

Kaiser Permanente  
**Research**

# Engaging physicians in research for 60 years

Regional Research Committee



# Impact

More than 6 decades after its founding, the Regional Research Committee remains a primary source of internal funding for research in Kaiser Permanente Southern California. With RRC support, clinicians can become a valuable part of research, contributing important clinical questions and their unique perspective as part of our integrated medical system, and become better doctors because of their research.

In January 2014, Somjot Brar, MD, MPH, cardiologist at our Los Angeles Medical Center, became chair of the Regional Research Committee, succeeding Donald Fong, MD, who had served as chair since 2004.

Under Dr. Brar's leadership, the committee has been working aggressively to raise awareness of the multiple venues available to do research. The goal is to engage even more physicians in research.

"We want physicians to know all the resources that are available to support them doing research," said Dr. Brar. "We are also very involved in helping physicians develop proposals that give them the best chance of success. We want to make it easier for them to do high-quality, impactful research that affects the patients they're treating."

Application volume has more than tripled in the past year-and-a-half to an all-time high. "This increase shows that our physicians understand the value of research and are availing themselves of the resources and opportunities within Kaiser Permanente," said Dr. Brar.

A total of 29 projects were submitted to the RRC in 2014. Of those, 25 were reviewed and 20 were approved. See the next two pages for a description of the resulting projects.

Patrick Van Winkle, MD, a pediatric hospitalist at our Anaheim Medical Center and area research chair for Orange County, also emphasizes the committee's work in fostering research.

"Our goal is to help physicians start out on a good path for research," said Dr. Van Winkle. "We help them see what projects fit into the paradigm of the RRC to help them get the appropriate research assistance and statistician support for their work."

Some recent studies that have been translated into clinical practice are described below.

## Reducing acute kidney injury during cardiac catheterization

In a study led by Dr. Brar and published in *The Lancet* in May 2014, researchers assessed a new fluid protocol developed at KPSC to reduce the risk of contrast-induced acute kidney injury in patients undergoing cardiac catheterization. The new protocol resulted in a 59% reduction in kidney damage and a 68% lower rate of dialysis, heart attack, or death after the procedure, versus the risks associated with standard procedure.

The findings from this study remove much of the uncertainty around how much and how long fluids should be administered before, during, and after contrast exposure for cardiac catheterization. The protocol led to practice guidelines that are now used in our electronic health record, Kaiser Permanente HealthConnect®.

## Improving prenatal detection of congenital heart disease

The rate of detection of significant congenital heart disease during gestation has been extremely low worldwide. Of those ultimately found to have significant congenital heart disease, often less than 30% are detected in a low-risk population. Denis Levy, MD, pediatric cardiologist at our San Diego Medical Center, led a study to evaluate a practice, implemented in San Diego, to increase detection of cardiac defects by assessing fetal cardiac outflow tracts shown by screening ultrasound.

The study showed that assessment of the fetal outflow tracts during an ultrasound significantly increased detection rates (59% versus 28%). Data gathered from Kaiser Permanente HealthConnect demonstrated that even higher detection rates (74% before birth and 94% before discharge from the hospital) can be achieved within Kaiser Permanente's integrated system. "Looking at outflow tract is now recommended throughout Kaiser Permanente and beyond," said Dr. Levy.



*Dr. Robert Hye, Dr. Ricardo Spielberger, and Dr. Robert Cooper*

## RRC-funded projects in 2014

The Regional Research Committee provides funding for research projects led by clinicians and other health care professionals in Kaiser Permanente Southern California. These projects address real-world clinical questions and have the potential to point to better ways to prevent and treat common health conditions. In 2014, the committee awarded funds to the following studies.

### Bone Health and Orthopedics

Knee replacement surgery: Are its outcomes altered by perpetuation of prior low-value interventions? (Principal investigator: Ronald Navarro, MD, South Bay)

### Cardiovascular Disease

A randomized control trial of intensive lifestyle interventions: Determining the risk in patients with coronary artery disease with coronary intima-media thickness. (PI: Mohamed Ismail, MD, Riverside)

The Kaiser Permanente evaluation of atrial fibrillation ablation and the use of cryoballoon. (PI: Simon Kangavari, MD, Los Angeles)

### Child and Adolescent Health

Medical management versus surgical intervention for pediatric parapneumonic pulmonary effusions and empyemas. (PI: Esther An, MD, Los Angeles)

### Dermatology

The risk of malignancy in psoriasis patients. (PI: Benjamin Lin, MD, Resident, Los Angeles)

### Digestive System Disorders/Gastroenterology

Acute diverticulitis diagnosed in outpatients: Is it irritable bowel syndrome? (PI: Anders Nyberg, MD, PhD, San Diego)

Long-term outcomes after right-sided or bilateral colonic ischemia. (PI: Robert Hye, MD, San Diego)

### Emergency Care

Emergency department discharge of symptomatic gallbladder disease: Current practice patterns, high-risk patients, and health care-related costs. (PI: Anne Rutkowski, MD, South Bay)

Reduction in admissions, mortality, and readmissions for patients with pneumonia after implementation of Modified CURB-65 risk assessment guideline in the ED: a retrospective study. (PI: Michael Liu, MD, Orange County)

### Eye Research

Cystoid macular edema and use of peri-operative topical non-steroidal anti-inflammatory drugs. (PI: John Paschal, MD, Baldwin Park)

## Kidney Disease

Renal function before and after bariatric surgery.  
(PI: Talha Imam, MD, Fontana)

## Maternal and Infant/Neonatal Health

Effects of maternal exercise on the fetus of normal, obese, and diabetic mothers. (PI: Neha Trivedi, MD, San Diego)

Comparison of patient-controlled epidural analgesia with 0.15% ropivacaine and 0.1% bupivacaine with fentanyl during labor on maternal and obstetric outcomes. (PI: Patrick Roth, MD, Orange County)

## Pharmacoepidemiology

Aripiprazole partial agonism at 5-HT<sub>2c</sub>: A comparison of weight gain associated with adjunctive aripiprazole to antidepressants with high versus low serotonergic activities. (PI: Jessica Hazen, DO, Riverside)

## Prevention and Behavior Change

Using the Exercise Vital Sign as a possible predictor for cardiovascular health. (PI: Robert Sallis, MD, Fontana)

Exercise patterns between parents and their children, is there a correlation? (PI: Stanley Setiawan, MD, Fontana)

Medical Student Fitness: Does the curriculum expand more than knowledge? A comparison study of medical student fitness to the general population. (PI: David Sugiyama, MD (resident), Fontana)

## Vaccine Safety and Effectiveness

Evaluation of human papillomavirus vaccine compliance rates in adolescents and adults and factors associated with successful vaccination in Kaiser Permanente Orange County. (PI: Christina Hong, MD, Orange County)

## Women's Health

A retrospective analysis of culture proven urinary tract infection after midurethral sling. (PI: Emily Whitcomb, MD, Orange County)

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For more information, contact [research-communications@kp.org](mailto:research-communications@kp.org) or visit [kp.org/research](http://kp.org/research).



*Dr. Sidney Garfield and Dr. Raymond Kay, mid-1970s*

## RRC's roots: Kaiser Permanente's founding fathers

Medical research has been a part of Kaiser Permanente's mission from the very beginning. With the encouragement of Sidney R. Garfield, MD, Henry J. Kaiser set up the Permanente Foundation in 1942, to "perform and carry out charitable, educational, and research activities." Through this, Kaiser made it clear that research was for the public good, and he was willing to commit the financial resources of the organization to advance it.

The original idea for the foundation came from Raymond Kay, MD, a colleague of Dr. Garfield from their residency days at Los Angeles County General Hospital. In 1954, Dr. Kay, by then the executive medical director of the Southern California Permanente Medical Group, created the Regional Research Committee to help fund and centralize medical research efforts throughout the region.

Dr. Kay appointed urologist Jack Cooper, MD, of our Los Angeles Medical Center, as chairman. Dr. Cooper himself was one of SCPMG's first physician researchers. His early efforts included a search for markers to detect prostate cancer, a precursor to today's PSA test.

Physician researchers in the mid-1950s were a very dedicated group, often conducting research with no formal structure and very little financial support. The KPSC research budget for 1954 was \$10,000 (about \$87,000 in 2014 dollars). Still, physicians who wanted to conduct research were given the freedom and encouragement to do so.

"In these early days, SCPMG made a commitment that, even though the fundamental mission of Kaiser Permanente was to provide quality medical care, it would foster research," said Sheldon Wolf, MD, who succeeded Dr. Cooper as chair of the RRC in 1980. "It was a very enlightened policy."