

MAS Tour Speaker Dr. Robert Simmons

The Capital District Microscopy and Microanalysis Society will be hosting a meeting Thursday September 24th, from 5:30 – 7:30pm at the General Electric Global Research site (Dinner will start at 5:30 and the talk will start at 6:30). The cost is \$10/person for members and \$20/person for non-members, the menu is listed below.

The speaker for this event is Dr. Robert Simmons. Details of his talk are also listed below.

[Please respond by September 22nd](#)

Please let us know in advance if you plan to attend by sending an email to Rose at neander@ge.com. In your email please include country of citizenship/permanent residency. We will need this information in order to notify the guards at the security gate that you are coming.

PLEASE BE AWARE THAT YOU WILL NEED TO HAVE A GOVERNMENT ISSUED ID IN HAND TO SHOW THE GUARDS

What's on the menu

Buffet style

2 kinds of salad

Choice of Lasagna or Chicken Vegetable Stir Fry

Garlic breadsticks and knots

Rolls and butter

Cookies

Assorted beverages

“Fungi in the Human Environment”

by

Dr. Robert Simmons

Program Director of Biological Imaging Core Facility at Georgia State University

Fungi are fundamentally recyclers. Their main function in the environment is to break down complex materials, which allows the components to be re-used by other organisms. These complex materials include dead plants, dead animals, building materials, valued artifacts of civilization and any number of other things. Problems arise when these organisms invade the built environment, either work or living spaces. Various methods, such as air sampling, have been commonly used to estimate the density of fungi in a structure. Volumetric sampling may indicate high levels of fungi or one particular fungus in a building compared to the outdoor environment or some predetermined standard. This method may indicate the presence of viable fungal conidia or hyphal fragments in the air column but it cannot identify sites of colonization. Surface cultures may indicate the presence of viable fungal propagules but do not prove colonization. Surface sampling for light microscopy using clear adhesive tape mounts may demonstrate the presence of colonizing fungi. The methodology, such as types of tape and optics employed may affect the results obtained. Examination of tape samples from environmental surfaces may show the level of colonization and, in many cases, allow for identification of colonizing species. Scanning electron microscopy studies of suspect materials may determine the nature of surface features and contamination not readily identifiable in the light microscope. Suspect materials may be shown to be biological in nature or non-biological surface. Microanalysis of materials may yield clues to the origin of non-biological contamination. Rapid and accurate analysis of suspect materials on indoor surfaces is vital to the identification of potential fungal colonization sites. These data may be used as an aid to determining an appropriate course of action.