant implications for the industry. AMI has nominated Dr. Jim Coughlin to represent AMI interests as an official observer during the meeting in Lyon France, June 14 – 21. Dr. Coughlin will play a key role in making sure that the expert panel considers basic facts about nitrite use in industry and that they consider all of the relevant factors when evaluating the current literature.

AMIF Research update

Huffman reported on the recently approved research projects and stated that the Executive Committee of AMI has continued to endorse and fund the process. Titles of newly approved research projects are listed below:

- Refinement of *Listeria monocytogenes* Low Dose Data from Pregnant Guinea Pigs for Human Risk Assessment, University of Georgia.
- Minimum Nitrite Levels Required to Control *Listeria monocytogenes* on Ready-to-eat Meat and Poultry Products, University of Wisconsin.
- Risk Factors and Consequences Associated with Condensation in Fresh and Ready-to-Eat Processing Facilities, Texas Tech University.
- Determine the Likelihood that *Salmonella* Develops Heat Resistance During Thermal Processing of Commercial, Whole-Muscle, Ready-to-Eat Meat Products. Michigan State University.
- Determination of the Efficacy of Chlorine Dioxide as an Anti-Listerial Agent in RTE Brine Chilling Solutions, Penn State University.
- White paper of Human Illness Caused by *E. coli* O157:H7 from Food and Non-Food Sources, University of Wisconsin.

Each spring, the Research Advisory Committees (RAC) is asked to evaluate the existing priorities and the request for proposal and make necessary modifications. As part of this process, a targeted research priority area has been established to address very specific industry needs. A research priority setting conference call with the RAC will take place in April – May to develop the 2007 priorities.

The next meeting time was discussed and it was decided to not attempt to hold a meeting during the summer IAFP meeting this year. A date will be established and communicated to the committee via email.

With no further business, the meeting was adjourned.

cc: J. Patrick Boyle
Jim Hodges

Appendix I



**Scientific Affairs Advisory Committee Meeting
Washington, DC
March 15 - 16, 2006**

Day 1, March 15, AMI Office 1150 Connecticut Ave, NW

9:00 a.m. **Opening Remarks, Discussion of the Agenda, Review of Minutes from
September meeting**
 John Butts, Land O’Frost (filling in as chair for Dane Bernard)

9:00 – 10:30 **FSIS science policy update: Recent *Salmonella* Initiative
Upcoming *Listeria* directives**
 Dr. David Goldman, FSIS-OPHS
 Phil Derfler, FSIS-OPPED

10:30 – 12:00 **Prepare for joint AMI-FMI meeting: *Lm* at Retail
CO packaging of fresh meat**

Working lunch to be provided at AMI office.

Committee will travel together to the law offices of Hogan and Hartson, 555,
13th street, NW

Joint AMI – FMI meeting and wine and cheese Reception

See separate agenda below.

Day 2, March 16, AMI Office, 1150 Connecticut Ave, NW

8:00 a.m. **Wrap up and Next Steps from Joint FMI meeting**

9:00 – 9:30 **New *Listeria* intervention research**
 Dr. Peter Bodnaruk, Ecolab (Scott Burnett substituted for Peter)

9:30 – 9:45 Break

9:45 – 10:30 **Process Lethality Spreadsheet upgrade – report from Michigan State
University project**
 Dr. Brad Marks (via phone)

10:30 – 11:00 **AMIF research update: currently initiated projects
Priorities for 2007**

Randy Huffman

11:00 –12:00 **Update from the Nitrite task force: IARC monograph**

Adjourn

Appendix II

**FMI Food Protection Committee -- AMI Scientific Affairs Committee
Listeria Control in RTE Meat and Poultry
Wednesday, March 15, 2006**

New Location:

**Columbia Square Building
Law Offices of Hogan & Hartson
Fulbright Room**

**555 Thirteenth Street, NW
Washington, DC 20004
Phone: +1.202.637.5600**

From the Crowne Plaza Hamilton Hotel: Go South on 14th Street; turn left on F Street; turn right on 13th. Enter the Columbia Square Building next to the Warner Theater. (About a 5 minute walk)

Once you enter the Columbia Square Building:

You want to go to the Hogan & Hartson Fulbright Room - From the elevators, go the 13th floor, **West Tower**. Name tags will be ready and waiting for your arrival at the reception area. You will be escorted from the reception area to the Fulbright Room by FMI staff. Coats and luggage can be kept in a coat closet near the Fulbright Room. The Hogan & Hartson offices are approximately 2 blocks from FMI's Office and about a 5 minute walk from the Crowne Plaza Hamilton Hotel. .

Wednesday, March 15, 2006

Please arrive at 1:15 p.m.

1:30 – 5:30 p.m.

FMI-AMI joint meeting - Hogan & Hartson, Fulbright Room

- See Agenda below

5:30 p.m. – 7:30 p.m.

FMI-AMI Reception - Hogan & Hartson, Fulbright Reception Center

AGENDA

Introductions, review of objectives for meeting, and
Approval of agenda

Jill Hollingsworth, FMI
Randy Huffman, AMIF
Committee Chairs

Overview of AMI efforts regarding Listeria Control

Randy Huffman

FSIS Interim Final Rule for Listeria Control

Bill Sveum
Kraft/Oscar Mayer

Lessons Learned in RTE Meat Processing:
Sanitation, Sampling, Data, Corrective Actions

John Butts
Land O'Frost

Interventions to Control Lm in Deli Meats:
Inhibitors, Cook-in-bag, other technology

Tim Freier
Cargill Meat Solutions

Retail Perspective on Listeria Risks and Controls

Roger Hancock
Albertsons, Inc.

Break

Review of Findings from Draughon et al., USDA
funded Listeria at Retail Deli study

(Tentative)

Preliminary Findings from NYSA&M/Cornell
Retail Deli Survey of Listeria

Martin Weidman
Cornell University

Plans for newly funded USDA, Multi-Institution
Listeria Control Study

John Sofos, Colorado State
Martin Weidman, Cornell

Proposed AMIF-funded Listeria study of Listeria
at Retail Deli

Ann Marie McNamara
Silliker, Inc.

Discussion

All

Appendix III

FMI meeting attendees (indicated as of 3/08/06)

Prince	Gale	The Kroger Company
Brown	Pat	Pathmark Stores Inc.
Oswald	Steve	Wakefern Food Corporation
Ambrosio	Mike	Wakefern Food Corporation
Ball	James	Food Lion
Kelleher	Gillian	Wegmans Food Markets
Frappier	Robert	Ahold USA
O'Donnell	Kathleen	Wegmans Food Markets
Tryba	Cas	Big Y Foods
Hancock	Roger	Albertsons
Marra	Paul	Wegmans Food Markets
Hedman	Cory	Hannaford
Levee	Terry	Winn-Dixie Stores, Inc.
Pasley	Dianna	Schnucks Market, Inc.
Sherback	George	Stop & Shop
Stoffer	Chuck	Safeway (may send Keith)
Van Ostenbridge	Mark	Bi-Low
Menke-Schaenzer	Joan	Wal-Mart
Bacon	Brenda	Harris Teeter
Martin	Monica	Farm Fresh, Inc.
Hollingsworth	Jill	FMI
Reimers	Fred	Consultant
Edwards	Larry	FMI
Lee	Gwen	FMI
DiPersio	Tricia	Wild Oats Market