DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration
2098 Gaither Road
Rockville MD 20850

Robert Gregg, Ph.D.
Director, Regulatory Submissions
Roche Diagnostics Corporation
9115 Hague Road
Indianapolis, IN 46250

DEC 17

Re: K033607
Evaluation of Automatic Class III Designation
Factor V Leiden Kit
Regulation Number: 21 CFR 864.7280
Classification: II
Product Code: NPQ

Dear Dr. Gregg:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your petition for classification of the Factor V Leiden Kit that is intended for use for the detection and genotyping of a single point mutation (G to A at position 1691) of the human Factor V gene, referred to as the Factor V Leiden mutation, from DNA isolated from human whole peripheral blood. The kit is used as an aid to diagnosis in the evaluation of patients with suspected thrombophilia. FDA concludes that this device, and substantially equivalent devices of this generic type, should be classified into class II. This order, therefore, classifies the Factor V Leiden Kit, and substantially equivalent devices of this generic type into class II under the generic name, Factor V Leiden mutation detection system. This order also identifies the special controls applicable to this device.

FDA identifies this generic type of device as:

21 CFR 864.7280 – Factor V Leiden DNA mutation detection system Factor V Leiden mutation detection system is a device that allows the detection and genotyping of a single point mutation of the human Factor V gene, referred to as Factor V Leiden mutation, from DNA isolated from human whole peripheral blood. The system consists of different reagents and instruments which includes polymerase chain reaction (PCR) primers, hybridization matrices, thermal cyclers, imagers, and software packages. The detection system is an aid to diagnosis in the evaluation of patients with suspected thrombophilia.

In accordance with section 513(f)(1) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360c(f)(1)) (the act), devices that were not in commercial distribution prior to May 28, 1976 (the date of enactment of the Medical Device Amendments of 1976 (the amendments)), generally referred to as postamendments devices, are classified automatically by statute into class III without any FDA rulemaking process. These devices remain in class III and require premarket approval, unless and until the device is

classified or reclassified into class I or II or FDA issues an order finding the device to be substantially equivalent, in accordance with section 513(i) of the act (21 U.S.C. 360c(i)), to a predicate device that does not require premarket approval. The agency determines whether new devices are substantially equivalent to previously marketed devices by means of premarket notification procedures in section 510(k) of the act (21 U.S.C. 360(k)) and Part 807 of the FDA regulations (21 CFR 807).

Section 513(f)(2) of the act provides that any person who submits a premarket notification under section 510(k) for a device may, with in 30 days after receiving an order classifying the device in class III under section 513(f)(1), request FDA to classify the device under the criteria set forth in section 513(a)(1). FDA shall, within 60 days of receiving such a request, classify the device type. This classification shall be the initial classification of the device type. Within 30 days after the issuance of an order classifying the device, FDA must publish a notice in the **Federal Register** classifying the device type.

On December 8, 2003, FDA filed your petition requesting classification of the Factor V Leiden Kit into class II. The petition was submitted under section 513(f)(2) of the act. In accordance with section 513(f)(1) of the act, FDA issued an order on December 5, 2003, automatically classifying the Factor V Leiden Kit in class III, because it was not within a type of device which was introduced or delivered for introduction into interstate commerce for commercial distribution before May 28, 1976, which was subsequently reclassified into class I or class II. In order to classify the Factor V Leiden Kit into class I or II, it is necessary that the proposed class have sufficient regulatory controls to provide reasonable assurance of the safety and effectiveness of the device for its intended use.

After review of the information submitted in the petition, FDA has determined that the Factor V Leiden Kit that is intended for use for the detection and genotyping of a single point mutation (G to A at position 1691) of the human Factor V gene, referred to as the Factor V Leiden mutation, from DNA isolated from human whole peripheral blood can be classified in class II with the establishment of special controls. FDA believes that class II special controls provide reasonable assurance of the safety and effectiveness of the device type.

There are no known direct risks to patient health when tests are used as an aid to diagnosis. However, failure of the test to perform as indicated or error in interpretation of results may lead to improper medical management of patients with clotting disorders. A false negative interpretation could lead to undermanagement of the patient, with increased risk of future thrombotic events. A false positive result could lead to inappropriate treatment and alteration of present and future drug selection and treatment.

FDA has identified the risks to health generally associated with the use of the Factor V Leiden Kit addressed in the special controls document, "*Class II Special Controls Guidance Document: Factor V Leiden DNA mutation detection system*". The measures recommended to mitigate these identified risks are given in this guidance document and include labeling, instrumentation validation, reproducibility, use of control materials, and

clinical studies or literature summaries. The premarket notification should describe the risk analysis method.

In addition to the general controls of the act, the Factor V Leiden Kit is subject to the following special controls: "*Class II Special Controls Guidance Document: Factor V Leiden DNA mutation detection system*". Section 510(m) of the act provides that FDA may exempt a class II device from the premarket notification requirements under section 510(k) of the act, if FDA determines that premarket notification is not necessary to provide reasonable assurance of the safety and effectiveness of the device. FDA has determined premarket notification is necessary to provide reasonable assurance of the safety and effectiveness of this device type and, therefore, the device is not exempt from the premarket notification requirements. Thus, persons who intend to market this device must submit to FDA a premarket notification submission containing information on the Factor V Leiden DNA mutation detection system they intend to market prior to marketing the device. A notice announcing this classification order will be published in the **Federal Register**.

A copy of this order and supporting documentation are on file in the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Room 1061, Rockville, MD 20852 and are available for inspection between 9 a.m. and 4 p.m., Monday through Friday.

As a result of this order, you may immediately market this device, subject to the general control provisions of the act and the special controls identified in this order.

If you have any questions concerning this classification order, please contact Elizabeth Mansfield, Ph.D., at (301) 594-1293.

Sincerely yours,

S Gutman

Steven I. Gutman, M.D., MBA
Director
Office of *In Vitro* Diagnostic
Device Evaluation and Safety
Center for Devices and
Radiological Health