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P3

ADDRESS REPLY TO:

DEPARTMENT OF RADIATION THERAPY
P. O. BOX 2850

CARLO A. CUCCIA, M.D., F.A.C.R.
EKKEHARD S. SCHUBERT, M.D.
DONALD C. TILTON, D.O.
VIROON DONAVANIK, M.D.

DIPLOMATES
AMERICAN BOARD OF RADIOLOGY

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WILMINGTON MEDICAL CENTER

WILMINGTON, DELAWARE XXX 19805

EDWARD TORVIK, Sc.D.
JOSEPH A. ROSE, B.S.E.E.

May 12, 1983

Nuclear Regulatory Commission
631 Park Ave.
King of Prussia, PA 19406

Attn: Mr. Philip Jerman

License #07-12153-02
Control #01238

Dear Mr. Jerman:

I am forwarding to you information provided to us by the
two investigators who plan to work with Iodine 125 and
Chromium-51.

Yours truly,

Edward Torvik
Edward Torvik, Sc.D., Physicist

ET/el

"OFFICIAL RECORD COPY"

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REG1 LIC30
07-12153-02 PDR

ML10

01238

MAY 13 1983

CURRICULUM VITAE

NAME Martin, S. Eric

Last, first, middle

M.D.

Degree(s)

583-09-9963

Social Sec. No.

Birthdate:

12 25 19 48
Mo. Day Year

Birthplace:

Cuba

(State or country)

Citizenship:

U.S. X Other: _____
(Specify)

Visa:

Type

Sex:

M

M — F

EDUCATION (Begin with entry into college)

Name and location of college or university	Dates Attended		Degree, if any (month and year received)	Major Department	Major Field
	From Month	To Year			
Univers of Puerto Rico	Aug 1964	May 1968	BS	Sciences	
Univers of Puerto Rico	Aug 1968	May 1972	MD	Medicine	

POSITIONS HELD (Start with first position held following baccalaureate and give consecutive record to date)

Department	Rank	Institution	Supervisor	Full/Part Time	Dates	
					From	To
Medicine	Intern Resident	Rochester Gen Hosp Rochester, NY	Dpt. Med	Full	7/72	6/75
Hematology	Clin Fellow	Univers of Rochester Rochester, NY	Dpt. Med	Full	7/75	6/76
Hematology	Research Fellow	Univers of Rochester Rochester, NY	Dpt. Med	Full	7/76	6/78
Med-Hemat	Senior Instruct	Univers of Rochester Rochester, NY	Dpt. Med	Full	7/78	6/79
Med-Hemat	Asst Prof	Univers of Rochester Rochester, NY	Dpt. Med	Full	7/79	6/81
Medicine	Physic.	Gaston Memorial Hosp Gastonia, NC	Dpt. Med	Full	7/81	7/82
Path-Med	Staff Member	Wilmington Med Ctr. Wilmington, DE	Dpt. Med	Full	8/82	Present

List academic and professional honors including all scholarship, traineeship, or fellowship awards.

(Indicate dates and source of awards, i.e., PHS, NSF, etc.) Magna Cum Laude, Univers of Puerto Rico, 1968; Diplomate, American College of Physic. (Hemat)-1978; PHS Trainee Grant # 5-T32HL07152-02, 7/76-6/78; PHS Trainee Grant #5-T01AM05113-19, 7/75-6/76; Co-Investigator, NIH Grant: Structure of Factor VIII-von Willebrand Protein, Victor J. Marder, M.D., Principal Investigator, 7/78-6/81.

List current memberships in professional societies and related organizations including Heart Association and its Councils, etc.

American Society of Hematology
New Castle County Medical Society, Delaware

Training and Experience of Margaret Johnson, Ph.D.

Training:

Stein Research Center, Jefferson Med Col, Phila, PA

- a. Radiation Physics: 2 semester hours 1964
- b. Radiation Biology: 2 semester hours 1965

Oak Ridge Institute of Nuclear Studies, Oak Ridge, TE

- c. Radioisotopes: Theory & Instrumentation, 1 week, 1960
- d. Radioisotopes: Scanning 1 week, 1962

Experience:

Cardeza Foundation, Jefferson Med Col, Phila, PA, Nov-Dec, 1977

Tagged purified fibrinogens with ^{131}I and ^{125}I , performed column chromatography on fibrinogens, and counted column eluates.

Chester County Hospital, West Chester, PA 1960-63

Supervisor, Diagnostic Isotope Laboratory

Tests performed: Blood Volume	^{51}Cr
RBC T/2	^{59}Fe
Iron metabolism	^{60}Co
Schilling	^{131}I
Renal blood flow	

Isolation of the 73,000 MW Polypeptide Chain

The disulfide bonds of the purified 116,000 MW moiety of von Willebrand protein will be reduced in the presence of mercaptoethanol (6). Attempts will be made to separate the resulting polypeptide chains in Sephacryl-S-200 chromatography in order to establish the ground work for future immunologic recognition and binding studies of the 73,000 MW polypeptide as a possible important sequence in the active site(s) of the native protein.

4. Experimental Problems

A problem area may arise in obtaining purified tryptic fragments in sufficient concentration to demonstrate a direct effect on the platelet binding to the collagen-covered surface. It is expected that experiments using specific anti-fragment antisera to block the effect of the undegraded protein will provide an alternate route to this question.

5. Significance of Research

This research could help to unravel the questions surrounding the specific area(s) of the von Willebrand molecule interacting with its platelet receptor and the vessel wall. The experimental approach used in this project has been successfully applied to the characterization of other proteins such as fibrinogen (14) and the immunoglobulins (15).

6. Ethical aspects of proposed research

Blood samples of up to 100 ml will be obtained from normal volunteers, individuals with Bernard Soulier syndrome and Glanzman's thrombasthenia by simple venipuncture. These donors will sign a consent form, a copy of which is enclosed.

Labeling techniques using ¹²⁵I and ⁵¹Cr will be performed following the radiation safety procedures established by the Ionizing Radiation Committee of the WMC. The proposal has been submitted to that committee for review and approval is due January 18, 1983.

The production of antisera in rabbits will conform with the "Guiding Principles in the Care and Use of Animals" approved by the Council of the American Physiological Society.

7. Publications of Principal Investigator

Published Articles

Martin, S.E., Breckenridge, R.T., Rosenfeld, S.I. and Leddy, J.P.: Responses of human platelets to immunologic stimuli: Independent roles for complement and IgG in zymosan activation. J. Immunol. 120:9-14, 1978.

Francis, C.W., Marder, V.J. and Martin, S.E.: Detection of circulating crosslinked fibrin derivatives by a heat extraction - SDS gradient gel electrophoretic technique. Blood 54:1282-1295, 1979.

Francis, C.W., Marder, V.J. and Martin, S.E.: Demonstration of a large molecular weight variant of the α chain of normal human plasma fibrinogen. J. Biol. Chem. 255:5599-5604, 1980.

AMERICAN HEART ASSOCIATION AFFILIATE/CHAPTER GRANT-IN-AID AWARD APPLICATION
(CONTINUATION SHEET)

Martin, S.E., Marder, V.J., Francis, C.W., Loftus, L.S. and Barlow, G.H.: Enzymatic degradation of the Factor VIII - von Willebrand protein: A unique tryptic fragment with ristocetin cofactor activity. Blood 55:848-858, 1980.

Francis, C.W., Marder, V.J. and Martin, S.E.: Plasmic degradation of crosslinked fibrin. I. Structural analysis of the particulate clot and identification of new macromolecular-soluble complexes. Blood 56:456, 1980.

Martin, S.E., Marder, V.J., Francis, C.W. and Barlow, G.H.: Structural studies on the functional heterogeneity of von Willebrand protein polymers. Blood 57:313, 1981.

Marder, V.J., Martin, S.E. and Colman, R.W.: Clinical aspects of consumptive thrombhemorrhagic disorders. In textbook of Hemostasis and Thrombosis. Colman, R.W., Hirsh, J., Marder, V.J. and Salzman, E.W. (Eds.). J.B. Lippincott, Co., Philadelphia, pages 664-93, 1982.

Martin, S.E., Marder, V.J. and Francis, C.W.: Potentiation of Wheat Germ Agglutinin Aggregation of Platelets by A 116,000 Molecular Weight Tryptic Fragment of Von Willebrand Protein. Submitted for publication.

Barlow, G.H., Martin, S.E. and Marder, V.J.: Hydrodynamic studies of von Willebrand protein using the partition cell ultracentrifuge. The effect of protein concentration on the ristocetin cofactor assay. Submitted for publication.

Abstracts

Breckenridge, R.T., Martin, S.E. and Leddy, J.P.: Human platelet function: A role for complement components and Factor VIII. Clin. Res. 24:304A, 1976.

Martin, S.E., Breckenridge, R.T., Rosenfeld, S.I. and Leddy, J.P.: Responses of human platelets to immunologic stimuli: Independent roles for complement (C), Fibrinogen and IgG in zymosan activation. J. Immunol. 120:1784, 1978.

Francis, C.W., Marder, V.J., Barlow, G.H. and Martin, S.E. The association of thrombin with fibrin and its solubilization during plasmic digestion. Proc. VIIth Cong. Intl. Soc. Thromb. Haemost. Toronto. Thromb. Haemost. 46:177. 1981

Barlow, G.H., Martin, S.E. and Marder, V.J. Hydrodynamic studies of von Willebrand protein and Factor VIII using the partition cells in the analytical ultracentrifuge. Proc. VIIIth Cong. Intl. Soc. Thromb. Haemost. Toronto. Thromb. Haemost 46:329, 1981.

Barlow, G.H., Martin, S.E. and Marder, V.J. Sedimentation analysis of von Willebrand and Factor VIII proteins using partition cells in the analytical ultracentrifuge. Circulation 66, Supp II:50, 1982.

DATE 4/29/83

TIME 3:30 ☐ A.M. ☒ P.M.

TELEPHONE OR VERBAL CONVERSATION RECORD

☐ INCOMING CALL

☒ OUTGOING CALL

☐ VISIT

PERSON CALLING

OFFICE/ADDRESS

PHONE NUMBER

EXTENSION

PERSON CALLED

OFFICE/ADDRESS

PHONE NUMBER

EXTENSION

Dr. Ed Torvik

Wilmington Med Center

302-428-4545

CONVERSATION

SUBJECT

Telephone Deficiency

SUMMARY

Further information needed on training and experience of Drs Martin & Johnson to be authorized as users.

Will be provided by letter

R. J. Jernan

REFERRED TO:

ACTION REQUESTED

ACTION TAKEN

☐ ADVISE ME OF ACTION TAKEN.

INITIALS

DATE

INITIALS

DATE

NRC FORM 218 (4-76) NRCM 0240		U.S. NUCLEAR REGULATORY COMMISSION		
TELEPHONE OR VERBAL CONVERSATION RECORD		DATE <div style="font-size: 1.2em;">4/7/83</div>	TIME <div style="font-size: 1.2em;">1:45</div>	
<input type="checkbox"/> INCOMING CALL		<input checked="" type="checkbox"/> OUTGOING CALL		
PERSON CALLING	OFFICE/ADDRESS	PHONE NUMBER	EXTENSION	
PERSON CALLED	OFFICE/ADDRESS	PHONE NUMBER	EXTENSION	
<div style="font-size: 1.2em;">Dr. Ed. Torvik</div>	<div style="font-size: 1.2em;">Wilmington Med Center</div>	<div style="font-size: 1.2em;">302-428-4595</div>		
CONVERSATION				
SUBJECT <div style="font-size: 1.2em;">Deficient Amendment Request (Cont No. 01238)</div>				
SUMMARY <div style="font-size: 1.2em;"> We need a safety program committed which will continue compliance with a. 10CFR 20.106 b. 10CFR 20.103 if I-125 as iodide is to be used for iodinating protein. </div> <div style="text-align: right; margin-top: 20px;"> </div>				
REFERRED TO:		<input type="checkbox"/> ADVISE ME OF ACTION TAKEN.		
ACTION REQUESTED				INITIALS
				DATE
ACTION TAKEN		INITIALS		
		DATE		

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