under way in the intensive care unit (ICU). Like the HSCU and
the ICN, “we’re taking a systems approach,” says Dr. Athos Ras-
sias, who is leading the initiative with clinical nurse specialist In-
grid Mroz. “We’re analyzing . . . the most minute little details,”
he adds. Among the changes already made are a new training
video on aseptic techniques, a PowerPoint presentation on best
catheter-insertion practices, new procedure checklists and proto-
cols, and lots of observations to identify aspects of care that can
be improved.

The ICU will also be working with the Cardiothoracic Intensive
Care Unit, of which Rassias is the medical director, and the
Coronary Care Unit. Although
in the past the ICU has had cen-
tral-line infection rates safely be-
low national benchmarks, in
2005 its rates rose. So far, 2006 is
tracking well but it will be sever-
al months before Rassias and
Mroz can determine if their ef-
forts are having an effect.

Yet the potential for making a
difference is great—since hospi-
tal-acquired infections affect ap-
proximately 2 million people an-
nually, according to the Centers
for Disease Control and Preven-
tion, and such infections can be
avoided.

Key: “Many health-care infec-
tions are preventable if we just
pay attention to every detail
along the way,” says Dr. Kathryn
Kirkland, associate director of
the Infection Control Program
at DHMC. The key, she says, is
to recognize that “the smallest
things actually matter.”

Jennifer Durgin

**INVESTIGATOR**

In this section, we highlight the human side of biomedical investigation, putting a few questions to a researcher at DMS-DHMC.

Angeline Andrew, Ph.D.
Research Assistant Professor of Community and Family Medicine

Andrew, a molecular epidemiologist, studies combi-
nations of genetic factors and exposures to toxic met-
als that may increase the risk of bladder cancer or af-
flect the prognosis of the disease.

**How did you decide to become a scientist?**
I started working in environmental risk assess-
ment and realized that there was a need for more
toxicologic research to set safe exposure limits.

**And when did you become interested in epidemiology?**
My thesis project in molecular toxicology uti-
лизed cell lines grown in the laboratory. My post-
doctoral experi-
ence in epidemi-
ology has helped me
to translate this re-
search into real hu-
man exposures.

If you weren’t a
scientist, what would
you like to be?
I spent a couple of
years in teaching—but being a ski bum would be more fun!

**What do you consider your most important work and why?**
My most important work is in disease preven-
tion. I feel that effective communication of the
risks associated with certain exposures and be-
aviors is critical. Elevated levels of arsenic are
occasionally found in unregulated private drink-
ing water wells, even in parts of the U.S. This
exposure may be a health concern, particularly
when combined with smoking.

**What is the greatest joy in your work?**
Working on collaborative research projects with
scientists from around the world. For example, I
am participating in an international bladder
cancer consortium that fosters collaboration among studies.

**And the greatest frustration?**
Writing grants instead of doing science.

**If you could change one thing about your career, what
would it be?**
Increase the level of job security—living from
“grant to grant” is stressful.

**What famous person, living or dead, would you most like
to spend a day with?**
Leonardo da Vinci. I am particularly impressed
by his observational skills and his ability to com-
municate with so many generations of people.

**What’s your favorite nonwork activity?**
I enjoy skijoring with my dogs in the winter and
horseback riding in the summer.

**What kind of music do you listen to most?**
Right now I am into Green Day and the Red
Hot Chili Peppers.

**Hollywood is doing a movie of your life. Who plays you?**
Angelina Jolie.

**What advice would you offer to a graduate student
contemplating going into epidemiology?**
Take some formal coursework in the field early on.
Focus on a specific scientific question, but
don’t limit the tools that you can use to try to
answer it. Interdisciplinary training has allowed
me to take advantage of scientific advances in
multiple fields and combine them in new ways.

Dartmouth is a wonderful place to do molecular
epidemiology because of its size, collegial at-
mosphere, and buildings like the Norris Cotton
Cancer Center that integrate disciplines such as
population sciences and laboratory research.

**What misconceptions do people have about epidemiology?**
Epidemiology is not limited to “black box” as-
sociation studies between exposure and disease.
Collecting tissue samples allows investigators to
assess multiple intermediate biomarkers of ex-
posure and disease-relevant biologic effects.

**Grant to Grant**