Appendix E1

Example of a human intelligence task (HIT) as shown to knowledge workers.
(Some images in this example appeared in Reference 31.)

Background Info

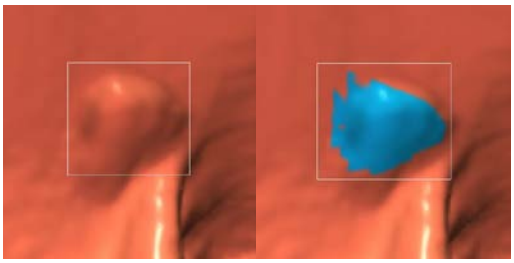
The purpose of this HIT is to help doctors find polyps in the bowel (also known as the "colon"). A polyp is an abnormal growth of tissue that can become cancerous.

Polyps appear as bumps that arise from the inside of the colon. Normally, the inside of the colon is flat or gently curved with some folds. Folds are long, thin, ridge-like structures.

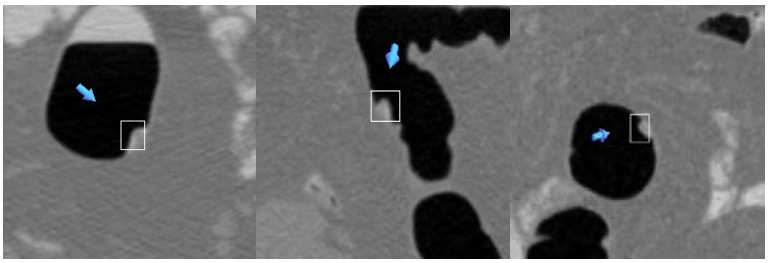
Some of the HITs show real polyps and some show fake polyps. Your mission, should you choose to accept it, is to decide which HITs are real polyps and which are fake. To help you make a decision, please refer to the training guide at the bottom of this page.

Categorize these Pictures

Look at these five pictures of the same location in a patient's colon (Figs E1-E5). The 3D pictures are shown below. The white box shows the area of interest, and the blue marker highlights the polyp. To help make your decision, refer to the training cases. For some HITs, the picture with the blue marker may be missing; when that happens, please use the other pictures to make your decision.



Here are the 2D pictures of the polyp which are taken from CT scans at three different viewing angles (axial, sagittal, and coronal). The white box shows the area of interest.

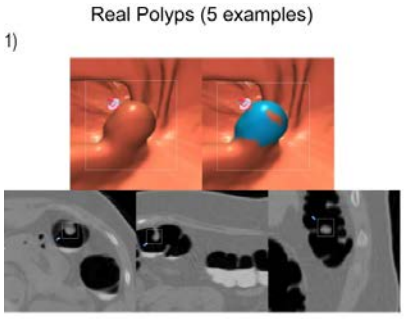


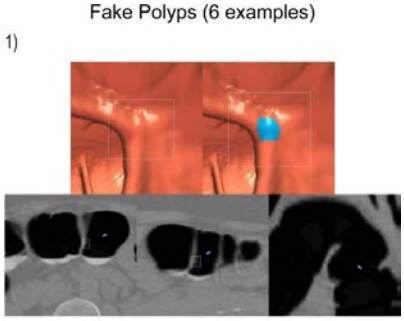
Do you think it looks like a real polyp? (Answer "No" if you are certain these pictures cannot be a real polyp.)

- ○ Yes
- ○ No

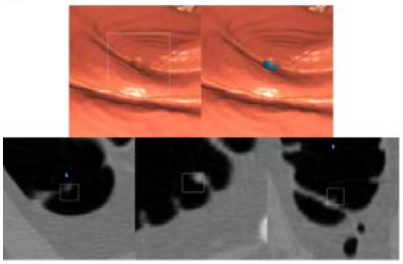
Training pictures:

There are 11 examples below. In the left column are 5 examples of real polyps (Figs E6-E10). In the right column are 6 examples of fake polyps (Figs E11-E16). Each example has 5 pictures; two are three-dimensional pictures, and three are two-dimensional pictures taken from different viewing angles.

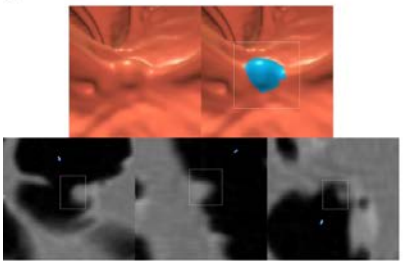




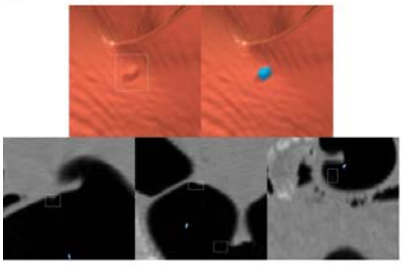
2)



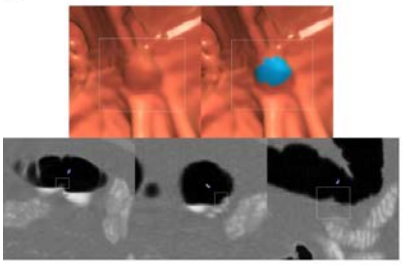
3)



4)



5)



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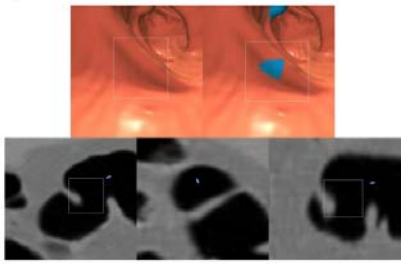

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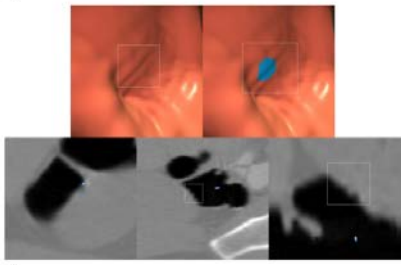
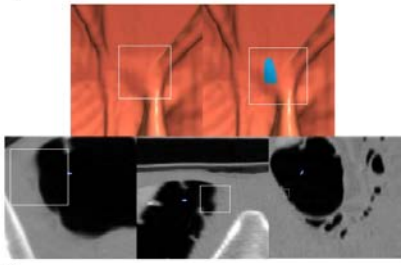


4)



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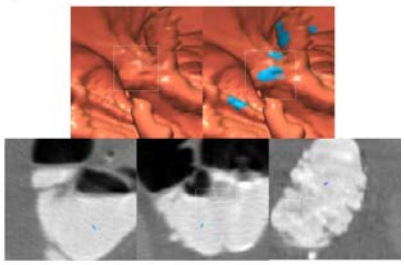
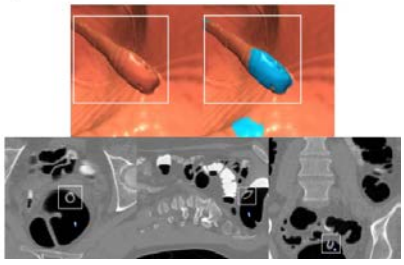


6)



Please provide any comments you may have below, we appreciate your input!

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