Conformed Copy

LICENSE TO THE UNITED STATES GOVERNMENT

WHEREAS, Hector DeLuca, Heinrich Schnoes and Michael Holick, of Madison, Wisconsin, have invented 1,25-Dihydroxycholecalciferol and filed a patent application thereon in the United States, bearing Serial No. 116,881, filing date February 25, 1971; and

WHEREAS, the invention was made in the course of research supported by grant(s) from the Department of Health, Education, and Welfare; and

WHEREAS, the United States Government is entitled to certain rights in and to said invention and application by reason of the terms of said grant(s); and

WHEREAS, the Wisconsin Alumni Research Foundation, Madison, Wisconsin, hereinafter called the "Licensor" has acquired by assignment from the inventor the entire right, title, and interest of the inventor to such invention;

NOW, THEREFORE:

1. The Licensor, in consideration of the premises and other good and valuable consideration, hereby grants and conveys to the United States Government a royalty-free, nonexclusive and irrevocable license for governmental purposes and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States under the aforesaid patent application and any and all divisions or continuations, and in any and all patents or reissues which may be granted thereon during the full term or terms thereof. As used herein, "governmental purpose" means the right of the Government of the United States (including any agency thereof, state or domestic municipal government) to practice and have practiced (made or have made, used or have used, sold or have sold) throughout the world by or on behalf of the Government of the United States.

2. The Licensor covenants and warrants that he has the right to grant the foregoing license, and that any assignment which he may make of the invention or the said patent applications or patents thereon, shall expressly be made subject to this license.

3. The Licensor agrees that the Government shall not be estopped at any time to contest the enforceability, validity, scope of, or title to, any patent or patent application herein licensed.

WISCONSIN ALUMNI RESEARCH FOUNDATION

By /s/ Walter A. Frautschi
Walter A. Frautschi, President

Date November 12, 1971

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CERTIFICATE

I, **Donald C. Slichter**, certify that I am the **Vice President & Asst. Treasurer** of the Institution named as Licensor herein; that **Walter A. Frautschi**, who signed this License on behalf of the Institution is **President** of said Institution; and that said License was duly signed for and in behalf of said Institution by authority of its governing body, and is within the scope of its corporate powers.

/s/ Donald C. Slichter

Donald C. Slichter
Vice President & Asst. Treasurer

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LICENSE TO THE UNITED STATES GOVERNMENT

WHEREAS, Hector F. DeLuca, Heinrich K. Schnoes, and Michael F. Holick, of 5130 Minocqua Circle, Madison, Wisconsin; Route 1, Morris Court, Waunakee, Wisconsin; and 609 South Brooks Street, Madison, Wisconsin, respectively, have invented 1,25-Dihydroxycholecalciferol and have filed a patent application including claims thereto in the following countries:

COUNTRY	SERIAL NO.	FILING DATE
Canada	135,097	February 18, 1972
France	7,206,457	February 25, 1972
W. Germany	P2209352.3	February 24, 1972
Great Britain	7750/72	February 18, 1972
Holland	72/02496	February 25, 1972

WHEREAS, the invention was made in the course of research supported by grant(s) from the Department of Health, Education, and Welfare; and

WHEREAS, the United States Government is entitled to certain rights in and to said invention and application by reason of the terms of said grant(s); and

WHEREAS, the Wisconsin Alumni Research Foundation, Madison, Wisconsin, hereinafter called the "Licensor" has acquired by assignment from the inventor the entire right, title, and interest of the inventor to such invention;

NOW, THEREFORE

1. The Licensor, in consideration of the premises and other good and valuable consideration, hereby grants and conveys to the United States Government a royalty-free, nonexclusive and irrevocable license for governmental purposes and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States under the aforesaid patent application and any and all divisions or continuations, and in any and all patents or reissues which may be granted thereon during the full term or terms thereof. As used herein, "governmental purpose" means the right of the Government of the United States (including any agency thereof, state or domestic municipal government) to practice and have practiced (made or have made, used or have used, sold or have sold) throughout the world by or on behalf of the Government of the United States.

2. The Licensor covenants and warrants that he has the right to grant the foregoing license, and that any assignment which he may make of the invention or the said patent applications or patents thereon, shall expressly be made subject to this license.

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3. The Licensor agrees that the Government shall not be estopped at any time to contest the enforceability, validity, scope of, or title to, any patent or patent application herein licensed.

WISCONSIN ALUMNI RESEARCH FOUNDATION

By /s/ Walter A. Frautschi
Vice Pres. and Asst. Sec.

Date December 30, 1972

CERTIFICATE

I, Bernhard M. Mautz, certify that I am the Secretary-Treasurer of the Institution named as Licensor herein; that Walter A. Frautschi who signed this License on behalf of the Institution is Vice Pres. and Asst. Sec. of said Institution; and that said License was duly signed for and in behalf of said Institution by authority of its governing body, and is within the scope of its corporate powers.

/s/ Bernhard M. Mautz
Secretary - Treasurer

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LICENSE TO THE UNITED STATES GOVERNMENT

WHEREAS, Hector F. DeLuca, Heinrich K. Schnoes, Michael F. Holick and Erich J. Semmler, of Madison, Wisconsin, have invented 1α-Hydroxycholecalciferol and have filed patent applications including claims thereto in the following countries:

COUNTRY	SERIAL NO.	FILING DATE
Canada	157,668	November 28, 1972
Denmark	6010/72	December 1, 1972
France	7242627	November 30, 1972
Germany	P2259661.8	December 1, 1972
Great Britain	53970/72	November 22, 1972
Holland	72/16324	December 1, 1972
Japan	120560/72	December 1, 1972
Switzerland	17440/72	November 30, 1972

WHEREAS, the invention was made in the course of research supported by grant(s) from the Department of Health, Education, and Welfare; and

WHEREAS, the United States Government is entitled to certain rights in and to said invention and application by reason of the terms of said grant(s); and

WHEREAS, the Wisconsin Alumni Research Foundation, Madison, Wisconsin, hereinafter called the "Licensor" has acquired by assignment from the inventor the entire right, title, and interest of the inventor to such invention;

NOW, THEREFORE

1. The Licensor, in consideration of the premises and other good and valuable consideration, hereby grants and conveys to the United States Government a royalty-free, nonexclusive and irrevocable license for governmental purposes and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States under the aforesaid patent application and any and all divisions or continuations, and in any and all patents or reissues which may be granted thereon during the full term or terms thereof. As used herein, "governmental purpose" means the right of the Government of the United States (including any agency thereof, state or domestic municipal government) to practice and have practiced (made or have made, used or have used, sold or have sold) throughout the world by or on behalf of the Government of the United States.

2. The Licensor covenants and warrants that he has the right to grant the foregoing license, and that any assignment which he may make of the invention or the said patent applications or patents thereon, shall expressly be made subject to this license.

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3. The Licensor agrees that the Government shall not be estopped at any time to contest the enforceability, validity, scope of, or title to, any patent or patent application herein licensed.

WISCONSIN ALUMNI RESEARCH FOUNDATION

By _____
Walter A. Frautschi, Vice President and
Assistant Secretary

Date May 11, 1973

Approved as to form
Howard W. Bremer, Patent Counsel
Date 3/15/73

CERTIFICATE

I, Bernhard M. Mautz, certify that I am the Secretary-Treasurer of the Institution named as Licensor herein; that Walter A. Frautschi, who signed this License on behalf of the Institution is Vice President and Assistant Secretary of said Institution; and that said License was duly signed for and in behalf of said Institution by authority of its governing body, and is within the scope of its corporate powers.

_____
Bernhard M. Mautz, Secretary-Treasurer

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