



Clinton Memorial Hospital

610 West Main St.,

Wilmington, Ohio 45177

(513) 382-6611

May 9, 1985

Nuclear Regulatory Commission,
Region III
Attn: Patricia J. Whiston
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Ms. Whiston:

Please find enclosed the documentation that was requested concerning Dr. Pushpa Makkar's training in basic radio-isotope handling techniques. I have enclosed supplements A and B and in addition, have enclosed copies of Dr. Makkar's certificates and class agendas.

This is the additional information that you requested and not a new amendment request.

If further information is needed or if you require clarification, please contact me and every attempt will be made to send you the additional information.

Sincerely,

Deborah McKown

Deborah McKown
Assistant Vice President

DM:mw
Enclosures

Applicant	May 20th
Check No.	170.1164(1)
Amount	EX 78
Type of Fee	Amel. add'l info
Date Check Rec'd	5/12/85
Received By	[Signature]

RECEIVED

MAY 13 1985

REGION III

8507160054 850620
REG3 LIC30
34-18610-01 PDR

FEE EXEMPT

MAY 13 1985

CONTROL NO. 78938

(8-78)

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

3. CERTIFICATION

SPECIALTY BOARD
ACATEGORY
BMONTH 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	Oak Ridge, Tennessee	3 weeks course in 1974	
b. RADIATION PROTECTION	" " "		
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	" " "		
d. RADIATION BIOLOGY	" " "		
e. RADIOPHARMACEUTICAL CHEMISTRY	" " "		

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

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
I125	25-50 μ ci	During the practice of Clinical Pathology & in training.	11 yrs.	
CO 57	.0-5 μ ci			
CR 51	100 μ ci			

PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS

FULL NAME

Pushpa Makkar, M.D.

STREET ADDRESS

Clinton Memorial Hospital
610 W. Main St.

CITY

Wilmington

STATE

Ohio

ZIP CODE

45177

KEY TO COLUMN C

PERSONAL PARTICIPATION SHOULD CONSIST OF:

1-Supervised examination of patients to determine the suitability for radiisotope diagnosis and/or treatment and recommendation for prescribed dosage.

2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data.

3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D
I-131 or I-125	DIAGNOSIS OF THYROID FUNCTION		5-8/yr. approx. 5-8/yr. approx.-Schillings test Consultant for invitro procedures performed in the laboratory.
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES		
	IN VITRO STUDIES	---	
OTHER			
I-125	DETECTION OF THROMBOSIS	N/A	
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Sr-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER			
Tc-99m	BRAIN IMAGING	N/A	
	CARDIAC IMAGING		
	THYROID IMAGING		
	SALIVARY GLAND IMAGING		
	BLOOD POOL IMAGING		
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING		
	LUNG IMAGING		
	BONE IMAGING		
OTHER			

PRECEPTOR STATEMENT (Continued)			
2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)			
ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheet.) D
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES	N/A	
P-32 (Colloid)	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Co-60 or Cs-137	TELE THERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR		
Sr-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS		
Other			

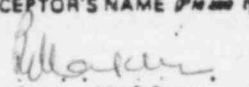
3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

** -One month in residency training---Full time, roughly 8 hrs/day in 1970.

-3 wks in Oak Ridge, Tenn. ---Full time, 10-12 hrs/day

-1 wk. by ASCP program ---8 hrs/day

(Chicago) TOTAL HOURS - 350

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:	6. PRECEPTOR'S SIGNATURE
a. NAME OF SUPERVISOR	 Pushpa Makkar, M.D.
** Dr. Robert Zipf & Dr. Funkhouser	
b. NAME OF INSTITUTION	
Miami Valley Hospital	
c. MAILING ADDRESS	7. PRECEPTOR'S NAME (Please type or print)
1 Wyoming St., Dayton OH 45409	Pushpa Makkar, M.D.
d. CITY	8. DATE
	May 9, 1985
5. MATERIALS LICENSE NUMBER(S)	
General license	

oak ridge associated universities

This is to certify that

Pushpa Makkar

has completed

A THREE-WEEK MEDICAL RADIOISOTOPES COURSE

conducted by

Special Training Division

of

Oak Ridge Associated Universities

Operating under contract with the United States Atomic Energy Commission



10 th day of May, 1974

at Oak Ridge, Tennessee

Lawrence K. Akers

Chairman, Special Training Division

The American Board of Pathology
in cooperation with
The American Board of Nuclear Medicine
herewith certifies that

Pushpa Lata Makkar, M.B., B.S.

has pursued an accepted course of graduate study and clinical work
and has demonstrated her proficiency to the satisfaction of the
Boards of Trustees is hereby granted this certification of qualifi-
cation for the practice of

Radioisotopic Pathology

May 26, 1974

For The American Board
of Nuclear Medicine

Joseph F. Ross
President
Tyler V. Harkness
Secretary



For The American Board
of Pathology

Leoliman
President
Robert W. Wessler
Secretary

The American Board of Pathology

Herewith certifies that

Pushpa Lata Makkar, M.B., B.S. (M.D.)

*Has pursued an accepted course of graduate study
and clinical work and has demonstrated her proficiency
to the satisfaction of the Board of Trustees*

Therefore on this twelfth day of November, 1971

The American Board of Pathology

has granted this certificate of qualification for the practice of
Anatomic and Clinical Pathology



James F. Daniels, M.D. Secretary *John Edward Henry Davis, M.D.* President
W. R. Abell *W. R. Coleman* *W. R. Coleman* *W. R. Coleman*
W. R. Coleman *W. R. Coleman* *W. R. Coleman* *W. R. Coleman*

Miami Valley Hospital

Dayton, Ohio

This certifies that

Muslipa Lata Flakkar, M.D.

has faithfully and satisfactorily served in the capacity of

Resident in Pathology

from July 1, 1967 to July 1, 1971 A.D.

In testimony whereof the undersigned have affixed their signatures

Given at Dayton, Ohio on the 1st day of July 1974

J. E. Cronmartyr, M.D.
CHIEF OF STAFF

PRESIDENT OF THE BOARD OF TRUSTEES

A. Bartholomew, M.D.
DIRECTOR OF MEDICAL EDUCATION

DIRECTOR OF HOSPITAL



REVIEW COURSE IN RADIOISOTOPIC PATHOLOGY

Wednesday, April 17, 1974

8:00-9:00	Registration	
9:00-9:10	Opening Remarks	Dwight K. Oxley, M.D.
9:10-9:20	Introduction	James Ross Mackenzie, M.D.
9:20-10:30	Basic Physics	James A. Sorenson, Ph.D.
10:30-10:45	Break	
10:45-12:00	Basic Physics continued	James A. Sorenson, Ph.D.
12:00-1:30	Lunch	
1:30-3:15	Instrumentation	Phillip L. Howard, M.D.
3:15-3:30	Break	
3:30-5:00	Instrumentation continued	Phillip L. Howard, M.D.

REVIEW COURSE IN RADIOISOTOPIC PATHOLOGY

Thursday, April 18, 1974

- 9:00-10:15 Theory and Practice of Radioimmunoassay Gustavo Reynoso, M.D.
- 10:15-10:30 Break
- 10:30-12:00 Theory and Practice of
Radioimmunoassay continued Gustavo Reynoso, M.D.
- 12:00-1:30 Lunch
- 1:30-3:30 Nuclear Hematology and Gastroenterology Harold J. DeBlanc, Jr., M.D.
- 3:30-3:45 Break
- 3:45-5:00 Panel Discussion James Ross Mackenzie, M.D. (Moderator)
Oscar B. Hunter, Jr., M.D.
Wilson Roy Slaunwhite, Ph.D.
Russell H. Clark, Jr., M.D.
Harold J. DeBlanc, Jr., M.D.
Gustavo Reynoso, M.D.

REVIEW COURSE IN RADIOISOTOPIC PATHOLOGY

Friday, April 19, 1974

- 9:00-10:00 Gastroenterology continued and
Applications in MicrobiologyHarold J. DeBlanc, Jr., M.D.
- 10:00-10:15 Break
- 10:15-12:00 Principles and Pitfalls of Polypeptide
RadioimmunoassaysWilliam D. Odell, M.D., Ph.D.
- 12:00-1:30 Lunch
- 1:30-2:45 Radiation Protection Guidelines Thomas J. Fritzlen, M.D.
- 2:45-3:00 Break
- 3:00-5:00 Panel DiscussionDwight K. Oxley, M.D. (Moderator)
Thomas J. Fritzlen, M.D.
Oscar B. Hunter, Jr., M.D.
Russell H. Clark, Jr., M.D.
James Ross Mackenzie, M.D.
Harold J. DeBlanc, Jr., M.D.

REVIEW COURSE IN RADIOISOTOPIC PATHOLOGY

Saturday, April 20, 1974

9:00-10:45	Thyroid Hormones	Heinz W. Wahner, M.D.
10:45-11:00	Break	
11:00-12:00	Steroids	Wilson Roy Slaunwhite, Ph.D.
12:00-1:30	Lunch	
1:30-3:30	Steroids continued	Wilson Roy Slaunwhite, Ph.D.
3:30-3:45	Break	
3:45-5:00	Panel Discussion	Oscar B. Hunter, Jr., M.D. (Moderator) Dwight K. Oxley, M.D. Wilson Roy Slaunwhite, Ph.D. Heinz W. Wahner, M.D. James Ross Mackenzie, M.D. Russell H. Clark, Jr., M.D.