|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BIOGRAPHICAL SKETCH Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person.  **DO NOT EXCEED FOUR PAGES.** | | | | |
|  | | | | |
| NAME  Terada, Naohiro | | POSITION TITLE  Professor | | |
| eRA COMMONS USER NAME  nterada | |
| EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)* | | | | |
| INSTITUTION AND LOCATION | DEGREE  *(if applicable)* | | YEAR(s) | FIELD OF STUDY |
| Osaka University | M.D. | | 1981 | Medicine |
| Osaka University | Ph.D. | | 2001 | Medical Science |

1. **Positions and Honors**

**Positions and Employment**

1981-1987 *Medical Residency/Staff*, Osaka University Hospital etc., Osaka, Japan

1987-1989 *Research Associate* of Pediatrics (ONC/HEM), Osaka University, Osaka, Japan

1989-1992 *Research Associate* of Pediatrics, National Jewish, Denver, CO

1992-1999 *Assistant Faculty Member* of Pediatrics, National Jewish, Denver, CO

1994-1999 *Assistant Professor (Adjunct)*, Department of Pediatrics, University of Colorado, Denver, CO

2000-2001 *Assistant Professor*, Department of Pathology, University of Florida, Gainesville, FL

2001-2010 *Associate Professor (Tenured)*, Department of Pathology, University of Florida, Gainesville, FL

2010- *Professor*, Department of Pathology, University of Florida, Gainesville, FL

**Selected Professional Activities and Services**

1999-date *Member*, American Society for Cell Biology

2000-date *A founding member*, Program in Stem Cell Biology & Regenerative Medicine, U. Florida

2002-date *Course Director*, Stem Cell Biology, University of Florida

2002-date *Member*, International Society of Stem Cell Research

1. *Organizer*, American Society for Cell Biology (ASCB) Summer Meeting

2003-2008 *Associate Editor*, Laboratory Investigation

2004-date *Ad Hoc Member*, NIH Study Sections (DEV2, BTSS *etc*)

2008-2011 *Editorial Board*, Laboratory Investigation

2009 *Chair*, 2nd Southeast Stem Cell Consortium Workshop

2009-date *Editorial Board*, Stem Cells

2010-date *Director*, Center for Cellular Reprogramming, University of Florida McKnight Brain Institute

2010-date *Visiting Professor*, Institute for integrated Cell-Material Sciences (iCeMS), Kyoto University

**B. Selected recent peer-reviewed publications** (from total 98) (in chronological order)

Kawasome H, Papst P, Webb S, Keller GM, Johnson GL, Gelfand EW, **Terada N**:

Targeted disruption of p70s6k defines its role in protein synthesis and rapamycin sensitivity.

***Proc. Natl. Acad. Sci. USA.*** 95:5033-5038, 1998, PMCID: PMC20208

|  |
| --- |
| Papst P, Sugiyama H, Nagasawa M, Lucas JJ, Maller JL, **Terada N**:  Cdc2-cyclin B phosphorylates p70 S6 kinase on Ser411 at mitosis.  ***J. Biol. Chem.*** 273:15077-15084, 1998, PMID: 9614117 |
| Iiboshi Y, Papst PJ, Kawasome H, Hosoi H, Abraham RT, Houghton PJ, **Terada N**:  Amino acid-dependent control of p70s6k: Involvement of tRNA aminoacylation in the regulation  ***J. Biol. Chem.*** 274:1092-1099, 1999, PMID: 9873056 |
| Minamino T, Yujiri T, Papst PJ, Chan ED, Johnson GL, **Terada N**:  MEKK1 suppresses oxidative stress-induced apoptosis of embryonic stem cell-derived cardiac myocytes.  ***Proc. Natl. Acad. Sci. USA.*** 96:15127-15132, 1999, PMCID: PMC24784 |
| Harada H, Andersen J, Mann M, **Terada N**, Korsmeyer SJ:  P70S6 kinase signals cell survival as well as growth, inactivating the pro-apoptotic molecule BAD  ***Proc. Natl. Acad. Sci. USA*** 98:9666-9670, 2001, PMCID: PMC55509 |
| *Minamino T, Yujiri T,* ***Terada N****, Taffet GE, Michael LH, Johnson GL, Schneider MD:*  *MEKK1 is essential for cardiac hypertrophy and dysfunction induced by Gq.*  ***Proc. Natl. Acad. Sci. USA*** *99:3866-3871, 2002, PMCID: PMC122615* |
| Oka M, Tagoku K, Russell T, Nakano Y, Hamazaki T, Meyer EM, Yokota T, **Terada N**:  CD9 is associated with leukemia inhibitory factor-mediated maintenance of embryonic stem cells  ***Mol. Biol. Cell*** 13:1274-1281, 2002, PMCID: PMC102268 |
| **Terada N,** Hamazaki T, Oka M, Hoki M, Mastalerz D, Nakano Y, Meyer E, Morel L, Petersen BE, Scott EW:  Bone marrow cells adopt the phenotype of other cells by spontaneous cell fusion.  ***Nature*** 416:542-545, 2002, PMID: 11932747 |
| Hamazaki T, Oka M, Yamanaka S, **Terada N**:  Aggregation of embryonic stem cells induces Nanog repression and primitive endoderm differentiation.  ***J. Cell Sci.*** 117:5681-5686, 2004, PMID: 15494369 |
| Oka M, Meacham AM, Hamazaki T, Rodic N, Chang L-J, **Terada N**:  De novo DNA methyltransferases Dnmt3a and Dnmt3b primarily mediate the cytotoxic effect of 5-aza-2'-deoxycytidine.  ***Oncogene*** 24:3091-3099, 2005, PMID: 16439359 |
| Rodic N, Oka M, Hamazaki T, Murawski M, Jorgensen M, MaatoukDM, ResnickJL, Li E, **Terada N**:  DNA methylation is required for silencing of *Ant4*, an adenine nucleotide translocase selectively expressed in mouse embryonic stem cells and germ cells.  ***Stem Cells*** 23:1314-1323, 2005, PMID: 16051982 |
| Oka M, Rodic N, Graddy J, Chang L-J, **Terada N**:  CpG sites preferentially methylated by Dnmt3a.  ***J. Biol. Chem.*** 281:9901-9908, 2006, PMID: 16439359 |
| Hamazaki T, Kehoe SM, Nakano T, **Terada N**:  The Grb2/Mek pathway represses Nanog in murine embryonic stem cells.  ***Mol. Cell. Biol.*** 26:7539-7549, 2006, PMCID: PMC1636849 |
| Singh AM, Li, F-Q, Hamazaki T, Kasahara H, Takemaru K, **Terada N**:  Chibby, an antagonist of the Wnt/-catenin pathway, facilitates cardiomyocyte differentiation of murine embryonic stem cells.  ***Circulation*** 115:617-626, 2007, PMCID: PMC2565513 |
| Li F-Q, Singh AM, Mofunanya A, Love D, **Terada N**, Moon RT, Takemaru K-I:  Chibby promotes adipocyte differentiation through inhibition of β-catenin signaling.  ***Mol. Cell. Biol.*** 27:4347-4354, 2007, PMCID: PMC1900052 |
| Singh AM, Hamazaki T, Hankowski K, **Terada N**:  A heterogeneous expression pattern for Nanog in embryonic stem cells.  ***Stem Cells*** 25:2534-2542, 2007, PMID: 17615266 |
| Brower JV, Rodic N, Seki T, Jorgensen M, Fliess N, Yachnis AT, McCarrey JR, Oh SP, **Terada N**:  Evolutionarily conserved mammalian adenine nucleotide translocase 4 Is essential for spermatogenesis  ***J. Biol. Chem.*** 282:29658-29666, 2007, PMID: 17681941 |
| Kehoe SM, Oka M, Hankowski K, Reichert N, Garcia S, McCarrey JR, Gaubatz S, **Terada N**:  A conserved E2F6-binding element in murine meiosis-specific gene promoters  ***Biol. Reprod.*** 79:921-930, 2008, PMCID: PMC2715002 |
| Brower JV, Lim CH, Jorgensen M, Oh SP, **Terada N**:  Adenine nucleotide translocase 4 deficiency leads to early meiotic arrest of murine male germ cells  ***Reproduction*** 138:455-462, 2009, PMID: 19556438  Hamazaki T, Leung WY, Cain BD, Ostrov DA, Thorsness PE, Terada N:  Functional expression of human adenine nucleotide translocase 4 in *Saccharomyces cerevisiae*  ***PLoS One*** 6, e19250, 2011. |

Hankowski KE, Hamazaki T, Umezawa A, Terada N:

Induced pluripotent stem cell as a next generation biomedical interface

***Lab Invest*** 91:972-977, 2011

Lim CH, Hamazaki T, Braun EL, Wade J, **Terada N**:

Evolutionary genomics implies a specific function of *Ant4* in mammalian and anole lizard male germ cells

***PLoS One*** in press, 2011

**C. Research Support**

# Ongoing Research Support

1 RC1 GM091238-01 Terada, Jin, Hamazaki (MPI) 9/30/2009 - 8/31/2012

NIH/NIGMS

**iPSC generation using protein injection and site-selective HDAC inhibition**

The major goal is to develop technologies to generate iPS cells without gene transfer by protein injection and site-selective HDAC inhibition. Role: Contact PI

5U01 HD060474-02 Terada (PI) 2/15/2009 - 1/31/2014

NIH/NICHD

**Developing Male Contraceptives by Targeting ANT4**

The major goal is to develop small molecules targeting adenine nucleotide translocase 4 (ANT4) in order to identify novel male contraceptives. Role: PI

3U01 HD060474-02S1 Terada (PI) 9/1/2010 - 8/31/2011

NIH/NICHD

**Developing Male Contraceptives by Targeting ANT4**

The major goal of this supplement grant is to generate optimized mouse models for the screening of the small molecules targeting ANT4. Role: PI

Research Agreement #1175004 Terada (PI) 8/15/2011 - 8/14/2012

Otsuka Pharmaceutical Inc.

**ANT2 and Cancer**

The major goal of this project is to develop novel anti-cancer chemotherapeutics by targeting ANT2 molecule. Role: PI

IFAS Research Innovation Grant Hansen (PI) 11/1/2010 - 10/31/2011

University of Florida

**Development of Pluripotent Stem Cells in Cattle**

The major goal of this project is to generate bovine ES cells and iPS cells. Role: Co-I

**Recently Completed Research Support**

5 R01 DK065096-05 Petersen (PI) 9/15/2005 - 6/30/2010

NIH/NIDDK

**Stem Cells in Liver Regeneration: Fusion or Plasticity**

The major goal is to establish data about the mechanisms of governing the bone marrow contribution to liver regeneration and signals involved in oval cell activation, proliferation, and differentiation. Role: Co-I

5 R01 DK059699-05 Terada (PI) 9/1/2000 - 7/31/2006

NIH/NIDDK

**Generation of Hepatocyte Precursors from Mouse Embryonic Stem Cells**

The major goal of this project is to isolate and purify functional hepatocytes from mouse embryonic stem cells.

Role: PI