

UNIVERSITY of PENNSYLVANIA

Office of the Vice Provost for Research  
106 College Hall  
Philadelphia, PA 19104-6381  
215-898-7236

070-00123

September 12, 1988

U.S. Nuclear Regulatory Commission, Region 1  
Nuclear Materials Safety Section B  
475 Allendale Road  
King of Prussia, PA 19406

3002939  
3007056

Gentlemen:

This is to request amendment of Byproduct material licenses #37-00118-07, #37-00118-11 and SNM 114.

We request that effective October 1, 1988 the Radiation Safety Officer for these licenses be changed from John W. Thomas to Dr. Mark Selikson. Dr. Selikson will begin as the new Director of our Radiation Safety Office on that date. A summary of Dr. Selikson's pertinent training and experience is attached.

If you wish further information in support of this request please contact Dr. Mark Selikson.

We enclose a check in the amount of \$360.00 to cover the fee for these three amendments.

Sincerely,

*Barry S. Cooperman*

Barry S. Cooperman  
Vice Provost for Research

FEE EXEMPT

1988-10-16/438

Enclosure

cc: Mark Selikson  
Peter Bloch

8912070321 881029  
REG1 LIC70 PDR  
SNM-0114

RECEIVED BY LFMS	
Date	10/17/88
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By	S. Kimberly
Date Completed	10/22/88

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20 SEP 1988

## CURRICULUM VITAE

Mark Selikson  
1761 Park Road, N.W.  
Washington, D.C. 20010  
(202) 667-4835, (202) 994-2630

### EDUCATION

B.S. Physics, University of Rochester  
Rochester, New York

Ph.D. Physics, Washington University  
St. Louis, Missouri

### SCHOLASTIC AND PROFESSIONAL EXPERIENCE

1981 to 1988

Developed and supervised University Health Physics Program. Radiation dose and kinetics expert for IRB, RDRC, RSC. Institution/government liaison - state legislature, FDA, EPA, NRC. Developed computerized DATA base management system for institutional records-hardware purchase and modification, software development. Supervised 8 person office and 300 K budget. Instructor-residents, technologists, under graduate, and graduate students in physics. MR, mathematics, health physics. Research and development NMR phantom, NMR flow, receptor binding/isolated heart (NIH NS grant - contributing author), mathematical modeling C-11, F-18, O-15 compounds for regional flow and metabolism, SPECT imaging and conjugate counting for pediatric dose models.

1977 to 1981  
Assistant Professor  
Radiology

Pharmacokinetic models for metabolism, flow, receptor binding. Computer Programming of Varian, Eclipse, Radiology TRS-80, M-6802 for parameter estimates of error analysis and dosimetry. Evaluate detection inhomogeneties on tomographic images. Prepared lecture series for residents, technologists, allied health students

1974 to 1977  
Research Assistant  
Washington University  
Mallinckrodt Institute  
Radiology

Developed Fast coincidence detection system including dead time/detection efficiency characteristics (Ph.D. Thesis), 3-D reconstruction formalisms. Determined: mass absorption coefficients of human soft tissue for initial EMI scanners. Total and region C.B.F., C.B.V., CRM-O2 using cyclotron produced O-15, C-11, F-18. Maintained and operated NaI, Ge, SiLi detectors fast low level pre-amp, discriminators, scalers, multi-channel analyzers, magnetic flow probe, multi-channel analyzers, magnetic flow probe, fluoro. Programmed LINC, Interdata 70, 80, 732. Interventional radiology and surgery in animals.

Lectures for residents and technologists. Developed source of monoenergetic X-rays 8-87 KeV.

1971 to 1973  
Teaching Assistant  
Washington University  
Department of Physics  
St. Louis, Missouri

Undergraduate laboratory/recitation sections  
mechanics, electro magnetism, mathematical  
modeling of structures, enzyme kinetics

1970 to 1971  
University of Rochester  
Strong Memorial Hospital

B.S. Physics, Senior Lab - Raleigh scattering, Mass  
Spec, NMR, special projects - single photon  
tomography, low temperature solid state - band gap  
measurement (GaAs), calculations of nuclear binding energy  
levels (IBM-360).

1967 to 1968  
Research Technician  
Sylvania Semiconductor  
Division Microwave R & D

Characterization of varactor diodes, Smith Chart  
calculations, devise bonding and welding. VSWR  
measurements, program control data and GE time  
share (NSF sponsorship) computer.

1965  
Research Technician  
Brandeis University

Chemical mutation rates - Electrophoresis, ultra  
centrifuge, thin layer chromatography

## CERTIFICATION - ABR MEDICAL PHYSICS

### MEMBERSHIP

Full Member - AAPM SNM HPS

Chairman - Hazardous Materials Study Commission

AAPM Task Group in NMR phantom development,  
Chief - Slice selection group

### PUBLICATION

Averaging Error in NMR Slice Profile Measurements, M. Selikson, T. Fearson. Submitted to  
Magnetic Resonance in Medicine.

Comparison of Slice Profile Phantoms for NMR, M. Selikson, T. Fearson, R. Shuping, D.B.  
Howe. Submitted to Medical Physics. (1987).

Averaging Error in NMR Slice Profile Measurements, Society of Nuclear Medicine 34th Annual  
Meeting, Toronto, Canada. (1987) M. Selikson, T. Fearson.

RIM Task Force Update #2: Defining an Approach to the Data Base Design Problem, CRSO 11th  
Biennial Conference, McGill University, Montreal, Canada. (1987) W. Schadt, M. Selikson, W.  
Weber, R. Zoon, S. Shanks, J. Bowman.

Use of  $^{99m}\text{Tc}$  For Calibrating Survey Meters, M. Selikson, N. McElroy. Health Physics,  
Volume 52, No #1. January (1987).

Letters to the Editor, Reply on Errors in Methods for Measuring GIMR, Journal of Nuclear Medicine, Volume 25, No. 1. (1984)

Use of  $^{99m}\text{Tc}$  For Calibrating Survey Meters in Academic Medical Facilities, Ninth Biennial Conference of Campus Radiation Safety Officers, Columbia, Missouri. (1983) S. Mathews, M. Selikson.

Preparation of Low Level Radioactive Liquid Scintillation Waste for Release into Sanitary Sewerage Systems, Health Physics Society Annual Meeting, Baltimore, Maryland. (1983).

Evaluation of the WHITLOCK Tritium meter, Health Physics Annual Meeting, Baltimore, Maryland. (1983) M. Selikson, G. Good, T. Lynch.

Continuous Infusion Method for Determining Local Cerebral Metabolic Rate in Man, Society of Nuclear Medicine 30th Annual Meeting, St. Louis, Missouri. (1983) M. Selikson, J. Frost.

Letter to the Editor In Vivo Methods for Measuring Regional Glucose Metabolic Rate (GIMR), M. Selikson, Journal of Nuclear Medicine, Vol. 24, No. 4. (1983).

Continuous Administration of Short Lived Isotopes for Evaluating Dynamic Parameters, M. Selikson, J. Eichling. Physics in Medicine & Biology, Volume 27, Issue 11. (1982).

Continuous Administration of Short Lived Isotopes for Evaluating Dynamic Parameters, Third World Congress of Nuclear Medicine and Biology, Paris, France. August (1982) M. Selikson, J. Eichling.

Exponential Infusions of Short Lived Isotopes to Evaluate rCBF and Regional Glucose Utilization, Society of Nuclear Medicine Annual Meeting, Miami, Florida. M. Selikson. June (1982).

Workshop on Instrumentation, Society of Nuclear Medicine Annual Meeting, Miami, Florida. June (1982).

Continuous Administration of Short Lived Isotopes, International Symposium on the Developing Role of Short Lived Radionuclides in Nuclear Medicine Practice, Washington, D.C. May (1982).

Mathematical Analysis of In vitro & In vivo Receptor Binding Radiotracers, M. Selikson. (Volume X Receptor Binding Radiotracers); Radiotracers in Biology & Medicine; CRC Press, W. Eckelman, Editor (1982).

Calculation of Binding Isotherms When Ligand Receptors are in Different Volumes of Distribution, Analytical Biochemistry, Vol. 107 (1980) M. Selikson, R. Gibson, W. Rehleman, and R. Reba.

A Residue Detection Method for the Determining of the Mean Transit Time of Positron Emitting, Recirculating Tracers Applied to the Case of  $\text{H}_2\text{O}^{15}$  Through the Brain of Rhesus Monkeys. Ph.D. Thesis, Washington University, St. Louis, Missouri. (1980) Advisors, J. Eichling, M. Raichle, F. Schull.

Three-Dimensional Reconstructive Tomography: Mathematical Formalism for Reconstructing a Three Dimensional Scalar Field Directly from onto a Plane. Presented at the International Symposium on Computed Tomography. Miami, Florida. (1978). M. Selikson.

Secondary Target System for the Production of Monoenergetic X-Rays from an X-Ray Generator. "Proceedings of Radiation Research". April 30, 1973. E. Hoffman, M. Phelps, M. Selikson.

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20 SEP 1988

(FOR LFMS USE)  
INFORMATION FROM LTS  
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BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 22120  
STATUS CODE: 0  
FEE CATEGORY: EX 1K  
EXP. DATE: 19920831  
FEE COMMENTS: 170.11(A)(4)  
.....

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: PENNSYLVANIA, UNIVERSITY OF  
RECEIVED DATE: 880920  
DOCKET NO: 7000123  
CONTROL NO.: 109599  
LICENSE NO.: SNM-114  
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: ~~\$360.00~~ \*  
CHECK NO.: ~~140227~~ (See 109598)

3. COMMENTS

\* See mail controls 109597  
and 109598

SIGNED R. J. Brown  
DATE 88/09/26

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1 1)

1. FEE CATEGORY AND AMOUNT: EX 1K **FEE-EXEMPT**

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR: 170.11(A)(4)  
AMENDMENT \_\_\_\_\_  
RENEWAL \_\_\_\_\_  
LICENSE \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

SIGNED J. Kimberly  
DATE 07/27/88