Curriculum Vitae

March 1978

NAME: Wilbert Shimoda
Commissioned Officer PHS 23821 HSO DIR 06 (T) 522-42-5307

BORN: May 14,1931 Denver, Colorado

EDUCATION:

(1) Graduated from Littleton High School, Littleton, Colorado in 1949

(2) Attended Colorado State University, Ft. Collins, Colorado as follows:

Sept. 1949 to Dec. 1951	-	Chemistry
Jan. 1954 to Jun. 1955	-	Chemistry
Jun. 1956 to Jun. 1957	BS	Chemistry
*Jun. 1957 to Jun. 1963	MS	Biochemistry
*Jun. 1963 to Jun. 1964	-	Radiological Health
Sept. 1969 to Aug. 1972	**(Ph.D.)	Reproductive Physiology

* Part-time basis while on full-time employment
** Completed course work, preliminary examinations and in the process of writing thesis

OTHER TRAINING:

1. Safe Handling of Chemical Carcinogens, FDA, 1978, "as title".
2. Principles of Heterocyclic Chemistry, FDA, 1975, "as title".
3. Program Officials Guide to Contracting, FDA, 1974, Contract Project Officer Responsibilities.
4. Veterinary Toxicology, BVM, 1974, short course on toxicity of drugs.
5. Radiation Monitor, USPHS, BRH, 1968, Radiation Safety.
6. Hospital Corpsman School, U.S. Navy, 1952, Laboratory Technician.

Experience:

1. December 1972 to present - Research Chemist, BVM/FDA, Project Leader on RIA studies, conduct metabolism experiments and Project Officer of contracts and grants.

(SEE ATTACHED BILLET DESCRIPTION)

(2) Senior Investigator, DBE, BRH, FDA Aug. 1972 to Dec. 1972
Present assignment will encompass research in the area of biological effects from microwave exposure.

(3) Graduate Trainee, DBE, BRH, FDA Aug. 1969 to Aug. 1972.
Graduate training in the area of reproductive physiology at Colorado State University, Ft. Collins, Colorado. The Ph.D. thesis will be entitled "The effect of microwaves on canine testicular function". Research involved microwave and infra-red exposures to canine testes and blood and semen samples were collected from each dog every five days. The following parameters were measured: spermatogenesis, sperm morphology, sperm number, testicular histology, testicular incubations with substrate androgens, plasma hormonal assays for androgens and corticoids (competitive protein binding) and estrogens and LH (leutinizing hormone) by the radioimmunoassay technique. Utilized instruments such as the Auto-Gamma Analyzer, Liquid Scintillation, Low-Beta Counters, Physiographs, and microwave generators. During this period I was responsible for radiation safety in the Physiology Dept. which covered the areas of purchase, storage, wastes, human safety, inventory and surveys.

(4) Chief of Radioiodine Metabolism and Bioassay Studies, Biomedical Section, RRP, SWRHL, Las Vegas, Nevada
Feb. 1968 to Sept. 1969.
Participated in design, supervision and execution of experiments which determined the kinetics of deposition, retention and translocation of radionuclides in dairy cattle and goats. Designed and built metabolism stalls for dairy cows to collect feces and urine. Designed and built a head-holder to measure accumlated radioactivity in the thyroid gland. Conducted several studies using radioactive iodine, lead and tungsten. Used the following instruments to detect radioactivity: Gamma 400 channel Multi-analyzer with a Sodium Iodide detector, Liquid Scintillation, survey meters, Low Beta Counters, Gas Chromatography, and Mass Spectrophotometer. Utilized programmable calculator, antilog computer and computers. I was the chairman of the Quality Control Committee at the station during this time. Involved with modeling.

(5) Chief of Chemistry Unit, Physics Section, RRP, SWRHL, Las Vegas, Nevada Jan. 1965 to Feb. 1968.
Participated in design, supervision and execution of experiments which determined the analysis of various radionuclides in various samples which involved analytical, biochemical and radiochemical methods. Designed and built several sample containers to hold biological material such as feces, milk, blood, vegetation, soil and air filters to be counted for radioactivity. Biological samples were collected from dairy cattle, dogs, rats, goats and wildlife animals. During this period I was a member of the stations Radiation Safety Committee. Used instruments as mentioned in the above paragraph.

(6) Electronics Technician, Joint appointment with the Endocrine Section, Chemistry Dept. and Radiology and Radiation Biology Dept.,Colorado State University, Ft. Collins, Colorado Jun. 1963 to Jan. 1965.
At the Radiation Biology Dept. I maintained, repaired, and built radiation detecting electronic equipment used for teaching and research. Utilized instruments such as gas flow counters, single channel gamma analyzer, cutiepie and other survey meters. Assisted in laboratory instruction dealing with above mentioned instruments as to their basic electronics. I have become familiar with radiological health problems by attending AEC inspection tours, conducting surveys and assisting with radiation laboratory design.
At the Endocrine Section I was engaged in research dealing with labeled (^{14}C, ^{3}H, and ^{32}P) non-protein hormones (estrogens, DES, and androgens) experimentation to determine their metabolic fate in various plants and animals (cattle and swine). Utilized procedures such as isolation, purification and identification of metabolites from animal tissues and plant extracts. Various methods and instruments were used to aid research such as column, paper and thin-layer chromatography, colorimeteric, DU, and DK2A Spectrophotometers. I was responsible for radiation safety at the Endocrine Section.

(7) Senior Research Assistant, Endocrine Section, Chemistry Dept., Colorado State University, Ft. Collins, Colorado Sept. 1957 to Jul. 1963.
Duties as mentioned in the above paragraph for the Endocrine Section were essentially the same during this period. In addition, conducted procedures to measure estrogenic (estrogens and DES) and androgenic levels in animal tissues by using bioassays such as the immature female mouse uterus and chick comb. Assisted in metabolism studies to determine the excretion and metabolic fate of labeled compounds such as DES, estrogens, and androgens in swine, chickens, cattle. I was under the supervision of Drs. F.X. Gassner and M.L. Hopwood.

(8) Junior Chemist, Elkhorn Chemical Co., Elkhorn, Wisc. Jun. 1955 to Jun 1956.
Conducted quality control, production and research in various chemical products such as detergents, disinfectants, waxes and emulsions.

(9) Medical Technician, US Navy, Great Lakes Naval Hospital, Great Lakes, Ill. Oct. 1952 to Dec. 1953.
In charge of Clinic and Histopathology Laboratories. Perduties as a clinic chemist, histologist and hematogist.

PLEASE PREPARE THREE COPIES FOR OFFICE OF PERSONNEL AND ONE FOR YOUR BUREAU

(See other side for instructions)

1. ORGANIZATION (Bureau, Division, Branch, Section, etc.) and location of duty station
Bureau of Veterinary Medicine, Division of Veterinary Medical Research, Chemistry Branch, Agricultural Research Center, East, Beltsville, Maryland.

ITEMS 2, 3, AND 4 TO BE COMPLETED BY OFFICE OF PERSONNEL ONLY

2.	I	II	III	3.	4.
	IV	V	Total		

5. FUNCTIONAL TITLE Research Chemist

6. Pertinent program information (e.g., size of hospital; geographic limits of water pollution control project; type of hospital; primary function and size of Branch, Section, Unit; etc.) Services as a research chemist conducting applied and basic research on complex problems involving analytical chemistry, biochemist radiochemistry, physiology and endocrinology. Conducts studies to meet the Bureau's missi in the development, evaluation and validity for drug residues, animal and feed safety of Veterinary drugs. This Branch consists of a chief (Ph.D. Biochemist, an analytical chemis (GS-12), two GS-7 chemists and two physical sciences technicians (GS-6) in addition to the Research Chemist (PHS Commissioned Officer).

7. *Brief* statement of *most important* duties, including *significant* supervisory responsibilities and work relationships (please do not exceed this space) (1)Serves as a principle investigator and a project leader of the Radioimmunoassay Laboratory which is part of the Chemistry Branch. As the project leader in a research program applies and is responsible for a high degree of originality, freedo and insight into the area of radioimmunoassay (RIA), steroid bioanalysis, and radiochemic studies. Develop or refine extraction procedure and RIA techniques for natural and synthe tic steroid hormones in animal tissues. Plan, organize and supervise personnel and facili ties within the RIA Laboratory for maximum effectiveness in meeting the Bureau's program goals. (2) Responsible for the establishment of experimental studies to develop metaboli and pharmacokinetic information regarding the use of natural and synthetic steroids or drugs used in Veterinary Medicine. (3) Reviews INAD's and NADA's from the standpoint of human and animal safety in area of tissue residues as determined by RIA or other tissue residue methodology, radiopharmaceuticals and reproductive physiology. (4) Serves as a primary advisor and one of the Bureau experts with regard to RIA, steroid bioanalysis a radiopharmaceuticals. (5) Serves as a Project Officer on several extramural research con tracts involving hormones and mycotoxins for the Bureau. (6) Has daily contacts with scientific technical and professional staff within the Branch, Division, Bureau, other Bureaus within FDA, other government agencies, industry drug representatives and Univer- sity faculty to provide and seek information, advice and support involving steroids, RIA and reproductive physiology.

8. Direction received (title of supervisor and type of direction received upon assignment of work, during course of work, and at its completion) Works under the general direction of the Branch Chief,(Biochemist, Ph.D., GS 14),Chemistry Branch, who reports to his supervisor and he reviews the finished reports compliance with good scientific practice and general division policy. Has considerable freedom in his research plans to select the important problems oriented toward the Burea of Veterinary Medicine's Mission for investigation.

9. *Minimum* qualifications (education and experience) required to perform *satisfactorily*
The incumbent should be a biochemist with a Doctor of Philosophy degree, or the equivale of five years experience including biochemistry, radiochemistry, radioimmunoassay, analy tical chemistry, reproductive physiology and supervisory experience.

10. Incumbent's name (if position is filled)	11. Incumbent's category	12. Incumbent's rank	
		Permanent	Temporary
Wilbert Shimoda	Health Services Officer	04	06

13. Serial number	14. Incumbent's profession	15. (*Check one*)
2 3 8 2 1	Biochemist and Reproductive Physiologist	☒ Regular ☐ Reserve

16. Certification or concurrence of superior officer	Signature	Title (Position)	Date
	Edward H. Allen	Chief, Chemistry Branch	Feb. 11, 1977

PHS-4332-1 BILLET DESCRIPTION (See reverse for instructions)
Rev. 10-66

Publications

1. Distribution of Progesterone and its Metabolites in Cattle Tissues Following Administration of Progesterone-4-^{14}C. V.L. Estergreen, M.T. Lin, E.L. Martin, G.E. Moss, A.L. Branen, L.O. Leudecke, and W. Shimoda.
J. Animal Science 46:642-651, September 1977.

2. Effects of T-2 Toxin on Reproductive Performance and Health of Laying Hens. M.S. Chi, C.J. Mirocha, H.J. Kurtz, G. Weaver, F. Bates, and W. Shimoda.
Poultry Science 56:628-637, 1977.

3. Subacute Toxicity of T-2 Toxin in Broiler Chickens. M.S. Chi, C.J. Mirocha, H.J. Kurtz, G. Weaver, F. Bates, and W. Shimoda.
Poultry Science 56:306-313, 1977.

4. Acute Toxicity of T-2 Toxin in Broiler Chickens on Laying Hens. M.S. Chi, C.J. Mirocha, H.J. Kurtz, G. Weaver, F. Bates, W. Shimoda, and H.R. Burmeister.
Poultry Science 56:103-116, 1977.

5. Viewpoint and Current Concepts Regarding Accepted and Tried Products for Control of Bovine Mastitis. H.D. Mercer, J.N. Geleta, R.A. Baldwin and W. Shimoda.
JAVMA 169:1104-1114, November 15, 1976.

6. Study of a single dose ^{131}I-^{126} ratio in dairy cows. W. Shimoda, S.C. Black, K.H. Falter, R.E. Engel and D.S. Barth.
SWRHL-27r April 1970 Southwestern Radiological Health Laboratory, DHEW, PHS, BRH.

7. Dairy farm radioiodine studies following the Pin Stripe Event of April 25, 1966. D.S. Barth, R.E. Engel, S.C. Black, and W. Shimoda.
SWRHL-41r July 1969 Southwestern Radiological Health Laboratory, DHEW, PHS, BRH.

8. Uptake of diethylstilbestrol by edible plants. R.G. Hacker, D.D. Cruea, W. Shimoda, and M.L. Hopwood.
J. Animal Science 26:1358-1362, 1967

9. Excretion of radioactivity by human subjects after ingestion of liver from cattle treated with labeled polystilbestrol phosphate. T. Perklev, F.X. Gassner, R.P. Martin, R.A. Huseby, and W. Shimoda.
Proc. Soc. Exp. Biol. and Med. 119:996-998, 1965.

10. Masters Thesis: "The metabolic products of diethylstilbestrol in the chicken". W. Shimoda Colorado State University, Ft. Collins, Colorado, 1963.

11. Metabolism of radioactive steroid esters in the bovine male and female. F.X. Gassner, R.P. Martin, W. Shimoda, and J.W. Algeo.
Fertility and Sterility, 11:49-73, 1960.

Presentations

1. RIA Methods for DES and Steroid Hormones, W. Shimoda. Presented at AOAC meetings, Washington, D.C. October 18-21, 1976.

2. Distribution of Progesterone and its Metabolites in Cattle Tissues following Administration of ^{14}C - Progesterone. V.L. Estergreen, M.T. Lin, E.L. Martin, G.E. Moss, A.L. Branen, L.O. Luedecke, and W. Shimoda. Presented at American Society of Animal Science College Station, Texas August 15-18, 1976.

3. Acute Toxicity of T-2 Toxin in Broiler Chicks and Lay Hens. M.S. Chi, C.J. Mirocha, H.J. Kurtz, and W. Shimoda. Presented at the Poultry Science Association Manhattan, Kansas August 2-6, 1976.

4. Effect of T-2 Toxin on Laying Hens. M.S. Chi, C.J. Mirocha, H.J. Kurtz, and W. Shimoda. Presented at the Poultry Science Association Manhattan, Kansas August 2-6, 1976.

5. Distribution of ^{14}C - Progesterone in Cattle Tissue Fluids and Excreta. D.L. Smith, V.L. Estergreen, E.L. Martin, M.T. Lin, G.E. Moss, K.A. Frandle, R.K. Klicker, R.L. Luedemen, A.L. Branen, L.O. Luedecke, and W. Shimoda. Presented at American Society of Animal Science Ft. Collins, Colorado July 26-30, 1975.

6. FDA's Viewpoint of Accepted and Tried Therapy of Bovine Mastitis. H.D. Mercer, J.N. Geleta, R.A. Baldwin, and W. Shimoda. Presented at American Veterinary Medical Association Anaheim, CA July 14-17, 1975.

Professional Memberships

The Assoc. MILITARY SURGEONS OF THE UNITED STATES
The Society of the Sigma Xi
Health Physics Society
American Chemical Society
Society for the Study of Reproduction
Animal Science Society
American Society of Animal Production
Colorado-Wyoming Academy of Science
Endocrine Club
Commissioned Officers Association of USPHS - BOARD MEMBER 1976-
Las Vegas Branch 1965-1969 - Secretary-Treasurer 1968
Denver Branch 1969-1972
D. C. Metropolitan Area Branch 1972 -
Entertainment Chairman 1973-1974
Secretary 1975 - 1976
TREASURER - 1977

Nonprofessional Memberships

Colorado State University Alumni Association
Board of Directors - local chapter 1967-1969

National Uniformed Services Association

Parent-Teacher Association
Vice President 1967, 1975
Board of Directors, 1971-1972
Anne Arundel County PTA Committee 1975
BOOSTER CLUB - GLEN BURNIE HIGH, PRESIDENT 1976-1978

Boy Scouts of America
District and Council Committee 1960- 1972
Pack, Troop and Explorer Committees 1960- 1975
Order of Arrow Chapter Advisor 1971-1972

Lutheran Church
Vice President 1967-1969
Church Council 1960-1969
Chairman, Public Relations Board 1960-1965
District Youth Advisor 1972-1973
ELDER - 1976-

Other Professional Activities and Committees

Member, Radiation Safety Committee, BRH 1965-1968, FDA 1973 -
Member, Radiation Safety Council, FDA 1975 -
Chairman, Quality Control Committee, BRH 1967 - 1968
Certified Radiation Monitor, BRH 1968