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FOR IMMEDIATE RELEASE

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Celebrate the Black Hills legacy of neutrino science at SURF's Nobel Day event

Celebrate Nobel Day and the pioneering research of Dr. Raymond Davis, Jr. with SURF science director Jaret Heise

LEAD, SD— Each year on Nobel Day, the world celebrates humanity's achievements in the sciences, literature and peace. At Sanford Underground Research Facility (SURF), we've created Nobel Day to celebrate science and public outreach in our region. Join us for our virtual event, "Deep Talks: Nobel Day" on Friday, Dec. 10, from 6 to 7 p.m. MT.

At the event, Dr. Jaret Heise, science director at SURF, will discuss the work of Dr. Raymond Davis Jr., a chemist from Brookhaven National Laboratory. For nearly three decades, Davis operated his solar neutrino experiment nearly a mile underground at Homestake Gold Mine. His pioneering work raised eyebrows in neutrino research and, ultimately, earned him a share of the Nobel Prize in Physics in 2002.

"We'll revisit SURF's scientific roots and the legacy of transformational research with Ray Davis' neutrino experiment," Heise said.

Heise's own early research was connected to Davis' discoveries. For more than a decade, Heise worked with Dr. Arthur B. McDonald, who shared the 2015 Nobel Prize in Physics with Dr. Takaaki Kajita. Through their discovery of the "chameleon-like" nature of neutrinos, Takaaki and McDonald solved a long-standing puzzle in particle physics and proved Davis's results were correct. "The discovery has changed our understanding of the innermost workings of matter and can prove crucial to our view of the universe," the Royal Swedish Academy of Sciences said.

Learn more about Davis' work at Homestake—how it advanced the field of neutrino science and the role it played in creating SURF—during this year's Nobel Day celebration.

During the event, SURF will present the 2021 Communication and OutReach Experiences in Science (CORES) Award to The Journey Museum and Learning Center. The Journey Museum was [recognized](#) with the CORES Award for their passion for science education and a visible commitment to public science outreach in the region.

Attendees can join this free event via Zoom webinar to answer polls and submit questions for speakers or watch live on SURF's Facebook page. Webinar space is limited; early registration is encouraged.

[View full event information and register for the Zoom webinar on SURF's website.](#)

This event is part of SURF's Deep Talks lecture series, a monthly series ushering scientific discussions into the public sphere. In the 2021-2022 season, Deep Talks will bring voices from the international scientific community to your home through our virtual format. The Deep Talks lecture series is sponsored by Chuck and Jolene Lichtenwalner, Crow Peak Brewing Company, RCS Construction and Northern Hills Federal Credit Union.

Sanford Underground Research Facility is operated by the South Dakota Science and Technology Authority (SDSTA) with funding from the Department of Energy's Office of Science. Our mission is to advance world class science and inspire learning across generations. Visit SURF at www.sanfordlab.org.