



UPSTATE

MEDICAL UNIVERSITY

SYRACUSE, NEW YORK

RESEARCH & CLINICAL SERVICES

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Children's Hospital Attracts Two Pediatric Surgeons

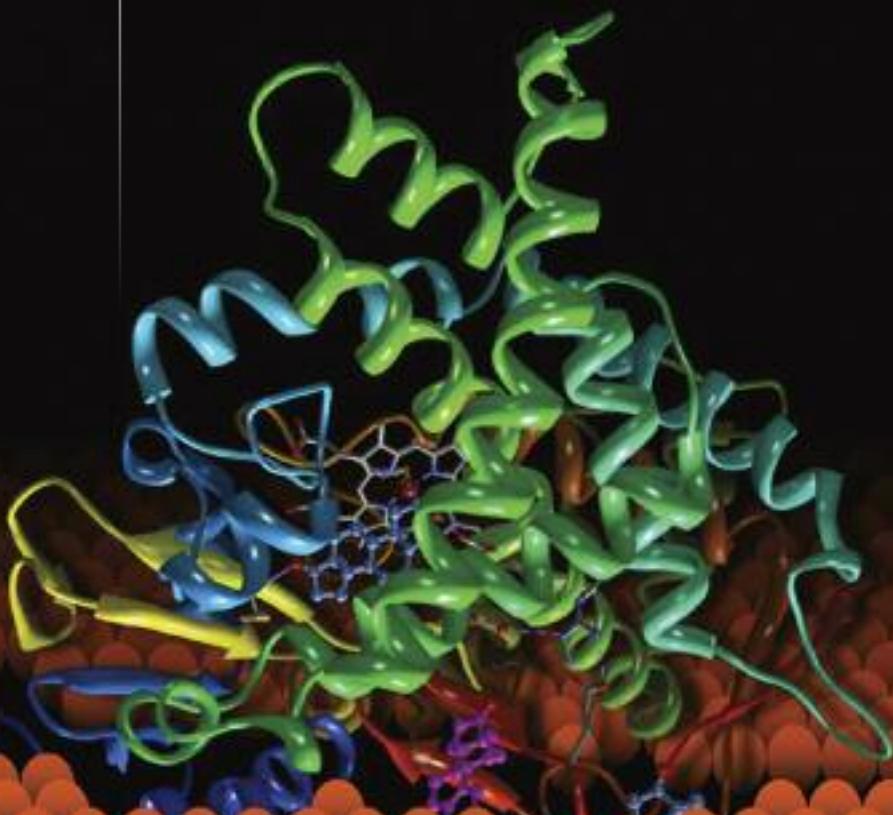
In a year when only 30 pediatric surgeons across the nation completed training, two members of this elite group have been recruited to Upstate: Kim Mendelson MD/PhD, from St. Christopher's Hospital for Children in Philadelphia and Tamer Ahmed MD, from Arkansas Children's Hospital in Little Rock.

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Key Breast Cancer Researcher Joins Upstate

Recently appointed Professor of Pharmacology Debashis Ghosh PhD, internationally acclaimed for discovering the structure and mechanism of the enzyme which converts androgen to estrogen, has joined the Upstate Cancer Research Institute.

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Knowing changes everything.SM

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Kim Mendelson MD/PhD



UPSTATE WELCOMES TWO NEW PEDIATRIC SURGEONS

Two pediatric surgeons with specialization in numerous areas, including oncology, neonatal, trauma and intestinal disorders have joined Upstate Golisano Children's Hospital. Kim Mendelson MD/PhD and Tamer A. Ahmed MD will also join the faculty at Upstate Medical University.

Michael Ratner MD, Upstate's pediatric surgery division chief, said Upstate's ability to attract two physicians from this year's graduating class of pediatric surgery residents, about 30 individuals nationwide, speaks volumes. "Everyone at Upstate, from our new surgery chair, to the outstanding pediatrics faculty and health care team, in addition to this outstanding facility, played a key role in landing these talented pediatric surgeons."

Drs. Mendelson and Ahmed said their decisions to join Upstate were in part influenced by the presence of the Upstate Golisano Children's Hospital. Both surgeons have worked at children's hospitals previously.

Tamer A. Ahmed MD

"The presence of a children's hospital – and the doubling of its pediatric surgical beds – underscores a community's commitment to providing extraordinary care for children and their families," Dr. Mendelson said. "I'm delighted to have the opportunity to care for children and their families in such a first-rate facility."

Dr. Ahmed said he was impressed by the facility, but also the medical staff. "Upstate Golisano Children's Hospital is a remarkable facility in its design, but more impressive is the dedication of the medical team that cares for kids in this fine facility," he said. "I look forward to caring for children from all across this region."

Three Fellowships

Dr. Mendelson, who was raised in the Boston area, specializes in pediatric surgical oncology as well as prenatal surgery, neonatal surgery, minimally invasive pediatric surgery and surgery for intestinal disorders.

She most recently completed her pediatric surgical residency at St. Christopher's Hospital for Children in Philadelphia, a 189-bed hospital affiliated with Drexel University College of Medicine and Temple University School of Medicine. Dr. Mendelson also completed a pediatric surgery research fellowship (2007-2008) at St. Christopher's Hospital for Children.

She also completed a pediatric surgery fellowship (2005-2007) at the University of Louisville, a fetal surgery fellowship (2004-2005) at the Cincinnati Children's Hospital Medical Center and a general surgery residency (1998-2004) at

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Pediatric Surgeons – continued from pg. A3

University Health Systems of Eastern Carolina Pitt County Memorial Hospital/Brody School of Medicine at East Carolina University.

Dr. Mendelson earned her medical degree and PhD at Tufts University School of Medicine.

She holds board certification from the American Board of Surgery.

Dr. Mendelson's research interests are varied. She has published and presented her research on inflammatory bowel disease, liver disease and minimally invasive pediatric surgery.

Texas Native

Dr. Ahmed, a native of Texas, is a pediatric surgeon specializing in neonatal surgery, general pediatric surgery, minimally invasive surgery, pediatric trauma and surgery for intestinal disorders.

He most recently served as a fellow in pediatric surgery at Arkansas Children's Hospital (ACH), part of the University of Arkansas for Medical Sciences in Little Rock. With 316 beds, ACH is the sixth largest children's hospital in the country.

Prior to 2008, Dr. Ahmed was administrative chief resident in general surgery (2007-2008) at Milton S. Hershey Medical Center in Hershey, Pa., where he completed his surgical residency (2001-2008). Dr. Ahmed earned his medical degree at the University of Texas Medical Branch in Galveston.

Additionally, Dr. Ahmed served as a research fellow at the Penn State Hershey Medical Center, investigating growth hormone resistance in sepsis, a severe illness in which the body is overwhelmed by infection. He also served as co-principal investigator on several studies assessing the effects of gastric bypass surgery on gastrointestinal physiology, taste sensitivity and food preference.



Michael Ratner MD, Upstate's pediatric surgery division chief, talks with Bonnie Miner MS, RN, clinical nurse specialist, and other staff during patient safety rounds in the Upstate Golisano Children's Hospital.

Dr. Ahmed is a member of the American College of Surgeons, the Association for Academic Surgery and the Association for Surgical Education.

Drs. Mendelson and Ahmed will be part of the surgical team at the Olivia Louise Pietrafesa Center for Children's Surgery at Upstate Golisano Children's Hospital, which opened in 2003 and performs about 2,300 pediatric surgical cases annually.

Upstate Golisano Children's Hospital opened in 2009 and is a two-story, 71-bed facility, part of Upstate University Hospital, located in Syracuse, N.Y. ■

FIRST YEAR IN REVIEW

STATISTICS OF INTEREST

	AUG-JULY 2008-09	AUG-JULY 2009-10
Beds	56	71
Discharges	2,984	4,150
Observations	622	549
Occupancy	59.1%	74.6%
Avg. Length of Stay	4.0	4.0
Avg. Daily Census	33	46
Emerg. Dept.	21,638	22,973
Admits from ED	44.5%	48.8%
Inpt. Surgeries	1,513	1,763
O/P Surgeries	3,201	3,271



Upstate pediatric chair Thomas Welch MD, center, with residents and medical students at the Upstate Golisano Children's Hospital.



The Upstate Golisano Children's Hospital opened one year ago.



Multidisciplinary pediatric patient rounds include nurses, child life specialists, therapists, social workers, spiritual care staff, and other health care professionals.

KEY SCIENTIST BRINGS BREAST CANCER DRUG DEVELOPMENT TO UPSTATE



Debashis Ghosh PhD, Upstate Professor of Pharmacology

Moving forward with its drug development agenda, the Upstate Cancer Research Institute has recruited Debashis Ghosh PhD, an NIH-funded, world-renowned research scientist from the Hauptman-Woodward Medical Research Institute, Roswell Park Cancer Institute and Buffalo University.

Last year, in the journal *Nature*, Dr. Ghosh published his groundbreaking discovery of the three-dimensional structure of aromatase, the enzyme that converts androgen into estrogen. His laboratory is also credited with determining the structure of the two other enzymes involved in controlling estrogen levels.*

Since 70 percent of breast cancer is estrogen-dependent, Dr. Ghosh and his Upstate research team plan to translate their insights into a new hormonal therapy for breast cancer. Their goal is to develop new aromatase inhibitors – compounds that compete with aromatase, stop androgen from converting to estrogen and thus stop estrogen from feeding breast cancer tumors.

Exclusivity vs. Affinity

“We have identified 10-15 compounds that are more precise than the three aromatase inhibitors now on the market,” Dr. Ghosh reports. “Our goal is a drug with fewer side effects. We want the drug to do only the intended job and nothing else.”

“A Long Pipeline”

Dr. Ghosh acknowledges that “There is an ocean of difference between laboratory findings and an actual drug. It’s a long pipeline, from bench to bedside. But now that we have the science, we need the collaboration with clinicians.”

At the Upstate Cancer Research Institute, Dr. Ghosh found the interest, and infrastructure, to support his translational research.

“What brings me to Upstate? We share a similar philosophy about translational research – taking our laboratory discoveries to the bedside. I want to have an influence on the new drugs – to be involved from the ground up. Upstate has the best

of both worlds: the Upstate Cancer Research Institute, where we answer the intellectual questions, and the Upstate Cancer Center, where we collaborate with clinicians to translate our discoveries into new treatments.

"Our goal is to test these compounds in cellular and animal studies at the Upstate Cancer Research Institute, conduct Phase 1 trials at the Upstate Cancer Center, then collaborate with pharmaceutical companies for subsequent trials," he explains.

"The building of the Upstate Cancer," Dr. Ghosh adds, "was a big factor in my decision to move my research to Upstate."

Decades-Long Quest

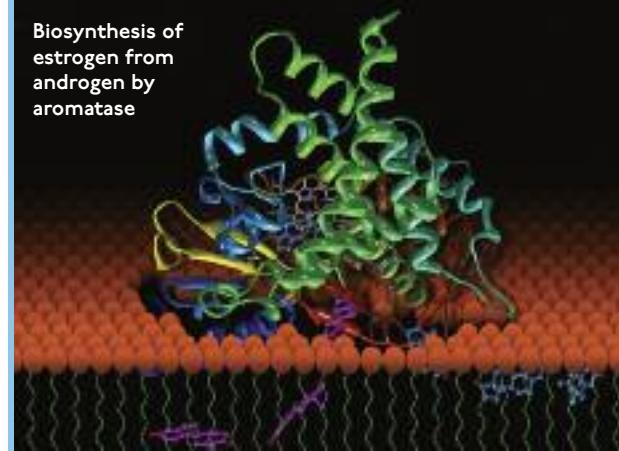
Prior to joining Upstate, Dr. Ghosh says he and his research colleagues "dedicated years to unraveling the chemistry of the remarkable molecule known as aromatase."

"The connection between aromatase and estrogen was made 40 years ago," he notes. "But it has taken decades of intense research to discover its structure and how this molecule works — how Mother Nature made it so perfect."

"Scientists worldwide have been trying for 35 years to crystallize and visualize this membrane-bound enzyme. We were the first to succeed, by developing a revolutionary method to purify and crystallize aromatase from human placenta.

"Now that we know the structures of all three key enzymes implicated in estrogen-dependent breast cancers," Dr. Ghosh continues, "our goal is to have a personalized cocktail of inhibitors customized to the specific treatment needs of each patient." ■

* estrone sulfatase and 17 β -hydroxysteroid dehydrogenase type I.



Debashis Ghosh PhD and his colleagues made a key contribution to breast cancer research when they determined the structural biology of estrogen and androgen biosynthesis and metabolism, using the X-ray crystallographic elucidation of three-dimensional structures of proteins as well as other biophysical/biochemical techniques.

The Upstate Cancer Research Institute is directed by Ziwei Huang PhD, who says, "Dr. Debashis Ghosh has brought to Upstate a very exciting and well-funded research program on cancer and a wonderful laboratory research team. Dr. Ghosh and his colleagues will complement the many other teams at the Upstate Cancer Research Institute and add to the momentum of translating cutting-edge research discoveries into new medicine for curing cancer."



Ziwei Huang PhD