

CURRICULUM VITAE
Erich D. Jarvis
Last Updated on September 3, 2024

Professor, Laboratory of Neurogenetics of Language
Investigator, Howard Hughes Medical Institute
The Rockefeller University, Box 54, New York, NY 10065
Phone (212) 327-8806
ejarvis@rockefeller.edu

EDUCATION

1979-1983 High School: Dance Major, High School of the Performing Arts, NY
1979-1983 Scholarships to Joffrey Ballet and Alvin Ailey Dance Schools, NY
1983-1988 Undergraduate: B.A., Double major: Biology & Mathematics. Minor: Chemistry. Hunter College, NY
1988-1995 Graduate: Ph.D., Molecular Neurobiology & Animal Behavior, The Rockefeller University, NY
1995-1998 Postdoctoral: Molecular Neurobiology & Animal Behavior, The Rockefeller University, NY

RESEARCH & PROFESSIONAL POSITIONS

1984-1988 Undergraduate research: Molecular biology of protein synthesis genes in bacteria; studied with Dr. Rivka Rudner, Hunter College, NY
1988-1995 Graduate research: PhD *A Window into the Molecular Biology of Song Associative Learning and Memory in Songbirds*, with Dr. Fernando Nottebohm, The Rockefeller University, NY
1995-1998 Post-Doctoral research: Molecular biology of vocal learning, with Dr. Fernando Nottebohm, The Rockefeller University, NY
1996 Research Associate, Adjunct: Hunter College, NY. Supervised lab of former undergraduate advisor Dr. Rivka Rudner for 6 months while she was on sabbatical.
1998-2002 Assistant Professor, Adjunct: The Rockefeller University, NY
1998-2005 Assistant Professor, Department of Neurobiology, Duke University Medical Center (DUMC), NC
1999-2005 Assistant Professor, Fellow: Center for Cognitive Neuroscience, Duke University, NC
2000-2005 Assistant Professor, Center for Bioinformatics & Computational Biology, Duke University, NC
2000-2005 Assistant Professor, Allied Faculty: Psychological & Brain Sciences, Duke University, NC
2001-2005 Assistant Professor, Faculty: Development Biology Program, DUMC, NC
2008-present Investigator, Howard Hughes Medical Institute (HHMI). Successful renewals in 2015 & 2021
2011-2019 Visiting Researcher, RIKEN Brain Science Institute, Wako, Japan.
2016 Full Professor, Tenure: Neurobiology & departments above, Duke University, NC
2016-present Full Professor, Tenure: Laboratory of Neurogenetics of Language, The Rockefeller University, New York, NY
2017-present Director, The Rockefeller University Field Research Center, Millbrook, NY
2017-present Director, The Rockefeller Vertebrate Genome Laboratory, New York, NY

TEACHING & RELATED COMMITTEES

1992-1998 Trained inner-city high school students of under-represented backgrounds to gain laboratory research experience, Science Outreach Program of NY
1998-2016 Trained high school, undergrad & graduate students in neuroscience research, DUMC, NC
1999-2008 Medical student core neuroscience course, DUMC, NC
2000-2015 Graduate Student Steering Committee, Department of Neurobiology, DUMC, NC
2000-2015 Graduate Student Admissions Committee, Department of Neurobiology, DUMC, NC
2000-2003 Cognitive neuroscience graduate course, Duke University, NC
2001-2002 Graduate core neuroanatomy course, DUMC, NC
2001-2005 Undergraduate neuroscience course, DUMC, NC

2001	Graduate neuroethology course, DUMC, NC
2006-2008	Graduate neuroscience lecture training course, DUMC, NC
2006-2008	Graduate student core neuroscience course, DUMC, NC
2008-2013	Director, Graduate Concepts in Neuroscience course: Cellular & Molecular Neurobiology, DUMC, NC
2013, 2016	Vocal learning graduate course, Department of Neurobiology, DUMC, NC
2013-2016	Synaptic plasticity graduate course, Department of Neurobiology, DUMC, NC
2019	GEN Talks on the new age of genomics (offered online), Hunter college, CUNY, NY.
2020	Development of CNS Circuits (Hatten organizer), Rockefeller University, NY
2021	Co-director, Fundamentals of Neuroscience graduate student course, Rockefeller, NY
2023	World Science Festival Course in Neuroscience, for talented students globally

MEMBERSHIPS, ADVISORY & EDITORIAL BOARDS, CONSULTING, & COMMITTEES

1988	Undergraduate, organized 1st Hunter College MBRS/MARC Science Day Symposium
1990	Graduate, organized 1st Rockefeller University Space Science Lecture Series
1988-present	Member, Society for Neuroscience
1998-2014	Member, J.B. Johnston Neuroscience Organization
1999-2006	Organizer, Avian Brain Nomenclature Consortium that changed the 100-year old outdated understanding of the avian and thus vertebrate brain evolution
1999-2002	Council Member, Duke University President's Council on Black Affairs, NC
2001-2005	Founding Member, Black Collective at Duke (BCD), Duke University, NC
2003-2008	Member, Society for Advancement of Chicanos & Native Americans (SACNAS)
2004-2008	International Society for Neuroethology
2004-2006	Invited Advisor, NSF Task Group for Enhancing Support for Transformative Research.
2005-2006	Elected Member, Duke University Medical Center Basic Sciences Faculty Steering Committee
2005-2014	Committee on Diversity in Neuroscience (C-DIN), The Society for Neuroscience. Renamed Diversity in Neuroscience Subcommittee (DINS) in 2009.
2006, 2008	Invited Panelist, NIH Director's Pioneer Award Reviewer
2007	Invited Panelist, NIH Director's New Innovator Award Reviewer
2007	Invited Advisor, NIH Fostering Innovation Workshop.
2007-2008	Advisory Committee to the NIH Director (ACD; Elias Zerhouni): Subcommittee on Peer Review; Reviewed, developed and recommended new mechanisms for funding more innovative and transformative research. Implemented by NIH beginning 2009.
2008-present	Nominated member, The Dana Alliance for Brain Initiatives
2008-2014	Director and PI, Neuroscience Scholars Program, The Society for Neuroscience
2009-2012	Duke Center for Proteomics Board
2011-2012	NIMH National Advisory Mental Health Council, ad-hoc.
2010-present	Genome 10K/Vertebrate Genomes Project (VGP); Co-PI 2014-2016; Chair 2017-present
2013-present	External Advisory Committee for Science, Hunter College, NY
2013-2018	ENSEMBL database Science Advisory Board
2013-present	Editorial Board, the Journal of Comparative Neurobiology
2013-2017	Editorial Board, Neuroscience Research
2013	NSF workshop on Obama Brain Mapping Initiative
2013-present	Co-coordinator and co-founder of B10K project to sequence genomes of all bird species.
2014-2015	Distinguished Editor, Editorial Review Board, NIH Director's New Innovator Award
2014-present	Advisory Board, Society for Neuroscience – Neuroscience Scholars Program.
2014-2016	Duke Basic Sciences Faculty Steering Committee
2014-2016	Duke Medical School Dean's Advisory Council on Underrepresented Minority Faculty
2015-2023	Editorial Board of Psychology of Language, Frontiers in Psychology
2018-2020	Reviewing Editor, eLife
2018-present	Rockefeller Inclusive Science Initiative (RISI) faculty director
2019-2020	NHGRI Genomics2020 strategic planning meetings for next decade
2019-present	Neurobiology of Language journal, Editorial Board, Senior Editor

2019-present Packard Foundation, Science Advisory Panel
2020-present *Science*, Board of Reviewing Editors
2020-present Allen Institute for Brain Science, Advisory Board (Chair in 2022)
2020-present *The Scientist*, Editorial Advisory Board
2021-present Packard Foundation Justice, Equity, Diversity and Inclusion (JEDI) Council
2021-present External Advisory Board for Mt Sinai NIH FIRST program for enhancing diversity
2021-present *PLoS Biology* Editorial Review Board
2022-present Cary Institute Board of Trustees
2022-present *Cell*, Advisory Board Member
2023-present Chan Zuckerberg Initiative's Science Diversity Leadership Networking and Mentorship program

AWARDS & HONORS

1984 NIH-Minority Biomedical Research Support (MBRS) Traineeship
1986 First Place Award for Excellence in Biomedical Research, NIH-MBRS Annual Symposium
1986 NIGMS-Minority Access to Research Careers (MARC) Honors Undergraduate Fellowship
1988 MARC-NIGMS Pre-Doctoral National Research Service Award
1988 FORD Foundation Pre-Doctoral Fellowship
1995 Society for Neuroscience Travel Fellowship for Under-Represented Scientists
1995 NIMH Dissertation Grant
1995 NIMH Neuroscience Postdoctoral Training Grant
1995 Rockefeller University Kluge Postdoctoral Fellowship
2000 George H. Hitchings Young Investigator Award, NC Triangle Foundation, one person/year
2000 Esther & Joseph Klingenstein Award in Neuroscience
2000 Whitehall Foundation Award in Neuroscience, 2nd highest score
2000 David and Lucile Packard Foundation Award
2000 Hall of Fame: Hunter College Search for Education, Elevation & Knowledge (SEEK), NY
2001 Duke University Provost Bioinformatic Award
2002 Duke University Provost Computational Biology Award
2002 Hall of Fame: Alumni Association of Hunter College
2002 Human Frontiers in Science Program Young Investigators Award
2002 NSF Alan T. Waterman Award. NSF's highest award for young investigators given annually to one scientist or engineer under the age of 35 who made a significant discovery/impact in science. Awarded for molecular approach and findings to map brain areas involved in behavior.
2002 Wall of Fame: Duke University Medical Center
2003 The 2003 Distinguished Alumni Award of the City University of New York
2004 Intranet Linguists of the Year for 2004
2005 Dominion Award: Strong Men and Women of Excellence: African American Leaders. Prior awardees include Arthur Ash, Maya Angelou, Oprah Winfrey, and Michael Jordan.
2005 American Philosophical Society Award
2005 NIH Director's Pioneer Award. Given annually to top ~1.5% of applicants.
2005 NOVA Science Now documentary of Dr. Jarvis and his research.
2005 National Science Foundation top 10 science stories of 2005; avian/vertebrate brain evolution.
2006 Discover magazine top 100 science discoveries of 2005; avian brain nomenclature listed at #51.
2006 Diverse magazine's top 10 emerging scholars of 2006.
2006 Popular Science Magazine's Brilliant 10 of 2006 under the age of 45
2006 People Magazine's, Sexiest Brain Researcher, 2006.
2007 Mental Floss Magazine's 10 Trail blazing scientist of 2007
2007 Creator Synectics' top 100 geniuses
2008 HHMI Investigator Award
2009 Ruth & A Morris Williams Prize. Duke University Medical Center's highest award under the age of 45
2009 Duke University's 50 most powerful living men & women, past & current, Duke Towerview magazine

- 2010 History Makers Documentary: African American Leaders in Science. Chicago, IL
- 2010 North Western University “Distinguished Role Model in Science” award. Evanston, IL
- 2013 Futurish magazine’s 2014 Citizens of the Next Century (<http://www.future-ish.com/2010/12/next-century-citizens.html>)
- 2014 Co-recipient of Summit Award from the American Society for Association Executives (ASAE) for the Society for Neuroscience’s Neuroscience Scholars Program, for URM.
- 2015 Science magazine working life article on Jarvis. **Science by any means necessary.** (2015) *Science* 347 (6222):686. <http://www.sciencemag.org/content/347/6222/686.short>
- 2015 Science Careers article on Jarvis. **Following the birdsong of Science.** (2015) http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2015_01_19/caredit.a1500015
- 2015 American Society for Cell Biology’s Ernest Everett Just award for impact on diversity in science
- 2016 Langford Award: Duke University’s outstanding research for full professor promotion
- 2018 W.M. Keck Foundation Award for high risk neuroengineering project
- 2018 USA Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring representative for the Society for Neuroscience Neuroscience Scholars Award
- 2019 NHGRI Human Pangenome Reference Consortium Award (only 1 awarded; Co-I)
- 2019 [NIH Directors Transformative Research Award](#)
- 2020 [Science of vocal learning, Netflix’s Babies documentary series.](#)
- 2020 [Cell Mentor’s 100 Inspiring Black Scientist in America](#)
- 2023 [Dataworks Prize, NIH. For GenomeArk database. People’s choice award #1](#)

NAMED, HONORARY, & KEYNOTE LECTURES (164 out of >300 invited lectures since 1996)

- 1999
- Speaker: International Emperor’s Award in Biology, Nagoya, Japan
- 2000
- Plenary Speaker: Research Centers for Minority Institutions (RCMI)-Symposium, Puerto Rico
- 2001
- Distinguished Speaker: 10th Annual Puerto Rico Neuroscience Conference, Isle Verde, PR
 - Plenary Lecturer: Atlantic Symposium on Computational Biology, Genome Systems & Tech, NC
- 2002
- Baptista Memorial Symposium: International Ornithology Conference, Beijing, China
 - Lecture and Discussant: Gordon Research Conference in Neuroethology, Oxford, UK
 - Leaders in Scientific Discovery: Conversations with two Nobel laureates (Cech & Gilman) and a Waterman awardee (Jarvis). Celebrating 40 years of NIGMS & 30 of MBRS, New Orleans, LA
 - Lecturer: The National Academy of Science’s US-Japan meeting, Irvine, CA
 - Keynote Speaker: Duke University Undergraduate Visitation Week, minority student recruitment.
- 2003
- Topical Lecturer: AAAS meeting, Denver, CO
 - Keynote Speaker: National Science Foundation, African American History Month Series, Washington, DC
 - Keynote Speaker: Howard University Graduate School, Washington, DC
 - Keynote Speaker: Society for Advancement of Chicanos & Native Americans, Albuquerque, NM
- 2004
- The ISIS 2004 Keynote Inspirational Speaker: University of North Carolina, Chapel Hill, NC
 - The 2004 Howard Hughes Professor’s Lecture: Columbia University, New York, NY
 - Keynote Speaker: NC Health Careers Access Program, Greensboro, NC
- 2005
- The 2005 Chancellor’s Scholars Lecturer: Fayetteville University, Fayetteville, NC
 - Keynote Speaker: Education for Sustainable Development Conference, Yale University, CT
 - Keynote Speaker: NIMH intramural annual conference, Gettysburg, VA.
 - Keynote Speaker: Society of Neuroethology Congress, Budapest, Hungary.
 - Langford Lecture Provost Award: Duke University’s outstanding research for tenure promotion.
 - Keynote Speaker: RCMI 20th Anniversary Symposium, City College, NY

- Annual Duke Perkins Library Lecturer, Duke University, Durham, NC.
- 2006
- Keynote Speaker: HBCU-UP National Research Conference, Baltimore, MD
 - Keynote Speaker: National Institutes of Aging, Black History Month Lecturer, Bethesda, MD
 - NIMH Director's Lecturer, Bethesda, MD
 - NIDCD Council Lecturer, Bethesda, MD
 - Plenary Lecturer: 24th International Ornithology Congress, Hamburg, Germany
 - Distinguished Lecturer: NC Central University, Durham, NC
 - The 2006 James Holland Memorial Lecturer, Indiana University, Bloomington, IN
 - Symposium Speaker: Deciphering Evolution, American Society for Cell Biology, San Diego, CA
- 2007
- Keynote Speaker: 2007 NEURON Conference, Simmons College, Boston, MA
 - Keynote Speaker: 2007 Beta Kappa Chi Honor Society & National Institute of Science Conference, Greensboro, NC
 - The 2007 Darwin Day Lecturer: Virginia Commonwealth University, Richmond, VA
 - BioX Lecturer: Stanford University, Stanford, CA
 - Honored Guest Speaker: Adventures of the Mind youth conference, Morehouse University, GA
 - Public Symposium Speaker: Conference on Birdsong, Speech, & Language, Utrecht, Netherlands
 - Keynote Speaker: University of Colorado HSC, Annual Neuroscience Retreat, Keystone, CO.
 - Keynote Speaker: National Association of Biology Teachers, Atlanta, GA
 - Symposium Speaker: International Seminar on Language Evolution, St. Andrews, UK
- 2008
- The 2008 Dodgen Lecturer: Mississippi Academy of Sciences, Olive Branch, MS
 - Keynote Speaker: Biology Leadership Conference, Ilse of Palms, SC
 - Keynote Speaker: Southeast Nerve Net Conference, Atlanta, GA
 - Keynote Speaker: NIGMS Institutional Research & Academic Career Development Awards Conference, UNC Chapel Hill, NC
 - The 2008 Martinez-Townsel Endowed Lecturer, MBL, Cold Spring Harbor, MA
 - Friday Evening Lecturer, MBL, Cold Spring Harbor, MA
 - Presidential Symp Lecturer: Society for Behavioral Neuroendocrinology, Groningen, Netherlands
 - FENS Symposium Speaker: Developing and Wiring the Brain, Geneva, Switzerland
 - Plenary Lecturer: 11th RCMI Symposium on Health Disparities, Honolulu, Hawaii
- 2009
- Keynote Lecturer: Annual Neonatal-Perinatal Research Conference, Duke University, NC
 - National Academy of Science (NAS) Evolution of Medicine Lecturer, Celebrating Darwin's 200th Birthday, Washington, DC
 - New Scientist's Magazine Keynote: 1st NYC Minority Graduate Student Network conference, NYU Langone Medical Center, New York, NY
 - Keynote Speaker: Neonatal Perinatal Institute Annual Lecture, Duke University, Durham, NC.
 - Keynote Speaker: HHMI summer EXROP conference, Chevy Chase, MD
 - Keynote Speaker: NC Triangle Area HHMI Alumni Conference, Durham, NC.
 - 200th Birthday Celebration Lecture. Darwin's Evolution, Swedish Museum of Natural History, Stockholm, Sweden
 - Keynote Speaker: AUDUBON North Carolina Statewide Conference, Durham, NC.
 - Keynote Speaker: American Ornithology Union Conference, University of Pennsylvania, PA
 - Barack Distinguished Lecturer: University of Vermont, Burlington, VT
 - Invited symposium lecturer, Darwin and Brain Evolution, Society for Neuroscience, Chicago, IL
 - World Science Festival Speaker: Avian Einstein's, New York University, NY
- 2010
- 1st USA Science and Engineering Festival, Meet the Scientist, Washington, DC
 - Scientist Role Model. Science Makers, African Americans in Science, Chicago, IL.
 - Plenary Speaker: Roche 454 Sequencing Corp. North American Users Group Meeting. Providence, RI.
 - Symposium Speaker: Neuroethology Congress, Salamanca, Spain.

- Plenary Speaker: 11th Science of Aphasia Conference, Potsdam, Germany.
- Symposium Speaker: NIH symposium, 25th Anniversary of OLAW "Animal Welfare and Scientific Research, Bethesda, MD.
- The 2011 Distinguished Role Model in Life Sciences Lecturer, Northwestern University, Chicago, IL.

2011

- Roche 454 Sponsored Speaker: Plant and Animal Genome Meeting, San Diego, CA
- University-Wide Keynote Speaker: Morris College Science in Action Week, Sumter, SC.
- The 2011 Karlovitz Memorial Lecturer: Georgia Institute of Technology, Atlanta, GA.
- The 2011 Juanita Greer White Memorial Lecturer: University Nevada, Las Vegas, NV
- The 2011 Schmidt-Nielson Memorial Lecture: Duke University, Durham, NC
- Keynote Speaker: North Carolina High School Science Festival, Durham, NC
- Keynote Speaker: Annual Baylor Graduate School of Biomedicine Symposium, Houston, TX
- Symposium Speaker: 30th Anniversary Scholars in Neuroscience Symposium, Society for Neuroscience, Washington, DC.

2012

- The 2012 Isabelle Sprague Lecturer: Mt Holyoke College, South Hadley, MA
- NIH Director's Wednesday Afternoon Lecture Series, Bethesda, MD
- Keynote Lecturer: Pacific Rim Brain and Evolution Science Conference, Tokyo, Japan
- Plenary Lecture: Biennial Symposium on Brain and Mind in the Asia and Pacific, Tokyo, Japan.
- Keynote Lecturer: Avian Systems Biology Conference, Nagoya, Japan
- Distinguished Neuroscience Lecturer: University Texas, San Antonio, TX
- Keynote Lecture: Duke Bouchet Society Black Tie Dinner, Durham, NC

2013

- The 2013 Curtis L. Parker Lecturer: Morehouse School of Medicine, Atlanta, GA
- Symposium Speaker: AAAS meeting, Language Organ, Boston, MA
- Keynote Speaker: Graduate Student Symposium, University Maryland Baltimore County, MD
- Congressional Hearing Lecture: Diversity in Science, Washington, DC
- Keynote Speaker: SPIRE Summer Research Program, University North Carolina, NC.
- Symposium speaker: 20th Anniversary of Institute Symposium, Networks in the Nervous System, National Autonomous University of Mexico, Queretaro, Mexico.

2014

- Featured Speaker: USA Science & Engineering Festival Nifty Fifty Event, Woodrow Wilson High School, Washington DC
- Commencement Speaker: University of Texas San Antonio's Medical Center graduate student graduation, San Antonio, TX
- Public Lecture: Ensembl Science Public Lecture Day, Wellcome Trust, Hinxton, UK
- Keynote speaker: Ultrasonic Communication in Rodents Meeting, Tokyo, Japan
- Distinguished lecturer: 126th International Ornithological Congress, Tokyo, Japan
- Brain & Behavior Distinguished Lecture Series, Georgia State University, Atlanta, GA
- New Horizons in Science Speaker: Shaking the bird family tree, ScienceWriters Conference, Columbus, OH.
- Symposium Lecture: Evolution of Nervous Systems, Society for Neuroscience, Washington, DC
- Smithsonian Lecture for Opening Ceremony of Institute of Biodiversity Genomics, and Special avian genomes issue in *Science* magazine, Washington, DC

2015

- Plenary Lecture: Advances in Genome Biology & Technology Conference (AGBT), Marco, FL
- Distinguished Fellow SAGE Speaker: SAGE Center for the Study of the Mind, University of California, Santa Barbara, CA
- Keynote Speaker: University of Alabama 1st NEURAL conference, Birmingham, AL
- Symposium Speaker: 3rd Annual Cracking the Neural Code Symposium, Stanford, CA
- Sharon Silbiger Lecture Award: Albert Einstein College of Medicine, New York, NY
- Theodosia Hamilton Hadley memorial lecturer award: Western Michigan University, MI
- Ernest Everett Just Lecture Award: American Society For Cell Biology, San Diego, CA

- Donders Lecturer: Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands
- 2016
- Plenary Lecturer: Plant & Animal Genome Meeting, San Diego, CA
 - Martin Luther King Jr. Lecturer: Virginia Tech, Blacksburg, VA
 - Plenary Speaker: Evolution of Language conference, New Orleans, LA
 - Dean's Award Lecture in Neuroscience, LSU Medical School, New Orleans, LA
 - Keynote Speaker: Avian Model Systems conference, Taipei, Taiwan (sponsor Academia Sinica)
 - Ed Arbus memorial lecturer: University of Arizona, Tucson, AZ
 - Symposium in my honor: Seoul National University, South Korea.
 - Mt Sinai Friedman Lecture Award: Mt Sinai University, New York, NY
- 2017
- Plenary Lecture: Earth Global Biodiversity Conference, Smithsonian, Washington, DC
 - Plenary Lecture: IEEE Aerospace Conference, Big Sky, Montana.
 - Keynote: Geneseo State University GREAT Day. Jack & Carol Kramer Endowed Lectureship
 - Plenary Lecture, Society for Biological Psychiatry, San Diego
 - Konishi Endowed Lecturer, Marine Biological Labs', Woods Hole, MA
 - Presidential Lecture: Brown University– Thinking out Loud, Providence, RI
 - Presidential Lecture: Society for Neuroscience, Washington DC
- 2018
- Harvey Society Lecturer, NY
 - Rockefeller University Friday Lecturer, NY
 - Keynote Lecture, International Avian Model Systems Conference, Institut Pasteur, Paris, France
 - Plenary Speaker, Annual Biomed Res Conf for minority Students (ABRCMS), Indianapolis, IN
 - Symposium Speaker, NIMH Neurodevelopment Conference, Bethesda, MD
 - Distinguished Lecturer, UCLA Brain Institute 30th Annual Neuroscience Conference, CA
- 2019
- NYU School of Medicine Honors Lecturer, NY
 - Keynote speaker, Hunter College's Undergraduate STEM Research Conference, NY
 - The 2019 Gavin Lecture Awardee in Cell and Molecular Biology, Brooklyn College, NY
 - The 2019 Morgan Science Lecture, university-wide, Appalachian State University, Boone, NC
 -
- 2020
- Allen Institute for Brain Science Distinguished Lecture, Seattle, WA
 - Netflix series "Babies", Episode 4, "First Words"
 - Keynote Lecture, Leiden Pacific Biosciences Conference, recorded online because of COVID-19
 - Keynote Lecture, Telomere-to-Telomere (T2T) Genome Workshop, online
 - Plenary Lecture, Human Pangenome Reference Consortium, online
 - Plenary Lecture, Biodiversity Genomics 2020 meeting, online
 - Black Brain and Behavioral Scientists Webinar, online
 - Science Rules with Bill Nye, Episode 46, How We Humans Got our Voices
 - Marine Biological Labs Friday Lecture Series, On Evolution of Language, online
 - Bodies at Risk, UMASS, conversation with Larissa FastHorse & Erich Jarvis, Arts & Science, online
- 2021
- Plenary Lecture, H3Africa, Annual meeting, online
 - Plenary 2021 CUNY commencement speech Biology PhDs, NIH BRAIN Initiative Investigators Meeting, online
 - Keynote Lecture, Cognitive Science Society
 - 50th Anniversary celebration lecture for the Society for Neuroscience
 - Keynote Lecture, Society for the Neurobiology of Language
 - Keynote Lecture, Stanford, Berkeley, UCSF Next Generation Lecturers
 - NIH OBSSR Director's Webinar Series

- 2021 CUNY commencement speech Biology PhDs
- Keynote Lecture, Cognitive Science Society
- Plenary, NIH Brain Initiative Investigators Meeting
- Iowa City Darwin Day Lecture

2022

- Penn State Russell E. Marker Lecture in Biology 2022, PA
- Monday Lecture Series, The Rockefeller University, NY
- Tracy and Ruth Storer Lecture 2022, UC Davis, CA
- Distinguished John H. Blaffer Seminar, MD Anderson Cancer Center, TX
- Keynote Lecture, 10th Aquatic Models For Human Diseases Conference
- Thomas Hunt Morgan Lecture 2022, University of Kentucky, KY
- Tyron Lecture 2022, UC Berkeley, CA
- Warder Clyde Allee Endowed Lecturer, University of Chicago

2023

- Keynote Lecture, The Biology of Genomes, Cold Spring Harbor Labs, NY
- Keynote Lecture, Advancing Anti-racist Practices in Genomics Symposium, UCSC, CA
- Keynote Lecture, McKnight Conference on Neuroscience, Aspen, CO
- Marshall W. Nirenberg Lecture, NIH Director's Wednesday Afternoon Lecture Series
- Spring Program for Benefactors and Friends, Hardwired for Dance and Song, Rockefeller Univ.

2024

- Keynote Lecture, Pacific Biosciences Annual Company Symposium, Austin, TX

WEB SITES

Jarvis Lab: <http://www.jarvislab.net/>

Avian phylogenomics: <http://avian.genomics.cn/en/index.html>

B10K bird all 10,000 genomes project: <http://b10k.genomics.cn>

G10K vertebrate 10,000 genomes project: <https://genome10k.soe.ucsc.edu>

Vertebrate Genomes Project: <https://vertebrategenomesproject.org/>

GenomeArk: <https://vgp.github.io/genomeark/>

Human Pangenome Project: <https://humanpangenome.org/>

PUBLICATIONS

Peer-reviewed publications: pdfs can be found at <https://www.jarvislab.net/publications>

Google scholar list of publications: <https://scholar.google.com/citations?user=cI-fi9MAAAAJ&hl=en>

Publications from undergraduate research

1. LaFauci G, Widom RL, Eisner R, **Jarvis ED**, Rudner R. [Mapping of rRNA genes with integrable plasmids in *Bacillus subtilis*](#). *J. Bacteriol.* 165:204-214 (1986).
2. Widom RL, **Jarvis ED**, LaFauci G, Rudner R. [Instability of rRNA operons in *Bacillus subtilis*](#). *J. Bacteriol.* 170:605-610 (1988).
3. **Jarvis ED**, Widom R, LaFauci G, Setoguchi Y, Richter IR, Rudner R. [Chromosomal Organizations of rRNA operons in *Bacillus subtilis*](#). *Genetics* 120:625-635 (1988).
4. Rudner R, **Jarvis ED**, Widom RL. Chromosomal organization and spontaneous deletions of rrn operons in *Bacillus subtilis*. In: [Genetics and Biotechnology of Bacilli](#) Vol 2. JA Hoch, AT Ganesan (eds). Academic Press, San Diego. pp. 115-120 (1988).

5. **Jarvis ED**, Cheng S, Rudner R. [Genetic structure and DNA sequences at junctions involved in the rearrangements of *Bacillus subtilis* strains carrying the *trpE26* mutation.](#) *Genetics* 126:785-797 (1990).
6. Rivas MV, **Jarvis ED**, Rudner R. [The structure of the *trpE*, *trpD* and 5' *trpC* genes of *Bacillus pumilus*.](#) *Gene* 87:71-78 (1990).
7. Rudner R, Severestt A, Buchholz S, Studamire B, White AM, **Jarvis ED**. [Two tRNA gene clusters associated with ribosomal RNA operons *rrnD* and *rrnE* in *Bacillus subtilis*.](#) *J. Bacteriol.* 175:503-509 (1993).
8. Rudner R, Studamire B, **Jarvis ED**. [Determination of restriction fragment length polymorphisms in bacteria using ribosomal RNA genes.](#) *Methods in Enzymology* 235:184-196 (1994).

Publications from graduate research

9. **Jarvis ED**, Mello CV, Nottebohm F. [Associative learning and stimulus novelty influence the song-induced expression of an immediate early gene in the canary forebrain.](#) *Learning & Memory* 2:62-80 (1995). *Cited by the journal as one of the top 10 articles of the year.*
10. Chew SJ, Mello CV, Nottebohm F, **Jarvis ED**, Vicario D. [Decrements in auditory responses to a repeated conspecific song are long-lasting and require two periods of protein synthesis in the songbird forebrain.](#) *Proc. Natl. Acad. Sci.* 92:3406-3410 (1995).
11. Rivas M, **Jarvis ED**, Morisaki S, Carbonado H, Gottlieb AB, Krueger J. [Identification of aberrantly regulated genes in diseased skin using the cDNA differential display technique.](#) *J. Invest. Derm.* 108:188-194 (1997).

Publications from postdoctoral research

12. **Jarvis ED**, Nottebohm F. [Motor-driven gene expression.](#) *Proc. Natl. Acad. Sci. USA* 94:4097-4102 (1997).
13. **Jarvis ED**, Schawbl H, Ribeiro S, Mello CV. [Brain gene regulation by territorial singing behavior in freely ranging songbirds.](#) *Neuroreport* 8:2073-2077 (1997).
14. Holzenberger M, **Jarvis ED**, Chong C, Grossman M, Nottebohm F, Scharff C. [Selective expression of insulin-like growth factor II in the songbird brain.](#) *J. Neurosci.* 17:6974-6987 (1997).
15. Mello CV, **Jarvis ED**, Denisenko N, Rivas M. [Isolation of song-regulated genes in the brain of songbirds.](#) In: *Methods in Molecular Biology, Differential Display Methods and Protocols*. Liang P, Pardee AB (eds), Humana Press, NJ. 85:205-217 (1997).
16. **Jarvis ED**, Scharff C, Grossman M, Ramos JA, Nottebohm F. [For whom the bird sings: context-dependent gene expression.](#) *Neuron* 21:775-788 (1998). *News and views in Neuron, by M. Schmidt.*
17. Rudner R, Martsinkevich O, Leung W, **Jarvis ED**. [Classification and genetic characterization of pattern forming Bacilli.](#) *Molec. Microbio.* 27:687-703 (1998).
18. Rudner R, **Jarvis ED**. Bacterial Pattern Formation: Letter to the Editors. *Scientific American*. Feb, (1999). *A commentary*

19. Mello CV, **Jarvis ED**. [Applying differential display to brain research](#). In: *Techniques for Behavioral and Neural Sciences*. Crusio WE, Gerlai RT (eds). Elsevier Science, Netherlands, Amsterdam. 13:200-211 (1999).
20. Krebs CJ, **Jarvis ED**, Pfaff DW. [The 70 kDa heat shock cognate protein \(Hsc73\) gene is enhanced by ovarian hormones in the ventromedial hypothalamus](#). *Proc. Natl. Acad. Sci. USA* 96:1686-1691 (1999).
21. Krebs CJ, **Jarvis ED**, Chan J, Lydon JP, Ogawa S, Pfaff DW. [A membrane-associated progesterone-binding protein, 25-Dx, is regulated by progesterone in brain regions involved in female reproductive behaviors](#). *Proc. Natl. Acad. Sci.* 97:12816-12821 (2000).
22. Li XC, **Jarvis ED**, Alvarez-Bordo B, Lim D, Nottebohm F. [A relation between behavior, neurotrophin expression and neuronal survival](#). *Proc. Natl. Acad. Sci. USA* 97:8584-8589 (2000).
23. **Jarvis ED**, Mello CV. [Molecular mapping of brain areas involved in parrot vocal communication](#). *J. Comp. Neurol.* 419:1-31 (2000). *Cover photo*.
24. Nehrbass N, **Jarvis ED**, Scharff C, Nottebohm F, Mello CV. [Site-specific retinoic acid production in the brain of adult songbirds](#). *Neuron* 27:359-370 (2000).

Publications from Assistant Professor research at Duke

25. **Jarvis ED**, Ribeiro S, Vielliard J, DaSilva M, Ventura D, Mello CV. [Behaviorally-driven gene expression reveals hummingbird brain song nuclei](#). *Nature* 406:628-632 (2000). *Featured news articles in Natural History Magazine and Discovery.com*
26. Modulation of movement by the basal ganglia. Chapter 17 In: *Neuroscience*, 2nd edition. Hall W, Nicolelis M, **Jarvis ED** (2000). Purves D, Augustine GJ, Fitzpatrick D, Katz LC, McNamara JO, Williams M (eds). Sinauer Associates, MA. pp. 391-407. (3rd edition in 2004)
27. Modulation of movement by the cerebellum. Chapter 18 In: *Neuroscience*, 2nd edition. Hall W, **Jarvis ED** (2000). D Purves, GJ Augustine, D. Fitzpatrick, LC Katz, JO McNamara, Williams M (eds). Sinauer Associates, MA. pp. 409-426. (3rd edition in 2004)
28. **Jarvis ED**, Smith VA, Wada K, Rivas MV, McElroy M, Smulders TV, Carnici P, Hayashisaki Y, Dietrich F, Wu X, Yu J, Wang PP, Hartemink AJ, Lin S. [A framework for integrating the songbird brain](#). *J. Comp. Physiol. A* 188:961-980 (2002).
29. Smith VA, **Jarvis ED**, Hartemink AJ. [Evaluating functional network inference using simulation of complex biological systems](#). *Bioinformatics* 18:216S-224S (2002).
30. Ribeiro S, Mello CV, Velho T, Gardner TJ, **Jarvis ED**, Pavlides C. [Induction of hippocampal long-term potentiation during waking leads to increased extrahippocampal zif-268 expression during ensuing rapid-eye-movement sleep](#). *J. Neurosci.* 22:10914-10923 (2002).
31. The FANTOM Consortium & The RIKEN Genome Exploration Research Group Phase II Team. [Analysis of the mouse transcriptome based upon functional annotation of 60,770 full length cDNAs](#). *Nature* 420:563-573 (2002). *Cover photo*.
32. Gustincich S, Batalov S, Beisel KW, Bono H, Carninci P, Fletcher CF, Grimmond S, Hirokawa N, **Jarvis ED**, Jegla T, Kawasawa Y, LeMieux J, Miki H, Raviola E, Teasdale RD, Tominaga N, Yagi

- K, Zimmer A, Hayashizaki Y, Okazaki Y. [Analysis of the mouse transcriptome for genes involved in the function of the nervous system](#). (2003) *Genome Res.* 13:1395-1401. *Cover Photo*.
33. Smith VA, **Jarvis ED**, Hartemink AJ. [Influence of network topology and data collection on functional network inference](#). *Pac. Symp. Biocomputing* 2003:164-175 (2003).
34. Haesler S, Wada K, Nshdejan A, Morrisey E, Lints EKT, **Jarvis ED***, Scharff C*. [FoxP2 expression in avian vocal learners and non-learners](#). *J. Neurosci.* 24:3164-3175 (2004). *Cover Note*. *co-corresponding authors. *Highlighted in National Geographic Magazine and other media*.
35. Wada K, Sakaguchi H, **Jarvis ED***, Hagiwara M. [Differential expression of glutamate receptors in avian neural pathways for learned vocalization](#). *J. Comp. Neurol.* 476:44-64 (2004). *corresponding author
36. Reiner A, Perkel DJ, Bruce L, Butler AB, Csillag A, Kuenzel W, Medina L, Paxinos G, Shimizu T, Striedter GF, Wild M, Ball GF, Durand S, Güntürkün O, Lee DW, Mello CV, Powers A, White SA, Hough G, Kubikova L, Smulders TV, Wada K, Dugas-Ford J, Husband S, Yamamoto K, Yu J, Siang C, **Jarvis ED**. [Revised nomenclature for avian telencephalon and some related brainstem nuclei](#). *J. Comp. Neurol.* 473:377-414 (2004). *The #1 cited article of the journal for 2004, and designated among top 1% highly cited papers in their academic field (neuroscience) as of Sep/Oct 2014, controlled for publication year, by Thompson Scientific*.
37. Reiner A, Perkel DJ, Bruce L, Butler AB, Csillag A, Kuenzel W, Medina L, Paxinos G, Shimizu T, Striedter GF, Wild M, Ball GF, Durand S, Güntürkün O, Lee DW, Mello CV, Powers A, White SA, Hough G, Kubikova L, Smulders TV, Wada K, Dugas-Ford J, Husband S, Yamamoto K, Yu J, Siang C, **Jarvis ED**. [The Avian Brain Nomenclature Forum: a new century in comparative neuroanatomy](#). *J. Comp. Neurol.* 473:E1-E6 (2004).
38. Reiner A, Perkel D, Mello CV, **Jarvis ED**. [Songbirds and the revised avian brain nomenclature](#). *Ann. N.Y. Acad. Sci.* 1016: 77-108 (2004). *Cover photo*.
39. **Jarvis ED**. [Learned birdsong and the neurobiology of human language](#). *Ann. N.Y. Acad. Sci. USA* 1016: 746-777 (2004). *Cover photo*.
40. **Jarvis ED**. [Brains and birdsong](#). In: *Nature's Music: The Science Of Birdsong*. Marler P, Slabberkoorn H (eds) Elsevier-Academic Press, NY. pp. 239-275 (2004).
41. Yu J, Smith VA, Wang PP, Hartemink AJ, **Jarvis ED**. [Advances to Bayesian network inference for generating causal networks from observational biological data](#). *Bioinformatics* 20:3594-3603 (2004). *Selected by Thompson Scientific as the article with highest citation rate for "Dynamic Bayesian Networks" as of Spring 2010 and designated among top 1% highly cited papers in their academic field (bioinformatics) as of Sep/Oct 2014, controlled for publication year*.
42. **Jarvis ED**, O Güntürkün, L Bruce, A Csillag, HJ Karten, W Kuenzel, L Medina, G Paxinos, DJ Perkel, T Shimizu, GF Striedter, M Wild, GF Ball, J Dugas-Ford, S Durand, G Hough, S Husband, L Kubikova, DW Lee, CV. Mello, A Powers, C Siang, TV Smulders, K Wada, SA White, K Yamamoto, J Yu, A Reiner, AB Butler. Avian Brain Nomenclature Consortium. [Avian brains and a new understanding of vertebrate brain evolution](#). *Nature Rev. Neurosci.* 6:151-159 (2005). *The 2nd most cited article of its issue. Highlighted as one of the top 10 projects funded by NSF in 2005, in top 100 (#51) science stories by Discover Magazine, and in multiple media outlets, including NY Times. Designated among top 1% highly cited papers in their academic field (neuroscience) as of Sep/Oct 2014, controlled for publication year, by Thompson Scientific*.

43. Mouritsen H, Feenders G, Liedvogel M, Wada K, **Jarvis ED**. [Night-vision brain area in migratory songbirds](#). *Proc. Natl. Acad. Sci. USA* 102:8339-8344 (2005). *Highlighted in Discover magazine and other news media.*
44. Burmeister S, **Jarvis ED**, Fernald R. [Rapid behavioral and genomic responses to social opportunity](#). *PLoS Biology*. 3:1996-2004 (2005).

Publications from Associate Professor research at Duke

45. Sasaki A, Sotnikova TD, Gainetdinov RR, **Jarvis ED**. [Social context-dependent singing-regulated dopamine](#). *J. Neurosci.* 26:9010-9014 (2006). *Highlighted by BBC science broadcast.*
46. Ferreira ARJ, Smulders TV, Sameshima K, Mello CV, **Jarvis ED**. [Vocalizations and associated behaviors of the Sombre hummingbird \(Trochilinae\) and the Rufous-breasted Hermit \(Phaethornithinae\)](#). *Auk*. 123:1129-1148 (2006).
47. Wada K, Howard JT, McConnell P, Lints T, Rivas MV, Whitney O, Horita H, Patterson MA, White SA, Scharff C, Heasler S, Zhao S, Sakaguchi H, Hagiwara M, Shiraki T, Hirozane-Kishikawa T, Skene P, Hayashizaki Y, Carninci P, **Jarvis ED**. [A molecular neuroethological approach for identifying and characterizing a cascade of behaviorally regulated genes](#). *Proc. Natl. Acad. Sci. USA* 103:15212-15217 (2006). *Highlighted in Science magazine news, Miller 2006.*
48. Smith VA, Yu J, Smulders TV, Hartemink AJ, **Jarvis ED**. [Computational inference of neural information flow networks](#). *PLoS Comp. Biol.* 2:1436-1449 (2006). *Highlighted by PLoS Computational Biology as the most downloaded article of its issue when published.*
49. **Jarvis ED**. Evolution of brain structures for vocal learning in birds: a synopsis. *Acta Zoologica Sinica*. 52:85-89 (2006). *Keynote symposium paper for 23rd International Ornithology Conference.*
50. **Jarvis ED**. [Selection for and against vocal learning in birds and mammals](#). *Ornithological Science* 5:5-14 (2006). *In special feature issue on neuroecology of birdsong.*
51. **Jarvis ED** Evolution of vocal learning systems in birds and humans. In: [Evolution of Nervous Systems](#). Kaas J (ed). 2:213-228 (2006).
52. Liedvogel M, Feenders G, Wada K, Troje NF, **Jarvis ED***, Mouritsen H*. [Lateralised activation of Cluster N in the brains of migratory songbirds](#). *Eur. J. Neurosci.* 25:1166-1173 (2007). **co-corresponding authors.*
53. Kubikova L, Turner E, **Jarvis ED**. [The pallial-basal ganglia pathway modulates the behaviorally-driven gene expression of the motor pathway](#). *Eur. J. Neurosci.* 25:2154-2160 (2007).
54. Hara E, Kubikova L, Hessler NA, **Jarvis ED**. [Role of the midbrain dopaminergic system in modulation of vocal brain activation by social context](#). *Eur. J. Neurosci.* 25:3406-3416 (2007). *Highlighted in the faculty of 1000 as a paper to read.*
55. **Jarvis ED**. [Neural systems for vocal learning in birds and humans: a synopsis](#). *J. Ornithology*. 143:S35-44 (2007). *International Ornithology Conference. Plenary lecture paper.*
56. Pinaud P, Osorio C, Alzate O, **Jarvis ED**. [Profiling of experience-regulated proteins in the songbird auditory forebrain using quantitative proteomics](#). *Eur. J. Neurosci.* 27:1409-1422 (2008).

57. Feenders G, Liedvogel M, Rivas MV, Zapka M, Horita H, Hara E, Wada K, Mouritsen H, **Jarvis ED**. [Molecular mapping of movement-associated areas in the avian brain: A Motor theory for vocal learning origin](#). *PLoS ONE* 3(3): e1768, 1-27 (2008). *Highlighted in Scientific American*.
58. Horita H, Wada K, **Jarvis ED**. [Early onset of deafening-induced song deterioration and differential requirements of the pallial-basal ganglia vocal pathway](#). *Eur. J. Neurosci.* 28:2519-2532 (2008). *Cover photo*.
59. Riener A, Perkel DJ, Mello CV, **Jarvis ED**. [Songbirds and the revised avian brain nomenclature](#). In: *The Neuroscience of Birdsong*. Ziegler and Marler (eds). Cambridge University Press. pp. 58-62 (2008).
60. Mello CV, **Jarvis ED**. Behavior-dependent expression of inducible genes in vocal learning birds. In: *The Neuroscience of Birdsong*. Ziegler and Marler (eds). Cambridge University Press. pp. 381-397 (2008).
61. Hara E, Kubikova L, Hessler NA, **Jarvis ED**. [Assessing visual requirements for social context-dependent activation of the songbird song system](#). *Proc. R. Soc. B* 276:279-289 (2009).
62. **Jarvis ED**. [Bird Brain: Evolution](#). In: *Encyclopedia of Neuroscience*. Squire LR (ed). Oxford: Academic Press 2:209-215 (2009).
63. **Jarvis ED**. [Bird Song Systems: Evolution](#). In: *Encyclopedia of Neuroscience*. Squire LR (ed). Oxford: Academic Press. 2:217-255 (2009).
64. **Jarvis ED**. [Evolution of the pallium in birds and reptiles](#). In: *New Encyclopedia of Neuroscience*. Marc D. Binder, Nobutaka Hirokawa and Uwe Windhorst (eds). Ann Butler (sub-ed). Springer-Verlag GmbH Berlin Heidelberg. 15 pages (2009).
65. Rivas M, **Jarvis ED**. [Behaviorally regulated mRNA and protein expression in the songbird brain](#). In: *Neuroproteomics*. Frontiers in Neuroscience series. Alzate O (ed). pp. 239-262 (2009).
66. Kubikova L, Wada K, **Jarvis ED**. [Dopamine receptors in a songbird brain](#). *J. Comp. Neurol.* 518:741-769 (2010). *Cover photo*.
67. Horita H, Wada K, Rivas MR, Hara E, **Jarvis ED**. [The *dusp1* immediate early gene is regulated by natural stimuli predominantly in primary sensory neurons](#). *J. Comp. Neurol.* 518:2873-2901 (2010).
68. Kunstner A, Wolf JBW, Backstrom N, Whitney O, Balakrishnan C, Day L, Edwards SV, Schlinger BA, Wilson RK, **Jarvis ED**, Warren WC, Ellegren H. [Comparative genomics based on massive parallel transcriptome sequencing reveals patterns of substitution and selection across 10 bird species](#). *Mol. Ecol.* 19:226-276 (2010).
69. Warren WC, Clayton DF, Ellegren H, Arnold AP, Hillier LW, Kunstner A, Searle S, White S, Vilella AJ, Fairley S, Heger A, Kong L, Ponting CP, **Jarvis ED**, et al. [The genome of a songbird](#). *Nature* 464:757-762 (2010). *Highlighted in NY Times Science Times, NPR, and many other media. Designated by Thompson Scientific as a top 1.0% highly cited paper in their academic field (molecular biology and genetics) as of Sep/Oct 2018, controlled for publication year.*

70. Zapka M, Heyers D, Liedvogel M, **Jarvis ED***, Mouritsen H*. [Night-time neuronal activation of Cluster N in a day- and night-migrating songbird](#) *Eur. J. Neurosci.* 32:619-624 (2010). *co-corresponding authors.
71. Nabholz B, **Jarvis ED**, Ellegren H. [Obtaining mtDNA genome from next-generation transcriptome sequencing: a case study of the basal Passerida \(Aves: Passeriformes\) phylogeny](#) *Mol. Phylogenetics Evol.* 57:466-470 (2010).
72. Robinson GE, Banks JA, Padilla DK, Burggren WW, Cohen CS, Delwiche CF, Funk V, Hoekstra HE, **Jarvis ED**, Johnson L, Martindale MQ, Martinez del Rio C, Medina M, Salt DE, Sinha S, Specht C, Strange K, Strassmann JE, Swalla BJ, Tomanek L. [Empowering 21st century biology](#). *Bioscience* 60:923-930 (2010).
73. Balaban E, Edelman S, Grillner S, Grodzinski U, **Jarvis ED**, Kaas JH, Laurent G, Pipa G. Evolution of dynamic coordination. In: Dynamic Coordination in the Brain: From Neurons to Mind. Malsburg C von der, Phillips WA, Singer W (eds). Strüngmann Forum Reports. Lupp J (series Ed.) MIT Press, Cambridge MA. 59-82 (2010).
74. Roulhac PL, Ward JM, Thompson JW, Soderblom EJ, Silva M, Moseley MA 3rd, **Jarvis ED**. [Microproteomics: quantitative proteomic profiling of small numbers of laser captured cells](#) *Cold Spring Harbor Protocols* 218-235 (2011).
75. Nabholz B, Kunstner A, Wang R, **Jarvis ED***, Ellegren H*. [Dynamic evolution of base composition: causes and consequences in avian phylogenomics](#) *Mol. Biol. Evol.* 60:2197-2210 (2011). *co-corresponding authors.
76. St John JA, Braun EL, Isberg SR, Miles LG, Chong AY, Gongora J, Dalzell P, Moran C, Bed'hom B, Abzhanov A, Burgess SC, Cooksey AM, Castoe TA, Crawford NG, Densmore LD, Drew JC, Edwards SV, Faircloth BC, Fujita MK, Greenwold MJ, Hoffmann FG, Howard JM, Iguchi T, Janes DE, Khan SY, Kohno S, de Koning AJ, Lance SL, McCarthy FM, McCormack JE, Merchant ME, Peterson DG, Pollock DD, Pourmand N, Raney BJ, Roessler KA, Sanford JR, Sawyer RH, Schmidt CJ, Triplett EW, Tuberville TD, Venegas-Anaya M, Howard JT, **Jarvis ED**, Guillette LJ Jr, Glenn TC, Green RE, Ray DA. [Sequencing three crocodylian genomes to illuminate the evolution of archosaurs and amniotes](#). *Genome Biol.* 13:415-427 (2012). *Designated Highly Accessed article by the journal.*
77. Hara E, Rivas MR, Ward J, Okanoya K, **Jarvis ED**. [Convergent differential regulation of parvalbumin in the brains of vocal learners](#). *PLoS ONE* 7:e29457. 1-13 (2012).
78. Chen CC, Balaban E, **Jarvis ED**. [Interspecies avian brain chimeras reveal that large brain size differences are influenced by cell-interdependent processes](#). *PLoS ONE.* 7:e42477. 1-13 (2012). *Highlighted in New Scientist.*
79. Horita H, Kobayashi M, Liu WC, Oka K, **Jarvis ED**, Wada K. [Specialized motor-driven *dup1* expression in the song systems of multiple lineages of vocal learning birds](#). *PLoS ONE.* 7:e42173. 1-21 (2012).
80. Arriaga G, Zhou EP, **Jarvis ED**. [Of mice, birds, and men: the mouse ultrasonic song system has some features similar to humans and song-learning birds](#). *PLoS ONE.* 7:e46610. 1-15 (2012). *Highlighted in Google News, BBC, HHMI news, and many other media.*

81. Chen C-C, Wada K, **Jarvis ED**. [Radioactive in-situ protocol for detecting diverse gene expression patterns in tissue](#). *J. Vis. Exp. (JoVE)*. (62). pii: 3764 (2012).
82. Koren S, Schatz MC, Walenz BP, Martin J, Howard J, Ganapathy G, Wang X, Rasko DA, McCombie WR, **Jarvis ED**, and Phillippy AM. [Hybrid error correction and de novo assembly of single-molecule sequencing reads](#). *Nature Biotechnology* 30:693-700 (2012). *Designated among top 1% highly cited papers in their academic field (molecular biology) as of Sep/Oct 2014, controlled for publication year, by Thompson Scientific.*
83. Simonyan K, Horwitz B, **Jarvis ED**. [Dopamine regulation in human speech and birdsong: a critical review](#). *Brain & Language* 122:142-150 (2012).
84. Petkov CI, **Jarvis ED**. [Birds, primates, and spoken language origins: behavioral phenotypes and neurobiological substrates](#). *Front. Evol. Neurosci.* 4:1-24 (2012).
85. Arriaga G, & **Jarvis ED**. [Mouse vocal communication system: are ultrasounds learned or innate?](#) *Brain & Language* 124:96-116 (2013).
86. Parchman TL, Gompert Z, Braun MJ, Brumfield RT, McDonald DB, Uy JA, Zhang G, **Jarvis ED**, Schlinger BA, Buerkle CA. [The genomic consequences of adaptive divergence and reproductive isolation between species of manakins](#). *Mol. Ecol.* 22:3304-3317 (2013).
87. Liu WC, Wada K, **Jarvis ED**, Nottebohm F. [Rudimentary substrates for vocal learning in a suboscine](#). *Nature Communications* 4:2082. 1-12 (2013).
88. Bradnam KR, Fass JN, Alexandrov A, Baranay P, Bechner M, Birol I, Boisvert S, Chapman JA, Chapuis G, Chikhi R, Chitsaz H, Chou WC, Corbeil J, Del Fabbro C, Docking TR, Durbin R, Earl D, Emrich S, Fedotov P, Fonseca NA, Ganapathy G, Gibbs RA, Gnerre S, Godzaridis E, Goldstein S, Haimel M, Hall G, Haussler D, Hiatt JB, Ho IY, Howard J, Hunt M, Jackman SD, Jaffe DB, **Jarvis ED**, Jiang H, Kazakov S, Kersey PJ, Kitzman JO, Knight JR, Koren S, Lam TW, Lavenier D, Laviolette F, Li Y, Li Z, Liu B, Liu Y, Luo R, Maccallum I, Macmanes MD, Maillet N, Melnikov S, Naquin D, Ning Z, Otto TD, Paten B, Paulo OS, Phillippy AM, Pina-Martins F, Place M, Przybylski D, Qin X, Qu C, Ribeiro FJ, Richards S, Rokhsar DS, Ruby JG, Scalabrin S, Schatz MC, Schwartz DC, Sergushichev A, Sharpe T, Shaw TI, Shendure J, Shi Y, Simpson JT, Song H, Tsarev F, Vezzi F, Vicedomini R, Vieira BM, Wang J, Worley KC, Yin S, Yiu SM, Yuan J, Zhang G, Zhang H, Zhou S, Korf IF. [Assemblathon 2: evaluating de novo methods of genome assembly in three vertebrate species](#). *Gigascience* 2(10):1-31 (2013). *Designated Highly Accessed article by the journal. Highlighted in Nature news blog; Received 2013 Open Data Award from the BioMed Central Annual Research Awards*
89. **Jarvis ED**, Yu J, Rivas MV, Horita H, Feenders G, Whitney O, Jarvis S, Jarvis ER, Kubikova L, Puck AE, Siang-Bakshi C, Martin S, McElroy M, Hara E, Howard J, Mouritsen H, Chen CC, Wada K. [Global view of the functional molecular organization of the avian cerebrum: mirror images and functional columns](#). *J. Comp. Neurol.* 521:3614-3665 (2013). *Featured article (along with Chen et al 2013 below) by Editor and Editorial by Finger et al 2013 JCN. Commentary by Montiel and Molnar 2013 JCN. The #1 cited article in JCN for 2014-2015.*
90. Chen CC, Winkler CM, Pfenning AR, **Jarvis ED**. [Molecular profiling of the developing avian telencephalon: regional timing and brain subdivision continuities](#). *J. Comp. Neurol.* 521:3666-3701 (2013). *Within top 10 cited articles in JCN for 2014-2015.*

91. Rosselló RA, Chen C-C, Dai R, Howard JT, Hochgeschwender U, **Jarvis ED**. [Mammalian genes generate partial induced pluripotent stem cells in non-mammalian vertebrate and invertebrate species.](#) *eLife* .2:e00036.1-24 (2013). *Commentary in Nature Methods by Einsentien 2013*.
92. Smulders TV, **Jarvis ED**. [Different mechanisms are responsible for dishabituation of electrophysiological auditory responses to a change in acoustic identity than to a change in stimulus location.](#) *Neurobiology of Learning & Memory* 106:163-176 (2013).
93. Fitch WT, and **Jarvis ED**. Birdsong and other animal models for human speech, song, and vocal learning. In: *Language, Music, and the Brain: A Mysterious Relationship*, ed. Michael A. Arbib, Strüngmann Forum Reports, vol. 10. Cambridge, MA: MIT Press (2013).
94. Cross I, Fitch WT, Aboitiz F, Iriki A, **Jarvis ED**, Lewis J, Liebal K, Merker B, Stout D, Trehub SE. Culture and Evolution. In: *Language, Music, and the Brain: A Mysterious Relationship*. Michael A. Arbib (ed). Strüngmann Forum Reports, vol. 10. Cambridge, MA: MIT Press (2013).
95. **Jarvis ED**. [Evolution of brain pathways for vocal learning in birds and human.](#) In: *Birdsong, Speech, and Language*, Bolhuis J (ed.). MIT Press (2013).
96. Wada K, Chen C-C, **Jarvis ED**. [Detecting neural activity-dependent immediate early gene expression in the brain.](#) *Methods in Neuroethological Research*. 133-149 (2013) .
97. Striedter GF, Belgard TG, Chen CC, Davis FP, Finlay BL, Güntürkün O, Hale ME, Harris JA, Hecht EE, Hof PR, Hofmann HA, Holland LZ, Iwaniuk AN, **Jarvis ED**, Karten HJ, Katz PS, Kristan WB, Macagno ER, Mitra PP, Moroz LL, Preuss TM, Ragsdale CW, Sherwood CC, Stevens CF, Stüttgen MC, Tsumoto T, Wilczynski W. [NSF workshop report: discovering general principles of nervous system organization by comparing brain maps across species.](#) *Brain Behav. Evol.* 83:1-8 (2014). Also in *J. Comp. Neurol.* 522:1445-53 (2014).
98. Ganapathy G, Howard JT, Ward JM, Li J, Li B, Li Y, Xiong Y, Zhang Y, Zhou S, Schwartz DC, Schatz M, Aboukhalil R, Fedrigo O, Bukovnik L, Wang T, Wray G, Rasolonjatovo I, Winer R, Knight JR, Koren S, Warren WC, Zhang G, Phillippy AM, **Jarvis ED**. [High-coverage sequencing and annotated assemblies of the budgerigar genome.](#) *Gigascience* 3:1-9 (2014). *Cover photo*.
99. Kubikova L, Bosikova E, Cvikova M, Lukacova K, Scharff C, **Jarvis ED**. [Basal ganglia function, stuttering, sequencing, and repair in adult songbirds.](#) *Scientific Reports* 4:6590. 1-16 (2014).
100. Petkov CI, **Jarvis ED**. [The basal ganglia within a cognitive system in birds and mammals.](#) *Behav. Brain Sci.* 37:568-956 (2014). (commentary)
101. Dai R, Rossello R, Chen C-C, Kessler J, Davison I, Hochgeschwender U, Jarvis ED. [Neuronal Differentiation and maintenance of chicken induced pluripotent stem-like cells.](#) (2014) *Stem Cell International*. Article 182737:1-14.
102. Weber CC, Boussau B, Romiguier J, **Jarvis ED**, Ellegren H. [Evidence for GC-biased gene conversion as a driver of between-lineage differences in avian base composition.](#) *Genome Biology* 15:1-16 (2014).
103. Cui J, Zhao W, Huang Z, **Jarvis ED**, Gilbert MTP, Walker PJ, Holmes EC, Zhang G. [Low frequency of paleoviral infiltration across the avian phylogeny.](#) *Genome Biology* 15:1-13 (2014).

104. Li S, Li B, Cheng C, Xiong Z, Liu Q, Lai J, Carey HV, Zhang Q, Zheng H, Wei S, Zhang H, Chang L, Liu S, Zhang S, Yu B, Zeng X, Hou Y, Nie W, Guo Y, Chen T, Han J, Wang J, Wang J, Chen C, Liu J, Stambrook PJ, Xu M, Zhang G, Gilbert MTP, Yang H*, **Jarvis ED***, Yu J*, Yan J*. [Genomic signatures of near-extinction and rebirth in the crested ibis and other endangered bird species.](#) *Genome Biology* 15:1-17 (2014). *co-corresponding authors. **Cover photo.** *Designated Highly Accessed article by the journal.*
105. Li C, Zhang Y, Li J, Kong L, Hu H, Pan H, Xu L, Deng Y, Li Q, Jin L, Yu H, Chen Y, Liu B, Yang L, Liu S, Zhang Y, Lang Y, Xia J, He W, Shi Q, Subramanian S, Millar CD, Meader S, Rands CM, Fujita MK, Greenwold MJ, Castoe TA, Pollock DD, Gu W, Nam K, Ellegren H, Ho SYW, Burt DW, Ponting CP, **Jarvis ED**, Gilbert MTP, Yang H, Wang J, Lambert DM, Wang J, Zhang G. [Two Antarctic penguin genomes reveal insights into their evolutionary history and molecular changes related to the Antarctic environment.](#) *GigaScience* 3:1-15 (2014). *Designated Highly Accessed article by the journal.*
106. Pereira J, Johnson WE, O'Brien SJ, **Jarvis ED**, Zhang G, Gilbert MTP, Vasconcelos V, and Antunes A. [Evolutionary genomics and adaptive evolution of the hedgehog gene family \(SHH, IHH, and DHH\) in vertebrates.](#) *PLoS ONE*. 9:e74132. 1-35 (2014).
107. Wirthlin M, Lovell PV, **Jarvis ED**, Mello CV. [Comparative genomics reveals molecular features unique to the songbird lineage.](#) *BMC Genomics* 15:1082. 1-20 (2014). *Designated Highly Accessed article by the journal.*
108. Romanov MN, Farre M, Lithgow PE, Fowler KE, Skinner BM, O'Connor R, Fonseca G, Backström N, Matsuda Y, Nishida C, Houde P, **Jarvis ED**, Ellegren H, Burt DW, Larkin DM, Griffin DK. [Reconstruction of gross avian genome structure, organization and evolution suggests that the chicken lineage most closely resembles the dinosaur avian ancestor.](#) *BMC Genomics* 15:1060. 1-18 (2014). **Cover photo.** *Designated Highly Accessed by the journal.*
109. Callicrate T, Dikow R, Thomas JW, Mullikin JC, **Jarvis ED**, Fleischer R. [Genomic resources for the endangered Hawaiian honeycreepers.](#) *BMC Genomics* 15:1098. 1-13 (2014).
110. Greenwold MJ Bao W, **Jarvis ED**, Hu H, Li C, Gilbert MTP, Zhang G, Sawyer RH. [Dynamic evolution of the alpha \(\$\alpha\$ \) and beta \(\$\beta\$ \) keratins has shaped feather evolution and accompanied the diversification of birds into novel lifestyles.](#) *BMC Evol. Biol.* 14:249 1-16 (2014). *Designated Highly Accessed article by the journal.*
111. Wang R, Chen C-C, Hara E, Rivas MV, Roulhac PL, Howard JT, Chakraborty M, Audet J-N, **Jarvis ED**. [Convergent differential regulation of SLIT-ROBO axon guidance genes in the brains of vocal learners.](#) *J. Comp. Neurol.* 523:892-906 (2015; Epub 2014).
112. Guojie Z, **Jarvis ED**, Gilbert MTP. [Avian genome. A flock of genomes. Introduction](#) *Science* 346 (6215): 1308 (2014) .
113. Pfenning AR, Hara E, Whitney O, Rivas MR, Wang R, Roulhac P, Howard JT, Wirthlin M, Lovell PV, Ganapathy G, Mountcastle JM, Moseley A, Thompson JW, Soderblom EJ, Iriki A, Kato M, Gilbert MTP, Zhang G, Bakken T, Bongaarts A, Bernard A, Lein E, Mello CV, Hartemink AJ, **Jarvis ED**. [Convergent transcriptional specializations in the brains of humans and song learning birds.](#) *Science* 346 (6215): 1333 & 1256846-1 to -13 (2014). *Selected as 1 of the 2 "Biggest Science Stories 2014" by Kavli Institute for Brain and Mind Blog <http://kavliblog.org/2014/12/30/biggest-science-stories-2014-humans-similar-to-songbirds/>.* *This and other papers in a special of Science*

designated as “A Quantum Leap in Avian Biology” by Joseph & Buchanan (2015) *Emu* 115, 1-5. Commentaries by Pennisi in *Science* 2014 and by Callaway in *Nature* 2014.

114. Whitney O[†], Pfenning AR[†], Howard JT, Blatti CA, Liu F, Ward JM, Wang R, Audet J-N, Kellis M, Mukherjee S, Sinha S, Hartemink AJ, West AE, **Jarvis ED**. [Core and region enriched gene expression networks of behaviorally-regulated genes and the singing genome](#). [†]Co-first authors. *Science* 346 (6215): 1334 & 1256780-1 to -11 (2014).
115. Zhang G^{†*}, Li C[†], Li Q, Li B, Larkin DM, Lee C, Storz JF, Antunes A, Greenwold MJ, Meredith RW, Ödeen A, Cui J, Zhou Q, Xu L, Pan H, Wang Z, Jin L, Zhang P, Hu H, Yang W, Hu J, Xiao J, Yang Z, Liu Y, Xie Q, Yu H, Lian J, Wen P, Zhang F, Li H, Zeng Y, Xiong Z, Liu S, Zhou L, Huang Z, An N, Wang J, Zheng Q, Xiong Y, Wang G, Wang B, Wang J, Fan Y, da Fonseca RR, Alfaro-Núñez A, Schubert M, Orlando L, Mourier T, Howard JT, Ganapathy G, Pfenning AR, Whitney O, Rivas MV, Hara E, Smith J, Farré M, Narayan J, Slavov G, Romanov MN, Borges R, Machado JP, Khan I, Springer MS, Gatesy J, Hoffmann FG, Opazo JC, Håstad O, Sawyer RH, Kim H, Kim KW, Kim HJ, Cho, S, Li N, Huang Y, Bruford MW, Zhan X, Dixon A, Bertelsen MF, Derryberry E, Warren W, Wilson RK, Li S, Ray DA., Green RE, O’Brien SJ, Griffin D, Johnson WE, Haussler D, Ryder OA, Willerslev E, Graves GR, Alström P, Fjeldså J, Mindell DP, Edwards SV, Braun EL, Rahbek C, Burt DW, Houde P, Zhang Y, Yang H, Wang J, **Jarvis ED***, Gilbert MTP*, Wang J* & Avian Genome Consortium. [†]Co-first authors *Corresponding authors. [Comparative genomics reveals insights into avian genome evolution and adaptation](#). *Science* 346 (6215): 1311-1320 (2014). Designated by Thompson Scientific as a hot paper at among the top 0.1% of highly cited papers in their academic field (molecular biology and genetics) as of Nov/Dec 2014, controlled for publication year.
116. Zhang G*, Li B, Li C, Gilbert MTP*, The Avian Genome Consortium, **Jarvis ED***, Wang J*. *Corresponding authors. [Comparative genomic data of the Avian Phylogenomics Project](#). *GigaScience* 3:26. 1-8 (2014). **Cover photo**.
117. **Jarvis ED***[†], Mirarab S[†], Aberer AJ, Li B, Houde P, Li C, Simon HYW, Faircloth BC, Nabholz B, Howard JT, Suh A, Weber CC, da Fonseca RR, Li J, Zhang F, Li H, Zhou L, Narula N, Liu L, Ganapathy G, Boussau C, Md. Bayzid S, Zavidovych V, Subramanian S, Gabaldón T, Capella-Gutiérrez S, Huerta-Cepas J, Rekepalli B, Munch K, Schierup M, Lindow B, Warren WC, Ray D, Green RE, Bruford M, Zhan X, Dixon A, Li S, Li N, Huang Y, Derryberry EP, Bertelsen MF, Sheldon FH, Brumfield RT, Mello CV, Lovell PV, Wirthlin M, Cruz Schneider MP, Prosdocimi F, Samaniego JA, Vargas Velazquez AM, Alfaro-Núñez A, Campos PF, Petersen B, Sicheritz-Ponten T, Pas A, Bailey T, Scofield T, Bunce M, Lambert DM, Zhou Q, Perelman P, Driskell AC, Shapiro B, Xiong Z, Zeng Y, Liu S, Li Z, Liu B, Wu K, Xiao J, Yinqi X, Zheng Q, Zhang Y, Yang H, Wang J, Smeds L, Rheindt FE, Braun M, Fjeldsa J, Orlando L, Barker K, Jönsson KA, Johnson W, Koepfli KP, O’Brien SJ, Haussler D, Ryder OA, Rahbek C, Willerslev E, Graves GR, Glenn TC, McCormack J, Burt D, Ellegren H, Alström P, Edwards SV, Stamatakis A, Mindell DP, Cracraft J, Braun EL, Warnow T, Jun W*, Gilbert MTP*, and Zhang G*. [Whole-genome analyses resolve the early branches to the Tree of Life of modern birds](#). [†]Co-first authors *Corresponding authors. *Science* 346 (6215): 1320-1331 (2014). **Cover photo**. Highlighted in 1000s of media outlets, including *Nature*, *Science*, *Scientific American*, *National Geographic*, *Discovery*, *Audubon*, *Smithsonian*, *Washington Post*, *Newsweek*, *NPR*, *BBC*, *ABC*, *Pulse of America*, *NSF*, and more. World Science Festival designated Jarvis et al and Pfenning et al Science papers as among “Biggest science stories of 2014” and “biggest evolutionary biology finds in recent memory” <http://www.worldsciencefestival.com/2014/12/top-science-2014/>. Popular science author/blogger Tim How selected Jarvis et al as “The most important work on birds this century” <http://www.timlow.com/blog/entry/bird-research-of-the-century>. Designated by Thompson

Scientific as among the top 1% highly cited papers in their academic field (molecular biology and genetics) and a hot paper among the top 0.1% as of Nov/Dec 2014, controlled for publication year.

118. **Jarvis ED**, Mirarab S, Aberer AJ, Li B, Houde P, Li C, Ho SYW, Faircloth BC, Nabholz B, Howard JT, Suh S, Weber CC, Fonseca RR, Alfaro-Núñez A, Narula N, Liu L, Burt DW, Ellegren E, Edwards SV, Stamatakis A, Mindell DP, Cracraft J, Braun EL, Warnow T, Jun W, Gilbert MTP, Zhang G, and [The Avian Phylogenomics Consortium. Phylogenomics analyses data of the Avian Phylogenomics Project.](#) *GigaScience* 4:4. 1-9 (2015; Epub 2014). *Cover photo.*
119. Green RE, Braun EL, Armstrong J, Earl D, Nguyen N, Hickey G, Vandewege MW, St John JA, Capella-Gutiérrez S, Castoe TA, Kern C, Fujita MK, Opazo JC, Jurka J, Kojima KK, Caballero J, Hubley RM, Smit AF, Platt RN, Lavoie CA, Ramakodi MP, Finger Jr. JW, Suh A, Isberg SR, Miles L, Chong AY, Jaratlerdsir W, Gongora J, Moran C, Iriarte A, McCormack J, Burgess SC, Edwards SV, Lyons E, Williams C, Breen M, Howard JT, Gresham CR, Peterson DG, Schmitz J, Pollock DD, Haussler D, Triplett EW, Zhang G, Irie N, **Jarvis ED**, Brochu CA, Schmidt CJ, McCarthy FM, Faircloth BC, Hoffmann FG, Glenn TC, Gabaldón T, Paten B, and Ray DA. [Three crocodylian genomes reveal ancestral patterns of evolution among archosaurs.](#) *Science* 346 (6215): 1335 & 1254449-1 to -9 (2014).
120. Zhou Q, Zhang J, Bachtrog D, An N, Huang Q, **Jarvis ED**, Gilbert MTP, Zhang G. [Complex evolutionary trajectories of sex chromosomes across bird taxa.](#) *Science* 346 (6215): 1332 & 1246338-1 to -8 (2014). *Recommended by F1000 as exceptional.*
121. Meredith RW, Zhang G, Gilbert MTP, **Jarvis ED**, Springer MS. [Evidence for a single loss of mineralized teeth in the common avian ancestor.](#) *Science* 346 (6215): 1336 & 1254390-1 to -6 (2014).
122. Eöry L, Gilbert MTP, Li C, Li B, Archibald A, Aken BL, Zhang G, **Jarvis ED**, Flicek P, Burt DW. [Avianbase: a community resource for bird genomics.](#) *Genome Biology* 16:21. 1-4 (2015). *Designated Highly Accessed article by the journal.*
123. Ribeiro ÂM, Zepeda-Mendoza ML, Bertelsen MF, Kristensen AT, **Jarvis ED**, Gilbert MTP, da Fonseca RR. [A refined model of the genomic basis for phenotypic variation in vertebrate hemostasis.](#) *BMC Evol. Biol.* 15:124 (2015).
124. Genome10K Community of Scientists (Koepfli K-P, Paten B, Antunes A, Belov K, Bustamante C, Castoe TA, Clawson H, Crawford AJ, Diekhans M, Distel D, Durbin R, Earl D, Fujita MK, Gamble T, Georges A, Gemmell N, Gilbert MTP, Graves JM, Green RE, Hickey G, **Jarvis ED**, Johnson W, Komissarov A, Korf I, Kuhn R, Larkin DM, Lewin H, Lopez JV, Ma J, Marques-Bonet T, Miller W, Murphy R, Pevzner P, Shapiro B, Steiner C, Tamazian G, Venkatesh B, Wang J, Wayne R, Wiley E, Yang H, Zhang G, Haussler D, Ryder O, O'Brien SJ) [The Genome 10K Project - A Way Forward.](#) *Ann. Rev. Animal BioScience.* 3:57-111 (2015).
125. Chabout J, Sarkar A, Dunson DB, **Jarvis ED**. [Male mice song syntax depends on social contexts and influences female preferences.](#) *Front. Behavioral Neurosci.* 9:76. 1-16 (2015). *Widely reported on, including BBC, UNC TV, Science, Guardian, Smithsonian, Times, Huffington Post. Altmetric rated #1 cited article of journal for that issue as of Oct 2015; #2 for the entire journal of >800 papers.*
126. Chakraborty M, Walløe S, Nedergaard S, Fridel EE, Dabelsteen T, Pakkenberg B, Bertelsen MF, Dorrestein GM, Brauth SE, Durand SE, **Jarvis ED**. [Core and shell song systems unique to the parrot brain.](#) *PLoS ONE* 10(6):1-37. e0118496 (2015). *News stories on BBC, Discovery, Science, and more.*

127. Zhang G, Rahbek C, Graves G, Lei F, **Jarvis ED**, Gilbert MTP. [Genomics: Bird sequencing project takes off](#). *Nature* 522, 34 (2015).
128. **Jarvis ED**. [Listening in](#). *eLife* 4: e11665 (2015). (commentary)
129. Khan I, Yang Z, Maldonado E, Li C, Zhang G, Gilbert MTP, **Jarvis ED**, O'Brien SJ, Johnson WE, Antunes A. [Olfactory receptor subgenomes linked with broad ecological adaptations in sauropsida](#). *Mol. Biol. Evol.* 32:2832-2843 (2015).
130. Arriaga G, Macopson JJ, **Jarvis ED**. [Transsynaptic tracking from peripheral targets with pseudorabies virus followed by cholera toxin and biotinylated dextran amines double labeling](#). *J. Vis. Exp. (JoVE)* (103), e50672 (2015).
131. Borges R, Khan I, Johnson WE, Gilbert MTP, Zhang G, **Jarvis ED**, O'Brien S, and Antunes A. [Gene loss, adaptive evolution and the co-evolution of plumage coloration genes with opsins in birds](#). *BMC Genomics* 16, 1-13 (2015).
132. Haug-Baltzell A, **Jarvis ED**, McCarthy F, Lyons E. [Identification of dopamine receptors across the extant avian family tree and analysis with other clades uncovers a polyploid expansion among vertebrates](#). *Front. Neurosci.* 9: Article 361, 1-16 (2015).
133. Brusatte SL, O'Connor JK, **Jarvis ED**. [The origin and diversification of birds](#). *Current Biology* 25, R888-R898 (2015). *In special issue on The History of Life on Earth*.
134. Cracraft J, Houde P, Ho SWY, Mindell DP, Fjeldsa J, Lindow B, Edwards SV, Rahbek C, Mirarab S, Warnow T, Gilbert MTP, Zhang G, Braun EL, **Jarvis ED**. [Response to Comment on "Whole-genome analyses resolve early branches in the tree of life of modern birds"](#). *Science* 349 (6255): 1460b-1 to -3 (2015) . *A response to Mitchell et al (2015)*. *Science* 349.
135. **Jarvis ED**. [Surviving as an underrepresented minority scientist in a majority environment](#). *Mol. Biol. Cell.* 26:3692-3696 (2015) . *Essay written for receiving the ASCB Ernest Everett Just Award*.
136. Chakraborty M, **Jarvis ED**. [Brain evolution by brain pathway duplication](#). *Phil. Trans. R. Soc. B.* 370:1-12 (2015). *In special issue on Origin and Evolution of the Nervous System*.

Publications from Full Professor research at Duke

137. **Jarvis ED**. [Perspectives from the Avian Phylogenomics Project: Questions that can be answered with sequencing all genomes of a vertebrate class](#). *Ann. Rev. Animal Biosci.* 4:45-59 (2016).
138. Almeida D, Maldonado E, Khan I, Silva L, Gilbert MT, Zhang G, **Jarvis ED**, O'Brien SJ, Johnson WE, Antunes A. [Whole-genome identification, phylogeny and evolution of the cytochrome P450 family 2 \(CYP2\) sub-families in birds](#). *Genome Biol. Evol.* 8:1115-1131 (2016).
139. Machado JP, Johnson WE, Gilbert MT, Zhang G, **Jarvis ED**, O'Brien SJ, Antunes A. [Bone-associated gene evolution and the origin of flight in birds](#). *BMC Genomics* 17:371 (2016).
140. Farré M, Narayan J, Slavov GT, Damas J, Auvil L, Li C, **Jarvis ED**, Burt DW, Griffin DK, Larkin DM. [Novel insights into chromosome evolution in birds, archosaurs, and reptiles](#). *Genome Biol. Evol.* 8:2442-2451 (2016).

141. Chabout J, Sarkar A, Patel S, Radden T, Dunson DB, Fisher SE, **Jarvis ED**. [A Foxp2 mutation implicated in human speech deficits alters sequencing of ultrasonic vocalizations in adult male mice.](#) *Frontiers in Behav. Neurosci.* 10:197 (2016).
142. Chabout J, Jones-Macopson J, **Jarvis ED**. [Eliciting and analyzing male mouse ultrasonic vocalization \(USV\) songs](#) *JoVE*. 123 (2017).
143. Chakraborty M, Fridel EE, Chen L-F, Klein ME, Senft RA, Sarkar A, **Jarvis ED**. [Overexpression of human NR2B receptor subunit in LMAN causes stuttering and song sequence changes in adult zebra finches.](#) *Scientific Reports* 7:942 (2017).
144. Lei H, Yan Z, Sun X, Zhang Y, Wang J, Ma C, Xu Q, Wang R, **Jarvis ED**, Sun Z. [Axon guidance pathways served as common targets for human speech/language evolution and related disorders.](#) *Brain and Language* 174:1-8 (2017).

Publications from Full Professor research at Rockefeller

145. Theofanopoulou C, Boeckx C, **Jarvis ED**. [A hypothesis on a role of oxytocin in the social mechanisms of speech and vocal learning.](#) *Proc. Biol. Sci.* 284:20170988 (2017) .
146. Korfach J, Gedman G, Kingan SB, Chin CS, Howard JT, Audet JN, Cantin L, **Jarvis ED**. [De novo PacBio long-read and phased avian genome assemblies correct and add to reference genes generated with intermediate and short reads.](#) *Gigascience* 6:1-16 (2017).
147. Wada K, Chen C-C, **Jarvis ED**. [Molecular profiling reveals insight into avian brain organization and functional columnar commonalities with mammals.](#) In: Shaping the design of brain systems: From single cell origins to higher cognitive function. Shigeno S, Murakami Y, Nomura T (eds.). Springer, pp. 273-289 (2017).
148. Sarkar A, Chabout J, Macopson J-J, **Jarvis ED**, Dunson DB. [Bayesian Semiparametric Mixed Effects Markov Models with Application to Vocalization Syntax.](#) *J. American Statistical Association* 113:1515-1527 (2018).
149. Audet J-N, Kayello L, Ducatez S, Perillo S, Cauchard L, Howard JT, O'Connell LA, **Jarvis ED**, Lefebvre L. [Divergence in problem-solving skills is associated with differential expression of glutamate receptors in wild finches.](#) *Science Advances* 4:eaa06369 (2018).
150. Lewin HA, Robinson GE, Kress WJ, Baker WJ, Coddington J, Crandall KA, Durbin R, Edwards SV, Forest F, Gilbert MTP, Goldstein MM, Grigoriev IV, Hackett KJ, Haussler D, **Jarvis ED**, Johnson WE, Patrinos A, Richards S, Castilla-Rubio JC, van Sluys MA, Soltis PS, Xu X, Yang H, Zhang G. [Earth BioGenome Project: Sequencing life for the future of life.](#) *Proc. Natl. Acad. Sci. USA* 115:4325-4333 (2018).
151. Wirthlin M, Lima NCB, Guedes RLM, Soares AER, Almeida LGP, Cavaleiro NP, Loss de Moraes G, Chaves AV, Howard JT, Teixeira MM, Schneider PN, Santos FR, Schatz MC, Felipe MS, Miyaki CY, Aleixo A, Schneider MPC, **Jarvis ED**, Vasconcelos ATR, Prodocimi F, Mello CV. [Parrot Genomes and the Evolution of Heightened Longevity and Cognition.](#) *Current Biology* 28:4001-4008.e7 (2018).
152. Borges R, Fonseca J, Gomes C, Johnson WE, O'Brien SJ, Zhang G, Gilbert MTP, **Jarvis ED**, Antunes A. [Avian binocularity and adaptation to nocturnal environments: Genomic insights from a highly derived visual phenotype.](#) *Genome Biol. Evol.* 11:2244-2255 (2019).

153. Jung KM, Kim YM, Keyte AL, Biegler MT, Rengaraj D, Lee HJ, Mello CV, Velho TAF, Fedrigo O, Haase B, **Jarvis ED***, Han JY*. [Identification and characterization of primordial germ cells in a vocal learning Neoves species, the zebra finch.](#) *FASEB J.* 33:13825-13836 (2019).
154. Jarvis ED. [Evolution of vocal learning and spoken language.](#) (2019) *Science.* 366:50-54.
155. Campana MG, Corvelo A, Shelton J, Callicrate TE, Bunting KL, Riley-Gillis B, Wos F, DeGrazia J, **Jarvis ED**, Fleischer RC. [Adaptive Radiation Genomics of Two Ecologically Divergent Hawai'ian Honeycreepers: The 'akiapōlā'au and the Hawai'i 'amakihi.](#) *J. Hered.* 111:21-32 (2020).
156. da Fonseca RR, Couto A, Machado AM, Brejova B, Albertin CB, Silva F, Gardner P, Baril T, Hayward A, Campos A, Ribeiro ÂM, Barrio-Hernandez I, Hoving HJ, Tafur-Jimenez R, Chu C, Frazão B, Petersen B, Peñaloza F, Musacchia F, Alexander GC, Osório H, Winkelmann I, Simakov O, Rasmussen S, Rahman MZ, Pisani D, Vinther J, **Jarvis ED**, Zhang G, Strugnell JM, Castro LFC, Fedrigo O, Patricio M, Li Q, Rocha S, Antunes A, Wu Y, Ma B, Sanges R, Vinar T, Blagoev B, Sicheritz-Ponten T, Nielsen R, Gilbert MTP. [A draft genome sequence of the elusive giant squid, *Architeuthis dux*.](#) *GigaScience* 9:1-12 (2020).
157. Ksepka DT, Balanoff AM, Smith NA, Bever GS, Bhullar BS, Bourdon E, Braun EL, Burleigh JG, Clarke JA, Colbert MW, Corfield JR, Degrange FJ, De Pietri VL, Early CM, Field DJ, Gignac PM, Gold MEL, Kimball RT, Kawabe S, Lefebvre L, Marugán-Lobón J, Mongle CS, Morhardt A, Norell MA, Ridgely RC, Rothman RS, Scofield RP, Tambussi CP, Torres CR, van Tuinen M, Walsh SA, Watanabe A, Witmer LM, Wright AK, Zanno LE, **Jarvis ED**, Smaers JB. [Tempo and Pattern of Avian Brain Size Evolution.](#) *Curr. Biol.* 30:2026-2036 (2020).
158. Paez S, **Jarvis ED**. [Opinion: Redefining Productivity in the Age of COVID-19.](#) *The Scientist* Apr 16 (2020).
159. Graves J, **Jarvis ED**. [An Open Letter: Scientists and Racial Justice. What we can and must do to make science more equitable.](#) *The Scientist.* Jun 19 (2020).
160. Paez S, **Jarvis ED**. [Opinion: The Politics of Science and Racism.](#) *The Scientist* Aug 18 (2020).
161. Jebb D, Huang Z, Pippel M, Hughes GM, Lavrichenko K, Devanna P, Winkler S, Jermiin LS, Skirmuntt EC, Katzourakis A, Burkitt-Gray L, Ray DA, Sullivan KAM, Roscito JG, Kirilenko BM, Dávalos LM, Corthals AP, Power ML, Jones G, Ransome RD, Dechmann D, Locatelli AG, Puechmaille SJ, Fedrigo O, **Jarvis ED**, Hiller M, Vernes S.C., Myers EW, Teeling E. [Six reference-quality genomes reveal evolution of bat adaptations.](#) *Nature* 583:578-584 (2020).
162. Morin PA, Archer FI, Avila CD, Balacco JR, Bukhman YV, Chow W, Fedrigo O, Formenti G, Fronczek JA, Functammasan A, Gulland FMD, Haase B, Heide-Jorgensen MP, Houck ML, Howe K, Misuraca AC, Mountcastle J, Musser W, Paez S, Pelan S, Phillippy A, Rhie A, Robinson J, Rojas-Bracho L, Rowles TK, Ryder OA, Smith CR, Stevenson S, Taylor BL, Teilmann J, Torrance J, Wells RS, Westgate AJ, **Jarvis ED**. [Reference genome and demographic history of the most endangered marine mammal, the vaquita.](#) *Mol Ecol Resour.* 21:1008-1020 (2020). *Cover Photo*
163. Armstrong J, Hickey G, Diekhans M, Fiddes IT, Novak AM, Deran A, Fang Q, Xie D, Feng S, Stiller J, Genereux D, Johnson J, Marinescu VD, Alföldi J, Harris RS, Lindblad-Toh K, Haussler D, Karlsson E, **Jarvis ED**, Zhang G, Paten B. [Progressive Cactus is a multiple-genome aligner for the thousand-genome era.](#) *Nature* 587:246-251 (2020). *Cover Photo*

164. Feng S, Stiller J, Deng Y, Armstrong J, Fang Q, Reeve AH, Xie D, Chen G, Guo C, Faircloth BC, Petersen B, Wang Z, Zhou Q, Diekhans M, Chen W, Andreu-Sánchez S, Margaryan A, Howard JT, Parent C, Pacheco G, Sinding MS, Puetz L, Cavill E, Ribeiro AM, Eckhart L, Fjeldså J, Hosner PA, Brumfield RT, Christidis L, Bertelsen MF, Sicheritz-Ponten T, Tietze DT, Robertson BC, Song G, Borgia G, Claramunt S, Lovette IJ, Cowen SJ, Njoroge P, Dumbacher JP, Ryder OA, Fuchs J, Bunce M, Burt DW, Cracraft J, Meng G, Hackett SJ, Ryan PG, Jönsson KA, Jamieson IG, da Fonseca RR, Braun EL, Houde P, Mirarab S, Suh A, Hansson B, Ponnikas S, Sigeman H, Stervander M, Frandsen PB, van der Zwan H, van der Sluis R, Visser C, Balakrishnan CN, Clark AG, Fitzpatrick JW, Bowman R, Chen N, Cloutier A, Sackton TB, Edwards SV, Foote DJ, Shakya SB, Sheldon FH, Vignal A, Soares AER, Shapiro B, González-Solís J, Ferrer-Obiol J, Rozas J, Riutort M, Tigano A, Friesen V, Dalén L, Urrutia AO, Székely T, Liu Y, Campana MG, Corvelo A, Fleischer RC, Rutherford KM, Gemmill NJ, Dussex N, Mouritsen H, Thiele N, Delmore K, Liedvogel M, Franke A, Hoepfner MP, Krone O, Fudickar AM, Milá B, Ketterson ED, Fidler AE, Friis G, Parody-Merino AM, Battley PF, Cox MP, Lima NCB, Prosdociami F, Parchman TL, Schlinger BA, Loiselle BA, Blake JG, Lim HC, Day LB, Fuxjager MJ, Baldwin MW, Braun MJ, Wirthlin M, Dikow RB, Ryder TB, Camenisch G, Keller LF, DaCosta JM, Hauber ME, Louder MIM, Witt CC, McGuire JA, Mudge J, Megna LC, Carling MD, Wang B, Taylor SA, Del-Rio G, Aleixo A, Vasconcelos ATR, Mello CV, Weir JT, Haussler D, Li Q, Yang H, Wang J, Lei F, Rahbek C, Gilbert MTP, Graves GR, **Jarvis ED**, Paten B, Zhang G. [Dense sampling of bird diversity increases power of comparative genomics](#). *Nature* 587:252-257 (2020). *Cover photo*
165. Mead D, Fingland K, Cripps R, Portela Miguez R, Smith M, Corton C, Oliver K, Skelton J, Betteridge E, Dolucan J, Dudchenko O, Omer AD, Weisz D, Lieberman Aiden E, Fedrigo O, Mountcastle J, **Jarvis E**, McCarthy SA, Sims Y, Torrance J, Tracey A, Howe K, Challis R, Durbin R, Blaxter M. [The genome sequence of the Eurasian red squirrel, *Sciurus vulgaris* Linnaeus 1758](#). *Wellcome Open Res.* 5:18. eCollection (2020).
166. Joglekar A, Prjibelski A, Mahfouz A, Collier P, Lin S, Schlusche AK, Marrocco J, Williams SR, Haase B, Hayes A, Chew JG, Weisenfeld NI, Wong MY, Stein AN, Hardwick SA, Hunt T, Wang Q, Dieterich C, Bent Z, Fedrigo O, Sloan SA, Risso D, **Jarvis ED**, Flicek P, Luo W, Pitt GS, Frankish A, Smit AB, Ross ME, Tilgner HU. [A spatially resolved brain region- and cell type-specific isoform atlas of the postnatal mouse brain](#). *Nature Commun.* 12:Article 463 (2021).
167. Choe HN, Tewari J, Zhu KW, Davenport M, Matsunami H, **Jarvis ED**. [Estrogen and sex-dependent loss of the vocal learning system in female zebra finches](#). *Horm Behav.* 129:104911 (2021).
168. Zhou Y, Shearwin-Whyatt L, Li J, Song Z, Hayakawa T, Stevens D, Fenelon JC, Peel E, Cheng Y, Pajpach F, Bradley N, Suzuki H, Nikaido M, Damas J, Daish T, Perry T, Zhu Z, Geng Y, Rhie A, Sims Y, Wood J, Haase B, Mountcastle J, Fedrigo O, Li Q, Yang H, Wang J, Johnston SD, Phillippy AM, Howe K, **Jarvis ED**, Ryder OA, Kaessmann H, Donnelly P, Korlach J, Lewin HA, Graves J, Belov K, Renfree MB, Grutzner F, Zhou Q, Zhang G. [Platypus and echidna genomes reveal mammalian biology and evolution](#). *Nature* 592:756–762 (2021).
169. Li J, Zhang J, Liu J, Zhou Y, Cai C, Xu L, Dai X, Feng S, Guo C, Rao J, Wei K, **Jarvis ED**, Jiang Y, Zhou Z, Zhang G, Zhou Q. [A new duck genome reveals conserved and convergently evolved chromosome architectures of birds and mammals](#). *Gigascience* 10:giaa142 (2021) .
170. Liu J, Wang Z, Li J, Xu L, Liu J, Feng S, Guo C, Chen S, Ren Z, Rao J, Wei K, Chen Y, **Jarvis ED**, Zhang G, Zhou Q. [A new emu genome illuminates the evolution of genome configuration and nuclear architecture of avian chromosomes](#). *Genome Res.* 31:497-511 (2021).

171. Kronenberg ZN, Rhie A, Koren S, Concepcion GT, Peluso P, Munson KM, Porubsky D, Kuhn K, Mueller KA, Low WY, Hiendleder S, Fedrigo O, Liachko I, Hall RJ, Phillippy AM, Eichler EE, Williams JL, Smith TPL, **Jarvis ED**, Sullivan ST, Kingan SB. [Extended haplotype-phasing of long-read de novo genome assemblies using Hi-C](#) *Nature Commun.* 12:Article 1935 (2021) .
172. Gedman G, Haase B, Durieux G, Biegler M, Fedrigo O, **Jarvis ED**. [As above, so below: Whole transcriptome profiling demonstrates strong molecular similarities between avian dorsal and ventral pallial subdivisions.](#) *J. Comp. Neurol.* 529:3222-3246 (2021) .
173. Melin AD, Orkin JD, Janiak MC, Valenzuela A, Kuderna L, Marrone F 3rd, Ramangason H, Horvath JE, Roos C, Kitchener AC, Khor CC, Lim WK, Lee JGH, Tan P, Umapathy G, Raveendran M, Alan Harris R, Gut I, Gut M, Lizano E, Nadler T, Zinner D, Le MD, Manu S, Rabarivola CJ, Zaramody A, Andriaholinirina N, Johnson SE, **Jarvis ED**, Fedrigo O, Wu D, Zhang G, Farh KK, Rogers J, Marques-Bonet T, Navarro A, Juan D, Arora PS, Higham JP. [Variation in predicted COVID-19 risk among lemurs and lorises.](#) *Am. J. Primatol.* 83:e23255 (2021).
174. Formenti G, Rhie A, Balacco J, Haase B, Mountcastle J, Fedrigo O, Brown S, Capodiferro MR, Al-Ajli FO, Ambrosini R, Houde P, Koren S, Oliver K, Smith M, Skelton J, Betteridge E, Dolucan J, Corton C, Bista I, Torrance J, Tracey A, Wood J, Uliano-Silva M, Howe K, McCarthy S, Winkler S, Kwak W, Korlach J, Functamman A, Fordham D, Costa V, Mayes S, Chiara M, Horner DS, Myers E, Durbin R, Achilli A, Braun EL, Phillippy AM, **Jarvis ED**, and The Vertebrate Genomes Project Consortium. [Complete vertebrate mitogenomes reveal widespread repeats and gene duplications](#) *Genome Biology* 22:120 (2021).
175. Biegler Mt, Cantin LJ, Scarano DL, **Jarvis ED**. [Controlling for activity-dependent genes and behavioral states is critical for determining brain relationships within and across species.](#) *J. Comp. Neurol.* 529:3206-3221 (2021).
176. Choe HN, **Jarvis ED**. [The role of sex chromosomes and sex hormones in vocal learning systems.](#) *Hormones & Behavior* 132:Article 104978 (2021) .
177. Tchernichovski O, Eisenberg-Edidin S, **Jarvis ED**. [Balanced imitation sustains song culture in zebra finches.](#) *Nature Commun.* 12:Article 2562 (2021).
178. Bruno JH, **Jarvis ED**, Liberman M, Tchernichovski O. [Birdsong Learning and Culture: Analogies with Human Spoken Language.](#) *Ann. Rev. Linguistics* 7:449-472 (2021).
179. **Jarvis ED**. [At the beginning of speciation.](#) *Science* 371:1312 (2021). (Commentary).
180. Theofanopoulou C, Gedman G, Cahill JS, Boeckx C, and **Jarvis ED**. [Universal nomenclature for oxytocin-vasotocin ligand and receptor families.](#) *Nature* 592:747–755 (2021).
181. Rhie A+, McCarthy S+, Fedrigo O, Damas J, Formenti G, Koren S, Uliano da Silva M, Chow W, Functamman A, Kim J, Lee C, Ko B-J, Chaisson M, Gedman GL, Cantin LJ, Thibaud-Nissen F, Haggerty L, Bista I, Smith M, Haase B, Mountcastle J, Winkler S, Paez S, Howard J, Vernes SC, Lama TM, Grutzne F, Warren WC, Balakrishnan C, Burt D, George JM, Biegler MT, Iorns D, Digby A, Eason D, Robertson B, Edwards T, Wilkinson M, Turner G, Meyer A, Kautt AF, Franchini P, Detrich III HW, Svardal H, Wagner M, Naylor GJP, Pippell M, Malinsky M, Mooney M, Simbirsky M, Hannigan BT, Pesout T, Houck M, Misuraca A, Kingan SB, Hall R, Kronenberg Z, Savić I, Dunn C, Ning Z, Hastie A, Lee J, Selvaraj S, Green RE, Putnam NH, Gut I, Ghurye J, Garrison E, Sims Y, Collins J, Pelan S, Torrance J, Tracey A, Wood J, Dagnew RE, Guan D London SE, Clayton DF, Mello CV, Friedrich SR, Lovell PR, Osipova E, Al-Ajli FO, Secomandi S, Kim H,

- Theofanopoulou C, Hiller M, Zhou Y, Harris RS, Makova KD, Medvedev P, Hoffman J, Masterson P, Clark K, Martin F, Howe Kevin, Flicek P, Walenz BP, Kwak W, Clawson H, Diekhan M, Nassar L, Paten B, Kraus RHS, Crawford AJ, Gilbert MTP, Zhang G, Venkatesh B, Murphy RW, Koepfli KP, Shapiro B, Johnson WE, Di Palma F, Marques-Bonet T, Teeling EC, Warnow T, Graves JM, Ryder OA, Haussler D, O'Brien SJ, Korlach J, Lewin HA, Kerstin H*, Myers EW*, Durbin R*, Phillippy AM*, **Jarvis ED***. [Towards complete and error-free genome assemblies of all vertebrate species](#). *Nature* 592:737–746 (2021). *Cover Photo and special issue*. Also [Nature magazine milestone in sequencing: platinum genomes](#). Feb 10, 2021
182. Peart CR, Williams C, Pophaly SD, Neely BA, Gulland FMD, Adams DJ, Ng BL, Cheng W, Goebel ME, Fedrigo O, Haase B, Mountcastle J, Functammasan A, Formenti G, Collins J, Wood J, Sims Y, Torrance J, Tracey A, Howe K, Rhie A, Hoffman JI, Johnson J, **Jarvis ED**, Breen M, Wolf JBW. [Hi-C scaffolded short and long-read genome assemblies of the California sea lion are broadly consistent for syntenic inference across 45 million years of evolution](#). *Mol. Ecol. Res.* 21:2455-2470 (2021).
183. Yang C, Zhou Y, Marcus S, Formenti G, Bergeron LA, Song Z, Bi X, Bergman J, Rousselle MMC, Zhou C, Zhou L, Deng Y, Fang M, Xie D, Zhu Y, Tan S, Mountcastle J, Haase B, Balacco J, Wood J, Chow W, Rhie A, Pippel M, Fabiszak MM, Koren S, Fedrigo O, Freiwald WA, Howe K, Yang H, Phillippy AM, Schierup MH, **Jarvis ED**, Zhang G. [Evolutionary and biomedical insights from a marmoset diploid genome assembly](#). *Nature* 594:227-233 (2021).
184. Cahill JA, Armstrong J, Deran A, Khoury CJ, Paten B, Haussler D, **Jarvis ED**. [Positive selection in noncoding genomic regions of vocal learning birds is associated with genes implicated in vocal learning and speech functions in humans](#). *Genome Res.* 31:2035-2049 (2021).
185. Tobarı Y, Theofanopoulou C, Mori C, Sato Y, Marutani M, Fujioka S, Konno N, Suzuki K, Furutani A, Hakataya S, Yao CT, Yang EY, Tsai CR, Tang PC, Chen CF, Boeckx C, **Jarvis ED**, Okanoya K. [Oxytocin variation and brain region-specific gene expression in a domesticated avian species](#). *Genes Brain Behav.* 2:e12780 (2021).
186. Mueller RC, Ellström P, Howe K, Uliano-Silva M, Kuo RI, Miedzinska K, Warr A, Fedrigo O, Haase B, Mountcastle J, Chow W, Torrance J, Wood JMD, Järhult JD, Naguib MM, Olsen B, **Jarvis ED**, Smith J, Eöry L, Kraus RHS. [A high-quality genome and comparison of short- versus long-read transcriptome of the palaeartic duck *Aythya fuligula* \(tufted duck\)](#). *Gigascience* 10:giab081 (2021).
187. Hansen T, Fjellidal PG, Lien S, Smith M, Corton C, Oliver K, Skelton J, Betteridge E, Doulcan J, Fedrigo O, Mountcastle J, **Jarvis E**, McCarthy SA, Chow W, Howe K, Torrance J, Wood J, Sims Y, Haggerty L, Challis R, Threlfall J, Mead D, Durbin R, Blaxter M. [The genome sequence of the brown trout, *Salmo trutta* Linnaeus 1758](#). *Wellcome Open Res.* 6:108 (2021).
188. Walløe S, Chakraborty M, Balsby TJS, **Jarvis ED**, Dabelsteen T, Pakkenberg B. [A relationship between the characteristics of the oval nucleus of the mesopallium and parrot vocal response to playback](#). *Brain Behav. Evol.* 96:37-48 (2021).
189. Dussex N, Valk Td, Morales HE, Wheat CW, Díez-del-Molino D, Seth J, Foster Y, Kutschera VE, Guschanski K, Rhie A, Phillippy AM, Korlach J, Howe K, Chow W, Pelan S, Damas JDM, Lewin HA, Hastie AR, Formenti G, Fedrigo O, Guhlin J, Harrop TWR, Le Lec MF, Dearden PK, Haggerty L, Martin FJ, Kodali V, Thibaud-Nissen F, Iorns D, Knapp M, Gemmell NJ, Robertson F, Moorhouse R, Digby A, Eason D, Vercoe D, Howard J, **Jarvis ED***, Robertson BC*, Dalén L* [Population genomics of the critically endangered *kākāpō*](#). *Cell Genomics* 1:100002 (2021).

190. Sahajpal NS, Jill Lai CY, Hastie A, Mondal AK, Dehkordi SR, van der Made CI, Fedrigo O, Al-Ajli F, Jalnapurkar S, Byrska-Bishop M, Kanagal-Shamanna R, Levy B, Schieck M, Illig T, Bacanu SA, Chou JS, Randolph AG, Rojiani AM, Zody MC, Brownstein CA, Beggs AH, Bafna V, **Jarvis ED**, Hoischen A, Chaubey A, Kolhe R; COVID19 host genomes Consortium. [Optical genome mapping identifies rare structural variations as predisposition factors associated with severe COVID-19.](#) *iScience* 25:103760 (2022).
191. Tobar Y, Theofanopoulou C, Mori C, Sato Y, Marutani M, Fujioka S, Konno N, Suzuki K, Furutani A, Hakataya S, Yao CT, Yang EY, Tsai CR, Tang PC, Chen CF, Boeckx C, **Jarvis ED**, Okanoya K. [Oxytocin variation and brain region-specific gene expression in a domesticated avian species.](#) *Genes Brain Behav.* 21:e12780 (2022).
192. Lewin HA, Richards S, Lieberman Aiden E, Allende ML, Archibald JM, Bálint M, Barker KB, Baumgartner B, Belov K, Bertorelle G, Blaxter ML, Cai J, Caperello ND, Carlson K, Castilla-Rubio JC, Chaw SM, Chen L, Childers AK, Coddington JA, Conde DA, Corominas M, Crandall KA, Crawford AJ, DiPalma F, Durbin R, Ebenezer TE, Edwards SV, Fedrigo O, Flicek P, Formenti G, Gibbs RA, Gilbert MTP, Goldstein MM, Graves JM, Greely HT, Grigoriev IV, Hackett KJ, Hall N, Haussler D, Helgen KM, Hogg CJ, Isobe S, Jakobsen KS, Janke A, **Jarvis ED**, Johnson WE, Jones SJM, Karlsson EK, Kersey PJ, Kim JH, Kress WJ, Kuraku S, Lawniczak MKN, Leebens-Mack JH, Li X, Lindblad-Toh K, Liu X, Lopez JV, Marques-Bonet T, Mazard S, Mazet JAK, Mazzoni CJ, Myers EW, O'Neill RJ, Paez S, Park H, Robinson GE, Roquet C, Ryder OA, Sabir JSM, Shaffer HB, Shank TM, Sherkow JS, Soltis PS, Tang B, Tedersoo L, Uliano-Silva M, Wang K, Wei X, Wetzler R, Wilson JL, Xu X, Yang H, Yoder AD, Zhang G. [The Earth BioGenome Project 2020: Starting the clock.](#) *Proc. Natl. Acad. Sci. USA* 119:e2115635118 (2022).
193. Blaxter M, Archibald JM, Childers AK, Coddington JA, Crandall KA, Di Palma F, Durbin R, Edwards SV, Graves JAM, Hackett KJ, Hall N, **Jarvis ED**, Johnson RN, Karlsson EK, Kress WJ, Kuraku S, Lawniczak MKN, Lindblad-Toh K, Lopez JV, Moran NA, Robinson GE, Ryder OA, Shapiro B, Soltis PS, Warnow T, Zhang G, Lewin HA. [Why sequence all eukaryotes?](#) *Proc. Natl. Acad. Sci. USA* 119:e2115636118 (2022).
194. Lawniczak MKN, Durbin R, Flicek P, Lindblad-Toh K, Wei X, Archibald JM, Baker WJ, Belov K, Blaxter ML, Marques Bonet T, Childers AK, Coddington JA, Crandall KA, Crawford AJ, Davey RP, Di Palma F, Fang Q, Haerty W, Hall N, Hoff KJ, Howe K, **Jarvis ED**, Johnson WE, Johnson RN, Kersey PJ, Liu X, Lopez JV, Myers EW, Pettersson OV, Phillippy AM, Poelchau MF, Pruitt KD, Rhie A, Castilla-Rubio JC, Sahu SK, Salmon NA, Soltis PS, Swarbreck D, Thibaud-Nissen F, Wang S, Wegrzyn JL, Zhang G, Zhang H, Lewin HA, Richards S. [Standards recommendations for the Earth BioGenome Project.](#) *Proc. Natl. Acad. Sci. USA* 119:e2115639118 (2022).
195. Stephan T, Burgess SM, Cheng H, Danko CG, Gill CA, **Jarvis ED**, Koepfli KP, Koltes JE, Lyons E, Ronald P, Ryder OA, Schriml LM, Soltis P, VandeWoude S, Zhou H, Ostrander EA, Karlsson EK. [Darwinian genomics and diversity in the tree of life.](#) *Proc. Natl. Acad. Sci. USA* 119:e2115644119 (2022).
196. Formenti G, Theissinger K, Fernandes C, Bista I, Bombarely A, Bleidorn C, Ciofi C, Crottini A, Godoy JA, Höglund J, Malukiewicz J, Mouton A, Oomen RA, Paez S, Palsbøll PJ, Pampoulie C, Ruiz-López MJ, Svardal H, Theofanopoulou C, de Vries J, Waldvogel AM, Zhang G, Mazzoni CJ, **Jarvis ED**, Bálint M; European Reference Genome Atlas (ERGA) Consortium. [The era of reference genomes in conservation genomics.](#) *Trends Ecol. Evol.* 37:197-202 (2022).

197. Biegler MT, Fedrigo O, Collier P, Mountcastle J, Haase B, Tilgner HU, **Jarvis ED**. [Induction of an immortalized songbird cell line allows for gene characterization and knockout by CRISPR-Cas9](#). *Sci. Rep.* 12:4369 (2022).
198. Ebenezer TE, Muigai AWT, Nouala S, Badaoui B, Blaxter M, Buddie AG, **Jarvis ED**, Korlach J, Kuja JO, Lewin HA, Majewska R, Mapholi N, Maslamoney S, Mbo'o-Tchouawou M, Osuji JO, Seehausen O, Shorinola O, Tiambo CK, Mulder N, Ziyomo C, Djikeng A. [Africa: sequence 100,000 species to safeguard biodiversity](#). *Nature*. 603:388-392 (2022).
199. Cheng H, **Jarvis ED**, Fedrigo O, Koepfli KP, Urban L, Gemmell NJ, Li H. [Haplotype-resolved assembly of diploid genomes without parental data](#). *Nature Biotechnology* 40, pages1332–1335 (2022).
200. Theofanopoulou C, Andirkó A, Boeckx C*, **Jarvis ED***. [Oxytocin and vasotocin receptor variation sheds light into the evolution of human prosociality](#). *Comprehensive Psychoneuroendocrinology* 11:100139 (2022).
201. Nurk S, Koren S, Rhie A, Rautiainen M, Bzikadze AV, Mikheenko A, Vollger MR, Altemose N, Uralsky L, Gershman A, Aganezov S, Hoyt SJ, Diekhans M, Logsdon GA, Alonge M, Antonarakis SE, Borchers M, Bouffard GG, Brooks SY, Caldas GV, Chen NC, Cheng H, Chin CS, Chow W, de Lima LG, Dishuck PC, Durbin R, Dvorkina T, Fiddes IT, Formenti G, Fulton RS, Fungtammasan A, Garrison E, Grady PGS, Graves-Lindsay TA, Hall IM, Hansen NF, Hartley GA, Haukness M, Howe K, Hunkapiller MW, Jain C, Jain M, **Jarvis ED**, Kerpedjiev P, Kirsche M, Kolmogorov M, Korlach J, Kremitzki M, Li H, Maduro VV, Marschall T, McCartney AM, McDaniel J, Miller DE, Mullikin JC, Myers EW, Olson ND, Paten B, Peluso P, Pevzner PA, Porubsky D, Potapova T, Rogaev EI, Rosenfeld JA, Salzberg SL, Schneider VA, Sedlazeck FJ, Shafin K, Shew CJ, Shumate A, Sims Y, Smit AFA, Soto DC, Sović I, Storer JM, Streets A, Sullivan BA, Thibaud-Nissen F, Torrance J, Wagner J, Walenz BP, Wenger A, Wood JMD, Xiao C, Yan SM, Young AC, Zarate S, Surti U, McCoy RC, Dennis MY, Alexandrov IA, Gerton JL, O'Neill RJ, Timp W, Zook JM, Schatz MC, Eichler EE, Miga KH, Phillippy AM. [The complete sequence of a human genome](#). *Science* 376:44-53 (2022) .
202. Formenti G, Rhie A, Walenz BP, Thibaud-Nissen F, Shafin K, Koren S, Myers EW, **Jarvis ED***, Phillippy AM*. [Merfin: improved variant filtering, assembly evaluation and polishing via k-mer validation](#). *Nature Methods* 19:696-704 (2022). *Cover Photo*
203. Palmada-Flores M, Orkin JD, Haase B, Mountcastle J, Bertelsen MF, Fedrigo O, Kuderna LFK, **Jarvis ED**, Marques-Bonet T. [A high-quality, long-read genome assembly of the endangered ring-tailed lemur \(*Lemur catta*\)](#). *GigaScience* 11:giac026 (2022).
204. Dussex N, Robertson BC, Dalén L, **Jarvis ED**. Genome of the Month: [The kākāpō \(*Strigops habroptilus*\)](#). *Trends Genet.* 38:881-882 (2022).
205. Wang T, Antonacci-Fulton L, Howe K, Lawson HA, Lucas JK, Phillippy AM, Popejoy AB, Asri M, Carson C, Chaisson MJP, Chang X, Cook-Deegan R, Felsenfeld AL, Fulton RS, Garrison EP, Garrison NA, Graves-Lindsay TA, Ji H, Kenny EE, Koenig BA, Li D, Marschall T, McMichael JF, Novak AM, Purushotham D, Schneider VA, Schultz BI, Smith MW, Sofia HJ, Weissman T, Flicek P, Li H, Miga KH, Paten B, **Jarvis ED***, Hall IM*, Eichler EE*, Haussler D*; Human Pangenome Reference Consortium. [The Human Pangenome Project: a global resource to map genomic diversity](#). *Nature* 604:437-446 (2022).

206. Hardwick SA, Hu W, Joglekar A, Fan L, Collier PG, Foord C, Balacco J, Lanjewar S, Sampson MM, Koopmans F, Prjibelski AD, Mikheenko A, Belchikov N, Jarroux J, Lucas AB, Palkovits M, Luo W, Milner TA, Ndhlovu LC, Smit AB, Trojanowski JQ, Lee VMY, Fedrigo O, Sloan SA, Tombácz D, Ross ME, **Jarvis E**, Boldogkői Z, Gan L, Tilgner HU. [Single-nuclei isoform RNA sequencing unlocks barcoded exon connectivity in frozen brain tissue](#). *Nature Biotechnology* 40:1082-1092 (2022). *bioRxiv* 2021.12.29.474385.
207. Dahn HA, Mountcastle J, Balacco J, Winkler S, Bista I, Schmitt AD, Pettersson OV, Formenti G, Oliver K, Smith M, Tan W, Kraus A, Mac S, Komoroske LM, Lama T, Crawford AJ, Murphy RW, Brown S, Scott AF, Morin PA, **Jarvis ED**, Fedrigo O. [Benchmarking ultra-high molecular weight DNA preservation methods for long-read and long-range sequencing](#). *Gigascience* 11:giac068 (2022).
208. Formenti G, Abueg L, Brajuka A, Brajuka N, Gallardo-Alba C, Giani A, Fedrigo O, **Jarvis ED**. [Gfastats: conversion, evaluation and manipulation of genome sequences using assembly graphs](#). *Bioinformatics* 38:4214–4216 (2022). *bioRxiv* 2022.03.24.485682
209. Paez S, Kraus RHS, Shapiro B, Gilbert MTP, **Jarvis ED**; Vertebrate Genomes Project Conservation Group, Al-Ajli FO, Ceballos G, Crawford AJ, Fedrigo O, Johnson RN, Johnson WE, Marques-Bonet T, Morin PA, Mueller RC, Ryder OA, Teeling EC, Venkatesh B. [Reference genomes for conservation](#). *Science* 377:364-366 (2022).
210. Stoumpou V, Vargas CDM, Schade PF, Boyd JL, Giannakopoulos T*, **Jarvis ED***. [Analysis of Mouse Vocal Communication \(AMVOC\): a deep, unsupervised method for rapid detection, analysis and classification of ultrasonic vocalisations](#). *Bioacoustics* 32:199-229 (2022).
211. Schuppe ER, Cantin L, Chakraborty M, Biegler MT, Jarvis ER, Chen CC, Hara E, Bertelsen MF, Witt CC, **Jarvis ED***, Fuxjager MJ*. [Forebrain nuclei linked to woodpecker territorial drum displays mirror those that enable vocal learning in songbirds](#). *PLoS Biol.* 20:e3001751 (2022).
212. Kim J⁺, Lee C⁺, Ko BJ, Yoo DA, Won S, Phillippy AM, Fedrigo O, Zhang G, Howe K, Wood J, Durbin R, Formenti G, Brown S, Cantin L, Mello CV, Cho S, Rhie A, Kim H*, **Jarvis ED***. [False gene and chromosome losses affected by assembly and sequence errors](#). *Genome Biology* 23:Article 204 (2022) . *bioRxiv* 2021.04.09.438906.
213. Ko BJ⁺, Lee C⁺, Kim J, Rhie A, Yoo DA, Howe K, Wood J, Cho S, Brown S, Formenti G, **Jarvis ED***, Kim H*. [Widespread false gene gains caused by duplication errors in genome assemblies](#). *Genome Biology* 23:Article 205 (2022). *bioRxiv* 2021.04.09.438957.
214. **Jarvis ED**⁺, Formenti G⁺, Rhie A, Guarracino A, Yang C, Wood J, Tracey A, Thibaud-Nissen F, Vollger MR, Porubsky D, Cheng H, Asri M, Logsdon GA, Carnevali P, Chaisson MJP, Chin CS, Cody S, Collins J, Ebert P, Escalona M, Fedrigo O, Fulton RS, Fulton LL, Garg S, Gerton JL, Ghurye J, Granat A, Green RE, Harvey W, Hasenfeld P, Hastie A, Haukness M, Jaeger EB, Jain M, Kirsche M, Kolmogorov M, Korbel JO, Koren S, Korlach J, Lee J, Li D, Lindsay T, Lucas J, Luo F, Marschall T, Mitchell MW, McDaniel J, Nie F, Olsen HE, Olson ND, Pesout T, Potapova T, Puiu D, Regier A, Ruan J, Salzberg SL, Sanders AD, Schatz MC, Schmitt A, Schneider VA, Selvaraj S, Shafin K, Shumate A, Stitzel NO, Stober C, Torrance J, Wagner J, Wang J, Wenger A, Xiao C, Zimin AV, Zhang G, Wang T, Li H, Garrison E, Haussler D, Hall I, Zook JM, Eichler EE, Phillippy AM, Paten B, Howe K, Miga KH; Human Pangenome Reference Consortium. [Semi-automated assembly of high-quality diploid human reference genomes](#). *Nature* 611:519-531 (2022). *bioRxiv*. 2022.03.06.483034.

215. Toh H, Yang C, Formenti G, Raja K, Yan L, Tracey A, Chow W, Howe K, Bergeron LA, Zhang G, Haase B, Mountcastle J, Fedrigo O, Fogg J, Kirilenko B, Munegowda C, Hiller M, Jain A, Kihara D, Rhie A, Phillippy AM, Swanson SA, Jiang P, Clegg DO, **Jarvis ED**, Thomson JA, Stewart R, Chaisson MJP, Bukhman YV. [A haplotype-resolved genome assembly of the Nile rat facilitates exploration of the genetic basis of diabetes](#). *BMC Biol.* 20:Article 245 (2022). *bioRxiv* 2021.12.08.471837.
216. Davenport MH, **Jarvis ED**. [Birdsong neuroscience and the evolutionary substrates of learned vocalization](#). *Trends Neurosci.* 46:97-99 (2022).
217. Wu Y, **Jarvis ED**, Sarkar A. [Bayesian semiparametric Markov renewal mixed models for vocalization syntax](#). *Biostatistics* Dec 30;kxac050 (2022).
218. Secomandi S, Gallo GR, Sozzoni M, Iannucci A, Galati E, Abueg L, Balacco J, Caprioli M, Chow W, Ciofi C, Collins J, Fedrigo O, Ferretti L, Functammasan A, Haase B, Howe K, Kwak W, Lombardo G, Masterson P, Messina G, Møller AP, Mountcastle J, Mousseau TA, Ferrer Obiol J, Olivieri A, Rhie A, Rubolini D, Saclier M, Stanyon R, Stucki D, Thibaud-Nissen F, Torrance J, Torroni A, Weber K, Ambrosini R, Bonisoli-Alquati A, **Jarvis ED**, Gianfranceschi L, Formenti G. [A chromosome-level reference genome and pangenome for barn swallow population genomics](#). *Cell Rep.* 42:111992 (2023). *bioRxiv* 2022.03.28.486082.
219. Karawita AC, Cheng Y, Chew KY, Challagulla A, Kraus R, Mueller RC, Tong MZW, Hulme KD, Bielefeldt-Ohmann H, Steele LE, Wu M, Sng J, Noye E, Bruxner TJ, Au GG, Lowther S, Blommaert J, Suh A, McCauley AJ, Kaur P, Dudchenko O, Aiden E, Fedrigo O, Formenti G, Mountcastle J, Chow W, Martin FJ, Ogeh DN, Thiaud-Nissen F, Howe K, Tracey A, Smith J, Kuo RI, Renfree MB, Kimura T, Sakoda Y, McDougall M, Spencer HG, Pyne M, Tolf C, Waldenström J, **Jarvis ED**, Baker ML, Burt DW, Short KR. [The swan genome and transcriptome, it is not all black and white](#). *Genome Biol.* 24:Article 13 (2023). *bioRxiv* 2022.05.02.490350.
220. Meyer BS, Moiron M, Caswara C, Chow W, Fedrigo O, Formenti G, Haase B, Howe K, Mountcastle, Uliano-Silva M, Wood J, **Jarvis ED**, Liedvogel M, Bouwhuis S. [Sex-specific changes in autosomal methylation rate in ageing common terns](#). *Frontiers in Ecology and Evolution* 11: (2023).
221. Smith J, Alfieri JM, Anthony N, Arensburger P, Athrey GN, Balacco J, Balic A, Bardou P, Barela P, Bigot Y, Blackmon H, Borodin PM, Carroll R, Casono MC, Charles M, Cheng H, Chiodi M, Cigan L, Coghill LM, Crooijmans R, Das N, Davey S, Davidian A, Degalez F, Dekkers JM, Derks M, Diack AB, Djikeng A, Drechsler Y, Dyomin A, Fedrigo O, Fiddaman SR, Formenti G, Frantz LAF, Fulton JE, Gaginskaya E, Galkina S, Gallardo RA, Geibel J, Gheyas A, Godinez CJP, Goodell A, Graves JAM, Griffin DK, Haase B, Han JL, Hanotte O, Henderson LJ, Hou ZC, Howe K, Huynh L, Ilatsia E, **Jarvis E**, Johnson SM, Kaufman J, Kelly T, Kemp S, Kern C, Keroack JH, Klopp C, Lagarrigue S, Lamont SJ, Lange M, Lanke A, Larkin DM, Larson G, Layos JKN, Lebrasseur O, Malinovskaya LP, Martin RJ, Martin Cerezo ML, Mason AS, McCarthy FM, McGrew MJ, Mountcastle J, Muhonja CK, Muir W, Muret K, Murphy T, Ng'ang'a I, Nishibori M, O'Connor RE, Ogugo M, Okimoto R, Ouko O, Patel HR, Perini F, Pigozzi MI, Potter KC, Price PD, Reimer C, Rice ES, Rocos N, Rogers TF, Saelao P, Schauer J, Schnabel R, Schneider V, Simianer H, Smith A, Stevens MP, Stiers K, Tiambo CK, Tixier-Boichard M, Torgasheva AA, Tracey A, Tregaskes CA, Vervelde L, Wang Y, Warren WC, Waters PD, Webb D, Weigend S, Wolc A, Wright AE, Wright D, Wu Z, Yamagata M, Yang C, Yin ZT, Young MC, Zhang G, Zhao B, Zhou H. [Fourth Report on Chicken Genes and Chromosomes 2022](#). *Cytogenet. Genome Res.* 162:405-528 (2023).
222. Bentley BP, Carrasco-Valenzuela T, Ramos EKS, Pawar H, Souza Arantes L, Alexander A, Banerjee SM, Masterson P, Kuhlwillm M, Pippel M, Mountcastle J, Haase B, Uliano-Silva M,

- Formenti G, Howe K, Chow W, Tracey A, Sims Y, Pelan S, Wood J, Yetsko K, Perrault JR, Stewart K, Benson SR, Levy Y, Todd EV, Shaffer HB, Scott P, Henen BT, Murphy RW, Mohr DW, Scott AF, Duffy DJ, Gemmell NJ, Suh A, Winkler S, Thibaud-Nissen F, Nery MF, Marques-Bonet T, Antunes A, Tikochinski Y, Dutton PH, Fedrigo O, Myers EW, **Jarvis ED**, Mazzoni CJ, Komoroske LM. [Divergent sensory and immune gene evolution in sea turtles with contrasting demographic and life histories](#). *Proc. Natl. Acad. Sci. USA* 120:e2201076120 (2023). *bioRxiv* 2022.01.10.475373.
223. Theofanopoulou C, **Jarvis ED**. [Reply to: The case for standardizing gene nomenclature in vertebrates](#). *Nature* 614:E33-E36 (2023).
224. Theissing K, Fernandes C, Formenti G, Bista I, Berg PR, Bleidorn C, Bombarely A, Crottini A, Gallo GR, Godoy JA, Jentoft S, Malukiewicz J, Mouton A, Oomen RA, Paez S, Palsbøll PJ, Pampoulie C, Ruiz-López MJ, Secomandi S, Svardal H, Theofanopoulou C, de Vries J, Waldvogel AM, Zhang G, **Jarvis ED**, Bálint M, Ciofi C, Waterhouse RM, Mazzoni CJ, Höglund J. European Reference Genome Atlas Consortium. [How genomics can help biodiversity conservation](#). *Trends Genet.* 39:545-559 (2023).
225. Gabrielli M, Benazzo A, Biello R, Ancona L, Fuselli S, Iannucci A, Balacco J, Mountcastle J, Tracey A, Ficetola GF, Salvi D, Sollitto M, Fedrigo O, Formenti G, **Jarvis ED**, Gerdol M, Ciofi C, Trucchi E, Bertorelle G. [A high-quality reference genome for the critically endangered Aeolian wall lizard, *Podarcis raffonei*](#). *J. Hered.* 114:279-285 (2023).
226. Huang Z, Xu L, Cai C, Zhou Y, Liu J, Xu Z, Zhu Z, Kang W, Cen W, Pei S, Chen D, Shi C, Wu X, Huang Y, Xu C, Yan Y, Yang Y, Xue T, He W, Hu X, Zhang Y, Chen Y, Bi C, He C, Xue L, Xiao S, Yue Z, Jiang Y, Yu JK, **Jarvis ED**, Li G, Lin G, Zhang Q, Zhou Q. [Three amphioxus reference genomes reveal gene and chromosome evolution of chordates](#). *Proc Natl Acad Sci USA* 120:e2201504120 (2023). *bioRxiv* 2022.01.04.475009.
227. Squires TE, Rödin-Mörch P, Formenti G, Tracey A, Abueg L, Brajuka N, **Jarvis E**, Halapi EC, Melsted P, Höglund J, Magnússon KP. [A chromosome-level genome assembly for the Rock Ptarmigan \(*Lagopus muta*\)](#). *G3 Genes|Genomes|Genetics* 13:jkad099 (2023). *bioRxiv* 2023.01.31.526508
228. Timoshevskaya N, Eşkut KI, Timoshevskiy VA, Robb SMC, Holt C, Hess JE, Parker HJ, Baker CF, Miller AK, Saraceno C, Yandell M, Krumlauf R, Narum SR, Lampman RT, Gemmell NJ, Mountcastle J, Haase B, Balacco JR, Formenti G, Pelan S, Sims Y, Howe K, Fedrigo O, **Jarvis ED**, Smith JJ. [An improved germline genome assembly for the sea lamprey *Petromyzon marinus* illuminates the evolution of germline-specific chromosomes](#). *Cell Rep.* 42:112263 (2023).
229. Liao WW, Asri M, Ebler J, Doerr D, Haukness M, Hickey G, Lu S, Lucas JK, Monlong J, Abel HJ, Buonaiuto S, Chang XH, Cheng H, Chu J, Colonna V, Eizenga JM, Feng X, Fischer C, Fulton RS, Garg S, Groza C, Guarracino A, Harvey WT, Heumos S, Howe K, Jain M, Lu TY, Markello C, Martin FJ, Mitchell MW, Munson KM, Mwaniki MN, Novak AM, Olsen HE, Pesout T, Porubsky D, Prins P, Sibbesen JA, Sirén J, Tomlinson C, Villani F, Vollger MR, Antonacci-Fulton LL, Baid G, Baker CA, Belyaeva A, Billis K, Carroll A, Chang PC, Cody S, Cook DE, Cook-Deegan RM, Cornejo OE, Diekhans M, Ebert P, Fairley S, Fedrigo O, Felsenfeld AL, Formenti G, Frankish A, Gao Y, Garrison NA, Giron CG, Green RE, Haggerty L, Hoekzema K, Hourlier T, Ji HP, Kenny EE, Koenig BA, Kolesnikov A, Korbel JO, Kordosky J, Koren S, Lee H, Lewis AP, Magalhães H, Marco-Sola S, Marijon P, McCartney A, McDaniel J, Mountcastle J, Nattestad M, Nurk S, Olson ND, Popejoy AB, Puiu D, Rautiainen M, Regier AA, Rhie A, Sacco S, Sanders AD, Schneider VA, Schultz BI, Shafin K, Smith MW, Sofia HJ, Abou Tayoun AN, Thibaud-Nissen F, Tricomi FF, Wagner J, Walenz B, Wood JMD, Zimin AV, Bourque G, Chaisson MJP, Flicek P, Phillippy AM,

- Zook JM, Eichler EE, Haussler D, Wang T, **Jarvis ED**, Miga KH, Garrison E, Marschall T, Hall IM, Li H, Paten B. [A draft human pangenome reference](#). *Nature* 617:312-324 (2023). *Cover Photo*. *bioRxiv* 2022.07.09.499321.
230. Sozzoni M, Ferrer Obiol J, Formenti G, Tigano A, Paris JR, Balacco JR, Jain N, Tilley T, Collins J, Sims Y, Wood J, Benowitz-Fredericks ZM, Field KA, Seyoum E, Gatt MC, Léandri-Breton DJ, Nakajima C, Whelan S, Gianfranceschi L, Hatch SA, Elliott KH, Shoji A, Cecere JG, **Jarvis ED**, Pilastro A, Rubolini D. [A Chromosome-Level Reference Genome for the Black-Legged Kittiwake \(*Rissa tridactyla*\), a Declining Circumpolar Seabird](#). *Genome Biol. Evol.* 15:evad153 (2023).
231. Guhlin J, Le Lec MF, Wold J, Koot E, Winter D, Biggs PJ, Galla SJ, Urban L, Foster Y, Cox MP, Digby A, Uddstrom LR, Eason D, Vercoe D, Davis T; Kākāpō Recovery Team; Howard JT, **Jarvis ED**, Robertson FE, Robertson BC, Gemmell NJ, Steeves TE, Santure AW, Dearden PK. [Species-wide genomics of kākāpō provides tools to accelerate recovery](#). *Nature Ecol. Evol.* (2023) Aug 28. *bioRxiv* 2022.10.22.513130.
232. Audet JN, Couture M, **Jarvis ED**. [Songbird species that display more-complex vocal learning are better problem-solvers and have larger brains](#). *Science* 381:1170-1175 (2023). *Cover Photo*
233. Skorupski J, Brandes F, Seebass C, Festl W, Śmietana P, Balacco J, Jain N, Tilley T, Abueg L, Wood J, Sims Y, Formenti G, Fedrigo O, **Jarvis ED**. [Prioritizing Endangered Species in Genome Sequencing: Conservation Genomics in Action with the First Platinum-Standard Reference-Quality Genome of the Critically Endangered European Mink *Mustela lutreola* L., 1761](#). *Int J Mol Sci.* (2023) 24(19):14816.
234. Bond DM, Ortega-Recalde O, Laird MK, Hayakawa T, Richardson KS, Reese FCB, Kyle B, McIsaac-Williams BE, Robertson BC, van Heezik Y, Adams AL, Chang WS, Haase B, Mountcastle J, Driller M, Collins J, Howe K, Go Y, Thibaud-Nissen F, Lister NC, Waters PD, Fedrigo O, **Jarvis ED**, Gemmell NJ, Alexander A, Hore TA. [The admixed brushtail possum genome reveals invasion history in New Zealand and novel imprinted genes](#). *Nat Commun.* (2023) 14(1):6364.
235. Sendell-Price AT, Tulenko FJ, Pettersson M, Kang D, Montandon M, Winkler S, Kulb K, Naylor GP, Phillippy A, Fedrigo O, Mountcastle J, Balacco JR, Dutra A, Dale RE, Haase B, **Jarvis ED**, Myers G, Burgess SM, Currie PD, Andersson L, Schartl M. [Low mutation rate in epaulette sharks is consistent with a slow rate of evolution in sharks](#). *Nat Commun.* (2023) 14(1):6628.
236. Rice ES, Alberdi A, Alfieri J, Athrey G, Balacco JR, Bardou P, Blackmon H, Charles M, Cheng HH, Fedrigo O, Fiddaman SR, Formenti G, Frantz LAF, Gilbert MTP, Hearn CJ, **Jarvis ED**, Klopp C, Marcos S, Mason AS, Velez-Irizarry D, Xu L, Warren WC. [A pangenome graph reference of 30 chicken genomes allows genotyping of large and complex structural variants](#). *BMC Biol.* (2023) 21(1):267.
237. Lee YH, Abueg L, Kim JK, Kim YW, Fedrigo O, Balacco J, Formenti G, Howe K, Tracey A, Wood J, Thibaud-Nissen F, Nam BH, No ES, Kim HR, Lee C, **Jarvis ED**, Kim H. [Chromosome-level genome assembly of chub mackerel \(*Scomber japonicus*\) from the Indo-Pacific Ocean](#). *Sci Data.* (2023) 10(1):880.
238. Baker DN, Abueg L, Escalona M, Farquharson KA, Lanyon JM, Le Duc D, Schöneberg T, Absolon D, Sims Y, Fedrigo O, **Jarvis ED**, Belov K, Hogg CJ, Shapiro B. [A chromosome-level genome assembly for the dugong \(*Dugong dugon*\)](#). *J Hered.* (2024) Jan 20:esae003.

239. Larivière D, Abueg L, Brajuka N, Gallardo-Alba C, Grüning B, Ko BJ, Ostrovsky A, Palmada-Flores M, Pickett BD, Rabbani K, Antunes A, Balacco JR, Chaisson MJP, Cheng H, Collins J, Couture M, Denisova A, Fedrigo O, Gallo GR, Giani AM, Gooder GM, Horan K, Jain N, Johnson C, Kim H, Lee C, Marques-Bonet T, O'Toole B, Rhie A, Secomandi S, Sozzoni M, Tilley T, Uliano-Silva M, van den Beek M, Williams RW, Waterhouse RM, Phillippy AM, **Jarvis ED**, Schatz MC, Nekrutenko A, Formenti G. [Scalable, accessible and reproducible reference genome assembly and evaluation in Galaxy](#). *Nat Biotechnol.* (2024) 42(3):367-370. *bioRxiv*. 2023.06.28.546576.
240. Bukhman YV, Meyer S, Chu LF, Abueg L, Antosiewicz-Bourget J, Balacco J, Brecht M, Dinatale E, Fedrigo O, Formenti G, Fungtammasan A, Giri SJ, Hiller M, Howe K, Kihara D, Mamott D, Mountcastle J, Pelan S, Rabbani K, Sims Y, Tracey A, Wood JMD, **Jarvis ED**, Thomson JA, Chaisson MJP, Stewart R. [Chromosome level genome assembly of the Etruscan shrew *Suncus etruscus*](#). *Sci Data.* (2024) 11(1):176.
241. Bukhman YV, Morin PA, Meyer S, Chu LF, Jacobsen JK, Antosiewicz-Bourget J, Mamott D, Gonzales M, Argus C, Bolin J, Berres ME, Fedrigo O, Steill J, Swanson SA, Jiang P, Rhie A, Formenti G, Phillippy AM, Harris RS, Wood JMD, Howe K, Kirilenko BM, Munegowda C, Hiller M, Jain A, Kihara D, Johnston JS, Ionkov A, Raja K, Toh H, Lang A, Wolf M, **Jarvis ED**, Thomson JA, Chaisson MJP, Stewart R. [A high-quality blue whale genome, segmental duplications, and historical demography](#). *Mol Biol Evol.* (2024) 41(3):msae036.
242. Audet JN, Couture M, Lefebvre L, **Jarvis ED**. [Problem-solving skills are predicted by technical innovations in the wild and brain size in passerines](#). *Nat Ecol Evol.* (2024). 8:806-816.
243. Cadena CD, Pabón L, DoNascimento C, Abueg L, Tilley T, O-Toole B, Absolon D, Sims Y, Formenti G, Fedrigo O, **Jarvis ED**, Torres M. [A reference genome for the Andean cavefish *Trichomycterus rosablanca* \(Siluriformes, Trichomycteridae\): Building genomic resources to study evolution in cave environments](#). *J Hered.* (2024) 115(3):311-316.
244. Mirarab S, Rivas-González I, Feng S, Stiller J, Fang Q, Mai U, Hickey G, Chen G, Brajuka N, Fedrigo O, Formenti G, Wolf JBW, Howe K, Antunes A, Schierup MH, Paten B, Jarvis ED, Zhang G, Braun EL. [A region of suppressed recombination misleads neoavian phylogenomics](#). *Proc Natl Acad Sci U S A.* (2024) 121(15):e2319506121.
245. Stiller J, Feng S, Chowdhury AA, Rivas-González I, Duchêne DA, Fang Q, Deng Y, Kozlov A, Stamatakis A, Claramunt S, Nguyen JMT, Ho SYW, Faircloth BC, Haag J, Houde P, Cracraft J, Balaban M, Mai U, Chen G, Gao R, Zhou C, Xie Y, Huang Z, Cao Z, Yan Z, Ogilvie HA, Nakhleh L, Lindow B, Morel B, Fjeldså J, Hosner PA, da Fonseca RR, Petersen B, Tobias JA, Székely T, Kennedy JD, Reeve AH, Liker A, Stervander M, Antunes A, Tietze DT, Bertelsen MF, Lei F, Rahbek C, Graves GR, Schierup MH, Warnow T, Braun EL, Gilbert MTP, Jarvis ED, Mirarab S, Zhang G. [Complexity of avian evolution revealed by family-level genomes](#). *Nature* (2024) 629(8013):851-860.
246. Joglekar A, Hu W, Zhang B, Narykov O, Diekhans M, Marrocco J, Balacco J, Ndhlovu LC, Milner TA, Fedrigo O, **Jarvis ED**, Sheynkman G, Korkin D, Ross ME, Tilgner HU. [Single-cell long-read sequencing-based mapping reveals specialized splicing patterns in developing and adult mouse and human brain](#). *Nat Neurosci.* 2024 27(6):1051-1063. *bioRxiv* 2023.04.02.535281.
247. Sebastianelli M, Lukhele SM, Secomandi S, de Souza SG, Haase B, Moysi M, Nikiforou C, Hutfluss A, Mountcastle J, Balacco J, Pelan S, Chow W, Fedrigo O, Downs CT, Monadjem A, Dingemans NJ, Jarvis ED, Brelsford A, vonHoldt BM, Kirschel ANG. [A genomic basis of vocal rhythm in birds](#). *Nat Commun.* (2024) 15(1):3095.

248. Merondun J, Marques CI, Andrade P, Meshcheryagina S, Galván I, Afonso S, Alves JM, Araújo PM, Bachurin G, Balacco J, Bán M, Fedrigo O, Formenti G, Fossøy F, Fülöp A, Golovatin M, Granja S, Hewson C, Honza M, Howe K, Larson G, Marton A, Moskát C, Mountcastle J, Procházka P, Red'kin Y, Sims Y, Šulc M, Tracey A, Wood JMD, Jarvis ED, Hauber ME, Carneiro M, Wolf JBW. [Evolution and genetic architecture of sex-limited polymorphism in cuckoos](#). *Sci Adv*. 2024 10(17):ead15255.
249. Ishigohoka J, Bascón-Cardozo K, Bours A, Fuß J, Rhie A, Mountcastle J, Haase B, Chow W, Collins J, Howe K, Uliano-Silva M, Fedrigo O, **Jarvis ED**, Pérez-Tris J, Illera JC, Liedvogel M. [Distinct patterns of genetic variation at low-recombining genomic regions represent haplotype structure](#). *Evolution*. (2024) Aug 29:qpae117. doi: 10.1093/evolut/qpae117. *bioRxiv* 2021.12.22.473882.
250. Kalbfleisch TS, McKay SD, Murdoch BM, Adelson DL, Almansa-Villa D, Becker G, Beckett LM, Benítez-Galeano MJ, Biase F, Casey T, Chuong E, Clark E, Clarke S, Cockett N, Couldrey C, Davis BW, Elsik CG, Faraut T, Gao Y, Genet C, Grady P, Green J, Green R, Guan D, Hagen D, Hartley GA, Heaton M, Hoyt SJ, Huang W, **Jarvis E**, Kalleberg J, Khatib H, Koepfi KP, Koltes J, Koren S, Kuehn C, Leeb T, Leonard A, Liu GE, Low WY, McConnell H, McRae K, Miga K, Mousel M, Neibergs H, Olagunju T, Pennell M, Petry B, Pewsner M, Phillippy AM, Pickett BD, Pineda P, Potapova T, Rachagani S, Rhie A, Rijnkels M, Robic A, Rodriguez Osorio N, Safonova Y, Schettini G, Schnabel RD, Sirpu Natesh N, Stegemiller M, Storer J, Stothard P, Stull C, Tosser-Klopp G, Traglia GM, Tuggle CK, Van Tassell CP, Watson C, Weikard R, Wimmers K, Xie S, Yang L, Smith TPL, O'Neill RJ, Rosen BD. [The Ruminant Telomere-to-Telomere \(RT2T\) Consortium](#). *Nat Genet*. (2024) 56(8):1566-1573.
251. Biegler MT, Belay K, Wang W, Szialta C, Collier P, Luo JD, Haase B, Gedman GL, Sidhu AV, Harter E, Rivera-López C, Amoako-Boadu K, Fedrigo O, Tilgner HU, Carroll T, **Jarvis ED**, Keyte AL. [Pronounced early differentiation underlies zebra finch gonadal germ cell development](#). *Dev Biol*. (2024) Aug 28:S0012-1606(24)00211-2. *bioRxiv* 2023.12.30.572255
252. Davenport M, Choe H-N, Matsunami H, **Jarvis ED**. [A sex chromosome drives the emergence of vocal learning following hormonal manipulation in female zebra finches](#). *Elife* (2024) in press. *bioRxiv* 2021.07.12.452102.

Preprints not yet in other journals

253. Yoo D, Rhie A, Hebbar P, Antonacci F, Logsdon GA, Solar SJ, Antipov D, Pickett BD, Safonova Y, Montinaro F, Luo Y, Malukiewicz J, Storer JM, Lin J, Sequeira AN, Mangan RJ, Hickey G, Anez GM, Balachandran P, Bankevich A, Beck CR, Biddanda A, Borchers M, Bouffard GG, Brannan E, Brooks SY, Carbone L, Carrel L, Chan AP, Crawford J, Diekhans M, Engelbrecht E, Feschotte C, Formenti G, Garcia GH, de Gennaro L, Gilbert D, Green RE, Guarracino A, Gupta I, Haddad D, Han J, Harris RS, Hartley GA, Harvey WT, Hiller M, Hoekzema K, Houck ML, Jeong H, Kamali K, Kellis M, Kille B, Lee C, Lee Y, Lees W, Lewis AP, Li Q, Loftus M, Loh YHE, Loucks H, Ma J, Mao Y, Martinez JFI, Masterson P, McCoy RC, McGrath B, McKinney S, Meyer BS, Miga KH, Mohanty SK, Munson KM, Pal K, Pennell M, Pevzner PA, Porubsky D, Potapova T, Ringeling FR, Rocha JL, Ryder OA, Sacco S, Saha S, Sasaki T, Schatz MC, Schork NJ, Shanks C, Smeds L, Son DR, Steiner C, Sweeten AP, Tassia MG, Thibaud-Nissen F, Torres-González E, Trivedi M, Wei W, Wertz J, Yang M, Zhang P, Zhang S, Zhang Y, Zhang Z, Zhao SA, Zhu Y, **Jarvis ED**, Gerton JL, Rivas-González I, Paten B, Szpiech ZA, Huber CD, Lenz TL, Konkel MK, Yi SV, Canzar S, Watson C... [Complete sequencing of ape genomes](#). *bioRxiv* 31:2024.07.31.605654.

254.

255. Gregory L Gedman, Matthew T. Biegler, Bettina Haase, Morgan E. Wirthlin, Olivier Fedrigo, Andreas R. Pfenning, **Erich D. Jarvis**. [Convergent gene expression highlights shared vocal motor microcircuitry in songbirds and humans.](#) *bioRxiv* 2022.07.01.498177.
256. Al-Ajli FO, Formenti G, Fedrigo O, Tracey A, Sims Y, Howe K, Karkhi I, Althani A, **Jarvis ED**, Rahman S, Ayub Q. [Genomic, genetic and phylogenetic evidence for a new falcon species using chromosome-level genome assembly of the gyrfalcon and population genomics.](#) *bioRxiv*. 2023:2023-02.
257. Carlos Daniel Cadena, Laura Pabón, Carlos DoNascimento, Linelle Abueg, Tatiana Tiley, Brian O-Toole, Dominic Absolon, Ying Sims, Giulio Formenti, Olivier Fedrigo, **Erich D. Jarvis**, Mauricio Torres. [A reference genome for the Andean cavefish *Trichomycterus rosablanca* \(Siluriformes, Trichomycteridae\): building genomic resources to study evolution in cave environments.](#) *bioRxiv* 2023.11.11.566715
258. Elena N. Waidmann, Victor H.Y. Yang, William C. Doyle, **Erich D. Jarvis**. [Mountable miniature microphones to identify and assign mouse ultrasonic vocalizations.](#) *bioRxiv* 2024.02.05.579003.
259. César D. M. Vargas, Rajvi K. Agravat, Elena N. Waidmann, Christodoulos Bochalos, Hector Bermudez, Theodoros Giannakopoulos, **Erich D. Jarvis**. [A Functional and Non-Homuncular Representation of the Larynx in the Primary Motor Cortex of Mice, a Vocal Non-Learner.](#) *bioRxiv* 2024.02.05.579004.