



NDA 202008

**NDA APPROVAL**

Avid Radiopharmaceuticals  
Attention: Stephen P. Truocchio, M.S., RAC  
Senior Director, Regulatory Affairs  
3711 Market Street 17<sup>th</sup> Floor  
Philadelphia, PA 19104

Dear Mr. Truocchio:

Please refer to your New Drug Application (NDA) dated October 7, 2011, received October 7, 2011, submitted under section 505 (b) of the Federal Food, Drug, and Cosmetic Act for Amyvid™ (Florbetapir F 18 Injection).

We acknowledge receipt of your amendments dated:

October 17, 2011	December 2, 2011	March 23, 2012
November 11, 2011	December 20, 2011	April 2, 2012
November 23, 2011	February 29, 2012	April 3, 2012

The October 7, 2011, submission constituted a complete response to our March 17, 2011, action letter.

This new drug application provides for the use of Amyvid™ (Florbetapir F 18 Injection) as a radioactive diagnostic agent for Positron Emission Tomography (PET) imaging of the brain to estimate  $\beta$ -amyloid neuritic plaque density in adult patients with cognitive impairment who are being evaluated for Alzheimer's Disease (AD) and other causes of cognitive decline. A negative Amyvid scan indicates sparse to no neuritic plaques, and is inconsistent with a neuropathological diagnosis of AD at the time of image acquisition; a negative scan result reduces the likelihood that a patient's cognitive impairment is due to AD. A positive Amyvid scan indicates moderate to frequent amyloid neuritic plaques; neuropathological examination has shown this amount of amyloid neuritic plaque is present in patients with AD, but may also be present in patients with other types of neurologic conditions as well as older people with normal cognition. Amyvid is an adjunct to other diagnostic evaluations.

Limitations of Use

- A positive Amyvid scan does not establish a diagnosis of AD or other cognitive disorder.
- Safety and effectiveness of Amyvid have not been established for:
  - Predicting development of dementia or other neurologic condition;

- Monitoring responses to therapies.

We have completed our review of this application, as amended. It is approved, effective on the date of this letter, for use as recommended in the enclosed agreed-upon labeling text.

### **CONTENT OF LABELING**

As soon as possible, but no later than 14 days from the date of this letter, submit the content of labeling [21 CFR 314.50(l)] in structured product labeling (SPL) format using the FDA automated drug registration and listing system (eLIST), as described at <http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm>. Content of labeling must be identical to the enclosed labeling (text for the package insert). Information on submitting SPL files using eLIST may be found in the guidance for industry titled “SPL Standard for Content of Labeling Technical Qs and As” at <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM072392.pdf>.

The SPL will be accessible via publicly available labeling repositories.

### **CARTON AND IMMEDIATE CONTAINER LABELS**

Submit final printed carton and container labels that are identical to the enclosed carton and immediate container labels, as soon as they are available, but no more than 30 days after they are printed. Please submit these labels electronically according to the guidance for industry titled “Providing Regulatory Submissions in Electronic Format – Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specifications (June 2008).” Alternatively, you may submit 12 paper copies, with 6 of the copies individually mounted on heavy-weight paper or similar material. For administrative purposes, designate this submission “**Final Printed Carton and Container Labels for approved NDA 202008.**” Approval of this submission by FDA is not required before the labeling is used.

Marketing the product(s) with FPL that is not identical to the approved labeling text may render the product misbranded and an unapproved new drug.

### **MARKET PACKAGE**

Please submit one market package of the drug product when it is available to the following address:

Sharon Thomas, RPM  
Food and Drug Administration  
Center for Drug Evaluation and Research  
White Oak Building 22, Room: 5231  
10903 New Hampshire Avenue  
Silver Spring, Maryland 20903

### **REQUIRED PEDIATRIC ASSESSMENTS**

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients, new indications, new dosage forms, new dosing regimens, or new routes of administration are required to contain an assessment of the safety and effectiveness of the product for the claimed indication(s) in pediatric patients unless this requirement is waived, deferred, or inapplicable.

We are waiving the pediatric study requirement for ages 0 to 16 years because the disease/condition does not exist in children.

### **POSTMARKETING COMMITMENTS SUBJECT TO REPORTING REQUIREMENTS UNDER SECTION 506B**

We remind you of your postmarketing commitments:

**1887-1:** To conduct a clinical study that will compare the results of Amyvid scan interpretations at local clinical sites to interpretations performed by an expert(s) at a central reading facility. The main objectives of this study are to assess the impact of different reader training methods on the reliability of Amyvid scan interpretations as they are performed in clinical practice and to help determine the performance of the reader training processes as compared to the experts at the central reading facility.

The timetable you submitted on April 2, 2012 states that you will conduct this study according to the following schedule:

Draft Protocol Submission: by November 2012  
Final Protocol Submission: by June 2013  
Study/trial Completion Date: by June 2014  
Final Report Submission: by December 2014

**1887-2:** To conduct a clinical study that will explore the use of standard uptake value ratio (SUVr) and/or other quantitative outcomes as an alternative or an adjunct to qualitative Amyvid scan interpretations. The main objective of this study is to assess the feasibility of implementing a quantitative process for Amyvid scan interpretation by clinical sites, and to measure the resulting reliability of scan interpretations.

The timetable you submitted on April 2, 2012 states that you will conduct this study according to the following schedule:

Draft Protocol Submission: by January 2013  
Final Protocol Submission: by August 2013  
Study/trial Completion Date: by May 2014  
Final Report Submission: by November 2014

Submit clinical protocols to your IND 79,511 for this product. Submit nonclinical and chemistry, manufacturing, and controls protocols and all study final reports to this NDA. In addition, under 21 CFR 314.81(b)(2)(vii) and 314.81(b)(2)(viii) you should include a status summary of each commitment in your annual report to this NDA. The status summary should include expected summary completion and final report submission dates, any changes in plans since the last annual report, and, for clinical studies/trials, number of patients entered into each study/trial. All submissions, including supplements, relating to these postmarketing commitments should be prominently labeled “**Postmarketing Commitment Protocol**,” “**Postmarketing Commitment Final Report**,” or “**Postmarketing Commitment Correspondence**.”

### **PROMOTIONAL MATERIALS**

You may request advisory comments on proposed introductory advertising and promotional labeling. To do so, submit, in triplicate, a cover letter requesting advisory comments, the proposed materials in draft or mock-up form with annotated references, and the package insert to:

Food and Drug Administration  
Center for Drug Evaluation and Research  
Office of Prescription Drug Promotion  
5901-B Ammendale Road  
Beltsville, MD 20705-1266

As required under 21 CFR 314.81(b)(3)(i), you must submit final promotional materials, and the package insert, at the time of initial dissemination or publication, accompanied by a Form FDA 2253. For instruction on completing the Form FDA 2253, see page 2 of the Form. For more information about submission of promotional materials to the Office of Prescription Drug Promotion (OPDP), see <http://www.fda.gov/AboutFDA/CentersOffices/CDER/ucm090142.htm>.

### **REPORTING REQUIREMENTS**

We remind you that you must comply with reporting requirements for an approved NDA (21 CFR 314.80 and 314.81).

### **MEDWATCH-TO-MANUFACTURER PROGRAM**

The MedWatch-to-Manufacturer Program provides manufacturers with copies of serious adverse event reports that are received directly by the FDA. New molecular entities and important new biologics qualify for inclusion for three years after approval. Your firm is eligible to receive copies of reports for this product. To participate in the program, please see the enrollment instructions and program description details at <http://www.fda.gov/Safety/MedWatch/HowToReport/ucm166910.htm>

## **POST-ACTION FEEDBACK MEETING**

New molecular entities and new biologics qualify for a post-action feedback meeting. Such meetings are used to discuss the quality of the application and to evaluate the communication process during drug development and marketing application review. The purpose is to learn from successful aspects of the review process and to identify areas that could benefit from improvement. If you would like to have such a meeting with us, call the Regulatory Project Manager for this application.

If you have any questions, call Ms. Sharon Thomas, Regulatory Project Manager, at (301) 796-1994.

Sincerely,

*{See appended electronic signature page}*

Charles J. Ganley, M.D.  
Director  
Office of Drug Evaluation IV (ODE IV)  
Center for Drug Evaluation and Research

ENCLOSURE(S):  
Content of Labeling  
Carton and Container Labeling

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**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
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/s/  
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CHARLES J GANLEY  
04/06/2012