To: Association for Creatine Deficiencies' Board of Directors
From: Lumos Pharma and Ultragenyx Pharmaceutical
Date: June 20, 2019
Subject: FAQs regarding transfer of Vigilan Study sponsorship from Lumos to Ultragenyx, as referenced in the letter sent to ACD on June 20, 2019

Vigilan's Transfer from Lumos to Ultragenyx- June 2019
FAQs

1. **What is the future of the Vigilan study and its goal to gather natural history data on the Creatine Transporter Deficiency (CTD)?**

   As of June 19, 2019, Lumos has transferred the sponsorship of the Vigilan study to Ultragenyx Pharmaceutical. Ultragenyx is committed to the study's fundamental goal of increasing researchers' understanding of the clinical signs and symptoms of CTD, including effects on behavior and intellectual and physical development, and assumes the operational, financial and other relevant responsibilities of the study as the sponsor.

2. **Should I continue to participate in Vigilan even though Lumos is no longer the sponsor?**

   The importance of conducting and publishing on natural history studies of rare diseases cannot be overstated. And it all hinges on the active participation of individuals and families living with rare diseases. Nonetheless, participating until the end of the Vigilan study is a personal family decision. It is the hope of both Lumos and Ultragenyx that the listing of published results thus far as outlined in the Lumos Pharma Update Letter-May 2019 shows strong and tangible results of why families have chosen to participate. In addition, the information gathered from Vigilan study participants will directly inform the clinical development of Ultragenyx's drug candidate as a potential therapy for patients with CTD (UX068; see more about this in the Ultragenyx section below).

   At this time, Ultragenyx does not expect any immediate changes for those already participating in Vigilan. In the future, Ultragenyx, in partnership with the Joint Steering

Committee, may propose changes to the study after determining if there are opportunities to improve how the study is conducted.

If your family is currently enrolled in the Vigilan study and has further questions regarding study participation, please reach out to your Vigilan study site.

3. **Is Vigilan enrolling new study participants? And if so, how can my family learn more?**

   Yes, the Vigilan study continues open enrollment at 9 sites across North America. Please contact patientadvocacy@ultragenyx.com if interested in enrolling in Vigilan.

4. **What will happen to the data from Vigilan study?**

   As was the case when Lumos was the study sponsor, the Joint Steering Committee of the Vigilan study (the governing body) remains responsible for the strategy of the study, biological sample use/distribution, and publication plan of the study. It is the intention of this committee to oversee publication of the findings in peer-reviewed journals so it will benefit the global scientific and medical community to further their knowledge and research projects of CTD. Ultragenyx fully supports these initiatives. In addition, Ultragenyx is committed to applying learnings and findings from Vigilan to develop UX068 as a potential therapy for CTD (see more about this in the Ultragenyx section below).

5. **Will the terms of the Vigilan study change (i.e. the length of participation in the study, what data is gathered? procedures requested?)**

   Ultragenyx wishes for the transition to be as seamless as possible and to ensure that the transfer does not affect the quality of the data, the rigor of the study or add any burden to families and study sites. Currently, Ultragenyx does not have immediate plans to change the terms of the Vigilan study. In the future, Ultragenyx, in partnership with the Joint Steering Committee, may propose changes to the study after determining if there are opportunities to improve how the study is conducted.

6. **How can the CCDS/CTD community learn about new findings from the Vigilan study under the sponsorship of Ultragenyx?**

   Together with the Joint Steering Committee, Ultragenyx is committed to making available the findings through channels such as scientific/medical congresses and peer-reviewed journals. We support the original aims of the study, which include benefiting the global scientific and medical community to further their knowledge and research

projects of CTD. Furthermore, we look forward to sharing with patients, families, clinicians and researchers the information collected through Vigilan in the future.

7. **If my family still has questions, who should I contact?**

   If your family is **currently** participating in Vigilan, please contact the physician at your Vigilan study site.

   If your family is **not currently** participating in Vigilan, please contact patientadvocacy@ultragenyx.com.

Information on Ultragenyx and its CTD clinical program (UX068) **FAQs**

1. **Who is Ultragenyx?**

   Ultragenyx is a biopharmaceutical company working to develop novel products for the treatment of rare and ultra-rare genetic diseases. Our focus is on improving the lives of patients with rare diseases, for which there are typically no approved therapies for their diseases. Everyone in our company shares the same goal: delivering safe and effective therapies as quickly as possible to the people who need them.

   We are passionate about educating and supporting patients, families and caregivers affected by rare and ultra-rare diseases. Visit our patient advocacy website (UltraRareAdvocacy.com) for valuable resources, to hear from people living with rare diseases, and to learn more about our commitment to the rare disease patient community.

   In 2018, several members of the Ultragenyx team attended the Association for Creatine Deficiencies' Cerebral Creatine Deficiency Syndromes (CCDS) Scientific + Patient Symposium in Austin, Texas. We had the privilege to meet with and learn from ACD, its growing community of patients and families, and the clinicians and researchers committed to the community. We look forward to further developing our relationship with the CTD community.

2. **What is Ultragenyx's interest in CTD?**

   Ultragenyx focuses on rare and ultra-rare genetic diseases in three main therapeutic areas: bone/endocrine, metabolic and neurology. CTD is one of the diseases that Ultragenyx is pursuing within the neurology therapeutic area.

3. **How will Ultragenyx use the Vigilan study data to advance its CTD drug development program?**

   Longitudinal observational studies help researchers to better understand the basic biology of a disease and how disease symptoms and behaviors change over time. A study such as Vigilan can also help researchers to create a clinical development program, which is an essential step toward finding safe and effective disease treatments. For example, study findings directly inform how researchers design a clinical trial and select clinical efficacy endpoints that are meaningful and relevant to patients and caregivers.

4. **How is Ultragenyx's potential medication (UX068) different than the medication that Lumos was studying (LUM-001)?**

   Ultragenyx is studying UX068, which is a small molecule compound designed to deliver creatine to the brain and has a different mechanism of action than LUM-001. We will share more information about UX068 as further studies are conducted.