**PART I – TRAINING AND EXPERIENCE**

*Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the nuclear pharmacy uses.*

1. **Board Certification**
   a. Provide a copy of the board certification.
   b. Skip to and complete Part II Preceptor Attestation.

2. **Structured Educational Program for Proposed Authorized Nuclear Pharmacist**
   a. Classroom and Laboratory Training.

<table>
<thead>
<tr>
<th>Description of Training</th>
<th>Location of Training</th>
<th>Clock Hours</th>
<th>Dates of Training*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation physics and instrumentation</td>
<td>Purdue University West Lafayette, IN 47907</td>
<td>85</td>
<td>July 2011 - Sep 2011</td>
</tr>
<tr>
<td>Radiation protection</td>
<td>Purdue University West Lafayette, IN 47907</td>
<td>46</td>
<td>July 2011 - Sep 2011</td>
</tr>
<tr>
<td>Mathematics pertaining to the use and measurement of radioactivity</td>
<td>Purdue University West Lafayette, IN 47907</td>
<td>23</td>
<td>July 2011 - Sep 2011</td>
</tr>
<tr>
<td>Chemistry of byproduct material for medical use</td>
<td>Purdue University West Lafayette, IN 47907</td>
<td>40</td>
<td>July 2011 - Sep 2011</td>
</tr>
<tr>
<td>Radiation biology</td>
<td>Purdue University West Lafayette, IN 47907</td>
<td>21</td>
<td>July 2011 - Sep 2011</td>
</tr>
</tbody>
</table>

**Total Hours of Training:** 215
2. **Structured Educational Program for Proposed Authorized Nuclear Pharmacist** (continued)

b. Supervised Practical Experience in a Nuclear Pharmacy.

<table>
<thead>
<tr>
<th>Description of Experience</th>
<th>Location of Experience/License or Permit Number of Facility</th>
<th>Clock Hours</th>
<th>Dates of Experience*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping, receiving, and performing related radiation surveys</td>
<td>PharmaLogic MT 4404 Expressway Road, Ste 109 Missoula, MT 59808 NRC Lic# 09-29398-01MD</td>
<td>90</td>
<td>July 5, 2011 - October 7, 2011</td>
</tr>
<tr>
<td>Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and, if appropriate, instruments used to measure alpha- or beta-emitting radionuclides</td>
<td>PharmaLogic MT 4404 Expressway Road, Ste 109 Missoula, MT 59808 NRC Lic# 09-29398-01MD</td>
<td>122</td>
<td>July 5, 2011 - October 7, 2011</td>
</tr>
<tr>
<td>Calculating, assaying, and safely preparing dosages for patients or human research subjects</td>
<td>PharmaLogic MT 4404 Expressway Road, Ste 109 Missoula, MT 59808 NRC Lic# 09-29398-01MD</td>
<td>240</td>
<td>July 5, 2011 - October 7, 2011</td>
</tr>
<tr>
<td>Using administrative controls to avoid medical events in administration of byproduct material</td>
<td>PharmaLogic MT 4404 Expressway Road, Ste 109 Missoula, MT 59808 NRC Lic# 09-29398-01MD</td>
<td>40</td>
<td>July 5, 2011 - October 7, 2011</td>
</tr>
<tr>
<td>Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures</td>
<td>PharmaLogic MT 4404 Expressway Road, Ste 109 Missoula, MT 59808 NRC Lic# 09-29398-01MD</td>
<td>57</td>
<td>July 5, 2011 - October 7, 2011</td>
</tr>
</tbody>
</table>

**Total Hours of Experience:** 549

Supervising Individual
Cynthia Tindall, PharmD

c. Go to and complete Part II Preceptor Attestation.
PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual’s preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each.

First Section
Check one of the following:

Board Certification
☐ I attest that ________________

Name of Proposed Authorized Nuclear Pharmacist
__________________________

has satisfactorily completed the requirements in 10 CFR 35.55(a)(1), (a)(2), and (a)(3) and has achieved a level of competency sufficient to function independently as an authorized nuclear pharmacist.

OR

Structured Educational Program
☑ I attest that ________________

Name of Proposed Authorized Nuclear Pharmacist
__________________________

has satisfactorily completed a 700-hour structured educational program consisting of both 200 hours of classroom and laboratory training, and practical experience in nuclear pharmacy, as required by 10 CFR 35.55(b)(1) and has achieved a level of competency sufficient to function independently as an authorized nuclear pharmacist.

Second Section
Complete the following for preceptor attestation and signature:

I am an Authorized Nuclear Pharmacist for ________________

Name of Preceptor
__________________________

License/Permit Number
09-29398-01MD

Name of Preceptor
Cynthia Tindall

Signature
__________________________

Telephone Number
(406) 830-3421

Date
10/07/2011

Name of Nuclear Pharmacy or Medical Facility
PharmaLogic MT 13!
TO: Renae Hamilton
FROM: Kara Duncan Weatherman, PharmD, BCNP, FAPhA
DATE: September 28, 2011
SUBJECT: Nuclear Pharmacy Certificate Program Completion

Renae –

Congratulations on completing the Purdue University Nuclear Pharmacy Certificate Program! Enclosed are a number of documents that will be necessary as you apply for Authorized Nuclear Pharmacist status:

- COMPLETION LETTER: this is an official letter (on Purdue letterhead) stating that you have successfully completed the training program and met all of the requirements that have been set forth by both the Nuclear Regulatory Commission and Purdue University. I generally send two original copies - one for submission and one for your records.

- FINAL CERTIFICATE: a copy of this can also be included in your request for AU status and if you so desire, can be framed for your personal use.

- SYNOPSIS OF CLOCK HOURS: this document summarizes the hourly breakdown of your training in the categories specified by the U.S. Nuclear Regulatory Commission. Please note, page 5 of the document, entitled "Training Received in Basic Radioisotope Handling Techniques", summarizes the total breakdown of course content for both the distance and campus sessions in chart form. This document contains my signature as Director of Nuclear Pharmacy Training Programs.

Keep in mind, Purdue certifies your 200 hours of didactic training only - you will need to have an Authorized Nuclear Pharmacist from your facility (or from previous training experiences if you are counting hours earned during a summer internship or other experience) submit an affidavit indicating 500 hours of practical experience. Please let me know if we can be of any additional assistance in this process. It is usually helpful if you make copies of all of the documents and keep them in your personal files in case you change jobs and need to resubmit your AU status to a different state. I also keep electronic files of all paperwork associated with the program. Just give us a call if you ever need them.

In conclusion, I would like to wish you the best as you embark on this new phase of your career. Nuclear pharmacy is a fantastic area of practice, and hopefully, you will find that you enjoy it as much as I have in my career. I would encourage you to continue your education in nuclear medicine and nuclear pharmacy. An excellent method is to become active in your local nuclear medicine technology organization or to become a member of the American Pharmacist Association's section on nuclear pharmacy. Purdue's Certificate Program has given you a foundation that you can build on, and our faculty remains available to you if you have questions at a later date. Please do not hesitate to contact us if we can be of ANY help.

Enclosures
PURDUE UNIVERSITY
WEST LAFAYETTE, INDIANA

COLLEGE OF PHARMACY
DEPARTMENT OF PHARMACY PRACTICE
NUCLEAR PHARMACY PROGRAMS

THIS CERTIFICATE IS AWARDED TO

Renae Hamilton

AS EVIDENCE OF COMPLETION OF THE

NUCLEAR PHARMACY CERTIFICATE PROGRAM

September 28, 2011

Kara D. Weatherman
Director of Nuclear Pharmacy Training Programs
Synopsis of Clock Hours of Training

Renae Hamilton
Certificate Program #74
Campus session: August, 2011

College of Pharmacy
Department of Pharmacy Practice
Nuclear Pharmacy Programs
Purdue University
West Lafayette, Indiana 47907
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 School of Pharmacy and Pharmacal Sciences 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.
TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES*

Trainee: RENAE HAMILTON  
Date issued: SEPTEMBER 28, 2011

<table>
<thead>
<tr>
<th>Location of Training</th>
<th>Date(s) of Attendance</th>
<th>Nuclear Pharmacy Certificate Program</th>
<th>Total Clock Hours of Course</th>
<th>Radiation Physics &amp; Instrumentation</th>
<th>Radiation Protection</th>
<th>Math Pertaining to Radioactivity</th>
<th>Radiation Biology</th>
<th>Radio-pharmaceutical Chemistry</th>
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<tbody>
<tr>
<td>Purdue University</td>
<td>July 2011 - Sept. 2011</td>
<td>DVD-Workbook</td>
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<td>13</td>
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<td>August 2011</td>
<td>On-Site</td>
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<td><strong>Total Hours Received</strong></td>
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<tr>
<td><strong>Hourly breakdown by topic</strong></td>
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<td>85</td>
<td>46</td>
<td>23</td>
<td>21</td>
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</tbody>
</table>

* 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 D. Weatherman, PharmD, BCNP, FAPhA  
Clinical Assistant Professor of Pharmacy Practice  
Purdue University  
Nuclear Pharmacy Programs
## Nuclear Pharmacy Certificate Program
### DVD and Workbook (Self-Study Portion) Clock Hours

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

<table>
<thead>
<tr>
<th>Session</th>
<th>Instructor</th>
<th>RP/I: 34</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus portion:</td>
<td>Dr. Kara Weatherman</td>
<td>RP: 13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MA: 10</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>RC: 8</td>
</tr>
</tbody>
</table>

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 of Radiology
University of North Carolina
Chapel Hill, North Carolina 27599

Dr. Ronald Callahan, PhD
Harvard Medical School
- Associate Professor of Radiology
- Director of Nuclear Pharmacy
Massachusetts General Hospital
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 10/7/11, and to inform you that the initial processing, which includes an administrative review, has been performed.

☐ There were no administrative omissions. Your application will be 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:

The action you requested is normally processed within 90 days.

☐ 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 576216. When calling to inquire about this action, please refer to this mail control number. You may call me at 817-860-8103.

Sincerely,

[Signature]

Licensing Assistant

NRC FORM 532 (RIV) (10-2006)
BETWEEN:
Accounts Receivable/Payable
and
Regional Licensing Branches

[ FOR ARPB USE ]
INFORMATION FROM LTS

Program Code: 02500
Status Code: Pending Amendment
Fee Category: 3C
Exp. Date: 01/31/2021
Fee Comments:
Decom Fin Assur Reqd: N

License Fee Worksheet - License Fee Transmittal

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: PHARMALOGIC MT. INC.
   Received Date: 10/14/2011
   Docket Number: 3038401
   Mail Control Number: 576216
   License Number: 09-29398-01MD
   Action Type: Amendment

2. FEE ATTACHED
   Amount: 
   Check No.: 

3. COMMENTS

   Signed: ____________________________
   Date: 10-18-2011

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered)

1. Fee Category and Amount: 

2. Correct Fee Paid. Application may be processed for:
   Amendment: 
   Renewal: 
   License: 

3. OTHER: 

   Signed: 
   Date: 

(Handwritten signature: Colleen Munneller)