U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 19

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with application dated **March 31, 2015**,
1. Kirksville College of Osteopathic Medicine A. T. Still University of Health Sciences	3. License number 24-17210-01 is **renewed** in its entirety to read as follows:
2. 800 West Jefferson St. Kirksville, MO 63501	4. Expiration date September 30, 2025
	5. Docket No. 030-12369 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Hydrogen-3	A. Bound/non-volatile	A. 100 millicuries
B. Carbon-14	B. Bound/non-volatile	B. 15 millicuries
C. Phosphorus-32	C. Bound/non-volatile	C. 100 millicuries
D. Phosphorus-33	D. Bound/non-volatile	D. 10 millicuries
E. Sulfur-35	E. Bound/non-volatile	E. 50 millicuries
F. Chromium-51	F. Bound/non-volatile	F. 30 millicuries
G. Iodine-125	G. Bound/non-volatile	G. 75 millicuries
H. Iodine-131	H. Bound/non-volatile	H. 30 millicuries
I. Technetium-99m	I. Bound/non-volatile	I. 25 millicuries
J. Indium-114m	J. Bound/non-volatile	J. 25 millicuries
K. Scandium-46	K. Bound/non-volatile	K. 10 millicuries
L. Strontium-85	L. Bound/non-volatile	L. 10 millicuries
M. Rubidium-86	M. Bound/non-volatile	M. 15 millicuries
N. Niobium-95	N. Bound/non-volatile	N. 10 millicuries
O. Ruthenium-103	O. Bound/non-volatile	O. 10 millicuries
P. Tin-113	P. Bound/non-volatile	P. 10 millicuries
Q. Cerium-141	Q. Bound/non-volatile	Q. 10 millicuries
R. Any byproduct material identified in 10 CFR 31.11	R. Prepackaged kits	R. 5 millicuries
S. Gadolinium-153	S. Bound/non-volatile	S. 0.2 millicuries

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9. Authorized use:

A. through R. For research and development as described in Title 10 of the *Code of Federal Regulations* Section 30.4, including *in vitro* and animal studies.

S. For possession incident to disposal.

CONDITIONS

10. Licensed material shall be used or stored only at the license's facilities located at 800 West Jefferson Street, Kirksville, Missouri.

11. A. Licensed material in Subitems 6.A. through 6.R. may also be used by, or under the supervision of, Robert W. Baer, Ph.D., Neal R. Chamberlain, Ph.D., Charles R. Fleschner, Ph.D., Timothy P. Geisbuhler, Ph.D., Neil J. Sargentini, Ph.D., William L. Sexton, Ph.D., Vineet K. Singh, Ph.D., or Melissa K. Stuart, Ph.D.

B. Licensed material in Subitems 6.A. through 6.F. and 6.I. through 6.R. may also be used by, or under the supervision and in the physical presence of James L. Cox, Ph.D.

C. Licensed material in Subitem 6.S. may also be used and stored under the supervision of Vineet K. Singh, Ph.D.

12. The Radiation Safety Officer (RSO) for this license is Vineet K. Singh, Ph.D.

13. Licensed material shall not be used in or on humans except as provided otherwise by specific condition of this license.

14. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.

15. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.

16. The licensee is authorized to hold radioactive material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal in ordinary trash, provided:

A. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

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B. A record of each such disposal permitted under this license condition shall be retained for 3 years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and name of the individual who performed the disposal.

17. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated March 31, 2015 (ML15091A755); and

B. Letters dated June 21, 2015 (ML15173A089), and August 7, 2015 (ML15219A521).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date SEP 28 2015

By Sara A. Forster

Sara A. Forster, M.S.
Materials Licensing Branch
Region III