When our team were design the experiment, we realize we lack of current situation of faeces testing as well as treatment of intestinal inflammation. In order to get a better understanding the current detection method and to improve our project, our team member Weihang Guo and Boxuan Li went to the clinical laboratory of navy general hospital and made an interview about testing method of intestinal inflammation in Sept 9th, 2017. Mr. Hao (the director of the laboratory) put forward some practical suggestions about our project. Moreover, her subjective view and feelings also influence us a lot.

Through the hospital interview, we consulted the current hospital's methods and procedures for stool detection. In the hospital, the examination was mainly divided into regular inspection and tissue culture. Regular inspection can only make an overall judgement which is about whether there are red or white blood on the stool and condition of stool. Tissue culture takes about 16 to 20 hours (overnight), besides, the equipment is relatively expensive and only can only detect shigella and salmonella. Additionally, if the subject has taken antibiotics those day, the result may be a false negative samples.

In the interview, we also acquire that there is a new gut detecting method which can present the situation of gut just like taking an X-ray image, but the technology is still in the stage of development and the cost is higher, therefore, our method noninvasive test of intestinal inflammatory disease is comparative and in a low price.

In the interview, we asked the doctor's advice and found that the deficiency of our project—we are not sure when to detect the capsules since the capsules may excrete after several excretions. If all stools are collected, the efficiency will be reduced and will cause unnecessary health problems. For this point, our preliminary solution is to add some iron granule inside the capsule, and after defecation, we can insert the iron rod with strong magnetic paste into the stool for quick detection.

Second, we cannot determine the specific position of inflammation in our gut. By asking the doctor's advice, we learn that different part of dug’s PH value is diverse. Accordingly, our initial idea is use different pigment protein to represent PH value in the future.

About the project itself, we know that not all enteritis will let to an obvious symptom such as diarrhea. Beside, diarrhea may be also caused by a cold or parasites rather than inflammation. In this cases, our program can play a role of noninvasive detection and makes a preliminary diagnosis.