

Office of the Vice President  
for Health Affairs



TEXAS TECH UNIVERSITY COMPLEX  
P.O. Box 4250 / Lubbock, Texas 79409 / (806) 742-5264

7 June 1974

Sherman P. Vinograd, M.D.  
Director, IMBLMS Program Research  
and Technology  
Space Administration Headquarters  
600 Independence Avenue, S.W.  
Washington, D.C. 20546

Dear Sherm:

In response to your phone call, I've enclosed with this letter the most recent copy of my Curriculum Vitae and of my Narrative Resume. To answer your questions regarding my membership status in the Aerospace Medicine Association, I have been a member continuously for about eight years, maybe longer, and have attended about 50% of the annual meetings. In addition, I've been a member of the Society of U.S. Army Flight Surgeons since it was founded.

Thanks for your kind inquiry. I'll give you a call the next time I'm in D.C.

Sincerely,

*John A. Buesseler*  
John A. Buesseler, M.D. *rgx*  
Vice President

encls.

1 February 1974

CURRICULUM VITAE - JOHN AURE BUESSELER, Ph.B., M.S., M.D.

OFFICE ADDRESS: Vice President for Health Affairs  
Administration Building, Room 120  
Texas Tech University Complex  
P. O. Box 4250  
Lubbock, Texas 79409

PLACE AND  
DATE OF BIRTH: Madison, Wisconsin  
30 September 1919

MARITAL STATUS: Married

PRELIMINARY EDUCATION:

1933-1937 Madison West High School  
Madison, Wisconsin

COLLEGE EDUCATION:

1937-1941 Bachelor of Philosophy degree in Zoology  
University of Wisconsin  
Madison, Wisconsin

MEDICAL EDUCATION:

1941-1944 Doctor of Medicine degree  
University of Wisconsin School of Medicine  
Madison, Wisconsin

ADMINISTRATIVE  
EDUCATION:

1959-1965 Master of Science degree in Business Administration  
University of Missouri Graduate School  
Columbia, Missouri

1966-present Candidate for Ph.D. degree in Business and Public  
Administration  
Cornell University Graduate School  
Ithaca, New York

POST-DOCTORAL MEDICAL  
EDUCATION:

1944-1945 Internship (Rotating)  
Cleveland City Hospital  
Cleveland, Ohio

1947-1948 Graduate Student in Ophthalmology  
Harvard Graduate School of Medicine  
Boston, Massachusetts

POST-DOCTORAL MEDICAL  
EDUCATION (Continued):

1948-1949	Graduate Student in Ophthalmology Graduate School of Medicine of the University of Pennsylvania Philadelphia, Pennsylvania
1948-1951	Resident Physician in Ophthalmology Hospital of the University of Pennsylvania Philadelphia, Pennsylvania
1949-1951	Fellow in Ophthalmology Philadelphia Children's Hospital Philadelphia, Pennsylvania
1950-1951	Consulting Fellow in Ophthalmology Philadelphia Skin and Cancer Hospital Philadelphia, Pennsylvania

MEDICAL SPECIALTY  
CERTIFICATION:

1951	Diplomate of the American Board of Ophthalmology
------	--

LICENSURE (MEDICINE  
AND SURGERY):

1948	Wisconsin
1949	California
1951	New York
1959	Missouri
1970	Texas

PRIVATE MEDICAL  
PRACTICE:

1953-1959	Private Practice of Ophthalmology Madison, Wisconsin
-----------	---

TEACHING AFFILIATIONS  
AND APPOINTMENTS:

1949-1951	Instructor in Ophthalmology University of Pennsylvania School of Medicine Philadelphia, Pennsylvania
1951-1953	Preceptor in Ophthalmology Wright-Patterson Air Force Base Hospital, Ohio
1955-1959	Assistant Clinical Professor of Ophthalmology University of Wisconsin School of Medicine Madison, Wisconsin
1959-1961	Associate Professor of Ophthalmology University of Missouri School of Medicine Columbia, Missouri

TEACHING AFFILIATIONS  
AND APPOINTMENTS  
(Continued):

1960-1970	Professor of Ophthalmology University of Missouri School of Medicine Columbia, Missouri
1961-1971	Continuing Education Instructor in Ophthalmology American Academy of Ophthalmology and Otolaryngology
1959-present	Associate Examiner American Board of Ophthalmology
1971-present	Professor of Health Organization Management Texas Tech University School of Medicine Lubbock, Texas
1971-present	Professor of Ophthalmology Texas Tech University School of Medicine Lubbock, Texas
1972-present	Professor, Graduate School Faculty Texas Tech University Lubbock, Texas
1973-present	University Professor (multidisciplinary) Texas Tech University and Texas Tech University School of Medicine Lubbock, Texas

ACADEMIC ADMINISTRATIVE  
APPOINTMENTS:

1959-1966	Founding Chief of Ophthalmology University of Missouri Medical Center Columbia, Missouri
1960-1961	Acting Chairman, Department of Surgery University of Missouri Medical Center Columbia, Missouri
1961-1966	Director, University of Missouri Integrated Affiliated Resident Physician Training Program in Ophthalmology Kansas City General Hospital Kansas City, Missouri
1962-1966	Director, University of Missouri Integrated Affiliated Resident Physician Training Program in Ophthalmology Children's Mercy Hospital Kansas City, Missouri
1962-1966	Liaison Assistant to the Dean for Affiliated Programs University of Missouri School of Medicine Columbia, Missouri

ACADEMIC ADMINISTRATIVE  
APPOINTMENTS (Continued):

1967-1968	Associate Program Coordinator Missouri Regional Medical Program University of Missouri
1967-1968	Affiliate Program Coordinator for Health Affairs University of Missouri
1968-1970	Executive Officer Missouri Crippled Children's Service University of Missouri
1968-1970	Coordinator for Affiliated Programs with the School of Medicine University of Missouri Columbia, Missouri
1969-1970	Acting Executive Director Kansas City General Hospital and Medical Center Kansas City, Missouri
1970-present	Vice President for Health Affairs Texas Tech University Complex Lubbock, Texas
1970-1973	Founding Dean Texas Tech University Medical School Lubbock, Texas
1972-1974	Vice President for Health Sciences Texas Tech University School of Medicine Lubbock, Texas
1972-present	Chairman, Department of Health Organization Management Texas Tech University School of Medicine Lubbock, Texas
1973-present	Chairman, Department of Ophthalmology Texas Tech University School of Medicine Lubbock, Texas
CONSULTANTSHIPS: 1960-1970	Consultant in Ophthalmology Ellis-Fischel State Cancer Hospital Columbia, Missouri
1961-1968	Consultant in Ophthalmology Missouri Crippled Children's Service Columbia, Missouri

CONSULTANTSHIPS  
(Continued):

- 1963-1966 Consultant in Ophthalmology to the National Aeronautics and Space Administration Headquarters as a member of the Space Medicine Advisory Group Washington, D.C.
- 1965-1969 Consultant to the Atomic Energy Commission as member of Associated Midwestern Universities - Argonne National Laboratory Biology Committee Argonne, Illinois
- 1965-1970 Consultant in Ophthalmology Children's Mercy Hospital Kansas City, Missouri
- 1966-1967 Research Consultant in Ophthalmology Biology and Medicine Research Division Argonne National Laboratory Argonne, Illinois
- 1967-1969 Consultant in Ophthalmology to U.S. Public Health Service as member of Neurological and Sensory Diseases Service Project Review Panel Department of Health, Education and Welfare Washington, D.C.
- 1967-1968 Staff Consultant for Biology and Medicine to the President Argonne Universities Association Chicago, Illinois
- 1967-1968 Ophthalmological Member, Board of Scientific Review COMPENDIUM OF HUMAN RESPONSES TO THE AEROSPACE ENVIRONMENT (NASA CR-1205) National Aeronautics and Space Administration Washington, D.C.

## MILITARY SERVICE:

- 1945-1947 World War II, Active Duty Assignment Battalion Surgeon and Regimental Surgeon, European Theater Army of the United States, Rank: Captain
- 1951-1953 Korean Conflict, Active Duty Assignment Commanding Officer, Medical Group, Fairchild Air Force Base Chief, Eye Service, Wright-Patterson Air Force Base U. S. Air Force, Rank: Major
- 1965-1970 Reserve Duty Assignment Commanding Officer, 5503 U. S. Army Hospital (300 beds) U. S. Army Reserve, Rank: Colonel

MILITARY SERVICE  
(Continued):

1970 Indochina Conflict, Active Duty Assignment  
Special Project Officer for the Secretary of Defense  
U. S. Army Medical Command, Vietnam  
U. S. Army Reserve, Rank: Colonel

1971-1973 Reserve Duty Assignment  
Chief of Professional Services, 114th Evacuation Hospital (SM)  
U. S. Army Reserve Rank: Colonel

1973-present Reserve Duty Assignment  
Commander, 94th General Hospital  
U. S. Army Reserve, Rank: Colonel

## HONORS AND AWARDS:

1937 Sivyer Scholarship, University of Wisconsin  
1941 Baccalaureate Degree with Honors, University of Wisconsin  
1943 Medical School Preclinical Honor Society (Sigma Sigma)  
University of Wisconsin School of Medicine  
1944 Medical School Honor Society (Alpha Omega Alpha)  
University of Wisconsin School of Medicine  
1967 Gold Medallion Award for Distinguished Achievement  
in Ophthalmology, Missouri Ophthalmological Society  
1967 Faculty Award, Unconventional Warfare Department  
John F. Kennedy Center for Special Warfare  
1967 Award of Appreciation for Distinguished and  
Meritorious Service as Head of Department of  
Ophthalmology and Founding Director of the  
Lions Eye Tissue Bank of the University of  
Missouri (1960-1967), Missouri Lions Club  
1969 Honor Award in Ophthalmology for Distinguished Service  
in Education, American Academy of Ophthalmology and  
Otolaryngology  
1970 Air Medal for Helicopter Aeromedevacuation Combat  
Support Sorties, 101st Airborne Division, Vietnam  
1973 University Professorship in Recognition of a Multi-  
disciplinary Background and a Level of Distinction  
Warranting Chaired Designation, Texas Tech University Complex  
1973 Board of Regents Resolution of Congratulations for  
Achievements as Founding Dean, Texas Tech  
University School of Medicine  
1973 State of Texas House of Representatives Certificate of  
Citation for contributions in the field of medicine,  
civic leadership, and service to community, state,  
and nation.

PROFESSIONAL SOCIETY  
MEMBERSHIPS:

Phi Beta Pi (Medical) University of Wisconsin  
Sigma Xi (Science Research) University of Missouri  
Lubbock Crosby Garza County Medical Society  
Texas Medical Association  
American Medical Association  
Missouri Ophthalmological Society, Inc. (Founder,  
Incorporator, Past Secretary-Treasurer and Past President)  
American Academy of Ophthalmology and Otolaryngology  
(Chairman, Committee on Allied Health Personnel in  
Ophthalmology)  
American College of Surgeons (Fellow)

PROFESSIONAL SOCIETY  
MEMBERSHIPS (Continued):

Association of University Professors of Ophthalmology  
U. S. Eye Study Club  
Pan-American Association of Ophthalmology  
Southern Medical Association  
Association of American Medical Colleges  
American Association of University Professors  
Association of Military Surgeons of the United States  
Society of Military Ophthalmologists  
American Association for the Advancement of Science  
Society of Medical Consultants to the Armed Forces  
Aerospace Medical Association  
Society of United States Army Flight Surgeons  
Association for Academic Health Centers  
Joint Commission on Allied Health Personnel in  
Ophthalmology, Inc. (Cofounder, Incorporator, Past-  
President, Member of Board of Directors)

## EXHIBITS:

1. Techniques of Eye Tissue Collection, Processing and Long-Term Preservation, American College of Surgeons, 46th Annual Clinical Congress, San Francisco, California, 10-14 October 1960. (with Russell, G. S. and Almond, C. H.)
2. Eye Tissue Collecting, Processing and Distributing in Missouri, Missouri State Medical Association, 107th Annual Session, St. Louis, Missouri, 4-7 April 1965. (with Irvine, J. W.)
3. Uses of Preserved Sclera in Ophthalmic Surgery, American College of Surgeons, 51st Annual Clinical Congress, Atlantic City, New Jersey, 18-22 October 1965. (with Sabates, F. N.; Krosney, N. M.; and Yamashita, T.)
4. Surgical Uses of Preserved Sclera, American Medical Association, 115th Annual Convention, Chicago, Illinois, 26-30 June 1966. (with Sabates, F. N.; Yamashita, T.; Hamtil, L. W.; and Reynolds, W.)
5. Preserved Sclera in Ocular Surgery, American Academy of Ophthalmology and Otolaryngology, 1966 Annual Meeting, Chicago, Illinois, 16-20 October 1966. (with Yamashita, T.; Sabates, F. N.; Reynolds, W.; and Hamtil, L. W.)
6. Grafts with Preserved Sclera in Ophthalmic Surgery, International College of Surgeons, 5th Western Regional Meeting, Las Vegas, Nevada 19-22 November 1967. (with Sabates, F. N.; Yamashita, T.; and Ide, C. H.)
7. Surgical Utilization of Preserved Sclera, Association of Military Surgeons of the United States, 79th Annual Meeting, Washington, D. C., 16-19 November 1969. (with Ide, C. H.; Sabates, F. N.; and Yamashita, T.)

## MOTION PICTURE:

1. From Darkness into Day: The Story of the Eye Tissue Bank of the University of Missouri, produced by Technical Education Services, University of Missouri, 5 December 1965. (with Irvine, J.W.; Hamtil, L.W.; and Case, W.F.)

## PUBLICATIONS:

1. "The Effect of Low Voltage Roentgen Rays on the Normal and Vascularized Cornea of the Rabbit," American Journal of Ophthalmology, Vol. 33, No. 4, April 1950, pp. 549-570. (with Scheie, H.G.; Dennis, R.H.; Ripple, R.C.; and Calkins, L.L.)
2. "Adrenocorticotrophic Hormone and Cortisone in Ocular Disorders," A.M.A. Archives of Ophthalmology, Vol. 45, No. 3, March 1951, pp. 301-317. (with Scheie, H.G.; Tyner, G.S.; and Alfano, J.E.)
3. "Glaucoma Detection Program at Wright-Patterson Air Force Base," Transactions of the American Academy of Ophthalmology and Otolaryngology, Vol. 56, No. 6, November-December 1952, pp. 982-984. (with Andrews, A.C. and Schreuder, O.B.)
4. "Two Recent Medical and Surgical Advances in the Control of Aqueous Production in Glaucoma," The Wisconsin Medical Journal, June, 1955, pp. 229-302.
5. "Clinics in Mexico-Ophthalmology Critique," Transactions of the American Academy of Ophthalmology and Otolaryngology, Vol. 59, No. 6, November-December 1955, pp. 794-796.
6. "Low Temperature Crystallography of Bovine Vitreous," American Journal of Ophthalmology (Research Supplement), Vol. 47, No. 6, June 1959, pp. 880-881 (with Rapatz, G.L. and Engerman, R.L.)
7. "Flat Preparation of the Rat Retina Stained with PAS" American Journal of Ophthalmology (Research Supplement), Vol. 47, No. 6, June 1959, pp. 881-882. (with Engerman, R.L. and Meyer, R.K.)
8. "Iridopathy and Retinopathy Produced with Deoxycorticosterone Acetate in the Rat," American Journal of Ophthalmology (Research Supplement), Vol. 47, No. 6, June 1959, pp. 882. (with Engerman, R.L. and Meyer, R.K.)
9. "Glaucoma Detection: A problem for General Medicine," Missouri Medicine, Vol. 57, No. 4, April 1960, pp. 447-448.
10. "Ophthalmic Radiology: Diagnosis," American Academy of Ophthalmology and Otolaryngology, Course No. 121-A, 9 October 1960. (with Keats, T.E.) \*

\*Revised and republished annually (1960-1964)

PUBLICATIONS  
(Continued):

11. "A Program for Eye Tissue Preservation and Banking," Missouri Medicine, Vol. 58, No. 4, April 1961, pp. 362-365. (with Russell, G.S.)
12. "Eye Tissue Preservation, Utilization and Banking," The Eye, Ear, Nose and Throat Monthly, Vol. 40, No. 9, September 1961, pp. 609-613. (with Russell, G.S.)
13. "The Preservation and Banking of Eye Tissue as Conducted at the University of Missouri Medical Center," Hospital Topics, Vol. 39, No. 9, September 1961, pp. 75-77. (with Russell, G.S.)
14. "Periodic Acid-Schiff Staining of Retinal Whole Mounts," A.M.A. Archives of Ophthalmology, Vol. 68, No. 7, July 1962, pp. 62-65. (with Engerman, R.L. and Meyer, R.K.)
15. "Clinical Pathological Conference," Resident Physician, Vol. 8, No. 2, February 1962, pp. 73-79. (with Porterfield, J.F.)
16. "Chronic Dacryocystomycosis Due to Candida Parakrusei," Transactions of the American Academy of Ophthalmology and Otolaryngology, Vol. 67, No. 2, March-April 1963, pp. 173-176. (with Godwin, I.D.)
17. Medical Service and Research Plan of the University of Missouri School of Medicine. University of Missouri Publication, 1 January 1964. (with Wilson, V.E.)
18. Ophthalmology in the Practice of Medicine. (ed.). Columbia, Missouri: University of Missouri School of Medicine and Extension Division, 1964. "External Diseases and the 'Red Eye'," pp. 34-43, (author).
19. "Effects of Alloxan Diabetes and Steroid Hypertension on Retinal Vasculature," American Journal of Ophthalmology, Vol. 58, No. 6, December 1964, pp. 965-978. (with Engerman, R.L. and Meyer, R.K.)
20. "Ophthalmic Radiology: Diagnosis," American Academy of Ophthalmology and Otolaryngology, Course No. 119, November 1965. (with Wollschlaeger, P.B. and Wollschlaeger, G.G.) \*\*

\*\*Revised and republished annually, (1965-1971)

PUBLICATIONS  
(Continued):

21. "Intensive Two-Day Teaching Program in Ophthalmology," Journal of Medical Education, Vol. 41, No. 3, March 1966, pp. 237-243. (with Froelich, R.E. and Sabates, F.N.)
22. Medical Aspects of an Orbiting Research Laboratory. Space Medicine Advisory Group Study, Special Publication 86. Washington, D.C.: National Aeronautics and Space Administration, 1966. (with Vinograd, S.P., et al.)
23. "Experimental and Clinical Studies of Glycerin Preserved Scleral Homografts," Eye, Ear, Nose and Throat Monthly, Vol. 46, No. 9, September 1967, pp. 1162-1166. (with Sabates, F.N.; Krosney, N.M.; and Yamashita, T.)
24. "Ultraviolet Irradiation in Medicine: Ophthalmologic Aspects," Missouri Medicine, Vol. 65, No. 4, April 1968, pp. 293-296.
25. Ophthalmology Lecture and Demonstration Series. (ed.). Columbia, Missouri: University of Missouri School of Medicine, 1962-1968. "External Ocular Examination and External Diseases," pp. j1-j8, and "Tumors of the Globe, Lids, and Orbit," pp. m1-m10, (author).
26. "Radiotherapy of a Recurrent Adenocarcinoma of the Meibomian Gland," Archives of Ophthalmology, Vol. 79, May 1968, pp. 540-544. (with Ide, C.H.; Ridings, C.R.; and Yamashita, T.)
27. "Grafts with Preserved Sclera: Experimental and Clinical Evaluation," Surgical Forum, Vol. 19. Chicago: American College of Surgeons, 1968, pp. 488-490. (with Ide, C.H. and Hart, W.M.)
28. "Medicare Administrative Alternatives, Prospects and Trends," Missouri Medicine, Vol. 66, No. 3, March 1969, pp. 179-181. (Republished in the Rocky Mountain Medical Journal, Vol. 66, No. 6, June 1969, pp. 46-49; the Rhode Island Medical Journal, Vol. LII, No. 6, June 1969, pp. 322-324; the South Dakota Journal of Medicine, Vol. XXII, No. 7, July 1969, pp. 23-27; the Journal of the Kansas Medical Society, Vol. LXX, No. X, October 1969, pp. 434-436; and the Nebraska Medical Journal, Vol. 55, No. 1, January 1970, pp. 10-13.)
29. "The Educational Ideology of the Texas Tech School of Medicine," The Texas Techsan, Vol. XXII, No. 5, December 1970, pp. 3-4.

PUBLICATIONS  
(Continued):

30. "Texas Tech University School of Medicine: With a View to the Future," Texas Medicine, Vol. 67, No. 2, February 1971, pp. 118-121.
31. "Family Practice Training at Texas Tech University," Wisconsin Medical Alumni Quarterly, Vol. XII, No. 4, October 1972, pp. 1-3.
32. "Diagnosis and Management of Ocular Injuries by the Family Physician," Continuing Education For the Family Physician, Vol. 1, No. 4, November-December 1973, pp. 22-28 (with Ide, C. H.)

## WORK IN PROGRESS:

1. "Induction and Inhibition of Ocular Hypertensive Vascular Disease in Rats," (with Engerman, R. L. and Meyer, R. K.) Manuscript in revision for submission for publication.
2. "House Staff Physician Integration into the Hospital Organization." Manuscript in preparation for submission for publication.
3. "The Dynamics of Goal Interchange Between Systems Within a Professional Organization." Manuscript in revision for submission for publication.
4. "Sociological Differentiation in Medicine: The Development of Ophthalmology." Manuscript in revision for submission for publication.
5. "Hydroxy Urea Inhibition of Cellular and Viral DNA Synthesis in the Corneal Epithelium of Rodents: An In Vitro and In Vivo Study." Research and data analysis in progress.
6. "A Comparative Analysis of Federal Health Care Legislation: The Proposed, the Adopted and the Ideal." Literature review in progress.
7. "An Administrative and Health Facilities Organizational Design Model for a State-Wide Medical Air Evacuation System." Field study in South Vietnam completed and data analysis in progress.
8. "Directional Forces Influencing Changes in the American Health Care System." Literature review in progress.
9. "Systems Theory Analysis of the Health Maintenance Organization Plan." Literature review in progress.
10. "Collective Bargaining by Physicians as Socioeconomic Evolutionism." Literature review and field work in progress.
11. "Patients' Attitudinal Bases for Selection of Family Practitioners." Literature review and survey development in progress.

1 February 1974

NARRATIVE RESUME' OF JOHN AURE BUESSELER, Ph.B., M.S., M.D.

Dr. Buesseler received his baccalaureate degree and his medical degree, both with honors, from the University of Wisconsin in Madison, his birthplace. Following post-doctoral work at Harvard University and the University of Pennsylvania, he became a Diplomate of the American Board of Ophthalmology in 1951. While Professor and Chief of Ophthalmology at the University of Missouri he pursued his interest in administrative medicine by earning a Master of Science in Business Administration from its Graduate School. Then, during his sabbatical leave he completed all necessary course work and became a candidate for a Ph.D. in Business and Public Administration at Cornell University.

His medical education and expertise have been applied in the private practice of ophthalmology in Madison, Wisconsin, and in teaching at the university medical schools of Pennsylvania, Wisconsin, Missouri and Texas Tech. His administrative appointments began in 1959 as founding Chief of Ophthalmology at the University of Missouri Medical Center. While there he also served a tour as acting Chairman of the Department of Surgery. With his growing interest in administration, he assumed the duties of Executive Officer for Missouri Crippled Children's Service and Coordinator for Affiliated Programs with the School of Medicine. He became particularly involved in initiating and developing the affiliations with Kansas City General Hospital and Children's Mercy Hospital which subsequently formed the basis for the establishment of the new School of Medicine of the University of Missouri at Kansas City. As a phase of this effort, he served a year as part-time acting Executive Director of Kansas City General Hospital and Medical Center.

In 1970, Dr. Buesseler moved to Lubbock, Texas, as Vice President for

Health Affairs and founding Dean of the Texas Tech University School of Medicine. As the first full-time employee of that new School, Dr. Buesseler planned, programmed and organized the development of the institution so that it progressed from a legislative authorization to an operating medical school, with both freshman and junior classes of medical students enrolled, within the short period of 23 months. This is considered to be a national record for the establishment of an accredited modern medical school. For his achievements at Texas Tech University he has been honored by being designated University Professor by the Regents (the third individual so honored). He is also the recipient of that Board of Regents Resolution of Congratulations, and of a Certificate of Citation from the State of Texas House of Representatives. Among his previous honors and awards is the Gold Medallion Award for Distinguished Achievement in Ophthalmology given by the Missouri Ophthalmological Society, Inc. Dr. Buesseler was founder and incorporator of that society and was cofounder and incorporator of the Joint Commission on Allied Health Personnel in Ophthalmology, Inc., a federation of national and international American ophthalmological societies.

Among the consultantships he has held are those with the National Aeronautics and Space Administration as a member of the Space Medical Advisory Group, which first reported on the Medical Aspects of an Orbiting Research Laboratory, the Atomic Energy Commission as a member of Associated Midwestern Universities - Argonne National Laboratory Biology Committee and with the U.S. Public Health Service as a member of Neurological and Sensory Diseases Service Project Review Panel.

With the rank of Private, he first entered the US Army on active duty in

in 1943. He subsequently served as a Battalion and Regimental Surgeon, with the rank of Captain, in the European Theater. During the Korean conflict he served as a Major in the US Air Force. He has been a Colonel in the US Army Reserve since 1965. Currently he is commander of the 94th General Hospital, USAR, Mesquite, Texas. His continued interest in the military service is shown by his completion of Airborne training in 1965 followed by completion of the Special Forces officer course, for which he was the first recipient of the Faculty Award from the Unconventional Warfare Department. In 1970, he returned to active Army duty in the Indochina conflict as Special Project Officer for the Secretary of Defense in Vietnam. Dr. Buessler is rated as a senior flight surgeon in the Army and is a graduate of the US Army Command and General Staff College.

# AEROSPACE MEDICAL ASSOCIATION

Washington National Airport

Washington, D.C. 20001

## FORM FOR NOMINATION OF FELLOWS

Nominations must be forwarded to the above address on or before February 1, 1975.

NOTE: Please read procedures for submitting nominations on reverse side of form. As a Fellow(s) of the Aerospace Medical Association, I (we) hereby nominate the member of the Association described herein for selection.

- Name: BUESSELER (last) JOHN (first) A. (middle or initial) Title or Mil. Rank M.D.  
COL, MC, USAF
- Address: ADMINISTRATION BUILDING, ROOM 120 (Mailing) TEXAS TECH UNIVERSITY, COMPLEX (zip) 79409  
P.O. Box 4250, LUBBOCK, TEXAS (Permanent) SAME (zip)
- Current Position(s)/Occupation(s) VICE PRESIDENT FOR HEALTH SCIENCES AFFAIRS  
TEXAS TECH UNIVERSITY

### 4. Work in the field of Aerospace Medicine: (Position held, dates, nature of work)

MEMBER OF NASA SPACE MEDICINE ADVISORY GROUP (1964);  
LECTURER, POST-GRADUATE COURSE ON ENGINEERING ASPECTS OF SPACE MEDICINE, GEORGE  
WASHINGTON UNIVERSITY (1964 + 1967); MAJOR, MC, USAF DURING KOREAN CONFLICT;  
COMPLETED AIRBORNE TRAINING, USAF (1965). COMPLETED SPECIAL FORCES OFFICER COURSE,  
USAF (1965). COL, MC, USAF SINCE 1965. SPECIAL PROJECT OFFICER FOR SECRETARY OF  
DEFENSE, VIETNAM (1970). COMMANDER, 94<sup>TH</sup> GENERAL HOSPITAL, USAF, MESQUITE, TEXAS  
(CURRENT); GRADUATE OF US ARMY COMMAND + GENERAL STAFF COLLEGE. SENIOR FLIGHT SURGEON, USAF (CURRENT)

### 5. Education and Training: Degree: M.D. Awarded by: U. OF WISCONSIN SCHOOL Date: 1944

- AMERICAN BOARD OF OPHTHALMOLOGY 1951
- M.Sc. IN BUSINESS ADMIN. U. OF MO. 1965

### Other Special Courses/Training: Ph.D. CANDIDATE, BUSINESS & PUBLIC ADMINISTRATION, CORNELL U.

GRADUATE SCHOOL, 1966 - PRESENT; INTERNSHIP, CLEVELAND CITY HOSP. CLEVELAND, O. 1944-5. GRADUATE  
STUDENT IN OPHTHALMOLOGY, HARVARD GRAD. SCHOOL OF MED. 1947-8. GRADUATE STUDENT IN OPHTHALMOLOGY, GRAD.  
SCH. OF MED. U. OF PA. RESIDENCY IN OPHTH. HOSP. OF U. OF PA. 1948-51. 2 FELLOWSHIPS IN OPHTH. DURING RESIDENCY.

### 6. Professional productivity: (Papers presented/published; research contributions)

VICE PRESIDENT FOR HEALTH AFFAIRS, TEXAS TECH UNIVERSITY, 1970 - PRESENT; FOUNDED DEAN, TEXAS TECH UNIV. SCHOOL  
OF MEDICINE, 1970 - 73. CHAIRMAN, DEPT. OF OPHTHALMOLOGY, TTUSM, 1973 - PRESENT; CHMN, DEPT. OF HEALTH  
ORG. & MGMT. TTUSM, 1972 - PRESENT; COORDINATOR FOR AFFILIATED PROGRAMS WITH THE SCHOOL OF MED. U. OF MO,  
1968-70; ASSOC. PROGRAM COORDINATOR, MO. REGIONAL MED. PROJ. AND HEALTH AFFAIRS, U. OF MO., 1967-8;  
FOUNDING CHIEF OF OPHTHALMOLOGY, U. OF MO. MED. CENTER, COLUMBIA, MO., 1959-66; POSTGRADUATE IN  
OPHTH. & HEALTH ORG. & MGMT. AT U. OF MO. SCH. OF MED. & TTUSM FROM 1959 - PRESENT. ASSOC. EXAMINER, AM. BOARD OF OPHTH.,

### 7. Association activity: (attendance, committees, etc.)

ATTENDED ALL ANNUAL MEETINGS EXCEPT ONE SINCE 1966. PRESENT SINCE 1969;  
MEMBER ASMA SINCE 1966. ATTENDED MOST ANNUAL MEETINGS; MEMBER,  
SOCIETY OF U.S. ARMY FLIGHT SURGEONS SINCE IT WAS FOUNDED.

(See reverse side for continuation)

3. Awards, distinctions, achievements, honors, etc.: (Name and date received):

SILVER SCHOLARSHIP, U. OF WIS., 1937; B.S. WITH HONORS, U. OF WIS., 1941; SIGMA SOMMA, U. OF WIS., SCH. OF MED., 1943; AOA, U. OF WIS., SCH. OF MED., 1944; GOLD MEDALLION AWARD FOR DISTINGUISHED ACHIEV. IN OPHTH., MO. OPHTH. SOC., 1967; FACULTY AWARD, UNCONVENTIONAL WARFARE DEPT., JFH CENTER FOR SPECIAL WARFARE, 1967; MO. LIONS CLUB AWARD FOR DISTING. & MERIT, SERV. AS FOUNDING DIR. OF U. OF MO. LIONS EYE TISTOL; BANKS HONOR AWARD IN OPHTH. FOR DISTING. SERV. IN EDUC., AM. ACAD. OF OPHTH. AND OTO., 1969; AIR MEDAL FOR HELICOPTER AEROMED. EVAC. SORTIES, 101ST AIRBORNE DIV., USA, VIETNAM, 1970; HONORARY MULTIDISCIPLINARY PAPER AWARDS, TTU, 1973; BOARD OF AERONAUTICS RESOLUTION OF CONGRATULATIONS FOR ACHIEVEMENTS AS FOUNDING LEAD, TTU, 1973; CERTIFICATE OF CITATION FOR CONTRIBUTIONS TO MEDICINE AND CIVIC LEADERSHIP, STATE OF TEXAS HOUSE OF REPRESENTATIVES, 1973.

Date:

Signed: *[Signature]*

PROCEDURES FOR THE NOMINATION OF FELLOWS

Fellows of the Aerospace Medical Association shall be known as Fellows in Aerospace Medicine and shall be selected from among the Associate Fellows and members who have maintained active membership for the last five (5) years.

The following rules governing nominations apply:

No more than three (3) names of nominating Fellows or sponsors are to appear on any one nomination for a particular candidate. The first name listed on the nomination form will be considered as the principal sponsor. In the event that the same candidate is nominated by two or more Fellows on separate forms, the first nomination reaching the Washington Office will be listed as the principal sponsor. Multiple sponsors on the same or separate nominations for the same candidate will be indicated by an astrisk (\*) after the name of principal sponsor.

In keeping with the Constitution and By-Laws and established policy:

The nomination information and biographical data forwarded to the Executive Vice President for any candidate is not to exceed two (2) pages in length and should be structured to emphasize the categories of:

a. Outstanding contributions to Aerospace Medicine in research, training, teaching, practical application of research, development, specialty practice, or by precept and example.

b. With respect to research and/or development, it is suggested that only the major accomplishments or major research papers be included or emphasized as well as the total number of published papers in the field of aerospace medicine or related sciences, with special note of the number appearing in the journal AEROSPACE MEDICINE.

c. With respect to precept and example, emphasis should be given to membership and participation in the activities of the Aerospace Medical Association committees, programs, etc.

It is requested that candidates not be informed of their nominations and the practice of writing or contacting Fellows to solicit votes in support of a particular nominee is discouraged.

Should you desire to present more than one nominee, kindly use the same format for each.

# AEROSPACE MEDICAL ASSOCIATION

Washington National Airport

Washington, D.C. 20001

## FORM FOR NOMINATION OF FELLOWS

Nominations must be forwarded to the above address on or before February 1, 1970.

NOTE: Please read procedures for submitting nominations on reverse side of form. As a Fellow(s) of the Aerospace Medical Association, I (we) hereby nominate the member of the Association described herein for selection.

1. Name: WHEEDON G. DONALD Title or Mil. Rank M.D.  
(last) (first) (middle or initial)

2. Address: (Mailing) NATIONAL INSTITUTES OF HEALTH BETHESDA, MARYLAND (zip) 20014  
(Permanent) 5605 SONOMA ROAD, BETHESDA, MARYLAND (zip) 20034

3. Current Position(s)/Occupation(s)  
DIRECTOR NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND  
DIGESTIVE DISEASES, NIH.

4. Work in the field of Aerospace Medicine: (Position held, dates, nature of work)  
PRINCIPAL INVESTIGATOR OF THE MINERAL BALANCE SPACE FLIGHT  
EXPERIMENT CARRIED OUT ABOARD GEMINI 7 AND ALL THREE SKYLAB FLIGHTS. CHIEF  
CONSULTANT TO NASA ON CALCIUM AND BONE METABOLISM SINCE 1963. CURRENTLY,  
CHAIRMAN, MEDICAL PANEL OF THE AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES  
RESPONSIBLE FOR EVALUATION AND GUIDANCE TO NASA LIFE SCIENCES ON  
SCIENTIFIC MERIT OF BIOMEDICAL RESEARCH. ~~SENIOR~~ MEMBER OF NASA'S SPACE  
MEDICINE ADVISORY GROUP (SPAMAG) 1964, AND MEDICAL ADVISORY COUNCIL 1965-68. CHAIRMAN

5. Education and Training: Degree: M.D. Awarded by: U. of ROCHESTER SCHOOL Date: 1941  
1. AMERICAN BOARD OF INTERNAL MEDICINE 1950  
2. AMERICAN BOARD OF NUTRITION 1968

Other Special Courses/Training: INTERN IN MEDICINE, BASSETT HOSPITAL, COOPERSTOWN, N.Y. 1941-42;  
ASST. IN MEDICINE, U. of ROCHESTER SCHOOL OF MED. & ASST. RESIDENT PHYSICIAN IN MEDICINE, STRONG MEMORIAL  
HOSP. ROCHESTER, N.Y. 1942-44; INSTRUCTOR IN MEDICINE, CORNELL U. MEDICAL COLLEGE, N.Y.,  
1944-1950; ASST. PROF. OF MEDICINE, CORNELL U. MEDICAL COLLEGE, N.Y., N.Y. 1950-52.

6. Professional productivity: (Papers presented/published; research contributions)  
60 PROFESSIONAL PUBLICATIONS INCLUDING THE CLASSIC PUBLICATIONS ON  
BEA RIST WITH DETTRICK AND SHURR IN THE MID TO LATE '40'S. 7 OF THESE  
60 PUBLICATIONS ARE ON MINERAL & ELECTROLYTE METABOLISM IN SPACE; ONE  
MORE IS IN PRESS. SKYLAB DATA IS CURRENTLY UNDERGOING ANALYSIS AND WILL  
BE REPORTED IN ENSUING MONTHS. NUMEROUS PRESENTATIONS ON BONE MINERAL  
AND BODY COMPOSITION IN SPACE.

7. Association activity: (attendance, committees, etc.)

MEMBER SINCE 1969  
REGULAR ATTENDANCE AT ANNUAL MEETINGS SINCE, EXCEPT 1 YEAR (1971)  
MEMBER SPACE MEDICINE SECTION  
MEMBER, SPACE MEDICINE BRANCH  
REGULAR ATTENDANCE AT ANNUAL MEETINGS SINCE 1969 EXCEPT ONE YEAR (1971)  
(See reverse side for continuation)  
ATTENDED 1966 MEETING (PRIOR TO MEMBERSHIP) AND GAVE PRESENTATION  
ON GEMINI MINERAL BALANCE FINDINGS.

CHAIRMAN, LIFE SCIENCES COMMITTEE OF THE NASA SPACE PROGRAM ADVISORY COUNCIL, 1974

66  
76

8. Awards, distinctions, achievements, honors, etc.: (Name and date received)

TWO AMERICAN BOARD CERTIFICATIONS (SEE ABOVE). POST-DOC. PHS FELLOWSHIP, CORNELL 1957. MEMBER  
NRC FOOD & NUTRITION BOARD, COMMITTEE ON DIETARY ALLOWANCES 1959-64. ED. BOARD, JOURNAL OF  
CLIN. ENDOCR. & METAB. 1960-67. NASA CONSULTANT 1963-PRESENT. SCIENTIFIC COUNCIL, MA ACAD. OF  
SCI. 1964-70. PHS SUP. SERV. AWARD, 1967. ED. BOARD, CALCIFIED TISSUE RES. 1967. U.S. ROCKET, CATALYTIC AWARD  
1971.

9. Comments:

DR. WHELAN HAS MADE SINGULARLY IMPORTANT CONTRIBUTIONS TO  
OUR KNOWLEDGE OF ~~THE~~ MUSCULOSKELETAL AND ENERGETIC ELECTROLYTE AND ENERGY METABOLISM  
IN SPACE THROUGH HIS DILIGENT WORK AS PRINCIPAL INVESTIGATOR OF THE VERY DIFFICULT FLIGHT EXPERIMENT.

Date: \_\_\_\_\_

Signed: \_\_\_\_\_

PROCEDURES FOR THE NOMINATION OF FELLOWS

Fellows of the Aerospace Medical Association shall be known as Fellows in Aerospace Medicine and shall be selected from among the Associate Fellows and members who have maintained active membership for the last five (5) years.

The following rules governing nominations apply:

No more than three (3) names of nominating Fellows or sponsors are to appear on any one nomination for a particular candidate. The first name listed on the nomination form will be considered as the principal sponsor. In the event that the same candidate is nominated by two or more Fellows on separate forms, the first nomination reaching the Washington Office will be listed as the principal sponsor. Multiple sponsors on the same or separate nominations for the same candidate will be indicated by an asterisk (\*) after the name of principal sponsor.

In keeping with the Constitution and By-Laws and established policy:

The nomination information and biographical data forwarded to the Executive Vice President for any candidate is not to exceed two (2) pages in length and should be structured to emphasize the categories of:

a. Outstanding contributions to Aerospace Medicine in research, training, teaching, practical application of research, development, specialty practice, or by precept and example.

b. With respect to research and/or development, it is suggested that only the major accomplishments or major research papers be included or emphasized as well as the total number of published papers in the field of aerospace medicine or related sciences, with special note of the number appearing in the journal AEROSPACE MEDICINE.

c. With respect to precept and example, emphasis should be given to membership and participation in the activities of the Aerospace Medical Association committees, programs, etc.

It is requested that candidates not be informed of their nominations and the practice of writing or contacting Fellows to solicit votes in support of a particular nominee is discouraged.

Should you desire to present more than one nominee, kindly use the same format for each.

HAS PROVIDED  
GUIDANCE IN  
PLANNING AND  
CARRYING OUT  
THE RELATED  
GROUND BASED  
RESEARCH.

## AEROSPACE MEDICAL ASSOCIATION

Washington National Airport

Washington, D.C. 20001

## FORM FOR NOMINATION OF FELLOWS

5

Nominations must be forwarded to the above address on or before February 1, 1974.

NCTE: Please read procedures for submitting nominations on reverse side of form. As a Fellow(s) of the Aerospace Medical Association, I (we) hereby nominate the member of the Association described herein for selection.

1. Name: DIETLEIN LAWRENCE F. Title or Mil. Rank M.D. Ph.D.  
(last) (first) (middle or initial) Medical Director (MAMCAPT), USPHS  
equiv.

2. Address: CODE: DA  
(Mailing) NASA JSC, HOUSTON TEXAS (zip) 77058  
(Permanent) 7702 GLENDALE DRIVE HOUSTON, TEXAS (zip) 77017

3. Current Position(s)/Occupation(s) DEPUTY DIRECTOR / LIFE SCIENCES, NASA  
L.B. JOHNSON SPACE CENTER, HOUSTON, TEXAS  
(RANK OF CAPTAIN, US PUBLIC HEALTH SERVICE)

4. Work in the field of Aerospace Medicine: (Position held, dates, nature of work)

1962-65 CHIEF/SPACE MEDICINE BRANCH, NASA MANNED SPACECRAFT CENTER (MSC)  
1965-66 ASST. DIVISION CHIEF FOR MEDICAL SUPPORT (CREW SYSTEMS DIVISION, NASA MSC)  
1966-68 CHIEF/BIOLOGICAL RESEARCH OFFICE, NASA MSC, HOUSTON TEXAS  
1968-72 ASST. DIRECTOR OF RESEARCH, OFFICE OF DIRECTOR, MEDICAL RESEARCH & OPERATIONS, NASA  
1972-PRESENT DEPUTY DIRECTOR/LIFE SCIENCES, NASA JSC, HOUSTON, TEXAS

5. Education and Training: Degree: M.D. Awarded by: HARVARD MEDICAL SCH Date: 1955

1. PH.D. ENDOCRINOLOGY HARVARD UNIVERSITY 1951  
2. AMERICAN BOARD OF INTERNAL MEDICINE

Other Special Courses/Training: STRAIGHT MEDICINE INTERN, II-IV MEDICAL HARVARD  
SERVICE, BOSTON CITY HOSPITAL 1955-56; ASST. RESIDENT IN MEDICINE, HARVARD SERVICE,  
BOSTON CITY HOSPITAL 1956-57; RESEARCH FELLOW & INSTRUCTOR IN MEDICINE, TULANE UNIV.  
SCHOOL OF MEDICINE 1957-59; RESIDENT & CHIEF MEDICAL RESIDENT USPHS HOSPITAL, STATEN ISLAND, N.Y. 1959-61.

6. Professional productivity: (Papers presented/published; research contributions)

27 PROFESSIONAL PUBLICATIONS, 17 ON SPACE MEDICINE  
NUMEROUS LECTURES ON ~~SPACE~~ ALL ASPECTS OF SPACE MEDICINE

7. Association activity: (attendance, committees, etc.)

MEMBER SINCE 1962

REGULAR ATTENDANCE AT ANNUAL MEETINGS SINCE 1963

PROGRAM COMMITTEE 1965(2)

MEMBER ~~PHYSIOLOGISTS BRANCH~~ Aerospace Physiologists Branch

(See reverse side for continuation)

3. Awards, distinctions, achievements, honors, etc.: (Name and date received)

*Too numerous to itemize. In summary, 4 scholarships; graduated Harvard Medical School cum laude; 8 honorary societies including ADA; Valedictorian. Honor Military Graduate (ROTC); 4 teaching fellowships, and 9 NASA awards. Was principal investigator or co-P.I. of 4 Gemini flight experiments.*

9. Comments: *Throughout Gemini, Apollo and Skylab was responsible for all biomedical research conducted and sponsored by NASA MSC (now JSC) in support of manned space flight. He continues this important function, in preparation for ASTP and Shuttle.*

Date:

Signed:

#### PROCEDURES FOR THE NOMINATION OF FELLOWS

Fellows of the Aerospace Medical Association shall be known as Fellows in Aerospace Medicine and shall be selected from among the Associate Fellows and members who have maintained active membership for the last five (5) years.

The following rules governing nominations apply:

No more than three (3) names of nominating Fellows or sponsors are to appear on any one nomination for a particular candidate. The first name listed on the nomination form will be considered as the principal sponsor. In the event that the same candidate is nominated by two or more Fellows on separate forms, the first nomination reaching the Washington Office will be listed as the principal sponsor. Multiple sponsors on the same or separate nominations for the same candidate will be indicated by an astrisk (\*) after the name of principal sponsor.

In keeping with the Constitution and By-Laws and established policy:

The nomination information and biographical data forwarded to the Executive Vice President for any candidate is not to exceed two (2) pages in length and should be structured to emphasize the categories of:

a. Outstanding contributions to Aerospace Medicine in research, training, teaching, practical application of research, development, specialty practice, or by precept and example.

b. With respect to research and/or development, it is suggested that only the major accomplishments or major research papers be included or emphasized as well as the total number of published papers in the field of aerospace medicine or related sciences, with special note of the number appearing in the journal AEROSPACE MEDICINE.

c. With respect to precept and example, emphasis should be given to membership and participation in the activities of the Aerospace Medical Association committees, programs, etc.

It is requested that candidates not be informed of their nominations and the practice of writing or contacting Fellows to solicit votes in support of a particular nominee is discouraged.

Should you desire to present more than one nominee, kindly use the same format for each.

June 1, 1974

LAWRENCE F. DIETLEIN, M.D., Ph. D.

As Deputy Director of the Life Sciences Directorate, National Aeronautics and Space Administration (NASA), Johnson Space Center (JSC), Dr. Lawrence F. Dietlein has full responsibility for direction of an applied medical research program designed to meet the unique requirements of this Nation's manned space flight program. A distinguished physician and research scientist, he has contributed substantially to the planning, integration, and implementation of biomedical research programs which have assured the medical well being of the astronauts during space flight and extravehicular activity.

Dr. Dietlein attended Louisiana State University where he received his bachelor of science degree in premedicine in 1948. He received his master of arts degree in 1949, his doctor of philosophy in endocrinology in 1951, and his medical degree in 1955 from Harvard University. He joined the staff of the Harvard Medical Service in 1955 at Boston City Hospital as an intern, then served there as resident. In 1957, he became an instructor of medicine and research at Tulane University Department of Medicine in New Orleans, Louisiana. From 1959 to 1961, Dr. Dietlein was resident, then chief resident, at the Staten Island U.S. Public Health Hospital, the largest Public Health Hospital in existence, with about 1,000 beds.

In 1961 Dr. Dietlein began his professional career as Chief of the Out-patient Services, U.S. Public Health Service Hospital, New Orleans, Louisiana. Joining the NASA Johnson Space Center (JSC), in Houston, Texas, in 1962, Dr. Dietlein became immediately responsible for establishing a balanced medical research program to gain new physiological and medical data on possible detrimental alterations in body functions of astronauts during manned space flight. Changes in cardiovascular functions had been observed in the short-duration flights of the Mercury Program. Because the Gemini and Apollo programs would include long-duration space flights, it was extremely important to determine man's response to extended periods of weightlessness.

Logically, Dr. Dietlein knew that altered function would occur in organ systems where gravity-induced hydrostatic pressures played an important role. It was already known that muscles and bones which supported and provided movement of the body against the force of gravity were adversely altered as a result of prolonged inactivity or disuse during long periods of bedrest. Muscle mass, muscle tonus, exercise tolerance, orthostatic tolerance--all decreased, and the resting heart rate increased. There was every reason to believe that these changes might be expected to occur during periods of weightless flight, when activity in the antigravity muscles was minimized. In addition, Dr. Dietlein was concerned about the vestibular system, organs which control equilibrium, the gastrointestinal system, and the many faceted problems associated with infection and immunology. Each of these areas required broad, intensive research programs to provide new knowledge that would establish confidence in man's ability to spend long periods of time safely in the space flight environment.

Dr. Dietlein guided these complex research efforts at the Johnson Space Center, and at various other institutions through NASA grants and contracts. As mission requirements changed and new knowledge was acquired, he molded dozens of individual studies and research programs into one balanced program that would continue to support the changing nature of space flight missions. Ultimately, it became necessary to begin a vigorous program of in-flight research to verify ground-based findings and obtain data to explain postflight observations. This research was in the form of physiological measurements of the flight crew during missions, and each measurement was designated as an in-flight experiment. The nature of in-flight operations involving even relatively uncomplicated measuring devices made it necessary that they be flight qualified, a time consuming and costly procedure to assure proper reliability during space flight. In addition, labeling measurements as in-flight experiments resulted in each measurement being handled as a separate entity, with little or no visible identification with other experiments that could be searching for answers in another portion of the same area. When all of the individual measurements comprising an effective medical experiments program were recorded, the list was formidable. To implement each measurement as an experiment would have been incredibly laborious and costly.

In 1966, with the organization of the Apollo Applications Program (later becoming the Skylab Program), Dr. Dietlein initiated a procedure to consolidate the list of proposed physiological and medical research measurements into four principal categories, each to be related to a major physiological system. Thus, measurements relating to the performance of the cardiovascular and renal/endocrine system were organized into one flight experiment, the results of which would provide a far greater return than the sum of the knowledge gained from individually conducted measurements. Similarly, he organized the measurements relating to the musculoskeletal and mineral metabolism system, the nervous system, and the respiratory and gaseous metabolism system. Dr. Dietlein directed the development of the Experiment Implementation Plans for the NASA Manned Space Flight Experiments Board and was instrumental in establishing the criteria for selection of Flight Experiment Administrators, Principal Investigators and Principal Coordinating Scientists, and others whose efforts would be required to accomplish successfully a major in-flight experiment. Although some in-flight experiments were conducted in the Gemini Program, and to some degree during Apollo, the first assurance of extensive in-flight studies came with the organization of the Skylab Program.

Because of Dr. Dietlein's original concept of an implementation plan for flight experiments and his personal concern for accuracy, validity and appropriateness of measurement techniques, the Skylab Program has produced vast amounts of new data on the effects of weightlessness on man. His skillful interpretation of the meaning of newly acquired medical data and his day-to-day surveillance over the medical aspects of the Skylab missions has had a beneficial influence on the community

of flight personnel, engineers, flight directors, and program managers. Under his continuing supervision, medical experiments conducted during the Skylab missions have provided new assurances and certifications that man's activities in the environment of space can be performed safely and productively for long periods of time.

Biographical/Educational Data

Birthplace and Date: New Iberia, Louisiana, February 9, 1928

Education:

- 1933-44 Saint Peter's College (Elementary and High School), New Iberia, LA
- 1944-48 Louisiana State University, Baton Rouge, LA
- 1948-51 Harvard University, Cambridge, MA
- 1951-55 Harvard Medical School, Boston, MA
- 1955-56 Straight Medicine Intern, II-IV Medical Harvard Service, Boston City Hospital, Boston, MA
- 1956-57 Assistant Resident in Medicine, Harvard Service, Boston City Hospital, Boston, MA
- 1957-59 Research Fellow and Instructor in Medicine, Tulane University School of Medicine, New Orleans, LA
- 1959-61 Resident and Chief Medical Resident, U.S. Public Health Service Hospital, Staten Island, NY

Marital Status: Married to the former Catherine Margaret Sullivan

Children: Jon, August 14, 1959; Elise, August 2, 1963, Lawrence, November 9, 1966

Honors and Awards:

Pre-college: American Legion Medal Award; 4-year honor scholarship, Louisiana State University.

Louisiana State University, Baton Rouge, LA: Phi Eta Sigma, Beta Tau Mu (President), Mu Sigma Rho, Omicron Delta Kappa, Phi Kappa Phi. Awarded one of two National Phi Kappa Phi Graduate Scholarships. Honor Scholarship awarded by College of Arts and Sciences; Valedictorian; awarded Scabbard and Blade Award, and was Honor Military Graduate. As Cadet Colonel, served as ROTC Cadet Corps Commander.

Lawrence F. Dietlein, M.D., Ph. D.

Honors and Awards Cont'd.

Harvard University, Cambridge, MA: Atomic Energy Predoctoral Fellow (1948-51) in the Biological Sciences; Teaching Fellow in Biology (1949-50); Gamma Alpha; Sigma Xi.

Harvard Medical School, Boston, MA: Boylston Medical Society, Prosector in Anatomy; Alpha Omega Alpha; awarded medical degree cum laude.

Tulane University School of Medicine, New Orleans, LA: Diplomate, National Board of Medical Examiners; Research Fellow and Instructor in Medicine.

NASA Mercury Achievement Award, Engineering and Development Directorate, October 19, 1962.

NASA Gemini Achievement Award, Gemini Support Team, November 22, 1966.

NASA Achievement Award, Apollo 7 Flight Operations Team, November 14, 1968.

AMA Citation for Astronaut Health and Safety Contributions in Space Exploration, September 29, 1969.

Apollo Program Achievement Award, September 29, 1969.

Apollo Achievement Award, Medical Research and Operations Directorate, July, 1969.

NASA Certificate of Commendation, December, 1971.

Skylab Real-Time Planning Team Achievement Award, October 23, 1973.

NASA Exceptional Service Medal, April 15, 1974.

Medical Licensure: Massachusetts, Louisiana, New York, and Texas.

Professional Affiliations: American Medical Association; Aerospace Medical Association; American Association for the Advancement of Science; American Men of Science; Who's Who in Space; National Academy of Science Committee on Hearing and Bioacoustics; National Research Council; Technical Committee on Life Sciences and Systems, American Institute of Aeronautics and Astronautics, American Association for the Advancement of Science, New York Academy of Sciences

Professional Experience:

- 1961-62 Chief, Outpatient Services, U.S. Public Health Service Hospital,  
New Orleans, LA
- 1962-65 Chief, Space Medicine Branch, NASA Manned Spacecraft Center,  
Houston, TX. Senior Surgeon (Army equivalent--Lieutenant Colonel),  
U.S. Public Health Service, Office of the Surgeon General  
(detached assignment).
- 1965-66 Assistant Division Chief for Medical Support, Crew Systems  
Division, NASA Manned Spacecraft Center, Houston, TX.  
U.S. Public Health Service (detached).
- 1966-68 Chief, Biomedical Research Office, NASA Manned Spacecraft Center,  
Houston, TX. Medical Director (Army equivalent--colonel), U.S.  
Public Health Service, Office of the Surgeon General (detached).
- 1968-72 Assistant Director of Research, Office of the Director of  
Medical Research and Operations, NASA Manned Spacecraft Center,  
Houston, TX. U.S. Public Health Service (detached).
- 1972- Deputy Director of Life Sciences, NASA Johnson Space Center,  
Present Houston, TX. Also serves as Chief Medical Officer for JSC.  
U.S. Public Health Service (detached).

Lawrence F. Dietlein, M.D., Ph. D.

Technical Papers and Publications:

1. Dietlein, Lawrence F., SOME RESPONSES OF THE IMMATURE RAT UTERUS TO HORMONAL STIMULATION WITH SPECIAL REFERENCE TO LIPID DEPOSITION IN THE LUMINAL EPITHELIUM. The Anatomical Record, Vol. 109, p. 287. 1951.
2. Dietlein, Lawrence F., THE EFFECTS OF CHRONIC HORMONAL ADMINISTRATION OF THE HISTOGENESIS OF UTERINE GLANDS IN THE IMMATURE ALBINO RAT. The Anatomical Record, Vol. III, No. 3. November, 1951.
3. Dietlein, Lawrence F., THE COMPETENCE OF THE IMMATURE RAT UTERUS TO RESPOND TO TRAUMA FOLLOWING THE ADMINISTRATION OF PROGESTERONE OR DESOXYCORTICOSTERONE ACETATE. The Anatomical Record, Vol. III, No. 3. November, 1951.
4. Dietlein, Lawrence F., EXPERIMENTAL HISTOGENETIC AND HISTOCHEMICAL STUDIES OF THE REPRODUCTIVE TRACT IN THE IMMATURE FEMALE RAT. A Thesis submitted to the Faculty of Arts and Sciences, Harvard University, in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Biology. Unpublished. 1951.
5. Dietlein, Lawrence F., PREGNANEDIOL-3 (ALPHA), 20 (ALPHA)-INDUCED INHIBITION OF PROGESTERONE AND DESOXYCORTICOSTERONE ACETATE IN THE RAT. A Thesis submitted to the Faculty of Medicine, Harvard University, in Partial Fulfillment of the Requirements for the Degree of Doctor of Medicine with Honors. Unpublished. 1955.
6. Walsh, J. J., Burch, G. E., White, A., Mogabgab, W. J., and Dietlein, L. F., A STUDY OF THE EFFECTS OF TYPE A (ASIAN STRAIN) INFLUENZA ON THE CARDIOVASCULAR SYSTEM OF MAN. Annals of Internal Medicine, Vol. 49, No. 3. September, 1958.
7. Pelon, W., Mogabgab, W. J., Dietlein, L. F., Burch, G. E., and Holmes, B., ANTIBODY RESPONSE TO ASIAN INFLUENZA VACCINATION IN MAN. Proceedings of the Society for Experimental Biology and Medicine, Vol. 99, pp. 120-124.
8. Dietlein, L. F., Mogabgab, W. J., Low, F. M., and Burch, G. E., CHANGES OBSERVED IN HUMAN TRACHEOBRONCHIAL MUCOSA DUE TO UNCOMPLICATED ASIAN INFLUENZA AS REVEALED BY LIGHT AND ELECTRON MICROSCOPY. Paper presented before The American College of Physicians' 40th Annual Session, Chicago, Illinois, April 22, 1959. To be published.
9. Walsh, J. J., Dietlein, L. F., Low, F. M., Burch, G. E., and Mogabgab, W. J., BRONCHOTRACHEAL RESPONSE IN HUMAN INFLUENZA, Type A, Asian Strain, as Studied by Light and Electron Microscopic Examination of Bronchoscopic Biopsies. Archives of Internal Medicine, Vol. 108, pp. 376-388. September, 1961.

Lawrence F. Dietlein, M.D., Ph. D.

Technical Papers and Publications (Cont'd.)

10. Mogabgab, W. J., Pelon, W., Dietlein, L. F., Burch, G. E., Walsh, J. J., White, A., Holmes, B., IMMUNOGENICITY AND GROWTH REQUIREMENTS OF INFLUENZA A AND B VIRUSES PROPAGATED IN MONKEY CULTURES. Annual Report to the Commission on Influenza of the Armed Forces Epidemiological Board, Tulane University School of Medicine. February, 1958.
11. Johnston, R. S., Hays, E. L., and Dietlein, L. F., CREW SYSTEMS DEVELOPMENT IN SUPPORT OF MANNED SPACE FLIGHT. Paper presented at the XIVth Congress of the International Astronautical Federation, Paris, France, September, 1963. (26 p refs, unclassified report, NASA TMX-50771; 1 AF Paper 18).
12. Dietlein, Lawrence F., SOME PHYSIOLOGICAL CONSIDERATIONS OF SPACE FLIGHT: WEIGHTLESSNESS, Chapter 14, pp. 125-135, in Manned Spacecraft: Engineering Design and Operation, Purser, P. E., Faget, M. A., and Smith, N. F., Fairchild Publications, Inc., New York, 1964.
13. Dietlein, L. F., EXPERIMENT M-3, INFLIGHT EXERCISES, GEMINI IV, NASA Manned Space Flight Experiments Symposium, Gemini Missions III and IV, Washington, D.C., October 18-19, 1965.
14. Dietlein, L. F., EXPERIMENT M-4, INFLIGHT PHONOCARDIOGRAM, GEMINI IV, NASA Manned Spacecraft Flight Experiments Symposium, Gemini Missions III and IV, Washington, D.C., October 18-19, 1965.
15. Dietlein, L. F., and Judy, W. V., EXPERIMENT M-1, CARDIOVASCULAR CONDITIONING, NASA Manned Space Flight Experiments Interim Report Gemini V Mission, Washington, D.C., January 6, 1966.
16. Dietlein, L. F., and Rapp, R. M., EXPERIMENT M-3, INFLIGHT EXERCISE, GEMINI V, NASA Manned Space Flight Experiments Interim Report, Gemini V Mission, Washington, D.C., January 6, 1966.
17. Dietlein, L. F., and Judy, W. V., EXPERIMENT M-1, CARDIOVASCULAR CONDITIONING, Gemini Mid-program Conference, Part II: Experiments, NASA Manned Spacecraft Center, Houston, Texas, February 23-25, 1966.
18. Dietlein, L. F., and Rapp, R. M., EXPERIMENT M-3, INFLIGHT EXERCISE (WORK TOLERANCE), Gemini Mid-program Conference, Part II: Experiments, NASA Manned Spacecraft Center, Houston, Texas, February 23-25, 1966.
19. Dietlein, L. F., and Vallbona, C., EXPERIMENT M-4, INFLIGHT PHONOCARDIOGRAM (Measurements of Duration of the Cardiac Cycle and Its Phases during the Orbital Flight of Gemini V), Gemini Mid-program Conference, Part II: Experiments, NASA Manned Spacecraft Center, Houston, Texas, February 23-25, 1966.

Lawrence F. Dietlein, M.D., Ph. D.

Technical Papers and Publications (Cont'd.)

20. Dietlein, L. F., and Harris, E., EXPERIMENT M-5, BIO-ASSAYS OF BODY FLUIDS, Gemini Mid-program Conference, Part II: Experiments, NASA Manned Spacecraft Center, Houston, Texas, February-25, 1966.
21. Lipscomb, H., Rummel, J., Dietlein, L. F., and Vallbona, C., CIRCADIAN RHYTHMS IN SIMULATED AND MANNED ORBITAL SPACE FLIGHT, Paper presented at the 37th Annual Aerospace Medical Association Meeting, Las Vegas, Nevada, April 18-21, 1966.
22. Low, M. D., Rettig, G. M., Borda, R. P., Kellaway, P., and Dietlein, L. F., THE CONTINGENCY NEGATIVE VARIATION (C.N.V.) IN STUDIES OF PREPARATION SET. I. Relationship of Various Parameters of the Slow Wave of States of Alertness, Levels of Anxiety and Motor Reaction Time. Paper submitted for presentation at the 37th Annual Aerospace Medical Association Meeting, Las Vegas, Nevada, April 18-21, 1966.
23. Dietlein, L. F., and Berry, C. A., SOME RESPONSES OF THE CARDIOVASCULAR SYSTEM OF MAN TO THE SPACE FLIGHT ENVIRONMENT. Paper presented at the IXth Plenary Meeting of COSPAR (Committee on Space Research) and the VIIth International Space Science Symposium, Vienna, Austria, May 10-19, 1966. To be published.
24. Dietlein, L. F., SOME RESPONSES OF THE CARDIOVASCULAR SYSTEM OF MAN TO THE SPACE FLIGHT ENVIRONMENT. Paper presented at Symposium titled: "Man's Physiological Response to the Space Flight Environment," 18th Autumn Meeting of The American Physiological Society, Baylor University College of Medicine and The University of Texas Dental Branch, Houston, Texas, September 2, 1966.
25. Graybiel, A., Miller, E. F., Billingham, J., Waite, R., Berry, C. A., and Dietlein, L. F., VESTIBULAR EXPERIMENTS IN GEMINI FLIGHTS V and VII. Joint Report, Naval Aerospace Medical Institute and National Aeronautics and Space Administration. Aerospace Medicine, Vol. 38, No. 4, pp. 360-370. April, 1967.
26. Halberg, F., Vallbona, C., Dietlein, L., Rummel, J., and Berry, C., CIRCADIAN CIRCULATORY RHYTHMS OF MEN IN WEIGHTLESSNESS DURING EXTRATERRESTRIAL FLIGHT AS WELL AS IN BEDREST WITH AND WITHOUT EXERCISE. Space Life Sciences, Vol. 2, pp. 18-32. February, 1970.
27. Leach, C. S., Hulley, S. B., Rambaut, P. C., and Dietlein, L. F. THE EFFECT OF BEDREST ON ADRENAL FUNCTION. Space Life Sciences, Vol. 4, pp. 415-423. 1973.

NOTE.—DO NOT USE THIS ROUTE SLIP TO  
SHOW FORMAL CLEARANCES OR APPROVALS

DATE 5/30/74

TO:

AGENCY BLDG. ROOM

Dr. Vinograd

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> APPROVAL                             | <input type="checkbox"/> REVIEW          | <input checked="" type="checkbox"/> PER CONVERSATION |
| <input type="checkbox"/> SIGNATURE                            | <input type="checkbox"/> NOTE AND SEE ME | <input checked="" type="checkbox"/> AS REQUESTED     |
| <input type="checkbox"/> COMMENT                              | <input type="checkbox"/> NOTE AND RETURN | <input type="checkbox"/> NECESSARY ACTION            |
| <input type="checkbox"/> FOR YOUR INFORMATION                 |  |  |
| <input type="checkbox"/> PREPARE REPLY FOR SIGNATURE OF _____ |  |  |

REMARKS:

Corinne Stuart

(Fold here for return)

To -----		
G. DONALD WHEDON, M.D.		
From DIRECTOR, NIAMDD		
PHONE	BUILDING	ROOM
65877	31	9A-52

FORM HEW-30 REV. 11/56

ROUTE SLIP

GPO : 1973 O - 517-326

CURRICULUM VITAE

G. DONALD WHEDON, M.D.

TITLE: Director, National Institute of Arthritis and  
Metabolic Diseases, 1962 -

ADDRESS: Business: National Institutes of Health  
Bethesda, Maryland 20014  
Home: 5605 Sonoma Road  
Bethesda, Maryland 20034

DATE and PLACE OF BIRTH: July 4, 1915, Geneva, New York

FAMILY: Wife: Margaret Brunssen (m. 1942)  
Children: Karen A. (b. 1946)  
David M. (b. 1948)

EDUCATION and DEGREES: Hobart College, A.B., 1936  
University of Rochester School of Medicine, M.D., 1941  
Hobart College, Sc.D. (hon.), 1967

EMPLOYMENT:

1941 - 1942	Intern in Medicine, Mary Imogene Bassett Hospital Cooperstown, N.Y.
1942 - 1944	Asst. in Medicine, University of Rochester School of Medicine; Asst. Resident Physician in Medicine, Strong Memorial Hospital, Rochester, N.Y.
1944 - 1947	Asst. Physician, Outpatient Department, New York Hospital, New York, N.Y.
1944 - 1950	Instructor in Medicine, Cornell University Medical College, New York, N.Y.
1947 - 1952	Physician, Outpatient Department, New York Hospital, New York, N.Y.
1950 - 1952	Asst. Professor of Medicine, Cornell University Medical College, New York, N.Y.
1952 - 1965	Chief, Metabolic Diseases Branch, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Bethesda, Maryland
1956 - 1962	Assistant Director, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health Bethesda, Maryland
1962 -	Director, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health Bethesda, Maryland

[Institute name changed May 1972 to National Institute of  
Arthritis, Metabolism, and Digestive Diseases]

PROFESSIONAL ORGANIZATIONS:

Association of American Physicians  
The Endocrine Society (Post-graduate Committee, 1962-65)  
American Physiological Society  
American Institute of Nutrition  
American Federation for Clinical Research  
American Rheumatism Association  
The Gerontological Society  
New York Academy of Sciences  
American Association for the Advancement of Science  
American Medical Association  
American Diabetes Association  
American Gastroenterological Association  
Pan American Medical Association  
Aerospace Medical Association

HONORS AND OTHER SPECIAL SCIENTIFIC RECOGNITION:

Certified, American Board of Internal Medicine, 1950.  
Special Post-doctoral PHS Fellowship, New York Hospital-Cornell  
Medical Center, January 1, 1951 to June 30, 1951.  
Subcommittee on Calcium, Committee on Dietary Allowances, Food  
and Nutrition Board, National Research Council, 1959-1964.  
Editorial Board, Journal of Clinical Endocrinology and  
Metabolism, 1960-67.  
Consultant to Space Medicine Division, Office of Manned Space  
Flight, NASA, November 1963 - .  
Scientific Council, Maryland Academy of Sciences 1964 - 70.  
Public Health Service Superior Service Award, 1967.  
Editorial Board, Calcified Tissue Research, 1967.  
Certified, American Board of Nutrition, 1968.  
University of Rochester Citation to Alumni Award, 1971

RESEARCH INTERESTS:

Metabolic and physiological aspects of convalescence and  
immobilization; metabolism in paralytic poliomyelitis; metabolic  
and kinetic studies of disorders of bone; human energy metabolism;  
space medicine.

## PUBLICATIONS

G. DONALD WHEDON, M.D.

1. Deitrick, J.E., Whedon, G.D., Shorr, E., and Barr, D.P.: Effects of bed rest and immobilization upon various physiological and chemical functions of normal men. Conference on Metabolic Aspects of Convalescence, sponsored by Josiah Mach Jr. Foundation, Ninth Meeting, pp. 62-81 February 2-3, 1945.
2. Deitrick, J.E., Whedon, G.D., and Shorr, E.: The effects of bed rest and immobilization upon various chemical and physiological functions of normal men: Their modification by the use of the oscillating bed. Conference on Metabolic Aspects of Convalescence, sponsored by Josiah Macy Jr. Foundation, Twelfth Meeting, pp. 44-61, Feb. 4-5, 1946.
3. Whedon, G.D., Deitrick, J.E., and Shorr, E.: Metabolic changes resulting in normal men from bed rest and immobilization: Their modification by the use of the oscillating bed. Proceedings of Round Table Conference: The Structure and Function of Nerve and Muscle in Relationship to Infantile Paralysis, sponsored by the National Foundation for Infantile Paralysis, State University of Iowa, Iowa City, Iowa, September 12-14, 1946.
4. Deitrick, J.E., Whedon, G.D., and Shorr, E.: Effects of immobilization upon various metabolic and physiologic functions of normal men. Am. J. Med. 4: 3-36, January, 1948.
5. Deitrick, J.E., Whedon, G.D., and Shorr, E.: The effect of immobilization on metabolic and physiological functions of normal men. Bull. N.Y. Acad. of Med., 24: 364-374, June, 1948.
6. Whedon, G.D.: The effect of the use of the rapid rocking bed upon pulmonary ventilation. Proceedings of Round Table Conference on "Equipment for the Treatment of Patients with Respiratory Paralysis due to Poliomyelitis," sponsored by the Harvard School of Public Health and the National Foundation for Infantile Paralysis, Inc., Harvard School of Public Health, Cambridge, Mass., June 15-16, 1949.
7. Whedon, G.D., Deitrick, J.E., and Shorr, E.: Modification of the effects of immobilization upon metabolic and physiologic functions of normal men by the use of an oscillating bed. Am. J. Med. 6: 684-711, June, 1949.
8. Whedon, G.D.: Management of the effects of recumbency. A symposium in honor of William Sharp McCann, by present and former members of the Department of Medicine, the University of Rochester School of Medicine and Dentistry, Rochester, New York. Med. Clinics of North America, 35: 545-562, No. 2, March, 1951.
9. Whedon, G.D.: Metabolic effects of inactivity. Proceedings of the 1st and 2nd Metabolic Conference of the Muscular Dystrophy Association of America, Inc., New York, N.Y., pp. 39-45, April, 1951.
10. Plum, F., and Whedon, G.D.: The rapid-rocking bed: Its effect on the ventilation of poliomyelitis patients with respiratory paralysis. N.E.J. Med., 245: 235-241, No. 7, August 1951.

11. Toscani, V., and Whedon, G.D.: Nitrogen loss in the feces: The variability of excretion in normal subjects on constant dietary intakes. *J. Nutrition* 45: 119-130, No. 1, September, 1951
12. Whedon, G.D.: Effects of immobilization. In Barnett, Henry L. (ed.): Calcium and Phosphorus Metabolism, report of the 4th M & R Pediatric Research Conference, New York, N.Y., February 15, 1952, pp. 68-75.
13. Whedon, G.D.: Metabolic and renal effects of immobilization. Proceedings of Round Table Conference on "Respiratory Problems in Poliomyelitis," sponsored by the National Foundation for Infantile Paralysis, Ann Arbor, Michigan, March 12-14, 1952.
14. Whedon, G.D.: Steroid hormones in osteoporosis. In Engle, E.T., and Pincus, G.: Hormones and the Aging Process, Proceedings of a conference held at Arden House, Harriman, New York, May 30-31, 1955. New York Academic Press, Inc., 1956, pp. 221-239.
15. Shorr, E., Laszlo, D., Shock, N.W., and Whedon, G.D.: Panel discussion on osteoporosis. *J. Am. Geriatr. Soc.* 4: 363-384, April, 1957.
16. Hundley, J.M., Sandstead, H.R., Sampson, A.G., Whedon, G.D., Bakerman, H.A., and Ing, R.B.: Lysine, threonine and other amino acids as supplements to rice diets in man: Amino acid imbalance. *Am. J. Clin. Nutr.* 5: 316-326, May-June, 1957.
17. Whedon, G.D., and Shorr, E.: Metabolic studies in paralytic acute anterior poliomyelitis. I. Alterations in nitrogen and creatine metabolism. *J. Clin. Inves.* 36: 941-965, June, Part II, 1957 (Supplement).
18. Whedon, G.D., and Shorr, E.: Metabolic studies in paralytic acute anterior poliomyelitis. II. Alterations in calcium and phosphorus metabolism. *J. Clin. Inves.* 36: 966-981, June, Part II, 1957 (Supplement).
19. Whedon, G.D., and Shorr, E.: Metabolic studies in paralytic acute anterior poliomyelitis. III. Metabolic and circulatory effects of the slowly oscillating bed. *J. Clin. Inves.* 36: 982-994, June, Part II, 1957 (Supplement).
20. Whedon, G.D., and Shorr, E.: Metabolic studies in paralytic acute anterior poliomyelitis. IV. Effects of testosterone propionate and estradiol benzoate on calcium, phosphorus, nitrogen, creatine and electrolyte metabolism. *J. Clin. Invest.* 36: 995-1033, June, Part II, 1957 (Supplement).
21. Bunim, J.J., Black, R.L., Lutwak, L., Peterson, R.E., and Whedon, G.D.: Studies on dexamethasone, a new synthetic steroid, in rheumatoid arthritis--a preliminary report. Adrenal cortical, metabolic, and early clinical effects. *Arthritis and Rheumatism* 1: 313-331, Aug., 1958.

22. Heaney, R.P., and Whedon, G.D.: Impairment of hepatic bromsulphalein clearance by two 17-substituted testosterone. *J. Lab. Clin. Med.* 52: 169-175, August, 1958.
23. Heaney, R.P., and Whedon, G.D., Radiocalcium studies of bone formation rate in human metabolic bone disease. *J. Clin. Endocrinol. & Metab.* 18: 1246-1267, November, 1958.
24. Ceglarek, M.M., Bryant, B.E., and Whedon, G.D.: A Manual for Metabolic Balance Studies. PHS Publication No. 607. Dept. of Health, Education, and Welfare, USPHS, National Institutes of Health. U.S. Govt. Printing Office, Washington, D.C., December, 1958.
25. Whedon, G.D.: Present concepts of the physiology of bone in the aging human: Influence of hormonal and other factors in osteoporosis. Fourth Congress of the International Congress of Gerontology, Merano, Italy, July 14-19, 1957. Fidenza, Italy, Tipografia Tito Mattioli, 1959. Vol. II, pp. 615-627.
26. Whedon, G.D.: New research in human energy metabolism. *J. Am. Diet. A.* 35: 682-686, July, 1959.
27. Whedon, G.D.: Effects of high calcium intakes on bones, blood and soft tissues. *Fed. Proc.* 18: 1112-1118, December, 1959.
28. Whedon, G.D.: Osteoporosis: Atrophy of disuse. Proceedings of Research Conference "Bone as a Tissue," The Lankenau Hospital, Philadelphia, Pennsylvania, October 30-31, 1958. McGraw-Hill, Feb., 1960, pp. 67-82.
29. Hunt, G.H., and Whedon, G.D.: Clinical research facilities grants of the National Institutes of Health. *J.A.M.A.* 173: 1826-1827, August, 1960.
30. Buskirk, E.R., Thompson, R.H., Moore, R., and Whedon, G.D.: Human energy expenditure studies in the National Institute of Arthritis and Metabolic Diseases Metabolic Chamber. I. Interaction of cold environment and specific dynamic effect. II. Sleep. *Am. J. Clin. Nutr.* 8: 602-613, 1960.
31. Whedon, G.D.: Bone metabolism and arthritis. Research in Gerontology: Biological and Medical (from the White House Conference on Aging), U.S. DHEW series No. 10, Aug., 1961, pp. 119-122.
32. Lutwak, L., and Whedon, G.D.: Osteoporosis: A disorder of mineral nutrition. *Borden Review of Nutrition Research* 23: 45-66, Oct.-Dec., 1962.
33. Whedon, G.D., and Lutwak, L.: Bone seeking isotopes in the evaluation of skeletal disease. In Sunderman and Sunderman (ed.): Proc. Appl. Seminar on Measurements of Thyroid and Parathyroid Function, Philadelphia, J. B. Lippincott Co., 1962, pp. 236-242.
34. Lutwak, L., and Whedon, G.D.: Differential diagnosis of hyperparathyroidism and other metabolic bone diseases. In Sunderman and Sunderman (ed.): Proc. Appl. Seminar on Measurements of Thyroid and Parathyroid Function. Philadelphia, J.B. Lippincott Co., 1962, pp. 243-251.

35. Lutwak, L., Whedon, G.D.: Osteoporosis. Disease-a-Month. Chicago, Year Book Publishers, Inc., April, 1963.
36. Buskirk, E.R., Thompson, R.H., and Whedon, G.D.: Metabolic response to cold air in men and women in relation to total body fat content. J. Appl. Physiol. 18: 603-612, May, 1963.
37. Buskirk, E.R., Thompson, R.H., and Whedon, G.D.: Metabolic responses to cooling in the human: role of body composition and particularly of body fatness. Proceedings of Fourth Symposium on Temperature, Its Measurement in Science and Industry 3: Part 3, 429-441, 1963.
38. Lutwak, L., and Whedon, G.D.: Pharmacologic principles in geriatrics Adrenocorticosteroid agents. In Freeman, J.F. (ed.): Clinical Principles and Drugs in the Aging. Springfield, Illinois, Charles C. Thomas Co. Chapter 9, 136-159, 1963.
39. Whedon, G.D., Lutwak, L.: Contribution to symposium on "Human Calcium Requirements," sponsored by the Council on Foods and Nutrition of the American Medical Association. J.A.M.A. 185, 588-593, August, 1963.
40. Tashjian, A.H., Jr., and Whedon, G.D.: Kinetics of human citrate metabolism: studies in normal subjects and in patients with bone disease. J. Clin. Endocrin. & Metab. 23: 1029-1043, October, 1963.
41. Buskirk, E.R., Thompson, R.H., Lutwak, L., and Whedon, G.D.: Energy balance of obese patients during weight reduction. Influence of diet restriction and exercise. Ann. J. New York Acad. Sci. 110: 918-940, September, 1963.
42. Lutwak, L., Laster L., Gitelman, H.J., Fox, M., and Whedon, G.D.: Effects of high dietary calcium and phosphorus on calcium, phosphorus, nitrogen and fat metabolism in children. Am. J. Clin. Nutr. 14: 76-82, Feb. 1964.
43. Whedon, G.D.: The combined use of balance and isotopic studies in the study of calcium metabolism. In Mills, C.F. & Passmore, R. (editors): Proceedings of the 6th International Congress of Nutrition, Edinburgh, 1963, Edinburgh, & S. Livingstone Ltd., 1964, pp. 425-438.
44. Whedon, G.D., Pollack, H., and Knoblock, E.C. Life support and in-flight medical experiments recommendations for food, water and waste and for metabolic, digestive, skeletal, neuromuscular, fluid and electrolyte, renal, thermoregulatory, reproductive and endocrine functions. Medical Aspects of an Orbiting Laboratory, Space Medicine Advisory Group Study, S.P. Vinograd, editor. National Aeronautics and Space Administration Special Publication-86, Washington, D.C. 1966.
45. Birge, Stanley, J. Jr., Keutmann, Henry T., Cuatrecasas, Pedro, and Whedon, G.D. Osteoporosis, intestinal lactase deficiency and low dietary calcium intake. N.E.J. Med., 276: 445-448, Feb. 23, 1967.

- 46 Whedon, G.D., Metabolic effects of longterm bedrest. Human Ecology in Space Flight II. Proceedings of 2nd International Interdisciplinary Conference, October 11-14, 1964, pages 47-59. Published by New York Academy of Sciences Interdisciplinary Communications Program, New York, New York, 1967.
- 47 Whedon, G.D. Battling the Bone-Thinner. Today's Health, September 1967.
- 48 Whedon, G.D. Osteoporosis. Chapter in Clinical Endocrinology II. Edited by Astwood and Cassidy, Grune & Stratton, Inc. 1968.
- 49 Birge, Stanley J., Jr. and Whedon, G. Donald. Bone. Chapter in Hypodynamics and Hypogravics. Edited by Michael McCally. Academic Press, Inc. 1968.
- 50 Reid, Jeanne M., Leo Lutwak, Ph.D., M.D., and G. Donald Whedon, M.D. Dietary control in the metabolic studies of Gemini-VII space flight. Journal of American Dietetic Assn. 53 No. 4: 342-47, October 1968
- 51 Birge, Stanley J., William A. Peck, Mones Berman and G. Donald Whedon. Study of calcium absorption in man: A kinetic analysis and physiologic model. J. Clin. Invest. Vol. 8 No. 9: 1705-1713, 1969.
- 52 Lutwak, Leo, G. Donald Whedon, Paul A. Lachance, Jeanne M. Reid and Harry S. Lipscomb. Mineral, Electrolyte and Nitrogen Balance Studies of the Gemini-VII Fourteen-Day Orbital Space Flight. J. Clin. Endocrin. & Metab. 29: 1140-56, September 1969.
- 53 Whedon, G. Donald. Symposium comment. Proceedings of First International Symposium on Osteoporosis, June 25-26, 1969. Montefiore Hospital and Medical Center, Bronx, New York. Osteoporosis. Edited by Uriel S. Barzel, M.D., Grune & Stratton, 1970.
- 54 Whedon, G. Donald and Leo Lutwak. Metabolic studies of the Gemini 7 14-day orbital spaceflight. Proceedings of Hypogravic and Hypodynamic Environments Conference, June 16-18, 1969, pages 51-65. Published by National Aeronautics and Space Administration SP 269, 1971.
- 55 Thompson, R.H., E.R. Buskirk and G.D. Whedon (with technical assistance of D. Thrasher). Temperature regulation against cold; effect of induced hyperthyroidism in men and women. J. Applied Physiology. 31 (5): 740-745, Nov. 1971
- 56 Whedon, G. Donald. Effects of Weightlessness on Mineral Metabolism: Experience to date. Proceedings of Third International Symposium on Basic Environmental Problems of Man in Space, Geneva, Switzerland 1968, Astronautics Acta, Vol. 17, pp. 119-128, 1972.

57. Whedon, G. Donald: Metabolic responses observed in prolonged space flight. Rochester Medical Alumni Lecture 1971. University of Rochester Medical Review, Summer, 1972.
58. Whedon, G. Donald and Cole, William: Winning the War Against Childhood Diabetes. Parents' Magazine. Published by Parents' Institute, 52 Vanderbilt Avenue, New York, N.Y., 1973.
59. Heaney, Robert P. and Whedon, G. Donald: Chapter on Bone. Encyclopaedia Britannica, 15th Edition, Vol. 3, pp. 18-23, 1974.
60. Shapiro, J., Moore, T. and Whedon, G. Donald: Diagnosis and Therapy of Osteoporosis. Archives of Internal Medicine (in press).

G. Donald Whedon, M.D. NIAMDD:OD

DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

NATIONAL INSTITUTES OF HEALTH, BLDG. 31 RM. 9A 52

BETHESDA, MARYLAND 20014

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF H. E. W.  
HEW 394



FIRST CLASS

Dr. Sherman P. Vinograd  
Director, Medical Science & Technology  
Directorate of Space Medicine, OMSF  
NASA - Code MM  
Federal Office Bldg. 10-B - Room 409  
600 Independence Avenue, SW  
Washington, D.C. 20546