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Beth Israel Deaconess  
Medical Center



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL



people  
in medicine

DEPARTMENT OF MEDICINE 2013 ANNUAL REPORT



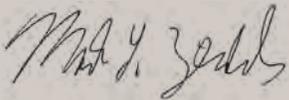
## From the Chair

Dear Colleagues and Friends,

Each year, our annual report celebrates some of the Department of Medicine's proudest accomplishments. This year, the accomplishment we have chosen to focus on is perhaps the most essential aspect of who and what we are as a department—our people. We are comprised of over 485 Harvard Medical Faculty Physicians (with several hundred additional physicians practicing at affiliated hospitals and health centers), 160 housestaff, 150 clinical fellows, 100 post-doctoral research fellows, 1,000 administrative and ambulatory clinical support staff and hundreds of staff working on our inpatient floors.

In their own unique ways, each and every one of our staff and faculty contributes to the department's common efforts to provide excellent patient care, educate the next generation of clinicians and health care leaders, and promote cutting-edge biomedical research. The profiles, facts and figures in the following pages reflect the extraordinary breadth and depth of skills, passions and personalities in our department. From a world-renowned gastroenterologist born in India to a hardworking internal medicine resident from Ohio, the members of our community who are featured in this year's report provide a sampling of the many compelling individuals who make this department what it is.

After reading this report, I hope that you appreciate—as I do every day—the intelligence, compassion, curiosity, playfulness, determination and dedication demonstrated by members of this department. Indeed, it is these very qualities in my colleagues and friends that make my job fascinating and fulfilling on a daily basis, and for which I'm immensely grateful.



Mark L. Zeidel, MD  
*Chair, Department of Medicine*

# Departmental Organization

## Administration

**Mark Zeidel, MD**  
*Chair, Department of Medicine*

**Mark Aronson, MD**  
*Vice-Chair, Quality*

**Barbara Kahn, MD**  
*Vice-Chair, Research Strategy*

**Gordon Strewler, MD**  
*Vice-Chair, Education*

**Peter Weller, MD**  
*Vice-Chair, Research*

**Joanne Casella, MS**  
**Sam Skura, MPH, MBA**  
*Chief Administrative Officer*

**Marian McDermott**  
*Financial Administrator*

## Clinical Divisions

### Allergy and Inflammation

Peter Weller, MD  
*Division Chief*

Courtney Ives  
*Division Administrator*

Jody Blumberg, MBA  
*Division Administrator*

### Cardiovascular Medicine

Mark Josephson, MD  
*Division Chief*

Lynn Dockser Cornell, MHA  
*Division Administrator*

### Endocrinology, Diabetes and Metabolism

Anthony Hollenberg, MD  
*Division Chief*

Nicholas Lord, MHA  
*Division Administrator*

### Gastroenterology

Simon Robson, MB, ChB, PhD  
*Division Chief*

Eileen Joyce  
*Division Administrator*

### General Medicine and Primary Care

Mark Aronson, MD  
*Acting Division Chief*

Louise Mackisack, MA  
*Division Administrator*

### Gerontology

Lewis Lipsitz, MD  
*Division Chief*

Carol O'Leary, MHA  
*Division Administrator*

Lois Hartsough, MSW, MHA  
*Interim Division Administrator*

### Hematology/Oncology

Lowell Schnipper, MD  
*Division Chief*

Simona Arcidiaco, MS  
*Division Administrator*

Randa Mowlood, MS  
*Division Administrator*

### Infectious Diseases

Peter Weller, MD  
*Division Chief*

Ruth Colman  
*Division Administrator*

### Nephrology

Martin Pollak, MD  
*Division Chief*

Courtney Ives  
*Division Administrator*

Jody Blumberg, MBA  
*Division Administrator*

### Pulmonary, Critical Care and Sleep Medicine

J. Woodrow Weiss, MD  
*Division Chief*

Courtney Ives  
*Division Administrator*

Jody Blumberg, MBA  
*Division Administrator*

### Rheumatology

George Tsokos, MD  
*Division Chief*

Patricia Harris  
*Division Administrator*

## Research Divisions

### Clinical Informatics

Charles Safran, MD  
*Division Chief*

### Clinical Nutrition

Bruce Bistrrian, MD  
*Division Chief*

### Experimental Medicine

Jerome Groopman, MD  
*Division Chief*

### Genetics

Pier Paolo Pandolfi, MD, PhD  
*Division Chief*

### Hemostasis and Thrombosis

Barbara Furie, PhD  
Bruce Furie, MD  
*Division Co-Chiefs*

### Immunology

Cox Terhorst, PhD  
*Division Chief*

### IMBIO

Vikas Sukhatme, MD, PhD  
*Division Chief*

Ary Goldberger, MD  
*Division Co-Chief*

### Molecular and Vascular Medicine

William Aird, MD  
*Division Chief*

J. Peter Oettgen, MD  
*Associate Chief*

### Signal Transduction

Lewis Cantley, PhD  
*Division Chief*

### Translational Research

Steven Freedman, MD, PhD  
*Division Chief*

### Transplant Immunology

Terry Strom, MD  
*Division Chief*

### Center for Virology and Vaccine Research

Dan Barouch, MD, PhD  
*Division Chief*

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The Department of Medicine wishes to thank the division chiefs, administrators, partners and affiliates who contributed to this report. We also thank Gigi Korzenowski and Jerry Clark of Korzenowski Design, Jennie Greene and Buck Strewler of the Department of Medicine and Jacqueline St. Onge, a BIDMC volunteer and college student whose help was invaluable. The photos in this report were taken by BIDMC's Bruce Wahl and James Dwyer, both of whom also helped with photo research, and Alycia Braga of Braga Photography. Jane Hayward, of BIDMC Media Services, provided expert copy editing and design consultation. Last but not least, we thank the talented and inspiring individuals featured in these pages for sharing their personal and professional stories with us.

## Snapshots in Medicine

- Percentage of BIDMC Harvard Medical Faculty Physicians who are members of the department: **49**
- Number of countries from which department members hail: **Over 25**
- Number of musical instruments played by department members: **Over 15**
- Number of department members recognized as *Boston Magazine's* 2012 “Top Docs”: **21**
- Number of department members who are part of the Beth Israel Deaconess HealthCare provider network: **146**
- Number of participants in Medicine’s flagship CME course, Update in Internal Medicine: **575**

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- Number of individuals in the 2012-2013 intern class: **60**
  - Number of medical schools represented by the 2012-2013 intern class: **30**
  - Number of languages spoken by the 2012-2013 intern class: **17**
  - Ratio of women to men in Beth Israel Hospital’s 1951-1952 class of interns: **0:8**
  - Ratio of women to men in BIDMC’s 2012-2013 class of interns: **27:33**
  - Number of housestaff inducted into the new residency chapter of the Gold Humanism Honor Society: **14**



### Peter Clardy, MD

*Division of Pulmonary, Critical Care and Sleep Medicine, and Director of Medical Critical Care*

*In addition to being a physician, Peter Clardy is a drummer in the Sorry Honeys, a band whose name derives from Clardy’s common response to his wife when he’s rehearsing in the basement late at night: “Sorry honey, almost done.” Playing an eclectic mix of rock and folk music, the band consists of four fathers from Lexington, MA—Clardy, a radiologist, an architect and an artist. They perform regularly at parties and clubs, often with Clardy’s daughter and her friends on vocals. “For me, playing music with friends and family is very different from the work I do in the Medical ICU at BIDMC,” he says. “But many of the same skills are required for success: teamwork, paying attention to detail, communication and focusing on a common goal.”*





## Bruce Furie, MD

*Co-Chief, Division of Hemostasis and Thrombosis*

At 16, Bruce Furie began a summer sailing business in Long Beach Island, NJ. He grew the business into Furie Sailing Inc., which he ran with his younger brothers for 20 years. At its peak, they had waterfront property, a shop, 40 rental boats and up to six employees, including numerous aspiring young people, one of whom was Barbara Furie, PhD, Furie's wife and current division co-chief. Furie Sailing Inc. supported the brothers through college and professional school.

- Number of inpatient discharges: **13,683**
- Number of outpatient visits: **263,621**
- Number of observation discharges: **5,552**
- Number of patient days in hospital: **68,325**
- Number of individuals with a primary care provider in Medicine ("covered lives"): **41,000**
- Number of work relative value units (RVUs): **841,289**
- Number of endoscopic procedures: **25,099**
- Number of cardiac catheterizations: **3,860**
- Dollars received in clinical revenue: **60,702,703**

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- Dollars received as research funding: **174,707,814**
  - Square footage of space occupied by Medicine research teams: **155,562**
  - Average number of new publications by Medicine faculty and trainees in *PubMed* each month: **57**

## Sharon Inouye, MD, MPH

*Division of Gerontology and Director of Aging Brain Research at Hebrew Senior Life*

Before going to medical school, Sharon Inouye was a concert harpsichordist who trained and performed at Pomona College in Claremont, CA, and in the Southern California Baroque Ensemble group. In addition to playing the harpsichord since age 16 and the piano since age 5, she built a Zuckerman French double harpsichord, which now resides at the Yale School of Music. A brain researcher, Inouye says, "I believe that music is very therapeutic for the brain and the body."





## Joanne Casella, MS Sam Skura, MPH, MBA

If institutions, in the end, are people, then some people are also institutions. Joanne Casella, MS, was an institution: 52 years at BIDMC and its predecessor, New England Deaconess Hospital. Twenty years administering the Department of Medicine gave her a prodigious grasp of its affairs and its people.

A local girl from the Back Bay, Casella began as a Northeastern University Cooperative Education (“co-op”) student in the Deaconess clinical pathology laboratory, switching to part-time work as a medical technologist on the evening shift for five years when her daughter was young. “I was the first member of what was affectionately called the ‘Mothers’ Club,” Casella says. (To keep her lab skills current she worked the later shifts after her husband had come home from work to stay with their daughter.) She eventually worked her way up from Chief Medical Technologist to Vice President of the Pathology Department before moving to the Department of Medicine in 1993.

Her accomplishments in the department are legendary, earning her the Robert M. Melzer Leadership Award, among many other honors. What was the secret sauce? Sam Skura, MPH, MBA, who succeeded Casella as Chief Administrative Officer for the Department of Medicine this year, credits the relationships she built: “I haven’t met anyone yet that has said a negative thing about Joanne.” How often has that been said of the head of a \$100 million enterprise? It’s clear, though, that Skura is cut from the same cloth: he says of his management style that he tries to find the right angle with people and get things done by creating positive relationships. Perhaps that’s part of the reason it’s been a smooth transition.

Skura is also a local product. Originally from Needham, MA, he graduated from Brandeis University and earned MPH and MBA degrees from Boston University and UMass Amherst, respectively, before joining Cambridge Health Alliance and then the Lahey Clinic, where he was the Vice President for Medicine. His three children were born at BIDMC, as were

Casella’s two grandchildren. He sees the BIDMC Department of Medicine as a new challenge—not only is it bigger, but it really is the proverbial three-legged stool, with tripartite missions of patient care, education and research.

As for stylistic differences between Casella and Skura, there’s less paper and more digital spreadsheets in the department administrator’s office now. “Joanne was very much a paper person,” Skura says. “But I do everything electronically.” Overall, though, the two agree that there are more similarities than differences. They’re both committed to Medicine’s faculty and staff and helping move departmental projects forward. Joanne recalls weekly meetings with division directors. “I could get involved,” she says, “push obstacles out of their way.” As for Skura, he too likes the sense of accomplishment that comes with the job: “There’s a certain gratification that comes with getting things done, whether it’s helping someone fix a problem or reduce a barrier, or just advising people that you meet.”

And retirement? Casella says it was long postponed. When Mark Zeidel, MD, arrived as chair of the department, she promised him six months; that turned into six years. It’s the people she misses now. “I saw some of them every day of my life, and now not at all,” she says. But there’s also been a lot to enjoy during retirement, she says: reading, travel, time with grandchildren, a new house in Maine and soon Latin lessons. “I just love life,” she says. “I always said about my job the one word you could never use to describe it is ‘boring.’ You could never possibly be bored. And I’m not bored now.” With the responsibilities he now shoulders, neither is Skura.

## Ram Chuttani, MD

In 1983, Boston's average winter temperature was 24.8 degrees Fahrenheit. Ram Chuttani, MD, a recent graduate of Maulana Azad Medical College in Delhi, India and a sub-intern at Beth Israel Hospital, was unprepared. A native of India experiencing his first New England winter, he was young, broke and cold.

"I rented a room in Dorchester for \$80 a month, with no heat," Chuttani says. He spent \$8 on a secondhand down coat. "It was so ugly," he recalls, noting that he would take it off a block away from the hospital so no one would see it.

Then one day he realized he didn't have to go home to a freezing room. By working extra hours, he discovered, he could stay in the hospital. "I would take call every other night, rather than every fourth night like the other sub-interns," he says. He'd have a warm on-call room to sleep in and free meals at the cafeteria. "Everyone just thought I was the hardest-working sub-intern they'd ever had!" he laughs.

For Chuttani, though, the room and board were just added perks. His experience as a sub-intern at Beth Israel led to his passion for gastroenterology (GI), which he'd sworn off as a child because it was his father's specialty. "Growing up I said I would be anything but a physician, let alone a gastroenterologist," says Chuttani, now the Director of Interventional Gastroenterology and Endoscopy at BIDMC. A lover of technology, he started out in engineering school but found it too impersonal. Medicine, he soon realized, offered that personal connection he longed for, and GI was an exciting and growing field. "It gave me an opportunity to be innovative in terms of developing new technology, procedures and new ways to manage things," he says.

Throughout his 18 years in BIDMC's Division of Gastroenterology, he has done just that. Along with GI Co-Director Douglas Pleskow, MD, Chuttani has worked with donors Cynthia and Theodore Berenson to create the Theodore and Cynthia Berenson Center for Advanced Endoscopy, an internationally-recognized therapeutic endoscopy center that is leading the way in technology-driven training.

Four years ago, Chuttani installed video monitors in each procedure room and an adjacent conference room where colleagues and trainees could watch live video procedures. Chuttani has since linked these videos to the Internet to be viewed by GI specialists around the world. "I've always had a global mission in terms of bringing advanced endoscopic education to as many people as I can, in as many places as I can," he says. He also heads BIDMC's Advanced Endoscopy Fellowship, a program that reaches out to international students, many of whom, he's proud to report, have gone on to become endoscopy leaders worldwide. They reunite annually at a convention that Chuttani calls "a celebration of how big our family has grown around the world."

On a more local level, Chuttani's work has promoted growth here at BIDMC. When he started in 1995, GI performed only 250 ERCs, an advanced endoscopy procedure, a year; today, they perform nearly 2,000 a year, along with many other innovative procedures, making his program one of the largest centers for advanced endoscopy in the world. According to Arvind Trindade, a 2012–2013 Advanced Fellow, "What you see here in a year, you generally wouldn't see in two or three years in another similar program." In addition to clinical work and teaching, Chuttani has developed innovative technologies to treat gastroesophageal reflux and large colon polyps, and he is now focused on a novel technology to treat obesity.

"I've always believed in first showing what we can do and then asking for resources," Chuttani says. And he appreciates that, in response to his hard work, BIDMC has provided the resources necessary to build a world-class center. "The hospital has a remarkable ability to recognize their centers of excellence and to support them," he notes. Chuttani's come a long way from his heatless room in Dorchester, but his work ethic hasn't changed, and his energy, enthusiasm and creativity have certainly paid off.



I've always had a global mission in terms of bringing advanced endoscopic education to as many people as I can, in as many places as I can."



“You educate patients, you tell them what to expect, you give them hope and we communicate much better.”

## Lisa Fitzgerald, MD

Lisa Fitzgerald, MD, has known some of her patients for decades and most of them for many years. As a rheumatologist with a particular interest in lupus—a disease that can be treated but not cured—she’s found it helpful to build long-term and trusting relationships with her patients. “Caring for people involves engaging them, following them over time,” she says. “Lots of times you don’t figure out what people have right away. It’s not a precise science. There’s an art to it.”

Growing up in Winchester, MA, Fitzgerald says she always knew she wanted to be a doctor: “I liked the idea of a helping profession and I loved science, so a career in medicine was exciting to me.” She attended Tufts Medical School and trained at Massachusetts General and Mount Auburn Hospitals before moving to Connecticut with her husband, a sociology professor, and opening a private rheumatology practice. She kept the practice for four years after completing an extra year of fellowship at the University of Connecticut Health Center, where she became particularly interested in lupus.

When the young Fitzgerald/Swartz family—she and her husband had twins in 1989—moved back to Boston in 1992, she gave up her private practice in favor of a position at the New England Deaconess Hospital. But, she says, “I actually had about 10 patients who followed me up here, which was nice.” Now, two decades later, she says, “Some of them are still with me, and some are not. But it’s been a great trajectory.”

Over the years, Fitzgerald has been a dedicated and active member of the Deaconess and now BIDMC faculty. “I just got my 20-year pin!” she says excitedly, admitting that although she originally thought that she’d stick with private practice, she’s found BIDMC to be a much better fit. “I like the stimulation and the variety. I like the teaching. I like the patients and the colleagues. There’s just no end to interesting projects you can contribute to and learn from.” One thing Fitzgerald has been particularly involved with is BIDMC’s Lupus Center of Excellence. Although she considers herself primarily a clinician, as the center’s director, she has found herself delving into the research and education spheres as well. “I like to explain the importance of our work to patients and other lay people. I like to be an educator in that sense,” she says.

Thanks to Fitzgerald and her team’s outreach to patients, approximately 165 people have enrolled in the center’s scientific research trials thus far. “The ultimate goal [of the studies] is to develop biomarkers for lupus that will help us predict when people are going to have flare-ups, and which patients are going to require more aggressive therapy,” she explains. Increasingly, the goal in rheumatology is more targeted, personalized care, Fitzgerald says. She uses rheumatoid arthritis as an example, noting that television advertisements for medications can be very confusing to patients. “One minute a famous golfer is hitting a hole-in-one and the next minute, they’re hearing about all of the severe side effects,” she says. In reality, there are more than eight of these drugs, and they are all quite effective, Fitzgerald explains. “In the future, we hope to have methods to know which one is best for each patient.”

In the meantime, one thing that Fitzgerald believes is best for most rheumatology patients is a lasting relationship with a health care provider. (And indeed research suggests that continuity of care generally leads to better results for patients.) She thinks of one patient, in particular: a 48-year-old woman whom Fitzgerald has known for 10 years and who has severe lupus affecting multiple organs, including the kidneys and nervous system. The woman struggled through her treatment and suffered depression. But with perseverance and the consistent and long-term help of Fitzgerald and her team, she is now doing well and is back at work. “You educate patients, you tell them what to expect, you give them hope and we communicate much better,” Fitzgerald says. “We have an ongoing dialogue and a caring relationship and that sets the stage for some very good outcomes.”

## Stanley Artap, PhD

Stanley Artap, PhD, is a matchmaker of sorts. Born in the Philippines and raised in Australia, Artap is a gregarious 29-year-old who has played cupid once or twice among friends. But his true passion lies in setting up mice. “Mood lighting, a bit of music...It might take them a few days, but generally within the week they’ll be together,” he laughs. “Actually, there’s not that much else to do in the cage. There’s food, water and each other.”

As a post-doctoral fellow in the laboratory of Peter Oettgen, MD, in the Division of Molecular and Vascular Medicine, Artap works 12-hour days that revolve around mating schedules and the embryonic development of his tiny research subjects. “Every morning, after I’ve set them up, I go down to the mouse house and check for vaginal plugs. Those tell me that they’ve done the deed,” he explains. From there, Artap starts counting days. “I’m interested in early development of the heart, which we start to monitor about nine and a half days after conception.”

Under Oettgen’s tutelage, Artap and a fellow postdoc are studying a gene called ERG, which his team has recently shown to be involved in the development of the heart in mice and quite likely in humans as well. “ERG is specifically expressed in the endothelial cells of the vascular system, and it’s also expressed in the endocardium of the heart. So in addition to the heart phenotype that we see, we can also see vascular defects,” he explains. The team has found that embryos with two “bad copies” of ERG die in utero. Mice with a single “bad copy” may survive but often have congenital heart disease. The team’s research may have important implications for our understanding of heart development and disease in humans. “Some people might be running around normally, but actually have really dodgy hearts because they’ve only got one good copy of ERG,” Artap says.

Artap is interested in the clinical implications of the team’s work. But, he says, “I’ve always been interested in research. I always just love seeing the detail, getting down to the nitty gritty.” This passion first arose while Artap was an undergraduate at the University of Sydney in Australia. As a physiology, anatomy and pathology major, he was particularly inspired by a developmental biology lecturer. “She showed great pictures of mouse embryos and I was hooked,” he says with a smile. He went on to receive his PhD at the Victor Chang Cardiac Research Institute, affiliated with the University of New South Wales. Reflecting on his interest in mice, Artap recalls that when he finished his PhD, his friends had a party for him: “One of the girls made a cake for me in the shape of a mouse. It was so cute, I didn’t want to eat it.”







“Renal can be anything you want. It can be critical care, it can be palliative care, it can be primary care, intensive care, immunology...”

## Melanie Hoenig, MD

Some people are film buffs. Others are sports fans, bookworms or foodies. But Melanie Hoenig, MD, clinical nephrologist at BIDMC and Assistant Professor of Medicine at Harvard Medical School, is wild about kidneys. In fact, her enthusiasm for the organ inspires her to sing, and not just in the shower.

For the last six years, Hoenig has introduced the renal pathophysiology course she teaches to second-year Harvard Medical School students with a song. She takes well-known tunes like “Popular” from *Wicked* or “Cups,” made famous by the movie *Pitch Perfect*, and regales her students with kidney-related lyrics. Her rendition of ABBA’s “Take a Chance on Me” includes, “We could do cases, acids and bases, as long as we’re together!” She laughs, explaining, “People think that renal is really hard and are intimidated by it, so it’s just to show them that I really love this. Plus, I’m not scary!”

Her passion is as catchy as the songs she sings. “Renal can be anything you want. It can be critical care, it can be palliative care, it can be primary care, intensive care, immunology...It can be anything. And that’s why I think it’s so exciting,” she says. She’s particularly fascinated by the basic physiology of the kidney and the role it plays in homeostasis. “The kidneys make sure that all the electrolytes and water are in balance in your body, and that determines the size of all of your cells, the potential for electricity of your heart, your muscles and your nerves. The kidney keeps everything just right.”

Hoenig has made a name for herself as a playful, passionate, committed and effective educator. This year she was the recipient of the Donald O’Hara Faculty Prize for Excellence in Teaching, Harvard’s highest honor for preclinical teaching named in the memory of a beloved HMS professor. In addition to teaching young people, Hoenig has a special clinical interest in the care of young adults. “Perhaps I perceive myself as being young,” Hoenig laughs. “I just think it’s a very challenging time,” she says, and she likes to be there to help her patients through it. She’s also had a long-standing interest in HIV, which

she attributes to training during a time when “HIV was a death sentence in its own right, and certainly a death sentence in the setting of kidney disease.”

Hoenig arrived at Beth Israel Hospital in 1991 as an intern. She served as chief resident and stayed for a fellowship in nephrology. Apart from a few brief stints away from the medical center, Hoenig has been at BIDMC for the better part of 20 years. In 2003, she took a position seeing inpatients at BIDMC and outpatients at Joslin Diabetes Clinic. (She has since consolidated her clinical practice to BIDMC.) It was at that time that she assumed full responsibility for the renal pathophysiology course and also became very involved in the American Society of Nephrology. Most recently, she has become co-chair on a task force to redesign the HMS pre-clerkship curriculum—BIDMC’s Richard Schwartzstein, MD, is the chair—and has taken on the kidney curriculum in the first year physiology course.

Despite her significant professional responsibilities, Hoenig works part-time in order to have time with her three children. “My husband is a vascular surgeon and we thought that one of us should see the children,” she laughs. “Beth Israel Deaconess and the Department of Medicine have been incredibly supportive. They have allowed me to grow and let my career flourish but still find time for my family.” Inspired perhaps by her favorite organ, Hoenig juggles a lot in her life but seems to maintain balance and stability—along with a healthy dose of humor.

## Jazmine Sutton, MD

During their orientation at BIDMC, internal medicine residents are encouraged to provide the kind of care that they would want their own family members to receive. BIDMC's Jazmine Sutton, MD, a second-year resident, is quickly establishing herself as precisely the type of skilled and compassionate physician that the Department of Medicine's residency program strives to create.

As a testament to this, Sutton was recently inducted into the nationally-recognized Gold Humanism Honor Society. Nominations are based, in part, on whom each class of residents say they would want as their doctor or their family's doctor. "It was really an honor to have someone name me," says Sutton. "I felt pretty good about it," she adds modestly.

Sutton grew up in Youngstown, OH, and says she first considered becoming a doctor sometime during junior high school. "My dad is really into biographies and the History Channel," she says. "And he gave me a book by Ben Carson, who was a neurosurgeon at Johns Hopkins, that inspired me to think about medicine." After finishing her undergraduate studies at Duke University followed by two years of pre-med classes, Sutton completed a five-year medical school program at Case Western Reserve University's Cleveland Clinic, which included a year of research. Between her second and third years of medical school, Sutton's daughter, Jada (now five), was born. But Sutton didn't take time off from school during or after her pregnancy. "I was determined," she says. "I was already halfway through!"

Despite the difficulties of raising a child on a medical student's schedule, Sutton was undeterred. "The biggest challenge was losing free time," she says. "You just want to sit down and watch TV and put your feet up, but you can't." She garnered support from friends and family, and she continues to do so four years later. In fact, her mother recently retired and moved from Ohio to Boston to help with childcare. "My mom has been a tremendous, tremendous help," Sutton says. "When I leave home, it's no worries. I can come here and focus on what I need to do for my patients and not worry about my daughter."

Although few of her fellow residents are parents, Sutton feels a sense of camaraderie with her peers, saying, "I can't name anyone I don't look forward to working with." She's also found that the program encourages the same sense of teamwork she has in her home environment. For instance, she's learning to manage communication between all of those involved in a patient's care plan. "It's so helpful," she says, "because you can't do it by yourself. There aren't enough hours in a day."

While Sutton is adeptly balancing her residency and family life, she says she looks forward to finishing her training and starting her own career. She's currently working toward specialties in hematology/oncology and infectious disease with Bela Bashar, MD, at Dimock Community Health Center and Wendy Stead, MD, here at BIDMC, whom she calls her "greatest mentors." As for the future, Sutton says, "If I had a vision, I'd probably spend 80 percent of the time seeing patients, with 20 percent dedicated to some research and some teaching. I'm looking forward to the autonomy to choose my own path and make it what I want."





“People collaboratively work through an idea. It’s not just one person making decisions but several people evaluating the situation.”

## David Ekstrom

It's not hard to imagine David Ekstrom as the Federal Aviation Administration (FAA) air traffic controller that he was for 30 years before retiring in 2009. "Our traffic count was over 5,000 flights a day at the Boston Air Route Traffic Control Center in Nashua, NH, and each flight would average 300 people on it," he explains. As he helped pilots navigate turbulence, avoid collisions and make emergency landings, he was always keenly aware of the lives at stake on each plane.

In his role as a patient and family advisor at BIDMC, Ekstrom has continued working to keep people safe and calm. "In a crisis, clarity is the goal we aim for," he says, describing his work on BIDMC's Intensive Care Unit Patient and Family Advisory Council (ICU PFAC). When people wind up in the ICU, he says, "Whether it's an accident or they suddenly become very ill, it's a crisis environment for a family." Much of the council's work has been aimed at helping families through the experience of having a loved one in the ICU—an experience all too familiar to the Ekstrom family.

In December of 2009, instead of going to Hawaii for Christmas as planned, Ekstrom's 84-year-old father came to BIDMC for triple bypass surgery and wound up spending several days in one of the medical center's Medical Intensive Care Units, MICU7. (At the same time, Ekstrom's father-in-law was also at BIDMC, recovering from a complicated amputation on Farr 3.) In the years since, Ekstrom's father has received regular cardiovascular care at the medical center and has been admitted on two other occasions.

Although 2009-2010 was a difficult year for the family, Ekstrom speaks highly of the care that he and his family received at BIDMC. "Beth Israel Deaconess is beautiful as far as their patient-family interests go. You don't find the paternalistic doctor-patient relationship," he says. But there's always room for improvement, and drawing from his own experience, Ekstrom provides an important patient/family perspective on the ICU PFAC and the Critical Care Executive Committee (CCEC), on which he also serves. For instance, on the morning of his father's surgery, the Ekstrom family found it difficult to find

the ICU. He remembers, "At 6 a.m. it was a little confusing, plus the anxiety of the whole thing." So he was pleased to help the ICU PFAC improve BIDMC's website and develop a mobile site to better provide directions and other important information. With input from Ekstrom and other members, the ICU PFAC has recently initiated several other improvements aimed at helping patients and families, including the renovation of several waiting rooms, the development of a brochure to orient families to the ICU and the rollout of a standardized communication approach to be used by staff with patients and families in one medical ICU.

Ekstrom has enjoyed working with fellow patient and family advisors, explaining, "It's almost a healing process for people who are in it. To be part of that is nice." And he's been impressed by the hospital's commitment to ongoing quality improvement and the work of fellow CCEC members, including Chair Peter Clardy, MD, Director of Medical Critical Care and member of the Division of Pulmonary, Critical Care and Sleep Medicine, and Kristin O'Reilly, RN, MPH, Manager of Critical Care Quality. "They're very intent on keeping the quality of care high and making corrections earlier rather than later," he says.

Ekstrom relates quality improvement efforts here at BIDMC to "cockpit resource management" at the FAA. "Some things are very similar," he says. "People collaboratively work through an idea. It's not just one person making decisions, but several people evaluating the situation." Luckily for the medical center, David Ekstrom is one of the people helping to continuously improve things at BIDMC.

## Anne Nicholson-Weller, MD

### Peter Weller, MD

It happened because of a dog. Anne Nicholson-Weller, MD, and Peter Weller, MD, were postdoctoral fellows in the lab of K. Frank Austen, MD, at Peter Bent Brigham Hospital. Nicholson-Weller brought her dog in on weekends. “The dog didn’t like many people,” she says, “but she liked Peter.” That was 1977, and they have been together ever since.

Nicholson-Weller grew up in the Philadelphia area and had come to the Austen lab from medical school at the University of Pennsylvania—“One of three women in her class,” Weller notes—by way of a medicine residency at Beth Israel Hospital. Weller was Boston born, bred and educated. His father, Thomas Weller, was a faculty member at Boston Children’s Hospital and subsequently at the Harvard School of Public Health. (Thomas Weller shared in the 1954 Nobel Prize in Medicine and Physiology for developing ways to grow the polio virus in culture, a crucial step in the development of polio vaccines.)

The Austen lab was devoted to studies of molecules that mediate inflammation. Nicholson-Weller’s work focused on the complement system, a set of proteins that helps or “complements” the ability of antibodies and cells to clear pathogens. One finding was that a complement inhibitor, decay-accelerating factor, was present on the surface of red blood cells. In the midst of this work, Nicholson-Weller went into labor with their first child. Weller was able to fill in for her, completing a crucial step in the research, which got his name on the paper—this was one of the few times they published together. Nicholson-Weller went on to show that a deficiency of decay-accelerating factor on red cells is important in paroxysmal nocturnal hemoglobinuria (PNH). Before the advent of complement-blocking antibodies, anemia and accelerated blood clotting were typically fatal in PNH.

Weller’s laboratory activities have focused on the study of eosinophils, white blood cells that are involved in allergic reactions and the response to infections—most notably in the reaction to infections with worms and other parasites. In recent years he has endeavored to understand the formation and function of lipid bodies in eosinophils and other leukocytes. He combines this research focus with a clinical interest in parasitic infections—particularly worm infections, an interest he

says stems from part of his father’s early research—and has authored a textbook on tropical infectious diseases.

Nicholson-Weller, meanwhile, has circled back to her early interest in the immune function of red cells. “The human red cell is responsible for clearing all the debris from the vascular system,” she says. “Circulating inflammatory particles like microbes and immune complexes and necrotic debris get tagged with complement and they then adhere to complement receptor-1 on red cells. Red cells do not have Fc receptors to get activated by immune complexes. So red cells deliver this inflammatory baggage to the liver and spleen, where it’s cleared by macrophages. Quietly.”

Both Nicholson-Weller and Weller are members of BIDMC’s Division of Infectious Diseases and Division of Allergy and Inflammation, and Weller serves as chief of both divisions. And when they’re not at work? According to Nicholson-Weller, they enjoy “useful work,” especially at their house in Maine, which has been in her family since 1909. Her grandparents bought the place to remove their family from the recurrent summer polio epidemics in the Boston environs. She refers to noted bacteriologist and college football player William Barry Wood, whose family lived nearby, as “a big influence in getting interested in science and immunology.” It was he who urged her to apply for residency at Beth Israel Hospital because of Howard Hiatt, who was then the chief of medicine. “Great advice,” she says.

Now, they spend their summers and some weekends in Maine, maintaining the house and staying productive. “Peter likes to drive the tractor, build things and fix the electrical circuits,” Nicholson-Weller says. “And the chainsaw!” he adds. Their current dog, Charlie Darwin Weller, has his own idea of useful work: keeping squirrels up in trees and chipmunks in their holes.



“My patients know that if they’re sick, they can find me. They’re my friends, and family.”



## Rong Guan, MD

Chinatown’s South Cove Community Health Center, a BIDMC affiliate, is bustling, vibrant, no-frills and beloved by those who receive care there. The same is often said of Rong Guan, MD, its Co-Medical Director. Guan is “loving, strong, and blunt. Our patients love him and his approach,” says Eugene Welch, the Center’s Executive Director.

Indeed, during Guan’s 12 years at South Cove, he has established himself as a trusted ally and advocate for the community he tirelessly serves.

According to Guan, South Cove’s patients are almost entirely Chinese with a small percentage who are Vietnamese, and its staff is similarly composed. “You know the culture. It’s a lot more efficient that way; you can easily build trust. They feel like you come from the same village as them,” he says. This familiarity helps everyone, Guan notes, recalling a 60-year-old woman who came to see him complaining of dizziness. “If you don’t come from the region, you have no idea what’s going on,” he says, noting that most providers would send her to the emergency room or to get a CT or MRI. “So I come in, and it happens that I know the person and the family. And I say, ‘What is really going on? Don’t give me some nonsense.’” The woman promptly explained that she had gotten into a fight with her daughter. As Guan says, “That’s the culture aspect. My aunts, they all do that. They have an argument and then feel ill.”

Guan was born in Guangzhou, the capital city of the Guangdong province in southern China. He became interested in medicine when, as a young boy, he had a severe allergic reaction to seafood. The doctors gave him an epinephrine injection, and the process intrigued him. “I came home and found some old medical books, and I just found it fascinating,” he recalls.

He met his wife, also a South Cove physician, during medical school at Sun Yat Sen University in Guangzhou. The young couple, along with their families, immigrated to the U.S. in 1987. After training at St. Luke’s Roosevelt in New York in the mid ’90s, Guan moved to Boston and completed a gastroenterology fellowship at Brigham and Women’s Hospital. In 2001, he received an offer to

become South Cove’s Co-Medical Director (alongside psychiatrist Albert Yeung, MD, ScD).

Guan has led several initiatives aimed at improving access for the 29,200 patients who receive care at South Cove’s four sites—two in Chinatown and two in Quincy. He has spearheaded an incentive program that links providers’ salaries to the number of patients they see and the quality of care they provide. There was some initial concern that this program might undermine time spent with each patient, but Guan says the problem solves itself: if a physician treats patients well and spends enough time with them, the patients will return and the physician will be able to earn their pay. Guan says, “The bottom line is, you take good care of them, and they come back to see you. In the Asian community, if you screw up, everybody knows!”

He has also established weekend hours and moved South Cove away from the American by-appointment-only model. “We have open access,” he says, noting that their approach is what many patients are used to from China. He is proud that they don’t have to wait weeks to get an appointment or go to the emergency room for urgent care. Guan himself keeps half of his weekly schedule free for patients in need of immediate care. “My patients know that if they’re sick, they can find me,” he explains. Despite his long and busy days at South Cove, Guan remains remarkably energetic and playful in caring for the patients he has come to know so well. “They’re my friends, and family,” he says. “People ask me how many patients I see and how many hours I work in a typical day. I have no idea. I only know that I see all of them when they need me.”

## Terry B. Strom, MD

Joining the ranks of two Nobel Laureates and many acclaimed leaders before him, Terry B. Strom, MD, is this year's recipient of the Thomas E. Starzl Prize in Surgery and Immunology. Presented by the University of Pittsburgh and named after transplantation icon Thomas E. Starzl, MD, PhD, this award honors outstanding national and international leaders who have made significant contributions to the field of organ transplantation and immunology.

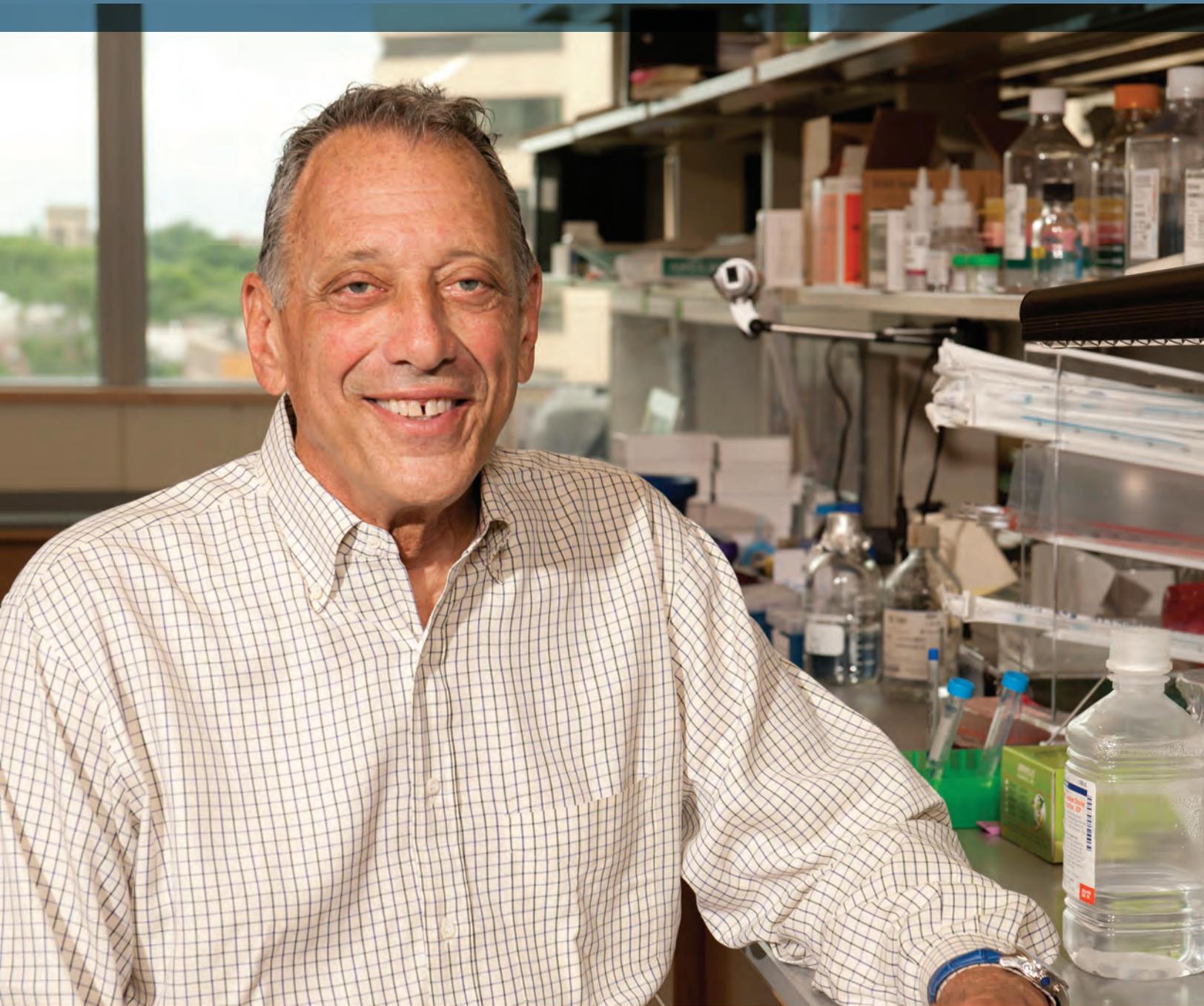
As the Chief of the Division of Transplant Immunology and Director of the Transplant Institute at BIDMC, Strom is being recognized for his work in creating genetically-engineered immunotoxins popularly dubbed “magic bullets”—a fusion of interleukin-2 (IL-2, a T cell growth factor) and a segment of diphtheria toxin (DT). Cells with IL-2 receptors are often associated with various forms of autoimmunity, so the impetus for the research was to find a way to limit their growth and development. In the creation of this IL-2-DT fusion protein, Strom and his partner, John Murphy, PhD, from Boston University, found a way to target cells with specific IL-2 receptors and eliminate them with the attached toxin. The resulting therapy is currently being used to treat leukemia and is in trials for type 1 diabetes and pancreatic islet transplantation. In addition to the IL-2 toxin, he developed anti-interleukin-2 receptor antibodies, which are used for the treatment of transplant recipients and individuals with autoimmune disease. Two other therapeutic approaches from his laboratory are in clinical testing for transplantation and autoimmune diseases.

Despite being an internationally-recognized figure in molecular immunology and transplantation research, Strom is not your typical PhD-touting Harvard investigator. In fact, despite an impressively research-heavy résumé, he never received a bachelor's degree or a PhD. Although he clearly enjoys the surprise this elicits, he explains that during his time at the University of Illinois, it was common for undergraduates to begin medical school during their senior year. Thanks to a youthful decision to take additional history classes instead of a required language course, he never actually graduated from college.

Still, Strom went on to earn his MD and complete a two-year internal medicine residency in Chicago. During that time, he got a job in the laboratories of Victor Pollak and Paul Heller at the University of Illinois College of Medicine, and he found that research was something he enjoyed. So, after a stint in the Air Force during the Vietnam War, he applied for his last year of residency at Beth Israel Hospital because of Boston's rising status as the epicenter of medical research. It was then that his career really began to take shape, he says. After a year at Beth Israel, he started a nephrology fellowship at the Peter Bent Brigham Hospital, now Brigham and Women's Hospital.

“I worked with the founding fathers,” Strom recalls, mentioning some of the biggest names in transplantation, including 1990 Nobel Prize winner Joseph Murray, MD, who conducted the first successful live-donor kidney transplant in 1954. During his years at Peter Bent Brigham, his team treated many of the first successful transplant patients. And, in the emerging field of transplantation, he and his colleagues had little choice but to conduct research alongside their clinical work. They were pioneers in a new field, and they had to ensure that their new methods were safe and effective.

Strom continued to see patients until about 10 years ago when he decided to dedicate his time entirely to research. His current projects focus almost entirely on molecular immunology and experimenting with ways to prevent the rejection of transplanted organs. Reflecting on his path from history-loving undergraduate to esteemed biomedical investigator, he notes, “The research side of it is sort of late. Things wound up going in this direction, but it really was not a plan.” Planned or unplanned, Strom's path continues to be an exciting, enriching and illustrious one.



“I feel like you have one chance to do it right, and if we can work harder to get it right with each patient and family, then that’s what we have to do.”



## Julie Knopp, NP

Throughout her career Julie Knopp, NP, says she has kept several guiding principles close to her heart: “Always meet the patient where they are, do not assume anything and no matter how trivial or strange a patient request or practice may be, if it works for the patient and is not dangerous, just go with the flow.”

A nurse practitioner and the Associate Director of the Inpatient Palliative Care Consult Service, Knopp is also extraordinarily patient and understanding. She recounts the story of a woman hospitalized here at BIDMC. “When her husband entered the room, I said, ‘Hi, I’m here from palliative care,’ and he looked at me with this pained look and said, ‘Oh God, I was hoping you weren’t going to be here.’” He stared out the window for several minutes while Knopp and his wife sat quietly. “Then he turned around and said, ‘Okay,’ and we had this lovely conversation, but that was his immediate reaction.”

Knopp understands this kind of reaction, explaining: “Some people equate palliative care with hospice care and dying, so they’ll meet you and become very upset.” But palliative care is broader—it applies to any life-limiting illness and can be provided over much longer periods of time. “Palliative care addresses issues of physical, psycho-social and spiritual suffering so that people can live life with the highest quality given the underlying illness,” Knopp notes. “So I may be there to help with pain management, but they think I’m there because they’re dying.”

Working in palliative care, Knopp says, can be “both draining and uplifting.” She credits her colleagues with helping her through the tough days. “They’re the people you turn to when you feel like the work is really depleting you.” The other members of the Inpatient Palliative Care Consult Service include Lachlan Farrow, MD, Anya Lepp, MD, Heidi Blake, MD, Cindy Lien, MD, Annie Banks, LICSW, and Chanel Bryant-Alexander. The team members regularly share success stories to help each other stay positive and inspired.

And inspired, Knopp is. One of her more creative approaches involved an equestrian police officer, with whom she worked at Faulkner Hospital’s hospice program. To help bring him comfort and closure, she arranged for his horse to be brought to the hospital so the two could say their good-byes.

Since joining BIDMC’s Inpatient Palliative Care team in 2001 when it first began, Knopp has been instrumental in launching innovative new programs such as the volunteer Reiki therapy project, a Japanese energy healing practice that she says patients love. She also works in close collaboration with BIDMC’s Outpatient Palliative Care team, recently started by Mary Buss, MD. As Knopp explains, poor symptom management on an outpatient basis is a major reason people are later admitted to the hospital. “We all felt very strongly that in order to provide full palliative care we needed to be able to see people before they became desperately ill.”

In recognition of her skill and devotion to her patients, Knopp was the first-ever recipient of the Katherine Swan Ginsburg Faculty Award in 2010. The award is named for a former Beth Israel Hospital medical resident who died of cancer in 1992 and is remembered for her intelligence, courage, dignity and compassion. “I was so touched. If anyone thought I was anywhere near filling her shoes, that was just very special,” Knopp says.

Despite her many achievements, Knopp still has one major goal before she finishes her career: to create a freestanding hospice facility in the city of Boston. “Inner city residents have very limited choices,” she says. Committed to helping patients live—and die—according to their wishes, Knopp wants to provide more local options for end-of-life care. “The same way that people tell stories about the birth of their children, they also tell stories about the death of a loved one,” she says. “I feel like you have one chance to do it right, and if we can work harder to get it right with each patient and family, then that’s what we have to do.”

## Honors and Awards

### Allergy and Inflammation

#### Lisa Spencer, PhD

Named a Fellow in the American Academy of Allergy, Asthma and Immunology and elected to the Board of the International Eosinophil Society.

#### Peter F. Weller, MD

Honored as the 2013 William Bosworth Castle Professor of Medicine.

### Cardiovascular Medicine

#### Zoltan Arany, MD, PhD

Elected to the American Society for Clinical Investigation.

#### Kalon Ho, MD

Received the 2013 Leadership Award of the National Cardiovascular Data Registry, American College of Cardiology Foundation.



#### Mark Josephson, MD

Received the American Heart Association's 2013 Paul Dudley White Award in recognition of a career dedicated to heart rhythm disorders, the education of electrophysiologists worldwide and an unwavering commitment to the practice of medicine.

#### Warren Manning, MD

Elected President of the Intersocietal Commission for Accreditation of Magnetic Resonance Laboratories.

#### Connie Tsao, MD

Received the American Heart Association's Scientist Development Award.

### Endocrinology, Diabetes and Metabolism



#### Mark Andermann, PhD

Named a Pew Scholar in the biomedical sciences, and awarded a Smith Family Award for Excellence in Biomedical Research.

#### James Hennessey, MD

Elected to the American Thyroid Association Board of Directors 2012.

#### Anthony Hollenberg, MD

Elected to the Association of American Physicians.

#### Barbara Kahn, MD

Received the 11th annual Albert Lehninger Lecture Award, from the Johns Hopkins University School of Medicine.

#### Christos Mantzoros, MD

Granted a 2012 Honorary PhD with the title of Doctor Honoris Causa from the Aristotle University of Thessaloniki, Greece.

### Gastroenterology

#### J. Thomas Lamont, MD

Received the 2012 AGA Distinguished Mentor Award for being an exceptional mentor over his 30-year career as an educator.

#### Mark Peppercorn, MB, ChB, PhD

Listed in Castle Connolly's Top Doctors and selected as a Top Gastroenterologist in Boston by the International Association of Healthcare Professionals.

#### Simon Robson, MD

Appointed as Charlotte F. & Irving W. Rabb Chair of Medicine at Harvard Medical School.

#### Jacqueline Wolf, MD

Elected member to the American Gastroenterological Association Academy of Educators.

### General Medicine and Primary Care

#### Carol Bates, MD

Presented the Elnora M. Rhodes Society of General Internal Medicine Service Award.

#### Rafael Campo, MD

Received the Hippocrates Prize for Poetry and Medicine.

#### Bruce Landon, MD, MBA

Elected to the Association of American Physicians.

### Gerontology

#### Alan Abrams, MD, MPH

Named Medical Director of Beth Israel Deaconess Care Organization's Pioneer Accountable Care Organization and named Mentor of the Year by the Geriatrics Fellows.

#### Sharon Inouye, MD, MPH

Selected for the Executive Leadership in Academic Medicine Fellowship by Drexel University and awarded "Fellow" status in the Gerontological Society of America, Health Sciences Section.

#### Douglas Kiel, MD, MPH

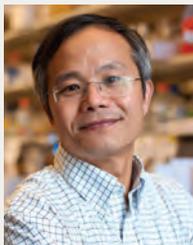
Selected as a Fellow of the American Geriatrics Society and awarded "Fellow" status in the Gerontological Society of America.

### Hematology/Oncology

**Steven Balk, MD, PhD, and Glenn Buble, MD**  
Along with BIDMC colleagues, became one of 10 research teams in the country to receive a \$600,000 Translational Grant from The V Foundation for Cancer Research.

**Stephen Cannistra, MD**  
Appointed Editor-in-Chief of the Journal of Clinical Oncology and Director of Gynecologic Medical Oncology at BIDMC. Also named a Fellow of the American Society of Clinical Oncology for his volunteer service, dedication and commitment to oncology patients.

**Sylvain Gioux, MD, PhD**  
Along with BIDMC colleagues, was awarded a highly competitive Harvard Catalyst grant to develop a NIR fluorescence thoracoscope and translate it into human trials.



**Kun Ping Lu, MD**  
Elected to the Association of American Physicians and named a Fellow of the American Association for the Advancement of Science.

### Hemostasis and Thrombosis

**Robert Flaumenhaft, MD, PhD**  
Appointed Co-Director of the Translational Research Center in Thrombotic and Hemostatic Disorders by the National Heart, Lung and Blood Institute, National Institutes of Health.

**Bruce Furie, MD**  
Appointed Director of the Translational Research Center in Thrombotic and Hemostatic Disorders by the National Heart, Lung and Blood Institute, National Institutes of Health.

### Infectious Diseases

**Douglas Krakower, MD**  
Nominee for the 2012 Junior Investigator Award, Annals of Internal Medicine.

**Peter Weller, MD**  
Named William Bosworth Castle Professor of Medicine, Harvard Medical School.

**Michael Wong, MD**  
Appointed to the Infectious Disease Society of America Clinical Affairs Committee.

### Interdisciplinary Medicine and Biotechnology

**Madalena Costa, PhD**  
Invited to talk on “Quantifying the Complexity of Physiologic Signals: Importance of Multiscale Measures” at the National Institute on Aging Cardiovascular Center.

**Ary Goldberger, MD**  
Invited as plenary speaker on “Complex Systems in Health: Their Breakdown with Disease and Aging” at the Society of Industrial and Applied Mathematics 2012 Annual Meeting. Appointed principal investigator of the National Institutes of Health-sponsored “big data” Research Resource for Complex Physiologic Signals (the first NIH resource of its kind at BIDMC).

### Nephrology

**Lisa Dumouchel, RN/NP**  
Received Lois E. Silverman Nursing Award in Excellence in Advance Practice.

### Pulmonary, Critical Care and Sleep Medicine

**Michael Donnino, MD**  
American Heart Association (AHA) “Heart of Our Mission Award” for passion and dedication as one of the most active of the AHA’s volunteers.

### Rheumatology

**Robert Shmerling, MD, and George Tsokos, MD**  
Listed among the “Best Doctors in America” by Best Doctors.

**George Tsokos, MD**  
Received a 2013 Method of Extension of Research in Time Award from the National Institute of Allergy and Infectious Diseases, National Institutes of Health, and awarded the 2012 Lee C. Howley Sr. Prize for Arthritis Research by the Arthritis Foundation.

### Translational Research

**Steven Freedman, MD, PhD**  
Honor Roll recipient for the Biomedical Science Careers Program for Underrepresented Minorities Program at Harvard Medical School.

**Camilia Martin, MD, MS**  
Keynote speaker for the Wandra L. Jones-Phillips Memorial Lecture at Emory University’s 2013 Neonatology Conference and appointed Chair and Platform Speaker at the Pediatric Academic Societies 2013 Meeting in Washington, DC.

### Transplant Immunology

**Maria Koulmanda, MSc, PhD**  
Appointed President-Elect of the Cell Transplant Society.

**Simon Robson, MD, PhD**  
Appointed as Charlotte F. & Irving W. Rabb Chair of Medicine at Harvard Medical School.

## Honors and Awards *(continued)*

### **Terry B. Strom, MD**

Received the Thomas E. Starzl Prize in Surgery and Immunology from the University of Pittsburgh for significant contributions to the field of organ transplantation and immunology. Also received the 2012 Mentoring Award from the American Society of Transplantation, the 2012 Technology Ventures Office Award and BIDMC's Innovator Award.

### **Center for Virology and Vaccine Research**

#### **Dan Barouch, MD, PhD**

Received the 2012 Oswald Avery Award from the Infectious Disease Society of America and became a 2013 Elected Member to the Association of American Physicians.

#### **Igor Koralnik, MD**

Elected Vice President of the International Society of NeuroVirology.

### **Teaching Awards**

#### **Resident**

#### **Josh Allen-Dicker, MD, and Katie Germansky, MD**

Received the Medicine Quality Council Stoneman Award.

**Neal Biddick, MD, Marc Bouffard, MD, Randal Goldberg, MD, Colleen Kershaw, MD, Sarah Lieber, MD, Sharukh Lokhandwala, MD, Lucian Marts, MD, Jason Matos, MD, Erina Matsumoto, MD, Andrew Parker, MD, Jia Sherman, MD, Aaron Stupple, MD, Jazmine Sutton, MD, and Jessica Taylor, MD**  
Inductees of BIDMC's new residency chapter of the national Gold Humanism Honor Society.

#### **Adam Binder, MD**

Earned the Resident as Teacher Award, which goes to the resident considered by medical students to be an outstanding teacher.

#### **Marc Bouffard, MD**

Earned the Housestaff Award from the Nursing Department.

#### **Meghan Campo, MD, and Darshan Kothari, MD**

Earned the Steven E. Weinberger Award for their contributions to the residency program and for exemplifying the collegial spirit of BIDMC through membership, advocacy and leadership.

#### **Andrew Hale, MD, Gordon Jiang, MD, and David Suskin, MD**

Won the Principal Clinical Experience (PCE) Outstanding Resident Teaching Award.



#### **Elizabeth Housman, MD**

Received the Katherine Swan Ginsburg Resident Award, given to a senior resident who best embodies Ginsburg's qualities of intelligence, courage, dignity and compassion.

#### **Joseph Kupferman, MD**

Earned the Fellow Teaching Award.

#### **Sarah Lieber, MD, and Mary Linton Peters, MD**

Earned the Elmer Hinton Award, intern and junior recipient,

respectively, in recognition of outstanding physician-patient relationships.

#### **Jason Moran, MD, and Alexis Tumolo, MD**

Received the James Tullis Award, intern and junior recipient, respectively, in recognition of intellectual growth and enthusiasm for learning.

#### **Jeff William, MD**

Received the Lowell McGee Award, which is given to the senior resident who contributed the most to educating his/her fellow house officers.

### **Faculty**

**Mary Louis Ashur, MD, Anthony Breu, MD, Garret Cullen, MD, MBBCh, BAO, Katherine Dudley, MD, Sujeet Govindan, MD, Brian Hobbs, MD, Gyanprakash Ketwaroo, MD, Darshan Kothari, MD, Kristin MacArthur, MD, Suma Magge, MD, Eran Metzger, MD, Robert Resnick, MD, Daniel Sullivan, MD, Elena Volozhanina, MD, and Jeffrey William, MD**

Received the Certificate of Excellence in Tutoring at the Daniel D. Federman Teaching Awards Ceremony.

#### **Mary Louise Ashur, MD**

Received the 2012 Beth Israel Deaconess HealthCare Teaching Award, in recognition of outstanding performance as a physician-educator within BIDHC.



**Bruce Bistran, MD, PhD, and  
Russell S. Phillips, MD**  
Received the William Silen Lifetime  
Achievement in Mentoring Award.



**Heidi Blake, MD**  
Received the Katherine Swan  
Ginsburg Faculty Award for  
Humanism in Medicine.

**Alexander Carbo, MD**  
Earned the Charles McCabe, MD,  
Faculty Prize for Excellence  
in Teaching.

**Elizabeth Farrell, MD,  
David Fessler, MD, MPH, and  
Steward Lecker, MD, PhD**  
Named Rabkin Fellows in Medical  
Education for 2012-2013.

**Kelly Ford, MD**  
Earned the Preceptor of the  
Year Award.

**Eli Gelfand, MD**  
Received the Department of  
Medicine Excellence in Ambulatory  
Student Teaching in Subspecialty  
Medicine Award.

**Marian Hannan, DSc, MPH, and  
Sharon K. Inouye, MD, MPH**  
Received Harvard Medical School's  
A. Clifford Barger Excellence in  
Mentoring Award.

**Jonathan Hecht, MD**  
Received the Teaching Award for  
Non-medical Specialties.

**Melanie Hoinig, MD**  
Won the Donald O'Hara Faculty  
Prize for Excellence in Teaching.



**Adolf W. Karchmer, MD**  
Earned the S. Robert Stone Senior  
Award for Excellence in Teaching  
at Beth Israel Deaconess Medical  
Center as well as the Robert C.  
Moellering Teaching Award.

**Kate Krappe, RN, and  
Jed von Freymann, RN**  
Received the Nursing  
Excellence Award.

**Eugene Liu, MD**  
Won the Hospitalist Medicine  
Teaching Award and honored  
as the Teacher of the Year by  
Medicine housestaff at the  
annual HOSPY Awards.

**Long Ngo, PhD**  
Received the Mentorship of  
Resident Research Award.



**Daniele Olveczky, MD**  
Won the Clinician of the Year  
Award from inpatient nurses  
and case managers at the annual  
HOSPY Awards.

**Duane Pinto, MD, MPH**  
Earned the Young Mentor Award.

**Jeremy Richards, MD, MA**  
Received the Herrman  
Blumgart Award.

**Richard Schwartzstein, MD**  
Received the Massachusetts  
Medical Society's Grant V. Rodkey,  
MD Award for his contributions to  
medical students.

**William Taylor, MD**  
Earned the Department  
of Medicine Excellence in  
Ambulatory Student Teaching  
in Primary Care Award.

## Medical Education

### Medicine Housestaff

#### Interns

Kathleen Abalos, MD  
Christopher Aderman, MD  
Savina Aneja, MD  
Brinda Balakrishnan, MD, PhD  
Kevin Bauerle, MD, PhD  
Neal Biddick, MD  
Marc Bouffard, MD  
Stephanie Buss, MD  
Paige Comstock, MD  
Ogechi Dike, MD  
Jessica Donato, MD  
Katherine Dunne, MD, MPH  
Katherine Dyer, MD  
Nasser EL-Okdi, MD  
Stephen Gannon, MD  
Randal Goldberg, MD  
Alimer Gonzalez, MD  
Joseph Grossman, MD  
Angela Higgins, MD

Lindsay Hintz, MD  
Sarah Housman, MD  
Adelina Hung, MD  
Natasha Hunter, MD  
Xiaoming Jia, MD  
Vladimir Kaplinsky, MD  
Colleen Kershaw, MD  
Saikiran Kilaru, MD  
Jenna Koliari, MD  
Jessica Camacho, MD  
Mengyao Liang, MD  
Sarah Lieber, MD  
Sharukh Lokhandwala, MD  
Jinyu Lu, MD  
Jessica Lynch, MD  
Lucian Marts, MD  
Jason Matos, MD  
Erina Matsumoto, MD  
Anar Mikailov, MD  
Alexander Misono, MD, MBA  
Jason Moran, MD  
Christopher Morris, MD  
Joseph Paonessa, MD  
Henry Park, MD, MPH

Andrew Parker, MD  
Hannah Perry, MD  
Yesenia Risech-Neyman, MD  
Daniel Roberts, MD  
Lara Rosenbaum, MD, MHS  
Liana Schweiger, MD  
Masih Shinwa, MD  
Luisa Solis-Cohen, MD  
Conor Stack, MD  
Aaron Stupple, MD  
Daniel Sugai, MD  
Jazmine Sutton, MD  
Robert Tavares, MD  
Jessica Taylor, MD  
Adarsh Thaker, MD  
Mark Tuttle, MD  
David Zisa, MD, PhD

#### Junior Residents

Robin Allister, MD  
Bracken Babula, MD  
Philip Brondon, MD  
James Brush, MD  
Kristin Burke, MD

Jonah Cohen, MD  
Lucas Donovan, MD  
Matthew Frank, MD  
Jason Freed, MD  
Karuna Ganesh, MA,  
MB BCHIR, PhD  
Laurie Gashin, MD  
Robert Gaudet, MD  
Brian Gaudino, MD  
Rebecca Glassman, MD  
Mark Gromski, MD  
Doug Grunwald, MD  
Brian Halbert, MD  
Andrew Hale, MD  
Glenn Hanna, MD  
Zhenghui Jiang, MD, PhD  
Jennifer Kleinman, MD  
Isabel Lamour, MD  
Alison Lennox, MD  
David Lucier, MD  
Shannon McGinty, MD  
Alexandra Migdal, MD  
Ari Moskowitz, MD  
Asa Oxner, MD



*Residency leadership and senior residents.*



*Sorbarikor Piawah.*

Patricia Peter, MD  
 Mary Linton Peters, MD  
 Colin Phillips, MD  
 Julia Pleet, MD  
 Kenneth Ralto, MD  
 Eveleen Randall, MD  
 Sheela Reddy, MD  
 Erin Reigh, MD  
 Jennifer Reske-Nielsen, MD  
 Christopher Richards, MD  
 Daniel Ricotta, MD  
 Roy Sriwattanakomen, MD  
 Nidhi Sukul, MD  
 David Suskin, MD  
 Ara Tachjian, MD  
 Xiao Tan, MD, PhD  
 Alexis Tumolo, MD  
 Haider Warraich, MD  
 Nicole White, MD  
 Anna Wolfson, MD  
 Xiaoyu Yang, MD

#### **Senior Residents**

Josh Allen-Dicker, MD, MPH  
 April Atiba, MD  
 Mariam Ayub, MD  
 Tomer Barak, MD  
 Daniel Barker, MD  
 Kristen Beaver, MD  
 Adam Binder, MD  
 Elizabeth Brem, MD  
 Marie Brubacher, MD  
 Kathleen Buchheit, MD  
 Meghan Campo, MD, MA  
 Pei Chen, MD  
 Michael Coronado, MD, MA  
 Ramsey Daher, MD

Joshua Davis, MD  
 Collen Ford, MD  
 Louise Francois, MD  
 Haven Garber, MD  
 Katherine Germansky, MD  
 Jonathan Goldman, MD  
 Stephen Gordon, MD  
 Sujeet Govindan, MD  
 Jared Grochowsky, MD  
 Brienne Hackman, MD  
 Zena Hassan, MD  
 James Heckman, MD  
 Jennifer Higa, MD  
 Elizabeth Housman, MD  
 Nancy Kang, MD  
 Shanthini Kasturi, MD  
 Dmitriy Kedrin, MD, PhD  
 Andrew Korson, MD  
 Darshan Kothari, MD  
 Sean Levy, MD, MS  
 Kristin MacArthur, MD  
 Joshua Obuch, MD  
 Shalin Patel, MD  
 Bryan Piccirillo, MD  
 David Rahni, MD  
 Kenneth Roach, MD, PhD  
 Michael Roberts, MD, MA  
 Matthew Ronan, MD  
 Elana Rosenthal, MD  
 Robert Salazar, MD  
 Luke Strnad, MD  
 Nishan Tcheckmedjian, MD  
 Joseph Tremaglio, MD  
 Jeff William, MD  
 Katherine Wrenn, MD

#### **Medicine-Dermatology Residents**

Steven Chen, MD, MPH  
 Kudakwashe Maloney, MD  
 Philip Song, MD

#### **Chief Medical Residents**

Douglas Hsu, MD  
 Arash Mostaghimi, MD, MPA  
 Ryan Nall, MD  
 Ben Schlechter, MD  
 Hilary Womble, MD  
 Andrey Zinchuk, MD

### **Leadership**

#### **Internal Medicine Residency Program**

Eileen Reynolds, MD  
*Program Director*

C. Christopher Smith, MD  
*Senior Associate Program Director*

Howard Libman, MD  
*Primary Care Program Director*

Kenneth Mukamal  
*Associate Program Director*

Anjala Tess, MD  
*Associate Program Director*

Anita Vanka, MD  
*Associate Program Director*

Julius Yang, MD, PhD  
*Associate Program Director*

Drew Thabault  
*Education Manager*

#### **Continuing Medical Education**

Martin Abrahamson, MD  
 Sanjiv Chopra, MD  
 Mark Zeidel, MD

### **Clinical Fellows in Medicine**

#### **Cardiovascular Medicine**

Craig Benson, MD, MS  
 Douglas Brinkley, MD  
 Sara Carroll, MD  
 Stuart Chen, MD  
 Fernando Contreras Valdes, MD  
 Ricardo Esquitin, MD, MSc  
 Lisa Fleming, MD  
 Katie Hawthorne, MD  
 Yehoshua Levine, MD  
 Shweta Motiwala, MD  
 Rupal Parekh, MD  
 Apranta Deka Patel, MBBS, MD  
 Pablo Quintero Pinzon, MD  
 Jason Roh, MD, MHS  
 Christopher Song, MD  
 Aferdita Spahillari, MD  
 Daniel Steinhaus, MD  
 Jonathan Waks, MD

#### **Cardiac Non-Invasive**

Michael Gavin, MD  
 Erin Rafferty, MD  
 Satya Rao, MD  
 Maryann Williamson, MD

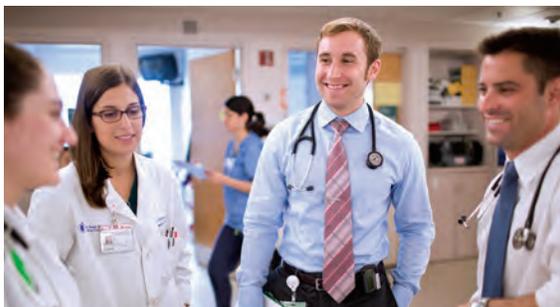


*Darshan Kothari, MD, Liana Schweiger, MD, Cindy Cunningham, NP, and Robb Kociel, MD (left to right).*

#### **Cardiology Interventional**

Anne-Marie Anagnostopoulos, MD  
 Bilal Aijaz, MD  
 Anjan Chakrabarti, MD  
 Christopher Meduri, MD, MPH  
 Eric Osborn, MD, PhD  
 Yuri Pride, MD  
 Adam Zucker, MD

## Medical Education *(continued)*



Jenna Koliani, MD, Anna Wolfson, MD, JT Redshaw and Russell Kerbel, MD (left to right).

### Cardiac Electrophysiology

Ethan Ellis, MD  
Adam Fein, MD  
Maheer Gandhavadi, MD  
Yonathan Melman, MD, PhD  
Kay Lee Park, MD  
Michael Rosenberg, MD  
Joshua Silverstein, MD  
Alex Tan, MD

### Endocrinology, Diabetes and Metabolism

David Baidal, MD  
Eleanna De Fillipis, MD, PhD  
Tahereh Ghorbani, MD  
Zhiheng He, MD, PhD  
Brian O'Neill, MD, PhD  
Giulio Romeo, MD  
Yan Tan, MD, PhD  
Elena Toschi, MD

### Gastroenterology

Alan Bonder, MD  
Maria Catana, MD  
Jacob Dickstein, MD  
Joseph Feuerstein, MD  
Sagar Garud, MD  
Maggie Ham, MD  
Toufic Kabbani, MD  
Avinash Ketwaroo, MD  
Rakhi Kheraj, MD  
Suma Magge, MD  
Jose Mella, MD  
Vilas Patwardhan, MD  
Parham Safaie, MD  
Neil Sengupta, MD  
Saurabh Sethi, MD  
Sveta Shah, MD  
Eoin Slattery, MD

Lindsey Surace, MD  
Elliot Tapper, MD  
Sumeet Tewani, MD  
Arvind Trindade, MD  
Rohini Vanga, MD  
Byron Vaughn, MD  
Talia Zenlea, MD

### General Medicine and Primary Care

Bradley Crotty, MD  
Michelle Dosssett, MD, PhD  
Kelly Graham, MD  
John Mafi, MD

### Gerontology

Azadeh Assarpour, MD  
Innokentiy Bakaev, MD  
Andrea Berg, MD  
Alexandra Christodoulou, MD  
Tammy Hshieh, MD  
Caroline Kim, MD  
Raghavendra Mulinti, MD  
Suraj Rasanania, MD  
Margarita Reyes, MD  
Rotem Tellem, MD

### Hematology/Oncology

Allison Ackerman, MD  
Alexandra Bailey, MD  
Chiara Battelli, MD, PhD  
Alexandra Drakaki, MD  
Anasuya Gunturi, MD  
Samuel Klempner, MD  
Brittany Lee, MD  
Kathleen Mahoney, MD, PhD  
Lourdes Mendez, MD, PhD  
Eirini Pectasides, MD  
Ioannis Politikos, MD

Jamie Potosek, MD  
Adam Rojan, MD  
Benjamin Schlechter, MD  
Anish Sharda, MBBS  
Neeharika Srivastava, MD  
Peter Yang, MD  
Jessica Zerillo, MD

### Infectious Diseases

Roger Araujo Castillo, MD  
Westyn Branch Elliman, MD  
Spyridon Chalkias, MD  
Yehuda Cohen, MD  
Apara Davé, MD  
Claudia Denkinger, MD, PhD  
Brian Hollenbeck, MD  
Sachin Jain, MD, MPH  
Douglas Krakower, MD  
Mary LaSalvia, MD  
Sarah Moore, MD  
Simi Padival, MD  
Radha Rajasingham, MD  
Graham Snyder, MD  
Rebecca Zash, MD

### Nephrology

Christina Chen, MD  
Peter Czarniecki, MD  
Neetika Garg, MD  
Arvind Goel, MD  
Katherine Lynch, MD  
Eli Khankin, MD  
Joseph Kupferman, MD  
Matthew Niemi, MD  
Ali Poyan Mehr, MD  
Rupam Ruchi, MD

### Renal Transplant

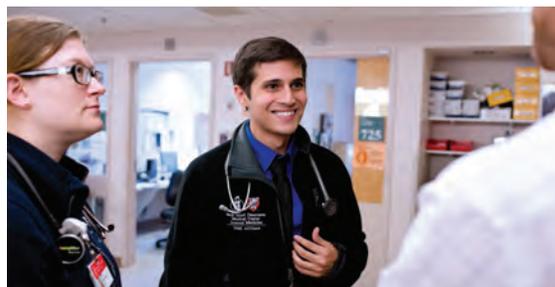
Eliyahu Khankin, MD

### Pulmonary, Critical Care and Sleep Medicine

Neil Ahluwali, MD  
Jeremy Beitler, MD  
Robert Busch, MD  
George Cheng, MD, PhD  
Jessica Cooksey, MD  
Paul Dieffenbach, MD  
Katherine Dudley, MD  
Adel El Boueiz, MD  
Adam Gaffney, MD  
Jason Griffith, MD  
Kathryn Hibbert, MD  
Brian Hobbs, MD  
Douglas Hsu, MD  
Rachel Knipe, MD  
Puja Kohli, MD  
Daniela Lamas, MD  
Barbara LeVarge, MD  
Jakob McSparron, MD  
Sydney Montesi, MD  
Peter Moschovis, MD  
Crystal North, MD  
William Oldham, MD  
Rachel Putman, MD  
Farbod Rahaghi, MD  
Krishna Reddy, MD  
Mary Rice, MD  
Elisabeth Riviello, MD  
Hilary Womble, MD  
Nishi Bhopal, MD  
Mandana Mahmoudi, MD  
Matthew Brock, MD

### Rheumatology

Amy Devlin, MD  
Irina Gavanescu-Stockton, MD  
Jonathan Hausmann, MD  
Christine Konya, MD  
Ziv Paz, MD



Rein Reigh, MD, and Nasser El-Okdi, MD.

## Selected Publications

### Allergy and Inflammation

Akuthota P, Melo RCN, Spencer LA, Weller PF. MHC Class II and CD9 in human eosinophils localize to detergent-resistant membrane microdomains. *Am J Respir Cell Mol Biol* 2012; 46:188-95.

Akuthota P, Ueki S, Stanislau J, Weller PF. Human eosinophils express functional CCR7. *Am J Respir Cell Mol Biol* 2013; 48:758-64.

Shamri R, Melo RCN, Young KM, Bivas-Benita M, Xenakis JJ, Spencer LA, Weller PF. CCL11 elicits secretion of RNases from mouse eosinophils and their cell-free granules. *FASEB J* 2012; 26:2084-93.

Shamri U, Young KM, Weller PF. PI3K, ERK, p38 MAPK and integrins regulate CCR3-mediated secretion of mouse and human eosinophil-associated RNases. *Allergy* 2013; 68:880-9.

Ueki S, Melo RCN, Ghiran I, Spencer LA, Dvorak AM, Weller PF. Eosinophil extracellular DNA trap cell death mediates lytic release of free secretion competent eosinophil granules. *Blood* 2013; 121:2074-83.

### Cardiovascular Medicine

Das S, Aiba T, Hessler K, Rosenberg M, Xiao C, Quintero P, Ottaviano FG, Morissette M, del Monte F, Begley M, Cantley LC, Ellinor PT, Tomaselli GF, Rosenzweig A. The pathological role of SGK1 in adverse ventricular remodeling. *Circulation* 2012; 126:2208-19.

Fein AS, Shvilkin A, Shah D, Haffajee CI, Das S, Kumar K, Kramer DB, Zimetbaum PJ, Buxton AE, Josephson ME, Anter E. Treatment of obstructive sleep apnea reduces the risk of atrial fibrillation recurrence following catheter ablation. *J Am Coll Cardiol* 2013; 62:300-5.

Gibson CM, Chakrabarti AK, Mega J, Bode C, Bassand JP, Verheugt FW, Bhatt DL, Goto S, Cohen M, Mohanavelu S, Burton P, Stone G, Braunwald E; ATLAS-ACS 2 TIMI 51 Investigators. Reduction of stent thrombosis in patients with acute coronary syndromes treated with Rivaroxaban in ATLAS-ACS 2 TIMI 51. *J Am Coll Cardiol* 2013; 62:286-90.

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### Clinical Informatics

Lakhani KR, Boudreau KJ, Loh PR, Backstrom L, Baldwin C, Lonstein E, Lydon M, MacCormack A, Arnaout RA, Guinan EC. Prize-based contests can provide solutions to computational biology problems. *Nat Biotechnol* 2013; 31:108.

Cismondì F, Fialho AS, Vieira S, Reti S, Sousa J, Finkelstein S. Missing data in medical databases: impute, delete or classify? *Artif Intell Med* 2012; 58:63-72.



Geissbuhler A, **Safran C**, Buchan I, Bellazzi R, Labkoff S, Eilenberg K, Leese A, Richardson C, Mantas J, Murray P, De Moor G. Trustworthy reuse of health data: a transnational perspective. *Int J Med Inform* 2012; 8:1-9.

Henning D, Horg S, Sanchez L. Evaluating how electronic charting affects resident productivity. *Intern Emerg Med* 2013; 8:169-72.

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### Clinical Nutrition

Hoffer LJ, Bistrrian BR. Appropriate protein provision in critical illness: a systematic and narrative review. *Am J Clin Nutr* 2012; 96:591-600.

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Kalish BT, Le HD, Gura KM, Bistrrian BR, Puder M. A metabolomic analysis of two intravenous lipid emulsions in a murine model. *PLoS One* 2013; 8:e59653.

Le HD, Fallon EM, Kalish BT, de Meijer VE, Meisel JA, Gura KM, Nose V, Pan AH, Bistrrian BR, Puder M. The effect of varying ratios of docosahexaenoic acid and arachidonic acid in the prevention and reversal of biochemical essential fatty acid deficiency in a murine model. *Metabolism* 2013; 62:499-508.

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### Endocrinology, Diabetes and Metabolism

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Hartzband P, Groopman JE. There is more to life than death. *N Engl J Med* 2012; 367:987-9.

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Kang S, Akerblad P, Kiviranta R, Gupta RK, Kajimura S, Griffin MJ, Min J, Baron R, Rosen ED. Regulation of early adipose commitment by Zfp521. *PLoS Biol* 2012; 10:e1001433.

Kong D, Tong QC, Ye C, Koda S, Fuller PM, Krashes M, Vong L, Ray R, Olson D, Lowell BB. GABAergic RIP-Cre neurons in the arcuate nucleus selectively regulate energy expenditure. *Cell* 2012; 151:645-57.

### Experimental Medicine

Birrane G, Li H, Yang S, Tachado S, Seng S. Cigarette smoke induces nuclear translocation of heme oxygenase 1 (HO-1) in prostate cancer cells: nuclear HO-1 promotes vascular endothelial growth factor secretion. *Int J Oncol* 2013; 42:1919-28.

Birrane G, Mulvaney EP, Pal R, Kinsella BT, Kocher O. Molecular analysis of the prostacyclin receptor's interaction with the PDZ1 domain of its adaptor protein PDZK1. *PLoS One* 2013; 8:e53819.

Maor Y, Yu J, Kuzontkoski PM, Dezube BJ, Zhang X, Groopman JE. Cannabidiol inhibits growth and induces programmed cell death in Kaposi sarcoma-associated herpes virus-infected endothelium. *Genes Cancer* 2012; 3:512-20.

Nagarala T, Chen L, Balasubramanian A, Groopman JE, Ghoshal K, Jacob ST, Leask A, Brigstock DR, Anand AR, Ganju RK. Activation of the connective tissue growth factor (CTGF)-transforming growth factor  $\beta$  1 (TGF  $\beta$  1) axis in hepatitis C virus-expressing hepatocytes. *PLoS One* 2012; 7:e46526.

Prasad A, Kuzontkoski PM, Shrivastava A, Zhu W, Li DY, Groopman JE. Slit2N/Robo1 inhibit HIV-gp120-induced migration and podosome formation in immature dendritic cells by sequestering LSP1 and WASp. *PLoS One* 2012; 7:e48854.

### Gastroenterology

Doherty GA, Bai A, Hanidziar D, Longhi MS, Lawlor GO, Putheti P, Cszimadia E, Nowak M, Cheifetz AS, Moss AC, Robson SC. CD73 is a phenotypic marker of effector memory Th17 cells in inflammatory bowel disease. *Eur J Immunol* 2012; 42:3062-72.

Junker Y, Zeissig S, Kim SJ, Barisani D, Wieser H, Leffler DA, Zevallio V, Libermann TA, Dillon S, Freitag TL, Kelly CP, Schuppan D. Wheat amylase trypsin inhibitors drive intestinal inflammation via activation of toll-like receptor 4. *J Exp Med* 2012; 209:2395-408.

## Selected Publications *(continued)*

Kabbani TA, Kelly CP, Betensky RA, Hansen J, Pallav K, Villafuerte J, Vanga RR, Mukherjee R, Novero A, Dennis M, Leffler DA. Patients with celiac disease have a lower prevalence of non-insulin dependent diabetes mellitus and metabolic syndrome. *Gastroenterology* 2013; 144:912-7.

Kornek M, Lynch M, Mehta SH, Lai M, Exley M, Afdhal N, Schuppan D. Circulating microparticles as disease-specific biomarkers of severity of inflammation in patients with hepatitis C or nonalcoholic steatohepatitis. *Gastroenterology* 2012; 143:448-58.

Kuramitsu K, Sverdlow DY, Liu SB, Csizmadia E, Burkly L, Schuppan D, Hanto DW, Otterbein LE, Popov Y. Failure of fibrotic liver regeneration in mice is linked to a severe fibrogenic response driven by hepatic progenitor cell activation. *Am J Pathol* 2013; 183:182-94.

### General Medicine and Primary Care

Delbanco T, Walker J, Bell SK, Darer JD, Elmore JG, Farag N, Feldman HJ, Mejilla R, Ngo L, Ralston JD, Ross SE, Trivedi N, Vodicka E, Leveille SG. Inviting patients to read their doctors' notes: a quasi-experimental study and a look ahead. *Ann Intern Med* 2012; 157:461-70.

Herzig SJ, Rothberg MB, Feinbloom DB, Howell MD, Ho KK, Ngo LH, Marcantonio ER. Risk factors for nosocomial gastrointestinal bleeding and use of acid-suppressive medication in non-critically ill patients. *J Gen Intern Med* 2013; 28:683-90.

Joosten MM, Pai JK, Bertoia ML, Rimm EB, Spiegelman D, Mittleman MA, Mukamal KJ. Associations between conventional cardiovascular risk factors and risk of peripheral artery disease in men. *JAMA* 2012; 308:1660-7.



**Landon BE**, Keating NL, Barnett ML, Onnella JP, Paul S, O'Malley AJ, Keegan T, Christakis NA. Variation in patient-sharing networks of physicians across the United States. *JAMA* 2012; 308:265-73.

Saczynski JS, Marcantonio ER, Quach L, Fong TG, Gross A, Inouye SK, Jones RN. Cognitive trajectories after postoperative delirium. *N Engl J Med*. 2012; 367:30-9.

### Genetics

Ito K, Carracedo A, Weiss D, Arai F, Ala U, Avigan DE, Schafer ZT, Evans RM, Suda T, Lee CH, Pandolfi PP. A PML-PPAR pathway for fatty acid oxidation regulates hematopoietic stem cell maintenance. *Nature Medicine* 2012; 18:1350-8.

Lunardi A, Ala U, Epping MT, Salmena L, Clohessy JG, Webster KA, Wang G, Maxxucchelli R, Bianconi M, Stack EC, Lis R, Patnaik A, Cantley LC, Bubley G, Cordon-Cardo C, Gerald WL, Montironi R, Signoretti S, Loda M, Nardella C, Pandolfi PP. A co-clinical approach identifies mechanisms and potential therapies for androgen deprivation resistance in prostate cancer. *Nature Genetics* 2013; 45:747-55.

Song SJ, Ito K, Ala U, Kats L, Webster K, Sun SM, Jongen-Lavrencic M, Manova-Todorva K, Teruya-Feldstein J, Avigan DE, Delwel R, Pandolfi PP. The oncogenic microRNA miR-22 targets the TET2 tumor suppressor to promote hematopoietic stem cell self-renewal and transformation. *Cell Stem Cell* 2013; 13:87-101.

Song SJ, Poliseno L, Song MS, Ala U, Kats L, Beringer G, Webster K, Yuan X, Brock JE, Richardson AL, Cantley LC, Pandolfi PP. MicroRNA-antagonism regulates breast

cancer stemness and metastasis via TET-family-dependent chromatin remodeling. *Cell* 2013; 154:311-24.

Wang G, Lunardi A, Zhang J, Chen Z, Ala U, Webster KA, Tay Y, Gonzalez-Billalabeitia E, Egia A, Shaffer DR, Carver B, Liu XS, Taulli R, Kuo WP, Nardella C, Signoretti S, Cordon-Cardo C, Gerald WL, Pandolfi PP. Zbtb7a suppresses prostate cancer through repression of a Sox9-dependent pathway for cellular senescence bypass and tumor invasion. *Nature Genetics* 2013; 45:739-746.

### Gerontology

D'Agata EMC, Loeb MB, Mitchell SL. Challenges assessing nursing home residents with advanced dementia for suspected urinary tract infections. *J Am Geriatr Soc* 2013; 61:62-6.

Fong TG, Jones RN, Marcantonio ER, Tommet D, Gross AL, Habtemariam D, Schmitt E, Yap L, Inouye SK. Adverse outcomes after hospitalization and delirium in persons with Alzheimer Disease. *Ann Intern Med* 2012; 156:848-56.

Hajjar I, Chui H, Hart M, Novak V, Lipsitz L. Antihypertensive therapy and cerebral hemodynamics in executive mild cognitive impairment: results of a pilot randomized clinical trial. *J Am Geriatr Soc* 2013; 61:194-201.

Koller DL, Zhen HF, Karasik D, Yerges-Armstrong L, Liu CT, McGuigan F, Kemp JP, Giroux S, Lai D, Edenberg HJ, Peacock M, Czerwinski SA, Choh AC, McMahon G, St Pourcain B, Timson NJ, Lawlor DA, Evans DM, Towne B, Blanero J, Carless MA, Kammerer C, Goltzman D, Kovacs CS, Prior JC, Spector TD, Rousseau F, Tobias JH, Akesson K, Econs MJ, Mitchell BD, Richards JB, Kiel DP, Foroud T. Meta-analysis of genome-wide studies identifies WNT16 and ESR1 SNPs associated with bone mineral density in premenopausal women. *J Bone Miner Res* 2013; 28:547-58.

Manor B, Hu K, Peng CK, Lipsitz L, Novak V. Posturo-respiratory synchronization: effects of aging and stroke. *Gait Posture* 2012; 36:254-9.

### Hematology/Oncology

Bubley GJ, Bloch BN, Vazquez C, Genega E, Holupka E, Rofsky N, Kaplan I. Accuracy of endorectal magnetic resonance/transrectal ultrasound fusion for detection of prostate cancer during brachytherapy. *Urology* 2013; 81:1284-9.

Costa DB. Identification of somatic genomic alterations in circulating tumors cells: another step forward in non-small-cell lung cancer? *J Clin Oncol* 2013; 31:2236-9.

Drakaki A, McDermott DF. Novel immunotherapies in GU malignancies. *Curr Oncol Rep* 2013; 15:224-31.

Rosenblatt J, Avivi I, Vasir B, Uhl L, Munshi NC, Katz T, Dey B, Somaiya P, Mills H, Campigotto F, Weller E, Joyce R, Levine J, Tzachanis D, Richardson PG, Laubach J, Raju NS, Boussiotis VA, Yuan YE, Bisharat L, Held V, Rowe JM, Anderson KC, Kufe D, Avigan DE. Vaccination with dendritic cell/tumor fusions following autologous stem cell transplant induces immunologic and clinical responses in multiple myeloma patients. *Clin Cancer Res* 2013; 19:3640-8.

Yuan X, Cai C, Chen S, Chen S, Yu Z, Balk SP. Androgen receptor functions in castration-resistant prostate cancer and mechanisms of resistance to new agents targeting the androgen axis. *Oncogene* 2013. [Epub ahead of print]

### Hemostasis and Thrombosis

Bauer KA. Dabigatran, ROCKET atrial fibrillation, and beyond: basic science, mechanisms of agents, monitoring, and reversal. *Stroke* 2013; 44:538-40.

Fuster V, Bhatt DL, Califf RM, Michelson AD, Sabatine MS, Angiolillo DJ, Bates ER,

Cohen DJ, Collier BS, Furie B, Hulot JS, Mann KG, Mega JL, Musunuru K, O'Donnell CJ, Price MJ, Schneider DJ, Simon DI, Weitz JI, Williams MS, Hoots WK, Rosenberg YD, Hasan AA. Guided antithrombotic therapy: current status and future research direction: report on a National Heart, Lung and Blood Institute working group. *Circulation* 2012; 126:1645-62.

Kolyada A, De Biasio A, Beglova N. Identification of the binding site for fondaparinux on Beta2-glycoprotein I. *Biochim Biophys Acta* 2013; 1834:2080-8.

Koseoglu S, Dilks JR, Peters CG, Fitch-Tewfik JL, Fadel NA, Jasuja R, Italiano JE Jr, Haynes CL, Flaumenhaft R. Dynamins-related protein-1 controls fusion pore dynamics during platelet granule exocytosis. *Arterioscler Thromb Vasc Biol* 2013; 33:481-8.

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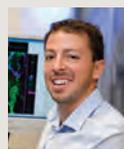
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## Medical Education

### Resident

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# Research Funding AY 2012-2013

Division	Funding Source	Direct Award	Indirect Award
		July 2012 through June 2013	July 2012 through June 2013
<b>Allergy and Inflammation</b>	Federal	963,916.00	624,499.50
	Non-Federal	82,397.28	12,097.45
<b>Cardiovascular Medicine</b>	Federal	6,254,031.97	2,445,456.01
	Non-Federal	4,248,302.55	872,698.68
<b>Clinical Informatics</b>	Federal	432,991.49	51,185.81
	Non-Federal	18,260.87	2,739.13
<b>Clinical Nutrition</b>	Federal	38,481.00	26,936.00
	Non-Federal	99,797.52	–
<b>Endocrinology, Diabetes and Metabolism</b>	Federal	5,685,809.94	3,265,856.94
	Non-Federal	3,492,955.35	297,845.09
<b>Experimental Medicine</b>	Federal	1,240,930.08	830,121.92
	Non-Federal	920,220.31	8,500.00
<b>Gastroenterology</b>	Federal	2,774,753.90	1,243,286.01
	Non-Federal	2,793,016.88	721,738.13
<b>General Medicine and Primary Care</b>	Federal	3,986,352.19	985,581.96
	Non-Federal	3,910,801.54	415,568.32
<b>Genetics</b>	Federal	2,025,147.12	1,349,507.58
	Non-Federal	1,078,422.26	72,072.74
<b>Gerontology</b>	Federal	1,341,026.65	152,782.15
	Non-Federal	360,340.78	17,672.40
<b>Gerontology/Hebrew SeniorLife</b>	Federal	4,660,954.00	1,376,107.00
	Non-Federal	471,297.00	64,654.00
<b>Hematology/Oncology</b>	Federal	9,631,674.02	3,771,035.14
	Non-Federal	7,631,890.39	1,139,150.76
<b>Hemostasis and Thrombosis</b>	Federal	1,944,080.97	1,443,291.23
	Non-Federal	208,660.00	675.00
<b>Immunology</b>	Federal	3,199,946.81	916,512.24
	Non-Federal	57,037.70	–

## Research Funding AY 2012-2013

Division	Funding Source	Direct Award	Indirect Award
		July 2012 through June 2013	July 2012 through June 2013
Infectious Diseases	Federal	1,676,060.44	692,302.09
	Non-Federal	234,979.03	17,471.57
IMBIO	Federal	1,670,811.18	906,526.51
	Non-Federal	1,380,661.28	82,565.99
Molecular and Vascular Medicine	Federal	1,973,203.27	1,155,364.47
	Non-Federal	1,029,711.27	22,524.70
Nephrology	Federal	2,532,138.90	1,196,195.30
	Non-Federal	2,125,181.76	236,014.35
Pulmonary, Critical Care and Sleep Medicine	Federal	685,710.08	457,620.70
	Non-Federal	575,705.16	64,104.84
Rheumatology	Federal	2,912,156.24	1,908,293.10
	Non-Federal	190,335.22	26,774.73
Signal Transduction	Federal	769,207.21	750,403.01
	Non-Federal	3,074,804.28	761,321.70
Translational Research	Federal	3,854,379.21	–
	Non-Federal	8,000.00	–
Transplant Immunology	Federal	1,031,661.21	643,973.31
	Non-Federal	583,673.25	177,149.34
Virology and Vaccine Research	Federal	26,097,913.47	6,121,368.97
	Non-Federal	13,546,795.02	1,922,338.80
	Total Federal	87,383,337.35	32,314,206.95
	Total Non-Federal	48,123,246.70	6,887,023.03
	<b>GRAND TOTAL</b>	<b>135,506,584.05</b>	<b>39,201,229.98</b>

Total Research Funding  
174,707,814.03



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