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Looking to the future in inflammatory bowel disease (IBD) care: Perspectives from Professor Charlie Lees

Professor Charlie Lees, Consultant Gastroenterologist

Professor Charlie Lees is a Consultant Gastroenterologist in the Edinburgh IBD Unit, and Professor of Gastroenterology at the University of Edinburgh. He presented the talk 'IBD 2025' at the Galapagos UK symposium, 'The evolution of IBD care: recent advances and future perspectives' at 16:05–16:45, 25th January 2021 during the British Society of Gastroenterology (BSG) Campus.

Dr Michael Smyth, Galapagos Medical Director and Chair of the Galapagos UK symposium, caught up with Professor Lees on his work in IBD, and his perspectives on the future of patient care.

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What are your current research interests?

My team are working together to build large real-world data sets and prospective cohorts of people with Crohn's disease (CD) and ulcerative colitis (UC). We're using these to try and understand what happens to patients over time, for example who will respond to what drug therapy and when, who will flare up and when, who will have complications of disease, and then trying to look at this and trying to prevent these things from happening.

We're doing that by looking at clinical and drug therapy data, but most interestingly we're looking at diet and other environmental and lifestyle factors, including psychosocial factors, and we're looking at the microbiome and genetics.

My work really started in the genetics of IBD, and that has yielded multiple new druggable targets over the last 10–20 years, and remains a cornerstone of what we're doing. So really it's pulling together clinical factors, genetics, environment, diet and the microbiome, and looking over time to see if we can understand what happens to patients, so that ultimately we can make their lives better with what we've got now and what we will develop in the future.

In your opinion, what are the key unmet needs in IBD at the moment?

I think there are several issues here. Firstly, we have no good predictive ability in IBD, we don't really know who will have bad disease versus a relatively quiescent disease, we don't know who will flare and when, who will progress with more complications, who will have hospitalisation, surgery, etc., over time. So that I think is really important, because that will then enable us to get the right patient on the right drug or the right treatment strategy at the right time, and then improve outcomes as we move forwards.

Job code UK-IBD-FIL-202102-00004 | Date of preparation February 2021

We also have an unmet therapeutic need with drug therapies that are currently limited in their effectiveness and their toxicity. We've been hitting a ceiling of about 30–40% steroid-free deep remission at 1 year with pretty much all therapies that are coming through. We really need to break through that somehow, either with better therapies or better combinations of therapies, or therapies plus diet and microbiome strategies, to enable us to get more patients into deep remission for the long term.

What topics did you cover at the Galapagos Symposium, during the BSG Campus?

We talked about the future of IBD care, how we can provide better care to patients, and how we can take everything we have learnt about when people need to be treated with advanced therapies to help use those therapies better. We also talked about how to build in some predictive ability for patients, the relative role of precision medicine using tissue profiling versus head-to-head studies, and taking all of these things together to look at the overall future of care for patients with IBD.

My take-home from this is that I think we can be doing a lot more now with what we have learnt over the last 5–10 years with the therapies that we currently have. If we then put this together with what we saw from Professor Séverine Vermeire's presentation in the Galapagos Symposium, which is that we have new, small molecules that have more targeted immune-suppression, and a more favourable safety profile, then we can really look to get more patients into remission for the long term.

So it's a future-leaning piece, but focused on the near future, where I think we can make outcomes for patients a lot better by doing the things that we currently know, but doing it really well and doing it at scale, and doing it for the right patients at the right time.

Key takeaways

- It is not currently possible to predict how and when patients with IBD will progress
- Current IBD therapies are associated with substantial unmet needs and steroid dependence
- In the near future, improved understanding of how individual patient factors influence disease course and responses to IBD treatment may enable clinicians to make personalised treatment decisions that improve patient outcomes. This, coupled with new therapy options with favourable safety and efficacy profiles, may help more patients with IBD achieve long-term remission.

Galapagos specialises in the discovery and development of small molecule medicines with novel modes of action, and supporting clinical research and development. In the UK we are committed to playing an active role within the UK IBD community and collaborating closely with physicians as they work to support their patients at every step in their journey.