



NDA 214938/S-002

ACCELERATED APPROVAL

BioMarin Pharmaceutical, Inc.
Attention: Tabitha Santoso
Director, Regulatory Affairs
105 Digital Drive
Novato, CA 94949

Dear Tabitha Santoso:

Please refer to your supplemental new drug application (sNDA) dated and received December 21, 2022, and your amendments, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act (FDCA) for Voxzogo (vosoritide) for injection.

This "Prior Approval" sNDA provides for expansion of the patient population from pediatric patients who are 5 years of age and older to include all pediatric patients for the use of Voxzogo (vosoritide) for injection to increase linear growth in pediatric patients with achondroplasia with open epiphyses.

APPROVAL & LABELING

We have completed our review of this application, as amended. It is approved under accelerated approval pursuant to section 506(c) of the Federal Food, Drug, and Cosmetic Act (FDCA) and 21 CFR 314.510, effective on the date of this letter, for use as recommended in the enclosed agreed-upon labeling.

Marketing of this drug product and related activities must adhere to the substance and procedures of the accelerated approval statutory provisions and regulations.

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 FDA.gov.¹ Content of labeling must be identical to the enclosed labeling (text for the Prescribing Information, text for Patient Package Insert), with the addition of any labeling changes in pending "Changes Being Effected" (CBE) supplements, as well as annual reportable changes not included in the enclosed labeling.

¹ <http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm>

Information on submitting SPL files using eList may be found in the guidance for industry *SPL Standard for Content of Labeling Technical Qs and As*.² The SPL will be accessible from publicly available labeling repositories.

Also within 14 days, amend all pending supplemental applications that include labeling changes for this NDA, including CBE supplements for which FDA has not yet issued an action letter, with the content of labeling [21 CFR 314.50(I)(1)(i)] in Microsoft Word format, that includes the changes approved in this supplemental application, as well as annual reportable changes. To facilitate review of your submission(s), provide a highlighted or marked-up copy that shows all changes, as well as a clean Microsoft Word version. The marked-up copy should provide appropriate annotations, including supplement number(s) and annual report date(s).

RELEASE FROM POSTMARKETING REQUIREMENT

We have received your submission dated October 6, 2023, requesting release from the following postmarketing requirement listed in our November 19, 2021, approval letter:

- 4134-1 Conduct an open-label, external-controlled trial in subjects with achondroplasia (ACH) 5 years of age and older with open epiphyses to measure the effect of vosoritide on final adult height. The trial should also evaluate disproportionality and bone age as secondary endpoints. The safety endpoints related to the drug (e.g., blood pressure) or to the disease itself that may improve or worsen with long-term treatment (e.g., neurological complications, bone deformities, sleep apnea) should also be included. The total exposure to vosoritide for each patient should be sufficient to meet the study's stated objectives. The vosoritide-treated trial population should include subjects who are already enrolled and treated with vosoritide in Studies 111-202³/205⁴, and 111-301⁵/302⁶ and/or treatment-naïve subjects with a genetically confirmed ACH diagnosis.

² We update guidances periodically. For the most recent version of a guidance, check the FDA Guidance Documents Database <https://www.fda.gov/RegulatoryInformation/Guidances/default.htm>.

³ A Phase 2, Open Label, Sequential Cohort Dose-escalation Study of BMN 111 in Children with Achondroplasia

⁴ A Phase 2, Open-Label, Extension Study to Evaluate the Long-Term safety, Tolerability, and Efficacy of BMN 111 in Children with Achondroplasia

⁵ A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy and Safety of BMN 111 in Children with Achondroplasia

⁶ A Phase 3, Open-Label Long-Term Extension Study to Evaluate the Safety and Efficacy of BMN 111 in Children with Achondroplasia

The original timetable you submitted on September 14, 2021, states that you will conduct this trial according to the following schedule:

Draft Protocol Submission: March 2022
Final Protocol Submission: September 2022
Trial Completion: November 2024
Final Report Submission: August 2025

We have reviewed your submission and have determined that you are released from the above postmarketing requirement (PMR) for the following reason: modifications to the above PMR are necessary to include additional subjects with ACH 5 years of age and younger with open epiphyses to verify and describe clinical benefit of vosoritide in all age groups of patients with ACH and open epiphyses.

The above postmarketing requirement will be replaced by the new postmarketing requirement as described below.

ACCELERATED APPROVAL REQUIREMENTS

Pursuant to section 506(c) of the FDCA and 21 CFR 314.510 you are required to conduct further adequate and well-controlled clinical trial(s) intended to verify and describe clinical benefit. You are required to conduct such clinical trial(s) with due diligence. If required postmarketing clinical trial(s) fail to verify clinical benefit or are not conducted with due diligence, including with respect to the conditions set forth below, we may withdraw this approval. We remind you of your postmarketing requirement(s) specified in your submission dated October 6, 2023. This requirement is listed below.

- 4134-2 Conduct an open-label, external-controlled trial in pediatric subjects with achondroplasia (ACH), whose epiphyses are not closed, to measure the effect of vosoritide on final adult height. The trial should also evaluate disproportionality and bone age as secondary endpoints. The safety endpoints related to the drug (e.g., blood pressure) or to the disease itself that may improve or worsen with long-term treatment (e.g., neurological complications, bone deformities, sleep apnea) should also be included.

The timetable you submitted on October 6, 2023, states that you will conduct this study according to the following schedule:

Draft Protocol Submission: April 2024
Final Protocol Submission: October 2024
Trial Completion: November 2025
Final Report Submission: August 2026

Submit clinical protocols to your IND 111299 for this product. FDA considers the term *final* to mean that the applicant has submitted a protocol, the FDA review team has sent comments to the applicant, and the protocol has been revised as needed to meet the goal of the study or clinical trial.

You must submit reports of the progress of each clinical trial required under section 506(c) (listed above) to this NDA approximately every 180 days (see section 506B(a)(2) of the FDCA) (hereinafter “180-day reports”).

You are required to submit two 180-day reports per year for each open study or clinical trial required under section 506(c). One report will be a standalone submission and the other report will be combined with your application’s annual status report (ASR) required under section 506B(a)(1) of the FDCA and 21 CFR 314.81(b)(2). The standalone 180-day report will be due 180 days after the date of approval of the original NDA (with a 60-day grace period). Submit the other 180-day report with your application’s ASR. Submit both of these 180-day reports each year until the final report for the corresponding study or clinical trial is submitted.⁷ Depending on the date of approval of the original application, you may be required to submit a 180-day report shortly after receipt of this letter.

Your 180-day reports must include the information listed in 21 CFR 314.81(b)(2)(vii)(a). FDA recommends that you use FORM FDA 3989, *PMR/PMC Annual Status Report for Drugs and Biologics*, to submit your 180-day reports.⁸

180-day reports must be clearly designated “**NDA 214938/S-002 180-Day AA PMR Progress Report.**”

FDA will consider the submission of your application’s ASR under section 506B(a)(1) and 21 CFR 314.81(b)(2), in addition to the submission of reports 180 days after the date of approval of the original NDA each year (subject to a 60-day grace period), to satisfy the periodic reporting requirement under section 506B(a)(2).

Submit final reports to this NDA as a supplemental application. For administrative purposes, the cover page of all submissions relating to this postmarketing requirement must be clearly designated “**Subpart H Postmarketing Requirement(s).**”

⁷ You are required to submit information related to your confirmatory trial as part of your annual reporting requirement under section 506B(a)(1) until the FDA notifies you, in writing, that the Agency concurs that the study requirement has been fulfilled or that the study either is no longer feasible or would no longer provide useful information.

⁸ FORM FDA 3989, along with instructions for completing this form, is available on the FDA Forms web page at <https://www.fda.gov/about-fda/reports-manuals-forms/forms>.

REQUIRED PEDIATRIC ASSESSMENTS

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients (which includes new salts and new fixed combinations), 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 in pediatric patients unless this requirement is waived, deferred, or inapplicable.

Because this drug product for this indication has an orphan drug designation, you are exempt from this requirement.

PROMOTIONAL MATERIALS

Under 21 CFR 314.550, you are required to submit, during the application pre-approval review period, all promotional materials, including promotional labeling and advertisements, that you intend to use in the first 120 days following marketing approval (i.e., your launch campaign). If you have not already met this requirement, you must immediately contact the Office of Prescription Drug Promotion (OPDP) at (301) 796-1200. Please ask to speak to a regulatory project manager or the appropriate reviewer to discuss this issue.

As further required by 21 CFR 314.550, submit all promotional materials that you intend to use after the 120 days following marketing approval (i.e., your post-launch materials) at least 30 days before the intended time of initial dissemination of labeling or initial publication of the advertisement. We ask that each submission include a detailed cover letter together with three copies each of the promotional materials, annotated references, and approved Prescribing Information, Medication Guide, and Patient Package Insert (as applicable).

For information about submitting promotional materials, see the final guidance for industry *Providing Regulatory Submissions in Electronic and Non-Electronic Format-Promotional Labeling and Advertising Materials for Human Prescription Drugs*.⁹

REPORTING REQUIREMENTS

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

⁹ For the most recent version of a guidance, check the FDA guidance web page at <https://www.fda.gov/media/128163/download>.

Your product is a Part 3 combination product (21 CFR 3.2(e)); therefore, you must also comply with postmarketing safety reporting requirements for an approved combination product (21 CFR 4, Subpart B). Additional information on combination product postmarketing safety reporting is available at FDA.gov.¹⁰

If you have any questions, call Linda Galgay, Regulatory Project Manager, at (301) 796-5383.

Sincerely,

{See appended electronic signature page}

Naomi Lowy, M.D.
Deputy Director
Division of General Endocrinology
Office of Cardiology, Hematology,
Endocrinology, and Nephrology
Center for Drug Evaluation and Research

ENCLOSURES:

Content of Labeling

- Prescribing Information
- Patient Package Insert
- Instructions for Use (Approved November 19, 2021)

¹⁰ <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>

This is a representation of an electronic record that was signed electronically. Following this are manifestations of any and all electronic signatures for this electronic record.

/s/

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