

Summer 2017 Student Research Program
Project Description

FACULTY SPONSOR'S NAME AND DEGREE: *Daniel M. Rosenblum, PhD*

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PROJECT TITLE (200 Characters max):

Colorectal Cancer Screening Issues

HYPOTHESIS:

Standard national recommendations for colorectal cancer screening may need to be updated, and may need to differ based on race/ethnicity.

PROJECT DESCRIPTION (Include design, methodology, data collection, techniques, data analysis to be employed and evaluation and interpretation methodology)

We assembled a cohort and electronic database consisting of all colonoscopies (2,696) performed over the two-year period 2005-2006 at NJMS and University Hospital. Some had more than one colonoscopy; there were 2,543 distinct patients. Our initial analyses on a portion of the dataset noted an elevated rate of adenoma detection in urban blacks undergoing colorectal cancer screening, consistent with findings from another study and later also reported from another institution. A novel finding by us was an elevated rate in our urban Latin American population. Few studies have been conducted in a primarily minority population. Many tumors were in the proximal colon, and thus would not have been detected by flexible sigmoidoscopy. The gastrointestinal society hosting our 2007 presentation about these initial findings issued a press release. These analyses were extended by us in 2015 to include all of those who had colonoscopy. Preliminary analyses suggest great similarity among those without any significant gastrointestinal past medical history. However, there were some key differences, in certain subsets.

During 2014-17, we determined follow-up status and interval medical history, utilizing records from a variety of sources, in collaboration with University Hospital and the NJMS Department of Medicine — Division of Gastroenterology and Hepatology. We are in the process of developing a match to the NJ State Cancer Registry to assess whether any colorectal cancers were reported on cohort members from outside institutions.

There are limited data to support the standard recommendation that screening colonoscopy should be performed at ten-year intervals. Data from this study will thus help inform screening guidelines and clinical practices. Few studies have carefully examined minority groups in terms of recommendations. Furthermore, screening recommendations based upon whites need to be assessed in minority populations, as they perhaps should differ.

The detailed specific project timeline concerning these comprehensive cancer control issues will be developed with the student based upon her/his past experience, training, and interests. Dr. Daniel M. Rosenblum, Assistant Professor, in conjunction with Professor Stanley H. Weiss, MD, as well as other staff in our group, will provide mentorship on the project.

The endpoint for this summer project will be to use the extended analyses to culminate in a complete manuscript. Given current controversies in colorectal screening, this project is especially timely and is highly relevant to the issue of cancer disparities. The student would need to have an interest, and prior skills, in the area of quantitative data analysis in order to make optimal progress.

SPONSOR’S MOST RECENT PUBLICATIONS RELEVANT TO THIS RESEARCH:

- *CD Lee, Ethnic Variation in Presence and Location of Colorectal Lesions Found in Screening Colonoscopies: A Retrospective Study in a Minority Screening Population. In 2015 Summer Student Research Abstracts, New Jersey Medical School.*
- *H Eltoukhy. Screening an Asymptomatic Urban Population with Colonoscopies: A Retrospective Analysis Comparing Ethnic/Racial Groups. In: 2012 Summer Student Research Abstracts, New Jersey Medical School.*
- *K Grover, RJ Bierwirth, MJ Sterling, DM Rosenblum, G Ashrafzadeh, SH Weiss. An elevated rate of adenoma detection in an urban Latin American population undergoing colorectal cancer screening. American College of Gastroenterology 72nd Annual Scientific Meeting, October 14-17, 2007, Pennsylvania Convention Center, Philadelphia, PA. Poster Number "680" - poster session on Monday, October 15, 2007.*

IS THIS PROJECT SUPPORTED BY EXTRAMURAL FUNDS?

Yes or No

(IF YES, PLEASE SUPPLY THE GRANTING AGENCY’S NAME)

THIS PROJECT IS: Clinical Laboratory Behavioral Other (Epidemiology)

THIS PROJECT IS CANCER-RELATED

Please explain Cancer relevance: *The project assesses outcomes in a cohort derived from NJMS/UH patients who underwent colorectal cancer screening by colonoscopy, as well as other patients who had colonoscopy approximately 10 years ago. A unique aspect of this cohort is the very high proportion that are black or Latino.*

THIS PROJECT IS HEART, LUNG & BLOOD- RELATED

Please explain Heart, Lung, Blood relevance:

THIS PROJECT EMPLOYS RADIOISOTOPES

THIS PROJECT INVOLVES THE USE OF ANIMALS

PENDING APPROVED IACUC PROTOCOL #

THIS PROJECT INVOLVES THE USE OF HUMAN SUBJECTS

PENDING APPROVED IRB PROTOCOLS # 0120040041 & Pro20150001356

THIS PROJECT IS SUITABLE FOR:

UNDERGRADUATE STUDENTS ENTERING FRESHMAN
 SOPHOMORES ALL STUDENTS

THIS PROJECT IS WORK-STUDY: Yes or No

THIS PROJECT WILL BE POSTED DURING ACADEMIC YEAR FOR INTERESTED VOLUNTEERS?: Yes or No

WHAT WILL THE STUDENT LEARN FROM THIS EXPERIENCE?

- *How to approach the analysis of datasets;*
- *How to assess health outcomes disparities and their implications for clinical work;*
- *How to assess an intervention to improve health care providers’ clinical activities;*
- *How critical assessment of findings can lead to changes in approach or implementation.*

USEFUL RELEVANT PRIOR EXPERIENCE AND SKILLS

- *Prior experience with data analysis and data analysis software, particularly MS Excel and SAS.*
- *Excellent written and communication skills.*
- *Prior experience working on a research team.*
- *Prior experience with similar datasets.*