



Cardinal Health  
Nuclear Pharmacy Services  
7000 Cardinal Place  
Dublin, OH 43017  
614.757.5000 main  
800.234.8701 toll free

cardinalhealth.com

Br. J

August 28, 2013

Licensing Assistance Team  
U.S. NRC, Region I DNMS  
2100 Renaissance Blvd.  
King of Prussia, PA 19406

03038569  
MID RLJ

Re: Amendment Request for Radioactive Materials License 34-31473-02, Cardinal Health  
PR 120, Inc., Guaynabo, Puerto Rico.

REC'D 10904 13 AM 1033

Licensing:

Cardinal Health 414, LLC and Cardinal Health P.R. 120, Inc. (FKA Borschow Hospital & Medical Supplies, Inc.), hereafter Cardinal Health, requests an amendment for the above referenced radioactive materials license to add Jeremy A. Erxleben, R.Ph. as an Authorized Nuclear Pharmacist. Documentation of training is enclosed.

If you have any questions regarding this request, please contact Dan Hill at 614.757.5074.

Sincerely,

Willie Regits, Ph D.  
Corporate Radiation Safety Officer  
Director, Health Physics  
Nuclear Pharmacy Services

/dh

Encl: Training Documents  
Original + 1 copy

cc: Alexis Gomez, PRSO, Loc. 7650  
Wayne Boudreaux  
License File 7650 (3)

581666  
NMSS/RGN1 MATERIALS-002



**CardinalHealth**

## DOCUMENTATION OF AUTHORIZED NUCLEAR PHARMACIST TRAINING

The training outline in the Authorized Nuclear Pharmacist Guideline has been completed. The Pharmacist is qualified to assume the duties and responsibilities outlined in the guideline.

I hereby certify that the above training has been satisfactorily completed and that the individual has achieved a level of competency sufficient to independently operate a nuclear pharmacy.

Pharmacist Name (Print) Jeremy A. Eryleben

Pharmacist Signature: Jeremy A. Eryleben Date: 8/28/13

Preceptor Name (Print) Shirley J. Danner

Preceptor Signature: Shirley J. Danner Date: 08/28/13

Send this document with a completed **Radioisotope Handling Experience Form** and a photocopy of the **pharmacist's license** to the Quality and Regulatory Department.

### RADIOISOTOPE HANDLING EXPERIENCE

Name: Jeremy A. Erxleben

Date: 8/28/13

Document the actual use/handling of radioactive material under the supervision of an Authorized Nuclear Pharmacist.

ISOTOPE	SINGLE HIGHEST mCi ACTIVITY HANDLED	USE See key below: 1,2,3,4,5,6,7	EXPERIENCE Actual clock hours (Include date range of experience)	WHERE EXPERIENCE GAINED
Co-57	5.3 mCi	1, 2	5/9 - 5/10	Cardinal Health San Juan P. R Loc # 7650
Cs-137	194.9 µCi	1, 2	5/13 - 5/31	
F-18			6/3 - 6/28	
Ga-67	25 mCi	1, 3, 4, 5	7/1 - 7/3, 7/5	
I-123			7/8 - 8/2	
I-131	200 mCi	1, 3, 4, 5, 6		
In-111			8/5 - 8/8	
Mo-99	19 Ci	1, 3, 4, 5, 7	8/19 - 8/23	
Tc-99m	15 Ci	1, 2, 3, 4, 5, 6, 7	8/26 - 8/27	
Tl-201	20 mCi	1, 3, 4, 5		
Xe-133			Total 536 hrs.	
Y-90				

Key for "Use": the number, or numbers, entered under "Use" should correspond to the handling experience for each isotope.

1. Ordering, shipping, receiving radioactive materials and performing related radiation surveys
2. Calibrating, using and performing checks for proper operation of dose calibrators, scintillation detectors, survey meters, and, if appropriate, instruments used to measure alpha- or beta-emitting radionuclides
3. Calculating, assaying and safely preparing dosages for patients or human research subjects
4. Using appropriate internal controls to avoid mistakes in the labeling and/or administration of by product material
5. Using procedures to prevent or minimize contamination and using proper decontamination procedures
6. Learning emergency procedures to handle and contain spilled materials safely, including related decontamination procedures, surveys, and wipe tests
7. Eluting Tc-99m from generator systems, assaying the eluate for Tc-99m and for Mo-99 contaminations, and processing the eluate with reagent kits to prepare Tc-99m labeled radioactive drugs

Form Updated 08/11

TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES\*

Trainee: Jeremy Erleben

Date issued: August 21, 2013

Location of Training	Date(s) of Attendance	Nuclear Pharmacy Certificate Program	Total Clock Hours of Course	Breakdown of Course Content in Clock Hours				
				Radiation Physics & Instrumentation	Radiation Protection	Math Pertaining to Radioactivity	Radiation Biology	Radio-pharmaceutical Chemistry
Purdue University	June 2013 - August 2013	DVD-Workbook	150	51	33	13	21	32
	August 2013	On-Site	65	34	13	10	0	8
Total Hours Received			<b>215</b>					
Hourly breakdown by topic				85	46	23	21	40

\* This form is representative of that which is used to apply for an NRC license amendment for an authorized user.

Director of Nuclear Pharmacy Training Programs:

*Kara Weatherman*

Kara Duncan Weatherman, PharmD, BCNP, FAPhA  
 Clinical Assistant Professor of Pharmacy Practice  
 Purdue University  
 Nuclear Pharmacy Programs

ESTADO LIBRE ASOCIADO DE PUERTO RICO  
Commonwealth of Puerto Rico  
DEPARTAMENTO DE SALUD  
Department of Health

144736

OFICINA DE REGLAMENTACION Y CERTIFICACION  
Office of Regulation and Certification  
DE PROFESIONALES DE LA SALUD  
of Health Professionals  
CERTIFICADO DE REGISTRO  
(REGISTRY CERTIFICATE)

NOMBRE (NAME)	JEREMY ERXLIBEN HAUGHTON
PROFESIÓN (PROFESSION)	Farmacéutico (a)
NÚM. DE LICENCIA (LICENSE NO.)	5468
NÚM. DE REGISTRO (REGISTRY NO.)	135843
VÁLIDO DESDE (VALID FROM)	17/AGO/2013
VENCE EN (DUE DATE)	16/AGO/2016

CERTIFICAMOS QUE ESTE PROFESIONAL CUMPLIÓ CON EL REQUISITO ESTABLECIDO POR LA  
(WE CERTIFY THAT THIS PROFESSIONAL HAS COMPLIED WITH REQUISITES ESTABLISHED)

LEY NÚM. 11 DE 23 DE JUNIO DE 1976 SEGÚN ENMENDADA.  
(BY ACT NO. 11 OF JUNE 23, 1976 AS AMENDED)

LA LICENCIA DEBERÁ RECERTIFICARSE A LA FECHA DE VENCIMIENTO O ANTES.  
(THE LICENSE MUST BE RECERTIFY THE DATE DUE OR BEFORE)

DADA EN SAN JUAN, PUERTO RICO HOY. 22 de julio del 2013  
(GIVEN IN SAN JUAN, PUERTO RICO ON)



  
FIRMA AUTORIZADA (AUTHORIZED SIGNATURE)

NO TRANSFERIBLE (NON TRANSFERABLE)

ADVERTENCIA: CUALQUIER ALTERACION O BORRADURA CANCELA ESTA CERTIFICACIÓN.  
ANY ALTERATION OR ERASURE VOIDS THIS CERTIFICATION.  
ESTE DOCUMENTO NO ES TRANSFERIBLE / THIS DOCUMENT IS NOT TRANSFERABLE.

201307222016081688247



COLEGIO DE FARMACEUTICOS DE PUERTO RICO

PO Box 360206, San Juan, P. R. 00936-0206 • Tel. 787.753.7157 • Fax 787.759.9793

26 de junio de 2013

### Certificación de Colegiación

2013 - 2014

Se certifica que el licenciado JEREMY A ERXLEBEN con  
número de licencia 005468 es miembro activo del Colegio de Farmacéuticos  
de Puerto Rico.

Esta certificación vence el 30 de junio de 2014

Lcda. Milagros Morales  
Directora Ejecutiva



Sello Oficial



# THE UNIVERSITY OF IOWA

ON THE RECOMMENDATION OF THE FACULTY OF THE

## College of Pharmacy

AND UNDER THE AUTHORITY OF THE BOARD OF REGENTS  
THE UNIVERSITY OF IOWA HAS CONFERRED THE DEGREE OF

## Bachelor of Science in Pharmacy

UPON

PERSONAL INFORMATION WAS REMOVED  
BY NRC. NO COPY OF THIS INFORMATION  
WAS RETAINED BY THE NRC.

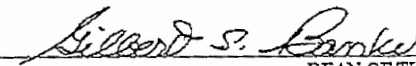
## Jeremy Aaron Trxleben

WHO HAS HONORABLY FULFILLED ALL THE REQUIREMENTS PRESCRIBED  
BY THE UNIVERSITY FOR THIS DEGREE  
AWARDED AT THE UNIVERSITY AT IOWA CITY IN THE STATE OF IOWA  
THIS [REDACTED]

  
PRESIDENT OF THE STATE BOARD OF REGENTS



  
PRESIDENT OF THE UNIVERSITY

  
DEAN OF THE COLLEGE

# NUCLEAR PHARMACY CERTIFICATE PROGRAM

## *Synopsis of Clock Hours of Training*

*Jeremy Erxleben  
Certificate Program #80  
Campus session: August 2013*

College of Pharmacy  
Department of Pharmacy Practice  
Nuclear Pharmacy Programs  
Purdue University  
West Lafayette, Indiana 47907

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## Nuclear Pharmacy Certificate Program Outline:

### Contents:

1. Program Concept
2. Synopsis of Clock Hours of Training
3. DVD and Workbook (Self-Study Portion) Clock Hours
4. Campus Portion Laboratory and Lecture Clock Hours
5. Instructional Staff

### Abbreviations Used:

RPI:	Radiation Physics / Instrumentation
RP:	Radiation Physics
MA:	Math
RB:	Radiation Biology
RC:	Radiochemistry

## Nuclear Pharmacy Certificate Program Concept

The College of Pharmacy at Purdue University offers a Certificate Program in Nuclear Pharmacy. The goal of the certificate program is to provide fundamental information to post-graduate pharmacists that will serve as a foundation for attaining competency as practitioners in nuclear pharmacy. The program follows the guidelines for nuclear pharmacy training prepared by nuclear pharmacists in the American Pharmaceutical Association, Section on Nuclear Pharmacy Practice.

This student completed the videotaped distance learning portion of the certificate program. This training module utilizes self-study concepts, including lectures on videotape and correlated reading assignments. The nuclear pharmacy manager, or other qualified nuclear pharmacist at the practice site, serves as the clinical instructor and mentor for the pharmacist in training. This portion is self-paced by the trainee with regular examinations returned to Purdue to assist in monitoring the learning process.

August 21, 2013

Jeremy Erxleben  
Cardinal Health NPS  
International Distribution Center  
Road 165 km 2.4 Building #10-local B  
Guaynabo, Puerto Rico 00965-6211

Dear Jeremy,

We are pleased to provide the enclosed certificate to recognize formally your completion of the Purdue University Nuclear Pharmacy Certificate Program. You have successfully completed all requirements of both the distance and on-campus components of the program as set forth by the Nuclear Regulatory Commission and Purdue University. We enjoyed the brief opportunity to share our knowledge from the world of academia. We wish you the very best for a gratifying and successful professional career.

As you continue on in your career, please do not hesitate to let us know if we can be of any assistance to you – we consider you part of the "Purdue family" and we look forward to hearing from you in the future!

Sincerely,

*Kara D. Weatherman*

Kara Duncan Weatherman, PharmD, BCNP, FAPhA  
Clinical Assistant Professor of Pharmacy Practice  
Nuclear Pharmacy Programs  
Purdue University



*Nuclear Pharmacy Programs, Department of Pharmacy Practice*

PURDUE UNIVERSITY

WEST LAFAYETTE, INDIANA

COLLEGE OF PHARMACY  
DEPARTMENT OF PHARMACY PRACTICE  
NUCLEAR PHARMACY PROGRAMS

THIS CERTIFICATE IS AWARDED TO

*Jeremy Trxleben*

AS EVIDENCE OF COMPLETION OF THE

NUCLEAR PHARMACY CERTIFICATE PROGRAM

*August 21, 2013*

*Harv D. Weatherman*

Director of Nuclear Pharmacy Training Programs

**Nuclear Pharmacy Certificate Program**  
**DVD and Workbook (Self-Study Portion) Clock Hours**

DVD	Instructor	Hours
Physics and Overview Disc 1-4	Dr. Stanley M. Shaw	RP/I: 11 RP: 4 MA: 1
Radiation Protection Disc 1-2	Dr. Paul Ziemer	RP: 8
Instrumentation Disc 1	Dr. Kara Weatherman	RP/I: 4
Radiopharmaceuticals Disc 1-3	Dr. Kara Weatherman	RP: 3 RB: 3 RC: 6
Math Review Disc 1	Dr. Kara Weatherman	MA: 4
Radionuclide Generators Disc 1	Ms. C. Anne Smith	RP/I: 2 MA: 2
Kit Preparation Disc 1	Dr. Kara Weatherman	MA: 4
Quality Control Disc 1	Ms. C. Anne Smith	RP/I: 2 MA: 1 RC: 1
Radiopharmaceutical Formulations (Disc 1)	Mr. James Ponto	RP/I: 1 MA: 1 RC: 2
Health Physics and Recordkeeping (Disc 1)	Dr. Brigette McGhee	RP/I: 2 RP: 2
Radiation Biology Disc 1-3	Dr. Stanley M. Shaw	RP/I: 3 RB: 9
Late Effects of Ionizing Radiation (Disc 1)	Dr. William R. Widmer	RP/I: 1 RB: 3
Radiation Safety in Pregnant and Breastfeeding Patients (Disc 1)	Mr. James Ponto	RP/I: 1 RP: 3
Adverse Drug Reactions (Disc 1)	Mr. James Ponto	RP/I: 1 RP: 2 RB: 1
Radiopharmaceutical Updates (Disc 1-3)	Dr. Richard Kowalsky	RP/I: 9 RB: 3
Blood Pool Imaging (Disc 1)	Dr. Ronald Cahalan	RP/I: 1 MA: 1 RC: 2
Clinical PET	Dr. Laura Boles Ponto	RP/I: 1 RP: 1 RC: 2
Nuclear Pharmacy Regulations (Disc 1-2)	Dr. Stanley M. Shaw	RP: 8
Radiopharmaceutical Chemistry (Disc 1-4)	Dr. Mark A. Green	RC: 16

**Nuclear Pharmacy Certificate Program  
On-Campus Portion Clock Hours**

Session	Instructor	
On-Campus portion:	Dr. Kara Weatherman	RP/I: 34 RP: 13 MA: 10 RB: 0 RC: 8

**Nuclear Pharmacy Certificate Program  
Instructional Staff**

Dr. Stanley M. Shaw, Ph.D.  
Professor of Nuclear Pharmacy  
Purdue University  
West Lafayette, Indiana 47097

Dr. Paul Ziemer, Ph.D.  
Professor Emeritus of Health Physics  
Purdue University  
West Lafayette, Indiana 47097

Dr. Kara Weatherman, PharmD, BCNP, FAPhA  
Assistant Professor of Nuclear Pharmacy  
Purdue University  
West Lafayette, Indiana 47097

Ms. C. Anne Smith, M.S., B.C.N.P.  
Nuclear Pharmacy Program Director  
Purdue University  
West Lafayette, IN 47907

Mr. James A. Ponto, M.S., B.C.N.P.  
Division of Nuclear Medicine  
University of Iowa Hospitals and Clinics  
Iowa City, Iowa 52242

Brigette McGhee  
Staff Pharmacist  
Central Pharmacy Services, Inc  
Jacksonville, FL

Dr. William R. Widmer, D.V.M.  
Associate Professor of Diagnostic Imaging  
Department of Veterinary Clinical Sciences  
School of Veterinary Medicine  
Purdue University  
West Lafayette, Indiana 47907

Dr. Richard J. Kowalsky, PharmD, BCNP, FAPhA  
Associate Professor Pharmacy and Radiology  
University of North Carolina  
Chapel Hill, North Carolina 27599

Dr. Ronald Callahan, PhD  
Harvard Medical School  
- Associate Professor of Radiology  
Massachusetts General Hospital  
- Director of Nuclear Pharmacy  
Boston, Massachusetts 02114

Dr. Laura Boles Ponto, PhD  
Division of Nuclear Medicine  
University of Iowa Hospitals and Clinics  
Iowa City, Iowa 52242

Dr. Mark A Green, PhD  
Professor of Industrial and Physical Pharmacy  
Division of Nuclear Pharmacy  
Purdue University  
West Lafayette, Indiana 47907

This is to acknowledge the receipt of your letter/application dated

8/28/13, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment (34-31473-02 MD)  
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 581666.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.