



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 7, 2006

Docket No. 03034280  
Control No. 139289

License No. 29-30350-01

Joseph A. D'Ippolito  
EHS Specialist, RSO  
Xenogen Biosciences  
a subsidiary of Caliper Life Science, Inc.  
5 Cedar Brook Drive  
Cranbury, NJ 08512

SUBJECT: XENOGEN BIOSCIENCES, LICENSE AMENDMENT, CONTROL NO. 139289

Dear Mr. D'Ippolito:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Toolkit Index Page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

***Original signed by Dennis R. Lawyer***

Dennis R. Lawyer  
Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

Enclosure:  
Amendment No. 8

J. D'Ippolito  
Xenogen Biosciences

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**SUNSI Review Complete: DLawyer**

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NAME	DLawyer / <b><i>DRL1</i></b> /							
DATE	09/07/2006							

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**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, 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.

<p>Licensee</p> <p>1. Xenogen Biosciences, a subsidiary of Caliper Life Science, Inc.</p> <p>2. 5 Cedar Brook Drive Cranbury, New Jersey 08512</p>	<p>In accordance with the letter dated August 16, 2005,</p> <p>3. License number 29-30350-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date May 31, 2007</p> <p>5. Docket No. 030-34280 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen 3</p> <p>B. Phosphorus 32</p> <p>C. Phosphorus 33</p> <p>D. Sulfur 35</p> <p>E. Iodine 125</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> <p>E. Non-volatile Compounds</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 100 millicuries</p> <p>B. 100 millicuries</p> <p>C. 200 millicuries</p> <p>D. 100 millicuries</p> <p>E. 500 microcuries</p>
<p>9. Authorized use:</p> <p>A. through E. Research and development as defined in 10 CFR 30.4.</p>		

**CONDITIONS**

10. Licensed material may be used only at the licensee's facilities located at 5 Cedar Brook Drive, Cranbury, New Jersey.
11. A. Licensed material shall be used by, or under the supervision of Joseph A. D'Ippolito, Roland H. Felkner, David S. Grass, Ph.D., Nelson T. Rodriguez, Santosh K. Sikder or Lingyun Zhu.
- B. The Radiation Safety Officer for this license is Joseph A. D'Ippolito.

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Amendment No. 08

12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
  - B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and
  - C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.
15. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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16. 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 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. Letter dated October 13, 2000 (ML003761409)
- B. Letter dated October 17, 2000 (ML003762435)
- C. Letter dated March 19, 2002 (ML020840344)
- D. Letter dated March 22, 2002 (ML020850328)
- E. Letter dated April 19, 2002 (ML021140392)
- F. Letter dated June 30, 2005 (ML051870190)
- G. Letter dated April 20, 2006 (ML061140153)



For the U.S. Nuclear Regulatory Commission

***Original signed by Dennis R. Lawyer***Date September 7, 2006  
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Dennis R. Lawyer  
Commercial and R&D Branch  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406