

CURRICULUM VITAE

Name: Chris Tsuyoshi Amemiya

Date of Birth: December 21, 1959

Place of Birth: Wahiawa, Hawaii

Nationality: U.S.A.

Education: B.S. (Genetics), 1981, Purdue University, West Lafayette, IN
Ph.D. (Genetics), 1987, Texas A&M University, College Station, TX (John Gold, Ph.D., supervisor)

Positions and Appointments:

- 1980-81 Undergraduate Lab Assistant, Cytogenetics Laboratory, Purdue University, West Lafayette, IN
- 1981-85 Teaching Assistant, Introductory Genetics, Texas A&M University, College Station, TX
- 1986 Research Assistant, Texas A&M University, College Station, TX
- 1987-90 Postdoctoral Fellow, Tampa Bay Research Institute (formerly Showa University Research Institute), St. Petersburg, FL (Gary Litman, Ph.D., supervisor)
- 1990-93 Postdoctoral Fellow, Biomedical Sciences Division, Lawrence Livermore National Laboratory, Livermore, CA 94551 (Peter De Jong, Ph.D., supervisor)
- 1993 Visiting Scientist, Molecular Genetics Laboratory (Pediatrics), All Children's Hospital, St. Petersburg, FL
- 1993 Visiting Scientist, Human Genetics Department, Roswell Park Cancer Institute, Buffalo, NY
- 1993-97 Assistant Professor of Human Genetics and Pediatrics, Center for Human Genetics, Boston University School of Medicine, Boston, MA
- 1997-2001 Associate Professor of Human Genetics and Pediatrics, Center for Human Genetics, Boston University School of Medicine, Boston, MA
- 1998-2001 Director of Developmental Genetics, Center for Human Genetics, Boston University School of Medicine, Boston, MA
- 1999-2001 Joint appointment (Associate Professor), Department of Microbiology and the Immunology Training Program, Boston University School of Medicine, MA
- 2001-2003 Associate Member, Benaroya Research Institute at Virginia Mason (formerly Virginia Mason Research Center), Molecular Genetics Program, Seattle, WA

- 2004- Full Member, Benaroya Research Institute at Virginia Mason, Molecular Genetics Program, Seattle, WA
- 2004- Full Professor (Affiliate appointment), Department of Biology, University of Washington, Seattle, WA
- 2005- Full Member, Cell and Molecular Biology Program, University of Washington, Seattle, WA
- 2006- Training Program, Genome Sciences, University of Washington, Seattle, WA
- 2007-2008 Program Director, Developmental Systems and Evolution or Development, Integrative and Organismal Systems, National Science Foundation (July 2007-July 2008)

Teaching Experience/Administrative Responsibilities:

- 1981-85 Genetics 301, Introductory Genetics, Texas A&M University, College Station, TX; graduate teaching assistant
- 1988 Physiology: Cell and Molecular Biology, Woods Hole Marine Biological Laboratory Summer Course, Woods Hole, MA; assistant course instructor.
- 1994-2001 GMS ME781, Introduction to Human Genetics, graduate-level, Boston University School of Medicine; lecturer in immunogenetics
- 1994-99 Chairman of seminar committee for the Center for Human Genetics
- 1995- 2001 Medical Genetics, first-year medical students, Boston University School of Medicine; lecturer in immunogenetics, genomics, and the genetics of development
- 1997 UNESCO International Course (1/6/97-1/17/97), Departamento de Bioquímica, Facultad de Medicina, Universidad de Chile, Santiago, Chile; International training course on molecular techniques of genome mapping and screening; professor.
- 1997-99 GMS PA715, Advanced Immunology -- Molecular Aspects, graduate-level, Boston University School of Medicine; lecturer on the origins and diversification of the immune system.
- 2000 Instructor, Cold Spring Harbor methods course, "Gene Isolation: Advanced Methods in Positional Cloning," Cold Spring Harbor, NY.
- 2001 Advanced Molecular Biology, Boston University School of Medicine, "Genomics and its implications for gene regulation."
- 2001- Invited lectures in various classes (advanced undergraduate, graduate) at University of Washington

- 2002 Instructor, EMBL three-week course, "Molecular and genetic tools for the analysis of medaka and zebrafish development," Heidelberg, Germany.
- 2003 Lecturer, Stanford University course, Stickleback Molecular Genetics, Stanford, CA.
- 2004 Lecturer, University of Washington, Advanced Evolution

Research Interests:

Genome organization and evolution, evo-devo, immunogenetics, genetics of disease, and zoology.

Awards and Extramural Funding:

- 1985 Graduate Student Minigrant (research supplement) for "Cytogenetic investigations on North American minnows." Texas A&M University, College Station, TX
- 1985 Stoye Award (cash prize) for "Chromosomal NORs as systematic markers in the North American minnows (Cyprinidae)." Best student presentation in genetics, development and morphology at the annual meeting of the American Society of Ichthyologists and Herpetologists, Knoxville, TN
- 1985-86 Tom Slick Graduate Research Fellowship (graduate stipend plus discretionary fund). Texas A&M University, College Station, TX
- 1987-89 Biomedical Research Support Grant, National Institutes of Health (\$20,000 total costs). "Identification of developmental stage-specific immunoglobulin genes." Showa University Research Institute, St. Petersburg, FL
- 1988 Postdoctoral Fellowship, Individual National Research Service Award (postdoctoral stipend; relinquished after receiving Sloan postdoctoral award). "Regulation of immunoglobulin genes during development." NIH, Bethesda, MD
- 1988-90 Postdoctoral Fellowship in Molecular Studies of Evolution (\$80,500 total costs). "Early phylogenetic diversification of vertebrate immunoglobulin genes." Alfred P. Sloan Foundation, New York, NY
- 1989 Participant in molecular evolution workshop, Marine Biological Laboratory, Woods Hole, MA, summer
- 1995 Awardee of travel fellowship (NSF) for participation in International Molecular Biology and Evolution Conference, Hayama, Japan (8/95).
- 1996 American Cancer Society Institutional Research Grant, #IN97-T (\$12,000 direct costs, 1/1/96-12/31/96). "Cloning of the gene defect for X-linked lymphoproliferative disease (XLP)."

Charles H. Hood Foundation Grant in Child Health (\$50,000 total costs, 1/1/96-12/31/96). “Cloning of the gene defect for X-linked lymphoproliferative disease.”

NIH R29 AI39008 (\$586,000 total costs, 7/1/96-6/30/01). “Cloning and analysis of the gene defect causing XLP.”

NSF IBN-9614940 (\$157,625 total costs, 8/1/96-7/30/99). “The role of gene duplication in the evolution of chordate developmental regulation.” In collaboration with Guenter Wagner and Frank Ruddle (Yale University, New Haven, CT; \$470,000 total costs).

Glaxo/Wellcome Pharmaceuticals Cooperative Research Agreement (\$52,000 total costs, 12/1/96-11/30/97). “Positional cloning and genomics in the pufferfish.”

1999 NSF IBN-9905408 (\$290,000 total costs, 10/1/99-9/29/02). “The role of gene duplication in the evolution of chordate developmental regulation”; continuation of IBN-9614940.

2000 NIH R24 RR14085 (\$1.5 M total costs, 4/15/00-12/31/06). “Genomics resources and infrastructure for the zebrafish.”

2001 DOE (\$200,000 total costs, 10/1/01-9/30/05). “Genomic identification and analysis of shared *cis*-regulatory elements in a developmentally critical homeobox cluster.”

NIH U01 HG02526 (\$3.7 M total costs, 7/1/02-6/30/07). “Virginia Mason BAC library and genomics resources.”

2002 NSF IBN-0207870, (PI: Scott Edwards, Univ. Washington; \$1.1 M total costs, \$400,000 to Amemiya, 8/1/02-7/31/05). BAC library resources from the Reptilia, including birds.

2003 NSF IBN-0321461 (\$315,000 total costs, 8/1/03-7/31/06). “The role of gene duplication in the evolution of chordate developmental regulation”; continuation of IBN-9905408

2004 NIH, NCI intramural program, contract (\$40,000 total costs, 1/1/04-12/31/04). “Comprehensive breakpoint analysis.”

2006 NIH, U19 AI050864-04, pilot project (\$133,350 total costs, 1/1/06-6/30/06). “Development of a new system to study B-cell mediated autoimmunity.”

NIH, R13 HG004094-01, symposium award (PI: Ken Sebens, \$13,000 direct costs). “Genomics and the Life Aquatic.” Role: Co-organizer of meeting with Katie Peichel, co-investigator on grant.

NIH, R21GM079492 (\$503,250 total costs, 1/1/07-12/31/09), “Developmental and genomic studies on the agnathan VLR system.”

- CDB-Riken, Kobe, Japan collaborative research agreement (\$40,000 total costs), “Evo-devo of Otx genes.”
- 2007 NIH 2U54-HG003067-04 (PI, Eric Lander), subcontract of ~\$180,000 to generate BAC libraries of various vertebrate species.
- NSF MCB 0719558 (\$413,000 total costs, 8/1/07-7/31/10), “Evolution and development of vertebrate Hox14 genes.”
- NSF ANT 0632527 (\$550,003 total costs, 9/1/07-08/31/10), “HOX clusters, hematopoiesis and genome enablement of Antarctic fishes.”
- CDB-Riken, Kobe, Japan collaborative research agreement (\$40,000 total costs), “Evo-devo of Otx genes.”
- 2008 NIH R24 RR14085 (\$2,287,500 total costs, competing renewal 6/01/08-5/30/13). “Genomics and infrastructure for the zebrafish.”
- Director’s Award, National Science Foundation, “Excellence in Program Management.”
- 2009 F32 GM087919 Amemiya (Sponsor), 06/01/09-12/31/10, stipend plus discretionary funds), “Novel insight into stability and change in a basal vertebrate genome,” NIH (NIGMS), NRSA postdoctoral award for Dr. Jeremiah Smith.
- 2010 NIH R01 GM090049 multiPI grant with Marianne Bronner-Fraser, Caltech (\$2,332,837 total costs, 08/01/10-7/31/14), “Emergence of developmental and genomic complexity in a basal vertebrate.”
- NIH R24 GM095471 (\$1,830,000 total costs, 11/1/10-10/31/14), “Germline sequence resources & analyses in a vertebrate model that undergoes PGR,” provisionally funded.
- NIH P01 HG004120 (PI, Evan Eichler), “Human genome structural variation.” Amemiya’s subcontract is \$998,266 total costs for three years (12/1/10-11/30/13) to contribute to genomic resource development of humans, provisionally funded.

Grant Panel Member/Editorial Board:

- 1994 Grant Panel, Marine Biotechnology (Animal Molecular Genetics), National Oceanic and Atmospheric Administration, Washington, D.C.
- 1996-98 Molecular Evolution Panel, National Science Foundation, Washington, D.C.
- 1998-00 Associate Editor, Journal of Experimental Zoology (Molecular and Developmental Evolution)

- 1999- Editorial Board, Journal of Experimental Zoology (Molecular and Developmental Evolution)
- 1999 *Ad hoc* member on NIH Comparative Medicine study section, 6/99
Ad hoc member on NIH Immunobiology special emphasis panel, 12/99
- 2000 *Ad hoc* reviewer on NIH Immunobiology special emphasis panel, 2/00
Ad hoc reviewer on NIH Comparative Medicine study section, 6/00
Ad hoc reviewer on NIH Immunobiology special emphasis panel, 8/00
Ad hoc reviewer on NIH study section for zebrafish mutagenesis screens RFA, 11/00
- 2002 *Ad hoc* reviewer on NIH Immunobiology special study section, 3/02
Ad hoc reviewer on DOE Genome study section, 6/02
Ad hoc reviewer on NIH Experimental Immunology special emphasis panel, 8/02
Ad hoc reviewer on NIH Immunobiology special emphasis panel, 8/02
- 2003 *Ad hoc* reviewer on NIH study section for zebrafish tools for mutagenesis, 3/03
Ad hoc reviewer on NIH Experimental Immunology special emphasis panel, 4/03
Ad hoc reviewer on NIH Experimental Immunology special emphasis panel, 7/03
Community Sequencing Panel Review, Joint Genome Institute, 9/03
Chairman of NIH Experimental Immunology special emphasis panel, 11/03
Ad hoc reviewer on NIH Genome special emphasis panel, 11/03
- 2004 *Ad hoc* reviewer on NIEHS study section, 02/04
Ad hoc reviewer on NIH Experimental Immunology study section, 02/04
Community Sequencing Panel Review, DOE Joint Genome Institute, 4/04
Ad hoc reviewer on NIH Cell and Molecular Immunology study section, 06/04
Ad hoc reviewer on NIH Biology, Development and Aging special emphasis panel, 06/04
Ad hoc reviewer on Superfund-NIEHS special emphasis panel, 10/04
Ad hoc reviewer on NIH Genome special emphasis panel, 11/04
- 2005 *Ad hoc* reviewer on NIEHS study section, 03/05
Community Sequencing Panel Review, DOE Joint Genome Institute, 04/05
- 2005- Editorial board of GENE
Editorial board of TheScientificWorld JOURNAL (Development and Embryology Domain)
- 2006 *Ad hoc* reviewer on NIH Molecular, Cellular, and Developmental Neuroscience Integrated Review Group, 3/06
Ad hoc reviewer on NIH Genome Sequencing Centers review group, 7/06
- 2007 *Ad hoc* reviewer on NIH Zebrafish Tools review group, 3/07
Ad hoc reviewer on NIH Review Group (NINDS K99/ROO program), 7/07
- 2008 *Ad hoc* reviewer on Molecular Neurogenetics Study Section (ZRG1 MNG-K), 2/08

- 2009 *Ad hoc* reviewer on NIH Zebrafish Tools/Genetic Screens review group, 3/09
NSF Panelist, EvoDevo, 10/09
Editorial board of BMC EVODEVO
Editorial board of *genesis*, *The Journal of Genetics and Development*

Meetings Organized:

- 1998-2001 Boston Zebrafish meetings (with Ian Drummond). Semi-annual meetings on numerous topics germane to zebrafish biologists.
- 2006 "Genomics and the Life Aquatic," September 9-12, 2006, Friday Harbor Laboratories, Washington (Katie Peichel, Fred Hutchinson Research Center, co-organizer). This meeting brought together 35 scientists, all of whom employ comparative genomics approaches to derive insights into a variety of biological processes. Most of these individuals study marine organisms, and the use of marine/aquatic systems was emphasized.
- 2008 "Cis Sequence Regulation and Its Evolution," September 29-October 1, 2008, RIKEN Center for Developmental Biology, Kobe, Japan (Shin Aizawa, RIKEN CDB and Denis Dubuole, Univ. Geneva, Co-organizers). This symposium brought together experts in disparate fields of biology in order to discuss the characterization of cis-regulatory elements and their roles in development and evolution.
<http://www.cdb.riken.jp/cis-sequence2008/index.html>

Invited Lectures/Invited Conference Participant:

- 7/88 Woods Hole Marine Biological Laboratory (Woods Hole, MA), "Molecular evolution: patterns and processes."
- 9/88 University of Tampa (Tampa, FL), "Systematics of the North American Cyprinidae (minnows) based on chromosomal nucleolus organizer regions."
- 9/89 Texas A&M University (College Station, TX), "Phylogeny and diversification of immunoglobulin genes."
- 9/89 Oklahoma University Health Sciences Center (Oklahoma City, OK), "Evolutionary diversification of immunoglobulins and their genes."
- 10/89 MD Anderson Cancer Center-Science Park (Smithville, TX), "Origins and diversification of immunoglobulins and their genes."
- 12/89 American Society of Zoologists Symposium on Application of Molecular Genetic Approaches in Understanding the Basis for Immune and Other forms of Specific Recognition (Boston, MA), "Early evolution of immunoglobulin genes."

- 9/90 All Children's Hospital (St. Petersburg, FL), "Progress of the Human Genome Project at Lawrence Livermore National Laboratory and Novel Physical Mapping Strategies for Chromosome 19."
- 10/91 International Congress of Human Genetics Symposium on Genome Physical Mapping (Washington, D.C.), "Closure of chromosome 19 cosmid-contig map using clone pooling schemes."
- 10/91 Louisiana State University Medical Center (New Orleans, LA), "Evolution of gene families: zinc fingers and immunoglobulins."
- 10/91 Texas A&M University (College Station, TX), "The Human Genome Initiative at Lawrence Livermore National Laboratory: Progress and Novel Mapping Strategies for Chromosome 19."
- 6/92 All Children's Hospital (St. Petersburg, FL), "Identification and characterization of the gene defect responsible for myotonic muscular dystrophy."
- 10/92 Banbury Conference on DNA Repeats and Human Gene Mutations (Cold Spring Harbor, NY), participant.
- 4/94 Boston University, Center for Advanced Research in Biotechnology (Boston, MA), "Aspects and applications of the P1 artificial chromosome cloning system."
- 9/94 All Children's Hospital (St. Petersburg, FL). "Novel approaches to cloning the genetic defect for X-linked lymphoproliferative disease (XLP)."
- 3/95 GLAXO (Research Triangle Park, NC). "Applications of the P1 artificial chromosome cloning system."
- 4/95 Wadsworth Institute (Albany, NY). "Novel approaches to large-insert cloning using the P1 artificial chromosome system."
- 8/95 Participant in Japan-U.S. binational workshop on molecular evolution of adaptive characters (Hayama, Japan). "Organization and evolution of immunoglobulin genes, and identification of genes involved in regulation and ontogeny of the immune system."
- 9/95 Kyoto University School of Medicine (Kyoto, Japan). "Use of the P1 artificial chromosome system to study the evolution of the vertebrate immune system."
- 4/96 Boston University School of Medicine, Department of Immunology (Boston, MA). "Evolutionary trends and diversification of the immunoglobulins and their genes."
- 9/96 Dalhousie University, Department of Biology (Halifax, Nova Scotia, Canada). "Molecular evolution of genes of the immune system" and "Use of large-insert bacterial cloning systems for studies in evolution and development."
- 6/97 Basel Institute for Immunology (Basel, Switzerland). "Practical applications of large bacterial cloning systems towards problems in immunology and development."

- 6/97 Max Planck-Institut für Molekulare Genetik (Berlin, Germany). “Origins of the adaptive immune system.”
- 2/98 Boston University (Boston, MA), Physiology, Endocrinology & Neuroscience Program, Department of Biology. “Evolutionary origins and development of the vertebrate immune system.”
- 9/98 Texas A&M University (College Station, TX), Genetics Program. “Early origins and development of the vertebrate immune system.”
- 10/98 LI-COR invited speaker, American Society of Human Genetics meeting (Denver, CO). “Use of the LI-COR 4200 system for diagnostic sequencing and for analyzing extended genomic regions.”
- 2/99 Invited participant, NIH meeting on non-mammalian model systems (Bethesda, MD)
- 7/99 Guest lecturer in Immunology Training Program (Boston Univ. School of Medicine, Boston), "Evolution, divergence and development of the vertebrate adaptive immune system."
- 12/99 Forsyth/Harvard Dental Institute. "Origins, divergence and development of the early vertebrate immune system."
- 02/00 University of Connecticut Health Sciences Center (Farmington, CN), Dept. of Molecular Oncology. "How the immune system originated and diversified."
- 05/00 University of South Florida Medical School (Tampa, FL), Dept. of Microbiology. "A mutagenesis screen for genes affecting the immune system in zebrafish."
- 09/00 Invitee, NCI-sponsored meeting on Aquaria Fish Models of Human Disease, San Marcos, TX.
- 10/00 Invitee, Sanger Centre workshop, “Sequencing of the Zebrafish Genome,” Sanger Centre, Cambridge, UK. Presented talk entitled “Zebrafish BAC and PAC resources and their applications.”
- 11/00 Virginia Mason Research Center (Seattle, WA), “Origins, divergence, and development of the vertebrate adaptive immune system.”
- 11/00 Evo-Devo Program, University of Oregon (Eugene, OR), “Evo-Devo and the vertebrate phylad: the immune system, *Hox* genes, and comparative genomics.”
- 2/01 Biology Department, Boston University, “Comparative vertebrate genomics and its application to problems in immunology and development.”
- 4/01 Biochemistry Department, University of South Florida, “Comparative vertebrate genomics and its application to problems in immunology and development.”

- 10/01 Children's Hospital of Oakland Research Institute, "Vertebrate comparative genomics: BAC-PAC'ing through the biological abyss."
- 2/02 Evolutionary Immunobiology -- New Approaches, New Paradigms. Invited speaker/discussant, "Genomic approaches to problems in comparative immunology." Charleston, S.C.
- 5/02 Department of Zoology, Univ. of Oklahoma, "Vertebrate comparative genomics and its application to problems in evolution and development."
- 6/02 Department of Genome Sciences, Univ. of Washington, "Vertebrate comparative genomics approaches to problems in evolution and development."
- 9/02 Department of Biology, Univ. of Alberta, "Comparative genomics and its application to problems in evolution and development."
- 12/02 The McKusick-Nathans Institute of Genetic Medicine, Johns Hopkins University, Baltimore, MD, "Comparative genomics approaches to problems in developmental genetics and evolution."
- 12/02 Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, MD, "Comparative genomics, BAC libraries, and vertebrate Evo-Devo."
- 3/03 University of Virginia School of Medicine, Charlottesville, VA, "Comparative genomics and its applications to problems in evolution and development."
- 3/03 Third International Symposium on the Biology of Vertebrate Sex Determination. Kona, Hawaii. Plenary Lecture: "Comparative genomics, BAC libraries and sex determination."
- 5/03 The Louis Du Pasquier Symposium on Phylogeny of the Immune System, San Francisco. "Adaptive evolution in an extreme environment."
- 7/03 International Congress of the International Society of Developmental and Comparative Immunology, Scotland. Plenary Lecture: "Comparative genomics and the evolution of the vertebrate immune system and Hox genes."
- 9/03 Conference on Aquatic Animal Models of Human Disease, ATCC, Manassas, VA, Plenary Lecture in Comparative Genomics: "Comparative genomics, BAC libraries and vertebrate Evo-Devo."
- 12/03 University of Washington, Department of Biology, Seattle, WA, "Comparative genomics and vertebrate Evo-Devo."
- 02/04 University of Victoria, Department of Biology, Victoria, British Columbia, "Genomics, multi-gene families and vertebrate Evo-Devo."

- 03/04 Evolution of Developmental Diversity meeting, invited talk, Cold Spring Harbor Laboratory, NY, “HOX cluster evolution in the vertebrates-Hodgepodge of conservation and evolutionary plasticity.”
- 07/04 International Congress of Immunology, minisymposium speaker in Phylogeny of Immune System, Montreal, Canada, “Genomic approach to studying evolution of the immune system: Rearranging genes in the coelacanth.”
- 07/04 Dana-Farber Cancer Institute, Boston, MA, “What does it take to make an adaptive immune system?”
- 12/04 Molecular Biology Society of Japan, Kobe, Japan (symposium on *cis*-Regulatory Sequences and Animal Evolution), “Evolution of vertebrate genomes and their regulatory sequences.”
- 12/04 Osaka University, Osaka, Japan (symposium on the Genetic and Cellular Basis of Life), ““Old four legs” or just an old fish: The story of the coelacanth as revealed through comparative genomics of the HOX, immunoglobulin and protocadherin clusters.”
- 12/04 Center for Developmental Biology, Riken, Kobe, Japan, “Evolution of the vertebrate immune system.”
- 12/04 The Graduate University for Advanced Study, Sokendai, Hayama, Japan, “What does it take to make an adaptive immune system?”
- 12/04 Tokyo University, Department of Biology, “Comparative genomics and its applications to problems in development and evolution.”
- 01/05 Plant and Animal Genome XIII conference, San Diego, Aquaculture symposium, “Practical applications of comparative genomics.”
- 01/05 University of Washington, Systematics Seminar Series, Department of Biology, Seattle, WA, “Old ‘Four Legs’ or just and old fish? The story of the living coelacanth as revealed through comparative genomics of the HOX, immunoglobulin and protocadherin clusters.”
- 03/05 15th International Congress of Endocrinology, Boston, MA, “Evolution of Vertebrate Development: Insights from Comparative Genomics”
- 03/05 Texas A&M University, Genetics Program, College Station, TX, “Old ‘Four Legs’ or just and old fish? The story of the living coelacanth as revealed through comparative genomics .”
- 07/05 Society for Experimental Biology annual meeting, Barcelona, “Old ‘Four Legs’ or just and old fish? The story of the living coelacanth as revealed through comparative genomics.”
- 08/05 Mount Desert Island Stem Cell Symposium, Bar Harbor, ME, “What does it take to make an adaptive immune system?”

- 02/06 San Juan Nature Institute, Friday Harbor, WA, “‘Old Four Legs’ or just an old fish: The story of the coelacanth as revealed through an inside-out view.”
- 02/06 Seattle University, Wismer Center, Seattle, WA, Panelist on Intersections of Race and Gender in Science, Engineering, and Technology Fields: Challenges, Career Advice, and Policy Implications
- 04/06 Center for Cell Dynamics, Friday Harbor, WA, “Comparative genomics and the evolution of vertebrate Hox clusters and their genes.”
- 05/06 Woods Hole Oceanographic Institute, Woods Hole, MA, “‘Old Four Legs’ or just an old fish: A story of the coelacanth in three acts.”
- 06/06 Stazione Zoologica Anton Dohrn, Naples, Italy. “What does it take to make an adaptive immune system? Genomics and development of the agnathan VLR system.”
- 07/06 Platform presentation, International Society of Developmental and Comparative Immunology, Charleston, SC. “Genomics and evolution of the immune system: Rearranging genes in the coelacanth.”
- 07/06 Workshop organizer, International Society of Developmental and Comparative Immunology, Charleston, SC. Session 21B: Genomic Models in Fish Immunity.
- 09/06 Genomics and the Life Aquatic Symposium, Friday Harbor, WA. “Genomes, genomes and more genomes! Where are we going with all this information?”
- 11/06 Immunology seminar, All Children’s Hospital, St. Petersburg, FL. “Emergence of a radically different genomic solution to the same problem: Evolution of adaptive immunity in primitive vertebrates.”
- 11/06 Medical Grand Rounds, All Children’s Hospital, St. Petersburg, FL. “Genomes, genomes and more genomes! Where are we going with all this information? And how will the future of medicine be shaped by genomics?”
- 1/07 Integrative and Organismal Systems, National Science Foundation, Arlington, VA. “Evolution of vertebrate developmental complexity.”
- 1/08 BIO-08, Grahamstown, South Africa (joint meetings of the South African Society for Biochemistry and Molecular Biology, Biotech SA and the South African Society for Microbiology. “Why we need to sequence the genome of the living coelacanth.”
- 3/08 University of Maryland (Behavior, Ecology, Evolution and Systematics Program), College Park, MD. “Evolution of vertebrate developmental complexity.”
- 4/08 Harvard University (Organismal Evolutionary Biology), Cambridge, MA. “Evolution of vertebrate developmental complexity.”

- 8/08 National Science Foundation, Research Initiation Grant-Career Advancement Award Program, awardee workshop.
- 9/08 16th CDB Meeting (Cis-sequence Regulation and its Evolution), Center for Developmental Biology, Kobe, Japan. “Genome evolution and the dynamic recruitment of functional cis-sequences during the radiation of vertebrates.”
- 10/08 Resource Directors Meeting, National Center for Research Resources, Washington D.C.
- 10/08 ICREA Conference on the Origin and Early Evolution of Metazoans, Barcelona, Spain. “So many genomes, so many surprises! How comparative genomics is revising our understanding of the mechanistic principles of Darwinian evolution.”
- 2/09 University of Hawaii Medical School, Honolulu, HI. “Evolution of vertebrate developmental complexity.”
- 3/09 Institute of Integrative Genomics, Vanderbilt University School of Medicine, Nashville, TN. “Emergence of developmental and genomic complexity in a basal vertebrate”
- 4/09 Department of Biology, University of New Mexico, Albuquerque, NM. “So many genomes, so many surprises! How comparative genomics is revising our understanding of the mechanistic principles of Darwinian evolution.”
- 8/09 AAAS Symposium, Evolutionary Innovations: Where Ecology, Development and Macroevolution Inversect, SF State University, CA. “How genomics is reshaping our ideas about evolution.”
- 10/09 Titisee Conference on Genome Evolution and the Origin of Novel Gene Functions, Titisee, Germany. “Genome dynamism and functional cooption in a basal vertebrate.”
- Department of Immunobiology, University of Freiburg, Germany. “Extreme functional divergence of an immune receptor system in a basal vertebrate.”
- 1/10 Late breaking symposium -- Insights of early chordate genomics: Endocrinology and devleopment in amphioxus, tunicates and lampreys. “Programmed genome dynamism and its evolutionary cooption in a basal vertebrate.”
- 2/10 Department of Veterinary Molecular Biology, Montana State University, MT. “Nature recycles a developmental program for adaptive immunity in a basal vertebrate.”
- 3/10 Department of Basic Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA. “Recycling of developmental genetic programs in a basal vertebrate.”
- 7/10 International Symposium on Application of Biomechanical Control Systems to Precision Engineering, Aquamarine Fukushima, Iwaki City, Japan. “Genomics and the evolution of chordates.”

Fathom the Mystery of Coelacanth symposium, Aquamarine Fukushima, Iwaki City, Japan. “Why we need to sequence the genome of the coelacanth.”

Department of Biomedical Engineering, Keio University, Tokyo, Japan. “Why we need to sequence the genome of the coelacanth.”

Patents:

“Variable lymphocyte receptors, related polypeptides and nucleic acids, and uses thereof,” USPTO 60/573,563, July 2004, Max Cooper, Zeev Pancer, Chris Amemiya, Larry Gartland, and Goetz Ehrhardt).

“Variable lymphocyte receptors, related polypeptides and nucleic acids, and uses thereof,” European Patent Office, 05856742.1-1223-US2005017901, Max Cooper, Zeev Pancer, Chris Amemiya, Larry Gartland, and Goetz Ehrhardt).

“Variable lymphocyte receptors, related polypeptides and nucleic acids, and uses thereof,” New Zealand Patent Office, #550772, Max Cooper, Zeev Pancer, Chris Amemiya, Larry Gartland, and Goetz Ehrhardt).

Professional Societies:

American Association for the Advancement of Science
American Society of Ichthyologists and Herpetologists
International Society for Developmental and Comparative Immunology
New York Academy of Sciences
Society for Integrative and Comparative Biology

Publications:

Refereed papers and reviews:

1. Amemiya, C. T., Bickham, J. W. and Gold, J. R. 1984. A cell culture technique for chromosome preparation in cyprinid fishes. *Copeia* 1984: 232-235.
2. Amemiya, C. T. and Gold, J. R. 1986. Chromomycin A₃ stains nucleolus organizer regions (NORs) of fish chromosomes. *Copeia* 1986: 226-231.
3. Amemiya, C. T., Kelsch, S. W., Hendricks, F. S. and Gold, J. R. 1986. The karyotype of the Mexican blindcat, *Prietella phreatophila* Carranza (Ictaluridae). *Copeia* 1986: 1024-1028.
4. Gold, J. R. and Amemiya, C. T. 1986. Cytogenetic studies in North American minnows (Cyprinidae). XII. Patterns of chromosomal NOR variation among fourteen species. *Canadian Journal of Zoology* 64: 1869-1877.
5. Gold, J. R., Amemiya, C. T. and Ellison, J. R. 1986. Chromosomal heterochromatin differentiation in North American cyprinid fishes. *Cytologia* 51: 557-566.
6. Amemiya, C. T. and Gold, J. R. 1987. Chromomycin staining of vertebrate chromosomes: enhancement of banding patterns by NaOH. *Cytobios* 49: 147-152.
7. Amemiya, C. T. and Gold, J. R. 1987. Karyology of twelve species of North American Cyprinidae (minnows) from the southern United States. *Cytologia* 52: 715-719.
8. Gold, J. R. and Amemiya, C. T. 1987. Genome size variation among North American minnows (Cyprinidae). II. Variation among twenty species. *Genome* 29: 481-490.
9. Gold, J. R., Amemiya, C. T., Karel, W. J. and Iida, N. 1988. The karyotype and genome structure of the pirate perch *Aphredoderus sayanus* (Aphredoderidae: Teleostei). *Experientia* 44: 68-70.
10. Amemiya, C. T. and Gold, J. R. 1988. Chromosomal NORs as taxonomic and systematic markers in the North American cyprinid fishes. *Genetica* 76: 81-90.
11. Gold, J. R., Zoch, P. K. and Amemiya, C. T. 1988. Cytogenetic studies in North American minnows (Cyprinidae). XIV. Chromosomal NOR phenotypes of eight species from the genus *Notropis*. *Cytobios* 54: 137-147.
12. Haire, R. N., Shamblott, M. J., Amemiya, C. T. and Litman, G. W. 1989. A second *Xenopus* immunoglobulin heavy chain constant region isotype gene. *Nucleic Acids Research* 17: 1776.
13. Amemiya, C. T., Haire, R. N. and Litman, G. W. 1989. Nucleotide sequence of a cDNA encoding a third *Xenopus* immunoglobulin heavy chain isotype. *Nucleic Acids Research* 17: 5388.

14. Litman, G. W., Shablott, M. J., Haire, R. N., Amemiya, C. T., Nishikata, H., Hinds, K. R., Harding, F. A., Litman, R. S. and Varner, J. A. 1989. Evolution of immunoglobulin gene complexity. In: Melchers, F., et al., eds. Progress in Immunology VII, pp. 361-368. Springer-Verlag, Heidelberg.
15. Amemiya, C. T. and Litman, G. W. 1990. Complete nucleotide sequence of an immunoglobulin heavy chain gene and analysis of immunoglobulin gene organization in a primitive teleost species. Proceedings of the National Academy of Sciences U.S.A. 87: 811-815.
16. Amemiya, C. T. and Gold, J. R. 1990. Chromosomal NOR phenotypes of seven species of North American cyprinids, with comments on the cytosystematic relationships of the *Notropis volucellus* species-group, *Opsopoeodus emiliae*, and the genus *Pteronotropis*. Copeia 1990: 68-78.
17. Haire, R. N., Amemiya, C. T., Suzuki, D. S. and Litman, G. W. 1990. Eleven distinct V_H gene families and additional patterns of sequence variation suggest a high degree of immunoglobulin V_H gene complexity in a lower vertebrate, *Xenopus laevis*. Journal of Experimental Medicine 171: 1721-1737.
18. Amemiya, C. T. and Gold, J. R. 1990. Cytogenetic studies in North American minnows (Cyprinidae). XVII. Chromosomal NOR phenotypes of 12 species, with comments on cytosystematic relationships among 50 species. Hereditas 112: 231-247.
19. Litman, G. W., Shablott, M. J., Haire, R. N. and Amemiya, C. T. 1990. Phylogenetic origins and diversification of immunoglobulin genes. In: Marchalonis, J. J., Reinisch, C. L., eds. UCLA Symposium on Molecular and Cellular Biology Proceedings: Defense Molecules, pp. 281-294. Alan R. Liss, New York.
20. Harding, F. A., Amemiya, C. T., Litman, R. S. and Litman, G. W. 1990. A second immunoglobulin heavy chain isotype in a primitive, cartilaginous fish, *Raja erinacea*. Nucleic Acids Research 18: 6369-6376.
21. Litman, G. W., Amemiya, C. T., Haire, R. N. and Shablott, M. J. 1990. Antibody and immunoglobulin diversity. Bioscience 40: 751-757.
22. Carrano, A., Alleman, J., Amemiya, C., Ashworth, L., Aslanidis, C., Branscomb, E., Combs, J., Chen, C., Christensen, M., Copeland, A., Fertitta, A., Garcia, E., de Jong, P., Kwan, C., Lamerdin, J., Mohrenweiser, P H., Olsen, A., Slezak, T., Trask, B. and Tynan, K. 1991. The construction of a physical map of human chromosome 19. Miami Bio/Technology Winter Symposium 1991. Advances in Gene Technology: The Molecular Biology of Human Genetic Disease 1: 60.
23. Haire, R. N., Ohta, Y., Litman, R. T., Amemiya, C. T. and Litman, G. W. 1991. The genomic organization of immunoglobulin V_H genes in *Xenopus laevis* shows evidence for interspersed families. Nucleic Acids Research 19: 3061-3066.

24. Amemiya, C. T. and Litman, G. W. 1991. Early evolution of immunoglobulin genes. *The American Zoologist* 31: 558-569.
25. Litman, G. W., Amemiya, C. T., Harding, F. A., Haire, R. N., Hinds, K. R., Litman, R.T., Ohta, Y., Shablott, M. J. and Varner, J. A.. 1991. Evolutionary development of immunoglobulin gene diversity. *In: Gupta, S., Paul, W., Cooper, M., Rothenberg, E., eds. Mechanisms of lymphocyte activation and immune regulation III: Developmental biology of lymphocytes. Advances in Experimental Medicine and Biology* 292: 11-17. Plenum Press, New York.
26. Litman, G. W., Haire, R. N., Hinds, K. R., Amemiya, C. T., Rast, J. P. and Hulst, M. 1992. Evolutionary development of the B cell repertoire. *In: Herzenberg, L. A., Haughton, G., Rajewsky, K., eds. CD5 B Cells in Development and Disease. Annals of the New York Academy of Science* 651: 360-368. The New York Academy of Sciences, New York, NY.
27. Aslanidis, C., Jansen, G., Amemiya, C., Shutler, G., Tsilfidis, K., Mahadevan, M., Chen, C., Alleman, J., Wormskamp, N., Vooijs, M., Buxton, J., Johnson, K., Lennon, G., Carrano, A., Korneluk, R., Wieringa, B. and de Jong, P. 1992. Cloning of the essential myotonic dystrophy region: mapping of the putative defect. *Nature* 355: 548-551.
28. Mahadevan, M., Tsilfidis, C., Sabourin, L., Shutler, G., Amemiya, C., Jansen, G., Neville, C., Narang, M., Barcelo, J., O'hoy, K., Earle-MacDonald, J., de Jong, P., Wieringa, B. and Korneluk, R. 1992. Identification and characterization of an unstable trinucleotide repeat at the myotonic dystrophy locus. *Science* 255: 1253-1255.
29. Jansen, G., de Jong, P. J., Amemiya, C., Aslanidis, C., Shaw, D. J., Harley, H. G., Brook, J. D., Fenwick, R., Korneluk, R. G., Tsilfidis, C., Shutler, G., Hermens, R., Wormskamp, N. G. M., Smeets, H. J. M. and Wieringa, B. 1992. Physical and genetic characterization of the distal segment of the myotonic dystrophy area on 19q. *Genomics* 13: 509-518.
30. Amemiya, C. T., Alegria, M., Aslanidis, C., Chen, C., Gingrich, J. and de Jong, P. 1992. A two-dimensional YAC pooling strategy for rapid screening via STS and *Alu*-PCR methods. *Nucleic Acids Research* 20: 2559-2563.
31. Lennon, G. G., Lamerdin, J., Lieuallen, L., Amemiya, C., Aslanidis, C., de Jong, P. J. and Carrano, A. V. 1992. A STS from a cDNA located in the myotonic dystrophy region on human chromosome 19q13.3. *Human Molecular Genetics* 1: 217.
32. Jansen, G., Mahadevan, M., Amemiya, C., Wormskamp, N., Segers, B., Hendriks, W., O'Hoy, K., Baird, S., Sabourin, L., Lennon, G., Jap, P., Iles, D. Coerwinkel, M., Hofker, M., Carrano, A., de Jong, P., Korneluk, R. and Wieringa, B. 1992. Characterisation of the myotonic dystrophy (DM) region predicts multiple protein kinase isoform-encoding mRNAs that differ at their 3' ends. *Nature Genetics* 1: 261-266.
33. Amemiya, C. T., Powers, P. K. and Gold, J. R. 1992. Karyotypic evolution in the North American cyprinids. *In: Mayden, R. L., ed., Systematics, Historical Ecology, and North American Freshwater Fishes*, pp. 515-533. Stanford University Press, Stanford, CA.

34. Olsen, A. S., Combs, J., Garcia, E., Elliott, J., Amemiya, C., de Jong, P. and Threadgill, G. 1993. Automated production of high density cosmid and YAC colony filters with a robotic workstation. *Biotechniques* 14: 116-123.
35. Litman, G. W., Rast, J. P., Shablott, M. J., Haire, R. N., Hulst, M., Roess, W., Litman, R. T., Hinds-Frey, K. R. and Amemiya, C. T. 1993. Phylogenetic diversification of immunoglobulin genes and the antibody repertoire. *Molecular Biology and Evolution* 10: 60-72.
36. Mahadevan, M. S., Amemiya, C., Jansen, G., Sabourin, L., Baird, S., Neville, C. E., Lamerdin, J., Batzer, M., de Jong, P. and Korneluk, R. 1993. Structure and genomic sequence of the myotonic dystrophy (DM kinase) gene. *Human Molecular Genetics* 2: 299-304.
37. Bellefroid, E., Marine, J.-C., Ried, T., Riviere, M., Coulie, P. J., Lecocq, P. J., Amemiya, C. T., de Jong, P. J., Szpirer, J., Poncelet, D. A., Szpirer, C., Ward, D. C. and Martial, J. A. 1993. Lymphoid restricted expression of multiple differentially spliced krab-finger genes clustered on human chromosome 19p12-p13.1. *EMBO Journal* 12: 1363-1374.
38. Amemiya, C. T., Ohta, Y., Litman, R. T. Haire, R. N., Rast, J. P. and Litman, G. W. 1993. Implications of the immunoglobulin V_H gene organization in the coelacanth, *Latimeria chalumnae*. *Proceedings of the National Academy of Sciences* 90: 6661-6665.
39. Litman, G. W., Amemiya, C. T., Hinds, K. R., Litman, R. S., Kokubu, F., Suzuki, D., Shablott, M. J., Harding, F. A. and Haire, R. N. 1993. Evolutionary origins of immunoglobulin genes. *In*: Cooper, E. L., ed. *Developmental Immunology*, pp 108-128, Oxford University Press, New York.
40. Ioannou, P./Amemiya, C. T., Garnes, J., Kroisel, P.M., Shizuya, H., Chen, C., Batzer, M. A., and de Jong, P. J. 1994. A new bacteriophage P1-derived vector for the propagation of large human DNA fragments. *Nature Genetics* 6: 84-89. (Co-first author)
41. Anderson, M., Amemiya, C., Luer, C., Litman, R., Rast, J., Niimura, Y. and Litman, G. 1994. Complete genomic sequence and patterns of transcription of a member of an unusual family of closely related, chromosomally dispersed immunoglobulin gene loci in *Raja*. *International Immunology* 6: 1661-1670.
42. Litman, G. W., Rast, J. P., Hulst, M. A., Litman, R. T., Shablott, M. J., Haire, R. N., Hinds-Frey, K. R., Buell, R. D., Margittai, M. Ohta, Y., Zilch, A. C., Good, R. A. and Amemiya, C. T. 1995. Evolutionary origins of immunoglobulin gene diversity. *Progress in Immunology VIII*: 107-114.
43. Ohta, Y., Haire, R. N., Amemiya, C. T., Litman, R. T., Träger, T., Riess, O. and Litman, G. W. 1996. Human Txk: Genomic organization, structure, and contiguous physical linkage with the Tec gene. *Oncogene* 12: 937-942.
44. Ota, T. and Amemiya, C. T. 1996. An efficient, non-radioactive method for detection of restriction fragments from large P1 artificial chromosome clones. *Genetic Analysis, Biomolecular Engineering* 12: 173-178.

45. Ota, T., Rast, J. P., Margittai, M., Litman, G. W. and Amemiya, C. T. 1996. Studies on the early evolution of immunoglobulin genes. *Current Topics on Molecular Evolution* 1: 151-158.
46. Amemiya, C. T., Ota, T., Rast, J., Zon, L., and Litman, G. W. 1996. Organization and evolution of immunoglobulin genes, and identification of genes involved in regulation and ontogeny of the immune system. *Current Topics on Molecular Evolution* 1: 159-168.
47. Hoffman, S. M. G., Hromas, R., Amemiya, C. and Mohrenweiser, H. W. 1996. The localization of MZF-1 at the telomere of human chromosome 19q makes it vulnerable to degeneration in aging cells. *Leukemia Research* 20: 281-283.
48. Amemiya, C. T., Ota, T. and Litman, G. W. 1996. Construction of P1 artificial chromosome (PAC) libraries from lower vertebrates. *In: Birren, B. and Lai, E., eds. Nonmammalian Genomic Analysis: A Practical Guide*, pp 223-256, Academic Press, NY.
49. Litman, G. W., Anderson, M. K., Rast, J. P. and Amemiya, C. T. 1997. Organization and mechanism of rearrangement of immunoglobulin genes in lower vertebrates. *In: Herzenberg, L. A., Weir, D. M., Herzenberg, L. A. and Blackwell, C., eds. Handbook of Experimental Immunology*, 5th edition, pp 18.1-18.14, Blackwell Science, Inc., Boston, MA.
50. Strong, S. J., Ohta, Y., Litman, G. L., and Amemiya, C. T. 1997. Marked improvement of PAC and BAC cloning is achieved using electroelution of pulsed-field gel-separated partial digests of genomic DNA. *Nucleic Acids Research* 25:3959-3961.
51. Rast, J. P., Amemiya, C. T., Litman, R. T., Strong, S. and Litman, G. W. 1998. Distinct forms of IgH structure and organization in a divergent lineage of chondrichthyan fishes. *Immunogenetics* 47: 234-245.
52. Amemiya, C. T. 1998. The zebrafish and haematopoietic justice. *Nature Genetics* 20: 222-223.
53. Amores, A., Force, A., Yan, Y.-L., Joly, L., Amemiya, C., Fritz, A., Ho, R. K., Langeland, J., Prince, V., Wang, Y. L., Westerfield, M., Ekker, M., and Postlethwait, J. H. 1998. Zebrafish Hox clusters and vertebrate genome evolution. *Science* 282: 1711-1714.
54. Amemiya, C. T., Zhong, T. P., Silverman, G. A, Fishman, M. C., and Zon, L. I. 1999. Zebrafish YAC, BAC and PAC genomic libraries. *Methods Cell Biol.* 60: 235-258.
55. Anderson, M. K., Strong, S. J., Litman, R. T., Luer, C. A., Amemiya, C. T., Rast, J. P. and Litman, G. W. 1999. A long form of the IgX gene in the skate exhibits striking resemblance to the novel IgW and IgNARC genes in the shark. *Immunogenetics* 49: 56-67.
56. Bhargava, J., Shashikant, C. S., Carr, J. L., Bentley, K. L., Amemiya, C. T. and Ruddle, F. H. 1999. pPAC-ResQ: A yeast-bacterial shuttle vector for capturing inserts from P1 and PAC clones by recombinogenic targeted cloning. *Genomics* 56: 337-339.
57. Amemiya, C. T. and Zon, L. I. 1999. Generation of a zebrafish genomic PAC library. *Genomics* 58: 211-213.

58. Ruddle, F. H., Amemiya C. T., Carr, J. L., Kim, C. B., Ledje, C., Shashikant, C. S. and Wagner, G. P. 1999. Evolution of chordate hox gene clusters. *Annals of the New York Academy of Sciences* 870: 238-248.
59. Strong, S. P., Mueller, M. G., Litman, R. T., Hawke, N. A., Haire, R. P., Miracle, A. L., Rast, J. P., Amemiya, C. T., and Litman, G. W. 1999. A novel multigene family encodes diversified variable regions. *Proceedings of the National Academy of Sciences USA* 96: 15080-15085.
60. Zapata, A. and Amemiya, C. T. 2000. Phylogeny of lower vertebrates and their immunological structures. *Current Topics in Microbiology and Immunology* 248: 67-110.
61. Chiu, C., Amemiya, C. T., Carr, J. L., Bhargava, J., Hwang, J. K., Shashikant, C. S., Ruddle, F. H., and Wagner, G. P. 2000. A recombinogenic targeting method to modify large-inserts for cis-regulatory analysis in transgenic mice: Construction and expression of a 100 kb, zf Hoxa-11b-lacZ reporter gene. *Genes, Development and Evolution* 210: 105-109.
62. Kim, C. B., Amemiya, C. T., Bailey, W., Kawasaki, K., Mezey, J., Miller, W., Minoshima, S., Shimizu, N., Wagner, G., and Ruddle, F. H. 2000. Hox cluster genomics in the horn shark, *Heterodontus francisci*. *Proceedings of the National Academy of Sciences USA* 97: 1655-1660.
63. Chiu, C., Nonaka, D., Xue, L., Amemiya, C. T. and Wagner, G. P. 2000. Evolution of Hoxa-11 in lineages phylogenetically positioned along the fin-limb transition. *Molecular Phylogenetics and Evolution* 17: 305-316.
64. Amemiya, C. T., Amores, A., Ota, T., Mueller, G., Garrity, D., Postlethwait, J. H. and Litman, G. W. 2001. Generation of a P1 artificial chromosome library of the Southern pufferfish. *GENE* 272: 283-289.
65. Willett, C. E., Kawasaki, H., Amemiya, C. T., Lin, S. and Steiner, L. A. 2001. *Ikaros* expression as a marker for lymphoid progenitors during zebrafish development, *Developmental Dynamics* 222: 694-698.
66. Amemiya, C. T. and Ikuta, T. 2001. Large-insert cloning and its applications for studying the developmental biology of hematopoiesis. *In: Zon, L. I., ed. Hematopoiesis: A developmental approach*, pp 663-671. Oxford University Press.
67. Irvine, S. Q., Carr, J. L., Shimizu, N., Bailey, Amemiya, C., and Ruddle, F. H. 2002. Genomic analysis of the Hox clusters in the sea lamprey *Petromyzon marinus*, *Journal of Experimental Zoology (Molecular and Developmental Evolution)* 294: 47-62.
68. Chiu, C.-H., Amemiya, C. T., Dewar, K., Kim, C.-B., Ruddle, F. H., and Wagner, G. P. 2002. Molecular evolution of the HoxA cluster in the three major gnathostome lineages. *Proceedings of the National Academy of Sciences USA* 99: 5492-5497.
69. Martinez, P. and Amemiya, C. T. 2002. Genomics of the HOX gene cluster. *Comparative Biochemistry and Physiology Part B* 133: 569-578.

70. Yoder, J. A., Nielsen, M. E., Amemiya, C. T. and Litman, G. W. 2002. Zebrafish as an immunological system. *Microbes and Infection* 4:1469-1478.
71. Kim, C.-H., Shashikant, C. S., Sumiyama, K., Wang, W. C. H., Amemiya, C. T. and Ruddle, F. H. 2003. Phylogenetic analysis of the mammalian Hoxc8 non-coding region. *Journal of Structural and Functional Genomics* 3: 195-199.
72. Ota, T., Nguyen, T., Huang, E., Detrich, W., and Amemiya, C. T. 2003. Positive Darwinian selection operating on immunoglobulin heavy chain of antarctic fishes, *Journal of Experimental Zoology (Molecular and Developmental Evolution)* 295B: 45-58.
73. Ota, T., Rast, J. P., Litman, G. W. and Amemiya, C. T. 2003. Lineage-restricted retention of a primitive immunoglobulin heavy chain isotype within the Dipnoi reveals an evolutionary paradox. *Proceedings of the National Academy of Sciences USA* 100: 2501-2506.
74. Wagner, G. P., Amemiya, C. T., and Ruddle, F. H. 2003. Hox cluster duplications and the genetics of evolutionary novelties, *Proceedings of the National Academy of Sciences USA* 100: 14603-14606.
75. Traver, D., Herbomel, P., Patton, E. E., Ryan Murphy, Yoder, J. A., Litman, G. W., Catic, A., Amemiya, C. T., Zon, L. I. and Trede, N. S. 2003. The zebrafish as a model organism to study development of the immune system. *Advances in Immunology* 81: 253-330.
76. Anand, S., Wang, W., Powell, D., Bolanowski, S., Zhang, J., Ledje, C., Pawashe, A., Amemiya, C., and Shashikant, C. S. 2003. Divergence of Hoxc8 early enhancer parallels diverged axial morphologies between mammals and fishes, *Proceedings of the National Academy of Sciences USA* 100: 15666-15669.
77. Chiu, C.-H., Dewar, K., Wagner, G. P., Takahashi, K., Ruddle, F. H., Ledje, C., Bartsch, P., Scemama, J.-L., Stellweg, E., Fried, C., Prohaska, S. J., Stadler, P. F. and Amemiya, C. T. 2004. Bichir HoxA cluster sequence reveals surprising trends in ray-finned fish genomic evolution. *Genome Research* 14: 11-17.
78. Amores, A., Suzuki, T., Yan, Y.-L., Pomeroy, J., Singer, A., Amemiya, C. T., and Postlethwait, J. 2004. Developmental roles of pufferfish Hox clusters and genome evolution in ray-fin fish. *Genome Research* 14: 1-10.
79. Danke, J., Miyake, T., Powers, T., Schein, J., Shin, H., Bosdet, I., Erdmann, M., Caldwell, R. and Amemiya, C. T. 2004. Genome resource for the Indonesian coelacanth. *Journal of Experimental Zoology*, 301A: 228-234.
80. Powers, T. P. and Amemiya, C. T. 2004. Evidence for vertebrate Hox14 paralog group. *Current Biology* 14: R183-184.
81. Prohaska, S. J., Fried, C., Amemiya, C. T., Ruddle, F. H., Wagner, G. P. and Stadler, P. F. 2004. The shark HoxN cluster is homologous to the human HoxD cluster. *Journal of Molecular Evolution* 58: 212-217.

82. Pancer, Z., Amemiya, C. T., Ehrhardt, G. R. A., Ceitlin, J., Gartland, G. L., and Cooper, M. D. 2004. Somatic diversification of variable lymphocyte receptors in the agnathan sea lamprey. *Nature* 430: 174-180.
83. Powers, T. P. and Amemiya, C. T. 2004. Evolutionary plasticity of vertebrate Hox genes. *Current Genomics* 5: 459-472.
84. Wang, W. C. H., Anand, S., Powell, D., Pawashe, A. B., Amemiya, C. T. and Shashikant, C. 2004. Comparative cis-regulatory analyses identify new elements of the mouse Hoxc8 early enhancer, *Journal of Experimental Zoology (Molecular and Evolutionary Development)* 302B: 436-445.
85. Shashikant, C., Bolanowski, S. A., Danke, J., and Amemiya, C. T. 2004. *Hoxc8* early enhancer of the Indonesian coelacanth, *Latimeria menadoensis*. *J. Exp. Zoology (Molecular and Evolutionary Development)* 302B: 557-563.
86. Yoder, J. A., Litman, R. T., Mueller, M. G., Desai, S., Dobrinski, K. P., Montgomery, J. S., Buzzeo, M. P., Ota, T., Amemiya, C. T., Trede, N. S., Wei, S., Djeu, J. Y., Humphray, S., Jekosch, K., Hernandez Prada, J. A., Ostrov, D. A., Litman, G. W. 2004. Resolution of the novel immune-type receptor gene cluster in zebrafish. *Proceedings of the National Academy of Sciences USA* 101: 15706-15711.
87. Minguillón, C., Gardenyes, J., Serra, E., Castro, L. F. C., Hill-Force, A., Holland, P. W. H., Amemiya, C. T. and Garcia-Fernández, J. 2004. No more than 14: the end of the amphioxus Hox cluster. *International Journal of Biological Sciences* 1: 19-23.
88. Stavnezer, J. and Amemiya, C. T. 2004. Evolution of isotype switching, *Seminars in Immunology* 16: 257-275.
89. Miyake, T. and Amemiya, C. T. 2004. BAC libraries and comparative genomics of aquatic chordate species. *Comparative Biochemistry and Physiology (Part C)*: 138: 233-244.
90. Noonan, J. P., Grimwood, J., Danke, J., Schmutz, J., Dickson, M., Amemiya, C. T. and Myers, R. M. 2004. Coelacanth genome sequence reveals the evolutionary history of vertebrate genes, *Genome Research* 14: 2397-2405.
91. Force, A., Shashikant, C., Stadler, P. and Amemiya, C. T. 2004. Comparative genomics, cis-regulatory elements and gene duplication. *Methods in Cell Biology* 77: 545-561.
92. International Human Genome Sequencing Consortium. 2004. Finishing the euchromatic sequence of the human genome. *Nature* 431: 931-945.
93. Kingsley, D., Zhu, B., DeJong, P., Schein, J., Marra, M., Peichel, K., Amemiya, C., Schluter, D., Balabhadra, S., Friedlander, B., Cha, Y. M., Dickson, M., Grimwood, J., Schmutz, J., Talbot, W. S., and Myers, R. 2004. New genomic tools for molecular studies of evolutionary change in sticklebacks. *Behavior* 141: 1331-1344.

94. Tanzer, A., Amemiya, C. T., Kim, C.-B., and Stadler, P. F. 2005. Evolution of microRNAs located within Hox gene clusters. *Journal of Experimental Zoology (Molecular and Evolutionary Development)* 204B: 75-85.
95. Margulies, E. H., NISC Comparative Sequencing Program, Maduro, V. V. B., Thomas, P. J., Tomkins, J. P., Amemiya, C. T., Luo, M., and Green, E. D. 2005. Comparative sequencing provides insights about the structure and conservation of marsupial and monotreme genomes, *Proceedings of the National Academy of Sciences* 102: 3354-3359.
96. Force, A., Cresko, W., Pickett, B., Amemiya, C. and Lynch, M. 2005. The origin of gene subfunctions and modular gene regulation. *Genetics* 170: 433-446.
97. Metscher, B. D., Takahashi, K., Crow, K., Amemiya, C., Nonaka, D., and Wagner, G. P. 2005. Expression of Hoxa-11 and Hoxa-13 in the pectoral fin of a basal ray finned fish, *Polyodon spathula*: implications for the origin of tetrapod limbs. *Evolution and Development* 7: 186-195.
98. Wagner, G. P., Takahashi, K., Roth, J., Lynch, V., Prohaska, S., Fried, C., Stadler, P., and Amemiya, C. 2005. Molecular evolution of duplicated ray finned fish HoxA clusters. *Journal of Molecular Evolution* 60: 665-676.
99. Pancer, Z., Saha, N.R., Kasamatsu, J., Suzuki, T., Amemiya, C.T., Kasahara, M., and Cooper, M.D. 2005. Variable lymphocyte receptors in hagfish. *Proceedings of the National Academy of Sciences USA* 102: 9224-9229.
100. Ferrier, D. E. K., Dewar, K., Cook, A., Chang, J. L., Hill-Force, A. and Amemiya, C. 2005. The chordate ParaHox cluster. *Current Biology* 15: R820-822.
101. Amemiya, C. T., Miyake, T., and Rast, J. P. 2005. Quick Guide: Echinoderms. *Current Biology* 15: R944-946.
102. Crow, K. D., Stadler, P. F., Lynch, V. J., Amemiya, C. and Wagner, G. P. 2006. The “fish specific” Hox cluster duplication is coincident with the origin of teleosts. *Molecular Biology and Evolution* 23: 121-136.
103. Lang, M., Miyake, T., Braasch, I., Tinnemore, D., Siegel, N., Salzburger, W., Amemiya, C. T. and Meyer, A. 2006. A BAC library of the East African haplochromine cichlid fish *Astatotilapia burtoni*. *Journal of Experimental Zoology (Molecular and Evolutionary Development)*, 306B: 35-44.
104. Walter, R. B., Ju, Z., Martinez, A., Amemiya, C., and Samollow, P. B. 2006. Genomic resources for *Xiphophorus* Research. *Zebrafish* 3: 11-22.
105. Mazet, F., Amemiya, C. T. and Shimeld, S. M. 2006. An ancient gene cluster for mesoderm patterning. *Current Biology* 16: R314-R316.
106. Cannon, J. P., Haire, R. N., Mueller, M. G., Litman, R. T., Eason, D. D., Tinnemore, D., Amemiya, C. T., Ota, T. and Litman, G. W. 2006. Ancient divergence of a complex family of immune-type receptor genes. *Immunogenetics* 58: 362-373.

107. Amemiya, C. T. and Wagner, G. P. 2006. Animal Evolution: When Did the "Hox system" Arise? (Dispatch). *Current Biology* 16: R546-548.
108. Kim, M.-S., Kang, T.-W., Park, H.-S., Amemiya, C., and Kim, C.-B. 2006. Identification and characterization of SINEs and LINEs from the horn shark. *Korean Journal of Genetics* 28: 119-129.
109. Amemiya, C. T. and Gomez-Chiarri, M. 2006. Comparative genomics in vertebrate evolution and development. *Journal of Experimental Zoology (Comparative Experimental Biology, part A)* 305: 672-682.
110. Wang, Z., Miyake, T., Edwards, S. V. and Amemiya, C. T. 2006. Tuatara (*Sphenodon*) Genomics: BAC library construction, sequence survey and application to the DMRT gene family. *Journal of Heredity* 96: 541-548.
111. Kurokawa, D., Sakurai, Y., Inoue, A., Nakayama, R., Takasaki, N., Suda, Y., Miyake, T., Amemiya, C. T., and Aizawa, S. 2006. Evolutionary constraint on Otx2-neuroectoderm enhancers; deep conservation from skate to mouse and a unique divergence in teleosts. *Proceedings of the National Academy of Sciences USA* 103: 19350-19355.
112. Modisakeng, K. W., Amemiya, C. T., Dorrington, R. A. and Blatch, G. L. 2006. Molecular biology studies on the Coelacanth: A review. *South African Journal of Science* 102: 479-485.
113. Trede, N. S., Medenbach, J., Damianov, A., Hung, L. H., Weber, G. J., Paw, B. H., Zhou, Y., Hersey, C., Zapata, A., Keefe, M., Barut, B. A., Stuart, A. B., Katz, T., Amemiya, C. T., Zon, L. I., and Bindereif, A. 2007. Network of coregulated spliceosome components revealed by zebrafish mutant in recycling factor p110. *Proceedings of the National Academy of Sciences USA* 104: 6608-6613.
114. Mikkelsen, T. S., Wakefield, M. J., Aken, B., Amemiya, C. T., ... and Lindblad-Toh, K. 2007. Genome of the marsupial *Monodelphis domestica* reveals innovation in non-coding sequences. *Nature* 447: 167-177.
115. Amemiya, C. T., Saha, N. R., and Zapata, A. G. 2007. Evolution and development of immunological structures in the lamprey. *Current Opinion in Immunology* 19: 535-541.
116. Yu, Wei-Ping, Rajasegaran, V., Yew, K., Loh, W.-L., Amemiya, C. T., Brenner, S., and Venkatesh, B. 2008. Elephant shark sequence reveals unique insights into the evolutionary history of vertebrate genes: a comparative analysis of the protocadherin cluster, *Proceedings of the National Academy of Sciences USA* 105: 3819-3824.
117. Amemiya, C. T., Prohaska, S. J., Hill-Force, A., Ferrier, D. E. K., Anaya, J. P., Garcia-Fernandez, J., Dewar, K., and Stadler, P. F. 2008. The amphioxus Hox cluster: Characterization, comparative genomics, and evolution. *Journal of Experimental Zoology (Molecular and Evolutionary Development)* 310: 465-477.
118. Gwee, P. C., Amemiya, C. T., Brenner, S., Venkatesh, B. 2008. Sequence and organization of coelacanth neurohypophysial hormone genes: evolutionary history of the vertebrate neurohypophysial hormone gene locus. *BMC Evolutionary Biology* 8: 93-104.

119. Wang, J., Hu, C., Wu, Y., Stuart, A., Amemiya, C., Berriman, M., Toyoda, A., Hattori, M., and Aksoy, S. 2008. Characterization of the antimicrobial peptide attacin loci from *Glossina morsitans*. *Insect Molecular Biology* 17: 293-302.
120. Nikolaus S. Trede, N. S., Ota, T., Kawasaki, H., Paw, B. H., Katz, T., Demarest, B., Hutchinson, S., Zhou, Y., Hersey, C., Zapata, A., Amemiya, C. T., and Zon, L. I. 2008. Zebrafish mutants with disrupted early T cell and thymus development identified in early pressure screen. *Developmental Dynamics* 237: 2575-2584.
121. Dishaw, L. J., Mueller, G., Gwatney, N., Cannon, J. P., Haire, R. N., Litman, R. T., Amemiya, C. T., Ota, T., Rowen, L., Glusman, G., and Litman, G. W. 2008. Genomic complexity of the variable region-containing chitin-binding proteins in amphioxus. *BMC Genetics* 9: 78.
122. Suda, Y., Kurokawa, D., Takeuchi, M., Kajikawa, E., Kuratani, S., Amemiya, C. and Aizawa, S., 2009. Evolution of Otx paralogue usages in early patterning of the vertebrate head. *Developmental Biology* 325: 282-295.
123. Larson, S., Tinnemore, D., and Amemiya, C. 2009. Microsatellite loci within sixgill sharks, *Hexanchus griseus*. *Molecular Ecology Resources* 9: 978-981.
124. Crow, K., Amemiya, C. T., Roth, J., and Wagner, G. P. 2009. Hypermutable of Hoxa13a and functional divergence from its paralog are associated with the origin of a novel developmental feature in zebrafish and related taxa (Cypriniformes). *Evolution* 63: 1574-1592.
125. Smith, J. J., Antonacci, F., Eichler, E. E., and Amemiya, C. T. 2009. Programmed loss of millions of base pairs from a vertebrate genome. *Proceedings of the National Academy of Sciences USA* 106: 11212-11217.
126. Amemiya, C. T. and Danilova. 2009. Going adaptive: the saga of antibodies. *Annals of the New York Academy of Sciences* 1168: 130-155.
127. Modisakeng, K. W., Jiwaji, M., Pesce, E. R., Rober, T., Amemiya, C. T., Dorrington, R. A. and Blatch, G. L. 2009. Isolation of a *Latimeria menadoensis* heat shock protein 70 (Lmhsp70) that has all the features of an inducible gene and encodes a functional molecular chaperone. *Molecular Genetics and Genomics* 282: 185-196.
128. Amemiya, C. T., Powers, T. P., Prohaska, S. J., Grimwood, J., Schmutz, J., Dickson, M., Miyake, T., Schoenborn, M. A., Myers, R. M., Ruddle, F. H., and Stadler, P. F. 2010. HOX clusters of *Latimeria*: Complete characterization provides further evidence for slow evolution of the coelacanth genome. *Proceedings of the National Academy of Sciences USA* 107: 3622-3627.
129. Saha, N. R., Smith, J. J., and Amemiya, C. T. 2010. Evolution of adaptive immune recognition in jawless vertebrates. *Seminars in Immunology* 22: 25-33.
130. Poulin, F., Parchem, R. J., Stuart, A. B., Amemiya, C. T. and Patel, N. H. 2010. BAC library for the amphipod crustacean, *Parhyale hawaiiensis*. *Genomics* 95: 261-267.

131. Smith, J. J., Stuart, A. B., Sauka-Spengler, T., Clifton, S. W., and Amemiya, C. T. Development and analysis of a germline BAC resource for the sea lamprey, a vertebrate that undergoes substantial chromatin diminution. *Chromosoma* 119: 381-389.
132. Detrich, W. H., Stuart, A. B., Schoenborn, M., Parker, S., Methe, B. J., Amemiya, C. T. 2010. Genome enablement of the notothenoidei: Genome size estimates from eleven species and BAC libraries from two representative taxa. *Journal of Experimental Zoology (Molecular and Developmental Evolution)* 314: 369-381.
133. Chen, L., Zhao, P., Wells, L., Amemiya, C. T., Condie, B. G., and Manley, N. R. 2010. Mouse and zebrafish *Hoxa3* orthologs have nonequivalent in vivo protein function. *Proceedings of the National Academy of Sciences USA* 107: 10555-10560.
134. Smith, J. J., Saha, N. R., and Amemiya, C. T. 2010. Genome biology of the cyclostomes and insights into the evolutionary biology of vertebrate genomes. *Integrative and Comparative Biology* 50: 130-137.
135. Detrich, W. H. and Amemiya, C. T. 2010. Antarctic notothenioid fishes: Genomic resources and strategies for analyzing an adaptive radiation. *Integrative and Comparative Biology*, in press.
136. Lang, M., Hadzhiev, Y., Siegel, N., Strahle, U., Amemiya, C. T., Muller, F. and Meyer, A. 2010. The ancestral morphology of *Latimeria menadoensis* is reflected in the conservation pattern of *sonic hedgehog cis*-regulatory elements. *Genome Biology and Evolution*, accepted.
137. Raincrow, J., D., Dewar, K., Gao, Li-Zhi, Stocsits, C., Prohaska, S. J., Amemiya, C. T., Stadler, P. F., and Chiu, C.-h. Hox clusters of the bichir (Actinopterygii, *Polypterus senegalus*) highlight unique patterns of sequence evolution in gnathostome phylogeny. Submitted.
138. Sumiyama, K., Grimwood, J., Miyake, T., Stuart, A., Dickson, M., Schmutz, J., Ruddle, F. H., Myers, R. M., and Amemiya, C. T. 2010. *Cis*-element evolution elucidated by comparison of genomic organization of the *Dlx3-4* bigene cluster in 12 mammalian species. *Journal of Experimental Zoology (Molecular and Developmental Evolution)*, submitted.

Conference Abstracts:

1. Amemiya, C. T. and Gold, J. R. 1984. Assessment of inter- and intraspecific variability in chromosomal nucleolus organizer regions (NORs) in North American cyprinid fishes. American Society of Ichthyologists and Herpetologists, Norman, OK.
2. Amemiya, C. T. 1985. Chromosomal NORs as systematic markers in the North American minnows (Cyprinidae). American Society of Ichthyologists and Herpetologists, Knoxville, TN.
3. Amemiya, C. T. and Gold, J. R. 1986. Chromosomal NOR variability among fourteen species of North American cyprinid fishes. American Society of Ichthyologists and Herpetologists, Victoria, British Columbia, Canada.
4. Litman, G. W., Nishikata, H., Amemiya, C. T., Hinds, K. R., Harding, F. A. and Shablott, M. J. 1989. Immunoglobulin gene reorganization in phylogenetically distant species. 7th International Congress of Immunology, Berlin, W. Germany.
5. Litman, G. W., Amemiya, C. T., Harding, F. A., Shablott, M. J. and Haire, R. N. 1989. Evolution of immunoglobulin gene organization. 7th International Congress of Immunology, Berlin, W. Germany.
6. Amemiya, C. T., Gold, J. and Zoch, P. K. 1989. Karyotypic evolution in the North American cyprinids. American Society of Ichthyologists and Herpetologists, San Francisco, CA.
7. Amemiya, C. T., Aslanidis, C., Alleman, J. A., Chen, C. and de Jong, P. J. 1990. Use of a multi-dimensional pooling scheme and ALU-PCR for cosmid contig-mapping in the myotonic dystrophy region (19q13.2-3). American Journal of Human Genetics 47: A244.
8. De Jong, P. J., Aslanidis, C., Amemiya, C. T., Chen, C. and Carrano, A. V. 1990. Rapid access to region-specific probes by coincidence and subtraction cloning of *ALU*-PCR products. American Society of Human Genetics, Cincinnati, OH.
9. Amemiya, C., Alegria, M., Alleman, J., Aslanidis, C., Chen, C. and de Jong, P. 1990. A novel cosmid and YAC contig mapping strategy based on multi-dimensional pooling and *Alu*-PCR. Human Genome II, San Diego, CA.
10. Aslanidis, C., Alleman, J., Amemiya, C., Chen, C. and de Jong, P. 1990. Establishment of region-specific probe libraries by coincidence cloning and *Alu*-PCR. Human Genome II, San Diego, CA.
11. Carrano, A. V., Amemiya, C., Ashworth, L. K., Aslanidis, C., Brandriff, B., Branscomb, E. W., Garcia, E., de Jong, P. J., Lamerdin, J., Mohrenweiser, H., Olsen, A., Trask, B. and Tynan, K. 1990. Closing the chromosome 19 cosmid contig map. Human Genome II, San Diego, CA.

12. Chen, C., Aslanidis, C., Amemiya, C., Lohman, F. Carrano, A. V. and de Jong, P. 1990. Fingerprinting of cosmids and YACs using inter-*Alu* PCR and *Alu*-anchor PCR. Human Genome II, San Diego, CA.
13. Yokobata, K., Tynan, K., Amemiya, C., Mohrenweiser, H., McNinch, J., Pederson, L., Van Dilla, M. and de Jong, P. 1990. Construction and characterization of a human chromosome-19 specific cosmid library. Human Genome II, San Diego, CA.
14. Alegria, M., Amemiya, C., Aslanidis, C., Chen, C., Gingrich, J., Nikolic, J. and de Jong, P. 1991. A two-dimensional YAC pooling strategy for rapid screening via STS and *Alu*-PCR methods. U.S. Department of Energy Human Genome Program Report, 2nd Contractor-Grantee Workshop, Santa Fe, NM., p 57.
15. Amemiya, C., Alegria, M., Alleman, J., Aslanidis, C., Chen, C., Copeland, A. and de Jong, P. 1991. A novel contig mapping strategy (MPAP) based on multi-dimensional pooling and *Alu*-PCR. U.S. Department of Energy Human Genome Program Report. 2nd Contractor-Grantee Workshop, Santa Fe, NM., p 58.
16. Aslanidis, C., Amemiya, C., Alegria, M., Alleman, J., Chen, C., Jansen, G., Shutler, G. and de Jong, P. 1991. Isolation of YACs and cosmids from 19q13.3. U.S. Department of Energy Human Genome Program Report, 2nd Contractor-Grantee Workshop, Santa Fe, NM., p 60.
17. De Jong, P., Amemiya, C., Aslanidis, C., Alegria, M., Alleman, J., Chen, C., Copeland, A., Elliot, J., Garcia, E., Olsen, A. and Carrano, A. 1991. Closure of chromosome 19 contig map. U.S. Department of Energy Human Genome Program Report, 2nd Contractor-Grantee Workshop, Santa Fe, NM., p 19.
18. Carrano, A., Alegria, M., Alleman, J., Amemiya, C., Ashworth, L., Aslanidis, C., Brandriff, B., Branscomb, Brown, L., Chen, C., Christensen, M., Combs, J., Copeland, A., de Jong, P., Fertitta, A., Garcia, E., Gordon, L., Johnson, L., Kwan, C., Lamerdin, J., Mohrenweiser, H., Nelson, D., Olsen, A., Slezak, T., Trask, B., Tynan, K. and Wagner, M. 1991. The status of the chromosome 19 physical map. U.S. Department of Energy Human Genome Program Report, 2nd Contractor-Grantee Workshop, Santa Fe, NM., p 62.
19. Amemiya, C., Alegria, M., Alleman, J., Aslanidis, C., Chen, C., Copeland, A. and de Jong, P. 1991. A strategy (MPAP) for rapid contig mapping that relies on multi-dimensional pooling and *Alu*-PCR. Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, NY.
20. Aslanidis, C., Amemiya, C., Chen, C., Jansen, G., Shutler, G., Wieringa, B., Korneluk, R. and de Jong, P. 1991. Isolation of a contiguous set of YACs and cosmids for the myotonic dystrophy region (19q13.3). Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, NY.
21. Gingrich, J., Lowry, S., Nikolic, J., de Jong, P., Amemiya, C., Kuo, W.-L., Gray, J., Smith, C., Cantor, C. and Spengler, S. 1991. Isolation and characterization of chromosome 21 YACs. Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, NY.

22. De Jong, P., Amemiya, C., Aslanidis, C., Alegria, M., Alleman, J., Chen, C., Copeland, A., Elliot, J., Olsen, A. and Carrano, A. 1991. Closure of the chromosome 19 cosmid-contig map using YACs as linking tools. Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, NY.
23. Olsen, A., Amemiya, C., Aslanidis, C., Brandriff, B., Branscomb, E., de Jong, P., Garcia, E., Mohrenweiser, H., Trask, B., Tynan, K. and Carrano, A. 1991. The physical map of human chromosome 19: Closure and integration. Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, NY.
24. Carrano, A. V., Amemiya, C., Aslanidis, Brandriff, B., Branscomb, E., de Jong, P., Garcia, E., Mohrenweiser, H., Olsen, A., Trask, B. and Tynan, K. 1991. Constructing a physical map of human chromosome 19: strategies and results. *American Journal of Human Genetics* 49: 35.
25. De Jong, P. J., Amemiya, C. T., Aslanidis, C. Alegria, M., Alleman, J., Chen, C., Copeland, A., Elliott, J., Garcia, E., Olsen, A. and Carrano, A. V. 1991. Closure of the chromosome 19 cosmid contig map using clone pooling schemes. *American Journal of Human Genetics* 49: 10.
26. Carrano, A., Amemiya, C., Alegria, M., Ashworth, L., Bergmann, A., Brandriff, B., Branscomb, E., Chen, C., Christensen, M., Combs, J., Copeland, A., de Jong, P., Devlin, L., Elliot, J., Fertitta, A., Garcia, E., Gordon, L., Johnson, L., Kwan, C., Lamerdin, J., Mohrenweiser, H., Nelson, D., Olsen, A., Slezak, T., Trask, B., Wagner, M. and Yeh, M. 1991. Current status of human chromosome 19 physical map. *International Human Genome III*, San Diego, CA.
27. Combs, J., Olsen, A., Amemiya, C., Copeland, A., de Jong, P., Threadgill, G. and Carrano, A. 1991. Automated production of high density cosmid colony filters and DNA dot blots. *Human Genome III*, San Diego, CA.
28. Amemiya, C. T., Batzer, M., Lamerdin, J., Mahadevan, M., Jansen, G., Alegria-Hartman, M., Alleman, J., Aslanidis, C., Chen, C., Lennon, G., Carrano, A., Korneluk, R., Wieringa, B. and de Jong, P. 1992. Physical mapping and characterization of the region encompassing the myotonic dystrophy locus (19q13.3). Cold Spring Harbor Meeting on Genome Mapping and Sequencing, Cold Spring Harbor Laboratory, N.Y.
29. Litman, G., Rast, J., Shambloott, M., Hulst, M., Roess, W., Hinds-Frey, K. and Amemiya, C. 1992. Phylogenetic diversification of immunoglobulin genes and the antibody repertoire. *International Conference on Molecular Evolution*, Pennsylvania State University, University Park, PA.
30. Rast, J. P., Amemiya, C. T. and Litman, G. W. 1992. The genomic arrangement of immunoglobulin heavy and light chain genes in a representative of the Holocephali. *International Conference on Molecular Evolution*, Pennsylvania State University, University Park, PA.
31. Batzer, M. A., Garnes, J. A., Alegria-Hartman, M., McNinch, J., Chen, C., Alleman, J., Amemiya, C. T., Giorgi, D. G., Rouquier, S. P., Wong, B. S., Slepak, T., Mancino, V., Birren,

- B., Shizuya, H., Simon, M. and de Jong, P. J. 1992. Rapid isolation of chromosome 19-specific BAC clones. *American Journal of Human Genetics* 51: 922.
32. Wieringa, B., Jansen, G., Wormskamp, Coerwinkel, M., Nillesen, W., Smeets, H., Ropers, H. H., Amemiya, C., de Jong, P., Korneluk, R., Mahadevan, M., Howeler, C. and Brunner, H. 1992. The unstable [CTG]_n motif and myotonic dystrophy (DM): Are polygenic and non-mendelian aspects involved in disease manifestation? *American Journal of Human Genetics* 51: 425.
 33. Roses, A. D., Schwartzbach, C. J., Taylor, H. P., Gilbert, J. R., Speer, M. C., Pericak-Vance, Jansen, G., Wieringa, B., Amemiya, C. and de Jong, P. J. 1992. Abnormal transcription in myotonic dystrophy. *American Journal of Human Genetics* 51: 525.
 34. Mahadevan, M., Sabourin, L. A., O'Hoy, K., Earle-MacDonald, J., Hag, R., Jansen, G., Wieringa, B., Amemiya, C., de Jong, P. and Korneluk, R. G. 1992. Mutation analysis in myotonic dystrophy (DM) families exhibiting no CTG repeat amplification at the DM locus. *American Journal of Human Genetics* 51: 1293.
 35. De Jong, P. J., Amemiya, C., Aslanidis, C., Tang, J., Yokobata, K. and Carrano, A. 1992. New strategies for closure of the chromosome-19 contig map. U.S. Department of Energy Human Genome Program Report (1991-1992), p 100.
 36. Olsen, A. S., de Jong, P., Amemiya, C., Johnson, L., Chen, C., Ashworth, L., Combs, J., Copeland, A. and Carrano, A. 1992. Assembly, closure, and characterization of a chromosome 19 contig map. U.S. Department of Energy Human Genome Program Report (1991-1992), p 104.
 37. Amemiya, C. T., Gonzalgo, M. L., Bellefroid, E., Carrano, A. V. and de Jong, P. J. 1993. Mapping and characterization of a large number of putative zinc finger-encoding genes on chromosome 19. U.S. Department of Energy Human Genome Program, 3rd Contractor-Grantee Workshop, Santa Fe, NM.
 38. Chen, C., Kroisel, P., Amemiya, C., Ioannou, P., Alegria-Hartman, M., McNinch, J., Kao, F.-T., Meltzer, P., Batzer, M. and de Jong, P. 1993. Identification of region-specific cosmid, BAC and PAC clones by hybridization with microdissection-derived probes. U.S. Department of Energy Human Genome Program, 3rd Contractor-Grantee Workshop, Santa Fe, NM.
 39. Ioannou, P., Batzer, M., Garnes, J., Amemiya, C., Kroisel, P. and de Jong, P. 1993. Genome mapping with P1 artificial chromosomes (PACs) and bacterial artificial chromosomes (BACs). U.S. Department of Energy Human Genome Program, 3rd Contractor-Grantee Workshop, Santa Fe, NM.
 40. Amemiya, C. T., Ioannou, P. A., Garnes, J. A., Kroisel, P., Batzer, M. A., Chen, C., Carrano, A. V. and de Jong, P. J. 1993. Cloning of large fragments of human genomic DNA as P1-derived artificial chromosomes (PACs): practical aspects and prospects for future use. Human Chromosome 21 Workshop, Paris, France.

41. Ioannou, P., Georghiou, A., Panayides, K., Alleman, J., Amemiya, C., Kroisel, P. and de Jong, P. 1993. Isolation of cosmids and large insert clones from the FRDA region of chromosome 9. International Workshop on the Molecular Genetics of Friedreich's and Dominant Ataxias, Capri, Naples, Italy.
42. Amemiya, C. T., Rast, J. P., Hulst, M., Litman, R. T., Shamblott, M. J. and G. W. Litman. 1993. Organization of immunoglobulin genes in the chondrichthyes. Symposium on the Immune System of Elasmobranchs, American Elasmobranch Society/American Society of Ichthyologists and Herpetologists, Austin, Texas.
43. Amemiya, C. T., Rast, J. P., Zon, L. I. and Litman, G. W. 1994. Evolution of immunoglobulin genes: Analysis of long-range genomic organization in *Brachydanio rerio* and other primitive vertebrates by means of the P1 artificial chromosome (PAC) cloning system. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
44. Hoffman, S. M. G., Amemiya, C. and Mohrenweiser, H. 1994. Distribution and organization of zinc finger genes on chromosome 19. Cold Spring Harbor Meeting on Genome Mapping and Sequencing. Cold Spring Harbor Laboratory, NY.
45. Amemiya, C. T., Rast, J. P., Margittai, M., Zon, L. I. and Litman, G. W. 1994. Evolution of immunoglobulin and T-cell receptor genes: Determination and comparison of long-range genomic organization in primitive vertebrates by means of the P1 artificial chromosome (PAC) cloning system. Cold Spring Harbor Meeting on Genome Mapping and Sequencing. Cold Spring Harbor Laboratory, NY.
46. Frengen, E., Ioannou, P. A., Chen, C., Pietrzak, E., Guan, X., Capehart, J., Kroisel, P. M., Jessee, J., Lehrach, H. and de Jong, P. J. 1994. Preparation of a human PAC library and the construction of improved PAC vectors. Cold Spring Harbor Meeting on Genome Mapping and Sequencing. Cold Spring Harbor Laboratory, NY.
47. Amemiya, C. T., Ota, T., Rast, J., Zon, L., Milunsky, A. and Litman, G. W. 1995. Organization and evolution of immunoglobulin genes, and identification of genes involved in regulation and ontogeny of the immune system. US-Japan Binational Workshop, Third international meeting of the Society for Molecular Biology and Evolution, Hayama, Japan.
48. Amemiya, C. T. and Ota, T. 1995. New methods for cloning and characterization of large genomic fragments: Applications to the study of the genome organization and molecular evolution. Third international meeting of the Society for Molecular Biology and Evolution, Hayama, Japan.
49. Ota, T., Rast, J. P., Margittai, M., Litman, G. W. and Amemiya, C. T. 1995. Use of a novel, large-insert cloning system to deduce long-range organization of Ig heavy and light chain genes in primitive vertebrates. Third international meeting of the Society for Molecular Biology and Evolution, Hayama, Japan.

50. Ota, T. and Amemiya, C. T. 1995. Studies on the early evolution of immunoglobulin genes. US-Japan Binational Workshop, Third international meeting of the Society for Molecular Biology and Evolution, Hayama, Japan.
51. Rast, J. P., Amemiya, C. T. and Litman, G. W. 1995. Immunoglobulin heavy chain gene organization in the holocephalan, *Hydrolagus coliei*. Third international meeting of the Society for Molecular Biology and Evolution, Hayama, Japan.
52. Brownlie, A., Paw, B., Ransom, D., Gates, M., Postlethwait, J., Amemiya, C., Beier, D. and Zon, L. I. 1996. Mutation in the globin gene locus of the zebrafish mutant *Zinfindel* leads to autosomal dominant thalassemia. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
53. Ota, T., Rast, J. P., Anderson, M. K., Margittai, M., Litman, R. T., Zon, L. I., Litman, G. W. and Amemiya, C. T. 1996. Evolution and development of the vertebrate adaptive immune system. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
54. Amemiya, C. T. and Zon, L. I. 1996. Generation of a zebrafish P1 artificial chromosome (PAC) library for genome mapping. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
55. Zon, L. I., Donovan, A., Paw, B., Thompson, M., Ransom, D., Brownlie, A., Guo, W., Pratt, S., Liao, E., Amemiya, C. T. and Silverman, G. 1996. Preparation of a zebrafish YAC library. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
56. Ota, T., Rast, J. P., Litman, G. W. and Amemiya, C. T. 1996. Characterization of immunoglobulin heavy chain genes in an African lungfish, *Protopterus aethiopicus*. Fourth international meeting of the Society for Molecular Biology and Evolution, Tucson, AZ.
57. Ota, T., Rast, J. P., Margittai, M. M., Litman, G. W. and Amemiya, C. T. 1997. The immunoglobulin heavy chain locus of the Southern pufferfish. Fifth international meeting of the Society for Molecular Biology and Evolution, Bavaria, Germany.
58. Ota, T., Rast, J. P., Litman, G. W. and Amemiya, C. T. 1997. Lungfish immunoglobulins and their evolutionary implications. Annual meeting of the International Society of Developmental and Comparative Immunology, Virginia.
59. Amemiya, C. T., Ota, T., Bartels, J., Kim, C. B., Halevi, A., Strong, S., Ohta, Y., Ruddle, F. and Litman, G. W. 1997. Application of the PAC cloning system to problems in molecular evolution and development. Fifth international meeting of the Society for Molecular Biology and Evolution, Bavaria, Germany.
60. Trede, N. S., Ota, T., Kawasaki, H., Pratt, S., Paw, B. H., Zapata, A., Amemiya, C. T. and Zon, L. I. 1998. A gynogenetic diploid screen defines novel zebrafish mutations required for the development of the immune system. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.

61. Kawasaki, H., Trede, N., Rast, J. P., Halevi, A., Pratt, S. J., Postlethwait, J., Litman, G. W., Zon, L. I. and Amemiya, C. T. 1998. Characterization of zebrafish *ikaros*, a gene necessary for differentiation of the immune system. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
62. Maher, T., Abbruzzese, M., Halevi, A., Garrity, D., Ota, T., Kawasaki, H., Milunsky, A. and Amemiya, C. T. 1998. Molecular genetics of the X-linked lymphoproliferative disease gene. American Society of Human Genetics Meeting, San Francisco, CA.
63. Ota, T., Litman, G. W. and Amemiya, C. T. 1998. The gene organization of the Southern pufferfish immunoglobulin heavy chain locus. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
64. Trede, N. S., Ota, T., Kawasaki, H., Pratt, S., Paw, B. H., Zapata, A., Amemiya, C. T. and Zon, L. I. 1998. A genetic screen in the zebrafish defines novel mutations required for the development of the immune system. *Blood* 92, suppl. 1: 700a.
65. Kawasaki, H., Trede, N. S., Rast, J. P., Ota, T., Halevi, A., Pratt, S. J., Postlethwait, J. H., Litman, G. W., Zon, L. I. and Amemiya, C. T. 1998. Zebrafish *ikaros* gene is necessary for differentiation of the immune system. *Blood* 92, suppl. 1.
66. Litman, G. W., Strong, S. J., Mueller, M. G., Haire, N. A., Litman, R. T., Rast, J. P., and Amemiya, C. T. 1998. Novel diversified family of putative immune-type receptors containing variable and joining regions. 71st annual meeting of the Japanese Biochemical Society. SEIKAQ 9: 710.
67. Ota, T., Amemiya, C. T., Kawasaki, H., Trede, N. and Zon, L. I. 1999. A gynogenetic diploid screen to identify genes involved in lymphoid and thymic development. 71st annual meeting of the Japanese Society of Genetics.
68. Kim, C. B., Bailey, W., Amemiya, C. T., Miller, W., Shimizu, N., and Ruddle, F. H. 2000. Hox gene organization of horn shark, *Heterodontus francisci*. Ann. Mtg. Society for Integrative and Comparative Biology, Atlanta, GA.
69. Amemiya, C. T. 2000. Establishment of BAC/PAC resources and infrastructure for the zebrafish community. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
70. Amores, A., Amemiya, C. T. and Postlethwait, J. H. 2000. Genome duplication and evolution of *hox* clusters in teleosts. Cold Spring Harbor Meeting on Zebrafish Development and Genetics. Cold Spring Harbor Laboratory, NY.
71. Amemiya, C. T. 2000. Zebrafish BAC and PAC resources and their application to functional developmental analyses. Aquaria Fish Models of Human Disease, San Marcos, TX.

72. Bahary, N., Ransom, D.G., Barut, B., Daniluk, D.A., Ferrando, A.A., Saganic, W.J., Fenton, L., Zhou, Y., Amemiya, C.T., and Zon, L.I. 2000. Characterization, genetic and physical mapping of the zebrafish mutant cloche. *Blood* 96: 297.
73. Ota, T., Nguyen, T., Huang, E., Detrich, H. W. and Amemiya, C. T. 2001. Positive Darwinian selection operating on immunoglobulin heavy chain of antarctic fishes. Evolutionary Genomics Meeting, Atami, Japan.
74. Ota, T., Nguyen, T., Huang, E., Detrich, H. W. and Amemiya, C. T. 2001. Adaptive evolution of immunoglobulin in the notothenioid fishes. Japanese Genetics Society, Tokyo, Japan.
75. Miyake, T., Dickson, M., Grimwood, J., Irvine, S., Schmutz, J., Stuart, A., Sumiyama, K., Myers, R. M., Ruddle, F. H., and Amemiya, C. T. 2002. Genomic identification and analysis of shared cis-regulatory elements in a developmentally critical homeobox cluster. Ninth DOE Contractor-Grantee Workshop, Oakland, CA, p 40.
76. Amemiya, C. T. 2002. The bacterial artificial chromosome and its impact on developmental and evolutionary studies: BAC-PAC'ing through the biological abyss. Cold Spring Harbor Meeting on Evolution of Developmental Diversity, Cold Spring Harbor Laboratory, NY.
77. Powers, T. P., Grimwood, J., Schmutz, J., Dickson, Chiu, C.-H., Myers, R. M. and Amemiya, C. T. 2002. Characterization of the Hox clusters from the Indonesian coelacanth, *Latimeria menadoensis*. Cold Spring Harbor Meeting on Evolution of Developmental Diversity, Cold Spring Harbor Laboratory, NY .
78. Miyake, T., Dickson, M., Grimwood, J., Irvine, S., Schmutz, J., Stuart, A., Sumiyama, K., Myers, R. M., Ruddle, F. H., and Amemiya, C. T. 2002. Genomic identification and analysis of shared cis-regulatory elements in a developmentally critical homeobox cluster. Cold Spring Harbor Meeting on Evolution of Developmental Diversity, Cold Spring Harbor Laboratory, NY.
79. Chiu, C.-H., Amemiya, C. T., Dewar, K., Kim, C.-B., Ruddle, F. H., and Günter Wagner, G. P. 2002. Molecular evolution of the Hoxa cluster in the three major gnathostome lineages. Cold Spring Harbor Meeting on Evolution of Developmental Diversity, Cold Spring Harbor Laboratory, NY.
80. Trede, N.S., Ota, T., Kawasaki, H., Barut, B., Paw, B., Zhou, Y., Hersey, C., Zapata, A., Amemiya, C.T. and Zon, L.I. 2002. Forward genetic approach to lymphoid development in zebrafish. Meeting on Zebrafish Development and Genetics, Madison, WI.
81. Ota, T., Haire, R. N., Litman, G. W., Mueller, G., Rast, J. P. and Amemiya, C. T. Characterization of T-cell receptor alpha locus in zebrafish. 2003. 74th Annual Meeting of Japanese Genetics Society, Japan.
82. Takahashi, K., Chiu, C.-H., Amemiya, C., Ruddle, F., Larsson, H., Roth, J., Stopper, G. and Wagner, G. P. 2003. Sequence evolution of *Hoxa-11* and *Hoxa-13* suggests an early origin

- of the autopodial field. Meeting of the Society for Integrative and Comparative Biology, Toronto.
83. Amemiya, C. T. 2003. Comparative genomics, BAC libraries and sex determination. Third International Symposium on the Biology of Vertebrate Sex Determination. Kona, Hawaii.
 84. Ota, T., Haire, R. N., Mueller, G. M., Rast, J. P., Litman, G. W., and Amemiya, C. T. 2003. Genomic analysis of the T cell receptor alpha locus in zebrafish. International Congress of the International Society of Developmental and Comparative Immunology, Scotland.
 85. Ota, T., Rast, J. P., Lippmann, W., Stuart, A., Danke, J., Navarro, G., Litman, G. W., and Amemiya, C. T. 2003. Immunoglobulin heavy chain genes in the sarcopterygian fishes. International Congress of the International Society of Developmental and Comparative Immunology, St. Andrews, Scotland, UK.
 86. Amemiya, C. T. 2003. Comparative genomics, BAC libraries and vertebrate Evo-Devo. Congress of the International Society of Developmental and Comparative Immunology, St. Andrews, Scotland, UK.
 87. Bolanowski, S., Anderson, S., Danke, J., Amemiya, C., and Shashikant, C. 2004. Divergence of vertebrate Hoxc8 early enhancer. Cold Spring Harbor meeting on Evolution of Developmental Diversity, NY.
 88. Amemiya, C. T. 2004. Hox cluster evolution in the vertebrates: hodgepodge of conservation and evolutionary plasticity. Cold Spring Harbor meeting on Evolution of Developmental Diversity, NY.
 89. Force, A., Cresko, W., Pickett, B., Proulx, S., Amemiya, C., and Lynch, M. 2004. The original gene subfunctions and modular gene regulation. Cold Spring Harbor Meeting on Evolution of Developmental Diversity, Cold Spring Harbor Laboratory, NY.
 90. Ota, T., Cheng, C.-H., Miyake, T., and Amemiya, C. T. 2004. Characterization of MHC class II beta genes in Antarctic toothfish. Genome Diversity and Evolution, joint meeting of the Society for Molecular Biology & Evolution and American Genetic Association, Pennsylvania State University, PA.
 91. Amemiya, C. T. 2004. Genomic approach to studying evolution of the immune system: rearranging genes in the coelacanth, International Congress of Immunology, Montreal, Canada.
 92. Amemiya, C. T. 2004. Evolution of vertebrate genomes and their regulatory sequences. Molecular Biology Society of Japan, Kobe, Japan.
 93. Amemiya, C. T. 2005. Evolution of vertebrate development: Insights from comparative genomics. 15th International Congress of Comparative Endocrinology, Boston, MA.

94. Amemiya, C. T. 2005. Old “Four Legs” or just and old fish? The story of the living coelacanth as revealed through comparative genomics. Meeting of the Society for Experimental Biology, Barcelona, Spain. *Comp. Biochem. Physiol. Part A* 141: S119.
95. Amemiya, C. T. 2005. Evolution of vertebrate development: insights from comparative genomics. 15th International Congress of Comparative Endocrinology, Boston. *J. Exp. Zool. Part A – Comp. Exp. Biology* 305A: 108-108.
96. Amemiya, C. T. 2005. What does it take to make an adaptive immune system? Mount Desert Island Stem Cell Symposium, Bar Harbor, ME.
97. Amemiya, C. T. 2006. What does it take to make an adaptive immune system? Genomics and the VLR system in the jawless vertebrates. Cold Spring Harbor Meeting on Biology of Genomes, Cold Spring Harbor Laboratory, NY.
98. Saha, N. R., Ota, T., Cheng, J.-F., and Amemiya, C. T. 2006. Genomics and the evolution of the immune system: rearranging genes in the coelacanth. Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC.
99. Saha, N. R., Sauka-Spengler, T., McCauley, D., and Amemiya, C. T. 2006. Genomics and development of the agnathan VLR system. Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC.
100. Laing, K. J., Purcell, M. K., Amemiya, C., Winton, J. R. and Hansen, J. D. 2006. Comparative analysis of the caterpillar gene family in vertebrates. Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC.
101. Litman, G. W., Cannon, J. P., Eason, D. D., Litman, R. T., Krumeich, K., Mueller, M. Gail, Yoder, J. A., Amemiya, C. T. Ostrov, D. A., and Miller, N. 2006. The genomics and function of the NITRs, an extensively diversified family of V region-encoding activating and inhibitory immune-type receptors. Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC.
102. Rothenberg, E. V., Moore, J., Pant, R., Anderson, M. K., Amemiya, C., Franco, C., Scripture-Adams, D., Yui, M., and Taghon, T. 2006. Regulatory architectures of the T-cell and B-cell developmental programs: How old? Congress of the International Society of Developmental and Comparative Immunology, Charleston, SC.
103. Saha, N. R., Sauka-Spengler, T., McCauley, D., Bronner-Fraser, M., and Amemiya, C. T. 2007. Evolution of adaptive immunity in a basal vertebrate; development of a novel system that does not rely on immunoglobulin domains and which also is necessary for embryonic development. 2nd Strategic Conference of Zebrafish Investigators, Asilomar, CA.
104. Miyake, T. and Amemiya, C. T. 2007. Diversity of the fish skeleton: recent advances in developmental biology, molecular genetics and genomics. 21st Century COE International Symposium on The Origin and Evolution of Natural Diversity, Hokkaido University, Sapporo, Hokkaido, Japan.

105. Miyake, T. and Amemiya, C. T. 2007. Recent progress in genomics of the living coelacanth. *The Coelacanth, Fathom the Mystery, 2007, The Aquamarine Fukushima, Marine Science Museum, Fukushima, Japan.*
106. Aizawa, S., Suda, Y., Amemiya, C., and Kurokawa, D. 2007. Evolutionary constraint on Otx2-neuroectoderm enhancers: deep conservation from skate to mouse and unique divergence in teleost. 66th SDB meeting, *Develop. Biol.* 206: 374-374.
107. Amemiya, C. T., Myers, R. M., Lander, E. and Lindblad-Toh, K. 2008. Why we need to sequence the genome of the living coelacanth. *South African Society for Biochemistry and Molecular Biology biannual meeting, Grahamstown, South Africa.*
108. Modisakeng, K. W., Jiwaji, M., Robert, J., Amemiya, C. T., Dorrington, R. A., and Blatch, G. L. 2008. Isolation of a *Latimeria menadoensis* heat shock protein 70 (Lmhsp70): Gene structure, phylogeny and heterologous expression. *South African Society for Biochemistry and Molecular Biology biannual meeting, Grahamstown, South Africa.*
109. Smith, J. J. and Amemiya, C. T. 2008. Developmentally regulated rearrangement of the lamprey genome. *Cold Spring Harbor Meeting on Biology of Genomes, Cold Spring Harbor Laboratory, NY.*
110. Amemiya, C. T. and Smith, J. J. 2008. Genome evolution and the dynamic recruitment of function *cis*-sequences during the radiation of vertebrates. 16th CDB Meeting, *Center for Developmental Biology, Kobe, Japan.*
111. Sumiyama, K., Amemiya, C., and Ruddle, F. 2008. Cis-regulatory elements and evolution elucidated by genomic sequence comparison of the vertebrate *Dlx3-7* bigene clusters. 16th CDB Meeting, *Center for Developmental Biology, Kobe, Japan.*
112. Mannaert, A., Amemiya, C. T. and Bossuyt, F. 2008. Characterization of the posterior *HoxD* cluster in the caecilian *Typhlonectes natans*. *Benelux Congress of Zoology, Liege, Belgium.*
113. Amemiya, C. T. 2008. So many genomes, so many surprises! How comparative genomics is revising our understanding of the mechanistic principles of Darwinian evolution. *ICREA Conference on the Origin and Early Evolution of Metazoans, Barcelona, Spain.*
114. Smith, J. J., Antonacci, F., Eichler, E. E., and Amemiya, C. T. 2009. Megabase-scale rearrangements are tightly regulated in a basal vertebrate genome. *Cold Spring Harbor Meeting on Biology of Genomes, Cold Spring Harbor Laboratory, NY.*
115. Saha, N. R., Sauka-Spengler, T., Bronner-Fraser, M., and Amemiya, C. T. 2009. Evolution of extreme functional divergence of an immune receptor system in a basal vertebrate. 74th *Cold Spring Harbor Symposium on Quantitative Biology, Cold Spring Harbor Laboratory, NY.*
116. Amemiya, C. T., Saha, N. R., and Smith, J. J. 2010. Programmed genome dynamism and its evolutionary cooption in a basal vertebrate. *Annual meeting, Society of Integrative and Comparative Biology, Seattle, WA.*

117. Smith, J. J. and Amemiya, C. T. 2010. Tight regulation of large-scale genome rearrangements: the sea lamprey (*Petromyzon marinus*). Annual meeting, Society of Integrative and Comparative Biology, Seattle, WA.
118. Detrich, H. W. III, Stuart, A., Schoenborn, M., Parker, S. K., Methé, B. A., and Amemiya, C. T. 2010. Genome enablement of the Antarctic notothenioid fishes: strategies and resources for analysis of an adaptive radiation. Annual meeting, Society of Integrative and Comparative Biology, Seattle, WA.
119. Smith, J. J., Antonacci, F., Eichler, E., and Amemiya, C. T. 2010. Tight regulation of large-scale somatic rearrangement in a vertebrate genome. Plant and Animal Genome conference, San Diego, CA.
120. Amemiya, C. T. and Miyake, T. 2010. Genomics and the evolution of chordates. International Symposium on Application of Biomechanical Control Systems to Precision Engineering, Aquamarine Fukushima, Iwaki City, Japan.
121. Amemiya, C. T., Saha, N. R., Smith, J. J., Di Palma, F., Lindblad-Toh, K., Ota, T., and Miyake, T. 2010. Why we need to sequence the genome of the coelacanth. Fathom the Mystery of Coelacanth symposium, Aquamarine Fukushima, Iwaki City, Japan.