

Yun Wang, Ph.D., DABR  
Radiation Safety Officer  
Central Indiana Cancer Centers  
1346 East County Line Rd.  
Indianapolis, IN 46227

July 7, 2010

U.S. NRC Region III  
2443 Warrenville Road  
Suite 210  
Lisle, Illinois 60532-4352

Dear Sir/Madam:

I would like to add Tracy R. Price, M.D. on our NRC license (our NRC license # is 13-32241-01). She is hired as radiation oncologist in our organization. The filled NRC form 313A (AUS) and the supporting materials are enclosed.

If you have any question, Please call me at (317) 250-7435

Yours sincerely,



Yun Wang, Ph.D., DABR  
Radiation Safety Office for Central Indiana Cancer Centers

RECEIVED JUL 13 2010

**AUTHORIZED USER TRAINING AND EXPERIENCE  
AND PRECEPTOR ATTESTATION**  
(for uses defined under 35.400 and 35.600)  
[10 CFR 35.490, 35.491, and 35.690]

APPROVED BY OMB: NO. 3150-0120  
EXPIRES: 3/31/2012

Name of Proposed Authorized User

Tracy R Price, M.D.

State or Territory Where Licensed

Indiana Physician License 01067807A

Requested



35.400 Manual brachytherapy sources



35.600 Teletherapy unit(s)

Authorization(s)



35.400 Ophthalmic use of strontium-90



35.600 Gamma stereotactic radiosurgery unit(s)

(check all that apply)



35.600 Remote afterloader unit(s)

**PART I -- TRAINING AND EXPERIENCE**  
(Select one of the three methods below)

\* 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 uses checked above.

**1. Board Certification**

- a. Provide a copy of the board certification.
- b. For 35.600, go to the table in 3.e. and describe training provider and dates of training for each type of use for which authorization is sought.
- c. Skip to and complete Part II Preceptor Attestation.

**2. Current 35.600 Authorized User Requesting Additional Authorization for 35.600 Use(s) Checked Above**

- a. Go to the table in section 3.e. to document training for new device.
- b. Skip to and complete Part II Preceptor Attestation.

**3. Training and Experience for Proposed Authorized User**

- a. Classroom and Laboratory Training  35.490  35.491  35.690

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation	Indiana University School of Medicine Department of Radiation Oncology 535 Barnhill Drive RT 041 Indianapolis IN 46202	137	July 1, 2006 to June 30, 2010
Radiation protection	Indiana University School of Medicine Department of Radiation Oncology 535 Barnhill Drive RT 041 Indianapolis IN 46202	44	July 1, 2006 to June 30, 2010
Mathematics pertaining to the use and measurement of radioactivity	Indiana University School of Medicine Department of Radiation Oncology 535 Barnhill Drive RT 041 Indianapolis IN 46202	4	July 1, 2006 to June 30, 2010
Radiation biology	Indiana University School of Medicine Department of Radiation Oncology 535 Barnhill Drive RT 041 Indianapolis IN 46202	91	July 1, 2006 to June 30, 2010
<b>Total Hours of Training:</b>		<b>276</b>	

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**3. Training and Experience for Proposed Authorized User (continued)**

b. Supervised Work and Clinical Experience for 10 CFR 35.490 (If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this page.)

Supervised Work Experience		Total Hours of Experience: 528	
Description of Experience Must Include:	Location of Experience/License or Permit Number of Facility	Confirm	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Checking survey meters for proper operation	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Preparing, implanting, and safely removing brachytherapy sources	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Maintaining running inventories of material on hand	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Using administrative controls to prevent a medical event involving the use of byproduct material	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Using emergency procedures to control byproduct material	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010

Clinical experience in radiation oncology as part of an approved formal training program	Location of Experience/License or Permit Number of Facility	Dates of Experience*
<b>Approved by:</b> <input checked="" type="checkbox"/> Residency Review Committee for Radiation Oncology of the ACGME <input type="checkbox"/> Royal College of Physicians and Surgeons of Canada <input type="checkbox"/> Committee on Postdoctoral Training of the American Osteopathic Association	Indiana University School of Medicine Department of Radiation Oncology NRC License No. 13-02752-03 Permit No. RONC01	July 1, 2006 to June 30, 2010
Supervising Individual <b>See attached list of AROPs, AMP's, RSO</b>	License/Permit Number listing supervising individual as an Authorized User <b>13-02752-03/RONC01</b>	

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**3. Training and Experience for Proposed Authorized User (continued)**

c. Supervised Clinical Experience for 10 CFR 35.491

Description of Experience	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Use of strontium-90 for ophthalmic treatment, including: examination of each individual to be treated; calculation of the dose to be administered; administration of the dose; and follow up and review of each individual's case history			
Supervising Individual		License/Permit Number listing supervising individual as an Authorized User	

d. Supervised Work and Clinical Experience for 10 CFR 35.690

- Remote afterloader unit(s)
  Teletherapy unit(s)
  Gamma stereotactic radiosurgery unit(s)

Supervised Work Experience		Total Hours of Experience: 593	
Description of Experience Must Include:	Location of Experience/License or Permit Number of Facility	Confirm	Dates of Experience*
Reviewing full calibration measurements and periodic spot-checks	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Preparing treatment plans and calculating treatment doses and times	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Using administrative controls to prevent a medical event involving the use of byproduct material	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Implementing emergency procedures to be followed in the event of the abnormal operation of the medical unit or console	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Checking and using survey meters	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010
Selecting the proper dose and how it is to be administered	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1, 2006 to June 30, 2010

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**3. Training and Experience for Proposed Authorized User (continued)**

d. Supervised Work and Clinical Experience for 10 CFR 35.690 (continued)

Clinical experience in radiation oncology as part of an approved formal training program	Location of Experience/License or Permit Number of Facility	Dates of Experience*
<b>Approved by:</b> <input checked="" type="checkbox"/> Residency Review Committee for Radiation Oncology of the ACGME <input type="checkbox"/> Royal College of Physicians and Surgeons of Canada <input type="checkbox"/> Committee on Postdoctoral Training of the American Osteopathic Association	Indiana University School of Medicine NRC License No. 13-02752-03 Permit Nos. RONC02 and RONC03	July 1, 2006 to June 30, 2010
Supervising Individual  See list of supervising AROPs, AMPs, RSO	License/Permit Number listing supervising individual as an Authorized User  13-02752-03/RONC02 and RONC03	

e. For 35.600, describe training provider and dates of training for each type of use for which authorization is sought.

Description of Training	Training Provider and Dates		
	Remote Afterloader	Teletherapy	Gamma Stereotactic Radiosurgery
Device operation	Nucletron AMP/RSO HDR: 11/15/06, 3/27/07, 7/25/08, 3/24/09, 3/30/10 LDR: 3/29/07, 3/24/08, 3/23/09, 3/8/10		
Safety procedures for the device use	Nucletron AMP/RSO HDR: 11/15/06, 3/27/07, 7/25/08, 3/24/09, 3/30/10 LDR: 3/29/07, 3/24/08, 3/23/09, 3/8/10		
Clinical use of the device	Authorized Users July 1, 2006 to June 30, 2010		
Supervising Individual. <i>If training provided by Supervising Individual (If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this page.)</i>  See list of supervising AROPs, AMPs, RSO		License/Permit Number listing supervising individual as an Authorized User  13-02752-03/RONC02 and RONC03	
Authorized for the following types of use: <input checked="" type="checkbox"/> Remote afterloader unit(s) <input type="checkbox"/> Teletherapy unit(s) <input type="checkbox"/> Gamma stereotactic radiosurgery unit(s)			

f. Provide completed Part II Preceptor Attestation.

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**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.

By checking the boxes below, the preceptor is attesting that the individual has knowledge to fulfill the duties of the position sought and not attesting to the individual's "general clinical competency."

**First Section**

Check one of the following for each requested authorization:

**For 35.490:**

**Board Certification**

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

35.490(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user of manual brachytherapy sources for the medical uses authorized under 10 CFR 35.400.

**OR**

**Training and Experience**

I attest that Tracy R Price, M.D. has satisfactorily completed the 200 hours of  
Name of Proposed Authorized User

classroom and laboratory training, 500 hours of supervised work experience, and 3 years of supervised clinical experience in radiation oncology, as required by 10 CFR 35.490(b)(1) and (b)(2), and has achieved a level of competency sufficient to function independently as an authorized user of manual brachytherapy sources for the medical uses authorized under 10 CFR 35.400.

**For 35.491:**

I attest that \_\_\_\_\_ has satisfactorily completed the 24 hours of  
Name of Proposed Authorized User

classroom and laboratory training applicable to the medical use of strontium-90 for ophthalmic radiotherapy, has used strontium-90 for ophthalmic treatment of 5 individuals, as required by 10 CFR 35.491(b), and has achieved a level of competency sufficient to function independently as an authorized user of strontium-90 for ophthalmic use.

**Second Section**

**For 35.690:**

**Board Certification**

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

35.690(a)(1).

**OR**

**Training and Experience**

I attest that Tracy R Price, M.D. has satisfactorily completed 200 hours of classroom  
Name of Proposed Authorized User

and laboratory training, 500 hours of supervised work experience, and 3 years of supervised clinical experience in radiation therapy, as required by 10 CFR 35.690(b)(1) and (b)(2).

**AND**

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**Preceptor Attestation (continued)**

**Third Section**

**For 35.690: (continued)**

I attest that Tracy R Price, M.D. has received training required in 35.690(c) for device  
Name of Proposed Authorized User  
operation, safety procedures, and clinical use for the type(s) of use for which authorization is sought, as  
checked below.

Remote afterloader unit(s)  Teletherapy unit(s)  Gamma stereotactic radiosurgery unit(s)

**AND**

**Fourth Section**

I attest that Tracy R Price, M.D. has achieved a level of competency sufficient to  
Name of Proposed Authorized User  
achieve a level of competency sufficient to function independently as an authorized user for:

Remote afterloader unit(s)  Teletherapy unit(s)  Gamma stereotactic radiosurgery unit(s)

**Fifth Section**

**Complete the following for preceptor attestation and signature:**

I meet the requirements in 10 CFR 35.490, 35.491, 35.690, or equivalent Agreement State requirements, as  
an authorized user for:

35.400 Manual brachytherapy sources  35.600 Teletherapy unit(s)

35.400 Ophthalmic use of strontium-90  35.600 Gamma stereotactic radiosurgery unit(s)

35.600 Remote afterloader unit(s)

Name of Preceptor	Signature	Telephone Number	Date
Mark Langer, M.D.		(317) 944-2524	6/17/2010

License/Permit Number/Facility Name  
NRC License No. 13-02752-03/RONC01, RONC02, RONC03/Indiana University Dept of Radiation Oncology



# Radionuclide Use Permit

**Authorization Number:** RONC01

**Issued To:** Peter Johnstone, M.D.

**Issued Date:** 12/13/2005

**Expiration Date:** 12/31/2011

**Amended Date:** 09/19/2006

In accordance with the statements and representatives made in your application for Project Approval, Project Amendment, and/or your Progress Report, an approval authorizing the below named individuals to order, possess, and use the materials or items designated below in accordance with NRC regulations, state regulations, University regulations, and such other conditions as are herein specified is hereby issued.

## 1. Personnel / Status

### Approved

David Andolino, RES  
Andrew Chang, M.D.  
Vadim Moskvin  
Christopher Watson, RES

Robert Barriger, (RES)  
David Chang, RES  
Tracy Price, (RES)  
Jennifer Zook, (RES)

Minsong Cao  
Chris Huff,  
Ronald Shapiro, RES

### Auth Med Physicist

Indra Das, Ph.D.  
Xiaoyi Lu

Colleen DesRosiers, Ph.D.  
Eric Slessinger

Phil Dittmer, Ph.D.

### Auth RO Physician

Janna Andrews, M.D.  
Mark Henderson, M.D.  
Mark Langer, MD

Higinia Cardenes, MD  
Peter Johnstone, M.D.  
James Morphis, MD

Achilles Fakiris, MD  
Song-Chu Ko, MD

### Med Physics Students

John Neylon,

### Nurse

Robert Bittelmeyer, RN  
Margie Morales, RN

Leona Mara, RN

Debbie Miller, RN

### Rad Therapy Techs

Timothy Alfeldt,  
Melissa Claprod, RTT  
Genevie Karmo,  
Brian Overshiner, RTT  
Chad Stearns, RTT

Brandon Alyea, RTT  
John Connett, RTT  
Steffany Linskey, RTT  
Kent Overton, RTT  
Maria Walker, RTT

Jason Boruff, RTT  
Kim Epple, RTT  
Angela Meadors, RTT  
Matthew Russell,  
Christine Willard,

### RTT Students

Chad Brown,  
Maria Hagerman,  
Stephanie Kinsey,  
Thomas Olson,  
Jessica Stopher,

Caitlin Chalfin,  
Paige Haverstick,  
Katlin Kuhn,  
Michele Piercy,  
Kristina Wendholt,

Robert Davenport,  
Alyse Hoover,  
Lisa Leshner,  
Lauren Reddington,  
Michael Wise,

## 2. Locations of Use





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Indianapolis

# Radionuclide Use Permit

"Approved" - Received basic radiation safety instruction for working with and around radioactive material.

"Authorized RO Physician" - Physician meeting "authorized user" requirements as defined in 10CFR35 and approved by the Radionuclide Radiation Safety Committee (RRSC) for standard brachytherapy & P-32 treatments (unless otherwise noted).

"Authorized Med Physicist" - Medical physicist meeting the "authorized medical physicist" requirements as defined in 10CFR35 and approved by the Radionuclide Radiation Safety Committee (RRSC) for standard brachytherapy & P-32 treatments (unless otherwise noted).

"Nurse" - RO nurse who has received basic radiation safety instruction to work with patients receiving standard brachytherapy or P-32 treatments.

Personnel monitoring (whole body and ring) required when handling sealed sources.

Proper log-in and log-out procedures for sealed sources shall be followed in accordance with 10CFR35.

A direct radiation survey and visual source count shall be made and documented upon removal of sealed sources from patients.

A direct radiation survey shall be made in the room where sealed sources are implanted to assure no sources have been misplaced.

The Radiation Safety Office shall be notified when brachytherapy patients are to be loaded and transferred to hospital wards where the RSO would be responsible for direct radiation measurements.

A direct radiation survey shall be taken at the time of loading and removal of seeds when implanted in an operating room or DS Oral Surgery Suite to ensure no sources are lost.

Radiation survey meter is required.

The total activity for all brachytherapy sources shall not exceed 6000 mCi.

All equipment and areas utilized for cutting Ir-192 wire shall be wipe tested for removable contamination immediately following cutting procedures. Equipment and areas exceeding 200 dpm per 100 square centimeters shall be decontaminated, labeled and held for decay, or treated as radioactive waste.

This permit was originally under Ned Hornback, MD, Marcus Randall, MD, and James Morphis, MD.

All individuals involved in the delivery of standard brachytherapy shall review and follow the appropriate QMP.

Needles loaded with seeds may be stored in UH 0406 (OR Manager's Office) until they are used.

GliaSite Usage (3/11/03):

1. All individuals involved in GliaSite treatments shall receive vendor supplied training.
2. Written procedures for administration shall be modified and approved by the Radiation Safety Office following initial vendor supplied training.
3. Radiation Safety Staff members shall be present for administrations and removal of I-125 from GliaSite system for the first 5 patients (completed 4 as of 11/5/04). Additional Radiation Safety Staff member participation after 5 patients shall be at the discretion of the RSO.



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# Radionuclide Use Permit

**Authorization Number:** RONC02

**Issued To:** Peter Johnstone, M.D.

**Issued Date:** 12/19/2006

**Expiration Date:** 12/31/2010

**Amended Date:**

In accordance with the statements and representatives made in your application for Project Approval, Project Amendment, and/or your Progress Report, an approval authorizing the below named individuals to order, possess, and use the materials or items designated below in accordance with NRC regulations, state regulations, University regulations, and such other conditions as are herein specified is hereby issued.

## 1. Personnel / Status

### Approved

Greg Bartlett,  
Vadim Moskvin

Minsong Cao  
Lester Wessel

Marvene Ewing

### HDR AMP

Colleen DesRosiers, Ph.D.  
Eric Slessinger

Phil Dittmer, Ph.D.

Xiaoyi Lu

### HDR AROP

Janna Andrews, M.D.  
Mark Henderson, M.D.  
Mark Langer, MD

Higinia Cardenes, MD  
Peter Johnstone, M.D.

Achilles Fakiris, MD  
Song-Chu Ko, MD

### HDR MD

Mark McDonald, M.D.

### HDR MP Student

Chris Huff,

John Neylon,

### HDR Nurse

Robert Bittelmeyer, RN  
Margie Morales, RN

Leona Mara, RN  
Sharon Morphew, RN

Debbie Miller, RN  
Christer Zollicoffer, RN

### HDR Resident

David Andolino, RES  
Tracy Price, (RES)  
Jennifer Zook, (RES)

Robert Barriger, (RES)  
Ronald Shapiro, RES

David Chang, RES  
Christopher Watson, RES

## 2. Locations of Use

### Approved

RT 017

## 3. Nuclides / Chemical Forms / Exp. Limit / Poss. Limit

**Ir-192HD**                      10000                      20000

HDR source

## 4. Authorized Use

Interstitial and intracavity treatment of cancer.

Medical research and research and development as defined in 10CFR30.4(q).



# Radionuclide Use Permit

## 5. Conditions of Authorization

"Approved" - RO personnel up-to-date on initial and refresher training for the HDR unit. May only operate unit in emergency and non-treatment situations (e.g., calibration).

"HDR AMP" - "Authorized Medical Physicist" as defined in 10CFR35 and approved by RRSC for HDR who is up to date on initial and refresher training for the HDR unit.

"HDR AROP" - "Authorized User" as defined in 10CFR35 and approved by RRSC for HDR who is up-to-date on initial and refresher training for the HDR unit.

"HDR MD" - Radiation Oncology physician who is up-to-date on initial and refresher training for the HDR unit. This physician may be used to meet the requirements in 10CFR35 that a physician be in attendance during any HDR treatment.

"HDR Nurse" - Nurse who is up-to-date on initial and refresher training for the HDR unit.

"HDR Resident" - RO Resident who is up-to-date on initial and refresher training for the HDR unit. This physician may be used to meet the requirements in 10CFR35 that a physician be in attendance during any HDR treatment.

"HDR MP Student" - Medical physics student who is up-to-date on initial and refresher training for the HDR unit. This individual may operate unit in emergency and non-treatment situations (e.g., calibration).

Personnel monitoring (whole body and ring) required when utilizing high energy beta and/or gamma emitting radionuclides.

Radiation survey meter required.

Annual retraining for all operators is required.

The following checks shall be performed and documented prior to use of the HDR unit each day:

1. Verification of the proper operation of all interlocks.
2. Reproducibility of source positioning to within plus or minus 1 millimeter.
3. Verification of the proper operation of source position indicators.
4. Inspection of the guide tubes for kinks and/or other imperfections.
5. Verification with a check source that the radiation area monitor in the treatment room is functioning properly.

"General Operating Procedures" and "Emergency Procedures" shall be posted near the HDR unit operator console.

The operators manual shall be located at the operator console.

The HDR unit shall not be operated without appropriate CCTV observation of the patient.

The HDR room shall be secured when not in use or during the absence of Radiation Oncology personnel.

The key shall be removed from the HDR unit operators console when the unit is unattended.

When entering the treatment room, the HDR unit operator shall wear a radiation monitoring device which emits an audible warning when radiation is present or shall carry a portable survey instrument equipped with a speaker.

Full calibration of the HDR unit is required following each source replacement.

A direct radiation survey of all areas adjacent to the HDR unit room shall be performed following each source exchange.



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## Radionuclide Use Permit

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A leak test of the HDR source shall be performed at six month intervals, if not during the source exchange.

This permit was originally under Ned Hornback, MD, Marcus Randall, MD, and James Morphis, MD.

All checks and safety precautions shall be enforced on research projects as in therapy.

The QMP shall be read and followed.



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# Radionuclide Use Permit

**Authorization Number:** RONC03

**Issued To:** Peter Johnstone, M.D.

**Issued Date:** 12/13/2005

**Expiration Date:** 12/31/2011

**Amended Date:**

In accordance with the statements and representatives made in your application for Project Approval, Project Amendment, and/or your Progress Report, an approval authorizing the below named individuals to order, possess, and use the materials or items designated below in accordance with NRC regulations, state regulations, University regulations, and such other conditions as are herein specified is hereby issued.

## 1. Personnel / Status

### Approved

Minsong Cao  
Lester Wessel

Marvene Ewing

Vadim Moskvina

### LDR AMP

Colleen DesRosiers, Ph.D.  
Eric Slessinger

Phil Dittmer, Ph.D.

Xiaoyi Lu

### LDR AMP (refresh.only)

Indra Das, Ph.D.

### LDR AROP

Janna Andrews, M.D.  
Mark Henderson, M.D.  
Mark Langer, MD

Higinia Cardenes, MD  
Peter Johnstone, M.D.

Achilles Fakiris, MD  
Song-Chu Ko, MD

### LDR Nurse

Kim Barthel  
Jenelle Brooks  
Evan Casper,  
Sandra Ehl  
Mika Hill, RN  
Erin Knight,  
Jessica Oakerson, RN  
Jennifer Pruitt  
Laura Simpson  
Theresa Tonade,  
Nicole Wasik,

Sharon Berry  
Darlene Burks  
Jana Cuffel,  
Kayleigh Fredenburg,  
Rachel Jessie  
Jamie Lynch, RN  
Katherine Ploog  
Sue Roberts  
Amy Smith  
Rayta Trumble,  
Allison White, RN

Mary Braunagel  
EunJu Campbell  
Robyn Dickerson  
Kathy Heeger,  
Sharon Kemp  
Andrea Minor,  
Barb Price  
Sunhee Seo  
Lisa Taylor,  
Brittany Walker,

### LDR Resident

David Andolino, RES  
Jeffrey Forquer, (RES)  
Christopher Watson, RES

Robert Barriger, (RES)  
Tracy Price, (RES)  
Jennifer Zook, (RES)

David Chang, RES  
Ronald Shapiro, RES

### LDR RSO

Kathi Haldeman  
Carra Roberts

Jeffrey Mason

Mack Richard, M.S.



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Indianapolis

# Radionuclide Use Permit

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2. Locations of Use

**Approved**

UH 2829

UH 2852

3. Nuclides / Chemical Forms / Exp. Limit / Poss. Limit

Cs-137LD

0

960

sources

4. Authorized Use

Intracavitary and intraluminal treatment of cancer.

5. Conditions of Authorization



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# Radionuclide Use Permit

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"LDR AROP" - "Authorized User" as defined in 10CFR35 and approved by the RRSC for LDR who is up-to-date on initial and refresher training for the LDR unit.

"LDR AMP (refresh. only)" - "Authorized Medical Physicist" as defined in 10CFR35 and approved by the RRSC for LDR who has only received refresher training. May interrupt and restart unit during patient treatment as necessary.

"LDR AMP" - "Authorized Medical Physicist" as defined in 10CFR35 and approved by the RRSC for LDR who is up-to-date on initial and refresher training.

"LDR Nurse" - Nurse who is up-to-date on initial and refresher training for the LDR unit.

"LDR Resident" - Resident who has completed initial and refresher training for the LDR unit. May interrupt and restart treatment.

"LDR MP Student" - Medical physics student who is up-to-date on initial and refresher training for the LDR unit. May operate unit under the supervision of an approved AMP.

"Approved" - RO personnel up-to-date on emergency training. May interrupt and restart unit during patient treatment as necessary.

"LDR RSO" - RSO staff who is up-to-date on emergency training. May interrupt and restart unit during patient treatment as necessary.

All operators shall have training in the following:

1. LDR afterloader operating procedures.
2. LDR afterloader emergency procedures.
3. LDR afterloader design, function, and use including the safety system.
4. Hands on operation including routine and emergency procedures.

Individuals providing training to LDR operators, nursing staff, and other ancillary personnel shall be a qualified member of the Radiation Oncology Physics or Radiation Safety staff who have undergone training for the operation of the afterloader.

Retraining shall not exceed 12 month intervals and shall include:

1. A review of routine operating and emergency procedures.
2. hands on practice, observation, or demonstration of emergency procedures.
3. Any other relative information.

Training for nursing staff shall include:

1. Information of 10CFR35.410.
2. Routine operating procedures, including, but not limited to:
  - a. Operation of door interlocks.
  - b. Operating of control console.
  - c. Function and status of source status indicators both inside and outside the room.
3. Emergency procedures.

Survey of patient shall be made after the treatment.

The LDR unit shall be secured when not in use.

Operational checks shall be made on the afterloader on the first day of each treatment. A written log shall include:

1. Check of the operation of the unit.
2. Check of interlocks.



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Indianapolis

## Radionuclide Use Permit

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3. Check of source position accuracy.
4. Inspection of guide tube for integrity.

Personnel monitoring (whole body and ring badges) are required for individuals who utilize radioactive materials.

Attachment for NRC Form 313A (AUS) Documentation of Supervising Radiation Oncology Physicians (Authorized Users) Training and Experience

<b>Applicant:</b> Tracy Price, M.D.										
<b>Dates of Training:</b> July 1, 2006 to June 30, 2010										
<b>AUs Who Provided Training</b>										
X										
X										
X										
X										
<b>Supervising MDs:</b>										
	Marcus Randall, MD	Higinia Cardenes, MD, PhD	Robert Timmerman, MD	Simon Lo, MD	Paul DesRosiers, MD	Shailaja Reddy, MD	Mark Langer, MD	Ron McGarry, MD, PhD	Homayoon Shidnia, MD	James Morphis, MD
Auth. By Training Under 35.57(b)(2)	6/14/94	6/11/96	9/20/94	12/14/04	12/12/00	10/9/79	11/26/97	12/14/99	10/9/79	6/14/82
<b>Auth. Med Uses:</b>										
35.300 - intracavitary, intraperitoneal <sup>32</sup> P only	6/14/94-11/15/04	6/11/96 to present	9/20/94 - 7/23/04	12/14/04-6/24/06	12/12/00 - 11/19/05	10/9/79 to present				
35.400 - Manual Brachytherapy	6/14/94-11/15/04	6/11/96 to present	9/20/94 - 7/23/04	12/14/04-6/24/06	12/12/00 - 11/19/05	10/9/79 to present	11/26/97 to present	12/14/99 to present	10/9/79-7/94 & 6/10/03 to present	6/14/82 to present
35.600 - LDR Brachytherapy	6/11/96-11/15/04	6/11/96 to present	6/11/96 - 7/23/04	12/14/04-6/24/06	12/12/00 - 11/19/05	6/11/96 to present	11/26/97 to present	12/14/99 to present	6/10/03 to present	6/14/82 to present
35.600 - HDR Brachytherapy	6/14/94-11/15/04	6/11/96 to present	9/20/94 - 7/23/04	12/14/04-6/24/06	12/12/00 - 11/19/05	10/9/79 to present	11/26/97 to present	12/14/99 to present	10/9/79-7/94 & 6/10/03 to present	6/14/82 to present
35.600 - TBI/Teletherapy	6/14/94-11/15/04	6/11/96 to present	9/20/94 - 7/23/04	12/14/04-6/24/06	12/12/00 - 11/19/05	5/26/83 to present	12/9/97 to present	12/14/99 to present	10/9/79-7/94 & 6/10/03 to present	6/14/82 to present
35.600 - GSR (GammaKnife)	6/15/98-11/15/04		9/11/97 - 7/23/04	12/14/04-6/24/06	12/1/00 - 11/19/05		6/13/06 to present			4/28/06 to present
35.1000 - Gliasite			9/20/94 - 7/23/04							

Attachment for NRC Form 313A (AUS) Documentation of Supervising Radiation Oncology Physicians (Authorized Users) Training and Experience

<b>Applicant:</b>									
<b>Dates of Training:</b>									
<b>AUs Who Provided Training</b>	X	X	X		X	X	X		
<b>Supervising MDs:</b>	Achilles J. Fakaris, MD	Peter A. Johnstone, MD	Song-Chu Ko, MD	Lanceford Chong, MD	Mark A. Henderson, MD	Janna Andrews, MD	Andrew Chang, MD		
Auth. By Training Under 35.57(b)(2)	9/19/06	12/18/07	9/11/07	3/11/08	6/17/08	9/16/08	9/11/09		
<b>Auth. Med Uses:</b>									
35.300 - intracavitary, intraperitoneal <sup>32</sup> P only	9/19/06 to present	12/18/07 to present	9/11/07 to present	3/11/08 to 11/3/08	6/17/08 to present	9/16/08 to present	9/11/09 to present		
35.400 - Manual Brachytherapy	9/19/06 to present	12/18/07 to present	9/11/07 to present	3/11/08 to 11/3/08	6/17/08 to present	9/16/08 to present	9/11/09 to present		
35.600 - LDR Brachytherapy	9/19/06 to present	12/18/07 to present	9/11/07 to present	3/11/08 to 11/3/08	6/17/08 to present	9/16/08 to present			
35.600 - HDR Brachytherapy	9/19/06 to present	12/18/07 to present	9/11/07 to present	3/11/08 to 11/3/08	6/17/08 to present	9/16/08 to present	9/11/09 to 12/31/09		
35.600 - TBI/Teletherapy	9/19/06 to present	12/18/07 to present	9/11/07 to present	3/11/08 to 11/3/08	6/17/08 to present	9/16/08 to present	9/11/09 to present		
35.600 - GSR (GammaKnife) 35.1000 - Gliasite	9/19/06 to present				6/17/08 to present				

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