Optimize blood and plasma management across collection operation, region, division and enterprise with InVita.

Our platform connects the people, information and processes to ensure the availability of blood products when they are needed. Integrating data from hospital orders, demand planning, staffing, mobile drives, donor recruitment, product quality control and equipment maintenance into one platform makes it easier to oversee compliance, quality and cost.

Real-time data provides visibility into issues across the supply chain, empowering staff to make dynamic, proactive adjustments. InVita’s integrated solution provides the tools that drive automated processes and efficiencies in all areas:

- HemaControl: Hospital order entry
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- HemaCollect: Mobile drive and collections staffing
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Info@invitahealth.com / InVitaHealth.com / 904.288.5999

Our blood and plasma platform is based on a legacy of excellence started by HemaTerra Technologies. Now, under InVita Healthcare, expect more great things.
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The 2020 Virtual Annual Meeting Will Be Here Soon

The 2020 AABB Virtual Annual Meeting will take place in early October, and excitement is building in the blood and biotherapies community. The state-of-the-art virtual meeting platform will be available to meeting registrants starting in mid-September, and I strongly encourage you to explore the platform before the meeting starts.

Live education sessions will run from 9 a.m. to 8:15 p.m. ET each day of the meeting — Saturday, Oct. 3, Sunday, Oct. 4 and Monday, Oct. 5 — and it’s never too early to start adding some can’t-miss sessions to your calendar. You will almost certainly want to plan a few times to chat with other meeting participants, either in a dedicated networking lounge or using the chat feature during meeting events, and you may also want to schedule some time when the Exhibit Hall is open to connect with oral abstract and poster presenters and discuss the latest technologies and services with exhibitors.

As for me, I’m really looking forward to the meeting, especially attending a few “Hot Topics” sessions to hear about how my colleagues are handling the most critical issues affecting transfusion medicine and biotherapies. And anyone who knows me knows I would never miss the National Blood Foundation’s Run for Research 5K.

This year, AABB will be presenting memorial awards and the President’s Award virtually during a special awards celebration on October 28. I hope you will join us to acknowledge the distinguished careers and accomplishments of the extraordinary individuals who will be honored this year. AABB will be providing complimentary tickets to all members, so there is no excuse not to join with our community in recognition and to catch the associated lectureships.

The new virtual platform will certainly be very different than our usual in-person event, which is why I suggest registering early to have time to familiarize yourself with it before the meeting begins. I’m optimistic that, with the use of virtual platforms such as this one and other tools that allow us to connect online, we will be able to network, work together and learn from one another, both during the Annual Meeting and beyond, in the safest way possible.

Beth Shaz, MD
AABB President
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NBF Announces 2020 Early-Career Scientific Research Grant Awardees

The National Blood Foundation (NBF) announced the names of eight early-career investigators who have been selected to receive a Scientific Research Grant this year. The NBF awards seed grant funding to promising early-career researchers to initiate research careers in transfusion medicine and biotherapies. During the past 30 years, the NBF has awarded almost $11 million in grant funding to more than 200 beginning researchers.

“The National Blood Foundation’s Scientific Research Grants Program has been such a critical part of launching the early research careers of budding scientists in transfusion medicine and biotherapies. Looking back on the NBF legacy, it is clear that the contributions of NBF recipients to the understanding and treatment of diseases that rely on transfusion medicine and biotherapies have been nothing short of remarkable,” said Jim Gorham, MD, PhD, chair of the NBF Scientific Research Grants Review Committee. “This is no more vividly illustrated than in 2020, as scientists supported by the NBF have made, and continue to make, highly impactful discoveries about COVID diagnosis and treatment, to the benefit of all throughout the world. We are thrilled to welcome this new cadre of early-career scientists to the NBF family and look forward to seeing their impact on the understanding of disease and the delivery of life-saving transfusions to patients in need.”

Annamaria Aprile, PhD

Postdoctoral Fellow
San Raffaele Telethon Institute for Gene Therapy (SR-Tiget), Gene Transfer into Stem Cell Unit
Ospedale San Raffaele, Milan, Italy

Project Title: Exploring the Role of FGF23 in β-thalassemia: a Novel Target to Ameliorate Bone Marrow Microenvironment and Anemia

Summary of Proposed Research: β-thalassemia (BT) is a globally widespread genetic anemia. Aprile’s team studies in BT mice highlighted an altered bone marrow (BM) microenvironment, with low bone density and increased circulating fibroblast growth factor 23 (FGF23), affecting the outcome of therapeutic BM transplant. FGF23 regulates bone homeostasis and also erythropoiesis. Unraveling the mechanisms activated by FGF23 in BT and targeting its signaling might provide new therapeutic approaches to ameliorate both BM environment and anemia.
**Agnieszka Czechowicz, MD, PhD**

Assistant Professor  
Department of Pediatrics, Division of Stem Cell Transplantation and Regenerative Medicine  
Stanford University School of Medicine, Stanford, Calif.

**Project Title:** Determine Genetic Factors and Mutations That Regulate Progression to Bone Marrow Failure and Myeloid Neoplasia in Fanconi Anemia

**Summary of Proposed Research:** Fanconi anemia (FA) is a disease that causes hematopoietic stem and progenitor cell (HSPC) defects, leading to bone marrow failure and leukemia. Drivers of hematological manifestations in FA are poorly understood. Czechowicz and team hypothesize that FA HSPCs must acquire unique genetic mutations and transcriptomic states before reaching full blown disease. With this research, they propose to analyze hematopoietic phenotypes, clonal hematopoiesis and HSPC transcriptomes in FA patients at different disease states.

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**Areum Han, PhD**

Postdoctoral Fellow  
Hematology/Oncology Department, Boston Children’s Hospital, Biological Chemistry and Molecular Pharmacology Department  
Harvard Medical School, Boston, Mass.

**Project Title:** The Role of the RNA Editor-Exonuclease Axis in RNA Turnover During Erythropoiesis: From Mouse Embryo Studies to In Vitro Modeling

**Summary of Proposed Research:** Han proposes to investigate the role of the RNA editor-exonuclease axis during erythropoiesis. She expects that results from this project will reveal for the first time the machinery behind global RNA decay during red blood cell differentiation and will eventually lead to advances in in vitro erythropoiesis and modeling hemoglobinopathies including for sickle cell disease from iPS cells.

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**Robert H. Lee, PhD**

Postdoctoral Research Associate  
Department of Biochemistry and Biophysics, University of North Carolina, Blood Research Center  
Chapel Hill, N.C.

**Project Title:** Efficacy of Platelet Transfusion in the Setting of Anti-Platelet Therapy

**Summary of Proposed Research:** Anti-platelet therapy (APT; aspirin, plavix) is used to prevent thrombosis, but these drugs can also cause bleeding. Platelet transfusions can prevent bleeding, especially in thrombocytopenic patients (low platelet counts), but patients on APT often have normal platelet counts. Lee and team recently showed that dysfunctional platelets can interfere with the function of the healthy transfused platelets. This study will investigate the effectiveness of platelet transfusion in the setting of APT.

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**Larry Luchsinger, PhD**

Assistant Member  
Stem Cell Regenerative Medicine  
New York Blood Center  
New York, N.Y.

**Project Title:** Caveolae Coordination of Signal Transduction Pathways in Hematopoietic Stem Cell Function

**Summary of Proposed Research:** Hematopoietic stem cells (HSCs) have the potential to produce all cell types in the blood-making HSCs, the ultimate resource for manufacturing transfusion and cellular products. Yet the lack of reliable strategies to expand, or maintain, functional HSCs in vitro underscores that major gaps still exist in our knowledge of HSC physiology. This study proposes to discover whether plasma membrane signaling pathways underpin HSC function and to develop HSC expansion methods to generate blood products in vitro.

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**Evan Orenstein, MD**

Assistant Professor  
Pediatrics and Clinical Informatics, Emory University  
Atlanta, Ga.

**Project Title:** Improving Patient Blood Management in Pediatrics through Automated Medical Error Detection and Clinical Decision Support Design

**Summary of Proposed Research:** In this study, Orenstein and team will first create and validate automated “trigger tools” to detect medical errors related to pediatric blood transfusions. The team will then use user-centered design to develop and evaluate clinical decision support systems targeting the most burdensome errors detected. These advances will support future clinical trials to determine the best electronic...
health record design to promote pediatric patient blood management.

David Roh, MD

Assistant Professor
Neurology, Columbia University
New York, N.Y.

Project Title: Red Blood Cell Contribution to Coagulopathy and Cerebral Oxygenation after Intracerebral Hemorrhage

Summary of Proposed Research: Hemostasis is thought to be driven primarily by coagulation factors, platelets and fibrinogen. Intracerebral hemorrhage (ICH) treatments focus on the repletion of these factors to minimize ongoing bleeding. However, outside of their known role of oxygen delivery, red blood cells may play a role in hemostasis. This project will explore the contribution of RBCs on both hemostasis and cerebral oxygenation after ICH in efforts to identify novel treatment targets to improve ICH outcome.

Kim Vanuytsel, PhD

Assistant Professor
Department of Medicine, Section of Hematology and Oncology and Center for Regenerative Medicine (CReM), Boston Medical Center
Boston, Mass.

Project Title: Validation of a Potential Curative Gene Editing Approach Across the Diverse Sickle Cell Disease (SCD) Patient Population Using Induced Pluripotent Stem Cells (iPSC)

Summary of Proposed Research: Using a sickle cell disease patient-specific induced pluripotent stem cell platform as a preclinical screening tool, Vanuytsel and team will validate the efficacy of novel therapeutic gene editing strategies across a diverse SCD patient population. Upon introduction of HbF modifying edits, the researchers will investigate fetal hemoglobin induction in patient-specific iPSC-derived erythroid cells to study differences in response based on genetic background and how this can predict and inform clinical treatment.

Funding for this research is made possible by the generous contributions of many individuals and partner organizations throughout the blood and biotherapies community. We are grateful for their continued support and commitment to funding innovative science.

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NBF Events at the 2020 AABB Virtual Annual Meeting

Participation in the following programs helps support innovative research in transfusion medicine and biotherapies. Visit the NBF Events at the 2020 AABB Annual Meeting page for additional information and registration for these events. http://www.aabb.org/annual-meeting/network/Pages/nbf-events.aspx.

NBF 2020 CEO Summit
Sunday, Oct. 4, 12:30-2 p.m. ET

The NBF will convene leading experts to share their experiences responding to the COVID-19 pandemic and its effects on the supply chain, highlight specific challenges and discuss future solutions.

NBF Research Symposium
Monday, Oct. 5, 12:30-2 p.m. ET

This program for AABB and NBF Board members, NBF committee members and prior grant recipients will showcase the 2020 NBF Hall of Fame inductees and Award for Innovative Research recipient as they present updates on their research programs.

NBF Virtual Run for Research 5K/1-Mile Walk

This year’s Run for Research will be a virtual event that can be completed on any day of the Annual Meeting, on a trail, treadmill or track. Registration is available through Oct. 5 and includes an official race t-shirt. The NBF encourages registrants to post photos and videos on AABB’s social media and to track their progress using the RaceJoy app.