of, and to conduct periodic review of, biomedical research involving human subjects. The primary purpose of such review is to assure the protection of the rights and welfare of the human subjects."

Regulations that apply to IRBs are found in 21 CFR §§50, 56, and in 45 CFR §46. According to Emanuel and Menikoff (25), these two sets of regulations that apply to the IRB are, "[s]imilar but not identical regulations." This author also points out that a rule found in Title 21 that applies to clinical trials on drugs many not have a corresponding rule that applies to clinical trials on medical devices, and vice versa. In this chapter, where an excerpt from a Warning Letter concerns a rule applying to medical devices, this suggests but does not necessarily mean that the FDA may have a corresponding rule that applies to drugs.

FDA's Guidance for Industry provides a definition for the Data Monitoring Committee (DMC), also known as Data Safety Monitoring Committee (DSMC). The definition is (26), "A clinical trial DMC is a group of individuals with pertinent expertise that reviews on a regular basis accumulating data from one or more ongoing clinical trials. The DMC advises the sponsor regarding the continuing safety of trial subjects and those yet to be recruited to the trial, as well as the continuing validity and scientific merit of the trial."

VIII. FAILURE OF SPONSOR TO HAVE AN FDA-APPROVED IND

Failure to submit an IND prior to administering drug to subjects, or refusal of the FDA to approve a submitted IND, was an issue in a number of Warning Letters, as cited (27,28,29,30,31,32,33,34). The layperson can readily understand that this represents a gross and blatant failure to comply with FDA-regulations.

[25]Emanuel EG, Menikoff J. Reforming the regulations governing research with human subjects. New Engl. J. Med. 2011;365:1145–50.

[26]U.S. Department of Health and Human Services. Food and Drug Administration Guidance for industry. Establishment and operation of clinical trial data monitoring committees; March 2006 (34 pp.).

[27]Warning Letter No.CBER-06-006 (June 14, 2006) from Mary A. Malarkey, Office of Compliance and Biologics Quality, CBER, U. S. Food and Drug Administration.

[28]Warning Letter No. 07-HFD-45-01-02 (January 19, 2007) from Gary Della 'Zanna, Division of Scientific Investigations, Office of Compliance, CDER, U.S. Food and Drug Administration.

[29]Warning Letter No. 14-HFD-45-04-01 (April 10, 2014) from Sean Y. Kassim, PhD, Office of Scientific Investigations, Office of Compliance, CDER, U.S. Food and Drug Administration.

[30]Warning Letter No. 15-HFD-45-04-01 (April 1, 2015) from Sean Y. Kassim, PhD, Office of Scientific Investigations, Office of Compliance, CDER, U.S. Food and Drug Administration.

[31]Warning Letter No. 07-HFD-45-01-02 (January 19, 2007) from Gary Della 'Zanna, Division of Scientific Investigations, Office of Compliance, CDER, U.S. Food and Drug Administration.

[32]Warning Letter No. 05-HFD-45-06-01 (June 5, 2005) from Dr Leslie K. Ball, MD, Office of Compliance, CDER, U.S. Food and Drug Administration.

[33]Warning Letter No. 06-HFD-45-06-03 (June 15, 2006) from Joseph Salewski, Division of Scientific Investigation, Office of Compliance, CDER, U.S. Food and Drug Administration.

[34]Warning Letter No. 15-HFD-45-04-01 (April 1, 2015) from Sean Y. Kissim, PhD, Office of Scientific Investigations, Office of Compliance, CDER, U.S. Food and Drug Administration.