Dateline: RIT – The Podcast (Feb. 28, 2008) (Season 2, Episode 9)

ANNCR: Welcome to Dateline: RIT with Mike Saffran.

HOST: Dateline: RIT (Feb. 28, 2008)

RIT engineering students last week unveiled a so-called “smoking machine” that simulates effects on the human body from smoking cigarettes. Created as part of a multidisciplinary engineering senior design project, the device is also part of research on smoking effects sponsored by the American Cancer Society and led by RIT’s Dr. Risa Robinson. Dr. Robinson, what’s the goal of your research and how does the “smoking machine” work?

ACTUALITY [RISA ROBINSON]: We want to figure out where the particles deposit in the respiratory tract, and in order to do that we need to have accurate models. So we need to have accurate geometry of the lung and we need to have accurate flow rate and concentration of the cigarette smoke that the person would be inhaling. So the smoking machine actually simulates both of those things. We have an actual replica of a human lung in there—the large central airways—and we can control the puff cycle so that it can simulate anybody’s puffing behavior. So that way we know that we’re drawing the correct concentration from the cigarette, at the correct rate, and we’re taking it through the respiratory tract. And then what we do is we measure the particle concentration coming out of the cast, and by doing that we know what stayed in the cast.

HOST: Do you have any preliminary findings?

ACTUALITY [ROBINSON]: In our simulations, we did a smoker and we did a nonsmoker—somebody living with a smoker who’s getting side-stream smoke—and we found that the smoker had a higher deposition of particles in the upper-respiratory tract than the nonsmoker. So our model confirmed that for smokers the large particles are depositing in the upper-respiratory tract, and for nonsmokers they’re traveling through the upper-respiratory tract. So that means these particles are going through the lung, all the way down to the deep lung, crossing into the bloodstream, and they’re traveling to other organs.

HOST: Your study is also looking at so-called “safer,” or low-tar, cigarettes versus regular cigarettes—is that correct?

ACTUALITY [ROBINSON]: That’s right—we can put any cigarette in there that we want to. So the cancer society would like to know the effect of the “safer” cigarettes—do they have fewer carcinogens, do they deposit at a lower rate than the regular cigarettes?

HOST: That’s RIT mechanical engineering professor Dr. Risa Robinson, the principal investigator in American Cancer Society-funded research studying the effects of smoking. Joining Dr. Robinson in the research is Dr. Kathleen Lamkin-Kennard, assistant professor of mechanical engineering, and Professor Todd Pagano, assistant

professor of science and mathematics in the National Technical Institute for the Deaf. A recent demonstration of the “smoking machine” was covered by five local television stations and the Rochester Democrat and Chronicle.

On the RIT campus this week . . . Chief Communications Officer Bob Finnerty has more on this spring’s Imagine RIT festival, along with just-announced details about Park Point at RIT . . . and News & Events managing editor Vienna Carvalho gives highlights from the latest issue.

SEGMENT [BOB FINNERTY]: This is Bob Finnerty. RIT will officially kick off its inaugural Innovation and Creativity Festival, Imagine RIT, at a news conference March 11th. The 2 p.m. media event will be held in the Gordon Field House. President Destler will explain the concept of the May 3rd Festival. RIT will also announce festival sponsors, including the premier sponsor. The entire campus is invited to the media event, which will also showcase several exhibits and demonstrations that are getting ready for the May 3rd festival. RIT hopes to attract 30,000 visitors to campus for the free festival. For more information, visit rit.edu/imagine. . . . Wilmorite has announced eight new tenants for Park Point, the development formerly known as College Town. The businesses are: Gallery Salon Too, 7 Day’s Convenience Store, Tiger’s Sports Bar, Lovin’ Cup, Wok with You, Abbott’s Frozen Custard, King David’s restaurant and Paradizo Pizza. They join the anchor tenant, Barnes & Noble Bookstore. The $72 million retail and residential project at Jefferson Road and John Street is expected to open in August. In fact, 70 percent of apartments are leased. . . . This is Bob Finnerty on the RIT campus.

SEGMENT [VIENNA CARVALHO]: This is News & Events Managing Editor Vienna Carvalho. In the current issue of News & Events . . . RIT will again host the Finger Lakes Regional FIRST Robotics competition March 7th and 8th. This year, 40 high-school teams from across the Northeast United States and Canada will maneuver their robotic creations around a track. Winners of this regional event will advance to the National Competition in Atlanta in April. . . . Also in the current issue of News & Events, RIT congratulates its very own Academy Award winner. David Long, program chair of the digital cinema degree in RIT’s School of Film and Animation, was honored by the Academy of Motion Picture Arts and Sciences, along with three other Eastman Kodak Co. employees, for their work on Kodak’s VISION 2 family of color negative films. Long accepted his Oscar Feb. 9th from film star Jessica Alba. . . . And, read our Viewpoints essay written by Midge Berfield, who encourages RIT employees to use available fitness facilities and educational resources to help commit to a wellness program. . . . Read more about these stories and other RIT news in the Feb. 21st issue of News & Events. This is Vienna Carvalho on the RIT campus.

HOST: This has been Dateline: RIT (Feb. 28, 2008). I’m Mike Saffran on the RIT campus.

ANNCR: For more on these stories and other RIT news, visit www.rit.edu/news. Dateline: RIT is produced by RIT University News Services.

NOTE: Dateline: RIT (Feb. 28, 2008) audio podcast available at:
http://www.thetigerbeat.com/rss/podcasts/Dateline_02-28-08.m4a and
http:www.rit.edu/news (see “Latest Podcasts”)

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