

# Curriculum Vitae

Toru Shimizu (February 1, 2018)

## CURRENT POSITION

Professor and Chair  
Department of Psychology  
University of South Florida

## CONTACT INFORMATION

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Tampa, Florida 33620-7200  
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FAX: (813) 974-4617  
E-Mail: shimizu(at)usf.edu  
Website: <http://shell.cas.usf.edu/~shimizu/>

## EDUCATION

- 1981 B.A. Psychology, Keio University, Tokyo, Japan  
Advisor: Dr. Takashi Ogawa
- 1984 M.S. Psychology, University of Maryland, College Park  
Concept formation of topological space in the pigeon (*Columba livia*),  
Advisor: Dr. William Hodos
- 1986 Ph.D. Psychology, University of Maryland, College Park  
Reversal learning performance after selective lesions of the wulst in  
pigeons (*Columba livia*), Advisor: Dr. William Hodos
- 1986-1990 Post-doctoral Neuroscientist, Neurosciences, University of California, San Diego  
Advisor: Dr. Harvey J. Karten

## EMPLOYMENT HISTORY

- 2010-present International collaborator of the Centre for Advanced Research on Logic and  
Sensibility, Keio University, Tokyo, Japan
- 2009 Visiting Professor, Psychology, Keio University, Tokyo, Japan
- 2002-present Professor, Psychology, University of South Florida
- 2001 Visiting Associate Professor, Psychology, Keio University, Tokyo, Japan
- 2000 Special Invited Lecturer, Psychology, Keio University, Tokyo, Japan
- 1999 Visiting Associate Professor, Psychology, Keio University, Tokyo, Japan
- 1999 Visiting Associate Professor, Lehrstuhl für Verhaltensforschung, Fakultät für  
Biologie, Universität Bielefeld, Bielefeld, Germany

- 1997- Founding Faculty Member, Neuroscience Program, University of South Florida Health Sciences Center
- 1997 Visiting Associate Professor, Psychology, Keio University, Tokyo, Japan
- 1996-2002 Associate Professor Psychology, University of South Florida
- 1992- Member, Institute for Biomolecular Science, University of South Florida
- 1991-1996 Assistant Professor, Psychology, University of South Florida
- 1990-1991 Assistant Research Neuroscientist, Neurosciences, University of California, San Diego
- 1990 Lecturer, Psychology, Keio University, Tokyo, Japan
- 1986-1990 Post-doctoral Neuroscientist, Neurosciences, University of California, San Diego
- 1984-1986 Research Assistant, Psychology, University of Maryland, College Park
- 1983-1984 Laboratory Instructor, Psychology, University of Maryland, College Park
- 1981-1982 Teaching Assistant Psychology, University of Maryland, College Park
- 1980 Teaching Assistant, Psychology, Keio University, Tokyo, Japan

#### **PROFESSIONAL MEMBERSHIPS**

American Association for the Advancement of Science  
American Psychological Association  
Comparative Cognition Society  
International Society for Neuroethology  
J. B. Johnston Club of Evolutionary Neuroscience  
Society for Neuroscience

#### **SCHOLARSHIPS, AWARDS, and HONORS**

- 2009 Sabbatical Award, University of South Florida
- 2003 President's Award for Faculty Excellence, University of South Florida
- 1998-1999 Sabbatical Award, University of South Florida
- 1997 Group Achievement Award, Phase 1A Shuttle/Mir Science Program  
National Aeronautics and Space Administration
- 1995 Teaching Incentive Program Award, University of South Florida
- 1991 Travel Fellowship, for the NATO meeting "The Changing Visual System: Maturation and Aging in the Central Nervous System" in Viterbo, Italy, NATO Advanced Study Institute
- 1986 Travel Fellowship, for the NATO meeting "The Evolutionary Biology of Intelligence" in Poppi, Italy, NATO Advanced Study Institute

- 1986 Honorable Mention for the Jack Bartlett Award (Ph.D. thesis proposal), Psychology, University of Maryland
- 1985 Travel Fellowship, for the annual Society for Neuroscience meeting, Psychology, University of Maryland, College Park
- 1984 Teaching Assistant Award, University of Maryland, College Park

#### **GRANTS and CONTRACTS**

- 2016-2021 **National Institutes of Health**  
Development and Neurobiology of Categorization  
P.I.: V.M. Sloutsky (with T. Shimizu as consultant)
- 2014 **USF CAS Internal Award**  
The role of bird behavior in the spread of the West Nile virus  
\$1,500  
P.I.: T. Shimizu
- 2012 **USF Graduate Student Challenge Grant**  
Variation in Hippocampal-Dependent Behaviors and Neurogenesis during a Range Expansion  
Student Name: S. Leilani Kellogg (with T. Shimizu as supervisor)
- 2010 **USF Office of Undergraduate Research**  
Distribution of the Glucocorticoid Receptor in the House Sparrow Brain and Correlation with mRNA Expression  
Student Name: David Nicholson (with T. Shimizu as supervisor)
- 2009-2013 **National Science Foundation**  
The Magnetic Sense of Homing Pigeons and its use in Map Navigation  
\$450,000  
P.I.: V. Bingman (with T. Shimizu as co-Investigator)
- 2009-2012 **University of South Florida, Interdisciplinary Research Development Grant**  
Does Traumatic Brain Injury Precipitate Alzheimer's Disease?  
\$50,000  
P.I.: T. Shimizu
- 2009 **Japan Society for the Promotion of Science / NIH**  
Non-laminar Neuroarchitecture for Cognitive Ability  
Invitation Fellowship for Research in Japan (Short-term)  
\$20,000 - S-09713  
P.I.: T. Shimizu
- 2005-2006 **University of South Florida, Established Researcher Grant**  
Neural Mechanisms of Sensory Integration  
\$4,220  
P.I.: T. Shimizu
- 2004-2010 **National Institutes of Health** (National Institute on Aging)  
Modulation of age-related changes in the auditory system  
\$1,250,000 - R01 AG07554-15  
P.I.: J. Willott (with T. Shimizu as co-PI)

- 2004            **National Science Foundation**, Research Experience for Undergraduates Supplement  
Neural Analysis of Visual Discrimination  
\$ 6,250 - IBN-0091869  
P.I.: T. Shimizu
- 2002            **National Science Foundation** and **National Institute of Health**  
The Avian Brain Nomenclature Forum  
\$28,000 (\$15,000 from NSF, \$13,000 from NIH)  
P.I.: E. Jarvis
- 2001-2005      **National Science Foundation**  
Neural Analysis of Visual Discrimination  
\$285,000 - IBN-0091869  
P.I.: T. Shimizu
- 2001            **Japan Society for the Promotion of Science / NIH**  
Behavioral and Anatomical Effects of Cerebral Ischemia in Birds  
\$10,500 (short-term fellowship RC-20137003)  
P.I.: T. Shimizu
- 1999-2000      **University of South Florida**, Research and Creative Scholarship Grant  
Neural Mechanisms of Visual Recognition  
\$7,350  
P.I.: T. Shimizu
- 1998            **University of South Florida**, Faculty Development Award  
Neural Mechanisms of Visual Recognition  
\$1,000  
P.I.: T. Shimizu
- 1997            **Japan Society for the Promotion of Science / NIH**  
An Avian Model for Ischemia  
\$10,000 - (short-term fellowship RC-29637030)  
P.I.: T. Shimizu
- 1995-1998      **National Aeronautics and Space Administration**  
Effects of Weightlessness on the Avian Visuo-vestibular System:  
Immunohistochemical Analysis  
\$117,253 – NAG 2-1000  
P.I.: T. Shimizu
- 1995            **National Science Foundation**, Research Experience for Undergraduates Supplement  
Neural Substrates for Visual Recognition in Birds  
\$6,250 – IBN-9209538  
P.I.: T. Shimizu
- 1994            **National Science Foundation**, Research Experience for Undergraduates Supplement  
Neural Substrates for Visual Recognition in Birds  
\$6,250 – IBN-9209538  
P.I.: T. Shimizu
- 1994            **Sigma Xi Grant-In-Aid**  
Conspecific Discrimination in Pigeons and the Effects of Thalamic Lesions

- \$400  
P.I.: T. J. Borgatti under supervision of T. Shimizu
- 1993-1995 **National Science Foundation**  
Neural Substrates for Visual Recognition in Birds  
\$204,181 – IBN-9209538  
P.I.: T. Shimizu
- 1993 **National Science Foundation**, Research Experience for Undergraduates  
Supplement  
Neural Substrates for Visual Recognition in Birds  
\$5,000 – IBN-9209538  
P.I.: T. Shimizu
- 1988-1991 **Office of Naval Research**  
The Role of Lamination in Neocortical Function  
\$371,760 - N00014-88-K-0504  
P.I.: H. J. Karten
- 1988-1993 **National Institute of Neurological Disorders and Stroke**  
DVR: Visual Pathways and the Origin of Neocortex  
\$1,303,780 - NS24560  
P.I.: H. J. Karten

## TEACHING and MENTORING

### Courses:

1991-present University of South Florida

#### Undergraduate Courses:

1. Physiological Psychology
2. Comparative Psychology
3. Psychology of Learning
4. Neuropsychology Lab Course (Directed Study)

#### Graduate Courses:

1. Physiological Psychology
2. Psychology of Learning
3. Methods in Neuroscience – Microscopy and Histology

#### Graduate Seminars:

1. Advanced Neuroscience
2. Evolution of Mind and Consciousness
3. Sex and the Brain
4. Comparative Neuroanatomy
5. How to Succeed in Academia
6. Sex in the Brain
7. Mind and the Movies
8. Neuroethics

- 1999 Keio University, Tokyo, Japan, Neuroanatomy Laboratory  
1990 Keio University, Tokyo, Japan, Comparative Neurobiology  
1983-84 University of Maryland, College Park, Laboratory Instructor, Learning and Motivation  
1981-82 University of Maryland, College Park, Teaching Assistant, Comparative Neuroanatomy, Introductory Psychology, Methodology of Neuroanatomy

1980 Keio University, Tokyo, Japan, Instructor, Experimental Psychology Laboratory

#### Visiting Researchers:

1. Dimitri V. Lychakov, Russian Academy of Science (Summer, 1997)
2. Shigeru Watanabe, Keio University (Spring, 2003)
3. Hans-Joachim Bischof, Bielefeld University, Germany (Spring 2011, Summer 2012, Spring 2013)

#### Pre- or Post-doctoral Advisees:

1. Uwe Hahmann, Konstanz University, Germany, (Summer 1993)
2. Sven Kröner, Ruhr University of Bochum, Germany, (Summer 1994 - Fall 1994)
3. Taylor Johnson, Tufts University (Spring 2004)
4. Rebecca Markham, Florida International University (Spring 2005)
5. **Douglas Barron (Summer 2014 – Summer 2015; Assistant Professor at Arkansas Tech University)**

#### Graduate Advisees:

##### Ph.D.

1. Philip Holbdy (Fall 1995 - Fall 1998), Cerebral lateralization of language in homosexual and heterosexual men
2. Michael L. Brazas (Fall 1998 - Spring 2005), Cognitive load theory and programmed instruction (co-advised with Dr. M. dePerczel Goodwin), Current position: Supervisor, IS Training Team, BayCare Health System, Tampa, Florida (Fall 2005 - present)
3. Scott A. Husband, (Fall 1998 - Summer 2004), Anatomy and function of the nucleus accumbens in the pigeon (*Columba livia*). Current position: Associate Professor, University of Tampa, Florida (Fall 2006 - present)
4. Antonio V. Laverghetta (Spring 1999 - Spring 2002), Parallel processing in the visual system of the zebra finch, Current position: Associate Professor, Cameron University, Oklahoma (Fall 2005 - present)
5. Amy L. Osmon (Spring 2005 - Fall 2008), Investigation of visual fields and visually-mediated behavior in the bonnethead shark (*Sphyrna tiburo*) (co-advised with Dr. D. Mann), Current position: Associate Professor, Daytona State College, Florida (Fall 2007 - present)
6. Debborah Colbert (Spring 2006 - Summer 2008), Performance abilities, interaural intensity level cues, and usage of auditory evoked potential techniques to determine sound conduction pathways (co-advised with Dr. D. Mann), Current position: Vice President of Animal Conservation, Association of Zoos and Aquariums (Fall 2008 - present)
7. Tadd Patton (Fall 2008 - Summer 2010), An anatomical investigation of higher visual structures in the pigeon (*Columba livia*). Current position: Assistant Professor, University of Augusta, Georgia (Fall 2010 - present)
8. Ahmet Kerim Uysal (Fall 2011 - Summer 2017), Effects of an early life immune challenge on body growth, personality, mating behaviors, and brain development of zebra finches.
9. S. Leilani Kellogg (Summer 2011 - Summer 2017), An anatomical study of the hyperpallium densocellulare in the pigeon (*Columba livia*)

##### M.A.

1. Scott A. Husband (Fall 1994 - Summer 1998)
2. Michael L. Brazas (Fall 1994 - Spring 1998), Species discrimination based on visual and auditory stimuli in the zebra finch (*Taeniopygia guttata castanotis*), Outstanding Master's Thesis Prize from College of Arts and Sciences, USF, October 1998

3. Antonio V. Laverghetta (Fall 1994 - Fall 1998), The effects of thalamic lesions on stationary and moving object perception in the pigeon (*Columba livia*)
4. Alexia N. Bowers (Fall 1996 - Spring 2000), Projections of a secondary visual area in the pigeon
5. Amy L. Osmon (Spring 2000 - Summer 2004), The organization of the visual system in the bonnethead shark (*Sphyrna tiburo*)
6. Tadd B. Patton (Fall 2003 - Summer 2006), Altered features of female pigeons (*Columba livia*) elicit preference behavior in male pigeons
7. S. Leilani Kellogg (Fall 2010 - Spring 2012), Behavioral and histological effects of traumatic brain injury on Alzheimer's disease transgenic mice

### Undergraduate Advisees:

#### Honors

1. Michael L. Brazas (Fall 1993 - Summer, 1994), Graduate Program at USF
2. Karin M. Radcliffe (Fall 1995 - Summer, 1996), Stetson School of Law
3. Megan Dailey (Fall 1996 - Fall 1997)
4. Italo Masiello (Fall 1996 - Summer 1997), Graduate Program at Karolinska Institute, Sweden
5. Mary Newman (Spring 1997 - Summer 1998), Graduate Program at USF
6. Brian Cornwell (Spring 1998 - Spring 1999), Graduate Program at Emory University
7. Ketan Bakriwala (Fall 2006 - Spring 2007), Pennsylvania College of Optometry
8. Abigail Harper (Spring 2008 - Summer 2008), University of Alabama
9. Melynda Brown (Spring 2008 - Fall 2008)
10. Asef Mahmud (Spring 2008 - Fall 2008), A new digital imaging protocol for signal detection and distribution analysis in histological samples, Medical School at USF
11. Frank Fishburn (Spring 2008 - Spring 2009), Differential responding to real-time and delayed self-videos in *Columba livia*, Graduate program at Georgetown University
12. Brittany Zurschmit (Fall 2009, In complete)

#### Laboratory Assistants:

1. N. Ruth Abert (Summer 1992 - Spring 1994), Graduate Program at University of South Carolina
2. Scott A. Husband (Summer 1992 - Summer 1994), Graduate Program at USF
3. K. Svensen (Fall 1992)
4. Georgetta L. Bosco (Spring 1993 - Fall 1994), REU grant supplement (NSF), Graduate Program at University of West Florida
5. Tadd B. Patton (Summer 1993 - Spring 1995), Graduate Program at Georgia State University
6. Tracy J. Borgatti (Summer 1993 - Spring 1995), PAR scholarship, May 1994, Grants-in-Aid of Research Award from Sigma Xi, July 1994, Graduate Program at USF
7. J. Croake (Summer 1993 - Fall 1993)
8. S. Stanciu (Summer 1993)
9. M. Wai-Wang (Fall 1993 - Spring 1994)
10. G. Soto (Fall 1993)
11. T. Islam (Spring 1994)
12. D. Styers (Spring 1994)
13. J. Graziano (Spring 1994)
14. K. Clarke (Spring 1994 - Summer 1994)
15. S. Elias (Spring 1994 - Fall 1994), Graduate Program at Auburn University
16. C. Noetzel (Spring 1994 - Fall 1994)
17. S. Shadrick (Spring 1994 - Fall 1994), Graduate Program at Western Kentucky University
18. K. Powell (Spring 1994 - Fall 1995), REU grant supplement (NSF)
19. A. Woods (Fall 1995)

20. S. Henry Hsiao (Fall 1995 - Spring 1997)
21. A. Rundus (Spring 1996)
22. A. Badey (Spring 1996), Graduate Program at Florida International University
23. M. Dailey (Spring 1996 - Fall 1997)
24. L. Amiri (Summer 1996), Graduate Program at USF
25. K. B. Cline (Summer 1996 - Spring, 1997), Graduate Program at University of New Orleans
26. N. Clark (Fall 1996 - Spring 1997), Graduate Program at Northwestern University
27. P. Cameron (Fall 1996 - Summer 1997)
28. J. Miskel (Summer 1997 - Spring 1998), Graduate Program at USF
29. S. Blackmon (Summer 1997 - Spring 1998)
30. A. Anguas (Summer 1997 - Spring 1998)
31. G. D. Lunsford (Fall 1997), Graduate Program at USF
32. B. Cornwell (Spring 1998 - Summer 1999)
33. B. Marsh (Spring 1998)
34. M. E. Lynch (Spring 1998)
35. Danna Horowitz (Fall 1999 - Summer 2001)
36. Kari DeBoskey (Fall 2001 - Summer 2002)
37. Steve Nodine (Summer 2002)
38. Svetlana Ustyuzhanin (Fall 2002)
39. Justine VandenBosche (Spring 2003 - Fall 2004)
40. Antonio Perry (Spring 2003 - Summer 2003), Graduate program at USF
41. Karen Drapala (Spring 2003 - Summer 2003)
42. Melissa Nelson (Summer 2003- Fall 2003)
43. Joshua Jackson (Summer 2003 - Fall 2003)
44. Sarah Stone (Summer 2003 - Spring 2004)
45. Trang Van (Spring 2004 - Spring 2004)
46. Vanessa Fischer (Spring 2004 - Spring 2005)
47. Gabrielle Szafranski (Summer 2004 - Summer 2005)
48. Sophia Delgado/Jones (Fall 2005 - Fall 2006)
49. Joshua Nadeau (Fall 2005)
50. Christin McKay (Summer 2007 - Fall 2007)
51. Jennifer Miller (Summer 2007 - Summer 2008)
52. Amanda Bunton (Spring 2009 - Summer 2010), Graduate program at Southern Illinois University
53. David Nicholson (Spring 2009 - Summer 2010), Graduate program at Emory University
54. Carmen Sanchell Lee (Spring 2010 - Spring 2012), School of Architecture graduate program at USF
55. Robert Ries (**Spring 2010 - Spring 2013**), Computer Science Graduate program at USF
56. Pattie Scime (Spring 2010 - Spring 2011), Mental Health Counseling Graduate Program, Western Kentucky University
57. Althea Thomas (Spring 2011 - Spring 2012), CSD Graduate program at USF
58. Alicia Chechele (**Summer 2012 - Spring 2013**), Neuroscience Graduate program, University of Florida
59. Brandttanner Martin (**Spring 2013 - spring 2014**)
60. David Howard (**Summer 2014 - summer 2015**)
61. Manuela Florez (**Spring 2015 - Summer 2017**)
62. Alexandra Gryzbowski (**Spring 2015 - Fall 2015**)
63. Alexandra Krajcevska (**Spring 2015 - Summer 2017**)
64. Eshtar Oraha (**Spring 2015 - Summer 2015**)
65. Amanda Oram (**Spring 2015 – Summer 2017**)
66. Bianca Sarubbi (**Spring 2015 - Fall 2015**)
67. Samantha Schwartz (**Spring 2015 - Summer 2017**)
68. Yeisa Torres (**Spring 2015 - Summer 2017**)



**Ph.D. dissertation committee membership:**

1. Jack Darkes (Goldman, Summer 1992 - Spring 1994)
2. C. A. Vance (I/O, Fall 1992 - Spring 1993)
3. K. A. Smith (Spring 1994)
4. S. Menon (I/O, Spring 1994)
5. D. Socci (Arendash, Biology, Fall 1991 - Fall 1995)
6. A. Thatcher-Benza (Clinical, Spring 1994 - Spring 1999)
7. J. B. Morris, Jr. (Clinical, Spring 1994 - Summer, 1996)
8. B. J. Blume (Clinical, Spring 1994 - Fall 1996)
9. G. Cox (Fall 1994 - Spring 1996)
10. D. S. Artman (Fall 1994 - Fall 1995)
11. P. Takalkar (Fall 1994 - Spring 1996)
12. C. L. Fishback (Fall 1994 - Summer 1996)
13. P. Van Katwyk (I/O, Fall 1994 - Fall 1996)
14. K. W. Cook (Spring 1995 - Spring 1996)
15. D. King (Arendash, Biology, Spring 1996 - Fall 2000)
16. D. Miles (I/O, Summer 1996 - Summer 1998)
17. M. Rose (Summer 1996 - Fall 1997)
18. A. Prince (Fall 1996 - Summer 1999)
19. L. E. Bennett (Fall 1996 - Spring 1997)
20. B. Fowler (Clinical, Fall 1996 - Spring 2001)
21. K. Schneider (Spring 1997 - Fall 1998)
22. M. B. Zia Mian (Spring 1997 - Fall, 1997)
23. K. B. Bjugstad (Arendash, Biology, Fall 1997 - Fall 1998)
24. G. W. Behner (Fall 1997)
25. H. Belanger (Cimino, Fall 1997 - Fall 2000)
26. L. A. Olson (I/O, Fall 1997 - Spring 1999)
27. D. L. Riddle (Spring 2000 - Summer 2000)
28. N. Ali (Cimino, Spring 1998 - Fall 1998)
29. B. P. Kolitz (Summer 1998 - Spring 2000)
30. S. J. Familo-Hopek (Summer 1998 - Fall 1999)
31. S. M. Rioux (I/O, Fall 1998)
32. L. L. Foster (I/O, Fall 1998 - Summer 1999)
33. W. V. Chaves (I/O, Spring 2000 - Fall 2000)
34. C. Kubisiak (I/O, Spring 2000 - Spring 2003)
35. Martha J. Sutton (I/O, Spring 2000 - Spring 2005)
36. Thomas R. Gordon (Covert, Summer 2000 - Fall 2000)
37. Jerry A. Miller (Fall 2001 - Spring 2004)
38. Kimberly Richards (Spring 2002 - Spring 2004)
39. D. R. Newson, Jr. (Spring 2002)
40. T. McPhail (I/O, Fall 2002)
41. Melissa F. Schulz (Rohrer, Spring 2003 - Spring 2004)
42. Angeline Goh (Spector, Spring 2003 - Fall 2006)
43. Tom King (I/O, Spring 2003 - Summer 2006)
44. M. Scott Young (Kinder, Spring 2004 - Fall 2004)
45. Jason R. Read (I/O, Spring 2004 - Spring 2005)
46. Patrick Connel (I/O, Spring 2004 - Fall 2005)
47. Adam M. Campbell (Diamond, Spring 2003 - Spring 2004)
48. Rex M Philpot (Kirstein, Spring 2002 - Summer 2004)
49. Kelli-Lee Harford (Clinical, Fall 2005 - Summer 2007)
50. Tim Willis (Covert, Fall 2005 - Spring 2008)
51. Kirstie H. Stansfield (Kirstein, Summer 2005 - Fall 2007)
52. Briony Catlow (Kirstein, Spring 2007 - Fall 2008)
53. Kimberly A. Badanich (Kirstein, Summer 2007 - Fall 2008)
54. Kelli Taylor (Rohrer, Fall 2007 - Spring 2008)

55. Noah Sulman (Sanocki, Fall 2008 - Spring 2011)
56. Antoniette M. Maldonado-Devincci (Kirstein, Summer 2010 - Summer 2011)
57. Andrea Liebl (Lynn, Biology, Fall 2010 - Summer 2013)
58. Amora Mayo-Perez (Borlongan, Biomedicine, **Summer 2012 - present**)
59. Holly Kilvitis (Lynn, Richards, Biology, **Fall 2012 - Fall 2017**)
60. Ryan Dullaghan (Borman, Summer 2013)
61. Jeffrey Annis (Malmberg, Fall 2013 - Summer 2014)
62. Adriana R. Uruena (Kirstein, Fall 2013 - Fall 2014)
63. Heather Soder (Potts, **Fall 2015 - Fall 2017**)
64. Mona Fathollahi (Kasturi, Sakar, Computer Science, **Spring 2014 - Summer 2016**)
65. Jessica Hoffman (Kirstein, **Summer 2016 - present**)
66. Hung Nguyen (Borlongan, Integrated Biomedical Sciences Program, USF Morsani College of Medicine, **Fall 2016 - Fall 2017**)

**Ph.D. dissertation committee membership outside University of South Florida:**

1. Taichi Kusayama, Keio University, Tokyo, Japan (Watanabe, Spring 2005)
2. Thomas Nathaniel, Ruhr-Universität Bochum, Germany (Troje, Fall, 2005)
3. Lars Dittrich, Ruhr-Universität Bochum, Germany (Güntürkün, **Fall, 2009 - present**)
4. Matthew Murphy, Tufts University, Massachusetts (Cook, **2009 - 2014**)
5. Sascha Helduser, Ruhr-Universität Bochum, Germany (Güntürkün, **Spring, 2012 - present**)

**Ph.D. dissertation defense chairperson:**

Maren Jensen (Arendash, Spring 2006)

**M.A. thesis committee membership:**

1. B. J. Blume (Clinical, Spring 1992 - Spring 1993)
2. A. Thatcher-Benza (Clinical, Spring 1992 - Fall 1993)
3. J. B. Morris, Jr. (Clinical, Spring 1993 - Spring 1994)
4. D. Artman (I/O, Fall 1993 - Spring 1994)
5. K. W. Cook (Summer 1994)
6. E. Rafla-Yuan (Fall 1994 - Spring, 1996)
7. K. B. Bjugstad (Kirstein, Fall 1994 - Spring, 1995)
8. V. M. McKinney (D. Nelson, Spring 1992 - Fall 1995)
9. Rex M Philpot (Kirstein, Fall 1995 - Fall 1997)
10. L. L. Foster (Spring 1996 - Spring 1997)
11. D. L. Riddle (Spring 1996 - Fall 1996)
12. W. V. Chaves (Fall 1996 - Spring 1997)
13. S. J. Familo-Hopek (Fall 1996)
14. S. Hall (Spring 1997 - Spring 1998)
15. Tracy J. Borgatti (Cimino, Spring 1997 - Summer 1999)
16. M. J. Puls (Fall 1997)
17. L. Amiri (Spring 1998 - Fall 1999)
18. K. M. Alfano (Summer 1999 - Summer 2001)
19. K. Hoffman (Spring 2000 - Fall 2000)
20. J. Horn (Spring 2001 - Spring 2002)
21. Kimberly A. Badanich (Kirstein, Spring 2002 - Fall 2005)
22. Andrew Biga (Summer 2003 - Spring 2004)
23. Kirstie H. Stansfield (Kirstein, Spring 2004 - Spring 2005)
24. Debborah Colbert (Partan, Spring 2005 - Fall 2005)
25. Briony Catlow (Kirstein, Fall 2005)
26. Antoniette Maldonado (Kirstein, Fall 2006 - Fall 2007)
27. Joshua R. Kuhlman (Martin, Biology, Spring 2009 - Spring 2010)
28. Idan Ariel (Goldman, Fall 2009 - Fall 2011)
29. Steven Fiske (Sanocki, Fall 2010 - Summer 2011)
30. Jeff Annis (Malmberg, Fall 2010 - Fall 2011)

31. Heather Soder (Potts, **Spring 2013 - Spring, 2015**)
32. Steven Schultz (Sanocki, **Fall 2014 - Summer 2016**)
33. Savannah Dalrymple (Diamond, **Summer 2016 – Summer 2017**)
34. Colleen O'Leary (Potts, **Spring 2017 – present**)

**Undergraduate Honors thesis committee membership:**

1. J. Cameron (Kirstein, Fall 1994 - Spring 1995)
2. D. Peckham (Kirstein, Fall 1998 - Fall 1999)
3. Naomi Watanabe (Bryant, Fall, 2007 - Spring 2008)
4. Kent Alipour (Kirstein, Spring 2008 - Spring 2008)
5. Brittany Zurschmit (Fall 2009 - Incomplete)
6. Laura Brown (Kirstein, Fall 2009)
7. Brian Koerper (Halonon/Diamond, Fall 2010 - Spring 2011)
8. Mohammed Islam (Sulman/Sanocki, Fall 2010 - Summer 2012)
9. Kevin M. Potter (Susan Mooney in English, **Fall 2012-Spring 2013**)

**Undergraduate Directed Studies**

1. Akbar Qayum (Spring, 2015)

**UNIVERSITY GOVERNANCE**

**University of South Florida**

1. Department Activity

2013-present	Department Chair
2012-2013	Alumni committee
2010-2013	Associate Department Chair
2011	Grievance Committee
2010	Visiting Assistant Professor Search Committee
2009	Department Chair Search Committee
2008	Strategic Planning Committee
2008	By-laws Committee
2007	Promotion and Tenure Evaluation Committee for Dr. Salomon
2006-2008	Evaluation Committee
2006-2008	Executive Committee (Member at large)
2005	Promotion and Tenure Evaluation Committee for Dr. Kirstein (Chair)
2005	Industrial/Organization Assistant Professor Search Committee
2004	Grievance Committee
2003-2006	Colloquium Committee
2002-2003	Assistant Professor Search Committee
2002	Promotion and Tenure Evaluation Committee for Dr. Diamond (Chair)
2002	Graduate Admissions Committee
2001-2002	Assistant Professor Search Committee
2001	Experimental Psychology Assistant Professor Search Committee (St. Petersburg Campus)
2000-2001	Department Chair Search Committee
1999-2002	Department Future Committee
1999-2000	Senior Professor Search Committee
1999-2002	Colloquium Committee
1998	Cognitive Psychology Assistant Professor Search Committee
1997-1998	Graduate Program Committee
1996-1997	Biopsychology Assistant/Associate Professor Search Committee (Chair)
1995-1996	Industrial/Organization Assistant Professor Search Committee
1994-1997	Colloquium Committee

1993-1994 Library Committee Representative  
 1992-1993 Biopsychology Assistant Professor Search Committee (Chair)  
 1991-1992 Equipment Committee  
 1991-1992 Experimental Assistant Professor Search Committee

## 2. University Activity

2015- Research Advisory Committee  
 2014- Academic Affiliation Advisory Committee for the Center of Innovation on Disability and Rehabilitation Research  
 2012-2014 Core Facility Liaison for College of Arts and Sciences (CAS)  
 2007 Division of Comparative Medicine Advisory Council  
 2006 Judge for the 5<sup>th</sup> CAS Graduate Student Research Symposium  
 2006 Outside Chair for a Ph.D. defense for Maren Jensen (Biology)  
 2004-2006 College of Arts and Sciences Graduate Committee  
 2004 Judge for the 4<sup>th</sup> CAS Graduate Student Research Symposium  
 2003 Reviewer for the Internal Awards  
 2003 (7/22) Panelist for CAS Summer Proposal Writing Workshop  
 2003 College of Arts and Sciences Graduate Committee (alternate member)  
 2003 Distinguished University Professor Discipline Committee  
 2001- Institutional Animal Care and Use Committee (alternate member)  
 1997- Neuroscience Program Education Committee  
 1996-2002 PSY/CSD Building Program Committee  
 1995 Search Committee for Director of Animal Laboratory Resource  
 1992 Neuroscience Seminar Series (Neuro Lunch) (Organizer)  
 1992-1996 Institutional Animal Care and Use Committee  
 1992-1995 Vivarium (LSA Annex) Renovation Committee

## **PUBLIC SERVICE**

### 1. General Community

1999 Co-organizer, Brain Awareness Day at the Museum of Science and Technology, Hillsborough County, Florida

### 2. Professional Community

2014-2015 NSF Review Panelist  
 2014-2015 Reviewer, American Psychological Foundation/Council of Graduate Departments of Psychology Graduate Research Scholarship  
 2011 Organizer, Keio-USF Psychology Seminar, December 2<sup>nd</sup> – 3<sup>rd</sup>, at USF  
 Sponsored by by the Centre for Advanced Research on Logic and Sensibility, Keio University, Japan, and Department of Psychology and the Center of Excellence for Aging and Brain Repair, USF  
 2011 Organizer, Keio-USF Psychology Seminar, January 28<sup>th</sup> – 29<sup>th</sup>, at USF  
 Sponsored by by the Centre for Advanced Research on Logic and Sensibility, Keio University, Japan, and Department of Psychology and the Center of Excellence for Aging and Brain Repair, USF  
 2010 Organizer, Keio-USF Biopsychology Seminar, January 15<sup>th</sup> – 16<sup>th</sup>, at USF  
 Sponsored by by the Centre for Advanced Research on Logic and Sensibility, Keio University, Japan, and Department of Psychology and the Center of Excellence for Aging and Brain Repair, USF  
 2006 Session Chair, Social Cognition as a Higher Brain Function, August 1<sup>st</sup> – 3<sup>rd</sup>, at Keio University, Tokyo, Japan

- 2006 Session Chair, Integration of Comparative Neuroanatomy and Comparative Cognition, August 27<sup>th</sup> -28<sup>th</sup>, at Keio University, Tokyo, Japan
- 2003-2004 Co-organizer, Festschrift for Drs. W. Hodos and H. J. Karten, June 5<sup>th</sup> – 6<sup>th</sup>, 2004 at University of Maryland, College Park
- 2002 Co-organizer, Avian Brain Nomenclature Forum, July 18<sup>th</sup> – 22<sup>nd</sup>, 2002, at Duke University, in Durham, North Carolina
- 1994 Co-Chair, Local Organizing Committee for the annual meeting of International Behavioral Neuroscience Society
- 1993-1995 Secretary/Treasurer, Tampa Bay Chapter of Society for Neuroscience
- 1994-present Administrator, listserv *Avi-eaters*, for avian neurobiologists
- 1993 Member, Local Organizing Committee for the annual meeting of International Behavioral Neuroscience Society
- 1990-1991 Chair/Organizer, Neuroscience Seminar Series, University of California, San Diego

### 3. Advisory and Technical Committee

- 2012- Editorial Board, Comparative Cognition & Behavior Reviews
- 2002-2006 Editorial Board, Brain Research 'Main Journal'
- 2003- Associate, Behavioral and Brain Sciences

### 4. Journal Article Reviews

Annals of the New York Academy of Sciences, Behavioral and Brain Sciences, Behavioral Brain Research, Behavioral Neuroscience, Behavioural Processes, Brain, Behavior and Evolution, Brain Research Bulletin, Brain Research 'Main Journal', Brain Structure and Function, Cognitive, Affective, and Behavioral Neuroscience, Cognitive Brain Research, Experimental Brain Research, Hippocampus, Japanese Psychological Research, Journal of Cognitive Neuroscience, Journal of Comparative Neurology, Journal of Comparative Physiology – A, Journal of Chemical Neuroanatomy, Journal of Experimental Psychology: Animal Behavior Processes, Journal of Neurobiology, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Vision, Life Sciences, Nature, NeuroReport, Neuroscience, Neuroscience Letters, Neuroscience and Biobehavioral Reviews, Physiology and Behavior, Physiology and Learning, Psychological Reports, Public Library of Science Biology, Visual Neuroscience, Zoo Biology

### 5. Grant Application Reviews

American Psychological Foundation/Council of Graduate Departments of Psychology  
National Institutes of Health  
National Science Foundation Review Panel  
American Health Assistance Foundation  
U.S. Civilian Research and Development Foundation (2001)  
Natural Sciences and Engineering Research Council of Canada (2008, 2010, 2011)  
Health Science Agency of New Zealand  
Marsden Fund of the Royal Society of New Zealand  
Volkswagen Foundation (2010)  
Chilean National Research Funding Competition (2010)

### 6. Book Reviews

Brooks/Cole Publishing Company, Minerva Publishing Company, Japan (1999), McGraw-Hill Companies (1999, 2006), Wadsworth Publishing Company (2000, 2004), Houghton Mifflin Company (2001, 2002), Oxford University Press (2012)

#### 7. Promotion and Tenure Reviews

Department of Psychology, University of Alberta, Canada (1999) for Dr. D. Wylie  
Department of Psychology, Georgia Regents University (2015) for Dr. T. Patton

#### 8. Science Award Reviews

Science Award of TUBITAK (Scientific and Technological Research Council of Turkey) (2007) for Dr. O. Güntürkün.

#### INVITED TALKS

1. **Shimizu, T.** (1984). Graduate education in the U.S.A. Japanese Society for Basic Psychology, Tokyo, Japan.
2. **Shimizu, T.** (1984). Topological concept formation in pigeons. Department of Psychology, Keio University, Tokyo Japan.
3. **Shimizu, T.** (1986). Topological concept formation of pigeons. NATO Advanced Study Institute, Poppi, Italy.
4. Karten, H. J. and **Shimizu, T.** (1990). Functional significance of neural circuits and lamination of the neocortex: An evolutionary view. Workshop on Visual Structures and Integrated Functions, University of Southern California.
5. Wakita, M., **Shimizu, T.**, and Watanabe, S. (1990). Color discrimination after lesions in the pars ventralis of the lateral geniculate nucleus in birds (*Columba livia*). Japanese Society for Physiological Psychology and Psychophysiology.
6. **Shimizu, T.** (1990). Concurrent processing in the telencephalon: A bird's eye view. J.B. Johnston Club Annual Meeting, St. Louis.
7. **Shimizu, T.** (1990). Evolution of the visual system and cognitive abilities. Department of Psychology, Tokiwa University, Mito, Japan.
8. **Shimizu, T.** (1990). Parallel processing of the avian visual system. Institute for Life Science, Sophia University, Tokyo, Japan.
9. **Shimizu, T.** (1990). Evolution of the neocortex and visual system. Mita Philosophy Society, Tokyo, Japan.
10. **Shimizu, T.** (1990). Comparative studies of the avian visual system and its significance. Department of Psychology, Keio University, Tokyo, Japan.
11. **Shimizu, T.** (1990). What can we learn from birds? Department of Psychology, California State University, Northridge, California.
12. **Shimizu, T.** (1990). What can we learn from birds? Department of Psychology, Auburn University, Alabama.

13. **Shimizu, T.** (1990). Connections of the avian dorsal ventricular ridge. Department of Biology, California Institute of Technology, Pasadena, California.
14. **Shimizu, T.** (1991). What can we learn from birds? Center for Neural Science, New York University, New York.
15. **Shimizu, T.** (1991). What can we learn from birds? Department of Psychology, Princeton University, New Jersey.
16. **Shimizu, T.** (1991). What can we learn from birds? Department of Psychology, University of South Florida, Tampa.
17. **Shimizu, T.** (1991). Cholera toxin mapping of retinal projections. NATO Advanced Study Institute, Viterbo, Italy.
18. **Shimizu, T.** (1992). What can we learn from birds? Division of Social Sciences, New College of the University of South Florida, Sarasota.
19. **Shimizu, T.** (1993). General pattern of sensory processing in the vertebrate forebrain. Brazilian Neurosciences and Behavior Society, FESBE annual meeting, Caxambu, Brazil.
20. **Shimizu, T.** (1993). Evolution of visual cognition. Department of Psychology, Keio University, Tokyo, Japan.
21. **Shimizu, T.** (1994). Effects of weightlessness on the avian visuo-vestibular system. Investigators working group meeting, National Aeronautics and Space Administration, Ames Research Center, California.
22. **Shimizu, T.** (1994). From dinosaurs to birds to mammals: Evolution of the central visual pathways. Department of Biology, University of South Florida, Tampa.
23. **Shimizu, T.** (1995). Visual cognition in pigeons and visual brain pathways. Department of Biology, University of South Florida, Tampa.
24. **Shimizu, T.** (1995). Effects of weightlessness on the avian visuo-vestibular system. Investigators working group meeting with Russian scientists, National Aeronautics and Space Administration, Ames Research Center, California.
25. **Shimizu, T.** (1996). The avian visual telencephalon: Organization and possible function. The Avian Brain and Behaviour Meeting. Tihany, Hungary.
26. Katz, J. S., Cook, R. G., Cavoto, B. R., & **Shimizu, T.** (1997). Visual texture discrimination following visual system lesions in pigeons. *Fourth Annual Meeting of the Cognitive Neuroscience Society.*
27. Brazas, M. & **Shimizu, T.** (1997). Species discrimination in the zebra finch. International Conference on Comparative Cognition. Melbourne, Florida.
28. **Shimizu, T.** (1997). Evolution of the vertebrate forebrain: when, how, and why. International Conference on Comparative Cognition. Melbourne, Florida.
29. **Shimizu, T.** (1997). Evolution of the vertebrate forebrain: when, how, and why. Department of Psychology, Keio University, Tokyo, Japan.

30. **Shimizu, T.** (1999). Evolving forebrains: The avian pattern and the mammalian pattern. Lehrstuhl für Verhaltensforschung, Fakultät für Biologie, Universität Bielefeld, Bielefeld, Germany.
31. **Shimizu, T.** (1999). Evolving forebrains: The avian pattern and the mammalian pattern. Symposium on the avian brain. Chiba University, Japan.
32. **Shimizu, T.** (2000). New Directions of Cognitive and Behavioral Neurosciences. Department of Psychology, Keio University, Tokyo, Japan.
33. **Shimizu, T.** (2000). Books in Psychology. Psychology Undergraduate Honors Program, University of South Florida, Tampa.
34. **Shimizu, T.** (07/27/2001). Evolution of attention networks: Rethinking visual processing in birds. Comparative Cognition Conference, Japanese Society for Animal Psychology, Keio University, Tokyo, Japan.
35. **Shimizu, T.** (06/12/2003). The pallium by any other name would not smell as sweet: The new nomenclature of the avian brain. Department of Psychology, Keio University, Tokyo, Japan.
36. **Shimizu, T.** (08/22/2003). Neural analysis of visual discrimination. XXVIII International Ethological Conference, Florianopolis, Brazil.
37. **Shimizu, T.** (01/15/2004). Neuroscience in psychology. Undergraduate Psychology Association/Psi Chi, University of South Florida, Tampa.
38. **Shimizu, T.** (11/30/2004). Evolution of the brain: A bird's eye view. Department of Biology, Florida International University, Miami.
39. **Shimizu, T.** (12/17/2004). Neural analysis of visual discrimination: Examination of ZENK expression. Department of Psychology, Keio University, Tokyo.
40. **Shimizu, T.** (05/09/2005). Neural analysis of visual discrimination. Symposium. Vision Sciences Society, Sarasota, FL.
41. **Shimizu, T.** (06/09/2005). Perception of social signals in pigeons. Lehrstuhl für Verhaltensforschung, Fakultät für Biologie, Universität Bielefeld, Bielefeld, Germany.
42. **Shimizu, T.** (03/22/2006). The most efficient neural design in nature: Introduction to the avian vision. Departments of Psychology and Philosophy, Keio University, Tokyo, Japan.
43. **Shimizu, T.** & Husband, S. A. (03/23/2006). The avian nucleus accumbens: Location and organization. Departments of Psychology and Philosophy, Keio University, Tokyo, Japan.
44. **Shimizu, T.** (08/01/2006). Perception of social signals in pigeons. International Symposium on Social Cognition as Higher Brain Function. Keio University, Tokyo, Japan.
45. **Shimizu, T.** (08/27/2006). The avian brain revisited: A new understanding of vertebrate brain evolution. International Symposium on Integration of Comparative Anatomy and Cognition. Keio University, Tokyo, Japan.
46. **Shimizu, T.** (08/31/2006). The avian brain revisited: A new understanding of vertebrate brain evolution. Annual Meeting of Society of Evolutionary Studies, Tokyo, Japan.



47. **Shimizu, T.** (06/07/2007). The most efficient neural design in nature: Introduction to the avian vision. Departments of Computer science & Engineering, University of South Florida, Tampa.
48. **Shimizu, T.** (12/19/2007). The growing impact of foreign-born post-doctoral fellows in the United States. Global Center for Excellence symposium. Keio University, Tokyo, Japan.
49. **Shimizu, T.** (02/28/2008). The evolution of human sexuality, Department of Biology, University of South Florida, Tampa.
50. **Shimizu, T.,** Izawa, E., & Watanabe, S. (05/08/2009). Neural substrates for animal intelligence: Why are crows smart? Kagoshima University, Kagoshima, Japan.
51. **Shimizu, T.** (05/23/2009). The origins and evolution of intelligence. The keynote speech at the Inaugural Symposium of the Center for Research on Human Intelligence, Tokyo, Japan.
52. **Shimizu, T.** (10/15/2009). Evolution of visual telencephalic regions and their role in courtship in birds. Karger Workshop, J.B. Johnston Club, Chicago, IL.
53. **Shimizu, T.** (04/8/2011). Inside the avian brain. Department of Psychology, Queen's University, Kingston, Ontario, Canada.
54. **Shimizu, T.** (07/12/2011). Hodology of the mesopallium and hyperpallium. University of Antwerp, Belgium.
55. **Shimizu, T.** (09/12/2011). Brain evolution for logic and sensibility. Global Centre for Excellence symposium, Keio University, Tokyo, Japan.
56. **Shimizu, T.** (09/19/2011). Progress in "sensitive period" studies and the contributions of comparative neuroscience. Division of Animal behavior and Intelligence, Hokkaido University, Sapporo, Japan.
57. **Shimizu, T.** (09/21/2011). The anatomy of imprinting: The organization of the avian cerebrum. The 82nd annual meeting of the Zoological Society of Japan, Asahikawa, Hokkaido, Japan.
58. **Shimizu, T.** (10/07/2011). Do animals have human-like "minds"? Department of Psychology, Augusta State University, Georgia.
59. **Shimizu, T.** (05/15/2012). Birds and humans: the origins of cognition. Biopsychology Symposium, Keio University, Tokyo, Japan.
60. **Shimizu, T.** (12/21/2013). Into the minds of animals: Brain-imaging and connectome approaches. The keynote speech at the Evolution of Emotion Symposium sponsored by the Global Centre for Excellence and the Center for Research on Human Intelligence, Tokyo, Japan.
61. **Shimizu, T.** (07/28/2016). Evolution of cognition and emotion: Brain-scanning and connectome analyses. International Congress of Psychology, Yokohama, Japan.
62. **Shimizu, T.** (10/07/2017). The Origins of Avian Cognition and Emotion: Multiple Pulses of Cerebral Expansion in Evolution. Evolution of Brain Cognition, and Emotion Symposium, Keio University, Tokyo, Japan.

## **PUBLIC PRESS**

Tiraby, Christopher (03/23/2003). Les Animaux Face A Leur Image. [E=m6](#), VM Group, France.

Blakeslee, Sandra (02/01/2005). Minds of their own: Birds gain respect, *The New York Times*. (In addition, Washington Post, Los Angeles Times, PBS radio, BBC news, Asahi Shimbun, etc.)

Viegas, Jennifer (11/29/2005). Female pigeons love male sweet talk, *Discovery Online News*.

Bunch, Jenny (01/12/2006) Pigeons help researchers understand evolution of animal communication, *Research Online*, USF.

Bournsnel, Kim (02/11/2008) Face recognition in pigeons, Outline production for Weird Connection, Discovery TV Channel.

Morell, Virginia (07/05/2013) Into the minds of birds, *Science*, 341 (6141), 22-25.

## BOOKS

Lazareva, O. F., **Shimizu, T.**, & Wasserman, E. A. (Editors) (2012). *How Animals See the World: Comparative Behavior, Biology, and Evolution of Vision*. New York: Oxford University Press.

Watanabe, S., Hofman, M. A., & **Shimizu, T.** (Editors) (2017). *Evolution of Brain, Cognition, and Emotion in Vertebrates*. New York: Springer.

## ARTICLES

1. Watanabe, S., Hodos, W., Bessette, B. E. B., & **Shimizu, T.** (1986). Interocular transfer in parallel visual pathways in pigeons. *Brain, Behavior and Evolution*, 29, 184-195.
2. **Shimizu, T.** & Karten, H. J. (1988). Pattern recognition of birds: III. Neural system of pattern recognition. *Gengo*, 17(6), 14-19. (In Japanese).
3. **Shimizu, T.** & Hodos, W. (1989). Reversal learning in pigeons: Effects of selective lesions of the Wulst. *Behavioral Neuroscience*, 103, 262-273.
4. Karten, H. J. & **Shimizu, T.** (1989). The origins of neocortex: Connections and lamination as distinct events in evolution. *Journal of Cognitive Neuroscience*, 1, 291-301.
5. Britto, L. R. G., Keyser, K. T., Hamassaki, D. E., **Shimizu, T.**, & Karten, H. J. (1989). Chemically specific retinal ganglion cells collateralize to the pars ventralis of the lateral geniculate nucleus and optic tectum in the pigeon (*Columba livia*). *Visual Neuroscience*, 3, 477-482.
6. **Shimizu, T.**, Sugimoto, S., Suzuki, S., & Watanabe, S. (1989). Behavioral neurology. In T. Ogawa, S. Sugimoto, M. Sato, & T. Kawashima. (Eds.), *Handbook of Behavioral Psychology* (pp. 155-178). Tokyo: Baifukan. (In Japanese).
7. **Shimizu, T.** & Karten, H. J. (1990). Immunohistochemical analysis of the visual wulst of the pigeon (*Columba livia*). *Journal of Comparative Neurology*, 300, 346-369.
8. **Shimizu, T.** & Karten, H. J. (1991). Multiple origins of neocortex: Contributions of the dorsal ventricular ridge. In B. L. Finlay, G. Innocenti & H. Scheich (Eds.), *The neocortex: Ontogeny and phylogeny*, NATO ASI series. (pp. 75-86). New York: Plenum Press.

9. **Shimizu, T.** & Karten, H. J. (1991). Computational significance of lamination of the telencephalon. In M. A. Arbib & J. -P. Ewert (Eds.), *Visual Structures and integrated functions: Research notes in neural computing*. (pp. 325-337). New York: Springer-Verlag.
10. **Shimizu, T.** & Karten, H. J. (1991). Central visual pathways in reptiles and birds: Evolution of the visual system. In J. Cronly-Dillon & R. Gregory (Eds.), *Vision and visual dysfunction, vol. 2: Evolution of the eye and visual system*. (pp. 421-441). London: Macmillan Press.
11. Karten, H. J. & **Shimizu, T.** (1991). Are visual hierarchies in the brains of the beholders?: Constancy and variability in the visual system of birds and mammals. In P. Bagnoli & W. Hodos (Eds.), *The changing visual system: Maturation and aging in the central nervous system. NATO ASI series*. (pp. 51-59). New York: Plenum Press.
12. Wakita, M., Watanabe, S., **Shimizu, T.**, & Britto, L. R. G. (1992). Visual discrimination performance after lesions of the ventral lateral geniculate nucleus in pigeons (*Columba livia*). *Behavioural Brain Research*, *51*, 211-215.
13. **Shimizu, T.** & Karten, H. J. (1993). The avian visual system and the evolution of the neocortex. In H. P. Zeigler & H. J. Bischof (Eds.), *Vision, brain and behavior in birds*. (pp. 103-114). Cambridge, Massachusetts: MIT Press.
14. **Shimizu, T.**, Cox, K., Karten, H. J., & Britto, L. R. G. (1994). Cholera toxin mapping of retinal projections in pigeons (*Columba livia*), with emphasis on retinohypothalamic connections. *Visual Neuroscience*, *11*, 441-446.
15. **Shimizu, T.** (1994). Significance of studies of the avian brain from three perspectives. *Brazilian Journal of Medical and Biological Research*, *27*, 1479-1489.
16. **Shimizu, T.**, Cox, K., & Karten, H. J. (1995). Intratelencephalic projections of the visual wulst in birds (*Columba livia*). *Journal of Comparative Neurology*, *359*, 551-572.
17. Woodson, W., **Shimizu, T.**, Wild, J. M., Schimke, J., Cox, K., & Karten, H. J. (1995). Centrifugal projections upon the retina: An anterograde tracing study in the pigeon retina (*Columba livia*). *Journal of Comparative Neurology*, *362*, 489-509.
18. Borlongan, C. V., Shytle, R. D., Ross, S. D., **Shimizu, T.**, Freeman, T. B., Cahil, D. W., & Sanberg, P. R. (1995). (-)-Nicotine protects against systematic kainic acid-induced excitotoxic effects. *Experimental Neurology*, *136*, 261-265.
19. Soha, J.A., **Shimizu, T.**, & Doupe, A. J. (1996). Development of catecholaminergic innervation of the song system of the male zebra finch. *Journal of Neurobiology*, *29*, 473-489.
20. Leutgeb, S., Husband, S., Ritters, L. V., **Shimizu, T.**, & Bingman, V. P. (1996). Afferent connections and cognitive functions of the pigeon neostriatum caudolaterale. *Brain Research*, *730*, 173-81.
21. Mpodozis, J., Cox, K., **Shimizu, T.**, Bischof, H. -J., Woodson, W., & Karten, H. J. (1996). GABAergic inputs to the nucleus rotundus (pulvinar inferior) of the pigeon (*Columba livia*). *Journal of Comparative Neurology*, *374*, 204-222.
22. **Shimizu, T.** (1998). Conspecific recognition in pigeons (*Columba livia*) using dynamic video images. *Behaviour*, *135*, 43-53.
23. Borlongan, C. V., **Shimizu, T.**, Trojanowski, J. Q., Watanabe, S., Lee, V. M. -Y., Tajima, Y., Cahill, D. W., Freeman, T. B., Nishino, H., & Sanberg, P. R. (1998). Animal models of

- cerebral ischemia: Neurodegeneration and cell transplantation. In T. B. Freeman & H. Widner (Eds.), *Cell transplantation for neurological disorders: Toward reconstruction of the human cerebral nervous system*. (pp. 211-230). Totowa, NJ: Humana Press.
24. **Shimizu, T.** (1998). Animal brains and human brain. *Psychology World*, 3, 16-19. (In Japanese).
  25. **Shimizu, T.** & Bowers, A. N. (1999). Visual pathways in the avian telencephalon: Evolutionary implications. *Behavioural Brain Research*, 98, 183-191.
  26. Husband, S. & **Shimizu, T.** (1999). Efferent projections of the ectostriatum in pigeons (*Columba livia*). *Journal of Comparative Neurology*, 406, 329-345.
  27. Laverghetta, A. V. & **Shimizu, T.** (1999). Visual discrimination in the pigeon (*Columba livia*): Effects of selective lesions of the nucleus rotundus. *NeuroReport*, 10, 981-985.
  28. Borlongan, C. V., **Shimizu, T.**, & Sanberg, P. R. (2000). Comparative study on 3-nitropropionic acid neurotoxicity. In: P. R. Sanberg, H. Nishino, & C. V. Borlongan (Eds.), *Mitochondrial inhibitors and neurodegenerative disorders*. (pp. 93-106). Totowa, NJ: Humana Press.
  29. **Shimizu, T.** (2000). Evolution of mind and brain. In S. Watanabe (Ed.), *Comparative Cognitive Sciences of Mind*. (pp. 27 – 81). Kyoto, Japan: Minerva. (In Japanese).
  30. **Shimizu, T.** (2001). Evolution of the forebrain in tetrapods. In: G. Roth & M. F. Wulliman (Eds.), *Brain evolution and cognition*. (pp. 135 – 184). New York, New York: Wiley/Spektrum.
  31. Husband, S. & **Shimizu, T.** (2001). Evolution of the avian vision. In: R. Cook (Ed.), *Avian Visual Cognition*. (<http://www.pigeon.psy.tufts.edu/avc/husband/default.htm>)
  32. Brazas, M. & **Shimizu, T.** (2002). Significance of visual cues in choice behavior in the female zebra finch (*Taeniopygia guttata castanotis*). *Animal Cognition*, 5, 91-95.
  33. **Shimizu, T.** (2002). Evolution of mind. In Japan Cognitive Science Society (Ed.), *Dictionary of Cognitive Science*. (pp. 280 – 281). Tokyo, Japan: Kyoritsu Press. (In Japanese).
  34. Laverghetta, A. V. & **Shimizu, T.** (2003). Organization of the ectostriatum based on afferent connections in the zebra finch (*Taeniopygia guttata*). *Brain Research*, 963, 101-112.
  35. **Shimizu, T.** (2003). Toward the answer, but still far to go. *Behavioral and Brain Sciences*, 26, 569-570.
  36. **Shimizu, T.** (2004). Birds: Vision and visual system. In G. Adelman & B. H. Smith (Eds.), *Encyclopedia of Neuroscience*, 3<sup>rd</sup> edition. [CD-ROM]. New York, New York: Elsevier.
  37. Reiner, A., Perkel, D. J., Bruce, L., Butler, A. B., Csillag, A., Kuenzel, W., Medina, L., Paxinos, G., Powers, A., **Shimizu, T.**, Striedter, G. F., Wild, J. M., Ball, G. F., Durand, S., Güntürkün, O., Lee, D. W., Mello, C. V., Powers, A., White, S. A., Hough, G., Kubikova, L., Smulders T. V., Wada, K., Douglas-Ford, J., Husband, S., Yamamoto, K., Yu, J., Siang, C., & Jarvis, E. D. (2004). Revised nomenclature for avian telencephalon and some related brainstem nuclei. *Journal of Comparative Neurology*, 473, 377-414.
  38. Reiner, A., Perkel, D. J., Bruce, L., Butler, A. B., Csillag, A., Kuenzel, W., Medina, L., Paxinos, G., Powers, A., **Shimizu, T.**, Striedter, G. F., Wild, J. M., Ball, G. F., Durand, S., Güntürkün, O., Lee, D. W., Mello, C. V., Powers, A., White, S. A., Hough, G., Kubikova, L., Smulders T. V., Wada, K., Douglas-Ford, J., Husband, S., Yamamoto, K., Yu, J., Siang, C., & Jarvis, E.

- D. (2004). The Avian Brain Nomenclature Forum: A new century in comparative neuroanatomy. *Journal of Comparative Neurology*, 473, E1-E6.
39. **Shimizu, T.** (2004). Comparative cognition and neuroscience: Misconceptions about brain evolution. *Japanese Psychological Research*, 46, 246-254.
  40. **Shimizu, T.**, Bowers, A. N., Budzynski, C. A., Kahn, M. C., & Bingman, V. P. (2004). What does a pigeon brain look like during homing? Selective examination of ZENK expression. *Behavioral Neuroscience*, 118, 845-851.
  41. **Shimizu, T.** (2004). The nervous system (61 items). In S. Yamagishi, H. Morioka, & H. Higuchi (Eds.), *Dictionary of Ornithology*. Kyoto, Japan: Showado Press. (In Japanese).
  42. Jarvis, E. D., Güntürkün, O., Bruce, L., Csillag, A., Karten, H. J., Kuenzel, W., Medina, L., Paxinos, G., Perkel, D. J., **Shimizu, T.**, Striedter, G. F., Wild, J. M., Ball, G. F., Douglas-Ford, J., Durand, S., Hough, G., Husband, S., Kubikova, L., Lee, D. W., Mello, C. V., Powers, A., Siang, C., Smulders, T. V., Wada, K., White, S. A., Yamamoto, K., Yu, J., Reiner, A., & Butler, A. B. (2005). Avian brains and a new understanding of vertebrate brain evolution. *Nature Reviews Neuroscience*, 6, 151-159.
  43. Partan, S., Yelda, S., Price, V., & **Shimizu, T.** (2005). Female pigeons (*Columba livia*) respond to multisensory audio/video playbacks of male courtship behavior. *Animal Behaviour*, 70, 957-966.
  44. **Shimizu, T.** (2006). Brain evolution by natural selection. *Behavioral and Brain Sciences*, 29, 23-24.
  45. Willott, J. F., VandenBosche, J., **Shimizu, T.** & Ding, D. (2006). Effects of exposing DBA/2J mice to a high-frequency augmented acoustic environment on the cochlea and anteroventral cochlear nucleus. *Hearing Research*, 216-217, 138-145.
  46. Willott, J. F., VandenBosche, J., **Shimizu, T.**, Ding, D., & Salvic, R. (2006). Effects of exposing gonadoectomized and intact C57BL/6J mice to a high-frequency augmented acoustic environment: Auditory brainstem response thresholds and cytochleograms. *Hearing Research*, 221, 73-81.
  47. **Shimizu, T.** (2006). Public acceptance of evolution in Japan and the United States. *Kokoro (Mind)*, 16, 1. (In Japanese).
  48. **Shimizu, T.** (2007). The avian brain revisited: A new understanding of vertebrate brain evolution. *Iden (Heredity)*, Special issue 20, 68-72. (In Japanese.)
  49. Patton, T. B., Szafranski, G., & **Shimizu, T.** (2007). Perception of social signals in pigeons (*Columba livia*). In S. Watanabe, T. Tsujii, & J. Keenan (Eds.), *Comparative Social Cognition*. (pp. 45 - 60). Tokyo, Keio University Press.
  50. **Shimizu, T.** (2007). The avian brain revisited: Anatomy and evolution of the telencephalon. In S. Watanabe & M. A. Hofman (Eds.), *Integration of Comparative Neuroanatomy and Cognition*. (pp. 55 - 73). Tokyo, Keio University Press.
  51. **Shimizu, T.** (2007). Epilog. In S. Watanabe & M. A. Hofman (Eds.), *Integration of Comparative Neuroanatomy and Cognition*. (pp. 275 - 277). Tokyo, Keio University Press.
  52. **Shimizu, T.** (2007). Birds that can plan for tomorrow's breakfast: Mental time travel in animals? *Iden (Heredity)*. 61 (5), 4-5. (In Japanese.)

53. Willott, J. F., VandenBosche, J., **Shimizu, T.**, Ding, D., & Salvic, R. (2008). Effects of exposing gonadoectomized and intact C57BL/6J mice to a high- and low-frequency augmented acoustic environment: Auditory brainstem response thresholds, cytochrome oxidase, anterior cochlear nucleus morphology and the role of gonadal hormones. *Hearing Research*, *235*, 60-71.
54. **Shimizu, T.**, Patton, T. B., Szafranski, G., & Butler, A. B. (2008). Evolution of the visual system: in reptiles and birds. In M. D. Binder, N. Hirokawa, U. Windhorst, & M. C. Hirsch (Eds.), *Encyclopedic Reference of Neuroscience*, Heidelberg, Germany: Springer.
55. Markham, R. G., **Shimizu, T.**, & Lickliter, R. (2008). Extrinsic embryonic sensory stimulation alters multimodal behavior and cellular activation. *Developmental Neurobiology*, *68*, 1463-1473.
56. Patton, T. B., Husband, S. A., & **Shimizu, T.** (2009). Female stimuli trigger gene expression in male pigeons. *Social Neuroscience*, *4*, 28-39.
57. **Shimizu, T.** (2009). Why can birds be so smart? Background, significance, and implications of the revised view of the avian brain. *Comparative Cognition and Behavior Review*, *4*, 103-115.
58. Willott, J. F., VandenBosche, J., **Shimizu, T.** (2010). Effects of a high-frequency augmented acoustic environment on parvalbumin immunolabeling in the anteroventral cochlear nucleus of BDA/2J and C57BL/6J mice. *Hearing Research*, *261*, 36-41.
59. Patton, T. B., Szafranski, G., & **Shimizu, T.** (2010). Male pigeons react differentially to altered facial features of female pigeons. *Behaviour*, *147*, 757-773.
60. **Shimizu, T.**, Patton, T. B., & Husband, S. A. (2010). Avian visual behavior and the organization of the telencephalon. *Brain Behavior and Evolution*, *75*, 204-217.
61. Husband, S. A. & **Shimizu, T.** (2011). Calcium-binding protein distributions and fiber connections of the nucleus accumbens in the pigeon (*Columba livia*). *Journal of Comparative Neurology*, *519*, 1371-1394.
62. **Shimizu, T.** & Watanabe, S. (2012). The avian visual system: Overview. In O. F. Lazareva, T. Shimizu, & E. A. Wasserman (Eds.), *How Animals See the World: Comparative Behavior, Biology, and Evolution of Vision*. (pp. 473 - 482). New York: Oxford University Press. 473-482.
63. **Shimizu, T.** (2012). Brain evolution for logic and sensibility. In S. Watanabe (Ed.), *Logic and Sensibility*. (pp. 77 - 90). Tokyo, Keio University Press.
64. Liebl, A. L., **Shimizu, T.** & Martin, L. B. (2013). Covariation among glucocorticoid regulatory elements varies seasonally in house sparrows. *General and Comparative Endocrinology*, *183*, 32-37.
65. Cook, R. G., Patton, T. B., & **Shimizu, T.** (2013) Functional segregation of the entopallium in pigeons. *Philosophy*, *131*, 1-28.
66. Cross, D. J., Marzluff, J. M., Palmquist, I., Minoshima, S., **Shimizu, T.**, & Miyaoka, R. (2013). Distinct neural circuits underlie assessment of a diversity of natural dangers by American crows. *Proceedings of the Royal Society B*, *280*, 20131046.

67. Shanahan, M., Bingman, V. P., **Shimizu, T.**, Wild, J. M., & Güntürkün, O. (2013) Large-scale network Organisation in the avian forebrain: A connectivity matrix and theoretical Analysis. *Frontiers in Computational Neuroscience*, 7, 1-17.
68. Tajiri, N., Kellogg, S. L., **Shimizu, T.**, Arendash, G. W., & Borlongan, C. V. (2013). Traumatic brain injury precipitates cognitive impairment and extracellular A $\beta$  aggregation in Alzheimer's disease transgenic mice. *PLoS One*, doi: 10.1371/journal.pone.0078851.
69. Shinozuka, K. & **Shimizu, T.** (2015). Evolution of the emotional brain. (In Japanese). In S. Watanabe & Kikusui (Eds.), *Evolution of Emotion*. (pp. 136-165). Tokyo: Asakura Publishing Co.
70. Barron, D. G., Uysal, A. K., Kellogg, S. L., and T. Shimizu, T. (2016). Cognition as a target and facilitator of sexual selection. In M. C. Olmstead (Ed.), *Animal Cognition: Principles, Evolution, and Development*. Hauppauge, NY: NOVA Science Publishers.
71. Patton, T. B., Uysal, A. K., Kellogg, S. L., and Toru Shimizu, T. (2016). A Method of Brain Mapping Using the Immediate Early Gene *Zenk*. In L. Rogers and G. Vallortigara (Eds.), *Lateralized Brain Functions*. Springer.
72. Shimizu, T. (2016). Love and respect for the bird brain. *Journal of Field Ornithology*. 87: 441-442.
73. Shinozuka, K. & **Shimizu, T.** (2016). Misunderstandings about brain evolution in comparative neuroscience. (In Japanese). *Psychology World*, 75, 17-20.
74. **Shimizu, T.**, Shinozuka, K., Uysal, A. K., and Kellogg, S. L. (2017). The Origins of Avian Cognition and Emotion: Multiple Pulses of Cerebral Expansion in Evolution. In Watanabe, S., Hofman, M. A., & Shimizu, T. (Eds.), *Evolution of Brain, Cognition, and Emotion in Vertebrates*. New York: Springer.
75. Uysal, A. K., Burkett-Cadena, Martin, L.B. and **Shimizu, T.** (Submitted) How early life immune challenges affect behaviors of adult zebra finches.

## ABSTRACTS

1. **Shimizu, T.**, Yano, Y., Moriyama, T., & Ogawa, T. (1981). Thresholds measured by a modified titration method (in pigeons). *The Annual of Animal Psychology*, 31, B-1-2. (In Japanese).
2. **Shimizu, T.**, Watanabe, S., Hodos, W., & Bessette, E. B. B. (1985). Interhemispheric transfer of visual discrimination in pigeons with unilateral thalamic lesions. *Society for Neuroscience Abstracts*, 11, 871.
3. **Shimizu, T.** & Hodos, W. (1986). Reversal-learning performance after selective lesions of the wulst in pigeons. *Society for Neuroscience Abstracts*, 12, 748.
4. **Shimizu, T.**, Karten, H. J., & Keyser, K. T. (1987). The distributions of substance P-like and cholecystinin-like immunoreactivity within the visual wulst in pigeons. *Society for Neuroscience Abstracts*, 13, 1048.
5. **Shimizu, T.**, Karten, H. J., & Woodson, W. (1988). GABA-ergic inputs to the nucleus rotundus in pigeons (*Columba livia*). *Society for Neuroscience Abstracts*, 14, 459.
6. Woodson, W., **Shimizu, T.**, & Karten, H. J. (1988). Afferent and efferent connections of the isthmo-optic nucleus in pigeon (*Columba livia*). *Society for Neuroscience Abstracts*, 14.

7. **Shimizu, T.**, Woodson, W., Karten, H. J. & Schimke, J. B. (1989). Intratelencephalic connections of the visual areas in birds (*Columba livia*). *Society for Neuroscience Abstracts*, 15, 1398.
8. Woodson, W., **Shimizu, T.**, & Karten, H. J. (1989). Transmitter and peptide content of the isthmo-optic nucleus in the pigeon (*Columba livia*): A study of non-tectal afferents. *Society for Neuroscience Abstracts*, 15, 459.
9. **Shimizu, T.**, Karten, H. J., & Cox, K. (1990). Intratelencephalic projections of the visual wulst in birds (*Columba livia*): A phaseolus vulgaris leucoagglutinin study. *Society for Neuroscience Abstracts*, 16, 246.
10. Woodson, W, **Shimizu, T.**, & Karten, H. J. (1990). The laminar distribution and morphology of centrifugal axonal terminations in the pigeon retina (*Columba livia*). *Society for Neuroscience Abstracts*, 16, 1313.
11. Karten, H. J. & **Shimizu, T.** (1990). Functional significance of neural circuits and lamination of the neocortex: An evolutionary view. *The Workshop on Visual Structures and Integrated Functions*. University of Southern California.
12. **Shimizu, T.** (1990). Concurrent processing in the telencephalon: A bird's eye view. *J. B. Johnston Club Meeting*, St Louis, Missouri.
13. Wakita, M., **Shimizu, T.**, & Watanabe, S. (1990). Color discrimination after lesions in the pars ventralis of the lateral geniculate nucleus in birds (*Columba livia*). *Japanese Society for Physiological Psychology and Psychophysiology*.
14. **Shimizu, T.** (1991). Cholera toxin mapping of retinal projections in birds. NATO Advanced Study Institute. *The changing visual system: Maturation and aging in the central nervous system*.
15. **Shimizu, T.**, Britto, L. R. G., Karten, H. J., & Cox, K. (1991). Cholera toxin mapping of retinal projections in birds. *Society for Neuroscience Abstracts*, 17, 651.
16. Karten, H. J., Cox, K., & **Shimizu, T.** (1992). "Extrastriate" visual pathways in the pigeon: Descending projections upon the optic tectum. *Society for Neuroscience Abstracts*, 18, 1031.
17. Leighty, R. E., Husband, S., Bosco, G. L., & **Shimizu, T.** (1993). Dynamic video-image discrimination learning in pigeons. *International Behavioral Neuroscience Society Abstracts*, 2, 35
18. Karten, H. J., Cox, K., Mpodozis, J., Bischof, H -J., & **Shimizu, T.** (1993). Little cells ending on big cells: An oligosynaptic retino-tecto-pulvinar system in pigeon. *Society for Neuroscience Abstracts*, 19, 969.
19. Borgatti, T. J., Bosco, G. L., Patton, T. B., & **Shimizu, T.** (1994). Conspecific discrimination in pigeons and the effects of thalamic lesions. *International Behavioral Neuroscience Society Abstracts*, 3, 58.
20. Bosco, G. L. & **Shimizu, T.** (1994). Intratelencephalic input to the ectostriatum, the major visual telencephalic structure of birds. *International Behavioral Neuroscience Society Abstracts*, 3, 58.



21. Patton, T. B., & **Shimizu, T.** (1994). Parvalbumin and calbindin immunoreactivity in the visual telencephalon after the thalamic lesions in pigeons. *International Behavioral Neuroscience Society Abstracts*, 3, 59.
22. Hahmann, U., Güntürkün, O., & **Shimizu, T.** (1994). Immunohistochemical analysis of the thalamofugal wulst projection of the pigeon (*Columba livia*). *Proceedings of the 22nd Göttingen Neurobiology Conference*, 488.
23. Kröner, S., Durstewitz, D., Güntürkün, O., Borlongan, C. V., & **Shimizu, T.** (1995). Chemoarchitecture of the neostriatum caudolaterale in the pigeon. *Society for Neuroscience Abstracts*, 21, 431.
24. Patton, T. B., Radcliffe, K. M., Britto, L. R. G., & **Shimizu, T.** (1995). Distribution of parvalbumin, calbindin D-28K, and calretinin in the ectostriatum of pigeons after thalamic lesions. *Society for Neuroscience Abstracts*, 21, 653.
25. Husband, S. A., Laverghetta, A. V., Bosco, G. L., Edwards, S. C., & **Shimizu, T.** (1995). Some observations on the connections of the ectostriatum in the avian telencephalon. *Society for Neuroscience Abstracts*, 21, 653.
26. Leutgeb, S., Husband, S., Ritters, L. V., Bingman, V. P., & **Shimizu, T.** (1995). Afferent connections and cognitive functions of the pigeon neostriatum caudolaterale. *Society for Neuroscience Abstracts*, 21, 431.
27. Soha, J. A., **Shimizu, T.**, & Doupe, A. J. (1995). Developmental increases in tyrosine hydroxylase and catecholamine levels in male zebra finch song nuclei. *Society for Neuroscience Abstracts*, 21, 961.
28. **Shimizu, T.** (1996). Effects of weightlessness on the avian visuo-vestibular system: Immunohistochemical analysis. *NASA Technical Memorandum*, 4751, 81-82.
29. **Shimizu, T.** (1996). The avian visual telencephalon: Organization and possible function. *Abstracts for the Avian Brain and Behaviour Meeting*.
30. Watanabe, S., Borlongan, C. V., Radcliffe, K. M. & **Shimizu, T.** (1996). An avian model of ischemia. *Society for Neuroscience Abstracts*, 22, 2150.
31. **Shimizu, T.**, Katz, J. S., & Cook, R. B. (1997). Effects of thalamic and telencephalic lesions on visual texture discriminations in birds. *Society for Neuroscience Abstracts*, 23, 453.
32. Husband, S. & **Shimizu, T.** (1997). Anatomical evidence for parallel processing within the avian collothamic visual pathway. *Society for Neuroscience Abstracts*, 23, 172.
33. Laverghetta, A. V. & **Shimizu, T.** (1997). Effects of nucleus rotundus lesions on motion and color discriminations in pigeons. *Society for Neuroscience Abstracts*, 23, 453.
34. **Shimizu, T.** (1997). Effects of weightlessness on the avian visuo-vestibular system: Immunohistochemical analysis. *NASA Technical Memorandum*, 66-67.
35. Pompl, P., Arendash, G., **Shimizu, T.**, Crawford, F. & Mullan, M. (1998). APP<sup>sw</sup> transgenic mice are vulnerable to cognitive impairment following hypoxia or hyperoxia exposure: evidence that hypoxia or hyperoxia treatment could induce cognitive deficits in humans pre-disposed Alzheimer's Disease. *Society for Neuroscience Abstracts*, 24, 730.

36. Bowers, A. N & **Shimizu, T.** (1998). Effects of weightlessness on the avian visuo-vestibular system: Immunohistochemical analysis. *1st Annual Partners in Education and Research Conference (NASA)*.
37. Bowers, A. N. & **Shimizu, T.** (1999). Potential areas of convergence of the visual pathways in the pigeon (*Columba livia*). *Society for Neuroscience Abstracts*, 25, 1931.
38. Laverghetta, A. V. & **Shimizu, T.** (1999). Visual discrimination in the pigeon (*Columba livia*): Effects of selective lesions of the nucleus rotundus. *Society for Neuroscience Abstracts*, 25, 1940.
39. Budzynski, C. A., Bowers, A. N., Bingman, V. P. & **Shimizu, T.** (2000). This is what a pigeon brain looks like while navigating home: Expression of an immediate-early gene protein during homing. *Society for Neuroscience Abstracts*, 26, 486.
40. Laverghetta, A. V. & **Shimizu, T.** (2001). The parallel visual pathways in the zebra finch *Taeniopygia guttata*. *FASEB Journal*, 15, A67.
41. Laverghetta, A. V. & **Shimizu, T.** (2001). The organization of the tectofugal visual pathway in the zebra finch. *Society for Neuroscience Abstracts*, 27, 855.21.
42. Laverghetta, A. V. & **Shimizu, T.** (2002). Parallel processing in the visual system of zebra finches. *Vision Sciences Society*, 02, 41.
43. Laverghetta, A. V. & **Shimizu, T.** (2002). The cell morphology and ultrastructure of the nucleus rotundus in zebra finches. *Society for Neuroscience Abstracts*, 28, 761.3.
44. Husband, S. A. & **Shimizu, T.** (2003). Reversal learning after lesions in the presumptive nucleus accumbens in pigeons. *Proceedings of the International Conference on Comparative Cognition*, 10, 25.
45. Patton, T. B., Yelda, S., Buschmann, J-U, Troje, N. & **Shimizu, T.** (2003). Courtship displays of male pigeons can be triggered by video-taped and computer-animated pigeons. *Proceedings of the International Conference on Comparative Cognition*, 2.
46. Partan, S., Yelda, S. & **Shimizu, T.** (2003). Multisensory perception of social signals in monkeys and birds. *Proceedings of the International Conference on Comparative Cognition*, 2.
47. Patton, T. B., Husband, S. A. & **Shimizu, T.** (2003). The expression of ZENK in the avian telencephalon related to natural visual stimuli. *Society for Neuroscience Abstracts*, 29, 94.7.
48. Husband, S. A. & **Shimizu, T.** (2003). Anatomical evidence for a nucleus accumbens in the striatum of the pigeon (*Columba livia*). *Society for Neuroscience Abstracts*, 29, 94.12.
49. Patton, T. B. & **Shimizu, T.** (2004). Seeing is not enough: ZENK expression for visual conspecific recognition in the avian brain. *Proceedings of the International Conference on Comparative Cognition*, 3.
50. Husband, S. A. & **Shimizu, T.** (2004). Common mechanisms of cognitive flexibility in birds and mammals. *Proceedings of the International Conference on Comparative Cognition*, 3.
51. Patton, T. B., VandenBosch, J., Koban, A. C., Cook, R. G., & **Shimizu, T.** (2004). Functional segregation within the entopallium in pigeons (*Columba livia*). *Society for Neuroscience Abstracts*, 30, 89.13.

52. Johnson, P. T., Patton, T. B., VandenBosch, J., Cook, R. G., & **Shimizu, T.** (2004). The avian Wulst is involved in executive control – Lesion effects on texture discriminations in pigeons (*Columba livia*). *Society for Neuroscience Abstracts*, 30, 89.14.
53. Patton, T. B., Kellner, G. M., & **Shimizu, T.** (2005). Is there something about her eyes? Significance of the head region on preference behaviors in pigeons (*Columba livia*) *Proceedings of the International Conference on Comparative Cognition*, 4.
54. Husband, S. A. & **Shimizu, T.** (2005). Connections of the medial nido- and mesopallium in pigeons (*Columba livia*). *Society for Neuroscience Abstracts*, 31.
55. Patton, T. B. & **Shimizu, T.** (2006). Altered features of female pigeons elicit preference behavior in males. *Proceedings of the International Conference on Comparative Cognition*, 5.
56. Szafranski, G., Bakriwala, K. & **Shimizu, T.** (2007). Conspecific recognition based on biological motion cues in pigeons. *Proceedings of the International Conference on Comparative Cognition*, 6.
57. Markham, R. G., **Shimizu, T.**, & R. Lickliter. (2007). *Prenatal auditory stimulation changes the trajectory of sensory neuronal plasticity*. International Congress for Neuroethology.
58. Patton, T. B. & **Shimizu, T.** (2007). Expression of ZENK protein in avian visual telencephalon after unilateral thalamic lesions or monocular occlusions. *Society for Neuroscience Abstracts*, 33.
59. Husband, S. A. & **Shimizu, T.** (2007). Visual pattern discrimination and reversal learning after lesions in the presumptive avian nucleus accumbens. *Society for Neuroscience Abstracts*, 33.
60. Patton, T. B., Husband, S. A., & **Shimizu, T.** (2008). Socially relevant stimuli trigger ZENK expression in male pigeons. *Society for Neuroscience Abstracts*, 34.
61. Fishburn, F. & **Shimizu, T.** (2009). Male pigeons discriminate real-time and pre-recorded self-videos. *Proceedings of the International Conference on Comparative Cognition*.
62. Husband, S., M. Kanuck, M., & **Shimizu, T.** (2009). Schizophrenic pigeons? Cognitive rigidity induced by lesions in the nucleus accumbens of the pigeon (*Columba livia*). *Symposium for Young Neuroscientists And Professors of the SouthEast*.
63. Patton, T. B. & Shimizu, T. (2010). Neurochemical Expression of Higher Visual Structures in the Pigeon (*Columba livia*) *Society for Neuroscience Abstracts*, 36.
64. Tajiri, N., **Shimizu, T.**, Arendash, G, & Borlongan, C. V. (2011). Traumatic brain injury expedites the presentation of Alzheimer's disease-like behavioral and histological pathologies in transgenic mice. *The 12th International Conference on Alzheimer's Drug Discovery*.
65. Kellogg, S. L., Tajiri, N., **Shimizu, T.**, Arendash, G, & Borlongan, C. V. (2011). Behavioral and histological effects of traumatic brain injury on Alzheimer's Disease transgenic mice. *Society for Neuroscience Abstracts*, 37.
66. Uysal, A. K., Ries, R., Patton, T. B., Mahmud, A. & **Shimizu, T.** (2012). A simple mapping method of the immediate early gene protein expression. *Society for Neuroscience Abstracts*.

67. Adamson, H. R., Qadri, M. A., Brooks, D. I., Keller, A. M., Rothman, G., **Shimizu, T.**, & Cook, R. G. (2015). Are spatial grouping deficits the underlying cause of the motion deficit found after posterior entopallium lesions? *Proceedings of the International Conference on Comparative Cognition*.
68. Barron, D. G.\*, A. K. Uysal, T. Shimizu, N. D. Burkett-Cadena, and L. B. Martin. (2015). Behavioral and neurological correlates of vector avoidance strategies. Abstract for the Society for Integrative and Comparative Biology meeting.
69. Martin, L. B., Barron, D. G.\*, Burkett-Cadena, N. D., Civitello, D. J., Kilvitis, H. J., Burgan, S., B., Gervasi, S. S., Uysal, A. K., and Shimizu, T. (2016). Individual variation and covariation in vector-borne disease directed behavior. Abstract for the Society for Integrative and Comparative Biology meeting.
70. Uysal, A. K., and Shimizu, T. (2016). Effects of Early Life Challenges on Adult Life Success in Zebra Finches. *Proceedings of the International Conference on Comparative Cognition*.
71. Uysal, A. K., Burkett-Cadena, Martin, L.B. and Shimizu, T. (2018) How early life immune challenges affect behaviors of adult zebra finches. *Proceedings of the International Conference on Comparative Cognition*.