Purpose and Objectives

**Purpose:** The purpose of the conference is to provide practitioners with the most recent advances and information that will enhance knowledge, skills, and performance in the evaluation and treatment of cancers known for genetic predispositions.

**Objectives:** *At the end of this program, the participants should be able to:*

- Describe the concept, rationale and mission of hereditary colorectal cancer registries
- Recognize how the Lynch syndrome extended pedigree and MMR mutation status will identify high-risk relatives at the 4th degree level based upon patient’s position in the pedigree, by being progeny of an affected or parent or sibling of an affected
- Cite to others/pathologists about the BAP1 cancer syndrome
- Explain how genetic testing combined with histopathology and immunohistochemistry allows for a correct diagnosis and identification of signal cutaneous melanocytic tumors as markers of potential carriers
- Describe the role of heredity in MGUS and Multiple Myeloma Risk along with the etiology and gene-environment interactions
- Identify modifiable risk factors for breast and ovarian cancers among women with a BRCA1 or BRCA2 mutation
- Describe the benefits of bilateral mastectomy, of oophorectomy and of chemotherapy on survival in women with breast cancer and a BRCA1 mutation
- Describe the role of the cancer genetic counselor utilizing scientific and artistic skills in relaying genetic test results to patients and their family members in a way they can understand and utilize to develop the best prevention and management plan
- Describe the various types of polyposis along with treatment options inclusive of endoscopy
- Recognize that family pedigrees are truly “road maps” which often clearly designate the passage of an MMR mutation in an autosomal dominant manner which can guide genetic testing and life saving medical management recommendations for prevention
- Explain what constitutes a human exome and the distinction between actionable and gnostic genetic variants
- Evaluate chemoprevention trials for hereditary colorectal cancer syndromes in order to formulate recommendations for patients
- Familiarize providers with cultural beliefs about health and illness of the Pacific Island community using the impact of cancer as a model
- List the past and present contributions of Cancer Genetic testing and counseling
- Describe new surgical technologies and how they have influenced prophylactic surgical approaches to hereditary colon cancer and polyposis
- Explain the approach of decision making for prophylactic surgery in adolescent patients
- Describe the how the genotype of a tumor influences the decision making process for the time and type of preventive surgery in hereditary colon cancer