Kathryn K.:	00:00	Dr. Fisher, thank you so much for taking some time for us today. You have been on the road very frequently lately, attending the NC Bio Event, the Innovation Jam at the Duke Institute for Health Innovation and several gastroenterology meetings across the country on behalf of the DCRI. Tell me, in your attendance at those meetings, have there been any themes to emerge? Are there commonalities amongst the discussions?
Dr. Fisher:	00:23	I think if there is a theme with any of them, it might be the data theme, that there are a lot of data out there and if you have the access and you have the tools and the methodology to work with it, that this can have far-reaching applications. And so the most directly related to that was the NC Bio Meeting here in the triangle. It was interesting because really, many of the same considerations go across applications. You know, the fact that the data are often dirty, as they say, that you have to do a lot of data cleaning before you can really get useful information, longitudinal data, who owns the data, so governance, and linking data from different sources and those challenges. And so, really, it's very interesting. While each group has some particulars, that there's definitely are commonalities in some of the barriers and some of the opportunities, so that was interesting.
Dr. Fisher:	01:35	And I would say that that also had a similar theme with the Duke Institute for Health Innovation, DIHI, that we were fortunate to be selected as one of six teams to present to investors and these were Duke investors. And while our project isn't really big data, it does involve data, our project is the development of a new optical sensor that can be used at the time of colonoscopy as an aid for detection of abnormalities and, in particular, dysplasia. So, it involves an algorithm and data collection from the sensors, which would be working behind the scenes and when it gets to clinical use, the output to the endoscopist would be something like high risk, medium risk, low risk or something like that, some qualitative, it wouldn't be all the data.
Kathryn K.:	02:35	Tell me how that project, that optical sensor, came about. What was it that you and your colleagues were observing in the clinic?
Dr. Fisher:	02:44	We had talked about one of our problems in gastroenterology is while standard white light, high definition endoscopy is very good, we do miss polyps and in the situation where we have flat abnormalities, so inflammatory bowel disease, Barrett's esophagus, we end up taking random biopsies, looking for this dysplasia for really ominous fields of at-risk tissue. So, if a patient has this condition, it puts them at risk for cancer and we

		end up going in and taking really random biopsies because we're not very good at finding these changes when it's flat, so the idea is that this would be a tool to be used at the time of endoscopy to really target the biopsies better and better note dysplasia. And that's where that started.
Kathryn K.:	03:36	Let's move on kind of down the road a little bit or up the road, as the case may be, on your travels to presenting at the American College of Gastroenterology. You were talking there about some screening guidelines. Can you tell me what you shared with that group?
Dr. Fisher:	03:53	That was great. I was on a panel with Brooks Cash and Doug Robertson, who I've known for years and this was specifically about the colon cancer screening guidelines. And really motivated, because the American Cancer Society released new guidelines just ahead of our spring meeting, Digestive Diseases Week, recommending that average risk people start their screening at 45 instead of 50 and this really wasn't based on new data, it was based on new modeling of existing data. So, here we are again, big data modeling what you can do with it and, of course, when it's new analysis of the same data, that's not the same as a new study that really sheds more light on something. I think it's a lot more controversial. There was a very recently published story where they had a group of people, all experts, all had the same research question, all had this access to the same dataset and, depending on the assumptions they made in their analysis, came out with effect sizes that were not statistically significant and all two, several, three, four odds ratio things that are generally not only statistically significant, but often clinically significant.
Dr. Fisher:	05:18	So, obviously, there's a whole lot that happens behind the curtain. But, nonetheless, they took the same data that we had and used the same group that had done the modeling for the U.S. Preventive Services Taskforce Guidelines which had decided 50-75 universal colon cancer screenings, 76-84 on a case-by-case basis, and then above the age of 85, not to do any screenings. And they found that there was benefit for decreasing the screening rate and the other thing that motivated them was the fact, and this is well-accepted and established, for the rate of colorectal cancer, particularly the rectal cancer subtype has been increasing in people under 50, so the overall rates of colon cancer and rectal cancer have been decreasing actually for decades in the 50 and older group, but there seems to be a birth cohort effect such that, people who are currently under 50 actually had increased risk.

Dr. Fisher:	06:36	This, again, comes a little bit to understanding statistics and results numeracy because while the relative rate is increased, the absolute number of people who have cancer like younger than 50, is less than 10% of the cancers. There was a smaller absolute number even though it's on the rise. And, really, we're not sure why. There's some thought it might be related to increased obesity, particularly in younger people and there's a pretty established link between obesity and many cancers, including colon cancer. But, the bottom line is we have limited data. We know this is a group that's at-risk. We don't know that starting screening earlier is actually going to impact their cancer-related death and so we had a panel that discussed the evidence behind screening, then going through the different guidelines, there's a third one, Multi-Society Taskforce, along with U.S. Preventive Services Taskforce and the American Cancer Society and, in some ways, they agree that 50-75 screening, agreed that how you screen, whether you screen earlier, comments on when to potentially stop, all variable.
Dr. Fisher:	07:58	And then in the third part, which was the part I presented with taking this information and applying it to cases in a case discretion. So I created some cases to really look at these different issues to help people think about applying it and we went through those and then we had a question and answer session with the attendees.
Kathryn K.:	08:18	I want to close out by talking a little bit about your presentation around patient engagement recently involving social media, which is a medium in which you're very comfortable and have been a leader on within the DCRI, so tell us about that panel, which I believe was with another colleague from Duke G.I., as well.
Dr. Fisher:	08:37	Yes, Ziad Gellad was the co-director for an AGA course, the American Gastroenterological Association, Partners in Value, so this was really looking at people in practice and had a wide variety of topics. Some of them were very data-related, like why you should collect data, quality metrics, things like that. There were a lot of different talks about health economics right now and that environment. But, my particular talk was social media around patient engagement and clinical care and this really was a variation on some of the other social media talks I've given. But if the goal is to potentially reach patients, I always feel that before you dive in, particularly individual practices or people, they need to know what they're trying to accomplish. Why are they diving into this world of social media and what are they trying to accomplish and part of that is who is their audience and then checking, is it working?

Dr. Fisher:	09:46	So presented some information that, of course, patients all over the internet looking at medical information, looking at ratings for doctors and hospitals, so they're definitely out there. How you might want to engage with them. Realizing that if your audience is the patient population, you need to be on platforms where the patients are, which isn't necessarily Twitter, which is, I think where a lot of healthcare professionals and researchers and policy and media folks are on Twitter, but not necessarily the patients as much.
Kathryn K.:	10:25	Thank you, again, Dr. Fisher, for taking some time to talk with me this morning and for representing the DCRI at these various events across the state and the country. I wish you the best throughout the rest of your fall.
Dr. Fisher:	10:37	Thank you so much.