This first workshop on cancer will bring together biologists, engineers, chemists, mathematicians, medical school and public health officials, pharmacists and physicists to identify the diversity of challenges scientists face in the treatment of cancer. Special emphasis will be placed on problems that may be explored through mathematical modeling, and where such modeling could help shed light on the many underlying biological processes.

**Workshop Objectives**

- Promote interdisciplinary collaborations within Howard University as well as other universities in the Washington, DC area devoted to exploring solutions to the diversity of challenges in the treatment of cancer.
- Encourage the establishment of new collaborations for research on health disparities.
- Develop a regular, series of mathematical biology workshops for the DC area that meets every 3 months at Howard University.

Participation in this workshop is free and lunch will be provided. For more information, please email to: ayakubu@howard.edu or talitha.washington@howard.edu. To register, go to: [http://tinyurl.com/humathbio](http://tinyurl.com/humathbio)

**Program**

9:00-9:10 AM  Bernard Mair, PhD, Dean of College of Arts and Science, *Welcoming Remarks*

9:10-10:10 AM  Avner Friedman, PhD, Distinguished University Professor, MBI and The Ohio State University, *The role of IL-27 and IL-35 in cancer*

10:10-10:30 AM  Coffee break

10:30-11:30 AM  Georgia M. Dunston, PhD, Professor of Microbiology and Founding Director, National Human Genome Center, Howard University College of Medicine, *The biology of genome variation in health disparities*

11:30-1:00 PM  Lunch Panel Discussion on *Developing a regular, series of mathematical biology workshops for the DC area that meets every 3 months at Howard University*. Panelists: Steering Committee Members, Mohamed Chouikha, Latifa Jackson, James Lindesay, Orit Lavi, Philip Kurian; Moderator: Michael Reed, Duke University, Recorder: Talitha Washington, Howard University

1:00-2:00 PM  Stanley Lipkowitz, MD, PhD, Chief, Women's Malignancies Branch National Cancer Institute, NIH, *Breast cancer: Clinical challenges and opportunities*

2:00-3:00 PM  Mezbah Faruque, MD, PhD, National Human Genome Center, Howard University College of Medicine, *Genomics of prostate cancer: Applying a transdisciplinary approach in reducing health disparities*

3:00-4:00 PM  Doron Levy, PhD, Department of Mathematics, University of Maryland at College Park, *The role of the autologous immune response in chronic myelogenous leukemia*

4:00 PM  Closing remarks

**Math-Bio Steering Committee**

Georgia M. Dunston, Broderick Eribo
Avner Friedman, Michael Reed
William Southerland, and Abdul-Aziz Yakubu

**Workshop Organizing Committee**

Avner Friedman, Michael Reed
Talitha Washington, and Abdul-Aziz Yakubu