New anticoagulants are competing with warfarin and other coumarins for treatment of patients with, or at risk for, thromboembolism. They are simpler to use, require no laboratory monitoring and are more predictable than the older class of agents. One of their drawbacks has been the absence of an approved antidote to reverse their effects in the face of bleeding or the need for invasive medical and surgical interventions.

The U.S. Food and Drug Administration (FDA) has granted accelerated approval for coagulation factor Xa (FXa) (recombinant), inactivated-zhzo (Andexxa®) “for patients treated with rivaroxaban and apixaban, when reversal of anticoagulation is needed due to life-threatening or uncontrolled bleeding.”

This modified FXa acts as a decoy for the FXa inhibitors by binding and neutralizing their activity. “Today’s approval represents a significant step forward in patient care and one that the medical community has been eagerly anticipating,” said Stuart J. Connolly, MD, ANNEXA-4 Executive Committee chairman and professor in the Department of Medicine of the Faculty of Health Sciences at McMaster University in Hamilton, Ontario in a news release. “Andexxa’s rapid reversal of the anticoagulating effects of rivaroxaban and apixaban will help clinicians treat life-threatening bleeds, where every minute counts.”

The rapid approval was based on surrogate endpoints (reduction of anti-FXa activity) “reasonably likely, based on epidemiologic, therapeutic, pathophysiologic, or other evidence, to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity,” according to the approval letter. This regulatory pathway will require a post-marketing study (phase 4) using clinical endpoints, the design of which has already been reviewed by the agency and will begin next year with the results shared in 2023.

(Sources: FDA Approval Letter, 5/3/18; Portola Pharmaceuticals, Inc. News Release, 5/3/18) ♦
Social Media and Data in the Context of Infectious Disease

A 2018 paper analyzes the Twitter response to Zika to explore and understand the process of online information distribution and consumption within the context of the infectious disease landscape. It highlights the ability of social media to call attention to health issues and shape the perception of individuals and their behavioral responses. The paper identified Zika-related themes, influencers who attract the most engagement, and the modes by which specific themes were amplified following the first reported case of Zika in the U.S. Twitter also serves as a tool to aid public health agencies with responses to public sentiment and risk perception by improving awareness of infectious disease threats and preventive measures. Agencies can use the real-time data from Twitter to gain insights about public perception, potentially to leverage influencers and extend the reach of their key messages and announcements.

However, there is a downside that has been seen in past outbreaks. Misinformation spreads. Caution is necessary when using influencers to assist with disseminating communications to ensure accuracy. The paper used analytics and Klout score to classify content and identify influential user groups within chatter. The paper recommends agencies partner with advocacy organizations, academic institutions, private healthcare, and other non-profit organizations to maximize reach. It also recommends that agencies prioritize removing fear and anxiety from their audiences and avoid triggering such feelings in their messaging.

The information in this paper can be extended to the blood community and the critical role we play in disaster response and preparedness as we develop and frame messages in response to crisis. Think about the appropriate messaging, social channels, and influencers within your communities as the basis for your strategy, and how you can use its power to reach influencers to amplify your reach.

2018 Summer Meeting Registration Opens

Registration has launched for the 2018 Summer Meeting and Medical Directors Workshop in Montreal, Québec hosted by ABC member Héma-Québec July 31st – August 2nd at the Omni-Montvale. Don’t miss an exclusive opportunity for blood community leaders to experience peer-to-peer collaboration, while discussing the latest trends impacting community blood centers. The meeting will feature the Medical Directors Workshop, the Scientific, Medical, and Technical Forum, and the Business Forum. Additionally, Héma-Québec will host a networking event. Please make your hotel reservations by July 9th to ensure best availability and the group rate. Member and government registration rates are below:

- 3-Day Summer $760: MD Workshop, SMT Forum, Business Forum, Members Meeting
- 2-Day Summer $655: SMT Forum, Business Forum, Members Meeting
- 2-Day Medical $655: MD Workshop, SMT Forum, Business Forum
- 1-Day Medical $435: MD Workshop

You will need a U.S. Passport to enter Canada. Please be sure to check the expiration date.

Hospital, public, and emeritus registration rates are available here. Contact Leslie Maundy for available sponsorship opportunities. Click here for additional meeting information.

(continued on page 4)
ADRP Recognizes 2018 Award Winners at Annual Conference

Last week, in Dallas, Texas, ADRP, an international division of ABC, honored professionals within the blood community, volunteers, and organizations that have demonstrated outstanding leadership and service with Awards of Excellence. This year’s award winners were:

- **Donor Recruiter of the Year Award** - Elizabeth Morales, South Texas Blood & Tissue Center in San Antonio, Texas.

- **Media Partner Award** - iHeart Media 107.9 WSRZ nominated by SunCoast Blood Bank in Sarasota, Fla.

- **Rolf Kovenetsky Leader of the Year Award - Collections** - Aubrey Oyler, United Blood Services in Rapid City, S.D.

- **Rolf Kovenetsky Leader of the Year Award - Recruitment** - Karen Muscolino, New York Blood Center in New York City, N.Y.

- **Humanitarian Service Award (Community Organization)** - Kaleida Health System nominated by Unyts in Buffalo, N.Y.

- **Blood Drive Award - Most Creative** - Cathy Flores, NAVMC - Northern AZ Volunteer Medical Corp. nominated by United Blood Services in Flagstaff, Ariz.

- **Blood Drive Award - Most Productive** - Aurora Health Care, Inc. nominated by BloodCenter of Wisconsin, a part of Versiti in Milwaukee, Wis.

- **School Blood Drive Award** - La Samare High School in Plessisville, Québec, Canada nominated by Héma-Québec.

- **Donor Collections Team Member Award** - Nikki Gordon, Carter BloodCare in Bedford, Texas.

- **Ron Franzmeier Lifetime Achievement Award** – Aissa Martin, American Red Cross, Atlanta, Ga.

Additional information on award winners is available on the ADRP website.

ABC Has Moved

ABC moved on April 1st. Our new mailing address is, 1717 K Street NW, Suite 900, Washington, DC 20006. All telephone numbers will remain the same except the fax line which changed to (202) 899-2621. Please update your records accordingly and contact ABC Member Services with any questions.
**RESEARCH IN BRIEF**

**Freeze dried plasma vs. fresh frozen plasma (FFP) in trauma.** French investigators have published a four-year, retrospective, single center study exploring the effect of the use of lyophilized plasma (LyoP) in their level one trauma emergency department. This product has been available in France since 1949 and is now pathogen reduced. LyoP can be reconstituted in the emergency department more rapidly than FFP and can be thawed, and is also suitable for prehospital use. Civilian trauma patients receiving at least two red blood cell (RBC) units from January 2012 through December 2015 were evaluated according to the first plasma product received, LyoP vs. FFP, n=43 vs. 29, respectively. The times to first plasma were 15 minutes vs. 95 (LyoP vs. FFP, p<.0001), and the rate of massive transfusion was 7 percent vs. 45 percent (p<.0001). Mortality was not affected statistically. The authors hypothesize that reaching a higher ratio of plasma to RBCs sooner may be responsible for the latter, and that randomized, controlled trials are required to explore their speculation.

**Citation:** Nguyen, C., Bordes, J., Cungi, P-J. *et al.* Use of French lyophilized plasma transfusion in severe trauma patients is associated with an early plasma transfusion and early transfusion ratio improvement. *Journal of Trauma and Acute Care Surgery.* 2018. [doi: 10.1097/TA.0000000000001801](https://doi.org/10.1097/TA.0000000000001801).

**Can we move beyond hemoglobin triggers for red blood cell (RBC) transfusion?** Current RBC transfusion guidelines are based largely on hemoglobin thresholds (in concert with clinical variables that assess hemodynamic stability and oxygenation). Spanish neurologists and transfusion medicine physicians have studied noninvasive transcranial near infrared spectroscopy (NIRS) to measure cerebral regional oxygen saturation (rSO$_2$) as a potentially more physiologically relevant parameter, that correlates with invasively measured brain oxygenation) vs. hemoglobin in clinically stable, critically ill neurology patients. This was a single-center, randomized, open label trial, hemodynamically stable (nonbleeding) neurocritical patients (Glasgow Coma Scale < 9) from subarachnoid or intracranial hemorrhage, with moderate to severe anemia (hemoglobin 7-10 gm/dL). Patients received transfusion if the rSO$_2$ fell below 60 percent to maintain the hemoglobin between 8.5 and 10 gm/dL. 102 patients were randomized. Fifty-one were reported in each group in the intention to treat analysis and 46 rSO$_2$ vs. 51 in the hemoglobin cohort in the per protocol analysis. The groups were comparable on all demographic and clinical characteristics. There were no differences in prespecified outcomes, ICU length of stay, Glasgow Outcome Scale, hospital, or one-year mortality. RBC requirements were reduced to 1.0 from 1.5 units in the NIRS compared to the hemoglobin group (p=.04). Larger studies in broader patient groups will be required.


**What are the effects of blood donation on cognitive performance?** Declines in physical performance acutely after blood donation have been described, especially among elite athletes, but the cognitive impacts are less well studied. Norwegian investigators have published a double blind, randomized, controlled trial of donation vs. sham phlebotomy in association with which they measured cognitive and physical performance parameters before, immediately and 7 days after a real (n=26) or sham (n=31) whole blood donation. They used three standardized instruments for cognitive testing: Trail Making that evaluates processing speed and executive functions; Hopkins Verbal Learning to assess short term and delayed memory; and the Stroop Test of attention capacity. Physical performance was measured as maximal oxygen consumption on a bicycle ergometer. Oxygen consumption declined acutely, but recovered to near baseline by day 7, while the controls were unaffected. Cognitive scores were not statistically significantly affected in either group. The authors conclude “that executive cognitive and physical performance are maintained after whole blood donation in healthy blood donors. The findings inform post-donation guidance where donors may be

(continued on page 6)
RESEARCH IN BRIEF (continued from page 5)

required to return to physical or cognitive demanding tasks.”

Citation: Eliassen, H.S., Hervig, T., Backlund, S. et al. Immediate effects of blood donation on physical and cognitive performance – a randomized controlled double blinded trial. Journal of Trauma and Acute Care Surgery. 2018. doi: 10.1097/TA.0000000000001917.

The American Red Cross (ARC) reports 15 months of Zika donor testing data. As the blood community has been aware since shortly after Zika virus nucleic acid testing (NAT) was urgently implemented during the third and fourth quarters of 2016, the yield of donor testing using individual donation NAT has been low. ARC data has now been published confirming that experience. They have tested more than four million donations, 3,932,176 as individual aliquots, with nine confirmed to contain Zika RNA. Of those, two represented autochthonous vector-borne transmission in Florida, six involved travel to Zika active areas outside the continental U.S., and one had received an investigational Zika vaccine. None were attributed to sexual transmission. All immunoglobulin M seronegative donations (those with the highest risk for transfusion transmission) that were retrospectively (3 of the 4 such seronegatives) tested in minipools were negative. The authors estimate the cost per mosquito transmitted infection detected to be $5,300,000. Editorialists review the precautionary foundations of Zika donor testing, the ARC testing experience, the absence of recognized morbidity from transfusion-transmitted infection, the evolution of the Zika epidemic, and our histories with other pathogens. They conclude “the hurdle now seems to be the willingness of key stakeholders to conduct such a review and to lead a graceful retreat from a policy decision that has thus far shown limited utility.”


RECENT REVIEWS

Managing the special red blood cell (RBC) transfusion needs of patients with sickle cell disease. For a significant minority of patients with sickle cell disease (SCD), RBC transfusions lead to serious complications and are associated with suboptimal outcomes. Factors accounting for this include the heterogeneity of the largely African genome of most SCD patients and SCD’s pathologic inflammatory state. The authors share their perspective about the most effective means for supporting the transfusion management of SCD patients and preventing, diagnosing, and treating delayed hemolytic transfusion reactions (DHTRs). They define the spectrum and severity of DHTRs that affect SCD patients and compare relatively mild cases (e.g., minimal hemolysis associated with most newly identified alloantibodies), atypical cases (e.g., DHTRs occurring in the absence of detectable antibodies), and (3) severe cases (e.g., hyperhemolysis syndrome [HS] manifesting as severe, reticulocytopenic, hemolytic anemia). The authors describe the likelihood that SCD patients will, under varying conditions, develop new RBC antibodies – knowledge that informs how they try to reduce alloimmunization risks based on individual patient risk factors. Specific strategies are proposed for preventing DHTRs. When a patient has one or more factors most strongly associated with DHTRs – i.e., “(i) history of [previous] RBC immunization, (ii) previous history of DHTRs, and (iii) transfusion during an acute complication.” – the authors recommend taking additional measures to reduce the likelihood of a recurrence. These include the use of increasingly specific RBC matching protocols and the administration of rituximab at times. The authors also summarize optimal methods for treating DHTRs (including HS), such as when or when not to transfuse RBCs and/or utilize medications such as

(continued on page 7)
RECENT REVIEWS (continued from page 6)

erthropoietin, intravenous immunoglobulin (IVig), rituximab, and eculizumab.


Contributed by Chris Gresens, MD, Division Chief Medical Officer, Blood Centers of the Pacific, Blood-Source, Inland Northwest Blood Center, United Blood Services

REGULATORY NEWS

The U.S. Food and Drug Administration (FDA) has announced the dates for the next meeting of the Blood Products Advisory Committee (BPAC). The meeting will take place from July 18th – 19th in Silver Spring, Md. at the FDA’s White Oak Campus in Silver Spring, Md. BPAC will discuss platelet safety, bacterial contamination risk prevention, bacterial detection using cultures and pathogen reduction technology. On July 19th, the committee will discuss device reclassification of class III devices to class II for serology-based point of care and laboratory-based in vitro diagnostic devices used to assist with diagnosing HIV. The meeting will be webcast for those unable to attend. More information is available on the FDA’s website.

(Source: FDA Announcement 5/16/18)

The Centers for Biologics Evaluation and Research (CBER) will hold a science and research symposium on June 25th – 26th at the FDA’s White Oak campus. The symposium will address biologic scientific topics at the agency and demonstrate how research impacts regulatory decision-making in hopes of fostering collaborations at FDA and external organizations. Discussion topics will include emerging and re-emerging diseases, diverse types of data in regulatory decision making, immunotherapy, the role of the microbiome in human disease, and regenerative medicine. Registration is free. More details can be found here.

(Source: FDA Announcement)

WORD IN WASHINGTON

ABC, AABB, and the American Red Cross (ARC) submitted joint comment to the Senate Health, Education, Labor, and Pensions Committee discussion draft to reauthorize the Pandemic and All-Hazards Preparedness Act (PAHPA), which is currently slated to expire in September. Sens. Lamar Alexander (R-Tenn.), Richard Burr (R-N.C.), Robert Casey (D-Penn.), and Patty Murray (D-Wash.) released the draft that aims to improve the preparedness and response tools to pandemics and bioterrorism within the PAHPA framework. ABC, AABB, and ARC commended the committee for drafting the legislation and recommended amending the draft to further recognize the role that blood centers play in emergency preparedness and response in addition to financial costs incurred to ensure availability of a safe and robust blood supply when needed. The response suggested that blood centers be included in incentive programs that help implement planning measures. Another recommendation included asking the committee to consider “policies that support and finance the implementation of new technologies that are required for blood safety” (such as the swift implementation of Zika testing). The full version of the response is available here. S. 2852, the Pandemic and All-Hazards Preparedness Advancing Innovation Act is scheduled for markup by the committee next week. The latest version of the PAHPA draft legislation includes an additional call for the inclusion of blood in planning and response activities.

(continued on page 8)
WORD IN WASHINGTON (continued from page 7)

The House Appropriations Committee voted in favor of a 10 percent increase to the U.S. Food and Drug Administration budget for 2019 for precision medicine and further addressing the opioid crisis. The extra $308 million would take FDA’s total budget to over $3 billion. Two areas of relevance to the blood community are “[n]ot later than July 31, 2019, the Secretary of Health and Human Services shall finalize the 18 draft guidance for industry entitled ‘Bacterial Risk Control Strategies for Blood Collection Establishments and Transfusion Services to Enhance the Safety and Availability of Platelets for Transfusion’ issued by the Food and Drug Administration in March of 2016, “[a]s the agency refines its comprehensive regenerative medicine policy framework, the Committee directs the FDA to brief the Committees within 30 days of enactment on how FDA regulates human stem cell harvesting compared to how the agency regulates the treatment and storage of human blood. Additionally, the legislation earmarks $70 million for precision medicine as outlined in the 21st Century Cures Act.

The White House Office of Budget Management recommended that Congress cut $7 billion in funding for the Children’s Health Insurance Program (CHIP). Over $5 billion comes from unspent funds for CHIP in 2017. The suggested cuts would be part of a $15 billion rescission proposal to cut previously approved appropriations. Congress passed CHIP legislation earlier this year as part of a continuing resolution that would fund the program for 10 more years.

PEOPLE

Benoit Morin, PhD, MBA has been named president and chief executive officer at Héma-Québec as of June 4th. Dr. Morin holds a PhD in health ethics and law from the University of Toronto and an MBA from the Queen’s University and brings more than 20 years combined experience in academia and as a healthcare executive to the position. “The Board of Directors and I are very pleased to announce the appointment of Benoit Morin,” said Board Chair Martine Carré in a news release. “Mr. Morin was chosen following a rigorous recruitment process. His experience fits perfectly with Héma-Québec’s vision, which is based on a partnership with the health system. We are convinced that he will work toward the successful growth of our organization in keeping with Héma-Québec’s vital mission to contribute to the health of thousands of Quebecers.” Prior to join Héma-Québec, Dr. Morin served as the president and chief executive officer of Montréal West Island Integrated University Health and Social Services Centre. “It is with enthusiasm that I join Héma-Québec’s large family. The environment is especially conducive to building its strategic position in Québec and beyond its borders. Given the historical excellence for which the organization is known, Héma-Québec can aspire to a new chapter of leadership in the life sciences and as a strategic partner with the Quebec health system. I am privileged to be entrusted with this mandate, which will allow me to team up with an organization that, from its creation, has inspired through its reliability and competency and that now aspires to build a future that combines its major historical achievements with its future ambitions. In building this future, we serve Québec society,” said Dr. Morin according to a Héma-Québec news release.

(Héma-Québec New Release, 5/10/18)
MEMBER NEWS

LifeShare Blood Center (Shreveport, La.) recently welcomed a new class of students into its Specialist in Blood Banking (SBB) Program. The 33 new enrollees are currently the largest SBB program. LifeShare began their SBB program in 2016 with four students and grew it to 20 in 2017. “The demand for SBB education has long exceeded availability,” said LifeShare Chief Operating Officer Monica Kalevelage. “LifeShare is proud to help close the gap by giving opportunity to qualified individuals to gain the knowledge needed to become ASCP certified SBBs via our CAAHEP (Commission on Accreditation of Allied Health Education Programs) accredited program.”

(LifeShare Blood Center Announcement, 5/9/18)

STOPLIGHT®: Status of America’s Blood Centers’ Blood Supply

<table>
<thead>
<tr>
<th>Total ABC Red Cell Inventory</th>
<th>Percent of Regional Inventory at 2 Days Supply or Less, May 18, 2018</th>
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<tbody>
<tr>
<td>12-Apr 16% 14% 17% 12% 16% 16%</td>
<td>East 42% Yellow (2 days)</td>
</tr>
<tr>
<td>19-Apr 33% 30% 26% 27% 28% 24%</td>
<td>Midwest 19% Green (3 days or more)</td>
</tr>
<tr>
<td>26-Apr 43% 48% 52% 58% 51% 54%</td>
<td>South 0% Red (1 day or less)</td>
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<tr>
<td>3-May 5%</td>
<td>West 9%</td>
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<tr>
<td>10-May 7%</td>
<td>East: 20%; Midwest: 25%; South: 24%; West: 31%</td>
</tr>
<tr>
<td>17-May 7%</td>
<td>Daily updates are available at: <a href="http://www.AmericasBlood.org">www.AmericasBlood.org</a></td>
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</table>
COMPANY NEWS

Roche has received approval from U.S. Food and Drug Administration (FDA) for an additional claim to its cobas® system for minipool Zika testing. The approval follows the recommendation of the Blood Products Advisory Committee (BPAC) in December 2017. “More than 6 million blood donations from the U.S. and Puerto Rico have been screened with the cobas® Zika test since its initial release under the Investigational New Drug Application (IND) protocol in 2016 and subsequent commercial approval in 2017,” said Uwe Oberlaender, Head of Roche Molecular Diagnostics in a news release. “Roche is pleased to offer additional screening options that support BPAC recommendations for the U.S. market.” Currently, the blood community in the U.S. awaits further guidance from FDA that will allow for conversion to Zika minipool testing.

(Source: Roche News Release, 5/14/18) ♦

GLOBAL NEWS

An International Consensus Conference on Patient Blood Management (ICC-PBM) organized by the European Blood Alliance took place in Frankfurt Germany recently under the direction of Professor Erhard Seifried, Scientific Secretariat and President of the Conference. More than 200 participants from five continents representing more than 10 disciplines responsible for 25,000,000 blood donations and 30,000,000 transfusions took part in the conference. The program featured over 50 international experts as speakers, reviewers, chairs, panellists and recorders. The Centre for Evidence-Based Practice (CEBaP) of the Belgian Red Cross followed a rigorous scientific process by systematically reviewing the PBM literature of over 18,000 titles for three categories: red blood cell transfusion triggers, pre-operative anemia, and implementation of PBM.

CEBaP condensed these into evidence summaries covering more than 140 studies using the Grading of Recommendations Assessment Development and Evaluation (GRADE) methodology. GRADE is a well-developed formal process to rate the quality of scientific evidence in systematic reviews and to develop recommendations in guidelines that are as evidence-based as possible. The GRADE approach was performed under the supervision of the Scientific Committee.

Seventeen Patient Intervention Comparison and Outcome (PICO) questions were developed and covered the three categories of pre-operative anemia (PICO 1-3), red blood cell transfusion triggers (PICO 4-14), and implementation of PBM (PICO 15-17).

On day one, there were the three parallel sessions where speakers from the scientific committee presented the literature review of the PICO questions after which the audience had the opportunity to ask questions and provide comments. This was followed by a closed session of three expert multidisciplinary panels (one for each category) that deliberated on the evidence presented as well as input from the audience to develop recommendations by using a transparent evidence-to-decision framework.

On day two the chairs of each category presented the draft consensus statements that were followed by the
GLOBAL NEWS (continued from page 10)

opportunity for the audience to comment. The audience was also surveyed by using an audience response system to indicate if they supported or rejected the consensus statements. The ICC concluded with a second closed session of the expert panel. The consensus statements with the supporting evidence and conference proceedings will be published at a later date.

Contributed by Richard Gammon, MD, OneBlood ♦

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. 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.

CALENDAR

Note to subscribers: Submissions for a free listing in this calendar (published in the last issue of each month) are welcome. Send information to Leslie Maundy by e-mail (lmaundy@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.)

2018

June 2-6. 35th International Congress of the ISBT, Toronto, Canada. More details available here.


July 18-19. FDA Blood Products Advisory Committee Meeting, Silver Spring, MD. More details available here.

July 31 – Aug. 2. Summer Meeting & MD Workshop, Montreal, Québec. Contact: ABC Meetings Dept. Phone: (202) 654-2917; e-mail: meetings@americasblood.org.

Sept. 5-7. 3rd European Conference on Donor Health and Management, Copenhagen, Denmark. More details available here.


Sept. 28. 36th Annual Immunohematology and Blood Transfusion Symposium, Bethesda, MD. More details available here.

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, contact Leslie Maundy at the ABC office. Phone: (202) 654-2917; fax: (202) 899-2621; e-mail: lmaundy@americasblood.org.
**POSITIONS**

**Director, Information Services.** LifeStream (San Bernardino, CA) located 60 miles east of Los Angeles and 50 miles west of Palm Springs seeks qualified applicants for its Director, Information Services position. This position is responsible for all Information Technology (Voice and Data) functions of the company. Primary responsibilities include Information Technology Administration duties, system security, cost control, systems hardware and software architecture, and support thereof. Supervision of Software Test Engineer, Programmer Analysts, Network/Telecommunications Administrator, and Help Desk Technicians. Ensures department provides excellent customer service. Ensures activities of the department are aligned with organizational goals. Four-year bachelor’s degree (BA / BS) in Computer Science, Applied Math, or related Degree. Five or more years of a history of progressive experience and responsibilities culminating in advancement to a similar position. Five or more years’ direct supervision/management of employees is required. Current California Driver’s License. This position reports to the Vice President/Technical and Clinical Affairs. LifeStream is an Equal Opportunity Employer, M/F/D/V. LifeStream participates in the Federal government E-verify program to determine employment eligibility. Apply online at https://www.lstream.org/open-positions/.

**Account Consultant I (Ada, Oklahoma, USA).** Account Consultants must develop new partnerships with targeted decision makers in community organizations, educational and 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 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://obi.org/careers/.

**Executive Director.** The European Blood Alliance (EBA) is seeking an Executive Director who will be based in/close to Brussels and whose key goals include building the organizational capability and capacity and supporting the membership; contributing to EBA strategy and policies and implement these in close collaboration with the President and Executive Board of EBA; representing the EBA in contact with other organizations and the EU institutions (Commission, Parliament, Council etc.) and to manage the EBA office/secretariat, and supervising staff. The successful candidate must be able to demonstrate achievements in leadership positions, in the ability to build organizational capacity for a membership organization, and in content knowledge of blood banking. A track record of networking and interacting with EU bodies is a bonus. The full job description and person specification can be read on the EBA-website: https://wp.me/p4l3nF-2aF. Applications should be received by 31 May 2018.

**Systems Analyst (Department: Management Information Systems).** Position reports to the MIS Project Manager and is responsible for performing software testing and validation of the enterprise software and computer systems. Duties include: Analyze software modsets and patches to develop comprehensive test cases; validate that the change is functioning properly and meet the requested user requirements. Analyze software modsets and patches to ensure (risk analysis) changes will not have a negative impact on company’s software enhancements. Execute test cases and complete all required supporting documentation per SOP(s). Assist in reviewing, developing and training SOPs. Assist with new equipment installations and user training, as needed. Assist with keeping the Development and Test environment up to date and current Act as the primary Help Desk contact for SafeTrace. Act as primary contact with software vendor for software problems, updates and documentation. Education and Experience: Bachelor’s degree from an accredited college or university in Computer Systems or Life Sciences. Minimum of three years works experience in Computer Support/Training preferably in a blood or tissue center or blood bank. Strongly prefer experience working with SafeTrace. MLS or MLT desirable, but not required. Valid Texas Driver’s license and an acceptable driving record are required. Please apply at: apply at https://jobs.giveblood.org/.