STEPHEN BYRON SHOHET, M.D.
CURRICULUM VITAE

HOME ADDRESS: 1925 Gough Street #42, San Francisco, CA 94109
(415) 922-3070; e-mail: sbshohet@aol.com

DATE OF BIRTH: November 29, 1934

PLACE OF BIRTH: Boston, Massachusetts

EDUCATION: A.B., English Literature (Magna Cum Laude), Harvard College, Cambridge, Massachusetts, 1956

M.D., Harvard Medical School, Boston, Mass. 1960

PROFESSIONAL HISTORY:

1954-1956	Research Assistant, Thorndike Memorial Laboratory, Boston City Hospital, Boston, Massachusetts
1957-1959	Research Assistant, Huntington Memorial laboratory Massachusetts General Hospital, Boston, Massachusetts
1960-1961	Intern in Medicine, Beth Israel Hospital, Boston, Massachusetts
1961-1962	Assistant Resident in Medicine, Beth Israel Hospital, Boston, Massachusetts
1962-1964	Clinical Associate, National Cancer Institute, Bethesda, Maryland
1964-1965	Senior Staff Associate, National Cancer Institute, Bethesda, Maryland
1965-1966	Fellow in Hematology and Instructor in Medicine, Peter Bent Brigham Hospital, Boston, Massachusetts
1966-1967	United States Public Health Service, Special Postdoctoral Fellowship

1966-1968	Junior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Massachusetts
1966-1971	Associate Physician, Harvard University Health Services, Boston, Massachusetts
1968-1969	Research Associate, Children's Hospital Medical Center, Boston, Massachusetts
1968-1969	Associate in Pediatrics, Harvard Medical School, Boston, Massachusetts
1968-1971	Fellow of the Medical Foundation, Boston, Massachusetts
1969-1971	Associate in Hematology, Harvard Medical School, Children's Hospital Medical Center, Boston, Massachusetts
1969-1971	Assistant Professor of Pediatrics, Harvard Medical School, Boston, Massachusetts
1971-1976	Associate Professor of Medicine and Associate Professor of Laboratory Medicine, University of California, San Francisco Medical Center
1971-1984	Chief of Hematology and Director of Hematology Research Laboratory, Moffitt Hospital, University of California, San Francisco Medical Center
1974-1981	Director, Cancer Research Institute, Moffitt Hospital, University of California, San Francisco Medical Center
1981-present	Director, MacMillan-Cargill Hematology Research Laboratory, University of California, San Francisco Medical Center
1976-present	Professor of Laboratory Medicine and Professor of Medicine, University of California, San Francisco Medical Center
1984-1988	Associate in Herpetology, California Academy of Sciences, San Francisco, California

LICENSES: Massachusetts #26796; California #G 022190
Diplomate, National Medical Examiners #60961

BOARD
MEMBERSHIPS: American Board of Internal Medicine #28179, 1969

MEMBERSHIPS: Association of American Physicians
American Society for Clinical Investigation
American Society of Hematology
International Society of Hematology
Western Society for Clinical Research (Councillor, 1974-1977)
American Federation for Clinical Research
American Association for the Advancement of Science
California Academy of Medicine
Massachusetts Medical Society
American Association of Cancer Institutes
American Association for Cancer Education
Western Association of Physicians
Biophysical Society
Red Cell Club
Academy of Clinical Laboratory Physicians and Scientists

HONORS: Phi Beta Kappa
Martius Yellow Organic Chemistry Prize
Harvard College Scholarship
Josiah Macy Faculty Fellowship

SUPPORT: Fellow, Medical Foundation, 1968-1971

Recipient, Career Development Award, National Institute of Arthritis and Metabolic Diseases, 1972-1977

Principal Investigator, "*In Vitro* Characterization of Hodgkin's Disease Cells" (CA 15182), National Cancer Institute, 1974-1977

Principal Investigator, Clinical Cancer Education Program (CA 17995), 1975-1979

Principal Investigator, Hematology Training Grant (HL 05677), 1975-1976

Principal Investigator, Blood Banking Sciences and Related Programs Training Grant (HL 07100), 1975-1990

Principal Investigator, Red Cell Membrane Studies (Program Project Grant [1PO1 AM 32094]), 1983-1992

Co-principal investigator, "Synthesis of a self assembling supra-molecular lattice" Office of Naval Research grant. (N00149 3051455, 1991-1995)

Principal Investigator, "Membrane Lipid Metabolism in Blood Cells" (AM 16095), National Institute of Arthritis and Metabolic Diseases, 1971-present (continued as below)

Principal Investigator, "Architecture of the Erythrocyte Skeleton: Bilayer Interface" (DK 16095), National Institute of Diabetes Digestive and Kidney Disease, 1996-2001

EDITORIAL POSITIONS:

Journal of Lipid Research
Associate Editor, 1972-1977
Editorial Board, 1977-present

Blood Cells
Associate Editor-in-Chief, 1976-1977
Editorial Board, 1977-present

Blood
Editorial Board, 1977-1982

Hematology: Clinical and Laboratory Practice (Mosby)Associate Editor, 1991-

REVIEWER FOR JOURNALS

Acta Haematologica
Advances in Free Radical Biology and Medicine
American Journal of Hematology
American Journal of Physiology
Archives of Biochemistry and Biophysics
Biochemistry
Biochemistry et Biophysica Acta
Biorheology
Blood
Brain Research
British Journal of Haematology
Cancer Research
Cardiology
Circulation

Clinical Hemorheology
Encyclopedia of Human Biology
Journal of Clinical Investigation
Journal of Infectious Diseases
Journal of Lipid Research
Journal of Membrane Biology
Journal of the National Cancer Research Institute
Lipids
Nature
New England Journal of Medicine
Physiology Reviews
Proceedings National Academy of Science
Proceedings New York Academy of Sciences
Science
Transfusion
Western Journal of Medicine

REVIEWER FOR PROGRAMS:

NATO Research Exchange Program
New York Academy of Sciences Program Committee
Israeli Bi-National Fund
National Science Foundation Fellowship Program

PUBLICATIONS

1. Brin M, Shohet S, Davidson CS. The effect of thiamine deficiency on the glucose oxidative pathway of rat erythrocytes. J Biol Chem **230:** 319-326, 1958.

2. Ervin FR, Glazier JB, Aronow S, Nathan DG, Coleman R, Avery N, Shohet S, Leeman C. Human and ecologic effects in Massachusetts of an assumed thermonuclear attack on the United States. N Engl J Med **266:** 1127-1137, 1962.

3. Shohet SB, Sweet RH. Cardiac resuscitation. The combined use of external cardiac massage, external cardiac defibrillation an external electric cardiac stimulation. N Engl J Med **267:** 976-977, 1962.

4. Shohet SB. Cardiac resuscitation: A practical approach. Clin Med **71:** 675-683, 1964.

5. Adamson RH, Dixon RL, Ben M, Crews L, Shohet SB, Rall DP. Some pharmacologic properties of vincristine. Arch Int Pharmacodyn **157:** 229-311, 1965.

6. Shohet SB, Mohler WC. Low temperature preservation of chronic myelogenous leukemia cells: A method and review. Cryobiology **4:** 47-60, 1967.

7. Shohet SB, Gardner FH. Tissue culture of primitive human myeloid cells for the study of cellular proliferation. Preliminary report on a growth inhibitor in the heated serum of two patients with chronic myelogenous leukemia (CML) following splenic irradiation. Blood **31:** 180-187, 1968.

8. Shohet SB. Morphologic evidence for the *in vivo* activity of transfused chronic myelogenous leukemia cells in a case of massive staphylococcal septicemia. Blood **32:** 111-118, 1968.

9. Shohet SB, Balolong G. A modified method for the determination of leukocyte alkaline phosphatase in leukopenic states. Am J Clin Pathol **49:** 283-284, 1968.

10. Zarkowsky HS, Oski FA, Sha'afi R, Shohet SB, Nathan DG. Congenital hemolytic anemia with high sodium, low potassium red cells. I. Studies of membrane permeability. N Engl J Med **278:** 593-600, 1968.

11. Shohet SB, Nathan DG, Karnovsky ML. Stages in the incorporation of fatty acids into red blood cells. J Clin Invest **47:** 1096-1108, 1968.

12. Shohet SB, Blum SF. Coincident basophilic chronic myelogenous leukemia and pulmonary tuberculosis. Cancer **22:** 173-174, 1968.

13. Oski FA, Naiman JL, Blum SF, Zarkowsky HS, Whaun J, Shohet SB, Green A, Nathan DG. Congenital hemolytic anemia with high-sodium, low-potassium red cells. Studies of three generations of a family with a new variant. N Engl J Med **280:** 909-916, 1969.

14. Blum SF, Shohet SB, Nathan DG, Gardner FH. The effect of amphotericin B on erythrocyte membrane cation permeability: Its relation to *in vivo* erythrocyte survival. J Lab Clin Med **73:** 980-987, 1969.

15. Shohet SB, Aberbach L. Rapid visual counting by means of a variable-speed impulse generator. Am J Clin Pathol **53:** 552-553, 1970.

16. Shohet SB. Changes in fatty acid metabolism in human leukemic granulocytes during phagocytosis. J Lab Clin Med **75:** 659-672, 1970.

17. Shohet SB, Nathan DG. Incorporation of phosphatide precursors from serum into erythrocytes. Biochim Biophys Acta **202:** 202-205, 1970.

18. Shohet SB. Release of phospholipid fatty acid from human erythrocytes. J Clin Invest **49:** 1668-1678, 1970.

19. Nathan DG, Shohet SB. Erythrocyte ion transport defects and hemolytic anemia: "Hydrocytosis" and "desiccytosis." Semin Hematol **7:** 381-408, 1970.

20. Shohet SB. Abetalipoproteinemia. **In** D. Bergsma (ed): *Birth Defects: Atlas and Compendium.* Baltimore, Williams and Wilkins, 1973, p 128.

21. Shohet SB. The apparent transfer of fatty acid from phosphatidylcholine to phosphatidylethanolamine in human erythrocytes. J Lipid Res **12:** 139-142, 1971.

22. Lucas DO, Shohet SB, Merler E. Changes in phospholipid metabolism which occur as a consequence of mitogenic stimulation of lymphocytes. J Immunol **106:** 768-772, 1971.

23. Weglicki WB, Waite M, Sisson P, Shohet SB. Myocardial phospholipase A of microsomal and mitochrondrial fractions. Biochim Biophys Acta **231:** 512-519, 1971.

24. Shohet SB, Livermore BM, Nathan DG, Jaffe ER. Hereditary hemolytic anemia associated with abnormal membrane lipids: Mechanism of accumulation of phosphatidylcholine. Blood **38:** 445-456, 1971.

25. Lubin BH, Baehner RL, Schwartz E, Shohet SB, Nathan DG. The red cell peroxide hemolysis test in the differential diagnosis of obstructive jaundice in the newborn period. Pediatrics **48:** 562-565, 1971.

26. Feig SA, Shohet SB, Nathan DG. Energy metabolism in human erythrocytes. I. Effects of sodium fluoride. J Clin Invest **50:** 1731-1737, 1971.

27. Feig SA, Segel GB, Shohet SB, Nathan DG. Energy metabolism in human erythrocytes. II. Effects of glucose depletion. J Clin Invest **51:** 1547-1554, 1972.

28. Lubin BH, Shohet SB, Nathan DG. Changes in fatty acid metabolism after erythrocyte peroxidation: Stimulation of a membrane repair process. J Clin Invest **51:** 338-344, 1972.

29. Button LN, Kevy SV, Shohet SB, Oxman MN. The effects of continuous-flow washing on stored red blood cells. Transfusion **12:** 84-93, 1972.

30. Shohet SB. Hemolysis and changes in erythrocyte membrane lipids. N Engl J Med **286:** 577-583, 638-644, 1972.

31. Segel GB, Feig SA, Mentzer WC, McCaffrey RP, Wells R, Bunn HF, Shohet SB, Nathan DG. Effects of urea and cyanate on sickling *in vitro.* N Engl J Med **287:** 59-64, 1972.

32. Come SE, Shohet SB, Robinson SH. Surface remodelling of reticulocytes produced in response to erythroid stress. Nature (New Biol) **236:** 157-158, 1972.

33. Shohet SB, Haley JE. Red cell membrane shape and stability: Relation to cell lipid renewal pathways and cell ATP. Nouv Rev Hematol **12:** 761-770, 1972.

34. Shohet SB. Abnormal membrane lipids and abnormal cation fluxes in human erythrocytes. **In** E Gerlach *et al.* (eds): *Erythrocytes Thrombocytes Leukocytes: Recent Advances in Membrane and Metabolic Research.* Stuttgart, Georg Thieme, 1973, pp 115-118.

35. Segel G, Feig S, Mentzer WC, Jensen MC, Nathan DG, Shohet SB. Abnormal cation fluxes in human erythrocytes: Relation to ATP. **In** E Gerlach *et al.* (eds): *Erythrocytes Thrombocytes Leukocytes: Recent Advances in Membrane and Metabolic Research.* Stuttgart, Georg Thieme, 1973, pp 118-121.

36. Shohet SB, Nathan DG, Livermore BM, Feig SA, Jaffe ER. Hereditary hemolytic anemia associated with abnormal membrane lipid. II. Ion permeability and transport abnormalities. Blood **42:** 1-8, 1973.

37. Jensen M, Shohet SB, Nathan DG. The role of red cell energy metabolism in the generation of irreversibly sickle cells *in vitro.* Blood **42:** 835-842, 1973.

38. Smolen JE, Shohet SB. Remodeling of granulocyte membrane fatty acids during phagocytosis. J Clin Invest **53:** 726-734, 1974.

39. Shohet SB, Lux SE. The red blood cell membrane and mechanisms of hemolysis. **In** DG Nathan, FA Oski (eds): *Hematology of Infancy and Childhood.* Philadelphia, W.B. Saunders, 1974, pp 190-240.

40. Smolen JE, Shohet SB. Permeability changes induced by peroxidation in liposomes prepared from human erythrocyte lipids. J Lipid Res **15:** 273-280, 1974.

41. Shohet SB, Pitt J, Baehner RL, Poplack DG. Lipid peroxidation in the killing of phagocytized pneumococci. Infect Immun **10:** 1321-1328, 1974.

42. Come SE, Shohet SB, Robinson SH. Surface remodeling vs. whole-cell hemolysis of reticulocytes produced with erythroid stimulation or iron deficiency anemia. Blood **44:** 817-830, 1974.

43. Zipp A, Kuntz ID, Rehfeld SJ, Shohet SB. Proton magnetic resonance studies of intracellular water in sickle cells. FEBS Lett **43:** 9-12, 1974.

44. Shohet SB. "Acanthocytogenesis" – Or how the red cell won its spurs. (Editorial) N Engl J Med **290:** 1316-1317, 1974.

45. Weatherly TL, Flannery EP, Shohet SB, Doyle WF, Garratty G. Congenital dyserythropoietic anemia (CDA) with increased red cell lipids. Am J Med **57:** 912-919, 1974.

46. Liu TZ, Wong CH, Shohet SB. A rapid and simple radioassay for thymine 7-hydroxylase. Anal Biochem **62:** 408-416 1974.

47. Greenquist AC, Shohet SB. Defective protein phosphorylation in membranes of hereditary spherocytosis erythrocytes. FEBS Lett **48:** 133-135, 1974.

48. Clark MR, Shohet SB. A hybrid erythrocyte model for membrane permeability studies in sickle cell disease. Proc 1st National Symposium on Sickle Cell Disease, Bethesda, Maryland, 1974, DHEW Publication No. (NIH) 75-723, pp 215-216.

49. Klock JC, Shohet SB. Isolation and purification of phagocytic cell plasma membranes by reversible leucoadhesion. **In** M Goldman, RM Lowenthal (eds): International Symposium on Lekocyte Separation and Transfusion, London, 1974. New York, Academic Press, 1975, pp 251-254.

50. Kandall CL, Shohet SB, Akinbami TK, Colman RW. Determinants of the formation and activity of factor V – phospholipid complexes. I. Influence of phospholipid structures. Thromb Diath Haemorrh **34:** 205-217, 1975.

51. Kandall CL, Shohet SB, Akinbami TK, Colman RW. Determinants of the formation and activity of factor V – Phospholipid complexes. II. Molecular properties of the complexes. Thromb Diath Haemorrh **34:** 218-229, 1975.

52. Zarkowsky JS, Mohandas N, Speaker CB, Shohet SB. A congenital haemolytic anaemia with thermal sensitivity of the erythrocyte membrane. Br J Haematol **29:** 537-543, 1975.

53. Mentzer WC Jr, Smith WB, Goldstone J, Shohet SB. Hereditary stomatocytosis: Membrane and metabolism studies. Blood **46:** 659-669, 1975.

54. Smith WB, Shohet SB, Zagajeski E, Lubin BH. Alteration in human granulocyte function after *in vitro* incubation with L-ascorbic acid. Ann NY Acad Sci **258:** 329-338, 1975.

55. Greenquist AC, Shohet SB. Phosphorylation and dephosphorylation in the erythrocyte membrane. **In** G Brewer (ed): *Erythrocyte Structure and Function.* New York, A.R. Liss, 1975, pp 515-531.

56. Shohet SB. Membrane remodeling during phagocytosis in chronic myelogenous leukemia cells. **In** R Neth *et al.* (eds): *Modern Trends in Human Leukemia II.* Munich, JF Lehmanns, 1976, pp 101-107.

57. Clark MR, Shohet SB. Hybrid erythrocytes for membrane studies in sickle cell disease. Blood **47:** 121-131, 1976.

58. Price DC, Swann SJ, Hung S T-C, Kaufman L, Huberty JP, Shohet SB. The measurement of circulating red cell volume using nonradioactive cesium and fluorescent excitation analysis. J Lab Clin Invest **87:** 535-543, 1976.

59. Rachmilewitz EA, Lubin BH, Shohet SB. Lipid membrane peroxidation in b-thalassemia major. Blood **47:** 495-505, 1976.

60. Shohet SB, Layzer RB. The "muscle" of the red cell. (Editorial) N Engl J Med **294:** 221-222, 1976.

61. Zipp A, James TL, Kuntz ID, Shohet SB. Water proton magnetic resonance studies of normal and sickle erythrocytes: Temperature and volume dependence. Biochem Biophys Acta **428:** 291-303, 1976.

62. Clark MR, Greenquist AC, Shohet SB. Stabilization of the shapes of sickled cells by calcium and A23187. Blood **48:** 899-909, 1976.

63. Greenquist AC, Shohet SB. Phosphorylation in erythrocyte membranes from abnormally shaped cells. Blood **48:** 877-886, 1976.

64. Ries CA, Klock JC, Perkins HA, Shohet SB, Olcott C IV, Ehrenfeld WK. Arteriovenous fistulas for vascular access in patients with hematologic disorders. N Engl J Med **295:** 342, 1976.

65. Shohet SB. A Commentary (on) Goldstein BD, Falk GW, Benjamin LJ, McDonah EM: Alteration in the chloroform quenching of red cell membrane native protein fluorescence following incubation with malonaldehyde and other crosslinking agents. Blood Cells **2:** 541-542, 1976.

66. Shohet SB, Ness PM. Hemolytic anemias: Failure of the red cell membrane. Med Clin No Am **60:** 913-932 1976.

67. Shohet SB. Mechanisms of red cell membrane lipid renewal. **In** L Bolis, JF Hoffman, A Lead (eds): *Membranes and Disease.* New York, Raven Press, 1976, pp 61-74.

68. Shohet SB, Klock JC. Red cell glycolipids and phospholipids: Composition and metabolism. **In** *Membrane Structure and Function of Human Blood Cells, A Symposium.* Washington, DC, American Association of Blood Banks, 1976, pp 15-36.

69. Shohet SB, Greenquist AC. Possible roles for membrane protein phosphorylation in the control of erythrocyte shape. Blood Cells **3:** 115-133, 1977.

70. Bainton DF, Friedlander LM, Shohet SB. Abnormalities in granule formation in acute myelogenous leukemia. Blood **49:** 693-704, 1977.

71. Greenquist AC, Shohet SB. A Commentary (on) Heusinkveld RS, Goldstein DA, Weed RI, LaCelle P: Effect of protein modification on erythrocyte membrane mechanical properties. Blood Cells **3:** 183-184, 1977.

72. Shohet SB. Red cell membrane lipids: Renewal and metabolism. **In** Williams *et al.* (eds): *Hematology, 2nd ed.* New York, McGraw Hill, 1977, pp 190-196.

73. 73. Shohet SB. Blood: Introductory comments. **In** F Snyder (ed): *Lipid Metabolism in Mammals, Vol. 1.* New York, Plenum Press, 1977, pp 189-190.

74. Wyatt JL, Greenquist AC, Shohet SB. Analyses of phosphorylated tryptic peptide of spectrin from human erythrocyte membrane. Biochem Biophys Res Commun **79:** 1279-1285, 1977.

75. Mohandas N, Greenquist AC, Shohet SB. Effects of heat and metabolic depletion of erythrocyte deformability, spectrin extractability and phosphorylation. **In** GJ Brewer (ed): *The Red Cell.* New York, A.R. Liss, 1978, pp 453-572.

76. Mohandas N, Shohet SB. Control of red cell deformability and shape. **In** S Piomelli, S Yachnin (eds): *Current Topics in Hematology, vol. 1.* New York, A.R. Liss, 1978, pp 71-125.

77. Clark MR, Mohandas N, Caggiano V, Shohet SB. Effects of abnormal cation transport on deformability of desiccytes. J Supramol Struct **8:** 521-532, 1978.

78. Clark MR, Morrison CE, Shohet SB. Monovalent cation transport in irreversibly sickled cells. J Clin Invest **62:** 329-337, 1978.

79. Greenquist AC, Wyatt JL, Guatelli J, Shohet SB. The spectrin phosphorylation reaction in human erythrocytes. **In** Kruckeberg WC, Eaton JW, Brewer GJ (eds): *Erythrocyte Membranes: Recent Clinical and Experimental Advances.* New York, A.R. Liss, 1978, pp 1-24.

80. Clark MR, Unger RC, Shohet SB. Monovalent cation composition and ATP and lipid content of irreversibly sickle cells. Blood **51:** 1169-1178, 1978.

81. Clark MR, Morrison CE, Unger RC, Shohet SB. Abnormal monovalent cation transport in irreversibly sickled cells. **In** Kruckeberg WC, Eaton JW, Brewer

GJ (eds): *Erythrocyte Membranes: Recent Clinical and Experimental Advances.* New York, A.R. Liss, 1978, pp 93-99.

82. Greenquist AC, Shohet SB, Bernstein SE. Marked reduction of spectrin in hereditary spherocytosis in the common house mouse. Blood **51:** 1149-1151, 1978.

83. Mohandas N, Greenquist AC, Shohet SB. Bilayer balance and regulation of red cell shape changes. J Supramol Struct **9:** 453-458, 1978.

84. Chiu D, Lubin B, Shohet SB. Erythrocyte membrane lipid reorganization during the sickling process. Br J Haematol **41:** 223-234, 1979.

85. Symmans WA, Shepherd CS, Marsh WL, Oyen R, Shohet SB, Linehan BJ. Hereditary acanthocytosis associated with the McLeod phenotype of the Kell blood group. Br J Haematol **42:** 575-583, 1979.

86. Smith JE, Mohandas N, Shohet SB. Variability in erythrocyte deformability among various mammals. Am J Physiol **236**(5)**:** H72-730, 1979.

87. Shohet SB. Reconstitution of spectrin-deficient spherocyte membranes. J Clin Invest **64:** 483-494, 1979.

88. Shohet SB, Mohandas N. Abetalipoproteinemia. **In** D Bergsma (ed): *Birth Defects: Atlas and Compendium, 2nd ed.,* New York, March of Dimes National Foundation, 1979, p 26.

89. Shohet SB. Lipid loss in spectrin-deficient mouse erythrocytes. **In** *Progress in Clinical and Biological Research: Proceedings of the ICN-UCLA Symposium on Normal and Abnormal Red Cell Membranes.* New York, A.R. Liss, 1980, pp 471-474.

90. Clark MR, Mohandas N, Shohet SB. Deformability of oxygenated irreversibly sickle cells. J Clin Invest **65:** 189-196, 1980.

91. Mohandas N, Clark MR, Jacobs MS, Shohet SB. Ektacytometric analysis of factors regulating red cell deformability. Blood Cells **6:** 329-334, 1980.

92. Smith JE, Mohandas N, Clark MR, Greenquist AC, Shohet SB. Deformability and spectrin properties in three types of elongated red cells. Am J Hematol **8:** 1-13, 1980.

93. Clark MR, Guatelli JC, Mohandas N, Shohet SB. Influence of red cell water content on the morphology of sickling. Blood **55:** 832-830, 1980.

94. Mohandas N, Clark MR, Wyatt JF, Garcia JF, Eisenberg PD, Shohet SB. Erythropoietic stress, macrocytosis and hemoglobin switching in HGAA sheep. Blood **55:** 757-761, 1980.

95. Ponnappa BC, Greenquist AC, Shohet SB. Calcium-induced changes in polyphosphoinositides and phosphatidate in normal, sickle cells, and hereditary pyropoikilocytes. Biochim Biophys Acta **598:** 494-501, 1980.

96. Shohet SB. Spectrin stabilizes the erythrocyte membrane and affects its osmotic behavior. **In** SK Srivastava (ed): *Red Blood Cell and Lens Metabolism.* Amsterdam, Elsevier North-Holland, 1980, pp 241-249.

97. Mohandas N, Wyatt JL, Shohet SB. Deformability characteristics of pathological red cells. **In** SK Srivastava (ed): *Red Blood Cell and Lens Metabolism.* Amsterdam, Elsevier North-Holland, 1980, pp 15-26.

98. Clark MR, Guatelli JC, Shohet SB. Effects of Na/K pump activity in dehydrated red cells. **In** SK Srivastava (ed): *Red Blood Cell and Lens Metabolism.* Amsterdam, Elsevier North-Holland, 1980, pp 307-310.

99. Chiu D, Lubin B, Shohet SB. Peroxidation reactions in red cell biology. **In** William A. Pryor (ed): *Free Radicals in Biology,* **5:** New York, Academic Pres, 1982, pp 115-160.

100. Mohandas N, Clark MR, Jacobs MS, Shohet SB. Analysis of factors regulating erythrocyte deformability. J Clin Invest **66:** 563-573, 1980.

101. Mohandas N, Clark MR, Kissinger S, Bayer C, Shohet SB. Inaccuracies associated with the automated measurement of mean cell hemoglobin concentration in dehydrated cells. Blood **56:** 125-128, 1980.

102. Mohandas N, Shohet SB. The role of membrane-associated enzymes in the regulation of erythrocyte shape and deformability. Clin Haematol **10:** 223-237, 1981.

103. Clark MR, Mohandas N, Feo C, Jacobs MS, Shohet SB. The separate mechanisms of deformability loss in ATP-depleted and Ca-loaded erythrocytes. J Clin Invest **67:** 531-539, 1981.

104. Clark MR, Shohet SB. The effect of abnormal hemoglobins on the membrane regulation of cell hydration. Tex Rep Biol Med **40:** 417-429, 1980.

105. Jain SK, Shohet SB. Calcium potentiates the peroxidation of erythrocyte membrane lipids. Biochim Biophys Acta **642:** 46-54, 1981.

106. Shohet SB, Card RT, Clark MR, Greenquist AC, Mohands N, Shelton D, Wyatt JL. The erythrocyte "cytoskeleton" and its apparent role in cellular functions. **In** *The Functions of Red Blood Cells: Erythrocyte Pathobiology.* New York, A.R. Liss, Inc., 1981, pp 35-38.

107. Shohet SB. Possible roles for the membrane cytoskeleton in regulating red cell stability and deformability. Scan J Lab Invest **41:** 123-130 (Suppl 156), 1981.

108. Liu TZ, Shen JT, Yeu-Tsu NL, Shohet SB. Relationship of atypical cathode-migrating creatine kinase enzyme isozyme and human breast cancer. Clin Chem **26:** 1765, 1980.

109. Mohandas N, Clark MR, Feo C, Jacobs MS, Shohet SB. Factors that limit whole cell deformability in erythrocytes after calcium loading and ATP depletion. **In** *The Red Cell Membrane.* GJ Brewer (ed): New York, A.R. Liss, Inc., 1981, pp 423-434.

110. Heath BP, Wyatt JL, Mohandas N, Shohet SB. A new method for studying the deformability of isolated erythrocyte membranes. **In** *The Red Cell Membrane.* GJ Brewer (ed): New York, A.R. Liss, Inc., 1981, pp 195-203.

111. Mohandas N, Clark MR, Heath BP, Rossi M, Shohet SB. A technique to detect reduced mechanical stability of red cell membranes: Relevance to elliptocytic disorders. Blood **59:** 768-764, 1982.

112. Tchernia G, Mohandas N, Shohet SB. Deficiency of skeletal membrane protein band 4.1 in homozygous hereditary elliptocytosis: Implications for red cell membrane stability. J Clin Invest **68:** 454-460, 1981.

113. Card RT, Mohandas N, Perkins HA, Shohet SB. Deformability of stored red cells: Relationship to degree of packing red cells. Transfusion **22**: 96-101, 1982.

114. Mohandas N, Wyatt JL, Mel SF, Rossi ME, Shohet SB:Factors regulating lipid translocation across intact human erythrocyte membrane. J Biochem **257:** 6537-6543, 1982.

115. Clark MR, Guatelli JC, White AT, Shohet SB. Dehydrating effect of the red cell Na/K pump: Study of nystatin-treated cells with varying Na and water contents. Biochim Biophys Acta **646:** 422-432, 1981.

116. Clark MR, Mohandas N, Shohet SB. The red cell membrane in hemolytic anemias. **In** *Current Hematology, vol. II,* VF Fairbanks (ed): J. Wiley & Sons, Curr Hematol **2:** 149-180, 1983.

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variant with erythrocyte membrane abnormalities. J Lab Clin Med **99:** 816-826, 1982.

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121. Shojania AM, Jain SK, Shohet SB. Hereditary lecithin cholesterol acyltransferase deficiency. Report of two new cases and review of the literature. Clin Invest Med **1:** 49-55, 1983.

122. Jain SK, Shohet SB. Red blood cell ^{14}C-cholesterol exchange and plasma cholesterol esterifying activity of normal and sickle cells. Biochim Biophys Acta **688:** 11-15, 1982.

123. Shohet SB, Jain SK. Vitamin E and blood cell function. Ann NY Acad Sci **393:** 229-236, 1983.

124. Jain SK, Mohandas N, Clark MR, Hoesch RM, Shohet SB. The effect of malonyldialdehyde, a product of lipid peroxidation on the deformability, dehydration and ^{51}Cr – Survival of erythrocytes. Br J Haematol **53(2):** 247-255, 1983.

125. Clark MR, Mohandas N, Shohet SB. Osmotic gradient ektacytometry: comprehensive characterization of red cell volume and surface maintenance. Blood **61:** 899-910, 1983.

126. Yip R, Mohandas N, Clark MR, Jain SK, Shohet SB, Dallman PR. Red cell membrane stiffness in iron deficiency. Blood **62:** 99-106, 1983.

127. Ballas SK, Mohandas N, Marton LJ, Shohet SB. Stabilization of erythrocyte membranes by polyamines. Proc Natl Acad Sci USA **80:** 1942-1946, 1983.

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