BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for form page 2.

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NAME Sara L. (Sally) Tobin, Ph.D., M.S.W. POSITION TITLE

Senior Research Scholar

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Washington, Seattle	B.S.	1968	Zoology
University of Washington, Seattle	Ph.D.	1977	Developmental Biology
University of California, Berkeley	Post-doc	1978-82	Genetics
University of California, San Francisco	Post-doc	1978-81	Biochemistry
University of Oklahoma, Norman	M.S.W.	1993	Social Work (interpersonal)

A. Position and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

1978-82	Postdoctoral Fellow with James W. Fristrom, Department of Genetics, UC Berkeley; also with Brian J. McCarthy, Department of Biochemistry and Biophysics, UCSF
1981-82	Assistant Research Geneticist, Department of Genetics, University of California,
	Berkeley
1983-89	Assistant Professor, Department of Biochemistry and Molecular Biology, University of
	Oklahoma Health Sciences Center, Oklahoma City, Oklahoma
1989-96	Associate Professor, Department of Biochemistry and Molecular Biology, University of
	Oklahoma Health Sciences Center, Oklahoma City, Oklahoma (tenure 1989)
1993-95	Associate Professor, Visiting (National Science Foundation Visiting Professorship for
	Women), University of California, Berkeley
1996-97	Senior Fellow, Program for Genomics, Ethics, and Society, Stanford Center for
	Biomedical Ethics, School of Medicine
1998-present	Senior Research Scholar, Program for Genomics, Ethics, and Society, Stanford Center for
_	Biomedical Ethics, School of Medicine
1999-00	Consultant, National Institute of Nursing Research, design of Summer Genetics Institute
2002-03, 2004-08	Ethicist, General Clinical Research Center, Stanford University
2000-present	President, Twisted Ladder Media, Inc.
2002-2008	Member (Co-Chair 2005-2008) Institutional Review Board, Northern California Cancer
	Center
2005-present	Member, Benchside Ethics Consultation Team, Center for the Integration of Genetics and
•	Ethics, a Center of Excellence in Ethics Research funded by NHGRI

Selected Honors and Fellowships

Postdoctoral Fellowships: Muscular Dystrophy Association, Inc., 1978-1979; National Institutes of Health, 1979-1981; American Cancer Society, California Division, 1981-1982.

Mid-America State Universities Association Honor Lecturer, 1986-1987.

National Science Foundation Visiting Professorship for Women, 1993-1995.

Ad Hoc Study Section Member, NIH Small Business Innovation Research, 1994, 1995, 1999, 2001.

Review Panelist, NSF ADVANCE Program, Institutional Transformation, 2001; STEM Program, 2002-04.

Committee of Visitors, Plant Genome Program, NSF Division of Biological Infrastructure, 2004.

- B1. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.
- Tobin SL, Zulauf E, Sanchez F, Craig EA & McCarthy BJ (1980). Multiple actin-related sequences in the genome of *Drosophila* melanogaster. Cell <u>19</u>, 121-131.
- Zulauf E, Sanchez F, Tobin SL, Rdest U & McCarthy BJ (1981). Developmental expression of a *Drosophila* melanogaster actin gene encoding actin I. Nature <u>292</u>, 556-558.
- Sanchez F, Tobin SL, Rdest U, Zulauf E & McCarthy BJ (1983). Two *Drosophila* actin genes in detail: Gene structure, protein structure, and transcription during development. J. Mol. Biol. <u>163</u>, 533-551.
- Yamanaka M, Saugstad J, Hanson-Painton O, McCarthy BJ & Tobin SL (1987). Structure and expression of the *Drosophila* calmodulin gene. Nuc. Acids Res. 15, 3335-3348.
- Vigoreaux JO & Tobin SL (1987). Stage-specific selection of transcriptional initiation sites from the 5C actin gene of *Drosophila* melanogaster. Genes and Development <u>1</u>, 1161-1171.
- Burn TC, Vigoreaux JO & Tobin SL (1989). Alternative 5C actin transcripts are localized in different patterns during *Drosophila* embryogenesis. Dev. Biol. <u>131</u>, 345-355.
- Courchesne-Smith CL & Tobin SL (1989). Tissue-specific expression of the 79B actin gene during *Drosophila* development. Dev. Biol. <u>133</u>, 313-321.
- Wright-Sandor LG, Reichlin M & Tobin SL (1989). Alteration by heat shock and immunological characterization of *Drosophila* small nuclear ribonucleoproteins. J. Cell Biol. 108, 2007-2016.
- Tobin SL, Cook PJ & Burn TC (1990). Transcripts of individual *Drosophila* actin genes are differentially distributed during embryogenesis. Dev. Genet. <u>11</u>, 15-26.
- Matsumoto H, Kurien B, Takagi Y, Kahn E, Kinumi T, Komori N, Yamada T, Hayashi F, Isono K, Pak WL & Tobin SL (1994). Phosrestin I undergoes the earliest light-induced phosphorylation by a calcium/calmodulin-dependent protein kinase in *Drosophila* photoreceptors. Neuron <u>12</u>, 997-1010.
- Kinumi T, Jackson KW, Ohashi M, Tobin SL & Matsumoto H (1997). Determination of the phosphorylation site and des-methionyl N-terminus of *Drosophila* phosrestin I in vivo by two-dimensional gel electrophoresis/in-gel digestion/LC-MS. Eur. Mass Spect. <u>3</u>, 367-378.
- Martins CRF, Johnson JA, Lawrence DM, Choi T-J, Pisi A-M, Tobin SL, Lapidus D, Wagner JDO, Ruzin S, McDonald K & Jackson AO (1998). Sonchus yellow net rhabdovirus nuclear viroplasms contain polymerase-associated proteins. J. Virol. <u>72</u>, 5669-5679.
- Kahn ES, Kinumi T, Tobin SL & Matsumoto H (1998). Phosrestide-1, a peptide derived from the Drosophila photoreceptor protein phosrestin I, is a potent substrate for Ca²⁺/calmodulin-dependent protein kinase II. Comp. Biochem. Phys., Part B, <u>119</u>, 739-746.
- Nishizawa Y, Komori N, Usukura J, Jackson KW, Tobin SL & Matsumoto H (1999). Initiation of ocular proteomics for cataloging bovine retinal proteins. Microanalytical techniques permit the identification of proteins derived from a novel photoreceptor preparation. Exp. Eye Res. 69, 195-212.
- Fox PJ, Kelly SE & Tobin SL (1999). Defining dementia: social and historical background of Alzheimer disease. Genetic Testing 3, 13-19.
- Tobin SL, Chun N, Powell TM & McConnell LM (1999). The genetics of Alzheimer disease and the application of molecular tests. Genetic Testing 3, 37-45.
- Cho MK, Tobin SL, Greely HT, McCormick J, Boyce A, Magnus D (2008). Strangers at the benchside: Research ethics consultation. Am. J. Bioethics 8 (3): 4-13.
- Mildred K. Cho, Sara L. Tobin, Henry T. Greely, Jennifer McCormick, Angie Boyce, and David Magnus (2008). Research Ethics Consultation: The Stanford Experience. IRB: Ethics and Human Research 30, no. 6.
- B2. Other publications subjected to review and/or evaluation.

Multimedia Courseware

Tobin, S.L., Boughton, A., and Krueger, C. (2000). Evaluation Prototype: "The New Cancer Genetics: Concepts, Applications, and Implications of Tests for Inherited Cancer Susceptibility." (NIH:NCI)

- Tobin, S.L., and Boughton, A. (2001). "The New Genetics: Courseware for Physicians. Molecular Concepts, Applications, and Ramifications." Published by Twisted Ladder Media. (US DOE: OBER)
- Tobin, S.L. and Boughton, A. (2001). "The New Genetics: Medicine and the Human Genome. Molecular Concepts, Applications, and Ramifications." Published by Twisted Ladder Media. (US DOE: OBER)
- Tobin, S.L. and Boughton, A. (2003). "The New Genetics: Inherited Cancer Risk." Published by Twisted Ladder Media. (State of Hawaii Department of Public Health).
- Tobin, S.L. and Boughton, A. (in production, 2010). Updated edition of "The New Genetics: Medicine and the Human Genome" in browser-based format. To be published by Twisted Ladder Media.

Web Sites

- Tobin, S.L., Boughton, A., and Krueger, C. (2000). Twenty Inherited Cancers. About Genetics, Family History, and Genetic Testing: Hereditary Breast and Ovarian Cancer (Evaluation Version).
- Tobin, S.L., Jacobs, C., Ford, J., Mills M., Education Task Force (2003). Program for Applied Cancer Genetics, Continuing Medical Education for Physicians: HNPCC. http://stanfordcancergenetics.stanford.edu/

Editorial, Book Reviews, Columns, and Selected Book Chapter

- Koenig, B., and Tobin, S.L. (1997). Perspectives on Cloning: Should Cloning be Banned? Think About What We Know. San Francisco Chronicle, Friday, March 21, 1997; page A29.
- Tobin, S.L. (1998). Considering individuals in the new genetic era. Review of: Genetics Society and Clinical Practice, by P. Harper and A.J. Clarke, Bios Scientific Publishers (1997). Trends in Genetics 14, 377.
- Tobin, S.L. (1998). Successful Navigation through the Tenure Process: Ten Recommendations. Am. Soc. Cell Biology Newsletter 21, 16-18.
- Tobin, S.L. (2000). Dealing with Unstable Colleagues. Am. Soc. Cell Biology Newsletter 23, 24-26.
- Tobin, S.L. with illustrations by Boughton, A. (1995). Medical Genetics. *In* Oklahoma Notes, Biochemistry (Third Edition). (Eds. Briggs, T. and Chandler, A.M.) Springer-Verlag, New York.
- Tobin, S.L. (2006) Review of: Francis Crick: Discoverer of the Genetic Code, by M. Ridley, HarperCollins (2006). JAMA 296: 2490-2492.

Selected Genetics and Ethics Teaching and Curriculum Development

- Guest Lecturer, Human Biology 154, an undergraduate course in Cancer Epidemiology, "Will your family know more about your genes than you do?" 2004-2009.
- Preceptor, Family Medicine Clerkship. Development and teaching of "Genetics and Family Medicine," for Stanford University medical students in clinical rotations, 2003-2009.
- Principal Investigator, Stanford University component of multi-institution projects: "Cardiovascular Disease Research Ethics (CADRE) Program" and "Law and Ethics of Drug Abuse Genetics Research," 2004-present.
- Coordinator and Lecturer, Current Concepts and Dilemmas in Genetic Testing (Gen 238). Stanford University School of Medicine, 2004-present.
- Coordinator and Lecturer, Responsible Conduct of Research (Med 255), Stanford University School of Medicine, 2005-2008.
- **C. Research Support.** List selected ongoing or completed (during the last three years) research projects (federal and nonfederal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and responsibilities of principal investigator identified above.

1. Title: Law and Ethics of Drug Addiction Genetics Research (T. Howard Stone, PI)

Funding Source: NIH/NIDA

Dates: 5/1/07-2/28/11 Effort: 28.5%

Role: PI of Stanford University subcontract

This project is designed to elucidate the ethical, legal and social implications of the use of drug addiction genetic information in criminal justice settings and to provide needs-specific training and resources.

2. Title: Cardiovascular Disease Research Ethics (CADRE) Program (T. Howard Stone, PI)

Funding Source: NIH-NHLBI Dates: 12/1/2006-5/31/2009

Role: PI of Stanford University subcontract

The goals of this program are to carry out a needs assessment for cardiovascular researchers and to develop effective curricula in live and browser-based formats dealing with dilemmas posted by research on cardiovascular conditions.

3. Title: The New Genetics: Electronic Tools for Educational Innovation

Funding Source: National Science Foundation, Division of Undergraduate Education, Course, Curriculum, and

Laboratory Improvement

Dates: 11/1/06-10/31/09 Effort: 25%

Role: Principal Investigator

The major goals of this project are to produce modular educational materials about genetics, genomics, biotechnology, and ethical issues targeting undergraduate education.

4. Title: Center for Integrating Ethics & Genetic Research (Mildred Cho, PI)

Funding Source: National Institutes of Health Dates: 9/1/04-8/31/09 Effort: 13.5%

Roles: Co-leader of Training and Education Team; member Benchside Consultation Team

Description: This Center of Excellence grant supports a variety of activities involving proactive identification

and integration of ethical, legal, and social considerations and emerging genetic research.

5. Title: General Clinical Research Center (Branimir Sikic, PI)

Funding Source: National Institutes of Health

Dates: 4/1/02-5/31/08

Role: Ethicist; Tobin reviews all clinical trial protocols for ethical issues and patient safety issues.

Description: This grant supports the activities of the General Clinical Research Center at Stanford Hospital.

6. Title: Clinical and Translational Science Award (Harry Greenberg, PI)

Funding Source: National Institutes of Health Dates: 5/19/08-5/18/13 Effort: 10%

Role: Ethicist; Tobin reviews CTRU projects for ethical concerns and assists with project design and

development.

Description: This grant supports the activities of the General Clinical Research Center at Stanford Hospital.