



NEW HOPE FOR CHILDREN WITH SMALL BOWEL PROBLEMS

The small intestine may be the most daunting of all solid organs to transplant. Rich in lymphocytes and immune cells that leave it acutely alert to foreign bodies, the small bowel has the dubious distinction of being the most rejection-prone of all organs in transplant surgery. Which may be why so few hospitals in the country attempt the surgery.

Lucile Packard Children's Hospital is one that does. Doctors here began doing small bowel transplants two years ago and have completed seven procedures to date. Of those, five children have defied the odds and are alive and thriving.

Nationally, 80 to 90 percent of transplant patients typically experience severe bowel rejection in the first year. With statistics like these, who would choose to take such a risk?

The answer is children with short gut syndrome due to multiple surgical resections, congenital anomaly, trauma, intestinal failure or necrotizing enterocolitis.

Certainly, if any child was ever a candidate for a small bowel transplant, it was Aaron Rodriguez, who was born nearly three years ago with gastroschisis. The condition required numerous



Ricardo Castillo, MD
Director of Pediatric
Intestinal Transplant Program
at LPCH

surgeries—more than his young mother, Robin Velasquez, wishes to enumerate.

When Aaron was 36 hours old, doctors told his parents to prepare for the worst. The infant was baptized and given last rites before being wheeled in for surgery where doctors excised a large portion of his small bowel and placed the remainder inside the abdominal wall.

But the now-shortened bowel was no longer functional. All of Aaron's feeding had to come from total parenteral nutrition, which he received 16 hours a day.

"TPN has been successful keeping these children alive, but it severely damages the liver and puts the child at high risk for catheter infections and blockage of those large veins," says Ricardo Castillo, MD, director of the Pediatric Intestinal Transplant Program at Packard.

"After a while you run out of sites to place these catheters, and the liver damage progresses to cirrhosis. The mortality of these kids is 50 percent

per year, so there's a real impetus. Until recently, we didn't have many alternatives, but now people are looking at small intestinal implantation as a cure."

Aaron waited almost 10 months before an organ became available. But when it did, he sailed through the transplant surgery with flying colors. To the amazement of his doctors, he was able to come off TPN within three weeks and leave the hospital altogether one month after his transplant.

According to Kenneth Cox, MD, who spearheaded Packard Children's Hospital's liver transplant program 11 years ago, medical clinics throughout Northern California have already begun to request evaluations on patients. The current waiting list stands at four children—one from Hawaii, two from Washington, one from California—and doctors here expect the list to grow as word spreads.

IN THIS ISSUE:

| | |
|------------------------------------|---|
| Addressing School Re-entry | 3 |
| New Children's Biotechnology Core | 4 |
| Hygiene Hypothesis Explained | 5 |
| Lupus and Heart Disease Prevention | 6 |
| CME Eating Disorders Conference | 7 |

Continued on next page

NEW HOPE FOR CHILDREN WITH SMALL BOWEL PROBLEMS

Continued from cover

Early referral is of the essence. A referral for evaluation should be made whenever a child who is TPN-dependent loses two central lines (the result of blockage from blood clots) or is having recurrent catheter infections.

Similarly, children who are TPN-dependent and beginning to develop early-stage liver disease should also be referred for transplant.

“The hope is to get them into the operation in a fairly stable state,” emphasizes Marcia Kreisl, RN, outpatient coordinator. “That means nutritionally stable, with an intact liver that can serve as a barrier to infection.”

Time is of the essence, according to Kreisl, since “poor liver function can sometimes be reversed if we get them early.” It is generally preferable to do an isolated small bowel transplant rather than one combined with a liver, since the surgery is less complicated.

Indeed, about 50 percent of children

with end-stage liver disease die while on the waiting list for a small bowel transplant.

Once a referral is made to Packard, doctors will evaluate the child, make recommendations regarding medical management, list the child if he or she is an appropriate candidate and then send the child home to the care of the regular physician—usually a pediatric gastroenterologist—until a donor organ becomes available.

Packard expects to perform 10 small intestine transplants a year in the near future, ultimately growing to about 20.

The goal is to move the children off all IV feeding. For kids who have never tasted food before this can be a revelation.

“The first little girl we did,” recalls Castillo, “did spectacularly well. Now, she’s eating hamburgers, tortillas, beans and rice. And Aaron came off TPN very

quickly. At first the family was reticent to offer him solids. Then, he started snatching some of the food off their plates at the dinner table.”

REFERRAL GUIDELINES:

Referrals should be considered for children with intestinal failure, who are on TPN therapy and who have:

- Significant liver dysfunction
- Thrombosis of two or more major central veins (subclavian, jugular, femoral)
- Less than 50 cm of residual small intestine, due to the high likelihood that those children will require long-term TPN

For more information, call the Intestinal Transplant Program at 650-725-8771.

MEDICAL CENTER WELCOMES NEW CHIEF OF OTOLARYNGOLOGY



Robert Jackler, MD
Chief of Otolaryngology

Robert Jackler, MD, an expert in diseases of the ear and the base of the skull, has been named chief of otolaryngology at the Stanford University Medical Center. With Jackler’s arrival, the medical center plans to launch new clinical and research programs for children and adults focused on the ear, nose and throat, in addition to expanding Stanford’s existing ENT programs.

Jackler will work with neurosurgery, radiation oncology and other departments

to create a multidisciplinary center for cranial base surgery to care for hard-to-reach tumors located beneath the brain and along the brainstem. Under his leadership, the medical center plans to establish new programs in otology and neurotology, laryngology and adult audiology and to create a hearing device center focused on such innovative technologies as the cochlear implant. Plans call for growth in existing programs in other areas, including head and neck oncology, sinus surgery and facial plastic and reconstructive surgery.

Jackler earned his MD from Boston University, completed an otolaryngology residency at UCSF and an otology/neurotology fellowship at the House Ear Institute in Los Angeles before joining UCSF’s faculty in 1986. He specializes in microsurgery of the ear and skull base and the removal of deeply embedded tumors located near the

brainstem. He pioneered new surgical techniques that provide unobstructed access to such tumors, including many previously considered inoperable, and allow them to be removed without damaging delicate nerves in the brain.

Jackler is active in numerous professional societies, including the American Academy of Otolaryngology—Head and Neck Surgery, the Deafness Research Foundation and the American Neurotology Society, of which he is president. He is editor-in-chief of *Otology & Neurotology*, the field’s leading journal; has published three textbooks, including the definitive work titled *Neurotology*; and has authored more than 130 peer-reviewed papers. His honors include the University Hospital Prize from Boston University, several resident teaching awards from UCSF and a Distinguished Service Award from the American Academy of Otolaryngology.



BACK TO SCHOOL SUCCESS

LPCH'S H.E.A.L. PROGRAM SMOOTHS THE TRANSITION FROM HOSPITAL TO SCHOOL

Chronically ill or recently hospitalized students often miss a lot of school. When they do return to their classes, they face a series of challenging hurdles. Without help, they may be unable to cope with the memory loss, fatigue and cognitive changes that are common by-products of many medical conditions and their treatments. Changes in the children's appearance may also cause them to be ostracized by their classmates.

A new program at Lucile Packard Children's Hospital called H.E.A.L., or Hospital Educational Advocacy Liaisons, aims to smooth the often rocky transition from hospital to school.

"School is such an important piece of a child's life," says program coordinator and education specialist Jeanne Kane. "Back-to-school problems can affect a child's self-esteem and permeate a family. In fact, some parents have told me that their child's return to school is more difficult than the illness itself."

Every year more children survive life-threatening diseases or live with chronic medical conditions. As part of the patient and family support services at Packard Children's Hospital, Kane estimates she has helped more than 80 patients since the program's inception in May. Most had cancer, but traumatic brain injury, epilepsy, sickle cell disease and diabetes are among many other conditions that can leave a child too tired, confused or



Kayla Felix (left) has been through Packard's H.E.A.L. program to help her return to school. She's shown with program coordinator Jeanne Kane after getting her face painted during a recent neuro-oncology picnic.

forgetful to perform well in school. Misconceptions by teachers and friends can lead to isolation and further scholastic backsliding.

H.E.A.L. works closely with the Children's Health Council's Returning to School program.

"As pediatricians, we recognize that just treating the child's disease is not enough," says Packard Children's Hospital chief of staff Harvey Cohen, MD, PhD, the Arline and Pete Harman Professor for the Chair of the Department of Pediatrics at the Stanford University School of Medicine. "We want children to also be successfully integrated back into their environment. A successful school re-entry is a critical component of our care for children with trauma and various diseases."

Kane and clinical psychologist Debbie Bonardi, PhD, can help parents navigate the complex thicket of state and federal laws governing who qualifies for special help. Potential accommodations run the gamut from intensive one-on-one tutoring to simply allowing children to sit at the front of the class, giving them a little extra time to complete tests or homework or providing an extra set of books to keep at home.

"A lot of time families don't know what they're entitled to," says Kane. "Physicians should quiz parents about the child's re-entry to school by asking specific questions: Is the child adjusting well? How are her grades?"

H.E.A.L. can help assess a child's

cognitive status with baseline testing of memory and attention, perception, coordination, language and personality—all areas that can be affected by illness. Once specific problem areas are identified, Kane may visit the child's school to observe the educational setting and recommend changes. She may discuss the child's school performance with teachers, communicate with the school nurse about medical concerns and, if desired, give presentations to the child's classmates to demystify the illness and build acceptance and support.

Kane's efforts are vital supplements to overworked teachers and the dwindling numbers of school nurses who are more used to handling traditional learning disabilities.

"This is really a new field," says Kane, "and we're just starting to understand the true needs of these kids. They're coming back to school with special needs, and, in many instances, schools are not quite sure how to deal with chronically ill children."

Compounding the problem, the children can grow frustrated when they reflect on life before their illness.

"Most of them didn't have academic problems before they were diagnosed," says Kane. "A lot of these kids remember being able to complete assignments quickly and memorize things easily."

For more information about H.E.A.L., call 650-725-2381.

SERVICES OFFERED BY H.E.A.L.:

- Baseline testing to identify problem areas
- Information about state and federal special education regulations
- School visits and collaboration with a student's teachers and school nurse
- Presentations to classmates about a child's illness
- Referral to appropriate agencies that can provide additional assessments and therapy

LUCILE PACKARD CHILDREN'S HOSPITAL FUNDS NEW CHILDREN'S BIOTECHNOLOGY CORE



JAMES SCHILLING, PHD
Director of Children's
Biotechnology Core

Lucile Packard Children's Hospital has given \$700,000 to the Stanford University School of Medicine to harness the evolving field of biotechnology research for advancing children's health. The gift is the first investment of its kind by the hospital in the medical school.

The money will allow basic scientists and clinicians to use genetics, genomics and proteomics to diagnose childhood diseases earlier, predict which children will respond to treatment and determine which children will have serious side effects from therapies.

James W. Schilling, PhD, former principal scientist and director of protein chemistry at Sugen Inc., will direct the new Children's Biotechnology Core, which will focus on translating basic knowledge into practical applications for patients.

"We know that all of the issues that face children are a result of their genetics and their environment," says Harvey Cohen, MD, PhD, the Arline and Pete Harman Professor for the Chair of Pediatrics and Packard chief of staff.

"We will study genetic and environmental influences on the body. We will study chromosomes and genes that the children have, how the genes are turned on or off, what proteins are made, how they may be altered and determine whether

proteins and other substances change their location as a result of a disease process."

Alan Krensky, MD, chief of the division of immunology and transplantation biology and the Shelagh Galligan Professor of Pediatrics, emphasized the unique nature of the center.

"There are several great children's hospitals and several great technology universities, but no one offers this on a single campus as we can. We have both institutions, and now they're being connected," Krensky says.

The biotechnology effort at Packard and the school of medicine has begun focusing on important areas in pediatrics:

- Acute myelogenous leukemia: With current treatments, half of the children with the disease are cured and half will die. "By studying the genetics, genomics and proteomics of leukemic cells," says Cohen, who is also chairman of the Bio-X Interdisciplinary Initiatives Program, "we hope to be able to identify those children who we can safely and effectively treat with what we have and those who need different treatments."
- Kawasaki disease: Using comparative proteomics, researchers hope to develop a better tool for early diagnosis of this inflammatory disease that affects young children and can result in cardiac problems.
- Diabetes: Approximately half of first-degree relatives of children diagnosed with type 1 diabetes will develop the disease themselves within five years. "We will be studying the serum of these individuals to see if we can predict those individuals who will develop diabetes," Cohen says.
- Necrotizing enterocolitis: Premature babies are at risk of developing this illness. Researchers at Packard and the school of medicine will measure the proteins in infants' plasma before and after feeding to see if they can determine what changes are associated with development of the disease.

REFERRING PHYSICIAN PORTAL TO SIMPLIFY ACCESS TO LAB RESULTS, REFERRAL FORMS AND MORE

In August, Lucile Packard Children's Hospital launched a new Referring Physician Portal pilot project. The goal of the portal is to improve communication with the referring physician community and allow easy, secure access to key information through the Internet. A Web-based application, the portal will be available 24 hours a day, seven days a week from physicians' offices and homes. With the click of a mouse, physicians can view:

- Clinical information related to their patients, including lab and radiology results, inpatient pharmacy information and transcriptions
- Online referral and CME course registration forms
- LPCH-specific services including education, research and news

A small number of referring physicians are involved in the pilot, which will run through February 2004. Referring physicians interested in obtaining access to the portal after the pilot concludes should contact Gail Keikoan at 650-498-6793 or e-mail gkeikoan@stanfordmed.org.



Main Page of LPCH Physician Portal



A MOLECULAR EXPLANATION OF THE ASTHMA “HYGIENE HYPOTHESIS”



DALE UMETSU, MD, PHD
Division Chief of Allergy and Immunology at LPCH

Circumstantial evidence mounting over the past several years indicates that overly sanitary conditions—which result in fewer infections—render children more likely to develop eczema, allergies and asthma. Recently published findings by researchers at Lucile Packard Children’s Hospital and Stanford University illustrate the probable biological foundation for this hygiene hypothesis and pinpoint one infectious culprit: hepatitis A virus. The research suggests new ways to prevent or treat asthma and allergies.

Umetsu, who serves as chief of the division of allergy and immunology at Packard Children’s Hospital and a professor of pediatrics at Stanford University School of Medicine, is the senior author of the study, which appeared in the Oct. 9 issue of *Nature*.

Nearly all people born before 1950 have been infected by hepatitis A virus, which can cause jaundice and flu-like

symptoms or, in severe cases, liver failure.

“As hygiene and sanitation have improved over the past several decades, the prevalence of hepatitis A infection has fallen dramatically,” says MD/PhD student and first author Jennifer McIntire. “However, rates of asthma and allergies have been rising sharply. This inverse relationship was not well understood; it’s been a bit of a mystery as to what was happening.”

In a previous study using a mouse model of asthma and allergy, Umetsu and his colleagues discovered a family of genes called TIMs. One family member, TIM-1, predisposed mice to developing asthma and allergy. In humans, TIM-1 also serves as the receptor for the hepatitis A virus on both liver cells and T cells. Because T cells that express TIM-1 also play a critical role in the development of allergies and asthma, the researchers postulated that hepatitis A virus protects against these diseases by killing or disabling these allergy-inducing T cells.

In the current study, the researchers examined the TIM-1 gene in nearly 400 people, about half of whom suffered from allergies or asthma. They found that, like many genes, TIM-1 can exist in several versions. People with a longer version of TIM-1 were significantly less likely to have asthma or allergies than those with a shorter version—but only if they had also been infected with the hepatitis A virus. In other words, a lucky cut of the genetic deck, in concert with a brush with hepatitis A, protected subjects with the long version of TIM-1 from the sniffing, sneezing, wheezing and worse experienced by those with the short form of TIM-1.

The researchers speculate that the long form of TIM-1 may enhance binding of hepatitis A to the immune cells, increasing the efficiency of T cell killing or down-regulation by the virus. Among study subjects, more than 60 percent of Caucasians and African Americans and 46 percent of Asians carried the protective version of the gene.

“Allergies, asthma and eczema all tend to run in families,” says Umetsu, “which indicates that a strong genetic component is responsible for these problems. But asthma and allergies are complex genetic traits, meaning that environmental factors such as allergens and infections are also involved. This complexity makes these diseases very difficult to study. What we’ve shown now is that TIM-1 is a very important gene that regulates whether an individual gets allergies or not. In addition, we’ve shown that an environmental factor—hepatitis A infection—directly modulates the effect of this particular gene.”

“This is the first molecular explanation for how hygiene can affect allergies and asthma,” says Dale Umetsu, MD, PhD.

In addition to discovering the molecular thread linking environment and genetics, the researchers hope their findings will lead to practical treatments or preventives for asthma and allergies. They’re curious whether vaccination against hepatitis A, which uses a killed version of the whole virus, may provide protection without active infection.

“Obviously you don’t want to run out and try to get hepatitis A,” says Umetsu. “But as we find out more about how TIM-1 functions in the immune system, we may discover better ways to treat the disease. If we can design an antibody or drug to mimic the effect of hepatitis A, it may be a way to cure patients with allergies or asthma, regardless of which version of TIM-1 they carry.”

PREVENTING HEART DISEASE IN CHILDREN WITH LUPUS

LPCH RESEARCHERS TEAM WITH CENTERS THROUGHOUT THE U.S. AND CANADA ON A NEW CLINICAL TRIAL



CHRISTY SANDBORG, MD
Chief of Pediatric Rheumatology
at LPCH

Lucile Packard Children's Hospital researchers are collaborating with scientists at Duke University Medical Center to organize the first ever multi-center clinical trial aimed at preventing heart disease in children with systemic lupus erythematosus. The researchers will test whether atorvastatin is safe and effective in preventing the hardening of the arteries that leads to premature heart attacks and strokes in children and young adults with lupus.

"As we're doing a better job at treating the primary symptoms of lupus, patients are living longer," says chief of pediatric rheumatology Christy Sandborg, MD. "These young people develop premature atherosclerosis and may have strokes. We know that atherosclerosis starts in adolescence even in healthy people; the problem may be exacerbated in people with childhood onset of lupus." Some studies estimate that young, premenopausal women with lupus are 50 times more likely to have a heart attack than their peers without lupus.

Sandborg is one of two principal investigators for the \$10 million grant from the National Institute of Arthritis and Musculoskeletal and Skin Diseases—a division of the National Institutes of Health. Laura Schanberg, MD, associate professor of pediatrics at Duke University Medical Center, is the other principal investigator.

Although scientists aren't sure why lupus leads to heart disease, they suspect that the autoimmune disease causes inflammation and subsequent plaque formation in the

blood vessel walls. The researchers speculate that atorvastatin, which is marketed under the trade name Lipitor, may reduce this risk by reducing the amounts of cholesterol likely to contribute to plaque formation.

"Atorvastatin was just recently approved for use in children with very high cholesterol," says Sandborg, "and nobody's ever looked at it in kids with lupus. This is a completely new way of looking at this problem, and may result in a new treatment for these children."

The randomized, double-blind trial, called APPLE for Atherosclerosis Prevention in Pediatric Lupus Erythematosus, will follow 280 children between the ages of 10 and 19 years for a period of three years. One-half of the patients will be treated with atorvastatin, and one-half will receive a placebo. Atherosclerosis progression will be monitored noninvasively by regular ultrasounds of the carotid artery.

Patients will be recruited from 20 centers across the United States and Canada. Packard Children's Hospital is expecting to enroll about 20 patients over the course of the next year. Duke's Clinical Research Institute will gather and process the data.

In addition to studying the effectiveness of atorvastatin in this study population, researchers hope the trial will lead to many other insights about lupus. About 15 percent of lupus sufferers develop the disease in childhood, and their symptoms tend to be more severe than those of adult-onset patients.

"This will be the first trial ever done in pediatric lupus patients, and the largest study ever done," says Sandborg. "We'll be gathering a lot of information about lupus in general and what happens to kids with lupus: the course of renal disease, the effectiveness of various other treatments, and the sequelae of neuropsychiatric lupus. It's an opportunity to learn more about lupus in kids and adults."

For more information about the study, call (650) 723-8295.

BED UTILIZATION AND CAPACITY IMPROVEMENTS

Lucile Packard Children's Hospital is in the final month of an effort to improve bed utilization within the hospital. Admission, discharge and care coordination processes have been revamped to promote:

- Real-time access to accurate bed status information
- Timely and accountable case management and discharge planning
- Rapid bed turnaround
- Daily communication and resolution of key patient discharge criteria across the clinical care team

These efforts have increased bed capacity at LPCH by about 117 patient days per month over last year at this time—or 1,400 more patient days per year. As a result, the number of diversions to other care facilities has steadily decreased over the past several months, and occupancy is 4.4 percent higher than before the effort began.

Advance notification of discharge has also improved dramatically, allowing family members to arrange for timely transportation of patients from the hospital to the home. Frequency of patient teaching is increasing.

In addition to increasing capacity at the core facility, LPCH will be opening eight additional pediatric beds at El Camino Hospital in Mountain View in January, followed by an additional eight beds in the spring of 2004. The 16 new beds will be used for low-acuity general pediatric, neurology, pulmonology, pain and rheumatology patients.



CME CONFERENCE ON EATING DISORDERS AND OBESITY

AT LUCILE PACKARD CHILDREN'S HOSPITAL

Lucile Packard Children's Hospital and the department of pediatrics at Stanford University School of Medicine will team up on Friday and Saturday, Jan. 23 and 24, to present a multidisciplinary conference called "New Developments in the Management of Eating Disorders and Obesity in Children and Adolescents."

The continuing medical education conference, to be held in the hospital's Freidenrich Auditorium, will feature talks by Packard Children's Hospital's Comprehensive Eating Disorders Program staff. Iris Litt, MD, co-director of the program, will kick off the course at pediatric grand rounds on Friday at 8 a.m. with "Dying to be Thin—Medical Complications of Anorexia and Bulimia." Other faculty from Packard Children's

Hospital, Stanford University School of Medicine and Stanford Hospital & Clinics will discuss a variety of related topics:

- Medical Complications of Anorexia and Bulimia
- Comprehensive Care of the Anorexia Nervosa Patient
- Evidence-Based Psychotherapy for Eating Disorders
- Prevention of Eating Disorders
- Evaluation of the Obese Child and Adolescent
- Obesity among Hispanic Children
- Will Obesity Prevention Cause Eating Disorders?

- Behavioral Treatment for Child and Adolescent Obesity
- Role of Bariatric Surgery in the Morbidly Obese Child and Adolescent

The talks will be supplemented by short question-and-answer sessions; interested participants are invited to lunch with the expert faculty on Friday for further discussion.

For more information, contact CME Manager Karen Porschet at (650) 497-8554 or lpchcme@stanfordmed.org. For an online brochure, or to check out other CME offerings, visit www.cme.lpch.org.

PUBLICATIONS

Divalproex monotherapy in the treatment of bipolar offspring with mood and behavioral disorders and at least mild affective symptoms. Chang, Dienes, Blasey, Adleman, Ketter, Steiner. *Journal of Clinical Psychiatry* 2003 Aug;64(8):936-42

Bone mineral density in pediatric transplant recipients. Daniels, Wilson, Paguntalan, Hoffman, Bachrach. *Transplantation* 2003 Aug 27;76(4):673-8

Safety and risk stratification of percutaneous biopsies of adult-sized renal allografts in infant and older pediatric recipients. Vidhun, Masciandro, Varich, Salvatierra, Sarwal. *Transplantation* 2003 Aug 15;76(3):552-7

Pathophysiology of pediatric movement disorders. Sanger. *Journal of Child Neurology* 2003 Sep;18 Suppl 1:S9-24

Regulatory T cells control the development of allergic disease and asthma. Umetsu, Akbari, Dekruyff.

The Journal of Allergy and Clinical Immunology. 2003 Sep;112(3):480-7

Immunology: hepatitis A virus link to atopic disease. McIntire, Umetsu, Macaubas, Hoyte, Cinnioglu, Cavalli-Sforza, Barsh, Hallmayer, Underhill, Risch, Freeman, DeKruyff, Umetsu. *Nature* 2003 Oct 9;425(6958):576

PDE4D plays a critical role in the control of airway smooth muscle contraction. Mehats, Jin, Wahlstrom, Law, Umetsu, Conti. *FASEB Journal* 2003 Oct 17; (13):1831-41

Abnormal Blood Pressure in Prepubertal Children with Sleep-Disordered Breathing. Guilleminault, Khramsov, Stoohs, Kushida, Pelayo, Kreutzer, Chowdhuri. *Pediatric Research* 2003 Nov 6 [Epub ahead of print]

Studies of offspring of parents with bipolar disorder. Chang, Steiner, Ketter. *American Journal of Medical Genetics* 2003 Nov 15;123C(1):26-35

FACULTY UPDATE



ANN ARVIN, MD
Chief of pediatric infectious disease at LPCH

Ann Arvin, MD, Lucile Salter Packard Professor of Pediatrics and professor of microbiology and immunology at Stanford University School of Medicine has been elected to the Institute of Medicine of the National Academy of Sciences. Arvin's selection was announced at the organization's annual meeting in October. Members are elected through a highly selective process that recognizes contributions to the advancement of the medical sciences, health care and public health. Arvin's selection brings to five the number of Packard Children's Hospital physician members. Others include Sarah Donaldson, MD, chief of pediatric radiation oncology; Uta Francke, MD, medical genetics training program director; Iris Litt, MD, chief of adolescent medicine; and Philip Pizzo, MD, dean of the school of medicine.

LUCILE PACKARD CHILDREN'S HOSPITAL

IMPORTANT CONTACT INFORMATION

Physician Hotline for Referral & Consultation

24-hour, immediate referral and consultation

Tel. 800-995-5724

Fax. 650-843-0136

referral@medcenter.stanford.edu

Critical Care Consultation & Transport

24-hour, immediate consultation for neonatal, pediatric and maternal critical care and transport issues

650-723-7342

Hospital Page Operator

24-hour access

650-497-8000



Lucile Packard Children's Hospital

STANFORD UNIVERSITY MEDICAL CENTER

725 Welch Road • Palo Alto, CA 94304

Physician Update is published as part of an ongoing effort to serve the needs of physicians who refer to Lucile Packard Children's Hospital at Stanford. To share comments or secure more information, contact:

Terry O'Grady, RN, MS

Director, Community and Physician Relations

Lucile Packard Children's Hospital

1520 Page Mill Road, Palo Alto, CA 94305

650-497-8965

to'grady@stanfordmed.org

Erin Buford

Manager, Physician Referral Liaison Service

Lucile Packard Children's Hospital

725 Welch Road, Palo Alto, CA 94304

800-756-5000

ebuford@stanfordmed.org

OTHER CONTACTS FOR REFERRING PHYSICIANS

Admissions

800-995-5724 / 650-497-8221

Continuing Medical Education

650-497-8554

Diagnostic Imaging

650-497-8376

Radiologist Consult

650-497-8466

Grand Rounds

650-723-5168

Health Plan Services

650-736-1067

Medical Group Services

650-736-1067

Medical Staff Services

650-497-8566

Professional Services Billing for Physicians

650-498-5785

PHYSICIAN REFERRAL LIAISON SERVICE

Providing assistance and information to referring physicians and their staff.

Monday–Friday 8 am–5 pm

Tel. 800-756-5000

Fax. 650-320-9443

referral@medcenter.stanford.edu

CME COURSES

New Development In the Management of Eating Disorders in Children and Adolescents

Jan. 23–24, 2004

Lucile Packard Children's Hospital at Stanford

Pediatric Clinical Update

Feb. 28, 2004: DoubleTree Hotel, Modesto, CA

May 22, 2004: The Cliffs Resort,

Shell Beach, CA

Pediatric Headache: A Guide for Every Practitioner

March 13, 2004

The Fairmont Sonoma Mission Inn & Spa,

Sonoma, CA

For More Information

650-497-8554 or visit cme.lpch.org

Non Profit
Organization
U.S. Postage
PAID
Permit No. 29
Palo Alto, CA