



Free
blood app

COVER FIGURE

Does the contact activation defect in prekallikrein deficiency protect from collagen/epinephrine (Col/Epi)-induced pulmonary emboli? This immunofluorescence image is of pulmonary microthrombi from prekallikrein-null (*KlkB1*^{-/-}) mice following treatment with intravenous Col/Epi. The green color stains fibrin (Mab 59D8), the red color stains platelets (Mab anti-CD42c), and the orange color reflects their colocalization. *KlkB1*^{-/-} mice have microvessel fibrin-platelet pulmonary emboli identical to those of wild-type mice (not shown), indicating that the mechanism for thrombosis observed is not mediated through contact activation. See the article by Stavrou et al on page 710.

INSIDE BLOOD COMMENTARIES

583 STAT3: too much may be worse than not enough!

Elie Haddad

Comment on Milner et al, page 591, and Haapaniemi et al, page 639

585 Myeloid disorders arise in Dnmt3a-null marrow

Ruud Delwel

Comment on Celik et al, page 619, and Mayle et al, page 629

586 Enhancing BCR signals at the cell membrane

Joseph R. Slupsky

Comment on Lu et al, page 649

587 Mutations and microenvironment collude in FL

Sattva S. Neelapu

Comment on Yildiz et al, page 668

589 The vascular side of plasma kallikrein

Thomas Renné

Comment on Stavrou et al, page 710

PLENARY PAPER

591 Early-onset lymphoproliferation and autoimmunity caused by germline STAT3 gain-of-function mutations

Joshua D. Milner, Tiphanie P. Vogel, Lisa Forbes, Chi A. Ma, Asbjørg Stray-Pedersen, Julie E. Niemela, Jonathan J. Lyons, Karin R. Engelhardt, Yu Zhang, Nermina Topcagic, Elisha D. O. Roberson, Helen Matthews, James W. Verbsky, Trivikram Dasu, Alexander Vargas-Hernandez, Nidhy Varghese, Kenneth L. McClain, Lina B. Karam, Karen Nahmod, George Makedonas, Emily M. Mace, Hanne S. Sorte, Göri Perminow, V. Konevi Rao, Michael P. O'Connell, Susan Price, Helen C. Su, Morgan Butrick, Joshua McElwee, Jason D. Hughes, Joseph Willet, David Swan, Yaobo Xu, Mauro Santibanez-Koref, Voytek Slowik, Darrell L. Dinwiddie, Christina E. Ciaccio, Carol J. Saunders, Seth Septer, Stephen F. Kingsmore, Andrew J. White, Andrew J. Cant, Sophie Hambleton, and Megan A. Cooper

PERSPECTIVES

600 The hidden genomic landscape of acute myeloid leukemia: subclonal structure revealed by undetected mutations

Margherita Bodini, Chiara Ronchini, Luciano Giacò, Anna Russo, Giorgio E. M. Melloni, Lucilla Luzi, Domenico Sardella, Sara Volorio, Syed K. Hasan, Tiziana Ottone, Serena Lavorgna, Francesco Lo-Coco, Anna Candoni, Renato Fanin, Eleonora Toffoletti, Ilaria Iacobucci, Giovanni Martinelli, Alessandro Cignetti, Corrado Tarella, Loris Bernard, Pier Giuseppe Pelicci, and Laura Riva

HOW I TREAT**606 How we treat chronic graft-versus-host disease**

Mary E. D. Flowers and Paul J. Martin

CLINICAL TRIALS AND OBSERVATIONS**616 Brief Report****Drug-induced thrombotic microangiopathy: a systematic review of published reports**

Zayd L. Al-Nouri, Jessica A. Reese, Deirdra R. Terrell, Sara K. Vesely, and James N. George

HEMATOPOIESIS AND STEM CELLS**619 Enforced differentiation of Dnmt3a-null bone marrow leads to failure with c-Kit mutations driving leukemic transformation**

Hamza Celik, Cates Mallaney, Alok Kothari, Elizabeth L. Ostrander, Elizabeth Eultgen, Andrew Martens, Christopher A. Miller, Jasreet Hundal, Jeffery M. Klco, and Grant A. Challen

629 Dnmt3a loss predisposes murine hematopoietic stem cells to malignant transformation

Allison Mayle, Liubin Yang, Benjamin Rodriguez, Ting Zhou, Edmund Chang, Choladda V. Curry, Grant A. Challen, Wei Li, David Wheeler, Vivienne I. Rebel, and Margaret A. Goodell

IMMUNOBIOLOGY**639 Autoimmunity, hypogammaglobulinemia, lymphoproliferation, and mycobacterial disease in patients with activating mutations in STAT3**

Emma M. Haapaniemi, Meri Kaustio, Hanna L. M. Rajala, Arjan J. van Adrichem, Leena Kainulainen, Virpi Glumoff, Rainer Döfing, Heikki Kuusanmäki, Tarja Heiskanen-Kosma, Luca Trotta, Samuel Chiang, Petri Kulmala, Samuli Edfors, Riku Katainen, Sanna Siitonen, Marja-Liisa Karjalainen-Lindsberg, Panu E. Kovánen, Timo Otonkoski, Kimmo Porkka, Kaarina Heiskanen, Arno Hänninen, Yenan T. Bryceson, Raija Usitalo-Seppälä, Janna Saarela, Mikko Seppänen, Satu Mustjoki, and Juha Kere

649 HGAL localization to cell membrane regulates B-cell receptor signaling

Xiaoqing Lu, Renaud Sicard, Xiaoyu Jiang, Jessica N. Stockus, George McNamara, Midhat Abdulreda, Vincent T. Moy, Ralf Landgraf, and Izidore S. Losos

LYMPHOID NEOPLASIA**658 BCL2 mutations are associated with increased risk of transformation and shortened survival in follicular lymphoma**

Cristina Correia, Paula A. Schneider, Haiming Dai, Ahmet Dogan, Matthew J. Maurer, Amy K. Church, Anne J. Novak, Andrew L. Feldman, Xiaosheng Wu, Husheng Ding, X. Wei Meng, James R. Cerhan, Susan L. Slager, William R. Macon, Thomas M. Habermann, Judith E. Karp, Steven D. Gore, Neil E. Kay, Diane F. Jelinek, Thomas E. Witzig, Grzegorz S. Nowakowski, and Scott H. Kaufmann

668 Activating STAT6 mutations in follicular lymphoma

Mehmet Yıldız, Hongxiu Li, Denzil Bernard, Nisar A. Amin, Peter Ouillette, Siân Jones, Kamlai Saiya-Cork, Brian Parkin, Kathryn Jacobi, Kerby Shedden, Shaomeng Wang, Alfred E. Chang, Mark S. Kaminski, and Sami N. Malek

680 A genome-wide association study of susceptibility to acute lymphoblastic leukemia in adolescents and young adults

Virginia Perez-Andreu, Kathryn G. Roberts, Heng Xu, Colton Smith, Hui Zhang, Wenjian Yang, Richard C. Harvey, Debbie Payne-Turner, Meenakshi Devidas, I-Ming Cheng, William L. Carroll, Nyla A. Heerema, Andrew J. Carroll, Elizabeth A. Raetz, Julie M. Gastier-Foster, Guido Marcucci, Clara D. Bloomfield, Krzysztof Mrózek, Jessica Kohlschmidt, Wendy Stock, Steven M. Kornblau, Marina Konopleva, Elisabeth Paietta, Jacob M. Rowe, Selina M. Luger, Martin S. Tallman, Michael Dean, Esteban G. Burchard, Dara G. Torgerson, Feng Yue, Yanli Wang, Ching-Hon Pui, Sima Jeha, Mary V. Relling, William E. Evans, Daniela S. Gerhard, Mignon L. Loh, Cheryl L. Willman, Stephen P. Hunger, Charles G. Mullighan, and Jun J. Yang

PHAGOCYTES, GRANULOCYTES, AND MYELOPOIESIS	687	ST3Gal-4 is the primary sialyltransferase regulating the synthesis of E-, P-, and L-selectin ligands on human myeloid leukocytes Nandini Mondal, Alexander Buffone Jr, Gino Stolfa, Aristotelis Antonopoulos, Joseph T. Y. Lau, Stuart M. Haslam, Anne Dell, and Sriram Neelamegham
PLATELETS AND THROMBOPOIESIS	697	Visualization of nitric oxide production by individual platelets during adhesion in flowing blood Maria Rita Cozzi, Giuseppe Guglielmini, Monica Battiston, Stefania Momi, Elisabetta Lombardi, Edward Cole Miller, Denise De Zanet, Mario Mazzucato, Paolo Gresele, and Luigi De Marco
RED CELLS, IRON, AND ERYTHROPOIESIS	706	Brief Report Telomere attrition and candidate gene mutations preceding monosomy 7 in aplastic anemia Bogdan Dumitriu, Xingmin Feng, Danielle M. Townsley, Yasutaka Ueda, Tetsuichi Yoshizato, Rodrigo T. Calado, Yanqin Yang, Yoshiyuki Wakabayashi, Sachiko Kajigaya, Seishi Ogawa, Jun Zhu, and Neal S. Young
THROMBOSIS AND HEMOSTASIS	710	Reduced thrombosis in <i>KlkB1</i>^{-/-} mice is mediated by increased Mas receptor, prostacyclin, Sirt1, and KLF4 and decreased tissue factor Evi X. Stavrou, Chao Fang, Alona Merkulova, Omar Alhalabi, Nadja Grobe, Silvio Antoniak, Nigel Mackman, and Alvin H. Schmaier
	720	EphB2 regulates contact-dependent and contact-independent signaling to control platelet function Sakthivel Vaiyapuri, Tanya Sage, Rekha H. Rana, Michael P. Schenk, Marfoua S. Ali, Amanda J. Unsworth, Chris I. Jones, Alexander R. Stainer, Neline Kriek, Leonardo A. Moraes, and Jonathan M. Gibbins
TRANSPLANTATION	731	CMV promotes recipient T-cell immunity following reduced-intensity T-cell-depleted HSCT, significantly modulating chimerism status Rob S. Sellar, Frederick Arce Vargas, Jake Y. Henry, Stephanie Verfuerth, Sarah Charrot, Brendan Beaton, Ronjon Chakraverty, Sergio A. Quezada, Stephen Mackinnon, Kirsty J. Thomson, and Karl S. Peggs

OTHER DEPARTMENTS

iiib Classifieds

SUBMISSION INSTRUCTIONS

All manuscripts, including figures, should be submitted electronically at <http://submit.bloodjournal.org> to Editor-in-Chief Bob Löwenberg, MD, PhD. Before submitting your paper, review *Blood's* Author Guide at <http://bloodjournal.hematologylibrary.org/site/authors/authorguide.xhtml>. If you need help during the submission process, contact the Editorial Office by phone at 202-776-0548 or via e-mail at editorial@hematology.org.