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 **Medical School Hotline**

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**John A. Burns School of Medicine**  
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### **Opportunities in Medicine for Native Hawaiians**

A major effort at the John A. Burns School of Medicine is to provide opportunities in medicine for disadvantaged minorities from Hawaii and the broader Pacific. When the medical school was established in 1967, there were fewer than 10 Native Hawaiian physicians practicing medicine in Hawaii. Given this situation, the school developed a formal program in medical education for disadvantaged students.

In April 1970, the Dean's Guest Program, known as *Kulia*, was awarded a grant from the Health Manpower Division of the U.S. Department of Health, Education and Welfare. Students in the program could complete medical school training in five years instead of the usual four. They were required to pass all of the same rigorous examinations and achieve the same standards for graduation as their regular classmates. At the termination of federal funding in 1978, the school's commitment to increasing the number of disadvantaged students in medicine continued. *Kulia* students are now on a four-year track with the rest of the students, and all students have an option to extend their training if needed.

Postgraduate education impact programs require a pool of prepared minority students from which to draw. In 1972, the *Imi Ho'ola* program was established to prepare post-baccalaureate students from disadvantaged programs for entry into medical school. The program serves as a *feeder* into the John A. Burns School of Medicine. The target population consists of Pacific Islanders, specifically Hawaiians, Filipinos, Samoans, and residents of Guam, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of Palau, and the Republic of the Marshall Islands.

To date, 285 students have participated in *Imi Ho'ola*. Annually, up to 20 baccalaureate students are selected to participate in a curriculum that emphasizes study skills and instruction in the natural and social sciences and humanities. One hundred thirty-nine (49%) graduates of *Imi Ho'ola* have been accepted into the John A. Burns School of Medicine. Sixty-seven percent have graduated from the School of Medicine; 21% are currently enrolled; and 12% have been dismissed or withdrew. Of these graduates, more than a third are Native Hawaiians.

In September 1993, the medical school received a federal grant to establish the *Native Hawaiian Center of Excellence*. One of the Center's goals is to continue the emphasis of training physicians who are committed to the care of the indigenous people of this state. This grant has allowed the school to consolidate 24 years of various program efforts for minorities into a coordinated, comprehensive initiative. The enrollment of Native Hawaiian medical students now stands at 14% of the

school's total enrollment. While this rate is higher than the enrollment for the University of Hawaii Manoa campus (near 7%), it is still lower than the 20% estimate of the Native Hawaiian population in the state.

The medical school continues its firm commitment to make medical careers possible for disadvantaged minorities. This determination is best demonstrated by the number who have graduated from this medical school as a direct result of its affirmative action programs.



## **Military Medicine**

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### **Marshall Islands Medical Survey**

In the early morning of March 1, 1954, a thermonuclear device code-named Bravo was detonated on a tower at Bikini Atoll as part of a nuclear weapons test series. Radioactive debris from this device deviated from projected trajectories due to wind shifts and an unexpectedly large energy yield. As a result the cloud of fallout deviated to the east contaminating several atolls in the northern Marshall Islands, rather than drifting over the open seas to the north. As a consequence, 253 native inhabitants along with 28 American servicemen and 23 Japanese fishermen were exposed to variably severe doses of ionizing radiation. Marshallese inhabiting Rongelap, Ailingnae, and Utirik Atolls and a group of American servicemen on Rongerik Atoll were caught within the fallout field. It was two to three days before evacuation to Kwajalein Atoll was accomplished by navy units. The Japanese fishing vessel *Fukuryu Maru 5* was exposed 80 miles east of Bikini.

The immediate effects of this exposure were well documented during a two-month observation period by medical teams assembled at the Kwajalein Naval Base. Nausea, vomiting and diarrhea occurred within 48 hours in about two-thirds of those most heavily exposed, on Rongelap. Less heavily exposed people suffered from pruritis, conjunctival irritation, and later epilation was experienced by almost all subjects with cutaneous symptoms. The severity of skin lesions was proportional to the amount of fallout material. On Rongelap fallout was described as similar to snowfall; it actually whitened hair and adhered to skin. Epilation affected half of the group on Rongelap. Hematologic abnormalities were seen in proportion to the exposure. Lymphocyte and granulocyte counts fell by 50% in the Rongelap population, and returned to normal by one and two years respectively. Long-term sequelae have not been observed except for one fatal case of acute myeloblastic leukemia in a young man who was one year old at the time of exposure.

In 1955 Brookhaven National Laboratory (BNL) began a program to diagnose and treat radiation-related disease in the exposed population of the Marshall Islands. This program was