

2022 Cardiology Grand Rounds

Hemolytic anemia as a mechanism for vasculopathy and pulmonary hypertension in sickle cell disease and other hemolytic conditions

Speaker(s): Mark Gladwin, MD

Topic: Cardiology Grand Rounds

Purpose or Objectives: At the conclusion of this activity, the participant will be able to:

1 To understand that hemolytic anemia results in the release of erythrocyte Damage Associated Molecular Pattern molecules (eDAMPs), such as cell free plasma hemoglobin, arginase 1, and heme, that cause vascular dysfunction. This process is a mechanism for disease, causing chronic vasculopathy in sickle cell disease and other hemolytic conditions.

2 To understand how patients with hemolytic anemia, such as sickle cell disease, can develop pulmonary hypertension.

3 A pathological role for intravascular hemolysis and cell-free hemoglobin in transfusion medicine, surgery, malaria and other human diseases will be reviewed.

Date/Time: 10/20/2022 7:30:00 AM

Accreditation:



In support of improving patient care, VCU Health Continuing Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designation(s):

VCU Health Continuing Education designates this live activity for a maximum of 1.00 **AMA PRA Category 1 Credit(s)**[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

1.00 ANCC contact hours.



This activity provides 1.00 contact hours of continuing education credit. ACPE Universal Activity Number (UAN): Pharmacist: JA4008237-0000-22-161-L01-P NOTE FOR PHARMACISTS: Upon closing of the online evaluation, VCU Health Continuing Education will upload the pharmacy-related continuing education information to CPE Monitor within 60 days. Per ACPE rules, VCU Health Continuing Education does not have

access nor the ability to upload credits requested after the evaluation closes. It is the responsibility of the pharmacist or pharmacy technician to provide the correct information [NABP ePID and DOB (in MMDD format)] in order to receive credit for participating in a continuing education activity.





Continuing Education has been authorized by the American Academy of



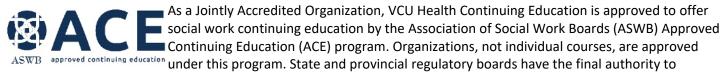
PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This





activity is designated for 1.00 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

AMERICAN PSYCHOLOGICAEducation (CE) credits for psychologists are provided through the co-sponsorship of the Association American Psychological Association (APA) Office of Continuing Education in Psychology (CEP). The APA CEP Office maintains responsibly for the content of the programs.



determine whether an individual course may be accepted for continuing education credit. VCU Health Continuing Education maintains responsibility for this course. Social workers completing this course receive 1.00 continuing education credits.

Disclosure of Commercial Support:

We acknowledge that no commercial or in-kind support was provided for this activity.

Disclosure of Financial Relationships:

VCU Health Continuing Education adheres to the ACCME's Standards for Integrity and Independence in Accredited Continuing Education. Any individuals in a position to control the content of a continuing education activity, including faculty, planners, reviewers or others are required to disclose all relevant financial relationships with ineligible entities (commercial interests). All relevant conflicts of interest have been mitigated prior to the commencement of the activity.

The following planners, moderators or speakers have the following financial relationship(s) with commercial interests to disclose:

Name of individual	Individual's role in activ	ity Name of Ineligible Company(s) / Nature of Relationship(s)
Amar Doshi, MD	Activity Director	
Greg Hundley, MD	Activity Director	Nothing to disclose - 08/23/2022
Mark Gladwin, MD	Faculty	Consulting Fee-Forma Therapeutics Grant or research support-Bayer (Relationship has ended) Consulting Fee-Bayer (Relationship has ended) Other: shareholder, advisor, and director -Globin Solutions Consulting Fee- Fulcrum (Relationship has ended) Royalties or Patent Beneficiary-Medmaster Royalties or Patent Beneficiary-McGraw-Hill - 09/26/2022
Leila Islam, PhD	Planning Committee	





Mary Kay Jarrett, NP	Planning Committee	Nothing to disclose - 08/16/2022
Megan Maltby, MSW	Planning Committee	Nothing to disclose - 11/02/2021
Virginia McGhee, RN	Planning Committee	Nothing to disclose - 11/03/2021
Ajay Pillai, MD	Planning Committee	
Kristyn G Rudisill, PA	Planning Committee	Nothing to disclose - 07/29/2022
Fadi N Salloum, Ph.D	Planning Committee	
Benjamin Van Tassell, PharmD	Planning Committee	

