

Cover legend: **Mary L. Disis**; a member of The Editorial Academy of
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Dr Mary L. (Nora) Disis is a Professor of Medicine, Adjunct Professor of Obstetrics and Gynecology and Pathology and Associate Dean, Translational Science at the University of Washington School of Medicine, Seattle, WA, USA. She is a Member of the Fred Hutchinson Cancer Research Center. Currently she is the Director of the Institute of Translational Health Science and the Center for Translational Medicine in Women's Health at the University of Washington. Dr Disis is an expert in the field of tumor immunology and cancer vaccine development. She studied medicine and immunology at the University of Nebraska in Omaha where she obtained her MS and MD degrees in 1986. She completed an Internal Medicine residency and Chief Residency at the University of Illinois in Chicago in 1989 and an Oncology fellowship at the University of Washington in 1993. She joined the faculty of the University of Washington in 1994 as an Assistant Professor.

Dr Disis' group are leaders in the development of immunotherapeutics for the treatment of breast and ovarian cancer. Her initial studies, focused on defining tumor antigens in breast cancer, resulted in the identification of the HER-2/neu oncogenic protein as immunogenic. She was one of the first to demonstrate that the ability to recognize HER-2/neu, a self protein, was within the realm of the human T cell repertoire. Her studies validated breast cancer as an immunogenic tumor. Dr Disis developed a vaccination strategy that could circumvent tolerance and boost immunity against neu in a

self antigen model. Her work demonstrated that vaccinating with 'subdominant' epitopes of a self protein such as neu would result in the development of antigen specific T cell immunity. Subsequent translational clinical trials in breast and ovarian cancer vaccinated patients with promiscuous HER-2/neu specific class II epitopes designed to elicit T helper immunity. These studies demonstrated immunity against a tumor antigen could persist in the majority of vaccinated patients after active immunizations ended. Moreover, stimulating a CD4⁺ type I response resulted in the development of epitope spreading which elicited a broadening of the immune response to additional antigens expressed by the patients' tumors. Epitope spreading correlated with survival and is now considered to be an important endpoint in cancer vaccination. In addition, her group has significant expertise in the development of novel assays to measure and dissect human adaptive immune responses and have published several fundamental studies on immune assay development and validation.

Dr Disis is a member of the Alpha Omega Alpha Medical Honors Society and a member of the American Society of Clinical Investigation. She is on the editorial board of several journals and is the Deputy Editor, Translational Oncology, of the Journal of Clinical Oncology. She belongs to several professional organizations including the American Association of Immunologists, American Association for Cancer Research, American Society of Clinical Oncology, and she is on the Board of Directors of the International Society of Biologic Therapy. She is the Medical and Scientific Director of the Marsha Rivkin Center for Ovarian Cancer Research. Dr Disis has published over 100 peer reviewed papers and holds several patents in field of cancer vaccine development and immunodiagnostics.

Dr Disis' current research interests include the development of multi-antigen vaccines targeting breast and ovarian cancer, plasmid-based vaccine technologies for eliciting immunity, the application of serologic immunity as a diagnostic tool in common solid tumors, and evaluation of adoptive T cell therapy for the treatment of advanced stage malignancy.