Welcome Note  (By Farouk Merhebi – EHSRM Director)

Dear Readers,

EHSRM has initiated a series of new projects aiming to improve the health and safety of our community. A Sharps Safety Awareness day is planned for the June 14, 2013 in cooperation with AUBMC to shed light on sharps injuries and ways to reduce their hazards. New initiatives have been put in place to re-use, reduce and recycle wastes, namely, exchange of unwanted chemicals between departments; solvent wastes recycling in other industries; co-processing chemical wastes in cement kilns; and installing reverse vending machines for plastic bottles and cans. A noise map is being produced in cooperation with the Neighborhood Initiative and the Environmental Club at AUB. A building condition survey is being conducted as a joint effort between FPDU, PPD and EHSRM to evaluate the physical condition of all buildings on campus from an exterior, interior, electro-mechanical and safety perspectives, and to develop an action plan for their renovation.

Mrs. Samar Khalil joined our team on April 1, 2013 as the new Environmental and Chemical Safety Officer. Mrs. Khalil is an environmental health specialist who has worked for the past 8 years with UNDP managing projects at the Ministry of Environment. We would like to welcome her to her new family.

Article of the Month

Sanitation & Biosafety at AUB

The Sanitation and Biosafety Unit at EHSRM provides professional expertise and services in diverse areas with a main focus on food safety, water quality, biological safety cabinet (BSC) testing, pest control, waste management and recycling, HEPA filtered isolation/clean rooms testing, N95 respirators fit testing, and biohazardous materials handling. Work is done to ensure compliance with local and international regulations and standards including but not limited to the IAAMI, ASHRAE, CDC, FDA, ISO, NIH, NSF, and OSHA.

Food safety is one of our major concerns. The Unit responds to all inquiries related to sanitation and hygiene at AUB cafeterias. Surveys are conducted periodically or whenever needed. Students’ proposals of events involving the serving and selling of food are also reviewed. Students are provided with necessary instructions to ensure safe handling of food items. In addition, food safety training sessions have been provided to many of the AUB community, including club members participating in the outdoors as part of the event preparation.

Water quality is also of great importance. Potable water is monitored periodically at AUB campus and AUBMC. Tests include bacteriological, physical, and chemical analysis. The outsource water quality is also monitored during the water shortage periods. On the other hand, the CHSC swimming pool water is tested to ensure acceptable chlorine levels. During the summer season, AUB beach water is tested on a weekly basis to ensure safe swimming. The results are illustrated in the figure on page 2 which shows the average readings of fecal and total coliforms in samples collected from different locations at the AUB beach during the year 2012.

The Unit offers the service of recertification, testing, and commissioning BSCs using state of the art equipment, noting that this service has been extended to serve external clients in Lebanon through the Regional External Programs Office at AUB. BSCs are one of the primary safety equipment used in microbiological and biomedical laboratories. Currently, AUB has up to 40 BSCs located on campus and at AUBMC, as shown in the figure on page 2.

The Unit reviews research proposals that involve biohazardous agent manipulation, recommends safe practices, and provides necessary training to lab occupants. Moreover, biosafety inspections are conducted on microbiological and biomedical laboratories.

Finally, the Unit provides support to various departments at AUB campus and AUBMC regarding renovation and new projects. It has been involved in AUBMC accreditation preparation and surveys. In addition, the Unit works closely with the Central Sterilization Department at AUBMC on all matters related to decontamination, the sterilization processes, and quality control.

Think Safe

1) The white blooming on chocolate bars is an indication of Salmonella contamination and is associated with severe food-borne illness:
   a) True  b) False

2) There is no practical way to tell if an egg is still good or it is rotten. The only way is to eat it and wait to see if you will get hurt.
   a) True  b) False

3) Applying pesticides is the first and best way to eradicate insects, especially ants.
   a) True  b) False

Answers on page 2

Safety Tip

Difficulty in peeling the shell of a boiled egg means that the egg was fresh.

When eggs age, the acidity inside increases, the white albumin shrinks, and the air space between the egg shell and the membrane gets larger. In such conditions, the membrane does not stick as much to the shell, making older eggs easier to peel.
EHSRM in Action

**The Environmental and Chemical Safety Unit** conducted a public meeting as part of the Environmental Impact Assessment (EIA) for the replacement of animal care waste incinerator of DTS; followed on Servicorp proposal to install three reverse vending machines for recyclables at AUB; and conducted a series of training sessions on chemical handling, electrical safety, personal protective equipment, and office ergonomics to Biology students and PLM staff at AUBMC.

**The Health Physics Services Unit** performed the shielding design recommendations for the PET/CT suite at AUBMC; attended to a major radioactive contamination and one high radiation dose at AUBMC; and returned two Iridium-192 sources to their manufacturer through the Lebanese Atomic Energy Commission. The University Radiation Safety Officer attended a medical laser safety officer training arranged by the Laser Institute of America.

**The Life and Fire Safety Unit** reviewed the door and hardware schedules of both the Faed and Irani Oxy Engineering Complex and the Sawwaf PET/CT Building. The unit prepared and conveyed Door and Hardware guidelines for the ACC Building and reviewed electrical and mechanical submittals for the AUBMC Lobbies, AUBMC Administrative Building, and the Issam Fares Institute capital projects.

**The Occupational Safety Unit** conducted the General Safety Round in the Endoscopy unit, ICU, and Inhalation Therapy responded to a number of reported incidents and emergencies including chemical and chemo spills; and tested for occupational exposure to Methanol in the Hematology lab.

**The Risk Management Unit** is currently in the process of organizing a sharps safety awareness day in coordination with AUBMC & BD. This event which targets all healthcare professionals as a proactive approach to reducing sharps injuries through training and raising awareness, will take place on June 14, 2013 at Issam Fares Hall at AUBMC.

**The Sanitation and Biosafety Unit** commissioned/recertified Biosafety Cabinets located at the Clemenceau Medical Center (CMC), reviewed food service proposals, and provided various training at the AUB Campus and AUBMC related to laboratory biosafety and hazardous waste management.

Latest Activities

In the spotlight

**Talal Abou Mjahed**

BS in Agricultural Engineering in 1991  
MS in Environmental Engineering in 2007  

Mr. Abou Mjahed joined AUB in April 2009 with 10 years of experience in floriculture, in addition to 8 years in environmental sustainability fields related to solid waste treatment & composting, waste water treatment, and occupational health & safety.

In August 2011, Mr. Abou Mjahed was officially listed as “NSF Accredited Class II Biosafety Cabinet Field Certifier.” With that accreditation, Talal was the first in Lebanon and the third in the Middle East to be NSF International accredited certifier.

Currently, Talal is managing the Sanitation and Biosafety Unit at EHSRM which aims to help AUB achieve and maintain a healthful and safe environment and ensure compliance with the local and international regulations and standards pertaining to Sanitation and Biosafety.

Answers to “Think Safe”

1. False. The white coating on chocolate is due to the migration of butter fat present in the chocolate to the surface. Fat blooming could make chocolate look less appealing but it remains safe to eat.

2. False. Never eat an egg if in doubt. To test an egg if it is still good or not, put it in a glass of water: Fresh egg will drop slow; less fresh will drop slower and bounce at the bottom; whereas bad egg will float.

3. False. There are many other important ant-eradication methods such as wiping food residues, keeping trash in closed containers, and sealing possible passages and holes. Mint plants are also said to be deterrents to ants.

In the spotlight

**EHSRM’s Sanitarian and Biosafety Officer**

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Easter is a time for celebrations and great food, including indoor and outdoor activities. The following are some simple tips to help you keep your family safe from food-borne illnesses throughout the Easter holidays.

If you are planning to use eggs:

- Always buy eggs in a refrigerated case. Choose eggs with clean, uncracked shells.
- Before buying eggs, check the expiration date on the package.
- Make sure to refrigerate any eggs you buy right away.
- If you plan to eat the Easter eggs you decorate, be sure to use only food grade dye. Some people make two sets of eggs - one for decorating and hiding, another for eating. You can also use plastic eggs for hiding or decoration.
- Hardboiled eggs for Easter should be prepared with care! When shell eggs are hard-cooked, the protective coating is washed away, leaving open pores in the shell where harmful bacteria could enter. Be sure to refrigerate eggs within two hours of cooking and use them within a week.
- For an Easter egg hunt, avoid cracking the egg shells. If the shells crack then bacteria could enter and contaminate the egg inside. Hide eggs in places that are protected from dirt, pets and other bacteria sources and keep hard cooked eggs chilled in the refrigerator until just before the hunt. The total time for hiding and hunting eggs should be no more than two hours. Be sure to refrigerate the "found" eggs right away until you eat them. Eggs found hours later or the next day should be thrown away — not eaten!
- Do not keep raw or cooked eggs out of the refrigerator longer than two hours.
- Always wash your hands well before and after handling raw eggs, as well as surfaces and utensils that come in contact with raw eggs.
- Cook eggs thoroughly; that means do not eat undercooked egg yolks.
- Do not eat raw cookie dough or cake batter if they contain raw eggs.
- Beware of food that may contain raw eggs, such as salad dressing, hollandaise sauce, homemade mayonnaise, tiramisu, some ice creams, etc. If not eaten, discard hardboiled eggs and egg dishes such as deviled eggs or egg salad after 3 or 4 days at the latest.

If you are planning to prepare cookies:

- Do not keep perishable items such as eggs and milk on the counter when baking. Keep them cool in the fridge when not in use.
- Wash your hands after handling perishable items. Scrub them for at least 20 seconds. Wash the used bowls and utensils very well after use.
- Keep countertops clean. Use household bleach to keep them clean and safe.
- Do not eat raw cookie dough, even if it doesn't have eggs in it or it is prepackaged.

Source: USDA Tips for Easter and Passover Food Safety