



Courtesy CHLA

Auguste Majkowski, 3, wears the auditory brainstem implant that Keck Medicine of USC researchers are studying in an NIH-funded clinical trial.

California's first auditory brainstem implant surgery on toddler at CHLA

By Lorenzo Benet/CHLA and Alison Trinidad

A Los Angeles team of scientists and surgeons from Keck Medicine of USC, Children's Hospital Los Angeles (CHLA) and Huntington Medical Research Institutes reported that sound registered in the brain of a deaf Canadian boy for the first time after doctors activated a hearing device that had been surgically implanted in his brainstem.

Auguste Majkowski, 3, is the first child in the United States to undergo an auditory brainstem implant (ABI) surgery in a U.S. Food and Drug Administration-approved trial supported by a National Institutes of Health (NIH) clinical trial grant.

On June 12, six weeks after surgery at CHLA, the device was activated with positive results at the Department of Otolaryngology – Head & Neck Surgery clinic at Keck Medicine of USC.

"It was magical," said Sophie Gareau, Auguste's mother. "He's a tough kid."

Auguste's surgery, device activation and future behavioral study are part of a five-year clinical trial in which 10 devices will be implanted in deaf children under the age of 5 and studied over the course of three years.

After the devices are implanted, researchers at the USC Center for Childhood Communication will study how the brain develops over time as it incorporates sound and speech. The Los Angeles study, co-led by audiologist Laurie Eisenberg, PhD, professor of research otolaryngology at the Keck School of Medicine of USC is the only in the United States to be supported by the NIH.

Eisenberg, who works closely with the clinical team at the USC Center for Childhood Communication, said, "Surgeons outside the United States have been doing ABI surgeries in children for 10 years, but there has never been a formal safety or feasibility study under regulatory oversight. Our team is writing the manuals for all the procedures for this technology, and we have a top-notch multidisciplinary team in place to carry out the research."

Read more at <http://tinyurl.com/kpn5ts8>.

Keck Medicine of USC makes key addition to renowned urology team

By Leslie Ridgeway

Continuing its momentum as one of the fastest-growing urology programs in the nation, the USC Institute of Urology recruited Gerhard Fuchs, MD, an internationally renowned urologic surgeon, researcher and educator who advanced innovative technology to minimize the pain of eliminating kidney stones, effective July 15.

Fuchs, professor of clinical urology at the Keck School of Medicine of USC, is executive director of the USC Institute of Urology at Keck Medicine of USC - Beverly Hills. He also will serve as director of the Men's Health Center, director of education and directory of quality assurance/improvement, all at the USC Institute of Urology.

He is a pioneer of extracorporeal shockwave lithotripsy (ESWL), a technology that uses shock waves to break kidney stones into small pieces to allow them to easily travel through the urinary tract and pass from the body. He established the first ESWL treatment center in the western United States, spearheaded a



Van Urfaian

Gerhard Fuchs is a pioneer of extracorporeal shockwave lithotripsy, which uses shock waves to break kidney stones into small pieces to allow them to easily travel through the urinary tract and pass from the body

training program for ESWL and established a state-of-the-art center for tertiary endourology care and ESWL, where many urologists are trained on novel technologies.

"Dr. Fuchs' contributions to urology as a clinician and researcher are immeasurable," said Inderbir S. Gill, MD, professor and chairman, Catherine and Joseph Aresty Department of Urology at the Keck School,

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Preventive medicine chair mulls smoking research 50 years after pivotal Surgeon General's report

By Hope Hamashige

When the first report from the United States Surgeon General on smoking was released in 1964, the press conference was held until a Saturday over fear that the information might lead to a drop in the stock market.

Jonathan Samet, MD, MS, chair of the Department of Preventive Medicine at the Keck School of Medicine of USC, who gave a lecture on July 11 on 50 years of reports from the U.S. Surgeon General on smoking, pointed out this fact to indicate how much has changed since the Surgeon General first declared smoking hazardous and linked it to lung cancer, chronic bronchitis, coronary artery disease and increased risk of dying.

At the time, 43 percent of adult Americans were smokers and there was significant disagreement about the dangers of smoking. Since then, the Surgeons General have produced 33 reports on smoking, making it the most studied public health issues by the surgeons general.

"We continue to expand the list of diseases associated with smoking," said Samet, the senior scientific editor of the recently released *50 Years of Progress: A Report of the Surgeon General, 2014*. He noted that the report found causal links between smoking and rheumatoid arthritis, macular degeneration, diabetes, periodontitis, erectile dysfunction and liver and colon cancer.

Samet added that the reports are one of the best examples of rigorous scientific reviews laying the groundwork for public policy.



Jon Natlick

Jonathan Samet, chair of the Department of Preventive Medicine at the Keck School of Medicine of USC, displays a new report from the Surgeon General that describes the devastating consequences of tobacco use in the United States over the last 50 years.

They have looked at every aspect of smoking including involuntary smoking, nicotine addiction and the marketing of tobacco products to young people.

All of this work has led, he noted, to important policy changes including smoking bans in public place and banning cigarette ads on television and radio. Public understanding of the health risks, as well as other tobacco control activities, have led to a decline in the percentage of smokers to about 18 percent.

In spite of the progress, Samet warned that there is still more to be done. One concern in the near future is the rise of e-cigarettes and whether they will entice more people to take up smoking. Samet added there are still strategies that can be employed, such as forcing tobacco companies to reduce the nicotine content of cigarettes or raising prices, to help put an end to this "ongoing epidemic."

Keck Medicine of USC welcomes father-son team of vein specialists to Dept. of Surgery

By Leslie Ridgeway

Adding to the surgical expertise at Keck Medicine of USC, two faculty physicians specializing in vein disease and treatment were recruited to the faculty of the Department of Surgery, Keck School of Medicine of USC, effective May 1, 2014.

The father-son team of Dario Perez, MD, assistant professor of surgery, and Jose M. Perez, MD, clinical assistant professor of surgery, are now offering their skills to patients at USC Surgery – Glendale, 1510 S. Central Ave., Suite 200,

Glendale, CA. Together, the faculty physicians bring more than 25 years of experience in venous disease and therapy, including minimally invasive procedures for varicose and spider veins, as well as vein ulcers.

Dario Perez is skilled in a range of minimally invasive procedures for the treatment and removal of varicose and spider veins. He earned his medical degree from the University of Guadalajara School of Medicine and completed his general surgery residency at the University of Connecticut – Saint Francis

Hospital & Medical Center.

Jose Perez is focused on all aspects of venous disease and its complications. He offers comprehensive venous treatments such as The VNUS® procedure, EVLA (Endovenous Laser Ablation), foam sclerotherapy, contact sclerotherapy, microphlebectomies and treatments for venous ulcers. He earned his medical degree from the University of Guadalajara School of Medicine and completed his residency in general surgery at Stamford Hospital-Columbia

University College of Physicians & Surgeons. He is board-certified by the American Board of Surgery and the American Board of Venous and Lymphatic Medicine.

In 1984 Dario Perez established a general surgery practice in Glendale that his son and fellow surgeon eventually joined. Both faculty physicians are board certified in general surgery and are fellows of the distinguished American College of Surgeons.

Keck School launches Center for Innovative Medical Education and Technology

By Hope Hamashige

This current era of technological innovation is also creating an explosion of medical data, which means medical students must take in more information than ever before.

“By 2020, the amount of information that our students will have to learn is going to double in the first 73 days,” explained Sajjad Yacoub, MD, assistant dean for student affairs at the Keck School of

Medicine of USC.

Yacoub is leading the Center for Innovative Medical Education and Technology (CIMET) to find creative solutions to help deliver that volume of medical information to students.

The Keck School’s Class of 2018 will be the first to benefit from CIMET’s inaugural project, which established a single online portal for students. The portal provides students ac-

cess to programs that track and manage their workload, watch lectures online and perform evaluations. It will also keep them informed of events around campus and deliver messages from faculty.

“This is going to make their job of learning easier and more meaningful,” said Yacoub.

It is also just a start and CIMET plans to continue adding tools as they become available. In the

near future, Yacoub hopes to have tools to supplement class time, such as providing 3-D models of the human body to enhance anatomy class. He also envisions a time when students are able to review all relevant lectures and course materials related to a particular disease seen during clinical rotations. Another goal is to give students a tool to prepare for their national exams that will give them instant

feedback on subjects they may need to revisit.

“At the Keck School of Medicine of the University of Southern California, we are passionate about creating and maintaining an optimal learning environment for our students,” said Henri Ford, MD, vice dean of medical education at the Keck School of Medicine of USC. “The establishment of the CIMET is in keeping with this overarching philosophy.”

USC surgeons perform novel robotic-assisted prostate cancer operation

Surgeons at the Keck Medical Center of USC performed in July the first robotic-assisted procedure in California for a prostate cancer patient using the latest, minimally invasive surgical system.

The surgery further cements the Keck Medicine of USC’s position as a global center of excellence for robotic surgery.

The procedure used the new Xi robot that gives surgeons greater dexterity, precision and ability to remove cancerous tissue in all quadrants of the abdomen and chest because of its smaller arms.

In addition, surgeons have a larger operating field in which to work, leading to better maneuverability without having to reposition the robot as frequently throughout the procedure.

For patients, robotic surgery, when appropriate, provides a minimally invasive treatment choice that often leads to smaller incisions (less than one inch), less pain and less need for medication, minimal scarring, reduced bleeding, shorter hospital stays and a faster recovery time to return to normal daily routines.

The new da Vinci Xi

Surgical System robot created by Intuitive Surgical was approved by the Food and Drug Administration on April 1. Using the Xi robot, a man’s prostate was removed by Keck Medicine of USC urologic surgeon Inderbir S. Gill, MD, MCh, founding executive director of the USC Institute of Urology and professor and chairman, department of urology.

“We perform more robotic surgeries than any other hospital in the metro Los Angeles area, and that is a direct reflection of our surgical expertise and our staying one step

ahead by having the latest robotic technology available,” said Scott Evans, PharmD, MHA, CEO of Keck Hospital of USC and USC Norris Cancer Hospital. “For patients, the fact we have the most technologically advanced equipment is compelling, but it is really about the surgeons operating these

machines that brings comfort and confidence to those who need expert treatments for the most complex diseases. It is similar to driving a Ferrari — instead of a teenager at the wheel, we offer the world’s most expert drivers who have vast experience with sophisticated machines.”

Amgen CEO Robert Bradway to speak at Keck School Aug. 13

The second season of the Keck School of Medicine Dean’s Distinguished Lecturer Series will feature Robert A. Bradway, chair and CEO of Amgen, the world’s largest independent biotechnology company.

Bradway will speak at 4 p.m. on Aug. 13, in Aresty Auditorium on USC’s Health Sciences Campus.

Bradway became chair in January 2013 and CEO in May 2012. He served as the company’s president and chief operating officer from May 2010 to May 2012 and was appointed to the Amgen Board of Directors in October 2011. Prior to joining Amgen, he was a managing director at Morgan Stanley in London where he had responsibility for the firm’s banking department and corporate finance activities in Europe.

Bradway joined Morgan Stanley in New York as a health care industry investment banker in 1985 and moved to London in 1990 where he served as head of the firm’s international health care investment banking activities until assuming broader corporate finance management responsibilities. He holds a bachelor’s degree in biology from Amherst College and a master’s degree in business administration from Harvard University.

To attend, RSVP online at www.usc.edu/esvp (code: Bradway). The event will be webcast live at <http://keckmedia.usc.edu/Mediasite/Catalog/catalogs/ddls>.



Robert A. Bradway

HSC News

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Wellness Center at General Hospital aims for community fitness

By Hope Hamashige

After years of sitting nearly vacant on the hilltop overlooking the Health Sciences Campus, the former General Hospital is once again a center of healing.

It reopened in March as The Wellness Center at the Historic General Hospital and now houses several like-minded nonprofit organizations with the common goal of improving the health of residents in nearby communities, such as Boyle Heights and Lincoln Heights.

The first floor is a common space for nonprofits such as the American Diabetes Association and the Arthritis Foundation, where they offer programming such as classes in diabetes prevention and management.

In Boyle Heights, the need for a community space dedicated to well-being was clear — 33 percent of residents are overweight, 23

percent are obese, and there are high rates of diabetes, heart disease, cancer and hypertension among residents, according to the Los Angeles-based Alliance for a Better Community.

Keck Medicine of USC helped get The Wellness Center off the ground by funding a diabetes prevention program sponsored by the YMCA of Metropolitan Los Angeles and partnering with the Arthritis Foundation. Keck Medicine of USC also reached out to medical clinics in the neighborhood to tell area doctors about the services their patients can access through The Wellness Center.

To promote exercise and fitness, there are fitness trails, jogging paths, exercise courts and playgrounds outside. The YMCA, one of the organizations associated with the Center, offer fitness and dance classes.



Jon Nalick

Instructor Andres Martinez leads a dance/cardio class under the auspices of The Wellness Center at the Historic General Hospital, which opened in March. The center houses several like-minded nonprofit organizations with the common goal of improving the health of residents in nearby communities.

Nancy Mullenau, The Wellness Center's executive director, noted, "There's a lot of healthy

education going on, covering everything from how to prepare healthy food to what it means to have diabetes

and chronic disease."

For more information, visit www.thewellnesscenterla.org or call (213) 784-9191.

FUCHS: New recruit known for pioneering work in minimally invasive treatment

Continued from Page 1

and founding executive director of the USC Institute of Urology. "Literally hundreds of patients have benefited from his pioneering work in minimally invasive treatment of kidney stones. His expertise as an educator has been an asset to many young physicians. He brings in valuable experience to our team."

Fuchs has garnered nearly three decades of urologic experience, specializing in minimally invasive procedures for treating kidney stones, as well as advanced endoscopic and urologic laparoscopic surgery.

"The USC Institute of Urology has a powerful track record of experience

Keck Medicine of USC urologists offer expert services in Glendale

The world-class expertise of Keck Medicine of USC's USC Institute of Urology is now available in Glendale, CA., providing assistance with a variety of urological conditions for patients in a convenient location.

Leo R. Doumanian, MD, and Mike M. Nguyen, MD, who are taking over the practice of William Reynolds, MD, are now providing services at the Keck Medicine of USC site at 1808 Verdugo Blvd. Doumanian and Nguyen are members of the cutting-edge USC Institute of Urology, which ranks 20th in U.S. News and World Report's 2014-15 "Best Hospitals" rankings and has some of the largest experience in treating urologic cancers and genitourinary reconstruction on the West

Coast.

Doumanian specializes in genitourinary injuries and congenital and acquired diseases of the lower urinary tract and male genitalia. Doumanian also has extensive experience treating male incontinence, erectile dysfunction, urinary diversions and neurogenic voiding dysfunction.

Nguyen's practice focuses on prevention of urologic diseases, promoting wellness in his patients and offering active surveillance for prostate and kidney cancers in patients who are good candidates for a less aggressive treatment approach.

and innovation in treating urological conditions including kidney stones and bladder, prostate and kidney cancer," Fuchs said. "Inderbir Gill and the rest of his superior team

are committed to taking urological surgery and treatment in California and the nation to a much higher level, with the support of Keck Medicine of USC. I am excited to be

part of this effort in my roles at Keck Medicine of USC – Beverly Hills and the USC Institute of Urology overall."

HSC NEWSMAKERS

A July 9 report on Al Jazeera's "Tech Know" featured the Argus II, a bionic eye developed by **Mark Humayun**, MD, PhD, professor of ophthalmology, biomedical engineering, cell and neurobiology at the Keck Medicine. A July 10 story in "Tech Know" also covered the third-ever U.S. surgery to implant the device, conducted by **Lisa Olmos de Koo**, MD, MBA, assistant professor of ophthalmology at Keck Medicine.

A July 12 article in *The Buffalo News* quoted **Sean Nordt**, MD, assistant professor of clinical emergency medicine, about people who drink so many energy drinks that they end up in the emergency room.

A July 14 *Kansas City-Star* article cited research by **Andrea Hricko**, MPH, professor of clinical medicine, on the impact of air pollution on lower-income communities.

A July 15 article in *Modern Healthcare* reported that **Amar Desai**, MD, MPH, has been named CEO of USC Care and Ambulatory Care Services, effective Aug. 1.

A July 17 blog post on KPCC-FM's website included a quote from **Jennifer Israel**, MD, assistant professor of clinical obstetrics and gynecology about new national recommendations about pelvic exams that may confuse women. "The message we don't want to send is that if you don't need a pelvic exam, you don't need to come in," she said.

A July 21 article on the KPCC-FM website reported that **Inderbir Gill**, MD, founding executive director, USC Institute of Urology, completed the first robotic-assisted surgery in California on a prostate cancer patient with the new Xi robotic system at Keck Medical Center of USC. **Mihir Desai**, MD, professor of clinical urology at Keck Medicine, said, "Using this new ... robotic technology, we were able to do a prostate removal to help cure this patient from prostate cancer." The news was also covered by the *Los Angeles Daily News*, Examiner.com and Health Canal.

A July 22 article in the *Los Angeles Times* featured an auditory device implanted into a deaf, 3-year-old boy's brainstem by Keck Medicine of USC doctors. The boy was born without an auditory nerve, but

can now hear due to the surgery. The story noted that the medical research team included **Robert Shannon**, PhD, research professor at the Keck School, who helped develop the modern brainstem implant. The boy was the first patient to receive the device in a clinical trial funded by the National Institutes of Health. Other Keck School faculty mentioned in the article included **Mark Krieger**, MD, associate professor of clinical neurological surgery and neurosurgery division chair, Children's Hospital Los Angeles; **Laurie Eisenberg**, PhD, professor of research otolaryngology; **Margaret Winter**, MS, associate professor of clinical otolaryngology, and **Jamie Glater**, AuD, adjunct assistant professor of clinical otolaryngology. *The Globe and Mail*, Canadian Broadcasting Network and CBS News also covered the story.

A July 31 op-ed in the *Sacramento Bee* co-authored by **Michael Goran**, PhD, professor of preventive medicine and pediatrics, Keck Medicine of USC, highlighted the practice of the beverage industry allegedly hiring researchers to support industry claims about the effects of sodas on health.

USC, UCLA and UCSF put their heads together to find stem cell-based cures for craniofacial defects

By **Cristy Lytal**

One in every 2,000 babies is born with a skull that can't grow normally. Sections of these babies' skulls are fused together at joints called sutures, constricting the developing brain and disrupting vision, sleep, eating and IQ. For these young patients, risky skull-expanding surgeries become an almost annual event.

Now, three leading universities for stem cell research — USC; UCLA; and the University of California, San Francisco (UCSF) — have joined forces to find better solutions for these and other patients with craniofacial defects.

All three institutions have leading stem cell research centers established with

support from Eli and Edythe Broad, and all three are home to top scientists and clinicians in the field of craniofacial biology.

"The value of this collaboration is bringing together a bunch of interested scientists from three major institutions in California around really important problems," said Andy McMahon, PhD, FRS, director of the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC.

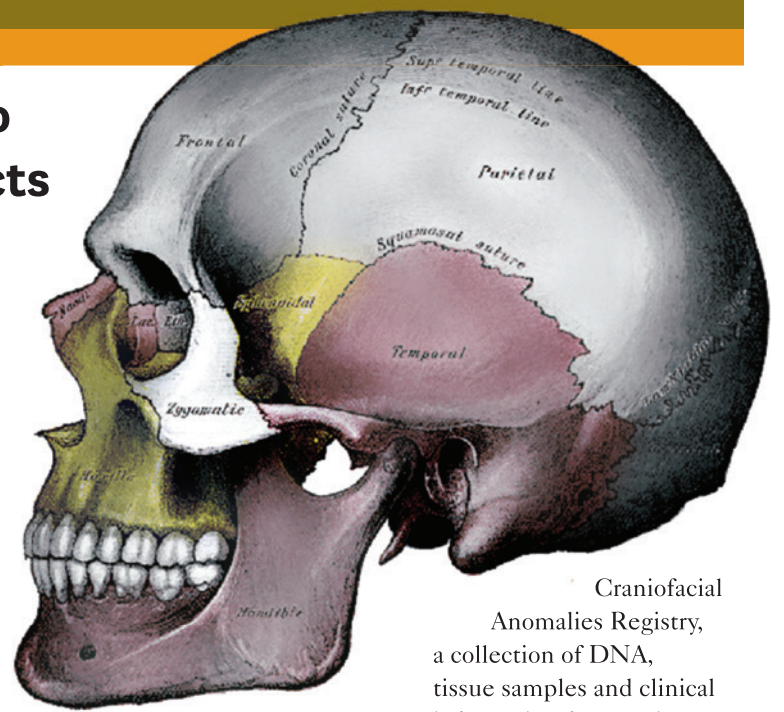
Mark Urata, MD, DDS — a plastic and reconstructive surgeon at USC, Children's Hospital Los Angeles and Cedars-Sinai Medical Center — underscores the need to invent less painful, dangerous and disruptive treatments for babies with

fused skulls. "The operation we perform is state-of-the-art," he explained. "We're doing this better than most people in the country, and yet it's not good enough."

Yang Chai, DDS, PhD — the George and MaryLou Boone Professor, director of the Center for Craniofacial Molecular Biology (CCMB) and associate dean of Research at the Ostrow School of Dentistry of USC — sees tremendous value in teaming up with clinicians such as Urata.

"Our faces are our identities," said Chai. "And when someone has a craniofacial malformation, it really presents a significant challenge to that individual. By working closely with the clinicians, researchers can do more for these kids."

The group has already convened for two day-long



Craniofacial Anomalies Registry, a collection of DNA, tissue samples and clinical information from patients with these relatively rare disorders.

Amy Merrill, assistant professor in the CCMB and Department of Biochemistry at USC, explained: "The ultimate goal is to help these children and come up with some sort of therapy that reduces the amount of stress they have to endure to correct these devastating disorders."

faculty retreats, which have attracted funding from USC's CCMB, the UCSF Program in Craniofacial and Mesenchymal Biology, and the UCLA Clinical and Translational Science Institute. The group plans to expand their next meeting to include postdoctoral fellows, graduate students and others.

They've also established a

Calendar of Events

Wednesday, Aug. 13

4 p.m. Keck School of Medicine Dean's Distinguished Lecture. Robert A. Bradway, CEO, Amgen. Aresty Auditorium. RSVP: www.usc.edu/esvp (code: Bradway). Live webcast: keckmedia.usc.edu/Mediasite/Catalog/catalogs/ddls.

Friday, Aug. 15

5 p.m. Keck School of Medicine White Coat Ceremony. "Class of 2018," Kenji Inaba, USC. Harry and Celesta Pappas Quad. Info: Teresa Cook, (323) 442-2419, teresa.cook@usc.edu

Saturday, Aug. 16

4 p.m. USC Multiple Sclerosis Comprehensive Care Center and Research Multiple Sclerosis Benefit Concert. Herbert Zipper Concert Hall, 200 S. Grand Ave., Los Angeles. Parking available at Walt Disney Concert Hall. Reception, silent auction and live entertainment immediately following concert. Tickets: \$30 for adults, \$20 for under 18. Tickets: Maria Hall, (626) 354-1674. Info: Pat Gutierrez, (323) 442-6817. To donate online visit: keck.usc.edu/DonateMS

Tuesday, Aug. 19

8 a.m. - 2:45 p.m. Office of Research Retreat. "Navigating the University: Research & Resources Management." Davidson Conference Center Board Room, UPC. Info: Rosary Videc, (213) 821-8167, videc@usc.edu, tinyurl.com/on8mhkw. RSVP by Aug. 10 to: uscceer@usc.edu, tinyurl.com/on8mhkw

Noon. USC Women in Management Luncheon. "Senior Vice President of University Advancement Speaks on the \$6 Billion Campaign," Albert R. Checcio, USC. NOR 5342. Info and RSVP: Ginger Mayerson, (323) 227-1092, mayerson@usc.edu, usewim.org. Cost: \$18 WIM members, \$20 non-WIM members

Thursday, Aug. 21

7:30 a.m. - 4:30 p.m. Division of Nursing Education and USC Office of Continuing Medical Education Symposium. "5th Annual Pain Management Symposium," Steven Richeimer, USC. Aresty Auditorium. Info: Teresa Ball, (323) 442-2555, teresa.ball@med.usc.edu, www.usc.edu/cme

Notice: Calendar submissions must be received at least 10 days before an issue's publication date to be considered. Please note that timely submission does not guarantee an item will be printed. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location and a phone number or email address for information.

Submit calendar items at tinyurl.com/calendar-hsc.

Professor's research yields new look at origin of lymphoma

Michael Lieber, MD, PhD, professor at the Keck School of Medicine of USC, has spent years studying the origin of lymphoma by tracing the onset of the problem to the most elemental of levels by looking at what went wrong in the DNA of people who develop lymphoma.

In two recent research papers published in the journal *Cell Reports*, Lieber and a team of multidisciplinary collaborators from the USC Norris Comprehensive Cancer Center and the Department of Biological Sciences, build on that research.

Both projects explain the complex process behind the assembly of the two different parts of antibody genes. One, published in April, looks at the assembly of the part of the gene that attaches to bacteria and viruses. Another, published in July, details the chemical process that goes into assembling the part of the antibody that brings in proteins or other cells to kill bacteria and viruses.

Lymphoma develops in the lymphocytes, a type of white blood cell, that are normally responsible for creating antibodies as part of the body's response to infection.

Both research projects are attempts to understand the DNA signals behind the assembly of normal antibodies. Lieber explained that this information sheds light on the things that go wrong in the production of antibodies both in people with immune deficiencies and in people who develop many different types of lymphoma.

"Almost all lymphomas begin

with a mistake in the processes described in one or both of these research projects," said Lieber.

Both projects contribute valuable knowledge to the development of cancer, but they are also milestone for Lieber.

"It is the culmination of nearly 30 years of my research," said Lieber, who holds the Rita and Edward Polusky Chair in Basic Cancer Research at USC Norris. Basic science can be lengthy and exacting, but when it is done well it can lead to breakthroughs and that is what Lieber's team is hoping for. Armed with information from their years of research, they recently began developing a therapy they hope will help patients with several types of lymphoma.

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