The HIT-CF Europe project aims to provide new treatment options to people with cystic fibrosis (CF) and ultra-rare genetic profiles. The project will evaluate the efficacy and safety of drug candidates provided by Eloxx Pharmaceuticals and Proteostasis Therapeutics, Inc. (PTI) in patients selected through preliminary tests in the laboratory on their mini-intestines – also called organoids.

The entire HIT-CF team would like to wish you a happy New Year. 2020 surprised us with unprecedented challenges which we tried to face to the best of our abilities. We hope we succeeded in keeping you informed and showing you that we are still highly motivated to make HIT-CF Europe a success. Our biggest wish is that 2021 brings love, joy and happiness to all people with CF, their family and friends, and the CF teams taking care of them. We also hope that the clinical trials can be executed during the upcoming year in order to bringing revolutionary medicines to people with CF caused by (ultra) rare mutations.

Less than a year after completing the recruitment of 502 people with CF caused by rare mutations, and despite the COVID-19 pandemic that forced us to (temporarily) close our research facilities, we were able to finish both the primary and secondary screening with PTI compounds on the organoids. There was excellent agreement between the first and the second screening, which strongly underlines the reliability of the results. Moreover, we are very happy to announce that a number of organoids of HIT-CF participants responds quite well to PTI CFTR-modulators. In the coming weeks, the responses will be ranked, and the CF centers of the 26 highest respondents will be approached to prepare for the clinical trial with these compounds. This trial is called CHOICES. We will also approach the CF centers of 26 people whose organoids showed a variety of responses to the medicines. Meanwhile, we have also started the screening phase of the Eloxx medicine, which is advancing well.

In our October newsletter, we already informed you about developments within Proteostasis, one of the Pharma companies providing compounds for HIT-CF. In December 2020, PTI has merged with Yumanity Therapeutics, who is now the formal owner of the CF portfolio. The HIT-CF team has a permanent connection with Yumanity to ensure that the HIT-CF project can move into its next phase as smoothly as possible. Nevertheless, some delay is inevitable and also the Covid-19 pandemic remains a challenge. We anticipate to kick-off CHOICES later this spring.

An important goal of the HIT-CF project is to establish a biobank for precision medicine containing the organoids from people with CF caused by rare mutations that remains at the disposal of the wider community after HIT-CF has ended. During the past months, interviews have been conducted with people with CF that have donated intestinal tissue to learn more about their opinions and preferences regarding more permanent biobanking.

Now, the HIT-CF team is examining adequate governance models for organoid biobanking. Storing your organoid in a biobank that remains operational after HIT-CF ends, is optional and entails signing an additional informed consent form. All HIT-CF participants will be personally contacted with more detailed information about the biobanking and with the opportunity to sign the additional informed consent form in due course.

To learn more about the HIT-CF project, visit www.hitcf.org or send an e-mail to HITCF@umcutrecht.nl

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