DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research

Telecon Minutes

Date: October 25, 2011

From: Mona Patel, Pharm.D., DBOP/OODP/OND/CDER/FDA

Subject: NDA 203388: Vismodegib October 20, 2011 Telecon w/ Genentech

Product: Vismodegib for treatment of adult patients with advanced basal cell carcinoma [redacted] (b) (4)

Purpose: FDA requested this telecom to seek clarity and gather information on Genentech's proposed [redacted] (b) (4) for vismodegib under NDA 203388.

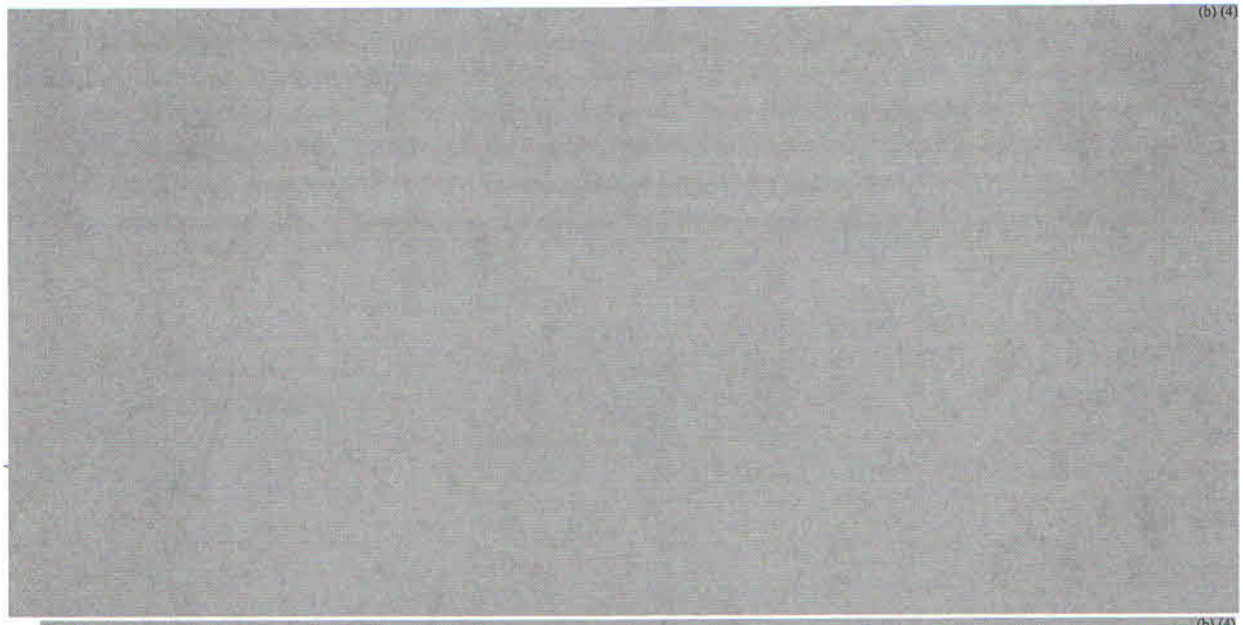
FDA Attendees:
Mona Patel
Jeff Summers
Patricia Keegan
Michael Axelson
Ke Liu
Todd Palmby
Dubravaka Kufrin
Amarilys Vega
Cynthia Lacivita
Tammie B Howard
Karen Feibus
Sharon Mills
Melissa Tassinari
John Leighton

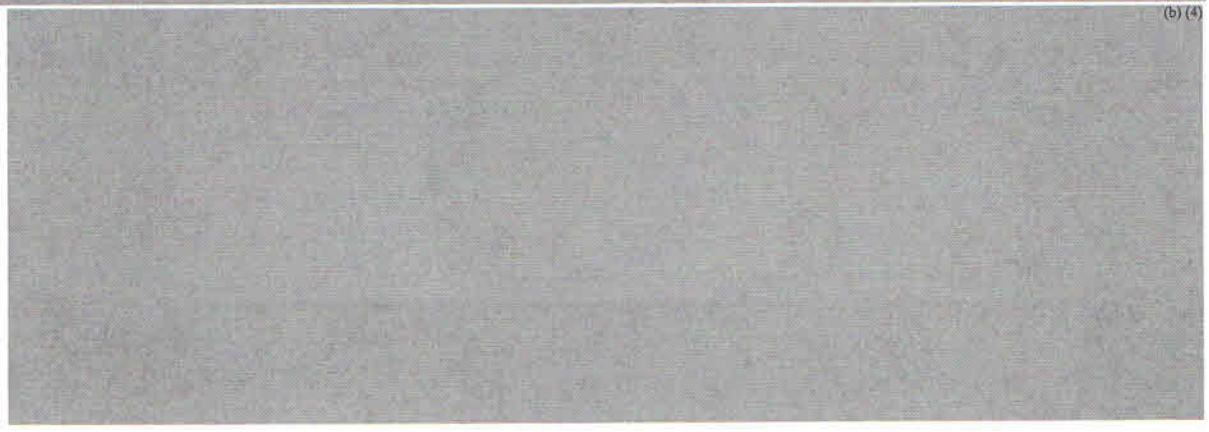
Genentech Attendees:
Jennifer Low, Global Development Leader
Michelle Rohrer, VP Regulatory
Maryann Major, REMS specialist, Regulatory Program Manager
Joseph Hoffman, Safety Cluster Head Oncology
Sarah Wayson, Regulatory Program Manager

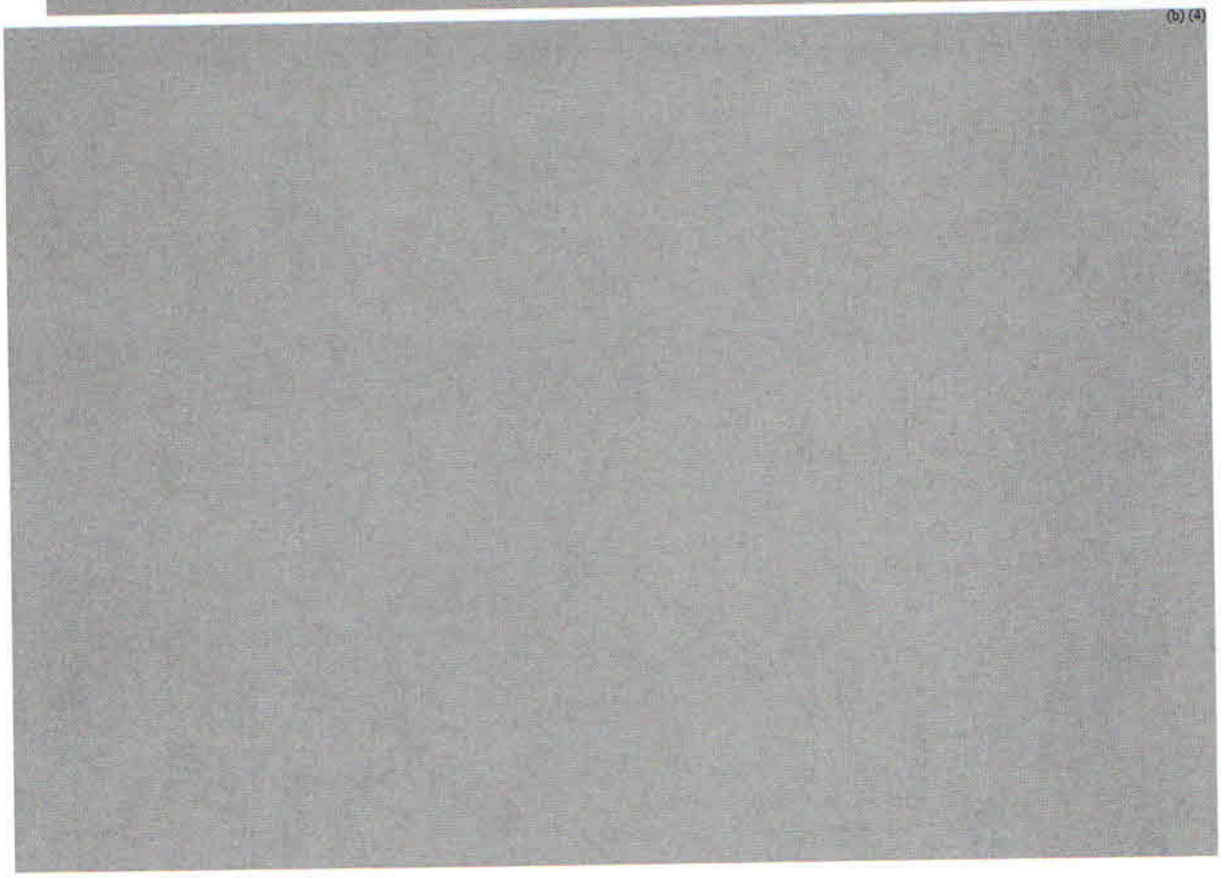
Wen Liu, Global Regulatory Lead
Karen Jones, Head of Global Oncology Regulatory
Virginie Bryan, REMS Specialist
Josina Reddy, Medical Director
Israel Gutierrez, Safety Science Lead
Eric Morinello, Safety Toxicology
Rick Graham, Clinical Pharmacology

The following discussion points were sent to Genentech on October 19, 2011 and discussed during the telecon on October 20, 2011.

The Division agrees that vismodegib has demonstrated teratogenic effects in animal studies and that such information be communicated to healthcare providers and patients to ensure safe use of vismodegib. The Division also believes that this would include, at minimum, communication of risks through accurate and detailed descriptions of the observations in labeling (i.e., physician product labeling and Medication Guide). These measures should include a Boxed Warning as well as information under the Warning and Precautions sections directed towards use of vismodegib among females and males of reproductive potential with locally advanced or metastatic basal cell carcinoma.





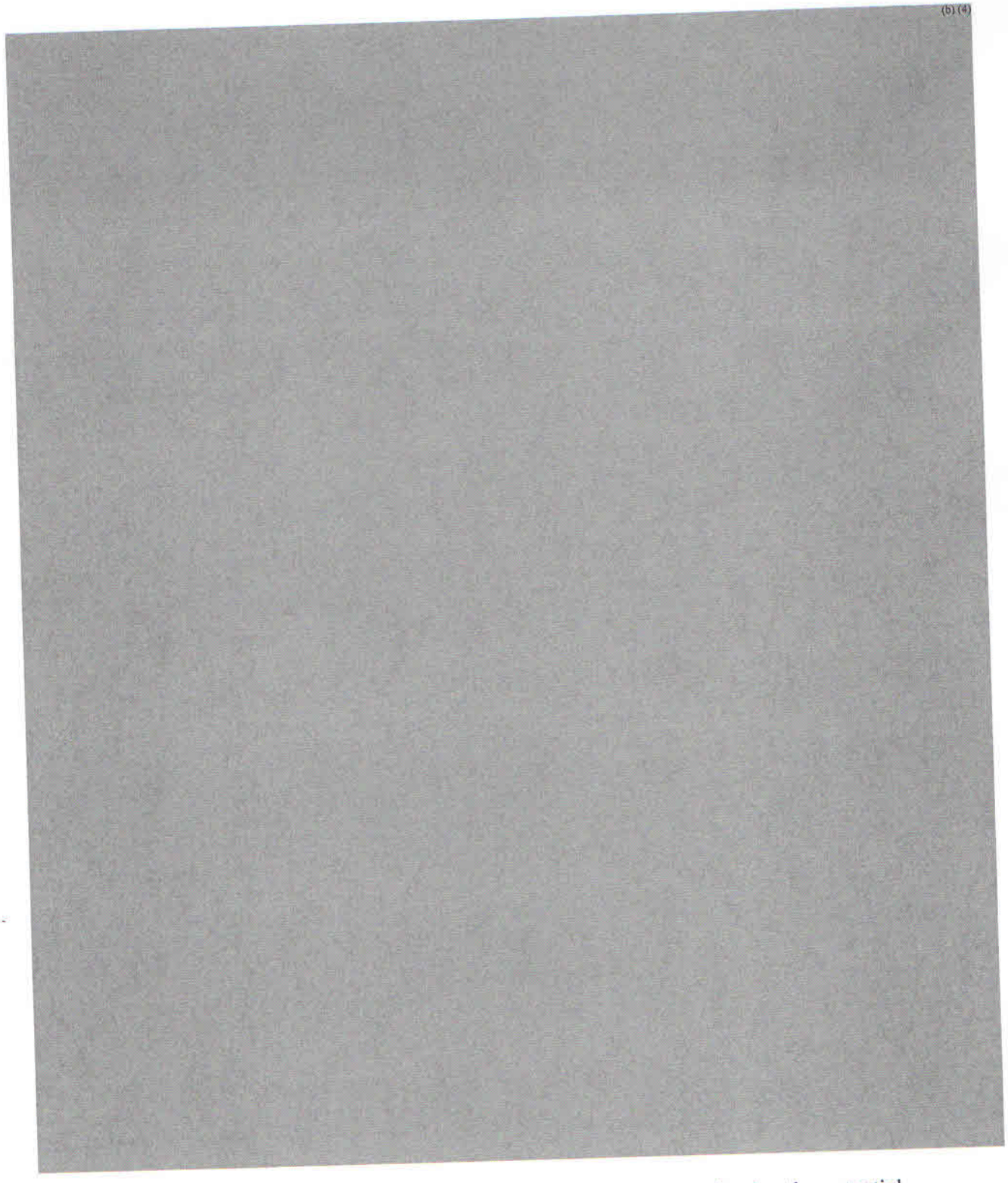


6. Please justify why vismodegib must be stopped in woman with positive pregnancy tests. Have you considered alternative actions that a positive pregnancy test should trigger - such as counseling with the prescribing physician and referral as appropriate (see also 8b)?

   Discussion: Genentech stated they had considered vismodegib to be Pregnancy Category (b) (4) and therefore, placed the requirement in labeling to test female patients of child-bearing potential every month. FDA stated that vismodegib may not be considered as Pregnancy Category (b) (4) FDA also requested that Genentech re-consider the requirement for routine urine versus serum pregnancy tests.

7. Are you planning to do additional animal studies that would examine the effect of the drug in males and their offspring?

   Discussion: Genentech stated they were not planning additional studies to examine the effects of the drug in males and their offsprings, but were planning to assess the level of vismodegib in semen from males in an ongoing or future clinical trial.



FDA requested that Genentech propose its approach(es) in communicating the potential risks of embryo-fetal toxicities associated with vismodegib and specific objectives or goals must be clearly described. Genentech acknowledged FDA's request and agreed to submit revised risk management programs within 3 weeks.

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/s/

MONA G PATEL
11/22/2011