Food and Drug Administration, Center for Biologics Evaluation and Research

SUMMARY MINUTES

VACCINES AND RELATED BIOLOGICAL PRODUCTS ADVISORY COMMITTEE

Meeting # 110: February 27 - 28, 2007 Hilton Hotel North Washington, Gaithersburg, MD

Committee Members

Dr. Ruth Karron, Chair
Dr. Philip LaRussa*
Dr. Bonnie Word
Dr. John Modlin
Dr. Lisa Jackson
Dr. Jack Stapleton
Dr. Seth Hetherington**
Dr. Monica Farley
Dr. Steven Self

Temporary Voting and Non-Voting Members

Ms. Cindy Lyn Province, R.N., M.S.N.***
Dr. Pamela McInnes
Dr. Bruce Gellin+,+++
Dr. Melinda Wharton
Dr. Robert Couch
Dr. Nancy Cox++
Dr. Theodore Eickhoff
Dr. Wayne Hachey+
Ms. Susan Krivacic#
John Treanor##
Dr. Robert Webster###

FDA Participants

Dr. Jesse Goodman
Dr. Norman Baylor
Dr. Andrea James
Dr. Joseph Toerner
Dr. Robert Ball
Dr. Rakesh Pandey
Dr. Zhiping Ye
Dr. Galina Voediko
Dr. Jerry Weir
Dr. Sara Gagneten

Sanofi Pasteur Participants

Dr. Kenneth Guito
Dr. Patrick Caubel

Speakers

Dr. Robin Robinson, HHS
Dr. Linda Lambert, NIH
Dr. John Treanor, URMC
Dr. David Shay, CDC
Dr. Anthony Fiore, CDC
Ms. Angela Owens, DOD
Mr. Albert Thomas, SP
Mr. Tony Colegate, Novartis

Executive Secretary

Christine Walsh, R.N.

Committee Management Specialist

Denise Royster

These summary minutes for the February 27 - 28, 2007 Meeting of the Vaccines and Related Biological products Advisory Committee were approved on ____June 26, 2007_____.

I certify that I participated in the February 27 - 28, 2007 Meeting of the Vaccines and Related Biological Products Advisory Committee and that these minutes accurately reflect what transpired.

_____/s/_____
Christine Walsh, Executive Secretary

_____/s/_____
Ruth Karron, Chair

* Did not attend February 27 - 28, 2007
** Non-Voting Industry Representative
***Acting Consumer Representative
#Patient Representative February 27 only
###Attended February 27, 2007 only
+Non-Voting Member February 27
++Non-Voting Member February 27 - 28
+++Did Not Attend February 28
##Attended February 27, Topic 2 only

The Chair, Dr. Ruth Karron, called the one hundred and tenth Meeting of the Vaccines and Related Biological Products Advisory Committee to order at 8:05 a.m. ET on February 27, 2007. In Session 1, the meeting addressed the safety and effectiveness of an H5N1 inactivated influenza vaccine manufactured by Sanofi Pasteur. Session II of the meeting was an open discussion on clinical development of influenza vaccines for pre-pandemic uses. On February 28, 2007, Session III of the meeting was discussion and recommendations on the strain selection for the influenza virus vaccine for the 2007 – 2008 season. In the final session the panel discussed influenza type B strain – discussion on circulating lineages.

An Open Public Hearing was announced at each of the sessions during both meeting days. Public comment was offered February 27, 2007, during Session II, by Dr. Bruce Innes representing GlaxoSmithKline and by Ms. Manon Cox representing Protein Sciences. No other public comment was offered.

Following is a summary of the discussion. Additional information and specific details may be obtained from the transcript of the meeting. The transcript may be viewed on the World Wide Web at:
http://www.fda.gov/ohrms/dockets/ac/cber07.html#VaccinesandRelatedBiological.

Open Session

Dr. Norman Baylor, FDA opened the morning session on February 27, 2007, on the safety and effectiveness of an H5N1 inactivated influenza vaccine manufactured by Sanofi Pasteur presenting introduction and background to the morning's session. Following Dr. Baylor, subsequent presentations were made by Kenneth Guito, Sanofi Pasteur, the vaccine manufacturer; Dr. Robin Robinson presented an overview of HHS procurement, and Dr. Linda Lambert and Dr. John Treanor represented NIH presenting data on the clinical trial study and results. Dr. Andrea James, FDA then made presentation that included the questions that would later be presented to the panel for recommendations. Following Dr. James, Dr. David Shay, CDC, presented post marketing data; Dr. Patrick Caubel presented Sanofi Pasteur's pharmacovigilence plan; and Dr. Robert Ball, FDA presented comments on Sanofi Pasteur's Pharmacovigilence plan and included some post marketing safety monitoring during an influenza pandemic.

An Open Public Hearing was announced. No public comment was offered.

Following the Open Public Hearing, the questions were presented to the panel for discussion and recommendation.

Based on information presented to the committee regarding the effectiveness of an H5N1 inactivated influenza vaccine, the committee recommended:

- The committee unanimously recommended (14 votes in favor, 0 against, 0 abstained) that the data were sufficient to support the effectiveness of this product for use during a pandemic or in situations of potential high risk exposure.

Based on information presented to the committee regarding the safety of an H5N1 inactivated influenza vaccine, the committee recommended:

- The committee made a majority recommendation (13 votes in favor, 0 against, 1 abstained) that the data were sufficient to support the safety of this product for use during a pandemic or in situations of potential high risk exposure.

The committee was then asked to comment on studies to collect additional information about the effectiveness and safety following this vaccine use. The panel made comment that the vaccine should be used only as a stop gap and there should be an enhanced passive surveillance system in place. Other comments and recommendations included implementing a monitoring system similar to small pox and the need to collect immunogenicity specific to correlates of protection.

Session I was then adjourned.

After lunch, the committee re-convened and in Session II presentations were made to the committee and discussion was held on clinical development of influenza vaccines for pre-pandemic uses. Dr. Jesse Goodman, FDA opened the session by presenting considerations in the pre- and early pandemic use of influenza vaccine. Following Dr. Goodman, Dr. Joseph Toerner, FDA presented background information on the clinical development of influenza vaccines for pre-pandemic use. Final presentation for the topic was made by Dr. John Treanor, University of Rochester. Panel discussion was held after the presentations which included clinical trial design, duration of follow up, immune response endpoints, and size of safety database for considerations of licensure of influenza vaccines for pre-pandemic uses.

An Open Public Hearing was announced for Session II. Public comment was made by Dr. Bruce Innis representing GlaxoSmithKline and by Ms. Manon Cox, representing Protein Sciences. No other comment was made.

After committee discussion, the meeting was adjourned for the day.

The Chair called day 2 of the meeting to order at 8:00 a.m. ET on February 28, 2007. Dr. Rakesh Pandey, FDA introduced the morning's topic; strain selection for the influenza virus vaccine for the 2007 – 2008 season. Dr. Pandey's presentation also included committee discussion questions for consideration and recommendation. Following Dr. Pandey were a series of presentations that included Dr. Anthony Fiore and Dr. Nancy Cox from CDC who presented data on US surveillance and world surveillance respectively. Following CDC, Dr. Zhiping Ye and Dr. Galina Vodeiko, FDA presented vaccine responses and availability OF strains and reagents. Final presentation for the

topic was made by Albert Thomas who presented comments from manufacturers for the committee.

An Open Public Hearing was announced. No public comment was offered.

After being presented an overview of options for strain selection of the components for next season's influenza vaccine, the committee held discussion and made the following recommendations for the influenza virus strains to be included in the vaccine for use during the 2007 – 2008 season in the United States. Based on information regarding the appearance and epidemiology of new influenza virus strains, response to current vaccines, and the availability of new candidate strains for manufacturing, the committee recommended:

- The committee unanimously recommended (13 votes in favor, 0 against, 0 abstained) to replace the current Influenza A/New Caledonia/20/99 (H1N1)-like virus with A/Solomon Islands/3/2006 (H1N1)-like virus.
- The committee recommended (11 votes in favor, 0 against, 0 abstained, 2 votes to defer to later date) to retain current A/Wisconsin/67/2005 (H3N2)-like virus.
- The committee unanimously recommended (13 votes in favor, 0 against, 0 abstained) to retain current B/Malaysia/2506/2004-like virus (B/Victoria/2/87 lineage).

After recommendations were made, Dr. Nancy Cox presented a short update on the Influenza A (H5N1) Viruses to the committee.

After lunch, Dr. Jerry Weir, FDA, opened the afternoon session with an introduction to the topic; Influenza Type B Strain – Discussion on Circulating Lineages. In his presentation, Dr. Weir stated the goals of the topic's discussion were to review available data regarding the Yamagata and Victorian lineage of Influenza B; discuss options to provide vaccine coverage strains of both lineages; and to discuss regulatory and manufacturing considerations for such options. Following Dr. Weir's presentation, Dr. Robert Couch, Baylor College of Medicine spoke to the committee outlining a background on the topic and addressing alternative vaccine options. Dr. Sara Gagneten, FDA presented the regulatory implications for alternative vaccine options followed by comments from manufacturers presented by Tony Colegate, Novartis.

An Open Public Hearing was announced. Dr. Kathleen Coelingh, an employee of MedImmune offered public comment.

The committee then held discussion on the afternoon's topic. The committee reviewed various strategies for providing vaccine coverage of both Type-B strain lineages. The possibility of automatically alternating between the two lineages year-to-year, regardless of the expected predominant strain, but still ensuring the correct strain within the lineage is chosen was discussed, and the advantages and disadvantages of this approach, from a manufacturing, clinical and public health perspective, were outlined.

In addition, the development of a quadravalent vaccine was discussed as another potential strategy. The discussion focused on the regulatory process for such a vaccine, the data requirements to support safety and efficacy, as well as the dosing and necessary manufacturing facilities.

The committee suggested the importance of retrospectively reviewing drift within different B-lineages for previous years to help determine confidence intervals.

The committee recommended obtaining the input of the World Health Organization (WHO) regarding this topic and requested the federal government to bring this topic before WHO.

FDA committed to have further discussions internally on both strategies to develop an outline of the necessary clinical trial design.

The Chair adjourned the meeting at 3:30 p.m.