America's Blood Centers®
It's About Life.

ABC NEWSLETTER

CURRENT EVENTS AND TRENDS IN BLOOD SERVICES

Visit ABC's Web site at: www.americasblood.org

2020 #26 **July 24, 2020**

INSIDE:

International Social Scientists Identify Areas Where Additional Blood Donor Research Is Needed

Researchers from Canada, Australia, and the Netherlands have published a commentary in *Vox Sanguinis* that discusses global insights gleaned from the international response to the COVID-19 pandemic from the blood community. Worldwide, blood centers have encountered the changing dynamics of collecting enough blood products to meet demand with mounting constraints placed on their operating procedures from practicing increased infection control protocols to implementing social distancing safety measures to protect both donors and staff, and blood drive cancellations with no end in sight. As America's Blood Centers Chief Executive Officer Kate Fry, MBA said in a recent interview with the *Wall Street Journal*, "[t]his is a transitional moment. It may be the entire way we approach our nation's blood supply has to change."

The authors of this commentary identify uncovering donor motivations in the context of emergency appeals as the first area for additional research. "While donors and the public have responded to early appeals, as the pandemic progresses, some [blood center agencies] (BCAs) are again reporting blood shortages which may be the result of increasing demand, decreased donation opportunities (e.g. severe reductions in mobile events), and/or waning public support. Donor behaviour research faces the challenge of teasing apart the impact of various factors, including changing collection practices, loosening and tightening of social restrictions, and donor-related considerations (e.g. motivations, time availability, competing responsibilities, mobility, etc.)."

They also note the need to retain first-time donors, particularly donors who generally only tend to respond in emergency situations. "Following an initial outpouring of public support in response to a crisis, however, support for blood donation can quickly wane [7]. This may be prompted by perceptions that the immediate need for blood has passed or by a loss of trust in BCAs. Both can have highly detrimental effects on blood donation and it will be important for BCAs to promote the consistent need for blood while maintaining public trust that they are effectively managing this resource [8]. Given the longevity of the pandemic, the challenge for BCAs will be to retain those [first-time donors] (FTDs) who donated in response to the initial appeals, and to re-engage long-term donors whose donation routines may have been disrupted by the influx of new donors."

The researchers state the psychological impact of isolation and disconnection brought on by the pandemic and government stay-at-home orders should be

(continued on page 2)

Social Scientists Identify Need for Blood Donor Research Areas Amid Pandemic (continued from page 1)

weighed with specific care being given to how blood donation could potentially "mitigate the negative effects" of such orders. "Donating during a time of limited activity can provide an opportunity to connect to a wider community and may mitigate the negative effects of physical distancing [5]. Whether this is the case and how the positive or mitigating effects of donation may be experienced by some and not others warrants further study. Moreover, it is important to consider how motivation to donate for social connections changes as restrictions relax, and how it is qualified (or not) by other concerns (e.g. perceptions of safety) as BCAs resume normal collection regimes, including mobile units… The idea of donating with increased restrictions in place may also highlight feelings of social disconnection and isolation for those now ineligible, or not able, to donate during the pandemic and some long-term donors currently excluded from donation (e.g. older donors) may ultimately not return. Given the contribution made by this age group relative to their representation in donor panels, re-activating these donors may be a key action point for BCAs."

Additionally, the article suggests the impact of convalescent plasma donors should be considered as an area for more research. "With many BCAs involved in clinical trials on convalescent plasma and prominent appeals for plasma from people who have recovered from COVID-19, there is significant media attention on the importance of plasma… While most current appeals for convalescent plasma is for use in clinical trials, if this product is an effective treatment then the need for plasma donors will increase further. In addition, in settings where donors have the choice of being a paid (hyperimmune globulin) or unpaid donor (transfusion), the pandemic may have differential effects on these two types of donors. As the money offered for convalescent plasma increases in some jurisdictions (e.g. in the United States), who is recruited and how, and how these are associated with social factors, such as socioeconomic status and ethnicity, will be important to study."

The authors also suggest that the impact of the pandemic on blood donors in "low- and middle-income countries" should be studied. They conclude by stating that, "Moving forward, we suggest that a comparative examination of COVID-19 effects on donors, the public, and BCAs may increase understanding of the strengths of and challenges faced by BCAs and provide an opportunity to share learnings in preparation for future pandemics. As such, we are conducting an international comparative study of the impacts of the global pandemic on donors and the responses of BCAs to the challenges posed by COVID-19."

Citation: Haw, J., Holloway, K., Masser, B., Merz, E-M., Thorpe, R. Blood donation and the global COVID-19 pandemic: areas for social science research. *Vox Sanguinis*. 2020. Doi: 10.1111/vox.12974.

The *ABC Newsletter* (ISSN #1092-0412) is published by America's Blood Centers® and distributed by e-mail.

ABC advocates for and advances policies that promote the role of independent blood centers in providing life-saving blood products and recognize the continuous need for a safe and robust blood supply. ABC exists to advocate for laws and regulations recognizing the essential role that independent blood centers play in the healthcare system; promote partnerships, policies and programs that increase awareness about the need for blood donation; and serve as a thought-leader in the advancement of evidence-based medical and scientific solutions related to health and safety.

America's Blood Centers
Chief Executive Officer: Kate Fry
Chief Medical Officer: Rita Reik
Editor: Mack Benton
Subscriptions Manager: Leslie Maundy
Annual Subscription Rate: $390

Send subscription queries to
memberservices@americasblood.org
America's Blood Centers
1717 K St. NW, Suite 900, Washington, DC 20006
Phone: (202) 393-5725
Send news tips to newsletter@americasblood.org.

REGULATORY NEWS

The U.S. Food and Drug Administration updated "Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue-Based Products: Minimal Manipulation and Homologous Use Guidance for Industry." It extends the period of enforcement discretion six months to May 31, 2021 as a result of the COVID-19 public health emergency. The enforcement discretion is for manufacturers and potential sponsors to determine if an Investigation New Drug (IND) or marketing application is needed and prepare and submit if needed. The guidance supersedes the corrected December 2017 guidance of the same name. The agency also announced an extension to the Tissue Reference Group (TRG) Rapid Inquiry Program (TRIP), which is designed to assist manufacturers of HCT/Ps and provide a rapid, preliminary, informal, and non-binding assessment from FDA on regulation of HCT/Ps. Originally conceived as a temporary program, the TRIP has been extended twice before and now again through March 31, 2021.

(MCN- 20-071, 7/20/20)

RESEARCH IN BRIEF

SARS-CoV-2 Antibody Responses Do Not Predict Disease Severity. A study published in the *American Journal of Clinical Pathology* assessed whether antibody levels for SARS-CoV-2 correlate to the severity of COVID-19 disease within infected individuals. The researchers note that "[v]arious serologic assays have recently acquired the [U.S.] Food and Drug Administration's [FDA] emergency use authority [EUA] for SARS-CoV-2 antibody testing in COVID-19 patients, but the interpretation of antibody data and their clinical significance remains challenging." They "performed a detailed cross-sectional and serial assessment of IgG and IgM antibody responses in suspected COVID-19 patients and determine[d] their relation to disease severity…including 172 suspected cases of COVID-19" in total. For this study, "[t]he time course of symptom onset revealed increasing IgG positivity rates …being the highest after 14 days (83 percent)…"[While] IgM positivity occurred at [a] larger proportion for less than 3 days (50 percent) compared to IgG, but at similar rates overall at days 3 to 7…and after 2 weeks (80 percent)." The authors "hypothesized that a more severe disease course was related to an increased immune response, which may result in a higher level of SARS-CoV-2 IgG antibody reactivity…[When] IgG levels from all SARS-CoV-2 PCR-positive patients who had a mild/moderate disease course [were compared] to those who had severe disease (admitted to the intensive care unit [ICU]),…there was no difference in IgG antibody levels between the 2 groups." A previous study "indicated that a severe disease course resulted in a high IgG level during the second week of disease that becomes indistinguishable from milder cases after 14 days." The current study "did not observe such a difference…This could be due to fewer patient samples." The authors note "that antibody levels may correlate with other factors such as how long disease lingers before final resolution, long-term complications, or period of communicability…Thus, antibody levels themselves do not appear to reflect disease severity, although serologic reactions not assessed here could potentially do so." They also state that "[l]imited resources and self-quarantine measures have impaired repeated testing for serial testing at a later date...Consequently, less data on mild and moderate patients existed compared to patients admitted to the ICU." The authors concluded that "[w]idespread efforts to track SARS-CoV-2 patients for antibody development will clarify expectations for when testing should return positive… and what the antibody response can tell us in patients with active infections."

Citation: Phipps, W.S., SoRelle, J.A., Li, Q.Z., *et al*. SARS-CoV-2 Antibody Responses Does not Predict COVID-19 Disease Severity. *Am J Clin Pathol*. 2020. Doi: 10.1093/AJCP/AQAA123.

Contributed by Richard Gammon, MD, Medical Director at OneBlood

BRIEFLY NOTED

U.S. Department of Health and Human Services Secretary Alex Azar announced that public health emergency for COVID-19 has been extended for 90 days. He stated in a tweet, "[t]oday I signed a renewal of the COVID-19 national public health emergency declaration. The Administration will continue its whole-of-America response to ensure Americans can get the care they need throughout the pandemic." The declaration was scheduled to expire this week and the Administration had previously suggested that extension was coming. According to *Politico*, the declaration allows the Administration to provide response aid to local state health departments and provides pathways for "emergency approval of new drugs and tests and new flexibility for government-run health insurance programs."

(Source: *Politico*, Trump administration renews public health emergency after urging from states, 7/23/20)

The *Wall Street Journal* published an article last week examining the challenges that the pandemic has posed for blood centers. It specifically focused on the efforts of the blood community to recruit and motivate young blood donors to donate blood regularly, "the Covid-19 crisis arrived at a moment when blood banks were already grappling with a seismic demographic shift: America's donor population is aging, and young donors are not replacing older ones." The article also weighs the merits of paid donation as a potential incentive for donors among other motivations and forms of recognition. "Christopher France of Ohio University, who recently published a study of donor motivations, said that digging into the data indicates that viewing donors as either altruistic or mercenary is too narrow. Blood is a public good and a commodity, a way of contributing to society and an act that offers personal gratification. What's needed, he says, is recognition that 'It is possible to hold two notions at the same time.'"

(Source: *Wall Street Journal*, Blood banks face a generation gap in giving, 7/17/20)

A correspondence letter appeared in the *New England Journal of Medicine* titled the "Rapid Decay of Anti–SARS-CoV-2 Antibodies in Persons with Mild Covid-19." The authors provide a detailed explanation of their data findings "that humoral immunity against SARS-CoV-2 may not be long lasting in persons with mild illness, who compose the majority of persons with Covid-19" to add to the discussions surrounding the level of antibodies in individuals with COVID-19. They note that "[i]t is difficult to extrapolate beyond our observation period of approximately 90 days because it is likely that the decay will decelerate. Still, the results call for caution regarding antibody-based 'immunity passports,' herd immunity, and perhaps vaccine durability, especially in light of short-lived immunity against common human coronaviruses. Further studies will be needed to define a quantitative protection threshold and rate of decline of antiviral antibodies beyond 90 days."

Citation: Ibarrondo, I, Fulcher, J., Goodman-Meza, D., *et al.* Rapid Decay of Anti–SARS-CoV-2 Antibodies in Persons with Mild Covid-19. *NEJM*. 2020. Doi: 10.1056/NEJMc2025179. ♦

Upcoming ABC Webinars – Don't Miss Out!

- **ADRP Webinar: What's Working? Hits and Misses** – July29th from 1 – 2 p.m. (EDT). Register here.
- **ABC SMT Journal Club Webinar** – August 10th from 2 – 3 p.m. (EDT). Additional details coming soon.
- **ABC QA Education Webinar** – August 18th from 3 – 4:30 p.m. (EDT). Additional details coming soon.

IN MEMORIAM

William Lang Bayer, MD passed away on July 15th. He was formerly the director of the Community Blood Center of Greater Kansas City from 1969 until his retirement in 1997. Dr. Bayer also served as the President of the Council of Community Blood Centers (now America's Blood Centers). When he came to Kansas City, Dr. Bayer assembled a strong team and led the turnaround of a failing blood program into one of the best community blood programs in the U.S. Strategically shifting the blood center away from paid donations to an all-volunteer blood donation program was among his numerous accomplishments. Additionally, Dr. Bayer established a program to decrease the use of blood long before it became a staple in blood banking community. The Community Blood Center's reputation expanded beyond Kansas City and was recognized by the American Blood Commission as "One of the finest blood centers in the U.S." Dr. Bayer often encouraged his team to also take an active role in improving blood related activities locally, regionally, and nationally. Several of his employees became leaders of other blood centers, including two past presidents of America's Blood Centers in addition to several that have held leadership positions on various blood-related committees throughout the industry. Dr. Bayer also established training programs at Community Blood Center in transfusion medicine for medical students, interns, residents and fellows. I had the privilege of working for him for twenty-two years and owe many of my successes to his mentorship. Although, his time had passed, he will be missed.

Contributed by William Coenen

MEMBER NEWS

Kansas Governor Laura Kelly recently donated blood during a blood drive held by the **Community Blood Center** of Greater Kansas City. She sought to lead by example as she encouraged individuals to remember the importance of donating blood regularly. "Please just go online and look up community blood drive, find a place, they do these kinds of things all over the state all through the year, so please a find blood drive close to you and donate," said Governor Kelly according to WIBW-13.

Photo courtesy of WIBW-13

(Source: WIBW-13, Gov. Kelly gives blood, encourages Kansans to do the same, 7/17/20)

OneBlood hosted a news conference this week with Florida Governor Ron DeSantis in which he urged individuals who have recovered from COVID-19 to donate convalescent plasma. "So many Floridians have asked what else can I do to be helpful in the fight against COVID-19," said Gov. DeSantis during the news conference. He then added, "[o]ne of the treatments that many physicians around the state believe is very effective is the use of convalescent plasma…This is a blood that's donated from somebody who has cleared the COVID-19 disease. It has the antibodies, and that is then used on a patient who is sick in the hospital.

(continued on page 6)

MEMBER NEWS (continued from page 5)

And what they find is, as well as with some of the other treatments, the earlier you do it the more effective you will be." OneBlood Chief Executive Officer Bud Scholl added that demand for convalescent plasma from hospitals has increased by 500 percent during the surge in COVID-19 cases currently impacting the state.

(Sources: *Miami Herald*, Recently recovered from COVID-19? Hospitals desperately need your blood, De-Santis says, 7/20/20; WUSF Health News Florida, DeSantis Seeks To Boost Plasma Treatment, 7/221/20)

COMPANY NEWS

Grifols announced the acquisition of 10 percent of BloodSolutions, LLC's Bloodbuy. The platform is a "cloud-based marketplace" for procuring and selling blood components in the U.S. "Grifols has always been interested in how digital technologies can disrupt the healthcare model to deliver better patient care more effectively," said David Bell, chief innovation officer at Grifols, in a company news release. "We believe Bloodbuy provides a unique opportunity to use technology to ensure critical blood components reach the patients who need them quickly and efficiently." The equity stake provides Grifols with "a seat on the Bloodbuy Board of Directors," according to the announcement. "COVID-19 has created unprecedented challenges for our blood supply, both with respect to supply and demand shocks related to social distancing, suspension of elective procedures, and other necessary public health interventions," said Bloodbuy Founder and Chief Executive Officer Chris Godfrey in the release. "These externalities have had profoundly negative effects on blood product availability and utilization from region-to-region. Our online platform has played an integral role in connecting these geographies to create a digitally integrated network of blood centers and hospitals; so, we can easily redistribute available blood products and connect stakeholders around much-needed COVID-19 convalescent plasma." Close to 30 independent blood centers participate on Bloodbuy.

(Source: Grifols News Release, 7/23/20)

BioMarin recently presented new data as part of a year four update on its investigational hemophilia A gene therapy candidate, valoctocogene roxaparvovec, at the World Federation of Hemophilia Virtual Summit. "With four years of data, this study represents the longest duration of clinical experience for any gene therapy in hemophilia A," said chief investigator Professor John Pasi, MBChB, PhD in a company news release. "It is exciting to observe that all study participants remain off Factor VIII prophylaxis therapy, while also experiencing a greater than 90 percent reduction in bleeding episodes from a single administration of valoctocogene roxaparvovec. These data demonstrate the very real potential of a paradigm shift in the treatment of hemophilia A and that ongoing research into gene therapies could represent an entirely new way to approach meeting the high unmet need in patients with severe hemophilia A." The phase I/II study has six enrolled participants who had a mean annualized bleed rate (ABR) of 16.3 and median of 16.5 prior to the start of the trial. After fours year of treatment with valoctocogene roxaparvovec, "the cumulative mean ABR was 0.8, which represents a 95 percent reduction from baseline" in participants. A "96 percent reduction in mean Factor VIII usage" also occurred in patients. "BioMarin is committed to the bleeding disorders community with the most robust and advanced clinical development program for a potential first gene therapy in severe hemophilia A," said Hank Fuchs, MD, president of Global Research and Development at BioMarin, in the release. "We are pleased to share these data at WFH. Demonstrating a 96% reduction in exogenous Factor VIII usage as patients are now producing their own endogenous factor VIII is a potential benefit that we hope to be able to offer as we work closely with regulators to seek approval and work to reduce the burden of hemophilia."

(Source: BioMarin News Release, 6/17/20)

America's Blood Centers®
It's About *Life.*

INSIDE ABC

The programs and services described in the Inside ABC section are available to ABC member blood centers and their staff only, unless otherwise specified.

ADRP Webinar: What's Working? Hits and Misses

Register today for the Wednesday, July 29th ADRP webinar titled "What's Working? Hits and Misses." This webinar will take place at 1 p.m. EDT and will feature presentations and a panel discussion on how to engage donors segmented into the following groups:

- schools and universities;
- businesses and corporate partners;
- churches and communities; and
- hospital partners.

ADRP subscribers may register for free and non-subscribers can participate for $25.

(ADRP Announcement, 7/16/20)

GLOBAL NEWS

The United Nations (UN) has increased its appeal for more than $10 billion in aid to assist low-income countries in the fight against COVID-19. Under-Secretary-General and Emergency Relief Coordinator (USG/ERC) Mark Lowcock, who has direct oversight of all emergencies requiring humanitarian assistance from the UN, is reaching out to the world's industrial leaders, the G20, with this ask. In a statement from the organization, he noted, "[t]he pandemic and associated global recession are about to wreak havoc in fragile and low-income countries. The response of wealthy nations so far has been grossly inadequate and dangerously short-sighted. Failure to act now will leave the virus free to circle round the globe, undo decades of development and create a generation's worth of tragic and exportable problems. It doesn't have to be like this – this is a problem that can be fixed with money from wealthy nations and fresh thinking from the shareholders of international financial institutions and supporters of UN agencies, the Red Cross and Red Crescent movement, and [non-governmental organizations] NGOs."

(*UN News*, COVID-19: UN relief chief urges G20 to step up to avert 'cascading crises' in fragile countries, 7/16/20)

Australian researchers published a paper in *PLOS Neglected Tropical Diseases* on the "Estimation of mosquito-borne and sexual transmission of Zika Virus in Australia: Risks to blood transfusion safety." The authors developed a model for parts of the country that "had previously established *Aedes aegypti* populations, but for which there is no recent evidence of permanent *Aedes aegypti* populations," a mosquito known to transmit zika virus, as well as territories "which have never had established *Aedes aegypti* populations." They used the "container-inhabiting mosquito simulation (CIMSiM) model" along with the "European Up-Front Risk Assessment Tool (EUFRAT- version 2.2.31) with estimated cumulative infections to assess the transfusion-transmission risk from predicted potentially infected blood donors." They cite limitations of their model to include "our estimation is based on predicted mosquito population density

(continued on page 8)

GLOBAL NEWS (continued from page 7)

rather than empirical data which was impossible to obtain due to a lack of consistent and sensitive mosquito survey, and rarely available due to typically heterogeneous distributions over highly focal geographic area exhibited by both these species. Second, we cannot strictly compare our estimates of Rhv, and R0 to those published as the calculation depends on the model used and the geographical locations. In addition, we have not dissociated genders in the equation of sexual transmission, as the proportion of male to female transmission is higher than vice-versa… Finally, we simplified the infectious period of ZIKV to a single parameter based on a median 14 days from symptom onset till loss of viral RNA in serum." The researchers conclude that threat of zika virus in Australia is not large at this time, though that could change in the future "provided all the environmental conditions suitable for transmission were met [in parts of the country] that have established populations of *Aedes aegypti* and/or *Aedes albopictus*…Although risk estimates necessarily include a measure of uncertainty, our risk assessment nonetheless provides a dynamic estimate of zika virus epidemic potential and risk level for blood transfusion safety in key urban [centers] and localities of Australia and has the potential to inform decision making relating to the timing of supplementary fresh component restriction measures. This approach may be useful and applicable for other countries (France, Italy, Japan, and United States of America) where there is no endemic transmission of zika virus, but vector populations are present and sexually transmitted infections are reported."

Citation: Viennet, E., Frentiu, F, Williams, C., *et al*. Estimation of mosquito-borne and sexual transmission of Zika virus in Australia: Risks to blood transfusion safety. *PLOS Neglected Tropical Diseases*. 2020. Doi: 10.1371/journal.pntd.0008438. ♦

CALENDAR

Note to subscribers: *Submissions for a free listing in this calendar (published weekly) are welcome. Send information to newsletter@americasblood.org or by fax to (202) 899-2621. (For a more detailed announcement in the weekly "Meetings" section of the newsletter, please include program information.)*

2020

Aug. 14. **HHS Tick-borne Disease Working Group Meeting (Virtual).** More details and registration available here.

Aug. 28-29. **South Central Association of Blood Banks (SCABB) 2020 Annual Meeting & Exhibit Show (Virtual).** More details and registration available here.

Sept. 9. **10th Annual Symposium Red Cell Genotyping 2020: Visionary Solutions, Bethesda, Md.** More details available here.

Sept. 10. **39th Annual Immunohematology and Blood Transfusion Symposium, Bethesda, Md.** More details available here.

Sept. 16, 23, 30. **ADRP Digital Marketing Solutions Virtual Master Class.** More details available here.

Oct. 3-5. **2020 AABB Annual Meeting (Virtual).** More information available here.

Oct. 27. **Biomedical Advanced Research and Development Authority (BARDA) Industry Day 2020 (Virtual).** More information available here.

Nov. 22-24. **2020 ADRP Conference, Phoenix, Ariz.** More details available here.

(continued on page 9)

CALENDAR (continued from page 8)

2021

Mar 8-10. **ABC Annual Meeting, Washington, D.C.** More details coming soon.

June 25-26. **64th Annual California Blood Bank Society Annual Meeting, Santa Clara, Calif.** More details available here.

Sept. 15-17. **4th European Conference on Donor Health and Management, Hamburg, Germany.** More details available here.

We Welcome Your Letters

The *ABC Newsletter* welcomes letters from its readers on any blood-related topic that might be of interest to ABC members. Letters should be kept relatively short and to the point, preferably about a topic that has recently been covered in the *ABC Newsletter*. Letters are subject to editing for brevity and good taste and published after editorial review. Please send letters to the Editor at newsletter@americasblood.org or fax them to (202) 899-2621. Please include your correct title and organization as well as your phone number. The deadline for letters is Wednesday to make it into the next newsletter.

CLASSIFIED ADVERTISING

Classified advertisements, including notices of positions available and wanted, are published free of charge for a maximum of three weeks per position per calendar year for ABC institutional members. There are charges for non-members: $139 per placement for *ABC Newsletter* subscribers and $279 for non-subscribers. A six (6) percent processing fee will be applied to all credit card payments. Notices ordinarily are limited to 150 words. To place an ad, e-mail: newsletter@americasblood.org

POSITIONS

Outside Sales Representative/Event Planner (Fort Smith, Ark.). Account Consultants must develop new partnerships with targeted decision makers in community organizations, educational & religious institutions and businesses to gain support in meeting the needs for volunteer blood donors. Responsibilities include organizing and promoting blood donation events; assessing, developing and implementing strategic/tactical plans to achieve recruitment objective/goals. She/he is expected to develop a customer-focused culture that will result in successful community partnerships and donation awareness. Identify opportunities for growth within current group base and facilitate a plan to achieve growth percentage for total unit collection within territory. Book recurring blood drives for the following year. Develop and maintain relationships with key accounts. Give presentations in order to promote blood collection. Identify and provide feedback on issues regarding customer needs/requirements, customer issues/concerns and satisfaction, competitor activities/strategies, etc. Interact effectively and professionally with team members and all internal/external contacts. Qualifications: Associate/Bachelor's degree preferred, one to three years sales

(continued on page 10)

POSITIONS (continued from page 9)

related experience, public speaking/presentation experience preferred, excellent communication skills, and valid driver's license with access to vehicle. Salary Range: Competitive salary, commission plan, and excellent benefits package including health, dental, vision, and life insurance, 401(k), paid time off, and holiday pay. How to apply: http://arkbi.org/careers/.

Associate Medical Director. Blood Assurance is seeking an Associate Medical Director to work in our Nashville, TN facility. This position will assist the Medical Director with providing medical and professional guidance to employees of the company and to area medical professionals. Qualified applicants should possess: MD degree required; board certification or eligibility in pathology required (board certification must be secured within 1 year of hire); Transfusion Medicine board certification or eligibility preferred. Must be licensed to practice medicine in the states of our fixed facilities if required by that state (state licensure can be secured after hire). Minimum 5 years prior related experience; blood bank management and cellular therapy experience preferred. Advanced communications skills required, including ability to speak to groups; computer skills and ability to effectively interact with coworkers. Qualified candidates are encouraged to submit an online application at www.bloodassurance.org. Blood Assurance is an EOE and Tobacco Free Workplace.

Chief Medical Officer (Associate Professor, Full Professor). The University of Washington, Department of Laboratory Medicine and Pathology and Bloodworks Northwest is accepting applications for Chief Medical Officer (Associate Professor, Full Professor). This position involves overall responsibilities for providing medical direction and support for all aspects of Bloodworks' activities. The position requires licensure as a physician (M.D. or D.O.) and board certification in Blood Banking/Transfusion Medicine. In lieu of board certification, candidates who meet the requirements for CLIA laboratory director with 3 years' experience in blood collections, immunohematology, apheresis, and cellular therapy will also be considered. University of Washington faculty engage in teaching, research, and service. Please apply at https://usr57.dayforcehcm.com/CandidatePortal/en-US/bloodworks/. EO employer – M/F/Vets/Disabled