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Vitalant Research Institute to participate in a large seven-year blood transfusion research program, with enhanced focus on neonatology and pediatric Transfusion Medicine

(San Francisco, CA, May 08, 2019) The National Heart, Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) awarded Vitalant Research Institute (VRI), formerly Blood Systems Research Institute (BSRI), multiple seven-year contracts for the next evolution of Transfusion Medicine research that will be conducted under a large program known as the Recipient Epidemiology and Donor Evaluation Study (REDS). This is the fourth phase (REDS-IV-P) of funding for the REDS programs that VRI/BSRI has received from NHLBI since 1989, making the research institute a 30-year partner in the REDS project history. The new contracts run through March 2026.

REDS continues to be the benchmark multicenter blood donor and recipient research program for informing clinical practice and policy development in the Transfusion Medicine community. REDS-IV-P will continue the research and evaluation of the efficacy and safety of blood donor management and transfusion practices, but with an additional focus on pediatric and neonatal blood transfusion. Principal investigators at VRI will be part of a comprehensive REDS-IV-P program which will use multi-faceted research strategies to proactively evaluate and improve the safety and effectiveness of transfusion therapies in adults, children and neonates, and serve as a resource to the transfusion research community to respond to potential threats to the nation's blood supply.

"Vitalant is powered by purpose and passion," states Dave Green, President & CEO of Vitalant. "The Vitalant Research Institute exists in constant dedication to the union of science and innovation to further strengthen our leadership role in transfusion medicine and blood safety."

Vitalant Research Institute in partnership with the University of California – San Francisco (UCSF) has been a domestic hub throughout the REDS program — for the inaugural REDS, then REDS-II, REDS-III and now REDS-IV-P. VRI was also the central lab for REDS, REDS-III and REDS-III and is the Center for Transfusion Laboratory Science for REDS-IV-P. VRI investigators also led the International REDS-II and REDS-III programs in Brazil (which is continuing under REDS-IV-P) and the international REDS-III program in South Africa, which concentrated on the study of infectious blood diseases, including HIV and Zika.

"Vitalant Research Institute is the only institute that has participated in REDS since its inception in 1989," comments Dr. Michael Busch. "We are proud of this level of continuity of both our donor and recipient research contributions, as it is an achievement that no other research entity in the field holds. It also serves to showcase our expertise and dedication to innovation in transfusion medicine across the globe."

For REDS-IV-P, Drs. Brian Custer and Elliott Vichinsky are the lead investigators from Vitalant Research Institute and UCSF Benioff Children's Hospital, respectively, and will be the principal investigators of one of four domestic hubs. VRI will work locally in collaboration with transfusion physicians at UCSF Medical Centers in San Francisco, Zuckerburg San Francisco General Hospital and UCSF Benioff Children's Hospitals in Oakland and San Francisco. Drs. Brian Custer and Ester Sabino, co-principal investigators from Vitalant Research Institute and the University of Sao Paolo Tropical Medicine Institute, respectively, will lead the REDS-IV-P Brazil Program, the only continuing International Program in REDS-IV-P. The Brazil program will allow for the continued evaluation of the safety and effectiveness of transfusion strategies in a large cohort of patients with sickle cell disease which was established in REDS-III, and for continued evaluation of arboviral threats to blood safety. Leading the REDS-IV-P Center for Transfusion Laboratory Science supporting the entire REDS-IV-P network will be Drs. Michael Busch and Philip Norris, both of Vitalant Research Institute.

The focus of several projects proposed by VRI is to inform development of "Precision Transfusion Medicine" in neonatology, pediatric and adult blood transfusion practices, which will be conducted through interwoven epidemiological, laboratory and observational research studies.





Neonatology and pediatric transfusion research protocols will help ensure that these populations receive the optimal blood type from the optimal donor specific to their individual transfusion needs, in the right amount, for the best outcomes.

"Precision medicine benefits everyone from children to adults to seniors," says principal investigator Dr. Brian Custer. "This research in neonatology and pediatric blood transfusion takes patient care to the next level for our smallest and most vulnerable patients globally. As doctors and researchers, it is critical that we always expand our knowledge and perspective to be conduits for positive impact in the full spectrum of transfused patients."

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