State of Delaware Office of the Secretary of State PAGE

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I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF INCORPORATION OF "INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY, INC.", FILED IN THIS OFFICE ON THE EIGHTEENTH DAY OF JUNE, A.D. 1997, AT 9 O'CLOCK A.M.



Edward J. Freel, Secretary of State

DATE:

AUTHENTICATION:

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8602021 08-12-97 I, David J. States, M.D., Ph.D., Treasurer of the International Society For Computational Biology, Inc. hereby certify that the attached are true and correct copies of the original signed and dated Certificate of Incorporation of the International Society For Computational Biology, Inc., and the bylaws and the Organizational Minutes of the corporation. The Certificate of Incorporation was filed with and accepted by the State of Delaware on June 18, 1997.

11/7/97 Date

David J/States, M.D., Ph.D. Treasurer

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CERTIFICATE OF INCORPORATION

OF

International Society For Computational Biology, Inc.

FIRST. The name of the Corporation (which is hereafter called the "Corporation") is the "International Society For Computational Biology, Inc".

SECOND. The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

THIRD. The purposes for which the Corporation is formed are:

(1) Promote the application of computational methods to problems of biological significance.

(2) Facilitate basic and applied research, scientific communication, education and international cooperation in computational biology.

(3) Fund research and educational projects in computational biology.

(4) Publication and distribution of publications in computational biology.

(5) Organization and selection of locations to hold regularly scheduled meetings of the members.

(6) Subject to the provisions of this Certificate of Incorporation and By-Laws, to do, perform and engage in such other acts, things, business, transactions and operations as may be incidental to, or that may facilitate, the business and general purposes of the Corporation.

FOURTH. (1) The Corporation is not organized for profit; it shall have no capital stock and shall not be authorized to issue capital stock. The number of, qualifications for and other

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matters relating to its members shall be as set forth in the By-Laws of the Corporation.

(2) The Corporation shall be a membership corporation and its revenue shall be derived from membership fees and/or such other sources as may be prescribed from time to time by the Board of Directors.

(3) Membership in the organization shall be open to any individual with qualifications in computational biology as defined in the By-Laws of the Corporation.

(4) Membership in the Corporation may be divided into such classifications for annual membership dues or for such other purposes as the By-Laws of the Corporation may prescribe or as the Board of Directors may from time to time designate.

(5) Subject to the provisions of the Certificate of Incorporation, the conditions, terms, privileges, rights and duties of membership shall be stated or provided for in the By-Laws of the Corporation.

(6) Members shall have no voting rights to elect Directors.

FIFTH. The name and mailing address of the incorporator is Lawrence Hunter whose mailing address is 12820-A River Road, Potomac, MD 20854.

SIXTH. The powers of the incorporator shall terminate upon the filing of the Certificate of Incorporation whereupon the powers of the Corporation shall be vested in the Directors. The number of Directors may be increased or decreased only by amending this Certificate of Incorporation, but shall never be less than three (3) nor more than nineteen (19). Each Director shall hold office until removed with or without cause by a majority vote of the remaining Directors. The names and mailing addresses of the Directors who shall act until their successors are duly elected and qualified are:

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Keith Dunker, Ph.D.

Peter Karp, Ph.D.

Teri Klein, Ph.D

Richard H. Lathrop, Ph.D.

Thomas Lengauer, M.D., Ph.D.

Christos Ouzounis, Ph.D.

Chris Sander, Ph.D.

David B. Searls, Ph.D.

Biochemistry & Biophysics Washington State University Pullman, WA 99164-4660

Artificial Intelligence Center SRI International, EJ229 333 Ravenswood Avenue Menlo Park, CA 94025-3493

Department of Pharmaceutical Chemistry University of California 513 Parnassus Avenue Room S-1024 San Francisco, CA 94143-0446

Department of Information and Computer Science 444 Computer Science Bldg.. #3425 University of California, Irvine Irvine, CA 92697-3425

GMD-SCAI Schloss Birlinghoven 53754 Sankt Augustin Germany

EMBL Outstation EBI Wellcome Trust Genome Campus Hinxton Hall, Hinxton Cambridge CB10 1SD UK

EMBL Outstation EBI Wellcome Trust Genome Campus Hinxton Hall, Hinxton Cambridge CB10 1SD UK

Vice President and Director, Bioinformatics SmithKline Beecham Pharmaceuticals 709 Swedeland Road, PO Box 1539 King of Prussia, PA 19406 Jude W. Shavlik, Ph.D.

Randall F. Smith, Ph.D.

Department of Computer Sciences University of Wisconsin 1210 West Dayton Street Madison, WI 53706

SmithKline Beecham Pharmaceuticals UW2230 709 Swedeland Road, PO Box 1539 King of Prussia, PA 19406

Protein Design Group CNB-CSIC Campus U. Autonoma Cantoblanco Madrid M-28049 Spain

EMBL Outstation EBI Wellcome Trust Genome Campus Hinxton Hall, Hinxton Cambridge CB10 1SD UK

SEVENTH. Upon the dissolution of the Corporation's affairs, or upon the abandonment of the Corporation's activities due to its impracticable or inexpedient nature, the assets of the Corporation then remaining in the hands of the Corporation shall be distributed, transferred, conveyed, delivered and paid over to the members or if voted by a majority of the members to any other tax exempt organization of this or any other State having a similar or analogous character or purpose to that of the Corporation.

EIGHTH. The Board of Directors is authorized to adopt, amend, or repeal the By-Laws of the Corporation except as and to the extent provided in the By-Laws provided the same be not inconsistent with this Certificate of Incorporation nor contrary to the laws of the State of Delaware or of the United States. This Certificate of Incorporation can only be amended by a majority vote of the Board of Directors.

NINTH. Any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal,

Shoshana Wodak, Ph.D.

Alfonso Valencia, Ph.D.

administrative, or investigative (whether or not by or in the right of the Corporation) by reason of the fact that he is or was a director, officer, incorporator, employee, or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, incorporator, employee, partner, trustee, or agency of another corporation, partnership, joint venture, trust, or other enterprise (including an employee benefit plan), shall be entitled to be indemnified by the Corporation to the full extend then permitted by law against expenses (including counsel fees and disbursements), judgments, fines (including excise taxes assessed on a person with respect to an employee benefit plan), and amounts paid in settlement incurred by him in connection with such action, suit, or proceedings. Such right of indemnification shall inure whether or not the claim asserted is based on matters which antedate the adoption of this Article NINTH. Such right of indemnification shall continue as to a person who has ceased to be a director, officer, incorporator, employee, partner, trustee or agent and shall inure to the benefit of the heirs and personal representatives of such a person. The indemnification provided by this Article NINTH shall not be deemed exclusive of any other rights which may be provided now or in the future under any provision currently in effect or hereafter adopted of the By-Laws, by any agreement, by vote of members, by resolution of disinterested directors, by provision of law, or otherwise.

TENTH. No director of the Corporation shall be liable to the Corporation or any or its members for monetary damages for breach of fiduciary duty as a director, provided that this provision does not eliminate the liability of the director (i) for any breach of the director's duty of loyalty to the Corporation or its members, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of Title 8 of the Delaware Code, or (iv) for any transaction from which the director derived an improper personal benefit. For purposes of the prior sentence, the term "damaged" shall, to the extent

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permitted by law, include, without limitation, any judgment, fine, amount paid in settlement, penalty, punitive damages, excise or other tax assessed with respect to an employee benefit plan, or expense of any nature (including, without limitation, counsel fees and disbursements). Each person who serves as a director of the Corporation while this Article TENTH is in effect shall be deemed to be doing so in reliance on the provisions of this Article TENTH, and neither the amendment or repeal of this Article TENTH, nor the adoption of any provision of this Certificate of Incorporation inconsistent with this Article TENTH, shall apply to or have any effect on the liability or alleged liability of any director or the Corporation for, arising out of, based upon, or in connection with any acts or omissions of such director occurring prior to such amendment, repeal, or adoption of an inconsistent provision. The provisions of this Article TENTH are cumulative and shall be in addition to and independent of any and all other limitations on or eliminations of the liabilities of directors of the Corporation, as such, whether such limitations or eliminations arise under or are created by any law, rule, regulation, by-law, agreement, vote of shareholders or disinterested directors, or otherwise.

IN WITNESS WHEREOF, I have made, signed, and sealed this Certificate of

Incorporation this 17th day of June, 1997.

rence Hunter, Incorporator

STATE of DELAWARE

CERTIFICATE of AMENDMENT AND RESTATEMENT of the CERTIFICATE of AMENDMENT of the CERTIFICATE of INCORPORATION of the INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY, INC.

First: That at a meeting of the Board of Directors of the International Society For Computational Biology, Inc. resolutions were duly adopted setting forth a proposed amendment and restatement of the Amended Certificate of Incorporation of said Corporation, declaring said amendment and restatement to be advisable. The resolution setting forth the proposed amendment and restatement are as follows:

Resolved, that the Certificate of Amendment of the Certificate of Incorporation of this Corporation be amended and restated in its entirety by changing the Articles thereof numbered "First" to "Tenth" so that, as amended and restated, said Articles shall be and read from "First" to "Eleventh" as follows:

FIRST. The name of the Corporation (which is hereafter called the "Corporation") is the "International Society For Computational Biology, Inc".

SECOND. The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

THIRD. Said Corporation is organized exclusively for charitable, educational, religious and scientific purposes, including, for such purposes, the making of distributions to organizations under section 501(c)(3) of the Internal Revenue Code, or the corresponding section of any future federal tax code. In furtherance of said purposes the Corporation shall:

(1) Promote the application of computational methods to problems of biological significance.

(2) Facilitate basic and applied research, scientific communication, education and international cooperation in computational biology.

(3) Fund research and educational projects in computational biology.

(4) Publish and distribute publications in computational biology.

(5) Organize and select locations to hold regularly scheduled meetings of the

members.

FOURTH. The Corporation is not organized for profit; it shall have no capital stock and shall not be authorized to issue capital stock. No part of the net earnings of the Corporation shall inure to the benefit of, or be distributable to its members, trustees, officers, or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article Third hereof. No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of or in opposition to any candidate for public office. Notwithstanding any other provision of this certificate the Corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code of 1986, or the corresponding section of any future federal tax laws or (b) by a corporation, contributions to which are deductible under section 170(c)(2) of the Internal Revenue Code, or the corresponding section of any future federal tax laws.

(1) The Corporation shall be a membership corporation and its revenue shall be derived from membership fees and/or such other sources as may be prescribed from time to time by the Board of Directors.

(2) The number of, qualifications for and other matters relating to its members shall be as set forth in the By-Laws of the Corporation.

(3) Pursuant to the provisions of Section 141(j) of the General Corporation Law of the State of Delaware, the business and affairs of the Corporation shall be managed as the By-Law of the Corporation may prescribe and not as set forth in Section 141 of the General Corporation Law of the State of Delaware.

(4) Members shall make recommendations to the Board of Directors in electing four (4) Directors of the Corporation in the manner provided and for the term set forth in the By-Laws of the Corporation.

FIFTH. The name and mailing address of the original incorporator was Lawrence Hunter whose mailing address at the time of incorporation was 12820-A River Road, Potomac, MD 20854.

SIXTH. Upon the filing of this Certificate of Amendment and Restatement the powers of the Corporation shall be vested in the Directors named below. The number of Directors may be increased or decreased only by amending the Certificate of Amendment and Restatement, but shall never be less than four (4) nor more than thirty (30). Directors shall hold office for the term set forth in the By-laws of the Corporation. The Directors shall hold office until removed with or without cause by a majority vote of the remaining Directors. The names and mailing addresses of the Directors who shall act until their successors are duly elected and qualified are:

<u>Name</u>

Michael Gribskov, Ph.D. President, ISCB Senior Staff Scientist San Diego Supercomputer Center University of California, San Diego 9500 Gilman Drive La Jolla, CA 92093-0537 USA

Anna Tramontano, Ph.D. Vice President, ISCB Department of Biochemical Sciences "Rossi Fanelli" University of Rome "La Sapienza" P.le Aldo Moro, 5 00185 Rome ITALY

David Rocke, Ph.D. Treasurer, ISCB Professor School of Medicine Department of Applied Science Department of Epidemiology and Preventive Medicine Center for Image Processing and Integrated Computing University of California Davis, CA 95616-8609 USA

Barbara Bryant, Ph.D. Secretary, ISCB Associate Director of Bioinformatics Millennium Pharmaceuticals Building 700, 1st floor One Kendall Square Cambridge, MA 02139 USA Russ B. Altman, MD, Ph.D. Associate Professor of Genetics, Medicine and Computer Science Stanford Medical Informatics Stanford University Medical Center 251 Campus Drive, MSOB X-215 Stanford, CA 94305-5479 USA

Philip E. Bourne, Ph.D. Professor, Dept. of Pharmacology & San Diego Supercomputer Center University of California, San Diego 9500 Gilman Drive La Jolla, CA 92093-0537 USA

Steven E. Brenner, Ph.D. University of California, Berkeley 461A Koshland Hall, # 3102 Berkeley, CA 94720-3102 USA

Søren Brunak, Ph.D. Professor, Center DirectorCenter for Biological Sequence Analysis BioCentrum-DTU Technical University of Denmark Building 208 DK-2800 Lyngby DENMARK

Rita Casadio, Ph.D. Professor of Biophysics, University of Bologna CIRB/Dept of Biology Via Irnerio 42, 40126 Bologna ITALY Terry Gaasterland, Ph.D. Assistant Professor & Head Laboratory of Computational Genomics The Rockefeller University 1230 York Avenue New York, NY 10021-6399 USA

Dietlind L. Gerloff, Ph.D.Lecturer in Bioinformatics Biocomputing Research Unit Structural Biochemistry Group Institute for Cell and Molecular Biology University of Edinburgh, King's Buildings Michael Swann Building 3.20 Edinburgh, Scotland EH16 6YW UK

Roderic Guigo, Ph.D Institut Municipal d'Investigacio Medica, Universitat Pompeu Fabra, Centre de Regulacio Genomica C/Dr. Aiguader 80 08003 Barcelona SPAIN

Winston Hide, Ph.D. South African National Bioinformatics Institute University of the Western Cape Private Bag X17 University of Western Cape, SANBI Bellville 7535 SOUTH AFRICA

Lawrence Hunter, Ph.D. ISCB Founder Director, Center for Computational Pharmacology University of Colorado School of Medicine Health Sciences Center, UCHSC Box C236 4200 E. 9th Avenue Denver, CO 80262 USA Minoru Kanehisa, D.Sc. Institute for Chemical Research Kyoto University Uji, Kyoto 611-0011 JAPAN

Peter D. Karp, Ph.D. Director, Bioinformatics Research Group Artificial Intelligence Center SRI International Room EK207 333 Ravenswood Avenue Menlo Park, CA 94025-3493 USA

Toni Kazic, Ph.D. Associate Professor Department of Computer Engineering & Computer Science 143A Engineering Building West University of Missouri - Columbia Columbia, MO 65211 USA

Teri E. Klein, Ph.D. Senior Scientist, Project Director PharmGKB Stanford Medical Informatics Stanford University Medical Center 251 Campus Drive, MSOB X-215 Stanford, CA 94305-5479 USA

Goran DS Neshich, Ph.D. EMBRAPA/CNPTIA EMBRAPA Informatica Agropecuaria Av. Dr. Andre TosellonE° 209 - Campus da Unicamp 13083-886 -SP, Campinas BRAZIL

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Shoba Ranganathan, Ph.D. Associate Professor, Department of Biochemistry and Department of Biological Sciences National University of Singapore 10 Kent Ridge Crescent Singapore 119260 SINGAPORE

Burkhard Rost, Ph.D. Associate Professor, Columbia University, Department of Biochemistry and Molecular Biophysics 650 West, 168th Street BB217 New York, NY, 10032 USA

Hershel M. Safer, Ph.D. Zetiq Technologies Ltd. Manager, Bioinformatics Department Gad Feinstein Road Rehovot ISRAEL

Donna K. Slonim, Ph.D. Principal Scientist, Bioinformatics Genetics Institute 35 Cambridge Park Drive Cambridge, MA 02140 USA

David J. States, M.D., Ph.D. Professor of Human Genetics Director of Bioinformatics University of Michigan School of Medicine Medical Science Building II, Room 5622A Ann Arbor, MI 48109 USA

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Gary D. Stormo, Ph.D. Professor, Department of Genetics Washington University Medical School 660 S. Euclid, Box 8232 St. Louis MO 63110 USA

Masaru (Tommy) Tomita, Ph.D Professor and Director Laboratory for Bioinformatics Keio University 5322 Endo, Fujisawa. 252-8520 JAPAN

Alfonso Valencia, Ph.D. Protein Design Group Centro Nacional de Biotecnologia CNB-CSIC Cantoblanco, Madrid E-28049 SPAIN

Tandy Warnow, Ph.D. The Department of Computer Sciences The University of Texas at Austin Austin, TX 78712 USA

Mike Waterman, Ph.D. Professor University of Southern California Computationaland Experimental Genomics 1042W 36th Place DRB 155 Los Angeles, CA 90089-1113 USA Cathy H. Wu, Ph.D. Professor of Biochemistry and Molecular Biology Georgetown University Medical Center, and Director of Bioinformatics National Biomedical Research Foundation Georgetown University Medical Center 3900 Reservoir Road, NW Washington, DC 20007-2195 USA

SEVENTH. Upon the dissolution of the Corporation, its assets shall be distributed for one or more exempt purposes within the meaning of section 501(c)(3) of the Internal Revenue Code, or the corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose. Any such assets not so disposed of shall be disposed of by a Court of Competent Jurisdiction of the county in which the principal office of the Corporation is then located, exclusively for such purposes or to such organization or organizations, as said Court shall determine, which are organized and operated exclusively for such purposes.

EIGHTH. The Board of Directors is authorized to adopt, amend, or repeal the By-Laws of the Corporation except as and to the extent provided in the By-Laws provided the same be not inconsistent with this Certificate of Amendment and Restatement nor contrary to the laws of the State of Delaware or of the United States. This Certificate of Amendment and Restatement can only be amended by a majority vote of the Board of Directors.

NINTH. Any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative (whether or not by or in the right of the Corporation) by reason of the fact that he is or was a director, officer, incorporator, employee, or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, incorporator, employee, partner, trustee, or agency of another corporation, partnership, joint venture, trust, or other enterprise (including an employee benefit plan), shall be entitled to be indemnified by the Corporation to the full extend then permitted by law against expenses (including counsel fees and disbursements), judgments, fines (including excise taxes assessed on a person with respect to an employee benefit plan), and amounts paid in settlement incurred by him in connection with such action, suit, or proceedings. Such right of indemnification shall inure whether or not the claim asserted is based on matters which antedate the adoption of this Article NINTH. Such right of indemnification shall continue as to a person who has ceased to be a director, officer,

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incorporator, employee, partner, trustee or agent and shall inure to the benefit of the heirs and personal representatives of such a person. The indemnification provided by this Article NINTH shall not be deemed exclusive of any other rights which may be provided now or in the future under any provision currently in effect or hereafter adopted of the By-Laws, by any agreement, by vote of members, by resolution of disinterested directors, by provision of law, or otherwise.

TENTH. No director of the Corporation shall be liable to the Corporation or any or its members for monetary damages for breach of fiduciary duty as a director, provided that this provision does not eliminate the liability of the director (i) for any breach of the director's duty of loyalty to the Corporation or its members, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derived an improper personal benefit. For purposes of the prior sentence, the term "damaged" shall, to the extent permitted by law, include, without limitation, any judgment. fine. amount paid in settlement, penalty, punitive damages, excise or other tax assessed with respect to an employee benefit plan, or expense of any nature (including, without limitation, counsel fees and disbursements). Each person who serves as a director of the Corporation while this Article TENTH is in effect shall be deemed to be doing so in reliance on the provisions of this Article TENTH, and neither the amendment or repeal of this Article TENTH, nor the adoption of any provision of this Certificate of Incorporation inconsistent with this Article TENTH, shall apply to or have any effect on the liability or alleged liability of any director or the Corporation for, arising out of, based upon, or in connection with any acts or omissions of such director occurring prior to such amendment, repeal, or adoption of an inconsistent provision. The provisions of this Article TENTH are cumulative and shall be in addition to and independent of any and all other limitations on or eliminations of the liabilities of directors of the Corporation, as such, whether such limitations or eliminations arise under or are created by any law, rule, regulation, by-law, agreement, vote of shareholders or disinterested directors, or otherwise.

ELEVENTH:

(1) The Corporation shall distribute its income for each taxable year at such time and in such manner as not to become subject to the tax on undistributed income imposed by Section 4942 of the Internal Revenue Code of 1986, or corresponding provisions of any subsequent federal tax laws.

(2) The Corporation shall not engage in any act of self-dealing as defined in Section 4941(d) of the Internal Revenue Code of 1986, or corresponding provisions of any subsequent federal tax laws.

(3) The Corporation shall not retain any excess business holdings as defined in Section 4943(c) of the Internal Revenue Code of 1986, or corresponding provisions of any subsequent federal tax laws.

(4) The Corporation shall not make any investments in such manner as to subject it to tax under Section 4944 of the Internal Revenue Code of 1986, or corresponding provisions of any subsequent federal tax laws.

(5) The Corporation shall not make any taxable expenditures as defined in Section 4945(d) of the Internal Revenue Code of 1986, or corresponding provisions of any subsequent federal tax laws.

Second: That thereafter, pursuant to resolution of its Board of Directors, a special meeting of the Directors of said Corporation was duly called and held, upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware, at which meeting the necessary number of Directors as required by statute voted in favor of the Certificate of Amendment and Restatement.

Third: That said Certificate of Amendment and Restatement were duly adopted in accordance with the provisions of Section 242 and 245 of the General Corporation Law of the State of Delaware.

Fourth: That the Corporation is a not for profit corporation without capital stock, neither of which will change by reason of said Certificate of Amendment and Restatement.

BY: Theuse BY: <u>*Illelall Silver*</u> NAME: Michael Gribskov, Ph.D., President

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