NRC FORM 313M (9-81) 10 CFR 35	U.S. NUCLEAR REGULATORY COMMISSION APPLICATION FOR MATERIALS LICENSE -- MEDICAL	Approved by OMB 3150-0041

INSTRUCTIONS - *Complete Items 1 through 26 if this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 26 must be completed on all applications and signed. Retain one copy. Submit original and one copy of entire application to: Director, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Upon approval of this application, the applicant will receive a Materials License. An NRC Materials License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Parts 19, 20 and 35 and the license fee provision of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 26 and the appropriate fee enclosed.*

1.a. NAME AND MAILING ADDRESS OF APPLICANT *(institution, firm, clinic, physician, etc.)* INCLUDE ZIP CODE

Veterans Adminisration Medical Center
West Spring Street
West Haven, CT. 06516

TELEPHONE NO.: AREA CODE (203) 932 5711

1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED *(If different from 1.a.)* INCLUDE ZIP CODE

SAME

2. PERSON TO CONTACT REGARDING THIS APPLICATION

Mr. Otto A. Motzer

TELEPHONE NO.: AREA CODE (203) 932 5711 x 723

3. THIS IS AN APPLICATION FOR: *(Check appropriate item)*

a. ☐ NEW LICENSE
b. ☐ AMENDMENT TO LICENSE NO. _____
c. ☒ RENEWAL OF LICENSE NO. 06-00092-05

4. INDIVIDUAL USERS *(Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.)*

Those Approved by Medical Isotope and Radiation Safety Committee
Ronald Neumann M.D. Chairman

5. RADIATION SAFETY OFFICER (RSO) *(Name of person designated as radiation safety officer. If other than individual user, complete resume of training and experience as in Supplement A.)*

Mr. Otto A. Motzer RSO
Mr. George R. Holeman Consulting Health Physicist

6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE

RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS *(In millicuries)*
10 CFR 31.11 FOR IN VITRO STUDIES		
10 CFR 35.100, SCHEDULE A, GROUP I		AS NEEDED
10 CFR 35.100, SCHEDULE A, GROUP II		AS NEEDED
10 CFR 35.100, SCHEDULE A, GROUP III		
10 CFR 35.100, SCHEDULE A, GROUP IV		AS NEEDED
10 CFR 35.100, SCHEDULE A, GROUP V		AS NEEDED
10 CFR 35.100, SCHEDULE A, GROUP VI		

ADDITIONAL ITEMS:	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS *(In millicuries)*
IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM		
PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES		
PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
GOLD-198 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA		
XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.		

6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. *(Sealed sources up to 3 mCi used for calibration and reference standards are authorized under Section 35.14(d), 10 CFR Part 35, and NEED NOT BE LISTED.)*

ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM NUMBER OF MILLICURIES OF EACH FORM	DESCRIBE PURPOSE OF USE
H-3 (Tritium)	any	300	Biomedical Research

INFORMATION REQUIRED FOR ITEMS 7 THROUGH 23

For Items 7 through 23, check the appropriate box(es) and submit a detailed description of all the requested information. Begin each item on a separate sheet. Identify the item number and the date of the application in the lower right corner of each page. If you indicate that an appendix to the medical licensing guide will be followed, do not submit the pages, but specify the revision number and date of the referenced guide: Regulatory Guide 10.8 , Rev. _____ Date: _____

7. MEDICAL ISOTOPES COMMITTEE

- ☐ Names and Specialties Attached; and
- ☐ Duties as in Appendix B; or _____ *(Check One)*
- ☐ Equivalent Duties Attached

8. TRAINING AND EXPERIENCE

- ☐ Supplements A & B Attached for Each Individual User; and
- ☐ Supplement A Attached for RSO.

9. INSTRUMENTATION *(Check One)*

- ☐ Appendix C Form Attached; or
- ☐ List by Name and Model Number

10. CALIBRATION OF INSTRUMENTS

- ☐ Appendix D Procedures Followed for Survey Instruments; or _____ *(Check One)*
- ☐ Equivalent Procedures Attached; and
- ☐ Appendix D Procedures Followed for Dose Calibrator; or _____ *(Check One)*
- ☐ Equivalent Procedures Attached

11. FACILITIES AND EQUIPMENT

- ☐ Description and Diagram Attached

12. PERSONNEL TRAINING PROGRAM

- ☐ Description of Training Attached

13. PROCEDURES FOR ORDERING AND RECEIVING RADIOACTIVE MATERIAL

- ☐ Detailed Information Attached

14. PROCEDURES FOR SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIALS *(Check One)*

- ☐ Appendix F Procedures Followed; or
- ☐ Equivalent Procedures Attached

15. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL *(Check One)*

- ☐ Appendix G Rules Followed; or
- ☐ Equivalent Rules Attached

16. EMERGENCY PROCEDURES *(Check One)*

- ☐ Appendix H Procedures Followed; or
- ☐ Equivalent Procedures Attached

17. AREA SURVEY PROCEDURES *(Check One)*

- ☐ Appendix I Procedures Followed; or
- ☐ Equivalent Procedures Attached

18. WASTE DISPOSAL *(Check One)*

- ☐ Appendix J Form Attached; or
- ☐ Equivalent Information Attached

19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS *(Check One)*

- ☐ Appendix K Procedures Followed; or
- ☐ Equivalent Procedures Attached

20. THERAPEUTIC USE OF SEALED SOURCES

- ☐ Detailed Information Attached; and
- ☐ Appendix L Procedures Followed; or _____ *(Check One)*
- ☐ Equivalent Procedures Attached

21. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE GASES (e.g., Xenon – 133)

- ☐ Detailed Information Attached

22. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL IN ANIMALS

- ☐ Detailed Information Attached

23. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.b

- ☐ Detailed Information Attached

24. PERSONNEL MONITORING DEVICES

	TYPE (Check appropriate box)		SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY		FILM X	Siemers or Landauer	Monthly
		TLD		
		OTHER (Specify)		
b. FINGER		FILM		
		TLD X	Siemens or Landauer	Monthly
		OTHER (Specify)		
c. WRIST		FILM X	Siemens or Landauer	Monthly
		TLD		
		OTHER (Specify)		

d. OTHER (Specify)

Dosimeters

Direct reading quartz fiber dosimeters (200mR) used as short term monitors.

Bioassays

A. Urinalysis will be required following the use of more than 10 millicuries of tritium in any single experiment.

B. Thyroid counts will be routinely conducted when Iodinations are conducted at this Medical Center.

25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL

NAME OF HOSPITAL

MAILING ADDRESS

CITY | STATE | ZIP CODE

b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.

c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.

26. CERTIFICATE

(This item must be completed by applicant)

'84 AUG 24 A10:51

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Parts 30 and 35, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

a. LICENSE FEE REQUIRED
(See Section 170.31, 10 CFR 170)

(1) LICENSE FEE CATEGORY

(2) LICENSE FEE ENCLOSED $

b. APPLICANT OR CERTIFYING OFFICIAL (Signature)

FOR AND IN THE ABSENCE OF A. Benson Chilton

(1) NAME (Type or Print)
Albert Blecich

(2) TITLE
Medical Center Director

c. DATE
8-10-84

NRC FORM 313M (9-81)

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313M. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b))

2. **PRINCIPAL PURPOSE(S)** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30-36 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.

3. **ROUTINE USES** The information may be used: (a) to provide records to State health departments for their information and use, and (b) to provide information to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for a NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you. A copy of the license issued will routinely be placed in the NRC's Public Document Room, 1717 H Street, N.W., Washington, D.C.

4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed.

5. **SYSTEM MANAGER(S) AND ADDRESS** Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555

NRC FORM 313M SUPPLEMENT A (9-81) U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
Otto A. Mutzer	

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	V A. Medical Center West Haven, Ct.	On the job training twenty years	
b. RADIATION PROTECTION	V.A. Medical Center West haven, Ct.	On the job training twenty years	
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	V.A Medical Center West Haven, Ct.	On the job training twenty years	
d. RADIATION BIOLOGY	V.A Medical Center West Haven, Ct.	On the job training twenty years	
e. RADIOPHARMACEUTICAL CHEMISTRY	V.A. Medical Center West Haven, Ct.	On the job training twenty years	

5. EXPERIENCE WITH RADIATION. *(Actual use of Radioisotopes or Equivalent Experience)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Hg-203, Xe-133 I -131 H -3 C -14 Tc-99m Ga-67	Millicuurie levels	V.A. Medical Center West Haven, Ct. Radioisotope Service Both clinical and biomedical research.	twenty years	Clinical and biomedical research
I -125 Cr-51 I -123 Co-60, P-32	Mirocurie levels			

CURRICULUM VITAE

Name:	Otto A. Motzer
Date of Birth:	February 8, 1927
Place of Birth:	New York City, New York
Sex:	Male
Marital Status:	Married
No. of Children:	Two
Residence:	Guilford, Connecticut
Military:	1.5 years U.S. Naval AirCrew
Education:	H.S. Graduate Guilford, Ct. 1945 Connecticut School of Elecronics (2 year course) Graduate 1950 Connecticut State Teacher Training course Graduate 1958 (Received 5 year Teaching Certificate)
Employment History:	Electronic Technician Fenn Electronics Branford, Ct. 1950 - 1955 Self Employed 1950 - 1966 Instructor of Electronics Connecticut School of Electronics New Haven, Ct. 1955 - 1964 Electronic Developement Technician Radioisotope Service V.A. Hospital West Haven, Ct. 1964 - 1966 Chief Tech. / Assistant to Radiation Safety Officer Nuclear Medicine Service V.A. Medical Center West Haven, Ct. 1966 - 1978 Physical Science Tech. / Assistant to Radiation Safety Officer Nuclear Medicine Service V.A. Medical Center West Haven, Ct. 1978 - 1980

Societies:

Society of Nuclear Medicine
American college of Radiology
and American Society of Radiologic
Technologists

Certifications:

Nuclear Medicine Technology Board
Certification
American Registry of Radiologic
Technologists (Nuclear Medicine)

Continuous Education:

Radiation Safety Seminar Yale University
1984
Fire prevention WHVA Medical Center 1983

Compliance Testing of Xray Equipment
N.E. REMEC Northport V.A. 1981

Mini Residency in Nuclear Medicine
N.E. REMEC Northport V.A. 1979

U.S. Civil Service Commission
Middle Management Institute Workshop
West Haven V.A. 1978

AWARDS:

Outstanding Performance	1983
Superior Performance	1977
Suggestion Award	1975
Superior Performance	1969

References:

Donald Buchanan,M.D. Past
Chief Radioisotope Service
V.A. West Haven,CT.
Assoc. Prof. Yale University
(Retired) To West Palm Beach,Fla.

Daniel Sullivan, M.D. Past
Acting Chief Nuclear Medicine Service
V.A. Medical Center
West Haven, Ct.
Address 94 Cedar Hills
Chapel Hill, N.C.

Ronald Neumann,M.D. Present
Acting Chief Nuclear Medicine Service
West Haven V.A. Medical Center
West Haven, Ct.
Assitant Prof. Yale University

CURRICULUM VITAE

FRED SMITH WRIGHT, M.D.

Born: St. Louis, Missouri, June 10, 1937

Education:
Whitefish Bay H.S., Milwaukee, Wisconsin 1951-1955
University of Michigan 1955-1959 A.B. High Distinction
High Honors
University of Michigan 1959-1963 M.D.

Married: Carol vonPressentin Colin 1962

Children: Catherine, born 1976

Professional Positions:
Intern in Medicine: Johns Hopkins Hospital, Baltimore, 1963-1964
Assistant Resident in Medicine: Johns Hopkins Hospital, 1964-1965
Staff Investigator: Laboratory of Kidney and Electrolyte Metabolism, National Heart Institute, N.I.H., 1965-1968
Instructor in Physiology: Yale University School of Medicine, 1968-1969
Assistant Professor of Physiology: Yale University School of Medicine, 1969-1973
Associate Professor of Physiology: Yale University School of Medicine, 1973-1977
Associate Professor of Medicine and Physiology, Yale University School of Medicine, 1977-1982
Professor of Medicine and Physiology, Yale University School of Medicine, 1982-present
Staff Physician: Veterans Administration Medical Center, West Haven, 1977-present
Associate Chief of Staff for Research and Development, Acting 1983-present

Societies:
American Physiological Society
Consultant to Education Committee, 1975
Associate Editor, American Journal of Physiology: Renal Fluid and Electrolyte Physiology, 1976-1983
Secretary, Renal Section, 1978-1980
Chairman, Renal Section, 1980-1982
American Society of Nephrology
Program Evaluation Committee, 1977
Program Vice-Chairman, 1981
International Society of Nephrology
Salt and Water Club

Curriculum Vitae

Fred S. Wright, M.D.

Fellowships and Honors:

Phi Beta Kappa 1958
Goldberger Student Fellowship: Council on Foods and Nutrition, AMA 1962
Special Fellowship: NIH/USPHS 1968-1970
Established Investigator: American Heart Association 1970-1975
Medical Investigator: Veterans Administration, 1979-present

Committees:

Research Committee, Connecticut Heart Association, 1972-1977; Chairman, 1975-1977
Subcommittee on Obstruction and Neuromuscular Disorders: NIH Study of Research in Nephrology and Urology, 1974-1976
Subcommittee on Sodium and Hypertension: NIH Hypertension Task Force, 1976-1977
Cardiovascular A Research Study Committee, American Heart Association, 1977-1980
Curriculum Committee, Yale University School of Medicine, 1971-present; Chairman, 1978-present
Research and Development Committee, West Haven VA Medical Center, 1977-1983
Institutional Self-Study Task Force, Yale University School of Medicine, 1982

BIBLIOGRAPHY

Fred S. Wright, M.D.

Chapters in Books

Wright, F.S. Potassium transport by the renal tubule. In Kidney and Urinary Tract Physiology. K. Thurau, ed. Univ. Park Press, Baltimore, 1974, pp. 79-105.

Wright, F.S. Use of potassium ion-exchanger electrode for microanalysis. In Ion Selective Microelectrodes. H.J. Berman and N.C. Hebert, eds., Plenum, New York, 1974, pp. 77-88.

Howards, S.S. and F.S. Wright. Obstructive Injury. In The Kidney. B.M. Brenner nd F.C. Rector, eds. Saunders, Philadelphia, 1976, pp. 1297-1325

Wright, F.S. Potassium. In Pathophysiology of the Kidney. N.A. Kurtzman and M. Martinez-Maldonado, eds. C.C. Thomas, Springfield, 1977, pp 180-212

Wright, F.S. Shrinking-drop method. In Manual of Renal Micropuncture. V.E. Andreucci, ed. Karger, Basle, 1978, pp 194-207.

Wright, F.S. and S.S. Howards. Obstructive Injury. In The Kidney B.M. Brenner and F.C. Rector, eds. Saunders, Philadelphia, 2nd ed. 1981, p. 2008-2044.

Bibliography

Fred S. Wright, M.D.

Articles in Journals

1. Davis, J.O., C.I. Johnston, S.S. Howards and F.S. Wright. Humoral factors in the regulation of renal sodium excretion. Fed. Proc. 26:60-69, 1967.

2. Johnston, C.I., J.O. Davis, S.S. Howards and F.S. Wright. Cross-circulation experiments on the mechanism of the natriuresis during saline loading in the dog. Circ. Res. 20:1-10, 1967.

3. Davis, J.O., S.S. Howards, C.I. Johnston and F.S. Wright. Renin, sodium-retaining and sodium-excreting hormones and experimental renal hypertension. Circ. Res., Suppl. 2, 20 and 21:167-1176, 1967.

4. Johnston, C.I., J.O. Davis, F.S. Wright and S.S. Howards. Effects of renin and ACTH on adrenal steroid secretion in the American bullfrog. Am. J. Physiol. 213:393-399, 1967.

5. Davis, J.O., C.I. Johnston, P.M. Hartroft, S.S. Howards and F.S. Wright. The phylogenetic and physiologic importance of the renin-angiotensin-aldosterone system. Proc. 3rd Int. Cong. Nephrol. 1:215-225, 1966.

6. McLeod, G.M., A.B. French, C.J. Good and F.S. Wright. Gastrointestinal absorption and biliary excretion of phenol-sulfonphthalein (phenol red) in man. J. Lab. Clin. Med. 71:192-200, 1968.

7. Davis, J.O., S.S. Howards, C.I. Johnston and F.S. Wright. Deoxycorticosterone secretion in chronic experimental heart failure and during infusion of angiotensin II. Proc. Soc. Exptl. Biol. Med. 127:164-168, 1968.

8. Howards, S.S., J.O. Davis, C.I. Johnston and F.S. Wright. Steroidogenic response in normal dogs receiving blood from dogs with caval constriction. Am. J. Physiol. 214:990-996, 1968.

9. Howards, S.S., B.B. Davis, F.G. Knox, F.S. Wright and R.W. Berliner. Depression of fractional sodium reabsorption by the proximal tubule of the dog without sodium diuresis. J. Clin. Invest. 47:1561-1572, 1968.

10. Wright, F.S., J.O. Davis, C.I. Johnston and S.S. Howards. Renal sodium excretion after volume expansion with saline and blood. Proc. Soc. Exptl. Biol. Med. 123:1044-1051, 1968.

11. Knox, F.G., S.S. Howards, F.S. Wright, B.B. Davis and R.W. Berliner. The effect of dilution and expansion of blood volume on proximal tubule sodium reabsorption. Am. J. Physiol. 215:1041-1048, 1968.

12. Brenner, B.M., R.I. Keimowitz, F.S. Wright and R.W. Berliner. An inhibitory effect of furosemide on sodium reabsorption by the proximal tubule of the rat nephron. J. Clin. Invest. 48:290-300, 1969.

13. Wright, F.S., F.G. Knox, S.S. Howards and R.W. Berliner. Reduced reabsorption by the proximal tubule of DOCA escaped dogs. Am. J. Physiol. 216:869-875, 1969.

14. Wright, F.S., B.M. Brenner, C.M. Bennett, R.I. Keimowitz, R.W. Berliner, R.W. Schrier, P.J. Verroust, H.E. deWardener and H. Holzgreve. Failure to demonstrate a hormonal inhibitor of proximal sodium reabsorption. J. Clin. Invest. 48:1107-1113, 1969.

15. Knox, F.G., F.S. Wright, S.S. Howards and R.W. Berliner. Effect of furosemide on sodium reabsorption by the proximal tubule of the dog. Am. J. Physiol. 217:192-198, 1969.

16. Wright, F.S., F.G. Knox, S.S. Howards and R.W. Berliner. Measurement of sodium reabsorption by the proximal tubule of the dog. Am. J. Physiol. 217:199-206, 1969.

17. Schneider, E.G., J.O. Davis, C.A. Robb, J.S. Baumber, J.A. Johnson and F.S. Wright. Lack of evidence for an hepatic osmoreceptor mechanism in conscious dogs. Am. J. Physiol. 218:42-45, 1970.

18. Davis, B.B., F.G. Knox, F.S. Wright and S.S. Howards. Effect of expansion of extracellular fluid volume on proximal sodium reabsorption in hyponatremic dogs. Metabolism 19:291-300, 1970.

19. Schnermann, J., F.S. Wright, J.M. Davis, W.V. Stackelberg and G. Grill. Regulation of superficial nephron filtration rate by tubulo-glomerular feedback. Pflugers Archiv. 318:174-175, 1970.

20. Wright, F.S. Increasing magnitude of electrical potential along the renal distal tubule. Am. J. Physiol. 220:624-638, 1971.

21. Wright, F.S., N. Strieder, N.B. Fowler and G. Giebisch. Potassium secretion by distal tubule after potassium adaptation. Am. J. Physiol. 221:437-448, 1971.

22. Wright, F.S. and G. Giebisch. Glomerular filtration in single nephrons. Kidney International 1:201-209, 1972.

23. Wright, F.S. and W.S. McDougal. Potassium specific ion-exchanger microelectrodes to measure K^+ activity in the renal distal tubule. Yale J. Biol. Med. 45:373-383, 1972.

24. McDougal, W.S. and F.S. Wright. Defect in proximal and distal sodium transport in post-obstructive diuresis. Kidney Int. 2:304-317, 1972.

25. Wright, F.S. and J. Schnermann. Interference with feedback control of glomerular filtration rate by furosemide, triflocin and cyanide. J. Clin. Invest. 53:1695-1708, 1974.

26. Wright, F.S. Intrarenal regulation of glomerular filtration rate. New Eng. J. Med. 291:135-141, 1974.

27. Wright, F.S. Sites and mechanisms of potassium transport along the renal tubule. Kidney Int. 11:415-432, 1977.

28. Wright, F.S. and J.P. Briggs. Feedback regulation of glomerular filtration rate. Am. J. Physiol. 233:F1-F7, 1977.

29. Wright, F.S. Regulation of glomerular filtration rate and renal salt excretion by a single nephron feedback pathway. Cardiovasc. Med. 3:731-754, 1977.

30. Peterson, L.N. and F.S. Wright. Effect of sodium intake on renal potassium excretion. Am. J. Physiol. 233:F225-F234, 1977.

31. Luke, R.G., F.S. Wright, N.B. Fowler, M. Kashgarian and G. Giebisch. Effects of potassium depletion in renal tubule chloride transport in the rat. Kidney Int. 14: (Nov), 1978.

32. Wright, F.S. and G. Giebisch. Renal potassium transport: Contributions of individual nephron segments and populations. Am. J. Physiol. 233: (Dec), 1978

33. Briggs, J.P. and F.S. Wright. Feedback control of glomerular filtration rate: Site of the effector mechanism. Am. J. Physiol. 236 (Jan), 1979.

34. Good, D.W. and F.S. Wright. Luminal influences on potassium secretion: Sodium concentration and fluid flow rate. Am. J. Physiol 236:(Feb), 1979.

35. Persson, A.E.G., J. Schnermann and F.S. Wright. Modfication of feedback influence on glomerular filtration rate by acute isotonic extracellular volume expansion. Pflugers Archiv. 381:99-103, 1979.

36. Wright, F.S. and J.P. Briggs. Feedback control of glomerular blood flow, pressure and filtration rate. Physiological Reviews 59:958-1007, 1979.

37. Schnermann, J., J. Briggs, W. Kriz, L. Moore and F.S. Wright. Control of glomerular vascular resistance by the tubuloglomerular feedback mechanism. In: Renal Pathophysiology. A. Leaf and G. Giebrisch, eds. New York: Raven Press, 1980, p. 165-182.

38. Good, D.W. and F.S. Wright. Luminal influence on potassium secretions: transepithelial voltage. Am. J. Physiol. 239:F289-298, 1980.

39. Briggs, J.P., J. Schnermann, and F.S. Wright. Failure of tubule fluid osmolarity to affect feedback regulation of glomerular filtration. Am. J. Physiol. 239:F427-F432, 1980.

40. Wright, F.S. Characteristics of feedback control of glomerular filtration rate. Fed. Proc. 40:87-92, 1981.

41. Wright, F.S. Potassium transport by successive segments of the mammalian nephron. Fed. Proc. 40:2398-2402, 1981.

42. Schnermann, J., J.P. Briggs and F.S. Wright. Feedback mediated reduction of GFR during infusion of hypertonic saline. Kidney Int. 20:462-468, 1981.

43. Persson, A.E.G. and F.S. Wright. Evidence for feedback mediated reduction of glomerular filtration rate during infusion of acetazolimide. Acta Physiol. Scand. 114:1-7, 1981.

44. Wright, F.S., H. Mandin, and A.E.G. Persson. Studies of the sensing mechanism in the tubuloglomerular feedback pathway. Kidney Int. 22 Suppl 12:90-96, 1982.

45. Velazquez, H., F.S. Wright and D.W. Good. Luminal influences on potassium secretion: chloride replacement with sulfate. Am. J. Physiol. 242:F46-F55, 1982.

46. Wright, F.S. Effects of urinary tract obstruction on glomerular filtration rate and renal blood flow. In: Obstructive Uropathy. S. Klahr, ed. Seminars in Nephrology 2:5-16, 1982.

47. Wright, F.S. Flow dependent transport processes: filtration, absorption, secretion. Am. J. Physiol. 243:F1-F11, 1982.

Bibliography. Fred S. Wright, M.D.

Abstracts

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Item 9: Instrumentation

Type of Instrument	No. Available	Radiation Detected	Sensitive Range	Window Thickness	Use
Xeno Guard Monitor Model 36-751	1	Gamma	N/A	N/A	Monitoring
Ohio Nuclear Portable Model 420	1	Gamma	N/A	N/A	Imaging
Searle Pho Con Model 1792	1	Gamma	N/A	N/A	Imaging
Searle Gamma Camera Model 6406	1	Gamma	N/A	N/A	Imaging
Searle Gamma Camera LFOV Model 6413	1	Gamma	N/A	N/A	Imaging
Kembel Inst. Inc. Well	1	Gamma	10^{-5} 1 uCi	N/A	Measuring
Thyroid Count Uptake Model 450	1	Gamma	10-3 100 uCi	N/A	Measuring
Probe 3" Harshaw Integral line Picker Spectroscaler 4	1	Gamma	10^{-3} 100 uCi	N/A	Measuring
Victoreen Frisker 425	1	Beta Gamma	0-500KCPM		Monitoring
Survey Meters Victoreen Thyac III	3	Alpha Beta Gamma	0-20 mR/HR	$1.4-2.0$ mg/cm2	Survey
Dosimeter Corp Model 3700	2	Beta Gamma	0-50 mR/HR	30mg/CM^2	Survey
Victoreen Model 3	1	Gamma	0-500R/M	1000 mg/cm^2	Survey
Dose Calibrator Capintec Squibb CRC 17	1	Gamma	0-10 curies	N/A	Dose Calibration
LKB 1280 Ultrogamma (Automatic Well Counter)	1	Gamma	N/A	N/A	Measuring
Searle Analytical 92	1	Beta	N/A	N/A	Measuring
Packard Auto Gamma Counter 5230	1	Gamma	N/A	N/A	Measuring
Packard Tricarb and Autogamma 526	1	Beta Gamma	N/A	N/A	Measuring

Item 9: Instrumentation (continued)

Type of Instrument	No. Available	Radiation Detected	Sensitive Range	Window Thickness	Use
Packard Auto Gamma A5912	1	Gamma	N/A	N/A	Measuring
Beckman Model LS 7000	1	Beta	N/A	N/A	Measuring
Packard Auto Gamma 5780	1	Beta	N/A	N/A	Measuring

Authorized Users

A. Human Use

1.	Alexander Gottschalk, M.D.	All uses in Groups I through VI, 10 CFR Part 35.100 Schedule A
2.	Paul Hoffer, M.D.	"
3.	Ronald Neumann, M.D.	All uses in Groups I, II, III, & Xenon
4.	Yung H. Son, M.D.	Group VI, 10 CFR Part 35.100 Schedule A

5. Others for routine human use as approved by the Medical Isotopes Committee

6. Individual human use research projects approved by the Medical Isotopes Committee and Human Investigation Committee and in some cases Radioactive Drug Research Committee

B. Non Human Use Research

1. Individual investigator projects as approved by the Medical Isotopes Committee.

ML18

PROCEDURE FOR XENON ALERT MONITOR

MODEL 36-751

Room Air Recording

Record at the end of every 8 hour work day. Integrate and Blower Switches to Trap/Standby Position. Record Readings.

Limitations for Room Air Readings

Not to exceed 40 MPC - hrs./week
MPC/hrs. less than 520 hrs./13 weeks
(40x13 = 520)

Gas Trap Recordings

1. Connect hose to Xenon air intake port and other end to the gas trap exhaust port.
2. Integrate/Blower switches on trap/standby.

   Activity determined by

   $$A = MPC \times 10\text{-}5 \times VXT$$

   A = effluent activity in microcuries

   MPC = reading from analog meter

   10-5 = MPC in microcuries/ml

   V = Trap flow velocity in ml/min.

   T = Washout time in minutes.
3. Remove hose from gas trap.
4. Turn blower on until MPC meter reads zero (around 5 minutes)
5. Return switches to on or room air monitoring position.
6. Record results.

These records are kept for every study done on the Xenon machine; every ventilation lung study.