

OCTOBER 2021
Vol. 23 No.10

AABB News

- 6 Meet the 2021 NBF Early-Career Scientific Research Grant Recipients
- 16 Regenerative Medicine's Long Journey From Bench to Bedside
- 18 Cellular Therapy Treatments for COVID-19



The Next Phase for Biotherapies



medical
systems



Put Time On Your Side

B Medical Systems Blood Management Solutions

Time is one of the few things you can't buy in life. For your temperature sensitive biologics, there is an exception. The B Medical Systems robust line of medical-grade refrigeration and cold chain transport devices can essentially slow the effects of time by extending the useful life of your valuable products for cell and gene therapy and blood product applications.



8
MODELS



+4°C



24 > 540
450ml bags

Learn more at www.bmedicalsystems.com



Contents

COLUMNS & INTERVIEWS

President's Message

2 Reflections on the Past Year

Accreditation Corner

3 Spotlight on Versiti Blood Center of Indiana

TMSCC Presents

4 Meet Jeannine McCullough

NBF: Shaping the Industry

6 AABB Congratulates the 2021 Early-Career Scientific Research Grant Recipients

Annual Meeting

8 There Will Be Many Opportunities for Annual Meeting Attendees to Connect at the Meeting and Beyond

High Priority

15 AABB Announces Launch of Quality Systems Framework

AABB Awards

15 AABB Announces 2021 Award Recipients

White Coats

26 Larry Luchsinger, PhD: Developing Practical Solutions to Treat Currently Incurable Diseases

DEPARTMENTS

22 Of Note

25 PEP Talk

29 Calendar

18 Researchers Are Investigating Cellular Therapy Treatments for Patients with COVID-19



10 Regenerative Medicine's Long Journey From Bench to Bedside

Beyond the development of regenerative technologies is a massive effort to adapt them to the clinic.



Reflections on the Past Year

It does not seem possible that my tenure as AABB President is already drawing to a close. But my year-long term is almost over, and I will be officially handing off the AABB presidency to my successor, Dana Devine, PhD, on the final day of the upcoming AABB Annual Meeting.

As I am sure we all agree, the past year has been a challenging time for our field. The impact of the ongoing COVID-19 pandemic is felt on a daily basis and has affected countless aspects of the blood and biotherapies community—from unprecedented fluctuations in the blood supply, to logistical disruptions, to efforts to keep our workforce safe and healthy, and much more.

Yet through these challenges I have witnessed a strengthening of our community, fueled by our members' unwavering dedication to patient and donor care and safety. Throughout the pandemic, as we have faced challenges, we have also supported each other and have continued to advance the field. We've shared resources, adapted to new procedures, developed best practices, engaged in honest dialogue, expanded critical research initiatives, formed new partnerships, and advanced safety and quality.

It has been inspiring to see the way our community has responded to the challenge and how our members have continued to strive to achieve our ultimate goal of making transfusion medicine and biotherapies safe, available and effective worldwide. It has been an honor and a pleasure to serve as your president during this time.

Passing the Gavel

Typically, at the close of the Annual Meeting, the outgoing AABB president



David Green, MSA

symbolically “passes the gavel” to the incoming president. This year, of course, we will have to be creative for the transition on our virtual platform. But I know the Association will be in good hands with Dr. Devine at the helm. She is the chief scientist at Canadian Blood Services and is an accomplished researcher and leader with a deep-rooted devotion to the field of blood and biotherapies. I am certain that she will serve AABB well.

I thank everyone who worked to make this a successful year for AABB, in particular my fellow Board members and AABB committee members, as well as the exceptionally talented and dedicated AABB leadership and staff. Our Association is truly a collaborative one and all of us play a part to ensure our success.

We will soon be entering a new phase for our Association, and we will have a new name and logo. We'll also be celebrating our 75th Anniversary next year. It is certainly an exciting time for AABB! ■

David Green, MSA
AABB President

President

David Green, MSA

Chief Executive Officer

Debra BenAvram, FASAE, CAE

Chief Communications and Engagement Officer

Julia Zimmerman

Director of Marketing and Communications

Jay Lewis, MPH

Managing Editor

Jerilyn Schweitzer, MA

Design and Production

www.touch3.com

Advertising

Contact Michael Lamattina

+1.781.388.8548

mlamattina@wiley.com

Change of Address:

Make changes online at www.aabb.org > Membership

> My Account

Notice to Copiers:

Reproduction in whole or part is strictly prohibited unless written permission has been granted by the publisher. AABB members need not obtain prior permission if proper credit is given.

Postmaster:

Send address changes to AABB News; c/o Member Services; 4550 Montgomery Avenue; Suite 700 North Tower; Bethesda, MD 20814.

AABB News

(ISSN 1523939X) is published monthly, except for the combined November/December issue for the members of AABB; 4550 Montgomery Avenue; Suite 700 North Tower; Bethesda, MD 20814.

AABB is an international, not-for-profit association representing individuals and institutions involved in transfusion medicine, cellular therapies and patient blood management. The association is committed to improving health by developing and delivering standards, accreditation and educational programs that focus on optimizing patient and donor care and safety.

+1.301.907.6977

Email: news@aabb.org

Website: www.aabb.org

Copyright 2021 by AABB.

Periodicals postage paid at Bethesda, MD, and at additional mailing offices.

Views and opinions expressed in *AABB News* are not necessarily endorsed by AABB unless expressly stated.

Publications Mail Agreement No. 41248513.

Return undeliverable Canadian addresses to PO Box 503; RPO West Beaver Creek; Richmond Hill, ON L4B 4R6.



Advancing Transfusion and
Cellular Therapies Worldwide

Spotlight on Versiti Blood Center of Indiana

Versiti Blood Center of Indiana is a blood center that is accredited to collect and manufacture whole blood, red blood cells, cryoprecipitate, granulocytes, plasma, fresh frozen plasma, liquid plasma and platelets. The Center was founded in 1952.

“Accreditation further validates the work we do to ensure the safety, purity and effectiveness of our products,” said Penny Schroeder, MS, MT(ASCP), area vice president and director of donor services for Versiti Blood Center of Indiana. “It shows our donors, patients, hospital clients, etc. that we are committed to excellence.”

“Our donors like the culture we have here at Versiti,” Schroeder continued. “We involve our donors by engaging, educating and thanking them for their lifesaving gifts. We focus on the donor experience with our staff to ensure that each donor knows how much their lifesaving donation is appreciated and its impact on their community,” she said. Schroeder added that Versiti celebrates diversity and the staff are proud to be an inclusive, community-focused organization.

When the COVID-19 pandemic struck, it had a dramatic impact on operations. “Our teams continue to adjust to an ever-changing environment and have risen to every challenge, including the enhanced platelet safety guidance set to go into effect this fall,” said Schroeder. “While the pandemic has changed many things, the need for blood has remained constant, with frequent spikes in higher demand for these precious life-saving gifts. Our donors and staff have continually answered the call, and we are grateful for their commitment,” she said.

“At Versiti, we use our core values of Find a Better



AABB’s Lead Quality Assessors

Masi Basiri, BSc, MT
 Marsha Deitz, MBA, MT (ASCP), CQA (ASQ)
 Chris Goodman, MS, Senior Director, Product Development
 Frances Ivester, MNS, SI(ASCP), CQA(ASQ)
 Nancy Shotas, MT(ASCP)BB, CQA(ASQ)
 Marlon Webb, (ASCP)BB, CQA(ASQ)

Way, Make Results Happen, Do Right Always and Strengthen the Team as our guiding principles. These have been the foundation to all that we continue to do to save lives through these challenging times,” she concluded. ■

Meet Jeannine McCullough

Jeannine McCullough, BS, RN, is the vice president for Blood Services at ImpactLife (formerly Mississippi Valley Regional Blood Center). McCullough worked as a Registered Nurse in a hospital setting before joining ImpactLife in 2000 as an RN/supervisor for mobile blood drives and at the blood center's Galesburg Donor Center. She was appointed in 2016 to her current position, where she oversees blood collection, donor recruitment, training, patient services and marketing functions. *AABB News* spoke to McCullough about her career and her thoughts about leadership.

AABB NEWS: HOW DID YOU COME INTO YOUR CURRENT ROLE?

McCullough: I was appointed to my current role as VP of Blood Services after many years of working for ImpactLife (formerly Mississippi Valley Regional Blood Center). My experience ranged from a donor center supervisor, director of collections, VP process improvement and chief quality officer.

AABB NEWS: WAS THERE SOMEONE WHO MENTORED YOU ALONG THE WAY?

McCullough: I've had many mentors throughout my career. My career journey in blood banking was greatly influenced by David Green our former CEO.



Dave pushed me to keep learning, get involved, be innovative, say what you're thinking and demand high standards.

AABB NEWS: WHAT IS ONE THING EVERY LEADER SHOULD KNOW AND APPLY DAILY?

McCullough: Listen to your staff. Be their advocate. Be transparent. Make sure they have the tools they need to do their job. Monitor key metrics and quality indicators to keep your finger on the pulse of operations for the current and future state.

AABB NEWS: WHAT IS YOUR FAVORITE ASPECT ABOUT BEING A LEADER?

McCullough: Watching my team excel in their roles from improving phlebotomy skills and leading a project to directing a team.

AABB NEWS: HOW DO YOU MEASURE SUCCESS AS A LEADER?

McCullough: Having my leaders be self-sufficient within their areas of responsibility. Not needing my guidance for each step, and me allowing this without interrupting their success. They know I'm there for extra guidance and as a sounding board, but they also know that they are in charge of their departments and I support them.



"Listen to your staff. Be their advocate. Be transparent. Make sure they have the tools they need to do their job. Monitor key metrics and quality indicators to keep your finger on the pulse of operations for the current and future state."

AABB NEWS: DO YOU HAVE A SUCCESSION PLAN? IF SO, TELL US MORE ABOUT IT.

McCullough: Yes, I've tried to gauge the interest of my direct reports for wanting to "sit in my chair." I have mentored those who have expressed an interest for the role. I am very transparent with them and offer guidance to steer them in the right direction toward their goals.

AABB NEWS: HOW HAVE YOU RALLIED YOUR TEAM THROUGH A DIFFICULT SITUATION?

McCullough: There have been many such situations throughout my career, but the COVID-19 pandemic has far surpassed any previous challenges. My team pulled together with the entire organization to keep the blood center moving. Again, listening, being their advocate, keeping them informed and making sure they have the tools they need have been crucial.

AABB NEWS: WHAT MOTIVATES YOU TO KEEP GROWING AS A LEADER?

McCullough: Watching my team succeed as leaders within the organization and externally.

AABB NEWS: HOW HAS YOUR LEADERSHIP ROLE OPENED OTHER DOORS FOR YOU?

McCullough: I would say my previous leadership roles have opened the door to my current position and led to volunteer opportunities within the blood banking industry and with organizations within my community.

AABB NEWS: WHAT IS ONE THING WISH YOU HAD KNOWN IN YOUR PREVIOUS ROLE?

McCullough: Honestly my previous roles have

prepared me for much of my current position. Being an RN, I am completely comfortable with the donor/patient services portion of my role. Recruitment and marketing were completely new to me. That's been okay; I have strong employees who excel in these areas and whom I trust completely. I've learned a lot from them, and I listen to their needs to make sure they have what they need to keep up in their fast-moving environment.

AABB NEWS: WHO IS YOUR FAVORITE LEADER AND WHY?

McCullough: I can't name just one. There are many that I've admired throughout my career.

AABB NEWS: WHAT ARE THE TOP CHALLENGES YOU FACE IN YOUR SEGMENT OF THE INDUSTRY?

McCullough: This would be true to most leaders within the blood banking industry: Always having adequate blood and blood products on the shelf when they are needed for the hospitals and patients; we serve to meet our foundational mission. ■

AABB Congratulates 2021 NBF Early-Career Scientific Research Grant Recipients

AABB's National Blood Foundation (NBF) promotes early-career research by awarding seed grant funding to promising early-career researchers in transfusion medicine and biotherapies.

Presented below is an overview of the 2021 grant recipients.



Seema Bhatlekar, PhD, MBA
Research Associate
Program in Molecular
Medicine
University of Utah

Project Title: "CRISPR/CAS9 Gene Editing Identified a Novel Role of Actin Bundling

Protein L-plastin in Platelet Production"

Project Summary: The functional relevance of L-plastin is not well understood in megakaryocytes (MKs) and platelets. L-plastin negatively regulates MK proplatelet formation and platelet count. MK L-plastin knockdown induced more podosomes, actin rich structures that initiates proplatelets. This proposal will investigate how L-plastin regulates podosome function and explore utility of L-plastin CRISPR/CAS9 gene edited human MKs as a novel cellular therapy for transfusion.

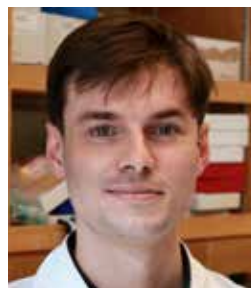


Alma-Martina Cepika, MD, PhD
Instructor, Pediatrics
Leland Stanford Junior
University

Project Title: "Personalized Tr1 Cell-Based Therapy for Graft-vs-Host Disease"

Project Summary: Allogeneic (allo-HSCT) is a life-

saving procedure for patients with chemotherapy-resistant leukemias and lymphomas, bringing protective, healthy donor immune cells that kill tumor cells and prevent infections. However, these donor immune cells can attack patient tissues, causing dangerous graft-vs-host disease (GvHD). We designed a cell therapy that, unlike other existing GvHD therapies, suppresses GvHD but not protective immunity. This proposal aims to increase its clinical potency.



Simon J. Cleary, PhD
Postdoctoral Fellow
Medicine-Pulmonary
University of California,
San Francisco

Project Title: "New Approaches to Study and Treat Alloantibody-Mediated Diseases Resulting from Blood Transfusions"

Project Summary: Using new antibody engineering techniques, in vivo models and assays using patient samples, we aim to identify how alloantibodies activate the complement cascade, which is a key event in several diseases that result from blood transfusions. We will then test novel approaches to prevent complement-dependent alloantibody-mediated disease.



Pietro Genovese, BSc, MSc, PhD
Assistant Professor
Pediatrics Gene Therapy
Program
Dana-Farber/Boston
Children's Cancer and
Blood Disorder Center
Dana-Farber Cancer
Institute

Project Title: “Engineering Immunotherapy Resistant Hematopoiesis to Treat High-Risk Acute Myeloid Leukemia”

Project Summary: AML is the most common hematologic malignancy but, despite diffuse use of allogeneic stem cell transplantation, it still has the lowest survival rate of all leukemias. Adoptive immunotherapies are currently hampered by the absence of specific targets, most of which are often shared with healthy tissues and thus lead to immunosuppression/toxicity. Here, we will develop new gene editing strategies to generate a stealth hematopoiesis that is resistant to immunoglobulin-based drugs/CAR-T cells.



Panagiotis Mistriotis, PhD
Assistant Professor
Chemical Engineering
Auburn University

Project Title: “Eliminating Senescent Bone Marrow-Derived Mesenchymal Stem Cells Using Microfluidics”

Project Summary: Cellular senescence, one of the hallmarks of organismal aging and age-related disorders, impairs the function of adult stem cells, limiting their therapeutic efficacy. Here, we will employ innovative microfluidic devices to separate non-senescent from senescent stem cells. This will reveal a simple, innovative, and clinically-relevant method to isolate a senescence-free subpopulation of stem cells, thereby increasing the efficacy of stem cells for cellular therapies and anti-aging treatments.



Jansen N. Seheult, MB BCh BAO, MSc, MS, MD
Assistant Professor
Department of Pathology
University of Pittsburgh
School of Medicine

Project Title: “A Stochastic, Multicompartment, Dynamic Model of Hemostasis and Oxygenation During Trauma Resuscitation: Building a Platform for in Silico Trials of Transfusion Strategies”

Project Summary: In silico models offer an innovative approach to evaluating the comparative effectiveness of hemostatic resuscitation strategies in trauma. In this project, we will extend our earlier model of trauma resuscitation by incorporating hemodynamic, hemostatic, resuscitation, biomarker and tissue-oxygenation domains into a single comprehensive model of trauma resuscitation, using a stochastic design to select parameters for patient and blood component/ pharmaceutical agent variates. ■

The National Blood Foundation is grateful for the generous contributions from our Council on Research and Development members and all of our donors.

Abbott	Grifols
American Red Cross	New York Blood Center
Blood Centers of America	Ortho Clinical Diagnostics
Beckman Coulter	Quotient
Canadian Blood Services	Roche
Coastal Blood Foundation	Terumo Blood and Cell Technologies
Creative Testing Solutions	Vitalant
Fresenius Kabi	WellSky

The National Blood Foundation is now accepting proposals for the 2022 early-career Scientific Research Grant cycle through December 1, 2021.