

CURRICULUM VITAE

Anne E. Kwitek PhD

**Professor
Department of Physiology**

OFFICE ADDRESS:

Basic Science Building
8701 Watertown Plank Rd
Milwaukee, WI 53226
Phone: 414-955-8241
Email: akwitek@mcw.edu

EDUCATION:

1985 - 1989 BS - Biology/Chemistry, University of Wisconsin - Stevens Point, Stevens Point, WI
1991 - 1996 PhD - Genetics, University of Iowa, Iowa City, IA

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

1996 - 1997 Postdoctoral Fellow, Physiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226

FACULTY APPOINTMENTS:

1999 - 2004 Assistant Professor, Physiology, Human and Molecular Genetics Center, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53236
2004 - 2007 Associate Professor, Physiology, Human and Molecular Genetics Center, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226
2007 - 2019 Associate Professor with tenure, Pharmacology, Internal Medicine, University of Iowa, Iowa City, IA 52242
2019 - 2022 Associate Professor with tenure, Physiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53233
2022 - Present Professor with tenure, Physiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226

ADMINISTRATIVE APPOINTMENTS:

2011 - 2019 Associate Director, Iowa Institute of Human Genetics, University of Iowa, Iowa City, IA 52242

AWARDS AND HONORS:

1985 Elda Bark Walker Scholarship
1987 - 1989 Beta Beta Beta Biological Honor Society
1987 - 1989 Phi Kappa Phi Honor Society
1989 Chancellor's Leadership Award, UW-Stevens Point
1996 Award for Scientific Accomplishment, Annual Research Symposium, University of Iowa College of Medicine
1998 Award for Outstanding Paper, 3rd Annual Midwest Physiological Society
2002 Research Award for Diabetes Research, Fraternal Order of Eagles
2002 Travel Award, International Society of Hypertension
2009 Fellow of the American Heart Association (FAHA), American Heart Association
2009 Young Scholar's Award, American Society of Hypertension
2013 Women of Innovation Award Finalist, Principal Financial Group
2022 - 2023 Outstanding Graduate School Educator, Medical College of Wisconsin
2022 - 2023 Outstanding Medical Student Teacher, Medical College of Wisconsin

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

- 1987 - 1989 UW-Stevens Point Pre-Vet Society (Vice President, 1988)
- 1987 - 1989 Beta Beta Beta Biological Honor Society
- 1987 - 1989 Phi Kappa Phi Honor Society
- 1995 - 1996 Association of Research in Vision and Ophthalmology
- 1999 - Present American Society of Human Genetics
- 2002 - Present American Physiological Society
- 2003 - 2010 American Association for the Advancement of Science
- 2005 - Present American Heart Association (Fellow)
- 2006 - Present International Society for Computational Biology
- 2019 - Present Genetics Society of America (Member)

EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:

Editorship

- 2005 - 2010 Physiological Genomics

Editorial Board

- 2003 - 2005 Physiological Genomics
- 2009 - 2021 Faculty of 1000 - Physiogenomics section
- 2012 - 2013 Frontiers in Physiological Genomics
- 2020 - Present Physiological Genomics
- 2020 - Present Genes
- 2021 - Present Scientific Reports
- 2024 - Present Science Officer, microPublication Biology

Ad-Hoc Reviewer

- 1998 - Present Journal of Clinical Medicine; Mammalian Genome; Nature Communications Biology; Nature Genetics; Nucleic Acids Research; Physiological Genomics; PNAS; PLOS One
- 1998 - Present ATVB; AJP Reg; BMC Genomics; Circulation; Circulation Cardiovascular Genetics; Exper. Physiology; Genes; Genetics; Genome Research; Genomics; Hum. and Molec. Genetics; Hypertension

LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

- 1999 - 2000 Member, Genetics Curriculum Committee, Medical College of Wisconsin
- 2002 Alternate member, Faculty Council, Medical College of Wisconsin
- 2002 - 2003 Member, Faculty Search Committee, University of Wisconsin Milwaukee
- 2008 - 2013 Member, Institutional Animal Care and Use Committee, University of Iowa
- 2008 - 2018 Interviewer, Medical School Admission, University of Iowa
- 2009 - 2018 Interviewer, Interdisciplinary Graduate Program in Genetics Admissions, University of Iowa
- 2009 Co-organizer, Interdisciplinary Graduate Program in Genetics Annual Retreat, University of Iowa
- 2009 - 2011 Member, Biological Sciences Funding Program Study section, University of Iowa
- 2009 - 2018 Interviewer, MSTP Admissions, University of Iowa
- 2010 Co-organizer, Carver College of Medicine Research Week 2010, University of Iowa
- 2010 Organizer, Interdisciplinary Graduate Program in Genetics Annual Retreat, University of Iowa
- 2010 - 2015 Member, MSTP Grand Rounds Faculty Committee, University of Iowa
- 2010 - 2011 Organizer, Department of Internal Medicine Research Day, University of Iowa
- 2010 - 2016 Organizer, Cardiovascular Research Center Seminar Series, University of Iowa
- 2011 - 2016 Co-organizer, Distinguished Biomedical Scholars Lecture Series, University of Iowa
- 2011 - 2015 Mentor, MSTP M3G Faculty Mentorship Program, University of Iowa
- 2012 Member, Medical Curriculum/MOHD Genetics/Neoplasia Subcommittee, University of Iowa
- 2012 - 2019 Member, Carver College of Medicine Carver Pilot Grant Review Committee, University of Iowa
- 2012 - 2019 Member, Fraternal Order of Eagles Diabetes Research Center Pilot Grant Review Committee, University of Iowa
- 2012 - 2018 Senator, Faculty Senate, University of Iowa
- 2012 - 2016 Member, Bridge Fund Review Committee, University of Iowa
- 2013 - 2017 Member, Interdisciplinary Graduate Program in Genetics Executive Committee, University of Iowa
- 2013 - 2017 Chair, Department of Pharmacology faculty mentoring committee for Dr. Matthew Potthoff, University of Iowa

2013 - 2019 Advisor, Genetics Advisor Mechanisms of Human Disease 1, University of Iowa
 2013 Member, College of Pharmacy Endowed Chair Search Committee, University of Iowa
 2013 - 2019 Member, Cardiovascular Research Center Executive Committee, University of Iowa
 2014 - 2015 Member, Carver College of Medicine Department of Internal Medicine DEO search committee, University of Iowa
 2014 Member, College of Pharmacy Faculty Search Committee, University of Iowa
 2016 - 2019 Member, Carver College of Medicine Genetics Informatics Workgroup, University of Iowa
 2017 - 2019 Member; Chair, Interdisciplinary Graduate Program in Genetics Post-comprehensive Advising Committee, University of Iowa
 2018 - 2019 Organizer, Iowa Institute of Human Genetics Annual Precision Medicine Conference, University of Iowa
 2019 - 2021 Organizer, Department of Physiology Seminar Series, Medical College of Wisconsin
 2019 - Present Member, Physiology PhD Graduate Program Executive Committee, Medical College of Wisconsin
 2021 - 2024 Member, Interdisciplinary Program in Biomedical Sciences (IDP) Executive Evaluation Committee, Medical College of Wisconsin
 2021 - 2022 Member, Department of Physiology Faculty Search Committee, Medical College of Wisconsin
 2022 - Present Medical Knowledge Discipline Expert, Genetics, Curriculum and Evaluation Committee (CEC), Medical College of Wisconsin
 2022 - 2023 Member, Center for Immunology Faculty Search Committee, Medical College of Wisconsin
 2022 - Present Member, Graduate School Rank Committee, Medical College of Wisconsin
 2024 Member, Search Committee, Director of the Cardiovascular Center (CVC), Medical College of Wisconsin
 2024 - Present Vice-president, Faculty Council, Medical College of Wisconsin
 2024 - Present Member, Strategic Planning Committee, Data Science Institute, Medical College of Wisconsin
 2024 - Present Leader, CVC Hypertension Signature Program, MCW Cardiovascular Center
 2024 - Present Member, Search Committee, Director of Pediatric Tissue Engineering, Herma Heart Institute

NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

1998 - 2000 Ad hoc reviewer, Study section, USDA
 1999 - 2005 Member, Board of Scientific Counselors, National Center for Biotechnology Information (NCBI)
 2003 - 2005 Representative and chair for the National Center for Biotechnology Information (NCBI), Advisory Board, International Nucleotide Sequence Database Consortium
 2003 - 2007 Group Representative for Physiological Genomics, Joint Program Committee, American Physiological Society
 2004 - 2007 Member and Co-chair of Informatics and Integration, Coordinating Committee, NHLBI Programs for Genomic Applications
 2005 Member, Genomics and Proteomics at Minority-Serving Institution Working Group, NHLBI
 2006 - 2007 Member, Special emphasis panel – Collaborations with National Centers for Biomedical Computing NCBCs, NIH
 2006 - 2012 Meeting Co-organizer, Rat Genomics and Models Meeting, Cold Spring Harbor Laboratory
 2008 Ad hoc member, Urologic and kidney development and genitourinary disease (UKGD) study section, NIH
 2008 - 2014 Member, Leadership Committee, American Heart Association Functional Genomics and Translational Biology Council (FGTB)
 2008 - 2010 Member, ZRG1 F10-H 21L; NRSA study section, NIH
 2009 Member, ZRG1 DKUS-G (03); Special emphasis panel, NIH
 2009 Member, ZRG1 GGG-F (58); Challenge Grant Mail Reviewer, NIH
 2009 Member, ZRR1 CM-9; Special emphasis panel – Mouse Mutant Regional Resource Centers, NIH
 2009 - 2014 Chair, Functional Genomics and Translational Biology Council State of the Art Webinar Series, American Heart Association
 2009 - 2014 Member, Program Committee, American Heart Association Functional Genomics and Translational Biology Council
 2010 Member, RG&S; Special emphasis panel, NIH
 2010 - 2015 Member, Genomics & Translational Biology Epidemiology and Observational Epidemiology (GTOE) Study Section, American Heart Association
 2010 Member, COBRE III; Special emphasis panel, NIH

2011 Stage 1 reviewer, ZDK1 GRB-J (O1) R, NIH
 2011 Member, NCCR STRB G20; Special emphasis panel, NIH
 2011 Member, ZRG1 EMNR-D 55R Special emphasis panel, NIH
 2012 Ad hoc member, CSR-GHD Study Section, NIH
 2014 Mail reviewer, AICS Special Emphasis Panel, NIH
 2014 - 2018 Member, Membership & Communications Committee, American Heart Association Council for Hypertension
 2014 Member, ZHL1 PPG-R Special Emphasis Panel, NIH
 2016 - 2020 Member, NHLBI PPG Parent Committee (HLBP), NIH
 2017 - 2019 Chair, Scientific Advisory Board, Rat Genome Database
 2017 - 2019 Member, Scientific Advisory Board Member, Alliance of Genome Resources
 2017 Member, Scientific Advisory Board, Gene Editing Rat Resource Center
 2020 - 2024 Member, Clinical Cardiology Data Science and Precision Medicine Science Subcommittee, American Heart Association Council on Genomic and Precision Medicine
 2020 - Present Member, AHA Genomic and Precision Medicine & EPI Molecular Determinants of Cardiovascular Health Committee, American Heart Association Council on Genomic and Precision Medicine
 2022 - Present Vice Chair, AHA Genomic and Precision Medicine & EPI Molecular Determinants of Cardiovascular Health Committee, American Heart Association Council on Genomic and Precision Medicine
 2022 - 2023 Chair, Executive Committee, Alliance of Genome Resources
 2024 - Present Member, Board of Regents, National Library of Medicine
 2024 - Present Member, External Advisory Board, Xenbase, Cincinnati Children's Hospital Research Foundation

INTERNATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

2004 Member, Advisory Board, International Sequence Database Consortium
 2010 Ad hoc member, Study Section, U.S.-Israel Binational Science Foundation

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Active

Peer Review

Title:	Rat Genome Database
Source:	NIH NHLBI
Role & Effort:	PI
PI:	Kwitek
Dates:	1999 - 2026
Direct Funds:	\$5,622,232 (Total 2023-2026)
Title:	Genetic and Signaling Mechanisms in the Central Regulation of Blood Pressure
Source:	NIH NHLBI
Role & Effort:	PI: Core D
PI:	Sigmund
Dates:	2018 - 2024
Direct Funds:	\$5,910,415 (Program total direct across all years)
Title:	Alliance Central: A Platform for Sustainable Development of Next Generation Genome Knowledgebases
Source:	NIH NHGRI/NHLBI
Role & Effort:	Subcontract PI
PI:	MPI:Sternberg, Bult
Dates:	2019 - 2029

Title: Dissemination and Coordinating Center
for the SCGE Consortium
Source: NIH NHGRI
Role & Effort: Coinvestigator
PI: Dwinell
Dates: 2019 - 2024
Direct Funds: \$9,902,054 (Total across all years)

Title: Genetic and Epigenetic Mechanisms of
BP Regulation
Source: NIH NHLBI
Role & Effort: Coinvestigator
PI: Liang
Dates: 2020 - 2025
Direct Funds: \$7,923,707 (Program total across all
years)

Title: Hybrid Rat Diversity Program
Source: NIH
Role & Effort: Coinvestigator
PI: Dwinell
Dates: 2022 - 2026
Direct Funds: \$499,650 (Direct for FY 2022)

Title: Translational Coordination and
Dissemination Center for the SCGE
Consortium
Source: NIH
Role & Effort: Coinvestigator
PI: Dwinell
Dates: 2023 - 2028
Direct Funds: \$8,743,090 (Total direct and indirect
across all years)

Title: Genetic influence on metabolic health
after chronic dietary PFAS exposure
Source: Advancing a Healthier Wisconsin
Endowment (AHW)
Role & Effort: PI
PI: Kwitek
Dates: 01/01/2024 - Present
Direct Funds: \$50,000

Prior

Peer Review

Title: Rat Genome Database
Source: NIH NHLBI
Role & Effort: Coinvestigator
PI: Jacob
Dates: 1999 - 2007

Title: Program for Genomic Applications:
Consomic and Knockout Rats for
Physiological Genomics
Source: NIH NHLBI
Role & Effort: PI Bioinformatics and Education

	Components
PI:	Jacob
Dates:	2000 - 2007
Title:	Genetic Control of BB Rat Autoimmunity
Source:	NIH NAIAD
Role & Effort:	Project PI
PI:	Lernmark
Dates:	2000 - 2011
Title:	Development of bioinformatic resources to transfer biological information across species
Source:	USDA
Role & Effort:	Coinvestigator
PI:	Reecy
Dates:	2008 - 2012
Title:	Dissecting the genetics of the Metabolic Syndrome on Chromosome 17 of the LH rat
Source:	NIH NHLBI
Role & Effort:	PI
PI:	Kwitek
Dates:	2008 - 2013
Title:	Dissection of cellular interactions in T1DM with integrated functional genomics
Source:	NIH NIAID
Role & Effort:	Coinvestigator
PI:	Hessner
Dates:	2008 - 2011
Title:	Identification of a metabolic syndrome transcriptome signature in the LH rat
Source:	NIH NIDDK
Role & Effort:	MPI
PI:	Kwitek, Xing
Dates:	2010 - 2012
Title:	Metabolic and transcriptional effects of developmental N-EtFOSE exposure in rat genetic models of metabolic syndrome
Source:	University of Iowa EHSRC Pilot Program
Role & Effort:	PI
PI:	Kwitek
Dates:	2010 - 2011
Title:	Dietary influences on the Metabolic Syndrome Transcriptome
Source:	University of Iowa Fraternal Order of Eagles Research Center Pilot Program
Role & Effort:	PI

PI:	Kwitek
Dates:	2011 - 2013
Title:	Stem cell-derived insulin producing cells correct hyperglycemia in diabetic mice
Source:	VA Merit
Role & Effort:	Coinvestigator
PI:	Zavazava
Dates:	2012 - 2015
Title:	Integrative Neurobiology of Cardiovascular Regulation
Source:	NIH NHLBI
Role & Effort:	Coinvestigator
PI:	Abboud
Dates:	2014 - 2019
Title:	A novel regulator of mitochondrial function causes metabolic syndrome in the LH rat
Source:	University of Iowa Carver MRIG
Role & Effort:	PI
PI:	Kwitek
Dates:	2014 - 2016
Title:	Novel transcriptome regulation in the LH rat model of the Metabolic Syndrome
Source:	AHA
Role & Effort:	PI
PI:	Kwitek
Dates:	2014 - 2016
Title:	Study of a Novel Rat Knockout of RGD1562963 in Hypertension and Metabolic Syndrome
Source:	University of Iowa Center for Hypertension Pilot Grant
Role & Effort:	PI
PI:	Kwitek
Dates:	2016 - 2017
Title:	Gene x Environment Influences on Bisphenol F (BPF) Exposure in Population -based Heterogeneous Stock Rats
Source:	University of Iowa EHSRC Pilot Program
Role & Effort:	PI
PI:	Kwitek
Dates:	2017 - 2019

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

International

HUGO Comparative Mapping Workshop, Toulouse, France, 1999

US Rat Genome Project, Second International Nomenclature Workshop, Cambridge, UK, 1999

Role of Rats in Functional Genomics: Not Just Big Mice, IUPS Meeting, Christchurch, New Zealand, 2001
Virtual Comparative Maps: A Genomic Tool to Compare Cross-Species Loci Contributing to Hypertension, ISH Satellite Workshop, Brno, Czech Republic, 2002
Consonic Rats for Cardiovascular Disease: PhysGen, Charles River Short Course: Laboratory Animal Science and Modern Biology, Strasbourg, France, 2003
Using consomic rats to study myocardial infarction: Merging phenotype, genotype, and expression, XVth International Workshop on Genetic Systems in the Rat, Copenhagen, Denmark, 2004
Comparative genomics – what can we learn from each other, Genetics of atherosclerosis and cardiovascular disease, Regensburg, Germany, 2005
Rat Genome Database Disease Portals: A Platform for Genetic and Genomic Research, Rat Genome Meeting, Melbourne, Australia, 2006
VCMAP V2: A cross-species, integrated annotation platform, Rat Genomics and Models Meeting, Hinxton, UK, 2008
The Rat Genome Project, International Plant and Animal Genome XVI, San Diego, CA, 2008
Influence of Environmental Exposures on Cardiometabolic Disease, 18th International SHR Symposium, Shanghai, China, 2018
Rat Genome Database – Integrated Multispecies Data Resource, INFRAFRONTIER Sustainability of Mouse Informatics Resources Workshop at the International Mammalian Genome Conference, Strasbourg, France, 2019
Metabolic Health: Genes and the Chemicals We Live In, Seoul, South Korea, 10/18/2023
The Laboratory Rat in the Preclinical Model Ecosystem, Seoul, South Korea, 10/19/2023

National

An Integrated Mammalian Genome Platform for Physiological Genomics, Experimental Biology Meeting, Washington D.C., 1999
Rats are Ideal for Functional Genomics, Cambridge Health Technology Institute, Applications of Genomics to Animal Models for Pharmaceutical Studies: Mice and Rats, Boston, MA, 1999
Genes-Environment Interactions in the Genetics of Hypertension, NIMH Workshop, Bethesda, MD, 1999
Physiological Genomics: SNPs, Chips and Salty Potato Chips, APS Education Program for High School Students, FASEB meeting, Orlando, FL, 2001
Cross-Species QTL Review, PGA Coordinating Committee meeting, Bethesda, MD, 2002
Physiological and Comparative Genomics: Annotating Rat Complex Disease Physiology on to the Human Genome, LSUHSC Grand Rounds, New Orleans, LA, 2002
Applications of comparative mapping of disease from model organism to human and back, Experimental Biology Meeting, New Orleans, LA, 2002
Physiological and Comparative Genomics: Annotating Rat Complex Disease Physiology onto the Human Genome, UNC Seminar Series, Chapel Hill, NC, 2002
High Density Rat Radiation Hybrid Maps Provide Over 24,000 Direct Links to the Rat Genome Sequence, Rat Genomics and Models Meeting, Cold Spring Harbor Laboratory, 2003
NHLBI Program for Genomic Applications: Background for Physiologists, Experimental Biology Meeting, San Diego, CA, 2003
A Comprehensive Genomics Approach to Complex Disease: The NHLBI Programs for Genomic Applications, American Society of Human Genetics, Los Angeles, CA, 2003
From Genome to Disease: A Symposium of High-Throughput Biology, Animal Phenotyping Tutorial, Bethesda, MD, 2003
A Phenome Project for Cardiovascular Disease, UIC Cardiology Grand Rounds, Chicago, IL, 2004
New Genomic Technologies for Systems Biology, Experimental Biology, Washington DC, 2004
Physiology InFocus: Application of Systems Biology to Function & Disease, Experimental Biology Meeting, Washington DC, 2004
Integrating the public data: a comprehensive picture of physiological genomics,” A Bioinformatics How-to for the Wet-Lab Physiologist, Experimental Biology Meeting, Washington DC, 2004
The BN Phenome: Detailed Characterization of the Cardiovascular, Renal, and Pulmonary Systems of the Sequenced Rat, Rat Genomics and Models Meeting, Cold Spring Harbor Laboratory NY, 2005
Accessing Genomic Data: Which Browsers? What Kinds of Data?, From Genome to Phenome: The Translational Biology of Cardiovascular Disease, American Heart Association Pre-session Symposium, Dallas, TX, 2005
Incorporating Physiological Genomics into the Medical Student Curriculum, IUPS International Congress of

Physiological Sciences Refresher Course, Integrating genomics into physiology courses: A new paradigm or just more information?, San Diego, CA, 2005

Comparative Genomic Resources for Hypertension, IUPS International Congress of Physiological Sciences, Comparative Genomics of Blood Pressure Control: Genetic Maps in Humans, Rats and Mice symposium, San Diego, CA, 2005

Session cochair: Genetics of Hypertension, AHA Council for High Blood Pressure, San Antonio, TX, 2006

Genetics of Complex Disease, PGA Traveling Tutorial, St Louis, MO, 2006

Session Chair: Physiological Genomics and the Gastrointestinal Tract, Experimental Biology, San Francisco, CA, 2006

Genetics of Complex Disease, PGA Traveling Tutorial, UAB, Birmingham, AL, 2006

The genetics of complex disease: tying genotype and phenotype across species, Marshfield Clinic Research Foundation Scientific Seminar Series, Marshfield, WI, 2006

Integrated Approaches to Dissect Complex Disease, Rat Genomics and Models, Cold Spring Harbor Laboratories, NY, 2007

Global Physiological “Omics” – from microbe to medicine, APS In Focus Session, Experimental Biology, San Diego, CA, 2008

Genetics of Complex Disease: Cross-species Integration of Phenotype and Genotype, Division of Biostatistics Seminar, Washington University, St. Louis, MO, 2008

Identification Of Candidate Genes For Hypertension And Dyslipidemia On Chromosome 17 In The LH Rat, AHA High Blood Pressure Council Meeting, Chicago, IL, 2009

Integrative Genetics and Systems Biology reveals genetic mechanisms underlying the Metabolic Syndrome in the Lyon Hypertensive Rat, Rat Genomics & Models Meeting, Cold Spring Harbor Laboratory, NY, 2013

The Metabolic Syndrome in the LH Rat: Do These Genes Make Me Look Fat, University of Louisville CGEMM Seminar, Louisville , KY, 2014

Starting a Precision Medicine Program at an Academic Hospital: Challenges and Opportunities, University of Toledo Physiology Seminar, Toledo, OH, 2015

Investigating Gene Pleiotropy in Hypertension and the Metabolic Syndrome in the Lyon Hypertensive Rat, Rat Genomics and Models Meeting, Cold Spring Harbor Laboratory, NY, 2015

Independent and Pleiotropic Gene Effects on Hypertension and Metabolic Syndrome in Lyon Hypertensive Rats, Experimental Biology, San Diego, 2016

Genome Editing in Rat Models of the Metabolic Syndrome, National Academies of Sciences, Engineering, and Medicine; The Promise of Genome Editing Tools to Advance Environmental Health Research Workshop, Washington DC, 2018

Models of Hypertension: Do They Reflect Human?, American Society of Hypertension Summer School, Loyola University, Chicago IL, 2024

Metabolic Health: Genes and the Chemicals We Live in, Clinical Pharmacology Grand Rounds, Vanderbilt University Medical Center, Virtual, 2024

Alliance of Genome Resources (aka Alliance), GREGoR Science Seminar Series, Virtual, 2024

Regional

Generation of a Rat UniGene Set for Molecular Genetic Studies of Disease, Meeting of the Midwest Physiological Society, Milwaukee, WI, 1998

Designer Rats in Genetic Dissection of Complex Diseases, Physiogenomics of Stressors in Derived Consomic Rats: PGA Workshop at the Midwest Physiological Society, Madison, WI, 2001

Comparative Mapping: For Functional Genomics Studies of Complex Diseases, BioPharmaceutical Technology Center Institute Course: Techniques in Bioinformatics and Comparative Genomics, Madison, WI, 2001

Nutrigenomics: Nurture AND Nature in Obesity, Hawkeye Area District Dietitians Association (HADDA), Coralville, IA, 2012

Pharmacogenomics: Power, Problems, and Promise, Regional Medical Center CME presentation, Manchester, IA, 2014

The Life of a Genetic Researcher, Iowa Institute of Human Genetics Career Day, Iowa City, IA, 2014

Clinical Pharmacogenomics: Power, Problems, and Promise, IDT NGS Symposium: Explore Diverse Applications of NGS, Iowa City, IA, 2014

The Life of a Genetic Researcher, Iowa Institute of Human Genetics Career Day, Iowa City, IA, 2015

The Life of a Genetic Researcher, Iowa Institute of Human Genetics Career Day, Iowa City, IA, 2016

Life of a Genetic Researcher, Iowa Institute of Human Genetics Career Day, Iowa City, IA, 2017
Life of a Genetic Researcher, Iowa Institute of Human Genetics Career Day, Iowa City, IA, 2018
PFAS Studies in Animal Models, Water Action Team Rhinelander/WATR public information forum, Virtual, 2020

Local

Workshop in Physiological Genomics of Consomic Rats, MCW PGA Workshop, Milwaukee, WI, 2002
PGA Staff Educational Series, Milwaukee, WI, 2002
Workshop in Physiological Genomics of Consomic Rats, MCW PGA Workshop, Milwaukee, WI, 2003
PGA Staff Educational Series, Milwaukee, WI, 2003
The Human Phenome Database: Toward One-stop Shopping for Human Genetic and Genomic Information, Genetics Exchange Program, Milwaukee, WI, 2005
Genetics and Heart Disease: Typing Phenotype and Genotype Across Species, MCW Cardiology Grand Rounds, Milwaukee, WI, 2006
Genetics of the metabolic syndrome in the Lyon Hypertensive (LH) rat, University of Iowa Cardiovascular Works in Progress (WIP) Series, Iowa City, IA, 2008
Genetics of Complex Disease, University of Iowa Molecular Physiology and Biophysics Seminar, Iowa City, IA, 2008
Protection against Ischemia/Reperfusion injury in SS.2BN Rats, University of Iowa Cardiology Research Symposium, Iowa City, IA, 2008
“Comparing Genomes to Dissect the Genetics of Complex Disease”, University of Iowa Bioinformatics Seminar Series, Iowa City, IA, 2008
Genetics in Medicine: Revolution or Running in Circles?, University of Iowa Internal Medicine Grand Rounds, Iowa City, IA, 2009
Cardiometabolic Syndrome: Nurture AND Nature, University of Iowa Human Toxicology/Superfund Program Seminar Series, Iowa City, IA, 2010
Genetics of the Metabolic Syndrome: Lessons from a Fat Rat, University of Iowa Department of Pharmacology Seminar, Iowa City, IA, 2010
The Metabolic Syndrome in the LH Rat: Do These Genes Make Me Look Fat?, University of Iowa Department of Biochemistry Seminar, Iowa City, IA, 2011
Developmental PFOS Exposure and the Metabolic Syndrome, University of Iowa Environmental Health Science Research Center Annual Retreat, Iowa City, IA, 2012
Genetic Susceptibility to Type I Diabetes in the Biobreeding (BB) Rat, University of Iowa Immunology Journal Club, Iowa City, IA, 2012
Interaction of Nurture and Nature in Obesity and Diabetes, Fraternal Order of Eagles Diabeste Research Center Diabetes and Obesity Talks, Iowa City, IA, 2012
Pharmacogenomics and Pain: Power, Problems, and Promise, University of Iowa Department of Anesthesia Grand Rounds, Iowa City, IA, 2014
Identification of a novel candidate gene for Metabolic Syndrome using integrated systems genetics, Fraternal Order of Eagles Diabeste Research Center Diabetes and Obesity Talks, Iowa City, IA, 2014
The Metabolic Syndrome: Nature AND Nurture, Univ. of Iowa Biosciences Program New Student Orientation, Iowa City, IA, 2014
Salt-sensitive Hypertension and Metabolic Dysfunction in a Novel Rat Knockout, University of Iowa Center for Hypertension Research Seminar, Iowa City, IA, 2017
Pharmacogenomics, University of Iowa Department of Psychiatry Grand Rounds, Iowa City, IA, 2017
Genetics of the Metabolic Syndrome: Rats, It’s Complex!, Fraternal Order of Eagles Diabeste Research Center Diabetes and Obesity Talk, Iowa City, IA, 2017
The Genetic Regulation of Blood Pressure and Body Weight, University of Iowa Department of Biology Seminar, Iowa City, IA, 2017
The Role of Genetics in the Metabolic Syndrome: Rats! It’s Complex, MCW Physiology Seminar, Milwaukee, WI, 2018
Pharmacogenomic Testing, University of Iowa Developmental-Behavioral Pediatric conference, Iowa City, IA, 2019
The Rat Genome Database: Finding Precision Preclinical Models of Human Disease, Genomic Science and Precision Medicine Center (GSPMC) Faculty Seminar Series, Medical College of Wisconsin, 2021
The Life of a Genetic Researcher, DNA Day for Morse Middle School, Career Panel, Virtual, 2021
Metabolic Health: Genes and the Chemicals We Live In, Linda T. and John A. Mellows Center for Genomic

Sciences and Precision Medicine Faculty Seminar, Virtual, 2022
Endocrine Disruptors: Genes and the Chemicals We Live In, Physiology Department Seminar Series, Medical College of Wisconsin, 2025

MCW TEACHING ACTIVITIES:

Medical Student Education

2003 - 2006 Instructor: Medical Physiology for M1 medical students; Genetics Series
2006 Lecturer: Medical Pathology – Genetics of Obesity
2020 - 2022 Instructor: Polygenic Disorders; in Molecules to Cells (M2C)
2020 - 2022 Instructor: "Population Genetics" in Molecules to Cells (M2C)
2021 - 2022 Facilitator, M1 Physiology Case-based Discussion
2023 - Present Instructor, MCW Fusion Phase I, Cardiovascular
2023 - Present Instructor: Meiosis and Mendel; Population Genetics; Single Gene Disorders, MCW Fusion Phase I, Foundations of Medicine

Graduate Student Education

1999 Course Co-director: Physiological Genetics, Department of Physiology
2002 - 2006 Instructor: Physiological Genomics, Department of Physiology
2006 Lecturer: Seminars in Bioinformatics and Computational Biology, MS course in Bioinformatics program
2007 Course Director Physiological Genomics, Spring semester, Department of Physiology
2020 - Present Course Director: Physiology Graduate Student Seminar Course (08301), Department of Physiology
2020 - Present Lecture: Physiological/Functional Genomics, Department of Physiology
2020 - Present Lecture: Biostatistics for Health Sciences, Department of Physiology
2021 - Present Lecturer, Current Concepts in Cardiovascular Biology (PHYS 08270)

EXTRAMURAL TEACHING:

Medical Student Education

2014 - 2018 University of Iowa, Genetics Small Group Facilitator: MED:8124 Mechanisms of Health and Disease I (MOHD1)

Graduate Student Education

2008 University of Iowa, Course Co-Director and Instructor: "Genetic Analysis of Biological Systems (127:150)"
2009 University of Iowa, Course Director and Instructor: "Genetic Analysis of Biological Systems (127:150)"
2010 - 2018 University of Iowa, Instructor: "Genetic Analysis of Biological Systems (127:150)"
2011 University of Iowa, Lecturer: Advanced Problem Solving in Pharmacological Sciences (71:250)
2011 - 2013 University of Iowa, Course Co-Director: Topics in Molecular Pharmacology 071:215/225
2012 - 2019 University of Iowa, Course Director: Pharmacogenetics and Pharmacogenomics (PCOL:5136)
2013 University of Iowa, Course Co-Director: Topics in Pharmacogenomics (71:220)
2013 University of Iowa, Survival Skills Workshop for Young Researchers
2015 - 2018 University of Iowa, Lecture: Basic Biostatistics & Experimental Design (PCOL:5204)
2017 University of Iowa, Course Director: Topics in Cardiovascular Pharmacology (PCOL:6030)

Resident and Fellow Education

2008 University of Iowa, Lecturer: "The Genetics of Cardiovascular Disease," Cardiovascular Fellows Core Curriculum
2010 University of Iowa, Lecturer: "Can Genetic Research Help Metabolic Syndrome Patients Today?," Internal Medicine Resident Basic Science Conference
2011 - 2018 University of Iowa, Lecturer: 'Medical Genetics'; Internal Medicine Fellows Conference
2015 University of Iowa, Lecture: Pulmonary Fellows Conference

MCW STUDENTS, FACULTY, RESIDENTS AND CLINICAL/RESEARCH FELLOWS MENTORED:

High School Students

2020 Stephanie Chen, SUPREMES Program, Medical College of Wisconsin, Internship interrupted by COVID-19 pandemic

Undergraduate Students

2003 Jill Stein, Undergraduate research internship, Medical College of Wisconsin, Internship completed

2004 Daniel Roberson, Undergraduate research internship mentor, Medical College of Wisconsin, Internship completed

2004 Ashley Nelsen, Summer medical research internship mentor, Medical College of Wisconsin, Internship completed

2007 Melissa Kollman, Undergraduate research internship mentor, Medical College of Wisconsin, Internship completed

2021 Bridgette Forster, Undergraduate Summer Research Internship mentor, Medical College of Wisconsin, Internship completed

Graduate Students

PhD Students Advised

2001 - 2002 Carrie Matteson, Medical College of Wisconsin, Health Researcher, ?Simon Fraser University, B.C. Canada

PhD Committees

2007 - 2008 Alison Kriegel, Medical College of Wisconsin, Degree obtained

2021 - Present Ulrich Kemmo Tsafack, Medical College of Wisconsin

2021 - 2023 Adrian Zietara, Medical College of Wisconsin, Degree granted

2022 - 2023 Megan Opichka, Medical College of Wisconsin, Degree granted

2022 - 2023 McKenzie Ritter, Medical College of Wisconsin, Degree granted

2023 - 2024 Christine Jennings, Medical College of Wisconsin, Masters degree granted

2023 - Present Makenna Knas, Medical College of Wisconsin, In progress

MD/PhD Students (dual degree/MSTP)

2024 - Present Samuel Hernandez, Thesis advisor, Medical College of Wisconsin

Postdoctoral Researchers

2001 - 2004 Andrea Baessler, Research Mentor, Medical College of Wisconsin, Clinical Researcher, University of Regensburg, Regensburg, Germany

2001 - 2004 Marijo Bilusic, Research Mentor, Medical College of Wisconsin, Group Leader at Sylvester Comprehensive Cancer Center, Miami, FL

2014 - 2015 Viviane Muniz, Research Mentor, Medical College of Wisconsin, Fellowship Completed

Faculty

2000 - 2001 Diana Maas, Research advisor, Medical College of Wisconsin

2006 - 2013 Christina Runge, K23 mentor, Medical College of Wisconsin, Associate Provost, Chief, Professor

EXTRAMURAL STUDENTS, FACULTY, RESIDENTS, AND CLINICAL/RESEARCH FELLOWS MENTORED:

High School Students

2017 Matthew Liao, Belin-Blank Center's Secondary Student Training Program (SSTP) mentor, University of Iowa, Internship completed

2018 Derek Huang, Belin-Blank Center's Secondary Student Training Program (SSTP), University of Iowa, Internship completed

2021 Ysabel Chen, Independent research mentor, Virtual, Internship completed

Undergraduate Students

2010 Anita Ahuja, Interdisciplinary Summer Undergraduate Research Program Mentor, University of Iowa, Internship completed

2010 - 2012 Stephanie Dunkel, Undergraduate research mentor, University of Iowa, Undergraduate degree obtained
2011 - 2013 Dan Sanchez-Fernandez, Iowa Bioscience Advantage Program Mentor, University of Iowa, Project completed
2012 Kamil Suliveres, Interdisciplinary Summer Undergraduate Research Program Mentor, University of Iowa, Internship completed
2012 Yifang Wang, Undergraduate Research Mentor, University of Iowa, Internship completed
2012 Edmarielis Gonzalez, SROP-McNair Scholar Mentor, University of Iowa, Internship completed
2013 Matthew Traxler, Interdisciplinary Summer Undergraduate Research Program Mentor, University of Iowa, Internship led to continued research in Medical school
2013 - 2015 Jessica Jakoubek, Undergraduate research mentor, University of Iowa, Degree received
2013 James Stewart II, SROP Mentor, University of Iowa, Internship completed
2015 Brenna Nye, Interdisciplinary Summer Undergraduate Research Program Mentor, University of Iowa, Internship completed
2016 - 2017 Drew Mercer, Undergraduate research mentor, University of Iowa, Internship completed
2016 - 2019 Jacob Malek, Undergraduate research mentor, University of Iowa, Internship completed
2016 - 2019 Paige Downing, Undergraduate research mentor, University of Iowa, Degree received
2016 - 2019 Alyssa Arroya, Undergraduate research mentor, University of Iowa, Degree obtained

Medical Students

2013 - 2018 Matthew Traxler, Medical Student Research Program Mentor, University of Iowa, MD received
2018 Ryan Staudte, Medical Student Research Program Mentor, University of Iowa, Project completed

Graduate Students

PhD Committees

2008 - 2013 Jason Weirather, University of Iowa, Degree obtained
2009 - 2013 Elisabeth Leslie, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2009 - 2013 Christopher J Pelham, University of Iowa, Department of Molecular Physiology and Biophysics, Degree obtained
2009 Yan Zhang, Comprehensive Exam Committee member, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2010 - 2019 Johnny Cruz Corchado, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2010 Farah Alul, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2010 - 2014 Tryphena Cuffy, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2010 - 2011 Heather Brockway, Comprehensive Exam Committee Chair, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2010 - 2011 Jonah Cullen, Comprehensive Exam Committee, University of Iowa, Interdisciplinary Graduate Program in Genetics, Left program
2011 - 2014 Benjamin Brett, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2012 - 2017 Katie Weihbrecht, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2012 - 2017 Magdalene Ameka, University of Iowa, Molecular and Cellular Biology, Degree obtained
2013 - 2015 Fengxiao Bu, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2014 - 2018 Lisa Harney (Landon), University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree obtained
2017 - 2022 Alyssa Hahn, University of Iowa, Interdisciplinary Graduate Program in Genetics, Degree granted
2017 - 2019 James Mrkvicka, University of Iowa, Interdisciplinary Graduate Program in Genetics, Left program

PhD Students Advised

2008 - 2013 Man Chun John Ma, University of Iowa, Degree Received Interdisciplinary Graduate

Program in Genetics

2009 - 2012 Yang Xu, University of Iowa, Masters Degree obtained Interdisciplinary Graduate Program in Genetics

2009 - 2010 Ralph Hazelwood, II, University of Iowa, Interdisciplinary Graduate Program in Genetics, Rotation Completed

2011 Dorthea (Lori) Wheeler, University of Iowa, MSTP; Summer Rotation, Rotation Completed

2011 Joshua Fletcher, University of Iowa, Interdisciplinary Graduate Program in Genetics, Rotation completed

2012 Elizabeth Kunkel, University of Iowa, Interdisciplinary Graduate Program in Genetics, Rotation complete

2012 Sophie Gaynor, University of Iowa, Interdisciplinary Graduate Program in Genetics, Rotation completed

2016 Alyssa Hahn, University of Iowa, Interdisciplinary Graduate Program in Genetics, Rotation completed

2016 - 2022 Karen Clark, University of Iowa, PhD Interdisciplinary Graduate Program in Genetics

2018 - 2023 Valerie Wagner, University of Iowa, PhD Interdisciplinary Graduate Program in Genetics

2018 - 2019 Miriam Vélez-Bermúdez, University of Iowa, Health Psychology, Rotation completed

2020 Alisha Ziegler, Medical College of Wisconsin, Physiology PhD Program, Rotation completed

MS Committees

2009 Kathryn Cribben, University of Iowa, Masters degree obtained

2012 - 2014 Ko-Ting Lu, University of Iowa, Pharmacology Graduate Program, Degree obtained

Faculty

2009 - 2012 Anil Chauhan, Faculty Mentor, University of Iowa, Independent investigator with tenure

2010 - 2012 Lan Lin, Internal Medicine Faculty Mentoring Committee, University of Iowa

2012 - 2017 Matthew Potthoff, Pharmacology Faculty Mentoring Committee Chair, University of Iowa, Independent investigator with tenure

2023 - Present Tongjun Gu, Mentoring Committee Chair, Varsity Blood Research Institute

COMMUNITY SERVICE ACTIVITIES:

1997 - 1998 Medical College of Wisconsin Mini-Medical School Instructor

2001 Lecture on Genetics at Mount Carmel Lutheran Church

2002 Lecture on genetics at the Irish Genealogical Society

2003 Lecture at the Medical College of Wisconsin Mini-medical School

2013 Lecture at the University of Iowa Mini-medical school

PATENTS:

05/10/2011 Patent No. 7939257: Polymorphic GHSR nucleic acids and uses thereof

TEACHING ACTIVITIES - EXTERNAL COURSES:

1998 - 1999 Positional Cloning: from contig to candidate gene, Cold Spring Harbor Course, Teaching Assistant, Cold Spring Harbor, NY

2001 "Physiological Genomics: SNPs, Chips and Salty Potato Chips", APS Education Program for High School Students, FASEB Meeting, Orlando, FL

2002 "To QTL or Not to QTL," "From QTL to Gene," Genetic Approaches to Complex Heart Lung and Blood Disorders, Jackson Laboratory Course, Faculty, Bar Harbor, ME

2003 Lecturer: "Consonic Rats for Cardiovascular Disease: PhysGen," Charles River Short Course: Laboratory Animal Science and Modern Biology, Strasbourg, France

2012 Lecturer: Biology Graduate Colloquium; University of Northern Iowa, Cedar Falls, IA

2016 Lecturer: Biology Graduate Colloquium; University of Northern Iowa, Cedar Falls, IA

TEACHING ACTIVITIES - OTHER:

2002 - 2003 Organizer and Lecturer, PGA Staff Educational Series, Medical College of Wisconsin

2005 Genetics Exchange Program: "The Human Phenome Database: Toward One-stop Shopping for Human Genetic and Genomic Information", Milwaukee, WI

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Smith JR, Tutaj MA, Thota J, Lamers L, Gibson AC, Kundurthi A, Gollapally VR, Brodie KC, Zacher S, Laulederkind SJF, Hayman GT, Wang SJ, Tutaj M, Kaldunski ML, Vedi M, Demos WM, De Pons JL, Dwinell MR, Kwitek AE. Standardized pipelines support and facilitate integration of diverse datasets at the Rat Genome Database. Database (Oxford). 2025 Jan 22;2025. PMID: PMC11753291
2. Ray A, Yang C, Stelloh C, Tutaj M, Liu P, Liu Y, Qiu Q, Auer PL, Lin CW, Widlansky ME, Geurts AM, Cowley AW Jr, Liang M, Kwitek AE, Greene AS, Rao S. Chromatin State Maps of Blood Pressure-Relevant Renal Segments Reveal Potential Regulatory Role for SNPs. Hypertension. 2024 Dec 26.
3. Li K, Smith ML, Blazier JC, Kochan KJ, Wood JMD, Howe K, Kwitek AE, Dwinell MR, Chen H, Ciosek JL, Masterson P, Murphy TD, Kalbfleisch TS, Doris PA. Construction and evaluation of a new rat reference genome assembly, GRr8, from long reads and long-range scaffolding. Genome Res. 2024 Nov 20;34(11):2081-2093. PMID: PMC11610589
4. Thareja SK, Yang X, Upama PB, Abdullah A, Torres SP, Cocroft LJ, Bubolz M, McGaughey K, Lou X, Kamaraju S, Ahamed SI, Madiraju P, Kwitek AE, Whittle J, Franco Z. Equitable community-based participatory research engagement with communities of color drives All of Us Wisconsin genomic research priorities. J Am Med Inform Assoc. 2024 Dec 01;31(12):2940-2951. PMID: PMC11631115
5. Wildes MP, Fernando DG, Grobe CC, Reho JJ, Grobe JL, Kidambi S, Kindel TL, Kwitek AE, Segar JL, Williams JS, Morselli LL. Long-term Metabolic Dysfunction Programming in Female Mice by Serial Moderate Restriction of a High-fat High-sucrose Diet. Endocrinology. 2024 Aug 27;165(10). PMID: PMC11408931
6. Kemmo Tsafack U, Ahn KW, Kwitek AE, Lin CW. Meta-Analytic Gene-Clustering Algorithm for Integrating Multi-Omics and Multi-Study Data. Bioengineering (Basel). 2024 Jun 08;11(6). PMID: PMC11201102
7. Alliance of Genome Resources Consortium . Updates to the Alliance of Genome Resources central infrastructure. Genetics. 2024 May 07;227(1). PMID: PMC11075569
8. de Jong TV, Pan Y, Rastas P, Munro D, Tutaj M, Akil H, Benner C, Chen D, Chitre AS, Chow W, Colonna V, Dalgard CL, Demos WM, Doris PA, Garrison E, Geurts AM, Gunturkun HM, Guryev V, Hourlier T, Howe K, Huang J, Kalbfleisch T, Kim P, Li L, Mahaffey S, Martin FJ, Mohammadi P, Ozel AB, Poleskaya O, Pravenec M, Prins P, Sebat J, Smith JR, Solberg Woods LC, Tabakoff B, Tracey A, Uliano-Silva M, Villani F, Wang H, Sharp BM, Telese F, Jiang Z, Saba L, Wang X, Murphy TD, Palmer AA, Kwitek AE, Dwinell MR, Williams RW, Li JZ, Chen H. A revamped rat reference genome improves the discovery of genetic diversity in laboratory rats. Cell Genom. 2024 Apr 10;4(4):100527. PMID: PMC11019364
9. Morselli LL, Amjad R, James R, Kindel TL, Kwitek AE, Williams JS, Grobe JL, Kidambi S. Diet in Food Insecurity: A Mediator of Metabolic Health? J Endocr Soc. 2024 Apr 06;8(6):bvae062. PMID: PMC11017326
10. Aroundas AA, Narayan SM, Arnett DK, Spector-Bagdady K, Bennett DA, Celi LA, Friedman PA, Gollob MH, Hall JL, Kwitek AE, Lett E, Menon BK, Sheehan KA, Al-Zaiti SS, American Heart Association Institute for Precision Cardiovascular Medicine; Council on Cardiovascular and Stroke Nursing; Council on Lifelong Congenital Heart Disease and Heart Health in the Young; Council on Cardiovascular Radiology and Intervention; Council on Hypertension; Council on the Kidney in Cardiovascular Disease; and Stroke Council. Use of Artificial Intelligence in Improving Outcomes in Heart Disease: A Scientific Statement From the American Heart Association. Circulation. 2024 Apr 02;149(14):e1028-e1050. PMID: PMC11042786
11. Ritter ML, Wagner VA, Balapattabi K, Opichka MA, Lu KT, Wackman KK, Reho JJ, Keen HL, Kwitek AE, Morselli LL, Geurts AM, Sigmund CD, Grobe JL. Krüppel-like factor 4 in transcriptional control of the three unique isoforms of Agouti-related peptide in mice. Physiol Genomics. 2024 Mar 01;56(3):265-275. PMID: PMC10866620
12. Opichka MA, Livergood MC, Balapattabi K, Ritter ML, Brozoski DT, Wackman KK, Lu KT, Kozak KN, Wells C, Fogo AB, Gibson-Corley KN, Kwitek AE, Sigmund CD, McIntosh JJ, Grobe JL. Mitochondrial-targeted antioxidant attenuates preeclampsia-like phenotypes induced by syncytiotrophoblast-specific G_βq signaling. Sci Adv. 2023 Dec;9(48):eadg8118. PMID:

PMC10691776

13. Wagner VA, Holl KL, Clark KC, Reho JJ, Lehmler HJ, Wang K, Grobe JL, Dwinell MR, Raff H, Kwitek AE. The Power of the Heterogeneous Stock Rat Founder Strains in Modeling Metabolic Disease. *Endocrinology*. 2023 Nov 02;164(12). PMID: PMC10637104
14. Wagner VA, Deng G, Claflin KE, Ritter ML, Cui H, Nakagawa P, Sigmund CD, Morselli LL, Grobe JL, Kwitek AE. Cell-specific transcriptome changes in the hypothalamic arcuate nucleus in a mouse deoxycorticosterone acetate-salt model of hypertension. *Front Cell Neurosci*. 2023;17:1207350. PMID: PMC10244568
15. Wagner VA, Holl KL, Clark KC, Reho JJ, Dwinell MR, Lehmler HJ, Raff H, Grobe JL, Kwitek AE. Genetic background in the rat affects endocrine and metabolic outcomes of bisphenol F exposure. *Toxicol Sci*. 2023 Jun 28;194(1):84-100. PMID: PMC10306406
16. Kaldunski ML, Smith JR, Brodie KC, De Pons JL, Demos WM, Gibson AC, Hayman GT, Lamers L, Laulederkind SJF, Thorat K, Thota J, Tutaj MA, Tutaj M, Vedi M, Wang SJ, Zacher S, Dwinell MR, Kwitek AE. Rare disease research resources at the Rat Genome Database. *Genetics*. 2023 Aug 09;224(4). PMID: PMC10411567
17. Vedi M, Smith JR, Thomas Hayman G, Tutaj M, Brodie KC, De Pons JL, Demos WM, Gibson AC, Kaldunski ML, Lamers L, Laulederkind SJF, Thota J, Thorat K, Tutaj MA, Wang SJ, Zacher S, Dwinell MR, Kwitek AE. 2022 updates to the Rat Genome Database: a Findable, Accessible, Interoperable, and Reusable (FAIR) resource. *Genetics*. 2023 May 04;224(1). PMID: PMC10474928
18. Gene Ontology Consortium, Aleksander SA, Balhoff J, Carbon S, Cherry JM, Drabkin HJ, Ebert D, Feuermann M, Gaudet P, Harris NL, Hill DP, Lee R, Mi H, Moxon S, Mungall CJ, Muruganugan A, Mushayahama T, Sternberg PW, Thomas PD, Van Auken K, Ramsey J, Siegele DA, Chisholm RL, Fey P, Aspromonte MC, Nugnes MV, Quaglia F, Tosatto S, Giglio M, Nadendla S, Antonazzo G, Attrill H, Dos Santos G, Marygold S, Strelets V, Tabone CJ, Thurmond J, Zhou P, Ahmed SH, Asanithong P, Luna Buitrago D, Erdol MN, Gage MC, Ali Kadhun M, Li KYC, Long M, Michalak A, Pesala A, Pritazhara A, Saverimuttu SCC, Su R, Thurlow KE, Lovering RC, Logie C, Oliferenko S, Blake J, Christie K, Corbani L, Dolan ME, Drabkin HJ, Hill DP, Ni L, Sitnikov D, Smith C, Cuzick A, Seager J, Cooper L, Elser J, Jaiswal P, Gupta P, Jaiswal P, Naithani S, Lera-Ramirez M, Rutherford K, Wood V, De Pons JL, Dwinell MR, Hayman GT, Kaldunski ML, Kwitek AE, Laulederkind SJF, Tutaj MA, Vedi M, Wang SJ, D'Eustachio P, Aimò L, Axelsen K, Bridge A, Hyka-Nouspikel N, Morgat A, Aleksander SA, Cherry JM, Engel SR, Karra K, Miyasato SR, Nash RS, Skrzypek MS, Weng S, Wong ED, Bakker E, Berardini TZ, Reiser L, Auchincloss A, Axelsen K, Argoud-Puy G, Blatter MC, Boutet E, Breuza L, Bridge A, Casals-Casas C, Coudert E, Estreicher A, Livia Famiglietti M, Feuermann M, Gos A, Gruaz-Gumowski N, Hulo C, Hyka-Nouspikel N, Jungo F, Le Mercier P, Lieberherr D, Masson P, Morgat A, Pedruzzi I, Pourcel L, Poux S, Rivoire C, Sundaram S, Bateman A, Bowler-Barnett E, Bye-A-Jee H, Denny P, Ignatchenko A, Ishtiaq R, Lock A, Lussi Y, Magrane M, Martin MJ, Orchard S, Raposo P, Speretta E, Tyagi N, Warner K, Zaru R, Diehl AD, Lee R, Chan J, Diamantakis S, Raciti D, Zarowiecki M, Fisher M, James-Zorn C, Ponferrada V, Zorn A, Ramachandran S, Ruzicka L, Westerfield M. The Gene Ontology knowledgebase in 2023. *Genetics*. 2023 May 04;224(1). PMID: PMC10158837
19. McCarthy FM, Jones TEM, Kwitek AE, Smith CL, Vize PD, Westerfield M, Bruford EA. The case for standardizing gene nomenclature in vertebrates. *Nature*. 2023 Feb;614(7948):E31-E32. PMID: PMC9931569
20. Wang SJ, Brodie KC, De Pons JL, Demos WM, Gibson AC, Hayman GT, Hill ML, Kaldunski ML, Lamers L, Laulederkind SJF, Nalabolu HS, Thota J, Thorat K, Tutaj MA, Tutaj M, Vedi M, Zacher S, Smith JR, Dwinell MR, Kwitek AE. Ontological Analysis of Coronavirus Associated Human Genes at the COVID-19 Disease Portal. *Genes (Basel)*. 2022 Dec 07;13(12). PMID: PMC9777590
21. Dursun C, Kwitek AE, Bozdag S. PhenoGeneRanker: Gene and Phenotype Prioritization Using Multiplex Heterogeneous Networks. *IEEE/ACM Trans Comput Biol Bioinform*. 2022;19(5):2950-2962. PMID: PMC9704494
22. Clark KC, Wagner VA, Holl KL, Reho JJ, Tutaj M, Smith JR, Dwinell MR, Grobe JL, Kwitek AE. Body Composition and Metabolic Changes in a Lyon Hypertensive Congenic Rat and Identification of *Erc612* as a Positional Candidate Gene. *Front Genet*. 2022;13:903971. PMID: PMC9263446
23. Patil CN, Ritter ML, Wackman KK, Oliveira V, Balapattabi K, Grobe CC, Brozoski DT, Reho JJ, Nakagawa P, Mouradian GC Jr, Kriegel AJ, Kwitek AE, Hodges MR, Segar JL, Sigmund CD, Grobe JL. Cardiometabolic effects of DOCA-salt in male C57BL/6J mice are variably dependent on sodium and nonsodium components of diet. *Am J Physiol Regul Integr Comp Physiol*. 2022 Jun

- 01;322(6):R467-R485. PMID: PMC9054347
24. VEDI M, Nalabolu HS, Lin CW, Hoffman MJ, Smith JR, Brodie K, De Pons JL, Demos WM, Gibson AC, Hayman GT, Hill ML, Kaldunski ML, Lamers L, Lauderkind SJF, Thorat K, Thota J, Tutaj M, Tutaj MA, Wang SJ, Zacher S, Dwinell MR, Kwitek AE. MOET: a web-based gene set enrichment tool at the Rat Genome Database for multiontology and multispecies analyses. *Genetics*. 2022 Apr 04;220(4). PMID: PMC8982048
 25. Alliance of Genome Resources Consortium. Harmonizing model organism data in the Alliance of Genome Resources. *Genetics*. 2022 Apr 04;220(4). PMID: PMC8982023
 26. Kaldunski ML, Smith JR, Hayman GT, Brodie K, De Pons JL, Demos WM, Gibson AC, Hill ML, Hoffman MJ, Lamers L, Lauderkind SJF, Nalabolu HS, Thorat K, Thota J, Tutaj M, Tutaj MA, VEDI M, Wang SJ, Zacher S, Dwinell MR, Kwitek AE. The Rat Genome Database (RGD) facilitates genomic and phenotypic data integration across multiple species for biomedical research. *Mamm Genome*. 2022 Mar;33(1):66-80. PMID: PMC8570235
 27. Reho JJ, Nakagawa P, Mouradian GC Jr, Grobe CC, Saravia FL, Burnett CML, Kwitek AE, Kirby JR, Segar JL, Hodges MR, Sigmund CD, Grobe JL. Methods for the Comprehensive *in vivo* Analysis of Energy Flux, Fluid Homeostasis, Blood Pressure, and Ventilatory Function in Rodents. *Front Physiol*. 2022;13:855054. PMID: PMC8914175
 28. Howe K, Dwinell M, Shimoyama M, Corton C, Betteridge E, Dove A, Quail MA, Smith M, Saba L, Williams RW, Chen H, Kwitek AE, McCarthy SA, Uliano-Silva M, Chow W, Tracey A, Torrance J, Sims Y, Challis R, Threlfall J, Blaxter M. The genome sequence of the Norway rat, *Rattus norvegicus* Berkenhout 1769. *Wellcome Open Res*. 2021;6:118. PMID: PMC8495504
 29. Wagner VA, Clark KC, Carrillo-Sáenz L, Holl KA, Velez-Bermudez M, Simonsen D, Grobe JL, Wang K, Thurman A, Solberg Woods LC, Lehmler HJ, Kwitek AE. Bisphenol F Exposure in Adolescent Heterogeneous Stock Rats Affects Growth and Adiposity. *Toxicol Sci*. 2021 May 27;181(2):246-261. PMID: PMC8163043
 30. Oliveira V, Kwitek AE, Sigmund CD, Morselli LL, Grobe JL. Recent Advances in Hypertension: Intersection of Metabolic and Blood Pressure Regulatory Circuits in the Central Nervous System. *Hypertension*. 2021 Apr;77(4):1061-1068. PMID: PMC7990288
 31. Dursun C, Smith JR, Hayman GT, Kwitek AE, Bozdogan S. NECo: A node embedding algorithm for multiplex heterogeneous networks Proceedings - 2020 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2020. 16 December 2020:146-149.
 32. Gene Ontology Consortium. The Gene Ontology resource: enriching a Gold mine. *Nucleic Acids Res*. 2021 Jan 08;49(D1):D325-D334. PMID: PMC7779012
 33. Berillo O, Ouerd S, Idris-Khodja N, Rehman A, Richer C, Sinnott D, Kwitek AE, Paradis P, Schifffrin EL. Chromosome 2 Fragment Substitutions in Dahl Salt-Sensitive Rats and RNA Sequencing Identified *Enpep* and *Hs2st1* as Vascular Inflammatory Modulators. *Hypertension*. 2021 Jan;77(1):178-189. PMID: PMC7726001
 34. Deng G, Morselli LL, Wagner VA, Balapattabi K, Sapouckey SA, Knudtson KL, Rahmouni K, Cui H, Sigmund CD, Kwitek AE, Grobe JL. Single-Nucleus RNA Sequencing of the Hypothalamic Arcuate Nucleus of C57BL/6J Mice After Prolonged Diet-Induced Obesity. *Hypertension*. 2020 Aug;76(2):589-597. PMID: PMC7347451
 35. Perschbacher KJ, Deng G, Sandgren JA, Walsh JW, Witcher PC, Sapouckey SA, Owens CE, Zhang SY, Scroggins SM, Pearson NA, Devor EJ, Sebag JA, Pierce GL, Fisher RA, Kwitek AE, Santillan DA, Gibson-Corley KN, Sigmund CD, Santillan MK, Grobe JL. Reduced mRNA Expression of RGS2 (Regulator of G Protein Signaling-2) in the Placenta Is Associated With Human Preeclampsia and Sufficient to Cause Features of the Disorder in Mice. *Hypertension*. 2020 Feb;75(2):569-579. PMID: PMC7027931
 36. Mansilla MA, Sompallae RR, Nishimura CJ, Kwitek AE, Kimble MJ, Freese ME, Campbell CA, Smith RJ, Thomas CP. Targeted broad-based genetic testing by next-generation sequencing informs diagnosis and facilitates management in patients with kidney diseases. *Nephrol Dial Transplant*. 2021 Jan 25;36(2):295-305. PMID: PMC7834596
 37. Smith JR, Hayman GT, Wang SJ, Lauderkind SJF, Hoffman MJ, Kaldunski ML, Tutaj M, Thota J, Nalabolu HS, Ellanki SLR, Tutaj MA, De Pons JL, Kwitek AE, Dwinell MR, Shimoyama ME. The Year of the Rat: The Rat Genome Database at 20: a multi-species knowledgebase and analysis platform. *Nucleic Acids Res*. 2020 Jan 08;48(D1):D731-D742. PMID: PMC7145519
 38. Stauss HM, Stangl H, Clark KC, Kwitek AE, Lira VA. Cervical vagal nerve stimulation impairs glucose tolerance and suppresses insulin release in conscious rats. *Physiol Rep*. 2018 Dec;6(24):e13953.

PMCID: PMC6300710

39. Martín-Gálvez D, Dunoyer de Segonzac D, Ma MCJ, Kwitek AE, Thybert D, Flicek P. Genome variation and conserved regulation identify genomic regions responsible for strain specific phenotypes in rat. *BMC Genomics*. 2017 Dec 22;18(1):986. PMCID: PMC5741965
40. Ma MCJ, Pettus JM, Jakoubek JA, Traxler MG, Clark KC, Mennie AK, Kwitek AE. Contribution of independent and pleiotropic genetic effects in the metabolic syndrome in a hypertensive rat. *PLoS One*. 2017;12(8):e0182650. PMCID: PMC5549746
41. Thomas CP, Mansilla MA, Sompallae R, Mason SO, Nishimura CJ, Kimble MJ, Campbell CA, Kwitek AE, Darbro BW, Stewart ZA, Smith RJ. Screening of Living Kidney Donors for Genetic Diseases Using a Comprehensive Genetic Testing Strategy. *Am J Transplant*. 2017 Feb;17(2):401-410. PMCID: PMC5297870
42. Wang J, Ma MC, Mennie AK, Pettus JM, Xu Y, Lin L, Traxler MG, Jakoubek J, Atanur SS, Aitman TJ, Xing Y, Kwitek AE. Systems biology with high-throughput sequencing reveals genetic mechanisms underlying the metabolic syndrome in the Lyon hypertensive rat. *Circ Cardiovasc Genet*. 2015 Apr;8(2):316-26. PMCID: PMC4406788
43. Brownstein CA, Beggs AH, Homer N, Merriman B, Yu TW, Flannery KC, DeChene ET, Towne MC, Savage SK, Price EN, Holm IA, Luquette LJ, Lyon E, Majzoub J, Neupert P, McCallie D Jr, Szolovits P, Willard HF, Mendelsohn NJ, Temme R, Finkel RS, Yum SW, Medne L, Sunyaev SR, Adzhubey I, Cassa CA, de Bakker PI, Duzkale H, Dworzanski P, Fairbrother W, Francioli L, Funke BH, Giovanni MA, Handsaker RE, Lage K, Lebo MS, Lek M, Leshchiner I, MacArthur DG, McLaughlin HM, Murray MF, Pers TH, Polak PP, Raychaudhuri S, Rehm HL, Soemedi R, Stitzel NO, Vestrecka S, Supper J, Gugenmus C, Klocke B, Hahn A, Schubach M, Menzel M, Biskup S, Freisinger P, Deng M, Braun M, Perner S, Smith RJ, Andorf JL, Huang J, Ryckman K, Sheffield VC, Stone EM, Bair T, Black-Ziegelbein EA, Braun TA, Darbro B, DeLuca AP, Kolbe DL, Scheetz TE, Shearer AE, Sompallae R, Wang K, Bassuk AG, Edens E, Mathews K, Moore SA, Shchelochkov OA, Trapane P, Bossler A, Campbell CA, Heusel JW, Kwitek A, Maga T, Panzer K, Wassink T, Van Daele D, Azaiez H, Booth K, Meyer N, Segal MM, Williams MS, Tromp G, White P, Corsmeier D, Fitzgerald-Butt S, Herman G, Lamb-Thrush D, McBride KL, Newsom D, Pierson CR, Rakowsky AT, Maver A, Lovre?i? L, Palanda?i? A, Peterlin B, Torkamani A, Wedell A, Huss M, Alexeyenko A, Lindvall JM, Magnusson M, Nilsson D, Stranneheim H, Taylan F, Gilissen C, Hoischen A, van Bon B, Yntema H, Nelen M, Zhang W, Sager J, Zhang L, Blair K, Kural D, Cariaso M, Lennon GG, Javed A, Agrawal S, Ng PC, Sandhu KS, Krishna S, Veeramachaneni V, Isakov O, Halperin E, Friedman E, Shomron N, Glusman G, Roach JC, Caballero J, Cox HC, Mauldin D, Ament SA, Rowen L, Richards DR, San Lucas FA, Gonzalez-Garay ML, Caskey CT, Bai Y, Huang Y, Fang F, Zhang Y, Wang Z, Barrera J, Garcia-Lobo JM, González-Lamuño D, Llorca J, Rodriguez MC, Varela I, Reese MG, De La Vega FM, Kiruluta E, Cargill M, Hart RK, Sorenson JM, Lyon GJ, Stevenson DA, Bray BE, Moore BM, Eilbeck K, Yandell M, Zhao H, Hou L, Chen X, Yan X, Chen M, Li C, Yang C, Gunel M, Li P, Kong Y, Alexander AC, Albertyn ZI, Boycott KM, Bulman DE, Gordon PM, Innes AM, Knoppers BM, Majewski J, Marshall CR, Parboosingh JS, Sawyer SL, Samuels ME, Schwartzentruber J, Kohane IS, Margulies DM. An international effort towards developing standards for best practices in analysis, interpretation and reporting of clinical genome sequencing results in the CLARITY Challenge. *Genome Biol*. 2014 Mar 25;15(3):R53. PMCID: PMC4073084
44. Ma MC, Atanur SS, Aitman TJ, Kwitek AE. Genomic structure of nucleotide diversity among Lyon rat models of metabolic syndrome. *BMC Genomics*. 2014 Mar 14;15(1):197. PMCID: PMC4003853
45. Runge CL, Erbe CB, McNally MT, Van Dusen C, Friedland DR, Kwitek AE, Kerschner JE. A novel otoferlin splice-site mutation in sibs with auditory neuropathy spectrum disorder. *Audiol Neurootol*. 2013;18(6):374-82. PMCID: PMC3877672
46. Atanur SS, Diaz AG, Maratou K, Sarkis A, Rotival M, Game L, Tschannen MR, Kaisaki PJ, Otto GW, Ma MC, Keane TM, Hummel O, Saar K, Chen W, Guryev V, Gopalakrishnan K, Garrett MR, Joe B, Citterio L, Bianchi G, McBride M, Dominiczak A, Adams DJ, Serikawa T, Flicek P, Cuppen E, Hubner N, Petretto E, Gauguier D, Kwitek A, Jacob H, Aitman TJ. Genome sequencing reveals loci under artificial selection that underlie disease phenotypes in the laboratory rat. *Cell*. 2013 Aug 01;154(3):691-703. PMCID: PMC3732391
47. Park S, Lu KT, Liu X, Chatterjee TK, Rudich SM, Weintraub NL, Kwitek AE, Sigmund CD. Allele-specific expression of angiotensinogen in human subcutaneous adipose tissue. *Hypertension*. 2013 Jul;62(1):41-7. PMCID: PMC3718031
48. Moralejo DH, Fuller JM, Rutledge EA, Van Yserloo B, Ettinger RA, Jensen R, Osborne W, Kwitek A,

- Lernmark A. BB rat Gimap gene expression in sorted lymphoid T and B cells. *Life Sci.* 2011 Nov 07;89(19-20):748-54. PMID: PMC3264544
49. Moralejo DH, Hansen CT, Treuting P, Hessner MJ, Fuller JM, Van Yserloo B, Jensen R, Osborne W, Kwitek AE, Lernmark A. Differential effects of leptin receptor mutation on male and female BBDR Gimap5⁻/Gimap5⁻ spontaneously diabetic rats. *Physiol Genomics.* 2010 Mar 03;41(1):9-20. PMID: PMC2841494
50. Gilibert S, Bataillard A, Nussberger J, Sassard J, Kwitek AE. Implication of chromosome 13 on hypertension and associated disorders in Lyon hypertensive rats. *J Hypertens.* 2009 Jun;27(6):1186-93. PMID: PMC2915542
51. Rutledge EA, Fuller JM, Van Yserloo B, Moralejo DH, Ettinger RA, Gaur P, Hoehna JL, Peterson MR, Jensen R, Kwitek AE, Lernmark A. Sequence variation and expression of the Gimap gene family in the BB rat. *Exp Diabetes Res.* 2009;2009:835650. PMID: PMC2676327
52. Fuller JM, Bogdani M, Tupling TD, Jensen RA, Pefley R, Manavi S, Cort L, Blankenhorn EP, Mordes JP, Lernmark A, Kwitek AE. Genetic dissection reveals diabetes loci proximal to the gimap5 lymphopenia gene. *Physiol Genomics.* 2009 Jun 10;38(1):89-97. PMID: PMC2696149
53. Aneas I, Rodrigues MV, Pauletti BA, Silva GJ, Carmona R, Cardoso L, Kwitek AE, Jacob HJ, Soler JM, Krieger JE. Congenic strains provide evidence that four mapped loci in chromosomes 2, 4, and 16 influence hypertension in the SHR. *Physiol Genomics.* 2009 Mar 03;37(1):52-7.
54. Bilusi M, Moreno C, Barreto NE, Tschannen MR, Harris EL, Porteous WK, Thompson CM, Grigor MR, Weder A, Boerwinkle E, Hunt SC, Curb JD, Jacob HJ, Kwitek AE. Genetically hypertensive Brown Norway congenic rat strains suggest intermediate traits underlying genetic hypertension. *Croat Med J.* 2008 Oct;49(5):586-99. PMID: PMC2582351
55. Schulte RD, Chu H, Dai X, Chen Y, Edwards B, Haribhai D, Williams CB, Malarkannan S, Hessner MJ, Glisic-Milosavljevic S, Jana S, Kerschen EJ, Ghosh S, Wang D, Kwitek AE, Lernmark A, Gorski J, Weiler H. Impaired survival of peripheral T cells, disrupted NK/NKT cell development, and liver failure in mice lacking Gimap5. *Blood.* 2008 Dec 15;112(13):4905-14. PMID: PMC2597598
56. Mattson DL, Dwinell MR, Greene AS, Kwitek AE, Roman RJ, Jacob HJ, Cowley AW Jr. Chromosome substitution reveals the genetic basis of Dahl salt-sensitive hypertension and renal disease. *Am J Physiol Renal Physiol.* 2008 Sep;295(3):F837-42. PMID: PMC2536867
57. Shimoyama M, Petri V, Pasko D, Bromberg S, Wu W, Chen J, Nenasheva N, Kwitek A, Twigger S, Jacob H. Using multiple ontologies to integrate complex biological data. *Comp Funct Genomics.* 2005;6(7-8):373-8. PMID: PMC2447497
58. Aitman TJ, Critser JK, Cuppen E, Dominiczak A, Fernandez-Suarez XM, Flint J, Gauguier D, Geurts AM, Gould M, Harris PC, Holmdahl R, Hubner N, Izsvák Z, Jacob HJ, Kuramoto T, Kwitek AE, Marrone A, Mashimo T, Moreno C, Mullins J, Mullins L, Olsson T, Pravenec M, Riley L, Saar K, Serikawa T, Shull JD, Szpirer C, Twigger SN, Voigt B, Worley K. Progress and prospects in rat genetics: a community view. *Nat Genet.* 2008 May;40(5):516-22.
59. Liang M, Lee NH, Wang H, Greene AS, Kwitek AE, Kaldunski ML, Luu TV, Frank BC, Bugenhagen S, Jacob HJ, Cowley AW Jr. Molecular networks in Dahl salt-sensitive hypertension based on transcriptome analysis of a panel of consomic rats. *Physiol Genomics.* 2008 Jun 12;34(1):54-64.
60. Gilibert S, Kwitek AE, Hubner N, Tschannen M, Jacob HJ, Sassard J, Bataillard A. Effects of chromosome 17 on features of the metabolic syndrome in the Lyon hypertensive rat. *Physiol Genomics.* 2008 Apr 22;33(2):212-7.
61. Mattson DL, Dwinell MR, Greene AS, Kwitek AE, Roman RJ, Cowley AW Jr, Jacob HJ. Chromosomal mapping of the genetic basis of hypertension and renal disease in FHH rats. *Am J Physiol Renal Physiol.* 2007 Dec;293(6):F1905-14.
62. Baessler A, Fischer M, Mayer B, Koehler M, Wiedmann S, Stark K, Doering A, Erdmann J, Riegger G, Schunkert H, Kwitek AE, Hengstenberg C. Epistatic interaction between haplotypes of the ghrelin ligand and receptor genes influence susceptibility to myocardial infarction and coronary artery disease. *Hum Mol Genet.* 2007 Apr 15;16(8):887-99.
63. Fuller JM, Kwitek AE, Hawkins TJ, Moralejo DH, Lu W, Tupling TD, MacMurray AJ, Borchardt G, Hasinoff M, Lernmark A. Erratum: Introgression of F344 rat genomic DNA on BB rat chromosome 4 generates diabetes-resistant lymphopenic BB rats (*Diabetes* (2006) 55 (3351-3357)) *Diabetes.* February 2007;56(2):549.
64. Twigger SN, Shimoyama M, Bromberg S, Kwitek AE, Jacob HJ, RGD Team. The Rat Genome Database, update 2007--easing the path from disease to data and back again. *Nucleic Acids Res.* 2007 Jan;35(Database issue):D658-62. PMID: PMC1761441

65. Fuller JM, Kwitek AE, Hawkins TJ, Moralejo DH, Lu W, Tupling TD, Macmurray AJ, Borchardt G, Hasinoff M, Lernmark A. Introgression of F344 rat genomic DNA on BB rat chromosome 4 generates diabetes-resistant lymphopenic BB rats. *Diabetes*. 2006 Dec;55(12):3351-7.
66. Geoffrey R, Jia S, Kwitek AE, Woodliff J, Ghosh S, Lernmark A, Wang X, Hessner MJ. Evidence of a functional role for mast cells in the development of type 1 diabetes mellitus in the BioBreeding rat. *J Immunol*. 2006 Nov 15;177(10):7275-86.
67. Schlick NE, Jensen-Seaman MI, Orlebeke K, Kwitek AE, Jacob HJ, Lazar J. Sequence analysis of the complete mitochondrial DNA in 10 commonly used inbred rat strains. *Am J Physiol Cell Physiol*. 2006 Dec;291(6):C1183-92.
68. Kunert MP, Drenjancevic-Peric I, Dwinell MR, Lombard JH, Cowley AW Jr, Greene AS, Kwitek AE, Jacob HJ. Consomic strategies to localize genomic regions related to vascular reactivity in the Dahl salt-sensitive rat. *Physiol Genomics*. 2006 Aug 16;26(3):218-25.
69. Baessler A, Kwitek AE, Fischer M, Koehler M, Reinhard W, Erdmann J, Riegger G, Doering A, Schunkert H, Hengstenberg C. Association of the Ghrelin receptor gene region with left ventricular hypertrophy in the general population: results of the MONICA/KORA Augsburg Echocardiographic Substudy. *Hypertension*. 2006 May;47(5):920-7.
70. Kwitek AE, Jacob HJ, Baker JE, Dwinell MR, Forster HV, Greene AS, Kunert MP, Lombard JH, Mattson DL, Pritchard KA Jr, Roman RJ, Tonellato PJ, Cowley AW Jr. BN phenome: detailed characterization of the cardiovascular, renal, and pulmonary systems of the sequenced rat. *Physiol Genomics*. 2006 Apr 13;25(2):303-13.
71. Malek RL, Wang HY, Kwitek AE, Greene AS, Bhagabati N, Borchardt G, Cahill L, Currier T, Frank B, Fu X, Hasinoff M, Howe E, Letwin N, Luu TV, Saeed A, Sajadi H, Salzberg SL, Sultana R, Thiagarajan M, Tsai J, Veratti K, White J, Quackenbush J, Jacob HJ, Lee NH. Physiogenomic resources for rat models of heart, lung and blood disorders. *Nat Genet*. 2006 Feb;38(2):234-9.
72. Roman RJ, Hoagland KM, Lopez B, Kwitek AE, Garrett MR, Rapp JP, Lazar J, Jacob HJ, Sarkis A. Characterization of blood pressure and renal function in chromosome 5 congenic strains of Dahl S rats. *Am J Physiol Renal Physiol*. 2006 Jun;290(6):F1463-71.
73. Di Nicolantonio R, Kostka V, Kwitek A, Jacob H, Thomas WG, Harrap SB. Fine mapping of Lvm1: a quantitative trait locus controlling heart size independently of blood pressure. *Pulm Pharmacol Ther*. 2006;19(1):70-3.
74. Twigger SN, Pasko D, Nie J, Shimoyama M, Bromberg S, Campbell D, Chen J, dela Cruz N, Fan C, Foote C, Harris G, Hickmann B, Ji Y, Jin W, Li D, Mathis J, Nenasheva N, Nigam R, Petri V, Reilly D, Ruotti V, Schauburger E, Seiler K, Slyper R, Smith J, Wang W, Wu W, Zhao L, Zuniga-Meyer A, Tonellato PJ, Kwitek AE, Jacob HJ. Tools and strategies for physiological genomics: the Rat Genome Database. *Physiol Genomics*. 2005 Oct 17;23(2):246-56. PMID: PMC4505745
75. Roche JP, Wackym PA, Cioffi JA, Kwitek AE, Erbe CB, Popper P. In silico analysis of 2085 clones from a normalized rat vestibular periphery 3' cDNA library. *Audiol Neurootol*. 2005;10(6):310-22. PMID: PMC1421512
76. Baessler A, Hasinoff MJ, Fischer M, Reinhard W, Sonnenberg GE, Olivier M, Erdmann J, Schunkert H, Doering A, Jacob HJ, Comuzzie AG, Kissebah AH, Kwitek AE. Genetic linkage and association of the growth hormone secretagogue receptor (ghrelin receptor) gene in human obesity. *Diabetes*. 2005 Jan;54(1):259-67. PMID: PMC2793077
77. de la Cruz N, Bromberg S, Pasko D, Shimoyama M, Twigger S, Chen J, Chen CF, Fan C, Foote C, Gopinath GR, Harris G, Hughes A, Ji Y, Jin W, Li D, Mathis J, Nenasheva N, Nie J, Nigam R, Petri V, Reilly D, Wang W, Wu W, Zuniga-Meyer A, Zhao L, Kwitek A, Tonellato P, Jacob H. The Rat Genome Database (RGD): developments towards a phenome database. *Nucleic Acids Res*. 2005 Jan 01;33(Database issue):D485-91. PMID: PMC540004
78. Bilusic M, Bataillard A, Tschannen MR, Gao L, Barreto NE, Vincent M, Wang T, Jacob HJ, Sassard J, Kwitek AE. Mapping the genetic determinants of hypertension, metabolic diseases, and related phenotypes in the Lyon hypertensive rat. *Hypertension*. 2004 Nov;44(5):695-701.
79. Michalkiewicz M, Michalkiewicz T, Ettinger RA, Rutledge EA, Fuller JM, Moralejo DH, Van Yserloo B, MacMurray AJ, Kwitek AE, Jacob HJ, Lander ES, Lernmark A. Transgenic rescue demonstrates involvement of the *Ian5* gene in T cell development in the rat. *Physiol Genomics*. 2004 Oct 04;19(2):228-32.
80. Kwitek AE, Gullings-Handley J, Yu J, Carlos DC, Orlebeke K, Nie J, Eckert J, Lemke A, Andrae JW, Bromberg S, Pasko D, Chen D, Scheetz TE, Casavant TL, Soares MB, Sheffield VC, Tonellato PJ, Jacob HJ. High-density rat radiation hybrid maps containing over 24,000 SSLPs, genes, and ESTs

- provide a direct link to the rat genome sequence. *Genome Res.* 2004 Apr;14(4):750-7. PMID: PMC383322
81. Twigger SN, Nie J, Ruotti V, Yu J, Chen D, Li D, Mathis J, Narayanasamy V, Gopinath GR, Pasko D, Shimoyama M, De La Cruz N, Bromberg S, Kwitek AE, Jacob HJ, Tonellato PJ. Integrative genomics: in silico coupling of rat physiology and complex traits with mouse and human data. *Genome Res.* 2004 Apr;14(4):651-60. PMID: PMC383309
 82. Gibbs RA, Weinstock GM, Metzker ML, Muzny DM, Sodergren EJ, Scherer S, Scott G, Steffen D, Worley KC, Burch PE, Okwuonu G, Hines S, Lewis L, DeRamo C, Delgado O, Dugan-Rocha S, Miner G, Morgan M, Hawes A, Gill R, Celera, Holt RA, Adams MD, Amanatides PG, Baden-Tillson H, Barnstead M, Chin S, Evans CA, Ferriera S, Fosler C, Glodek A, Gu Z, Jennings D, Kraft CL, Nguyen T, Pfannkoch CM, Sitter C, Sutton GG, Venter JC, Woodage T, Smith D, Lee HM, Gustafson E, Cahill P, Kana A, Doucette-Stamm L, Weinstock K, Fечtel K, Weiss RB, Dunn DM, Green ED, Blakesley RW, Bouffard GG, De Jong PJ, Osoegawa K, Zhu B, Marra M, Schein J, Bosdet I, Fjell C, Jones S, Krzywinski M, Mathewson C, Siddiqui A, Wye N, McPherson J, Zhao S, Fraser CM, Shetty J, Shatsman S, Geer K, Chen Y, Abramzon S, Nierman WC, Havlak PH, Chen R, Durbin KJ, Simons R, Ren Y, Song XZ, Li B, Liu Y, Qin X, Cawley S, Worley KC, Cooney AJ, D'Souza LM, Martin K, Wu JQ, Gonzalez-Garay ML, Jackson AR, Kalafus KJ, McLeod MP, Milosavljevic A, Virk D, Volkov A, Wheeler DA, Zhang Z, Bailey JA, Eichler EE, Tuzun E, Birney E, Mongin E, Ureta-Vidal A, Woodwark C, Zdobnov E, Bork P, Suyama M, Torrents D, Alexandersson M, Trask BJ, Young JM, Huang H, Wang H, Xing H, Daniels S, Gietzen D, Schmidt J, Stevens K, Vitt U, Wingrove J, Camara F, Mar Albà M, Abril JF, Guigo R, Smit A, Dubchak I, Rubin EM, Couronne O, Poliakov A, Hübner N, Ganten D, Goesele C, Hummel O, Kreitler T, Lee YA, Monti J, Schulz H, Zimdahl H, Himmelbauer H, Lehrach H, Jacob HJ, Bromberg S, Gullings-Handley J, Jensen-Seaman MI, Kwitek AE, Lazar J, Pasko D, Tonellato PJ, Twigger S, Ponting CP, Duarte JM, Rice S, Goodstadt L, Beatson SA, Emes RD, Winter EE, Webber C, Brandt P, Nyakatura G, Adetobi M, Chiaromonte F, Elnitski L, Eswara P, Hardison RC, Hou M, Kolbe D, Makova K, Miller W, Nekrutenko A, Riemer C, Schwartz S, Taylor J, Yang S, Zhang Y, Lindpaintner K, Andrews TD, Caccamo M, Clamp M, Clarke L, Curwen V, Durbin R, Eyraas E, Searle SM, Cooper GM, Batzoglou S, Brudno M, Sidow A, Stone EA, Venter JC, Payseur BA, Bourque G, López-Otín C, Puente XS, Chakrabarti K, Chatterji S, Dewey C, Pachter L, Bray N, Yap VB, Caspi A, Tesler G, Pevzner PA, Haussler D, Roskin KM, Baertsch R, Clawson H, Furey TS, Hinrichs AS, Karolchik D, Kent WJ, Rosenbloom KR, Trumbower H, Weirauch M, Cooper DN, Stenson PD, Ma B, Brent M, Arumugam M, Shteynberg D, Copley RR, Taylor MS, Riethman H, Mudunuri U, Peterson J, Guyer M, Felsenfeld A, Old S, Mockrin S, Collins F, Rat Genome Sequencing Project Consortium. Genome sequence of the Brown Norway rat yields insights into mammalian evolution. *Nature.* 2004 Apr 01;428(6982):493-521.
 83. Sonnenberg GE, Krakower GR, Martin LJ, Olivier M, Kwitek AE, Comuzzie AG, Blangero J, Kissebah AH. Genetic determinants of obesity-related lipid traits. *J Lipid Res.* 2004 Apr;45(4):610-5. PMID: PMC2771634
 84. Cioffi JA, Erbe CB, Raphael R, Kwitek AE, Tiwari UK, Jacob HJ, Popper P, Wackym PA. Expression of G-protein alpha subunit genes in the vestibular periphery of *Rattus norvegicus* and their chromosomal mapping. *Acta Otolaryngol.* 2003 Dec;123(9):1027-34.
 85. Moralejo DH, Park HA, Speros SJ, MacMurray AJ, Kwitek AE, Jacob HJ, Lander ES, Lernmark A. Genetic dissection of lymphopenia from autoimmunity by introgression of mutated *Ian5* gene onto the F344 rat. *J Autoimmun.* 2003 Dec;21(4):315-24. PMID: PMC7126882
 86. Roman RJ, Cowley AW Jr, Greene A, Kwitek AE, Tonellato PJ, Jacob HJ. Consomic rats for the identification of genes and pathways underlying cardiovascular disease. *Cold Spring Harb Symp Quant Biol.* 2002;67:309-15.
 87. Wang HY, Malek RL, Kwitek AE, Greene AS, Luu TV, Behbahani B, Frank B, Quackenbush J, Lee NH. Assessing unmodified 70-mer oligonucleotide probe performance on glass-slide microarrays. *Genome Biol.* 2003;4(1):R5. PMID: PMC151289
 88. Tseng J, Erbe CB, Kwitek AE, Jacob HJ, Popper P, Wackym PA. Radiation hybrid mapping of five muscarinic acetylcholine receptor subtype genes in *Rattus norvegicus*. *Hear Res.* 2002 Dec;174(1-2):86-92.
 89. MacMurray AJ, Moralejo DH, Kwitek AE, Rutledge EA, Van Yserloo B, Gohlke P, Speros SJ, Snyder B, Schaefer J, Bieg S, Jiang J, Ettinger RA, Fuller J, Daniels TL, Pettersson A, Orlebeke K, Birren B, Jacob HJ, Lander ES, Lernmark A. Lymphopenia in the BB rat model of type 1 diabetes is due to a mutation in a novel immune-associated nucleotide (*Ian*)-related gene. *Genome Res.* 2002

- Jul;12(7):1029-39. PMID: PMC186618
90. Wallace CA, Ali S, Glazier AM, Norsworthy PJ, Carlos DC, Scott J, Freeman TC, Stanton LW, Kwitek AE, Aitman TJ. Radiation hybrid mapping of 70 rat genes from a data set of differentially expressed genes. *Mamm Genome*. 2002 Apr;13(4):194-7.
 91. Twigger S, Lu J, Shimoyama M, Chen D, Pasko D, Long H, Ginster J, Chen CF, Nigam R, Kwitek A, Eppig J, Maltais L, Maglott D, Schuler G, Jacob H, Tonellato PJ. Rat Genome Database (RGD): mapping disease onto the genome. *Nucleic Acids Res*. 2002 Jan 01;30(1):125-8. PMID: PMC99132
 92. Kwitek AE, Tonellato PJ, Chen D, Gullings-Handley J, Cheng YS, Twigger S, Scheetz TE, Casavant TL, Stoll M, Nobrega MA, Shiozawa M, Soares MB, Sheffield VC, Jacob HJ. Automated construction of high-density comparative maps between rat, human, and mouse. *Genome Res*. 2001 Nov;11(11):1935-43. PMID: PMC311144
 93. Comuzzie AG, Funahashi T, Sonnenberg G, Martin LJ, Jacob HJ, Black AE, Maas D, Takahashi M, Kihara S, Tanaka S, Matsuzawa Y, Blangero J, Cohen D, Kissebah A. The genetic basis of plasma variation in adiponectin, a global endophenotype for obesity and the metabolic syndrome. *J Clin Endocrinol Metab*. 2001 Sep;86(9):4321-5.
 94. Tseng J, Kwitek-Black AE, Erbe CB, Popper P, Jacob HJ, Wackym PA. Radiation hybrid mapping of 11 alpha and beta nicotinic acetylcholine receptor genes in *Rattus norvegicus*. *Brain Res Mol Brain Res*. 2001 Jul 13;91(1-2):169-73.
 95. Nishimura DY, Searby CC, Carmi R, Elbedour K, Van Maldergem L, Fulton AB, Lam BL, Powell BR, Swiderski RE, Bugge KE, Haider NB, Kwitek-Black AE, Ying L, Duhl DM, Gorman SW, Heon E, Iannaccone A, Bonneau D, Biesecker LG, Jacobson SG, Stone EM, Sheffield VC. Positional cloning of a novel gene on chromosome 16q causing Bardet-Biedl syndrome (BBS2). *Hum Mol Genet*. 2001 Apr 01;10(8):865-74.
 96. Scheetz TE, Raymond MR, Nishimura DY, McClain A, Roberts C, Birkett C, Gardiner J, Zhang J, Butters N, Sun C, Kwitek-Black A, Jacob H, Casavant TL, Soares MB, Sheffield VC. Generation of a high-density rat EST map. *Genome Res*. 2001 Mar;11(3):497-502. PMID: PMC311028
 97. Ou H, Haendeler J, Aebly MR, Kelly LA, Cholewa BC, Koike G, Kwitek-Black A, Jacob HJ, Berk BC, Miano JM. Retinoic acid-induced tissue transglutaminase and apoptosis in vascular smooth muscle cells. *Circ Res*. 2000 Nov 10;87(10):881-7.
 98. Gösele C, Hong L, Kreitler T, Rossmann M, Hieke B, Gross U, Kramer M, Himmelbauer H, Bihoreau MT, Kwitek-Black AE, Twigger S, Tonellato PJ, Jacob HJ, Schalkwyk LC, Lindpaintner K, Ganten D, Lehrach H, Knoblauch M. High-throughput scanning of the rat genome using interspersed repetitive sequence-PCR markers. *Genomics*. 2000 Nov 01;69(3):287-94.
 99. Stoll M, Kwitek-Black AE, Cowley AW Jr, Harris EL, Harrap SB, Krieger JE, Printz MP, Provoost AP, Sassard J, Jacob HJ. New target regions for human hypertension via comparative genomics. *Genome Res*. 2000 Apr;10(4):473-82. PMID: PMC310887
 100. Glickman M, Malek RL, Kwitek-Black AE, Jacob HJ, Lee NH. Molecular cloning, tissue-specific expression, and chromosomal localization of a novel nerve growth factor-regulated G-protein-coupled receptor, nrg-1. *Mol Cell Neurosci*. 1999 Aug;14(2):141-52.
 101. Steen RG, Kwitek-Black AE, Glenn C, Gullings-Handley J, Van Etten W, Atkinson OS, Appel D, Twigger S, Muir M, Mull T, Granados M, Kissebah M, Russo K, Crane R, Popp M, Peden M, Matisse T, Brown DM, Lu J, Kingsmore S, Tonellato PJ, Rozen S, Slonim D, Young P, Jacob HJ. A high-density integrated genetic linkage and radiation hybrid map of the laboratory rat. *Genome Res*. 1999 Jun;9(6):AP1-8, insert.
 102. Bonn -Tamir B, Nystuen A, Seroussi E, Kalinsky H, Kwitek-Black AE, Korostishevsky M, Adato A, Sheffield VC. Usher syndrome in the Samaritans: strengths and limitations of using inbred isolated populations to identify genes causing recessive disorders. *Am J Phys Anthropol*. 1997 Oct;104(2):193-200.
 103. Kwitek-Black AE, Krizman D, Carmi R, Doggett N, Stone EM, Sheffield VC. Fine-mapping of Bardet-Biedl syndrome locus on chromosome 16 *Investigative Ophthalmology and Visual Science*. 15 February 1996;37(3).
 104. Carmi R, Rokhlina T, Kwitek-Black AE, Elbedour K, Nishimura D, Stone EM, Sheffield VC. Use of a DNA pooling strategy to identify a human obesity syndrome locus on chromosome 15. *Hum Mol Genet*. 1995 Jan;4(1):9-13.
 105. Sheffield VC, Carmi R, Kwitek-Black A, Rokhlina T, Nishimura D, Duyk GM, Elbedour K, Sunden SL, Stone EM. Identification of a Bardet-Biedl syndrome locus on chromosome 3 and evaluation of an efficient approach to homozygosity mapping. *Hum Mol Genet*. 1994 Aug;3(8):1331-5.

106. Kwitek-Black AE, Carmi R, Duyk GM, Buetow KH, Elbedour K, Parvari R, Yandava CN, Stone EM, Sheffield VC. Linkage of Bardet-Biedl syndrome to chromosome 16q and evidence for non-allelic genetic heterogeneity. *Nat Genet.* 1993 Dec;5(4):392-6.
107. Sheffield VC, Beck JS, Kwitek AE, Sandstrom DW, Stone EM. The sensitivity of single-strand conformation polymorphism analysis for the detection of single base substitutions. *Genomics.* 1993 May;16(2):325-32.
108. Johnson AT, Drack AV, Kwitek AE, Cannon RL, Stone EM, Alward WL. Clinical features and linkage analysis of a family with autosomal dominant juvenile glaucoma. *Ophthalmology.* 1993 Apr;100(4):524-9.
109. Beck JS, Kwitek AE, Cogen PH, Metzger AK, Duyk GM, Sheffield VC. A denaturing gradient gel electrophoresis assay for sensitive detection of p53 mutations. *Hum Genet.* 1993 Mar;91(1):25-30.
110. Murray JC, Bennett SR, Kwitek AE, Small KW, Schinzel A, Alward WL, Weber JL, Bell GI, Buetow KH. Linkage of Rieger syndrome to the region of the epidermal growth factor gene on chromosome 4. *Nat Genet.* 1992 Sep;2(1):46-9.
111. Weber JL, Polymeropoulos MH, May PE, Kwitek AE, Xiao H, McPherson JD, Wasmuth JJ. Mapping of human chromosome 5 microsatellite DNA polymorphisms. *Genomics.* 1991 Nov;11(3):695-700.
112. Petersen MB, Weber JL, Slaugenhaupt SA, Kwitek AE, McInnis MG, Chakravarti A, Antonarakis SE. Linkage mapping of D21S171 to the distal long arm of human chromosome 21 using a polymorphic (AC)_n dinucleotide repeat. *Hum Genet.* 1991 Aug;87(4):401-4.
113. Weber JL, Kwitek AE, May PE, Zoghbi HY. Dinucleotide repeat polymorphism at the D6S105 locus. *Nucleic Acids Res.* 1991 Feb 25;19(4):968. PMID: PMC333759
114. Lewis JG, Weber JL, Petersen MB, Slaugenhaupt SA, Kwitek A, May PE, Warren AC, Chakravarti A, Antonarakis SE. Linkage mapping of the highly informative DNA marker D21S156 to human chromosome 21 using a polymorphic GT dinucleotide repeat. *Genomics.* 1990 Oct;8(2):400-2.
115. Weber JL, May PE. Dinucleotide repeat polymorphism at the D22S156 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4639. PMID: PMC331334
116. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D15S87 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4640. PMID: PMC331335
117. Weber JL, Kappel C, May PE, Kwitek AE. Dinucleotide repeat polymorphism at the D19S75 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4639. PMID: PMC331333
118. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D14S34 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4638. PMID: PMC331332
119. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D13S71 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4638. PMID: PMC331331
120. Weber JL, Kwitek AE, May PE, Polymeropoulos M. Dinucleotide repeat polymorphism at the D12S43 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4637. PMID: PMC331330
121. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D6S87 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4636. PMID: PMC331328
122. Weber JL, Kwitek AE, May PE, Killary AM. Dinucleotide repeat polymorphism at the D4S174 locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4636. PMID: PMC331327
123. Weber JL, Kwitek AE, May PE, Wallace MR, Collins FS, Ledbetter DH. Dinucleotide repeat polymorphisms at the D17S250 and D17S261 loci. *Nucleic Acids Res.* 1990 Aug 11;18(15):4640. PMID: PMC331336
124. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the CRP locus. *Nucleic Acids Res.* 1990 Aug 11;18(15):4635. PMID: PMC331325
125. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphisms at the D16S260, D16S261, D16S265, D16S266, and D16S267 loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4034. PMID: PMC331147
126. Weber JL, Kwitek AE, May PE, Polymeropoulos MH, Ledbetter S. Dinucleotide repeat polymorphisms at the DXS453, DXS454 and DXS458 loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4037. PMID: PMC331150
127. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphisms at the D11S419 and CD3D loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4036. PMID: PMC331149
128. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphisms at the D7S435 and D7S440 loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4039. PMID: PMC331152
129. Weber JL, Kwitek AE, May PE, Patterson D, Drabkin H. Dinucleotide repeat polymorphisms at the D8S85, D8S87, and D8S88 loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4038. PMID: PMC331151
130. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphisms at the D5S107, D5S108, D5S111,

- D5S117 and D5S118 loci. *Nucleic Acids Res.* 1990 Jul 11;18(13):4035. PMID: PMC331148
131. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D1S104 locus. *Nucleic Acids Res.* 1990 May 11;18(9):2835. PMID: PMC330796
132. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D1S102 locus. *Nucleic Acids Res.* 1990 Apr 25;18(8):2199. PMID: PMC330725
133. Weber JL, Kwitek AE, May PE. Dinucleotide repeat polymorphism at the D1S103 locus. *Nucleic Acids Res.* 1990 Apr 25;18(8):2199. PMID: PMC330726

Books, Chapters, and Reviews

1. Laulederkind SJF, Hayman GT, Wang SJ, Kaldunski ML, Vedi M, Demos WM, Tutaj M, Smith JR, Lamers L, Gibson AC, Thorat K, Thota J, Tutaj MA, de Pons JL, Dwinell MR, Kwitek AE. The Rat Genome Database: Genetic, Genomic, and Phenotypic Data Across Multiple Species. *Curr Protoc.* 2023 Jun;3(6):e804. PMID: PMC10335880
2. Clark KC, Kwitek AE. Multi-Omic Approaches to Identify Genetic Factors in Metabolic Syndrome. *Compr Physiol.* 2021 Dec 29;12(1):3045-3084. PMID: PMC9373910
3. Kwitek AE. Rat Models of Metabolic Syndrome. *Methods Mol Biol.* 2019;2018:269-285. PMID: PMC7315404
4. Moreno C, Lazar J, Jacob HJ, Kwitek AE. Comparative genomics for detecting human disease genes. *Adv Genet.* 2008;60:655-97.
5. Cuppen E, Hübner N, Jacob HJ, Kwitek AE (senior author). Model Systems - The Rat . (2007) in *Genetic Variation: A Laboratory Manual*, CSHL Press, Cold Spring Harbor, NY. ISBN 978-087969780-8.
6. Kwitek AE, Olivier M. Genetic Markers and Genotyping Analyses for Genetic Disease Studies Handbook of Pharmaceutical Biotechnology. 24 August 2006:661-689.
7. Hessner MJ, Liang M, Kwitek AE. The application of microarray analysis to pediatric diseases. *Pediatr Clin North Am.* 2006 Aug;53(4):579-90.
8. Lazar, J, Moreno, C, Jacob, HJ, Kwitek, AE. Impact of Genomics on Research in the Rat . (2006) in *Genomes*, (ed. HE Sussman and MA Smit), pp. 281-311, CSHL Press, Cold Spring Harbor, NY..
9. Lazar J, Moreno C, Jacob HJ, Kwitek AE. Impact of genomics on research in the rat. *Genome Res.* 2005 Dec;15(12):1717-28.
10. Kwitek, AE. Physiological Genomics . (2003) in *Physiology Secrets*, 2nd edition (ed. H Raff), pp. 57-62, Hanley and Belfus, Inc, Philadelphia, PA..
11. Jacob HJ, Kwitek AE. Rat genetics: attaching physiology and pharmacology to the genome. *Nat Rev Genet.* 2002 Jan;3(1):33-42.
12. Kwitek-Black AE, Jacob HJ. The use of designer rats in the genetic dissection of hypertension. *Curr Hypertens Rep.* 2001 Feb;3(1):12-8.
13. Kwitek-Black AE. The Role of Rats in Functional Genomics *Lab Animal.* March 2000;29(3):44-48.

Non-Refereed Journal Publications/Original Papers

1. Alliance of Genome Resources Consortium . Updates to the Alliance of Genome Resources Central Infrastructure Alliance of Genome Resources Consortium. *bioRxiv.* 2023 Nov 22. PMID: PMC10690154
2. de Jong TV, Pan Y, Rastas P, Munro D, Tutaj M, Akil H, Benner C, Chen D, Chitre AS, Chow W, Colonna V, Dalgard CL, Demos WM, Doris PA, Garrison E, Geurts AM, Gunturkun HM, Guryev V, Hourlier T, Howe K, Huang J, Kalbfleisch T, Kim P, Li L, Mahaffey S, Martin FJ, Mohammadi P, Ozel AB, Polesskaya O, Pravenec M, Prins P, Sebat J, Smith JR, Solberg Woods LC, Tabakoff B, Tracey A, Uliano-Silva M, Villani F, Wang H, Sharp BM, Telese F, Jiang Z, Saba L, Wang X, Murphy TD, Palmer AA, Kwitek AE, Dwinell MR, Williams RW, Li JZ, Chen H. A revamped rat reference genome improves the discovery of genetic diversity in laboratory rats. *bioRxiv.* 2023 Sep 28. PMID: PMC10197727
3. McCarthy, F.M.; Jones, T.E.; Kwitek, A.E.; Smith, C.L.; Vize, P.D.; Westerfield, M.; Bruford, E.A.. The Case for Standardising Gene Nomenclature Across Vertebrates Preprints. *Preprints* 2021, 2021090485 (doi: 10.20944/preprints202109.0485.v1).