



### A Personal Message from Judy H. Cho, MD:

The Inflammatory Bowel Disease (IBD) community is what I've been most affiliated with for my professional career. That this award is being given to me by my peers makes this particularly special to me. The IBD community is comprised of patients, patient stakeholders, trainees, scientists, funding groups and health care providers.

In my early career, IBD particularly appealed to me as a gastroenterology fellow and early faculty member because anti-TNF was just getting broadly introduced to patients and was really making a substantial impact in improving patient lives. Genetics appealed to me due to the idea that cellular and molecular mechanisms could be precisely defined, thereby combining the best of rigorous science with potentially, more direct and immediate impact on patients.

That loss-of-function mutations in NOD2, a microbial sensing protein of innate immunity, could confer increased risk for Crohn's disease, appeared paradoxical when our group and others first reported this 20 years ago. Insight by our group and others have highlighted the role of altered cellular differentiation, including a role of differentiation toward collagen-high expressing cells. Enormous insight has been provided by single cell analytic technologies; it is our hope at present that a complete integration of genome-wide association studies (GWAS) with single cell analytics will provide substantial new insight into IBD mechanisms.

The genetics and disease mechanisms are highly complex, but occasionally, a more "straight-shot" from genetics to therapies occurs. One case of this involved our discovery that loss-of-function mutations in the interleukin 23 receptor protect against both Crohn's disease and ulcerative colitis; this finding established that targeting the IL-23 pathway might benefit IBD patients. Early-stage studies of anti-IL12/23 had been reported co-incident with the GWAS results; definitive gene-based genetic discovery can play a key role in adding momentum for implicated targets along the drug development pipeline, especially at later stages

I am grateful to many friends and collaborators around the world, and my family, particularly my husband, Dr. George Kenneth Haines III. It is a particular privilege to be a part of the IBD community, and to play a role in training future generations of biomedical researchers. As a scientific mentor, my hope is that trainees leave the lab as excited and idealistic about research as they were when they entered. As a lifelong "IBD-ologist", I hope that ongoing and future advances by the field broadly will substantially improve our patients' lives.