

Summer Student Research Program  
Project Description

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**PROJECT TITLE (200 Characters max):**

***Urinary Tract Infections as a Cause of Syncope—A Prospective Study***

**HYPOTHESIS:**

*Syncope is a not uncommon presenting symptom in the emergency department. While in some cases a clear neurologic or cardiac etiology for the syncope can be found, for the vast majority of individuals the cause of the syncope is not known. Close analysis of a study of falls in nursing homes (Kallin et al.) and of a lone case report (Eschedor et al.) suggests that urinary tract infections--symptomatic or perhaps occult--could be a contributing factor to syncope. Here we will study this hypothesis in a prospective manner by comparing the rate of urinary tract infections in patients presenting to the emergency department with syncope, compared with those presenting with pneumonia.*

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

*The student will work with the faculty sponsors in all phases of the study: enrolling subjects, collecting and analyzing data and interpreting and preparing results for presentation and publication. The student will learn about clinical research and methodologies, and statistical analysis.*

**SPONSOR'S MOST RECENT PUBLICATIONS RELEVANT TO THIS RESEARCH:**

*Altschuler E, Hon A, Huang A. Case 19-2007: a college student with fever and joint pain. N Engl J Med. 2007; 357: 1780.*

*Altschuler EL, Kariuki YM. Did the 1918 flu virus cause the Black Death? Med Hypotheses 2008; 71: 986-7.*

*Eschedor JF, Gordon JK, Duffy E. Include UTI in older adults' differential diagnosis of syncope. Nurse Pract. 2002 Mar;27(3):66, 68, 71.*

*Huang AE, Hon AJ, Altschuler EL. Thickness and the Koffka ring effect. Perception. 2008; 37: 1458-60.*

*Huang AE, Ghosh S, Hon AJ, Goris-Rosales J & Altschuler EL. The Wertheimer-Benary effect does not invert, and a nulled Wertheimer-Benary effect. Perception 2009; 38: 1728-1730.*

*Kallin K, Jensen J, Olsson LL, Nyberg L, Gustafson Y. Why the elderly fall in residential care facilities, and suggested remedies. J Fam Pract. 2004 Jan;53(1):41-52.*

*Yu X, Tsibane T, McGraw PA, House FS, Keefer CJ, Hicar MD, Tumpey TM, Pappas C, Perrone LA, Martinez O, Stevens J, Wilson IA, Aguilar PV, Altschuler EL, Basler CF, Crowe JE Jr. Neutralizing antibodies derived from the B cells of 1918 influenza pandemic survivors. Nature 2008; 455: 532-6.*

**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

**THIS PROJECT IS CANCER-RELATED**

**THIS PROJECT IS HEART, LUNG & BLOOD- RELATED**

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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 PROTOCOL #

THIS PROJECT IS SUITABLE FOR:

UNDERGRADUATE STUDENTS  ENTERING FRESHMAN   
SOPHOMORES  ALL STUDENTS

THIS PROJECT IS WORK-STUDY: Yes  or No

**WHAT WILL THE STUDENT LEARN FROM THIS EXPERIENCE?**

*The student will learn how to conduct clinical research. This project is ideal for the student interested in emergency medicine, internal medicine, family medicine or medical research. The faculty sponsor and his collaborator have significant publication records. The student will learn about the process of publishing scientific papers, with the goal of this project being publication in a high impact journal. Students who have worked with the Faculty Sponsor in previous summers have had publications (Huang, Ghosh, Hon, Goris-Rosales & Altschuler, 2009; Huang, Hon & Altschuler 2008; Altschuler, Hon & Huang 2007; Altschuler & Kariuki 2008) with others at review or in publication.*