Despite major efforts to increase the number of children on HIV treatment and a continuing reduction in mother-to-child transmission of HIV, many of the two million children living with HIV are still being left behind. In 2016, only 43% of children living with HIV received antiretroviral therapy. While this is an important increase from 15% in 2009, it remains an unacceptably low level of treatment access for a vulnerable population.

One major challenge that contributes to this treatment gap is the suboptimal paediatric formulations available today. These formulations have not been designed with children’s needs in mind: the only available version of lopinavir/ritonavir (LPV/r) is a bitter-tasting syrup that requires refrigeration and contains 40% alcohol. Children struggle to take the medicine, often spitting or vomiting it back up, while caretakers in many sub-Saharan countries are forced to store the treatments buried in sand to keep them cool.

It is also important for any paediatric HIV treatment to be compatible with TB treatment, because children living with HIV are often co-infected with TB. In 2016, based on the interim results of a DNDi-sponsored study, WHO revised its guidelines to recommend ‘superboosting’ of ritonavir in HIV/TB coinfected children.
DNDi aims to:

- Develop an improved, first-line, child-friendly “4-in-1” therapy for infants and young children—a lopinavir/ritonavir-based, fixed-dose formulation in combination with two nucleoside reverse transcriptase inhibitors
- Introduce lopinavir/ritonavir pellets until better-adapted 4-in-1 products are available