

Principal Investigator/Program Director (Last, First, Middle):

PI Name

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Hamid Al-Mondhiry, M.D.		POSITION TITLE Professor of Medicine	
eRA COMMONS USER NAME Al-Mondhiry			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Baghdad College of Medicine, Baghdad, Iraq	M.B., Ch.B.	1961	Medicine

A. Positions and Honors.**Hospital Appointments:**

1971-1975 Assistant Attending Physician, Memorial Sloan-Kettering Cancer Center, New York, NY
 1971-1975 Director of Coagulation Laboratory, Memorial Sloan-Kettering Cancer Center, New York, NY
 1976-1979 Chief of Hematology, Baghdad University College of Medicine, Baghdad, Iraq
 1980- Attending Physician, The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, PA

Special Research Appointment:

1971-1975 Research Associate, New York Blood Center, New York, NY

Teaching Appointments:

1971-1975 Instructor, then Assistant Professor of Medicine, Cornell University College of Medicine, New York, NY
 1975-1979 Assistant Professor of Medicine, Baghdad University College of Medicine, Baghdad, Iraq
 1976-1977 Acting Chairman, Department of Medicine, Baghdad University College of Medicine, Baghdad, Iraq
 1980-1991 Associate Professor of Medicine, The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, PA
 1992 - Professor of Medicine, The Pennsylvania State University College of Medicine, Hershey, PA

B. Selected peer-reviewed publications (in chronological order).

(Publications selected from 80 peer-reviewed publications)

1. Al-Mondhiry H, Marcus A, Spaet TM. On the mechanism of platelet function inhibition by acetylsalicylic acid. Proc Soc Exp Biol Med 1970; 133: 362.
2. Al-Mondhiry H, Spaet TH. Studies on platelet adhesion to collagen. Proc Soc Exp Biol Med 1970; 135: 878.
3. Al-Mondhiry H, Zanjani E, Spivak M, Zulasky R, Gordon A. The disappearance of erythropoiesis inhibitor in a patient with pure red cell aplasia and thymoma following thymectomy. Blood 1971; 38: 777.
4. Al-Mondhiry H. Platelet transfusion in malignant disease. Clin Bull 1973; 3: 20.
5. Al-Mondhiry H, Bilezikian S, Nossel M. Fibrinogen New York, an abnormal fibrinogen associated with thromboembolism. Functional evaluation. Blood 1975; 45: 607.
6. Al-Mondhiry H, Lawlor D, Sadula D.: Fibrinogen Survival and fibrinolysis in acute leukemia. Cancer 1975; 35: 432.

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7. Al-Mondhiry H. Disseminated intravascular coagulation in cancer. Experience in a major cancer center. *Thromb et Diath Hemorrh* 1975; 34: 181.
8. Seiga, F, Voss R, Al-Mondhiry H, et al. Association of chromosomal abnormality with lymphocytes having both T and B markers in a patient with lymphoproliferative disease. *Am J Med* 1976; 69: 157.
9. Al-Mondhiry H, Al-Hilal, A. Severe anemia: Study of 100 patients with Hb less than 3.5 gm %. *Arch Intern Med* 1979; 139: 1053.
10. Al-Mondhiry H. Betathromboglobulin and platelet factor 4 in patients with cancer. Correlation with the stage of disease and the effect of chemotherapy. *Am J Hematol* 1983; 14: 105.
11. Al-Mondhiry H, Ballard J, McGarvey V. Fibrinogen interaction with human platelets: Effect of other clotting factors, prostaglandins and platelet inhibitors. *Thromb Res* 1983; 31: 415.
12. Al-Mondhiry H, Pierce WS, Richenbacher W, Bull A. Hemostatic abnormalities associated with prolonged ventricular assist pumping: Analysis of 25 patients. *Am J Cardiol* 1984; 53: 1344.
13. Al-Mondhiry H, Pierce WS, Richenbacher W. Platelet survival and function in animals fitted with mitral prosthetic valve. The effect of nafazatrom. *Thromb Haemost* 1984; 52: 99.
14. Al-Mondhiry H, Pierce WS, Basarab R. Protamine-induced thrombocytopenia and leukopenia. *Thromb Haemostas* 1985; 53: 60.
15. Al-Mondhiry H, Pierce WS, Pennock J. Platelet release in coronary artery disease. The effect of antiplatelet drugs and coronary artery bypass graft. *J Lab and Clin Med* 1985; 105: 397.
16. Al-Mondhiry H, Galanakis K. Dysfibrinogenemia and lupus anticoagulant in a patient with recurrent thrombosis. *J Lab Clin Med* 1987; 110: 726.
17. Al-Mondhiry H, Pierce WS. Hemostatic abnormalities in two patients implanted with total artificial heart. *Artificial Organs*, Sept. 1989.
18. Al-Mondhiry H, Pae WE, Rosenberg G, Pierce WS. Hematologic abnormalities and thromboembolic complications in calves implanted with pneumatic artificial heart. *ASAIO Transaction* 1989; 35: 238.
19. Al-Mondhiry H, Wallin R. Synthesis of vitamin K-dependent proteins by cultured human tumor cells. *Thrombos Hemostas* 1989; 62: 661.
20. Al-Mondhiry H, Pae WE, Miller CA, Pierce WS. Platelet and fibrinogen survival in calves implanted with artificial heart and ventricular assist device - correlation with autopsy findings. *Thrombos Hemostas* 1992; 67: 413.
21. Al-Mondhiry H, Pae WE, Rosenberg G, Pierce WS. Hematologic and hemostatic complications associated with long-term use of total artificial heart: Clinical and experimental observations. *Artificial Organs* 1992;16: 83.
22. Ehmann WC, Al-Mondhiry H. Afibrinogenemia and splenic rupture. *Amer J Med* 1994; 96: 92.
23. Al-Mondhiry H, Ehmann, WC. Congenital afibrinogenemia. *Amer J Hematol* 1994; 46: 343.
24. Al-Mondhiry H, Pae Jr, WE, Pierce WS. Evaluation of the fibrinolytic system in calves implanted with an artificial heart and ventricular assist device. *ASAIO* 1995; 41: 95.
25. Farrell D, Al-Mondhiry H. Human fibroblast adhesion to fibrinogen. *Biochemistry* 1997; 36: 1123.
26. Lovely RS, Falls LA, Al-Mondhiry H, et al. High levels of $\gamma A/\gamma'$ fibrinogen as a Risk factor for Coronary artery disease. *Thrombos Hemostas* 2002; 88:26-31.
27. Huang W, Wang G, Phelps D, Al-Mondhiry H, Floros J. Human SP-A genetic variants and bleomycin-induced cytokine production by THP-1 cells: Effect of ozone-induced SP-A oxidation. *Am. J. Lung Cell Mol. Physiol* 2004; 286: L546-L553.
28. Al-Saleem T, Al-Mondhiry H. Immunoproliferative small intestinal disease (IPSID): a model for B-cell neoplasm. *Blood* 105: 2274-2280, 2005.
29. Flood VH, Al-Mondhiry H, Farrell DH. The fibrinogen α R16C mutation results in fibrinolytic resistance. *Brit J Haematol* 134: 220-226, 2006.
30. Connell JM, Khalapyan T, Al-Mondhiry H, et al. Anticoagulation of juvenile sheep and goats with heparin, warfarin and clopidogril. *ASAIO Journal* 2007, 53: 229.
31. Flood V, Al-Mondhiry H, Farrel, D. Fibrinogen Hershey IV. A novel dysfibrinogenemia with a YV4111 mutation in the integrin α 11b β 3 binding site. *Thrombos Hemostas* 2008, 99:1008-1012.
32. Young S, Al-Mondhiry H, et al. Third trimester administration of argatroban. *Pharmacotherapy* 2008, 28:1531-1536.

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C. Research Support**Ongoing Research Support**

1 NO1 HV 048191-03 (Weiss)

12/5/07-12/29/09

0.24 Cal M

NIH/NHLBI

\$923,193

"Pediatric Circulatory Support"

The primary objective of this work is to develop a pulsatile Pediatric Ventricular Assist Device (PVAD) to provide cardiac support for patients ranging in age from newborn to teens. The proposed PVAD will be developed in two sizes (10 ml and 25 ml stroke volumes) to span the range of infants and children. The device is based on the successful Pierce-Donachy pneumatically actuated pulsatile pump that has been commercialized by the Thoratec Corporation (Pleasanton, CA) and has been utilized in over 2000 patients worldwide

1 RO1 HL081119-03

NIH/NHLBI (Rosenberg)

5/1/09-4/30/10

0.48 cal M

"Development of an Innovatively Suspended Tesla Pump LVAD"

\$467,020

Penn State, in cooperation with Advanced Bionics, Inc., has developed a unique and innovative Tesla type blood pump design that addresses short-comings encountered in existing continuous flow devices such as thrombosis and hemolysis. The PSU/ABI LVAD system employs a unique passive rotor suspension system with large blood flow channels that do not create hemolytic shear stresses yet provide for adequate surface washing. The latest computational fluid dynamics techniques combined with proven in vitro and in vivo testing, will be combined to develop an improved LVAD system.

2 RO1 HL60276-09 (Rosenberg)

6/1/09-5/31/10

.60 Cal M

NIH/NHLBI

\$484,489

"New Methodologies for the Design of Small Blood Pumps"

The goal of this grant is to continue studies to develop techniques that will allow us to design and manufacture a small blood pump that has acceptable biocompatibility and hemodynamic performance.