

mission's Advisory Committee on Nuclear Material Safeguards.

Roger was named LLNL's sixth director in 1971, and served from 1971 to 1988—more than one-third of the laboratory's history. He is credited by colleagues with providing the leadership that allowed LLNL to expand and diversify its scientific base. He increased research areas in energy, particularly magnetic and inertial confinement fusion energy, high-power lasers, seismic analysis, and atmospheric sciences. Under his leadership, LLNL's laser program completed Shiva and Nova, lasers built for research in laser fusion, and developed laser isotope separation.

Roger personally considered one of his greatest achievements to be the establishment of a vibrant biomedical science program that would pave the way for the human genome program. With his strong support, biomedical research at LLNL made great strides in genetics, biodosimetry, and other areas of promise for revolutionizing modern medicine.

After a decline in weapons research during the 1970s, LLNL took on new weapons projects during the Ronald Reagan administration in the 1980s, including warhead design assignments, studies of particle beams, x-ray lasing and ballistic missile defense. Director Emeritus Edward Teller credits Roger with positioning the laboratory to help accomplish the nation's primary mission at the time: winning the cold war.

Roger inspired the confidence of many of LLNL's customers. Quiet and soft spoken, he empowered his deputies and associate directors to run programs the way they saw fit. Colleagues remember him as an attentive listener who, when he spoke, was direct, insightful, and persuasive. They also recall that, even after he became director, he never lost his passion for laboratory chemistry work and would return to the laboratory to help analyze samples brought in from the Nevada test site. Although he retired in 1988, Roger continued to serve LLNL as a consultant until his death.

Among his many honors, Roger was a fellow of the American Association for the Advancement of Science and a recipient (in 1982) of one of the Department of Energy's highest awards: the Distinguished Associate Award.

A resident of Danville, California, Roger enjoyed fishing, hunting, and horseback riding. He also enjoyed crafting stained glass with his children, square dancing, doing the jitterbug, and going to club workouts

with his wife Edwina.

Roger left as his legacy a strong and diverse LLNL, well poised to continue putting science to work in the national interest. He will be missed by all who knew and worked with him.

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Jean Heidmann

Jean Heidmann, like the cosmos he studied, was always in motion. An accomplished researcher and astronomer, he was an enthusiastic spokesman for science. Heidmann died in surgery on 3 July in Paris.

Born 18 May 1923 in Jeumont, France, Heidmann earned an undergraduate degree in engineering from the prestigious Ecole Centrale Paris in 1946, after which he sought a job in industry. In only a few weeks, Heidmann realized he wished to turn his attentions to matters of more universal import—the study of cosmic rays—and ultimately earned his PhD in physics in 1951 from the Ecole Polytechnique. The examination board for his doctorate included Louis de Broglie and Louis Leprince-Ringuet.

Heidmann joined the Paris Observatory at Meudon in 1959 and remained there for his entire career. His fields of interest were cosmology and galaxies, and he is probably best remembered for research on clumpy galaxies. He spent 1969 in Austin, Texas, working with Gerard de Vaucouleurs on galaxy morphology and the determination of the Hubble constant.

By the late 1970s, Heidmann's reputation had developed sufficient nimbus that he was entrusted with the editorship of the then-new journal *Astronomy and Astrophysics*. Heidmann helped shepherd this bold, multinational publishing enterprise into a respected journal for astronomical research.

Heidmann frequently collaborated with radio astronomers outside of France. He had visited Groningen in the Netherlands in the late 1970s, joining Dutch astronomer Hugo van Woerden and me in a project to investigate a certain class of compact galaxies. The results, while interesting, were hardly extraordinary. But to my surprise, Heidmann later reevaluated some of our data, claiming they might be telling us more than merely the dynamical parameters of a distant galaxy: They could be deliberate signals from space. Heidmann had



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become interested in the search for extraterrestrial intelligence (SETI) in the 1980s, and he postulated that at least one of the many point sources in the fields we had observed was a transmission from an advanced society orbiting a nearby star.

Although he later dismissed this suggestion, Heidmann's commitment to SETI was substantial. It was a field in which he was both active and creative. He encouraged interest in the subject with media appearances and popular writings; well known among his many books are *Cosmic Odyssey* (Editions Denoel, 1986) and *Extraterrestrial Intelligence* (Editions Odile Jacob, 1992). In recent years, Heidmann energetically promoted steps to ensure that SETI could establish an observatory on the moon, shielded by that satellite's bulk from the cacophonous radio interference of Earth. He was a dependable speaker at SETI gatherings, encouraging the idea that the Saha Crater, which lies just beyond the lunar limb, would be an ideal site for such a project. The legacy of Heidmann will be long felt on this world, and may yet extend to its nearest neighbor.

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Oswald Francis “Mike” Schuette

Oswald Francis “Mike” Schuette, a noted atomic and molecular physicist, died of a stroke at his home in Columbia, South Carolina, on 6 August.

Born in Washington, DC, on 20 August 1921, Mike graduated with a