Cardiovascular and Carcinogenic Risks in Modern Firefighting

Study Participants Needed!

Join the Illinois Fire Service Institute (IFSI), Underwriter Laboratories (UL), and the National Institute for Occupational Safety and Health (NIOSH) as we conduct the first rigorous scientific study to quantify **acute physiological disruptions**, including thermal and cardiac strain, and **exposure to products of combustion**, while firefighter use different suppression tactics in **realistic modern fire environments**. We will also quantify the effectiveness of **on-scene gross decon** of firefighting PPE to reduce post incident exposures.

**Who is eligible to participate?**

In order to join this study, we are looking for firefighters who are:

- Between the ages of 18 and 55 years old
- Not a smoker or other tobacco user
- Have no known cardiovascular diseases, history of any neurological disorders or digestive complications
- Have completed an NFPA 1582 physical in the past year (or willing to complete one provided by the study)
- Available during June 2015 and willing to clear their schedule for 5 full days

We will also request that participants avoid certain grilled foods, medications (e.g. aspirin), and second-hand smoke around the dates of the data collection.

**As a participant, you will ...**

- Visit the IFSI campus in Champaign five times in the Spring/Summer 2015.
- First session will include some initial data collection including a baseline 12 hour EKG assessment.
- Four remaining sessions will each consist of
  - ~1 hour of data collection pre-firefighting (blood draw, urine sample, EKG, skin wipe)
  - Live fire drill lasting 20-60 minutes - **modern fires using modern tactics**.
  - Rest and relax on the IFSI campus for the next 12 hours while attached to a portable EKG system. During this time you will provide blood, urine and breath samples and have blood pressure measurements taken.

**Total Confidentiality**

Each participant will be given an ID number and all data associated with this individual will be identified only by this number. The personal information will not be shared with IFSI instructors or anyone within your department.

For more information, details and to sign up ...

Gavin Horn, Director of Research at IFSI
217.265.6563
ghorn@illinois.edu

Firefighters who participate are eligible for compensation up to $599.