Lorna Speid, Ph.D.
Founder and President
Putting Rare Diseases Patients First!®
13243 Kingsfield Court
San Diego, CA 92130

Septemeber 17, 2021

Re: Docket No. FDA-2020-P-1674

Dear Dr. Speid:

This letter responds to your citizen petition received July 15, 2020 (Petition), docket number FDA-2020-P-1674. In the Petition, you request that the Food and Drug Administration (FDA or Agency):

- [A]dd Sickle Cell Disease, a Tropical Disease that impacts a majority African American population in the US, to the Neglected Tropical Disease Priority Review Voucher List.
- [A]djust the title of the list so that it is more in line with the WHO List; the WHO list does not include the word *Infectious*.
- Alternatively, [… to] create a new Priority Review List for diseases like Sickle Cell Disease that impact patients from predominantly under-served, and marginalized populations.

(Petition at 1).

We have considered your Petition and attachment carefully, and for the reasons explained below, your Petition is denied.

I. BACKGROUND

The Federal Food, Drug, and Cosmetic Act (FD&C Act), section 524 (21 U.S.C. 360n) authorizes FDA to award priority review vouchers (PRVs) to sponsors of approved tropical disease product applications that meet certain criteria. Among other requirements, the application in question must be for the treatment or prevention of a "tropical disease," defined in section 524(a)(3) of the FD&C Act as any of the following:

(A) Tuberculosis.
(B) Malaria.

(C) Blinding trachoma.
(D) Buruli Ulcer.
(E) Cholera.
(F) Dengue/dengue haemorrhagic fever.
(G) Dracunculiasis (guinea-worm disease).
(H) Fascioliasis.
(I) Human African trypanosomiasis.
(J) Leishmaniasis.
(K) Leprosy.
(L) Lymphatic filariasis.
(M) Onchocerciasis.
(N) Schistosomiasis.
(O) Soil transmitted helminthiasis.
(P) Yaws.
(Q) Filovirus Diseases.
(R) Zika Virus Disease.
(S) Any other *infectious disease* for which there is no significant market in developed nations and that disproportionately affects poor and marginalized populations, designated by order of the Secretary.[1]

II. DISCUSSION

As the statutory language states, additional diseases may only be designated if they meet three criteria: (1) they are infectious diseases; (2) for which there is no significant market in developed nations; and (3) that disproportionately affect poor and marginalized populations. However, as the Centers for Disease Control and Prevention (CDC) explains, "SCD [(sickle cell disease)] is a group of *inherited* red blood cell disorders."[2] Thus, under the plain language of the statute, FDA cannot designate sickle cell disease as a "tropical disease" because it is not an "infectious disease;" and FDA must follow these statutory designation criteria.

The three priority review voucher programs (tropical diseases, rare pediatric diseases, and medical countermeasures)[3] entitle the voucher holder to a priority review for any new drug application or new biologics license application the voucher holder chooses—regardless of whether that application meets the legal criteria that it otherwise would need to meet to receive a priority review.[4] The award of a priority review voucher (i.e., a transferable, redeemable grant of priority review that can be applied to an application *other* than the one that earned it) is an incentive that is only available via the three priority review voucher programs.

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[1] Emphasis added. The current list of tropical diseases can be found on FDA's Tropical Disease Priority Review Voucher Program web page, available at https://www.fda.gov/about-fda/center-drug-evaluation-and-research-cder/tropical-disease-priority-review-voucher-program. The authority to designate additional diseases, like most other authorities under the FD&C Act, has been delegated to FDA by the Secretary of the Department of Health and Human Services.

[2] Emphasis added. The Centers for Disease Control and Prevention's web page "What is Sickle Cell Disease?" is available at https://www.cdc.gov/ncbddd/sicklecell/facts.html (last accessed Aug. 14, 2020).

[3] See sections 524, 529, and 565A of the FD&C Act, respectively.

[4] In general, the grant of a "priority review" of an application is limited to circumstances when: (1) a priority review voucher is submitted with the application; (2) the application meets the standards for priority review set forth in the Prescription Drug User Fee Amendments Act of 1992; or (3) the application receives designation as a "qualifying infectious disease product" under section 505E(d) of the FD&C Act (21 U.S.C. 355f).

Although the tropical disease PRV program is not an appropriate incentive for non-infectious diseases such as sickle cell disease, we note that other incentive programs, such as the rare pediatric disease PRV[5] program (section 529 of the FD&C Act) and orphan drug designation[6] (section 526 of the FD&C Act), may be available to provide incentives for product development in this important area. Further, applications for prevention or treatment of serious or life-threatening diseases such as sickle cell disease may be eligible for priority review of their own accord, or for other expedited development programs, such as fast track and breakthrough therapy designation.

FDA remains committed to working with sponsors to encourage development and marketing of promising sickle cell disease therapies. We understand the urgent need for safe and effective treatments for this condition, and we will continue to do all we can as an Agency to support the needs of sickle cell disease patients.

III. CONCLUSION

For the reasons discussed in this response, the Petition is denied.

Sincerely,

Douglas C. Throckmorton -S

Digitally signed by Douglas C. Throckmorton -S
Date: 2021.09.16 14:31:19 -04'00'

Patrizia Cavazzoni, M.D.
Director
Center for Drug Evaluation and Research

[5] For example, Imara Inc., reports that it received rare pediatric disease designation for its sickle cell disease product (see https://imaratx.com/imara-receives-rare-pediatric-disease-designation-from-fda-for-lead-product-candidate-imr-687-for-sickle-cell-disease/ (last accessed Aug. 14, 2020)).

[6] For example, FDA recently approved Oxbryta (voxelotor) for the treatment of sickle cell disease; this product had received orphan designation (see https://www.fda.gov/news-events/press-announcements/fda-approves-novel-treatment-target-abnormality-sickle-cell-disease (last accessed Aug. 14, 2020)).