updated 1/13/25

DONALD F. CONRAD | CURRICULUM VITAE

Professor and Chief, Division of Genetics
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EDUCATION

Undergraduate and Graduate

Ph.D., Human Genetics, advised by Jonathan Pritchard – The University of Chicago 2007

M.Sc., Epidemiology, advised by Julie Parsonnet – Stanford University School of Medicine 2000

A.B., Biochemistry and Molecular Biology – Dartmouth College 1999

Postgraduate

Postdoctoral fellow, advised by Matthew Hurles – Wellcome Trust Sanger Institute, Cambridge, UK 2010

PROFESSIONAL EXPERIENCE

Academic

Professor, Division of Genetics, Oregon National Primate Research Center 2024-present

Professor, Molecular & Medical Genetics, Oregon Health & Science University 2024-present

Associate Professor, Division of Genetics, Oregon National Primate Research Center 2018-2024

Associate Professor, Molecular & Medical Genetics, Oregon Health & Science University 2018-2024

Associate Professor, Genetics and Pathology & Immunology, Washington University, St Louis, MO 2017-2018

Assistant Professor, Genetics and Pathology & Immunology, Washington University, St Louis, MO 2011-2017

Administrative

Chief, Division of Genetics, Oregon National Primate Research Center 2018-present

Other

Statistical Programmer, Genaissance Pharmaceuticals, New Haven, CT 2002

Epidemiologist, DzGenes LLC, St. Louis, MO 2000-2002

SCHOLARSHIP

Areas of Research
Human genetics, Computational biology, Male infertility, Non-human primate genetics and genomics

RESEARCH SUPPORT

Federal (Current)

PI U24HG012483 Multispecies NHP dGTEx Research Center $13.2M 08/15/22 – 05/31/27

PI, U24MH123696 Coordinating Center for Collaborative Marmoset Research	$2.5M	09/01/20 – 06/30/25
PI, P50HD096723-01A1 Project 1: Discovery And Annotation Of Targets For Gene Therapy Of Infertile Men	$1.2M	04/01/19 – 06/30/28
PI, R01HD078641 Genomics Of Spermatogenic Impairment,	$2.55M	09/10/14 – 06/30/27

Federal (Pending)

PI, U24 MH123696, Coordinating Center for Collaborative Marmoset Research	$5M (total)	06/01/25-11/30/30

Federal (Completed)

Sub, U24HG010859-05S1 Adding Rhesus Macaque to the Alliance	$810K	08/16/23– 07/31/24
PI, R01HG007178 Analysis Of *De Novo* Mutation From Sequencing Of Related Individuals And Cells	$2.05M	05/08/14 – 02/28/20
PI, R01HG007178-04S1 Analysis Of *De Novo* Mutation From Sequencing Of Related Individuals And Cells	$46K	14/09/17 – 02/28/19
PI, R01MH101810 Modeling The Effects Of Structural Variation In GTEX Data And Mendelian Disease	$1.14M	07/25/13 – 06/30/18
PI, R01MH101810-03S1 Modeling The Effects Of Structural Variation In GTEX Data And Mendelian Disease	$118K	07/01/16 – 06/30/18
Co-I, U54HD087011-01 Washington University Intellectual and Developmental Disabilities Research Center	$32.5K	09/01/15 – 06/30/18
Co-I, R01MH100027 Autism Genetics, Phase II: Increasing Representation of Human Diversity	$27.5K	03/25/13 – 02/28/18

Other Support (Completed)

PI, Research Contract with PierianDx, Variant Clinical Relevance Scoring	$130K	05/01/15 –12/31/16
Co-I, Grant from Children's Discovery Institute of St. Louis Children's Hospital, MC-II-2016-533 Sex-specific Super Enhancer Activity in Glioblastoma	$150K	02/01/16 – 01/31/19

SERVICE

West Campus Integrated Informatics Task Force (Chair), OHSU	2020-present
Advisory Committee, Integrated Genomics Lab, OHSU	2020-present
Pediatrics Department Search Committee, Director of Genetics Division, Washington University	2016-2017
Genetics Department Seminar Series Director, Washington University	2012-2018
Genetics Department Faculty Search Committee, Washington University	2012-2015

HONORS AND AWARDS

Fulbright Specialist Grant	2017
Inducted into Dartmouth College Sports Hall of Fame	2014
Finalist for Postdoctoral Trainee (Basic) award, ASHG	2008

Best Dissertation in Biological Sciences (honorable mention), The University of Chicago	2008
NCAA DI Champion Track and Field (Team), Stanford University	2000
Ranked 14th in the USA (Individual, 10k)	2000
Captain of the Dartmouth Track and Field, Cross-Country teams (4 times)	1997-1999
Ivy League Champion Track and Field (Individual, 10k)	1997

EDITORIAL RESPONSIBILITIES

Editorial board of *Genome Research*	2014-present
Associate Editor, Editorial board of *Andrology*	2012-present
Editorial board of *Biology of Reproduction*	2013-2020

Articles or proposal refereed

190 articles for 43 Journals: Nature (17x), Science (5x), American Journal of Human Genetics, Andrology, Bioinformatics, Bioinformatics Advances, Biological Psychiatry, Biology of Reproduction, BMC Biology, Briefings in Functional Genomics, Cell & Tissue Research, Chromosome Research, Contraception, CSH Protocols, Development, EMBO Molecular Medicine, European Journal of Human Genetics, Fertility & Sterility, F & S Reports, Forensic Science International: Genetics, Genetics, Genome Biology, Genome Research, Human Heredity, Human Molecular Genetics, Human Mutation, Human Reproduction, Journal of Clinical Investigation, Journal of Pharmacogenomics, Journal of Urology, Molecular Biology and Evolution, Molecular Ecology, Nature Communications, Nature Genetics, Nature Methods, Nature Reviews Genetics, Neurogenetics, Pediatrics, PLoS Genetics, PLoS ONE, PNAS, Systems Biology in Reproductive Medicine, Trends in Genetics.

United States-Israel Binational Agricultural Research and Development Fund (BARD). National Science Foundation of Switzerland

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

American Society of Andrology	2010-present
American Society of Human Genetics	2005-present
Society for the Study of Reproduction	2018-present

INVITED PROFESSORSHIPS AND LECTURESHIPS

Department Seminar, Microbiology & Molecular Genetics, University of California, Davis, CA	2024
Endocrine Society, Boston, MA	2024
Department Seminar, Biology, Johns Hopkins University, Baltimore, MD	2024
Emil Steinberger Memorial Lecture, American Society of Andrology, Denver, CO	2024
Department Seminar, Human Genetics, University of Utah	2023
Endocrinology Grand Rounds, Mass General Hospital, Boston, MA	2023
Northwest Reproductive Sciences Symposium (Keynote) Skamania, WA	2022
Gametes meet in the time of COVID-19 (Gordon Conference substitute), Online	2021
Grand Rounds, Molecular & Medical Genetics, Oregon Health & Science University	2021
International Congress of Andrology, Muenster, Germany	2020
Grand Rounds, Ob/Gyn, Oregon Health & Science University	2019

3rd Andrology Symposium, European Academy of Andrology, Zagreb	2019
ASA-EAA Exchange Lecture, European Congress of Andrology, Budapest	2018
Department Seminar, Bloomberg School of Public Health, Johns Hopkins University	2018
Institute of Genomic Medicine, University of Newcastle, UK	2017
Human Genome and Healthcare, Royal Society, London, UK	2017
International Congress of Andrology, Copenhagen	2017
Department Seminar, University of Tartu, Estonia	2017
Department Seminar, ONPRC, Oregon Health and Science University	2017
Society for Reproductive Investigation, Orlando	2017
Department Seminar, Dept. of Human Genetics, University of Michigan	2017
Broad Institute Medical & Population Genetics Seminar	2016
Department Seminar, Indiana State University	2016
Greenwald Symposium, University of Kansas	2016
Department Seminar, Medical College Wisconsin	2016
Portugalia Geneticae, Porto, Portugal	2016
Leena Peltonen School of Human Genetics, Sanger Institute	2015-2017
Eliot B. Shoolman Visiting Professor, Harvard Medical School	2015
Department Seminar, Biology, Columbia University	2014
Invited Seminar, Hayward Genetics Center, Tulane University	2014
Dept. Seminar, Center for Molecular Medicine, Wayne State University	2014
Banbury Center Meeting, Cold Spring Harbor Labs	2014
XXIII North American Testis Workshop, San Antonio	2013
Department Seminar, Dept. of Human Genetics, University of Chicago	2013
Department Seminar, IPATIMUP, Porto, Portugal	2011
Keystone Symposium, Functional Impact of Structural Variation, Steamboat Springs, CO	2011
Department Seminar, Genetics, University College London, UK	2010
anEUploidy Workshop, Split, Croatia	2010
Personal Genomes (session co-chair), Cold Spring Harbor Laboratory, NY	2010
Department of Genetics, Washington University School of Medicine, MO	2010
COGS Symposium, Cambridge Research Institute, Cambridge, UK	2010
Department of Genetics, MD Anderson Cancer Center, Houston, TX	2010
Genomic Disorders Meeting, Cambridge, UK	2010
Department of Genetics and Genomics, Mt. Sinai School of Medicine, NY	2010
Department of Genetics, Albert Einstein College of Medicine, NY	2010
Division of Human Biology, Fred Hutchinson Cancer Research Center, WA	2010
Division of Medical Genetics, University of Geneva School of Medicine, Switzerland	2009
Genetic Anthropology at Fine Scales, Honolulu, HI	2009

Amer. Soc. of Human Genetics (from submitted abstract), Honolulu, HI	2009
CNV Workshop, University of Leicester, UK	2009
Geneforum 2009, Tartu, Estonia)	2009
5th International Meeting on Cryptic Chromosomal Rearrangements in Mental Retardation and Autism, Troina, Sicily	2009
Division of Medical Genetics, University of Geneva School of Medicine, Switzerland	2009
American Society of Human Genetics (from submitted abstract), Philadelphia, PA	2008
anEUploidy Workshop, Geneva, Switzerland	2008
DECIPHER Symposium, Cambridge, UK	2008
Department of Statistics, Oxford University, UK	2007
Human Genome Variation 2007, Barcelona, Spain	2007
Genetics of Complex Traits and Isolated Populations, Turin, Italy	2007
American Society of Human Genetics (from submitted abstract), New Orleans, LA	2006
Department of Human Genetics, University of Pecs, Pecs, Hungary	2006
American Society of Human Genetics (from submitted abstract), Salt Lake City, UT	2005

CONSULTING RELATIONSHIPS AND BOARD MEMBERSHIPS

Paterna Biosciences, Scientific Advisor	2022-present
NIH/CSR Reproductive, Perinatal and Pediatric Health, ad hoc reviewer	2023
NIH Workshop on Rigor in Nonhuman Primate Research	2020
Site reviewer, March of Dimes Prematurity Research Center	2018
NHGRI/NICHD Workshop on Reproductive Genetics, Discussion Group Co-lead	2018
NICHD Study Section, CHHD-R: Reproduction, Andrology & Gynecology, standing member	2013-2019
Consultant, PierianDx	2015-2017
NICHD Special Emphasis Panel, ZHD1 DSR-L 50 1	2017
NICHD/CDC Workshop, Fertility Status and Overall Health, invited participant	2016
NICHD Special Emphasis Panel, ZHD1 DSR-L 50 1	2016
NIH/CSR Genomics of Health and Disease, *ad hoc* reviewer	2016
Consultant, CDC, Served as a consultant on the design of a novel CGH array-based system for newborn screening from blood spots	2012
NIH Study Section, NICHD P01, *ad hoc* reviewer, invited 4 times	2012
NHGRI Special Emphasis Panel, ENCODE technology development, *ad hoc* reviewer	2011

TEACHING RESPONSIBILITIES

Lecturer, FUND, OHSU School of Medicine	2023-present
Lecturer, MGEN 622/CANB 622: Advanced Topics in Genome Sciences, OHSU	2021-2022
Co-director, Bio5488: Genomics, Washington University School of Medicine	2012-2018
Lecturer, Bio621: Computational Statistical Genetics, Washington University School of Medicine	2011-2018

Lecturer, Bio5285: Mammalian Genetics, Washington University School of Medicine	2011-2018
Lecturer, Bio5488: Genomics, Washington University School of Medicine	2011
Guest Lecturer, Wellcome Trust Advanced Course: Design and Analysis of Genetic-based Association Studies	2009-2010
Instructor, Core Bio Writing Course, The University of Chicago	2007
Teaching assistant, The X and the Y, The University of Chicago	2006
Teaching assistant, Human Variation and Disease, The University of Chicago	2004
Teaching assistant, Human Heredity, The University of Chicago	2004
Teaching assistant, Molecular Biology, Dartmouth College	1997

BIBLIOGRAPHY

Peer reviewed manuscripts

1. Diminished DNA binding affinity of DMRT1 caused by heterozygous DM domain mutations is a cause of male infertility. Marić T, Castillo-Madeen H, Klarić ML, Barišić A, Trgovec-Greif L, Murphy MW, Juchnewitsch AG, Lillepea K, Dutta A, Žunić L, Stendahl AM, Punab M, Pomm K, Mendoza DM, Lopes AM, Šorgić AM, Vugrek O, Gonçalves J, Almstrup K, Aston KI, Belužić R, Ježek D, Bertoša B, Laan M, Bojanac AK, **Conrad DF**, Barbalić M. Hum Mol Genet. 2025 Jan 8:ddae197. doi: 10.1093/hmg/ddae197.
2. PSAP-Genomic-Regions: A Method Leveraging Population Data to Prioritize Coding and Non-Coding Variants in Whole Genome Sequencing for Rare Disease Diagnosis. Ogloblinsky MC, Bocher O, Aloui C, Leutenegger AL, Ozisik O, Baudot A, Tournier-Lasserve E, Castillo-Madeen H, Lewinsohn D, **Conrad DF**, Génin E, Marenne G. Genet Epidemiol. 2025 Jan;49(1):e22593. doi: 10.1002/gepi.22593. Epub 2024 Sep 24.
3. Inherited defects of piRNA biogenesis cause transposon de-repression, impaired spermatogenesis, and human male infertility. Stallmeyer B, Bühlmann C, Stakaitis R, Dicke AK, Ghieh F, Meier L, Zoch A, MacKenzie MacLeod D, Steingröver J, Okutman Ö, Fietz D, Pilatz A, Riera-Escamilla A, Xavier MJ, Ruckert C, Di Persio S, Neuhaus N, Gurbuz AS, Şalvarci A, Le May N, McEleny K, Friedrich C, van der Heijden G, Wyrwoll MJ, Kliesch S, Veltman JA, Krausz C, Viville S, **Conrad DF**, O'Carroll D, Tüttelmann F. Nat Commun. 2024 Aug 9;15(1):6637. doi: 10.1038/s41467-024-50930-9.
4. AXDND1 is required to balance spermatogonial commitment and for sperm tail formation in mice and humans. Houston BJ, Nguyen J, Merriner DJ, O'Connor AE, Lopes AM, Nagirnaja L, Friedrich C, Kliesch S, Tüttelmann F, Aston KI, **Conrad DF**, Hobbs RM, Dunleavy JEM, O'Bryan MK. Cell Death Dis. 2024 Jul 12;15(7):499. doi: 10.1038/s41419-024-06874-5.
5. Undiagnosed RASopathies in infertile men. Juchnewitsch AG, Pomm K, Dutta A, Tamp E, Valkna A, Lillepea K, Mahyari E, Tjagur S, Belova G, Kübarsepp V, Castillo-Madeen H, Riera-Escamilla A, Põlluaas L, Nagirnaja L, Poolamets O, Vihljajev V, Sütt M, Versbraegen N, Papadimitriou S, McLachlan RI, Jarvi KA, Schlegel PN, Tennisberg S, Korrovits P, Vigh-Conrad K, O'Bryan MK, Aston KI, Lenaerts T, **Conrad DF**, Kasak L, Punab M, Laan M. Front Endocrinol (Lausanne). 2024 Apr 9;15:1312357. doi: 10.3389/fendo.2024.1312357. eCollection 2024.
6. Toward clinical exomes in diagnostics and management of male infertility. Lillepea K, Juchnewitsch AG, Kasak L, Valkna A, Dutta A, Pomm K, Poolamets O, Nagirnaja L, Tamp E, Mahyari E, Vihljajev V, Tjagur S, Papadimitriou S, Riera-Escamilla A, Versbraegen N, Farnetani G, Castillo-Madeen H, Sütt M, Kübarsepp V, Tennisberg S, Korrovits P, Krausz C, Aston KI, Lenaerts T, **Conrad DF**, Punab M, Laan M.Am J Hum Genet. 2024 May 2;111(5):877-895. doi: 10.1016/j.ajhg.2024.03.013. Epub 2024 Apr 12.
7. The human infertility single-cell atlas (HISTA): an interactive scRNA-seq reference of the human testis. Mahyari EM, Vigh-Conrad KA, Daube C, Lima AC, Guo J, Carrell DT, Hotaling JM, Aston KI, **Conrad DF**. Andrology. 2024 Apr 5. Doi: 10.1111/andr.13637
8. Genetic mutation of Cep76 results in male infertility due to abnormal sperm tail composition. Houston BJ, Merriner DJ, Stathatos GG, Nguyen JH, O'Connor AE, Lopes AM, **Conrad DF**, Baker M, Dunleavy JE, O'Bryan MK. Life Sci Alliance. 2024 Apr 3;7(6):e202302452. doi: 10.26508/lsa.202302452. Print 2024 Jun
9. C19ORF84 connects piRNA and DNA methylation machineries to defend the mammalian germ line. Zoch A, Konieczny G, Auchynnikava T, Stallmeyer B, Rotte N, Heep M, Berrens RV, Schito M, Kabayama Y, Schöpp T, Kliesch

S, Houston B, Nagirnaja L, O'Bryan MK, Aston KI, **Conrad DF**, Rappsilber J, Allshire RC, Cook AG, Tüttelmann F, O'Carroll D. Mol Cell. 2024 Mar 21;84(6):1021-1035.e11. doi: 10.1016/j.molcel.2024.01.014. Epub 2024 Feb 14

10. Heterozygous loss-of-function SMC3 variants are associated with variable growth and developmental features. Ansari M, Faour KNW, Shimamura A, Grimes G, Kao EM, Denhoff ER, Blatnik A, Ben-Isvy D, Wang L, Helm BM, Firth H, Breman AM, Bijlsma EK, Iwata-Otsubo A, de Ravel TJL, Fusaro V, Fryer A, Nykamp K, Stühn LG, Haack TB, Korenke GC, Constantinou P, Bujakowska KM, Low KJ, Place E, Humberson J, Napier MP, Hoffman J, Juusola J, Deardorff MA, Shao W, Rockowitz S, Krantz I, Kaur M, Raible S, Dortenzio V, Kliesch S, Singer-Berk M, Groopman E, DiTroia S, Ballal S, Srivastava S, Rothfelder K, Biskup S, Rzasa J, Kerkhof J, McConkey H, Sadikovic B, Hilton S, Banka S, Tüttelmann F, **Conrad DF**, O'Donnell-Luria A, Talkowski ME, FitzPatrick DR, Boone PM. HGG Adv. 2024 Apr 11;5(2):100273. doi: 10.1016/j.xhgg.2024.100273. Epub 2024 Jan 30.
11. Genome sequencing of Pakistani families with male infertility identifies deleterious genotypes in SPAG6, CCDC9, TKTL1, TUBA3C, and M1AP. Khan MR, Akbari A, Nicholas TJ, Castillo-Madeen H, Ajmal M, Haq TU, Laan M, Quinlan AR, Ahuja JS, Shah AA, **Conrad DF**. Andrology. 2023 Dec 10:10.1111/andr.13570. doi: 10.1111/andr.13570. Online ahead of print.
12. TAD evolutionary and functional characterization reveals diversity in mammalian TAD boundary properties and function. Okhovat M, VanCampen J, Nevonen KA, Harshman L, Li W, Layman CE, Ward S, Herrera J, Wells J, Sheng RR, Mao Y, Ndjamen B, Lima AC, Vigh-Conrad KA, Stendahl AM, Yang R, Fedorov L, Matthews IR, Easow SA, Chan DK, Jan TA, Eichler EE, Rugonyi S, **Conrad DF**, Ahituv N, Carbone L. Nat Commun. 2023 Dec 7;14(1):8111. doi: 10.1038/s41467-023-43841-8.
13. A naturally occurring variant of *MBD4* causes maternal germline hypermutation in primates. Stendahl AM, Sanghvi R, Peterson S, Ray K, Lima AC, Rahbari R, **Conrad DF**. Genomes Res. 2023 Nov 20:gr.277977.123.
14. Deleterious genetic changes in AGTPBP1 result in teratozoospermia with sperm head and flagella defects. Lin YH, Wang YY, Lai TH, Lin CW, Ke CC, Yu IS, Lee HL, Chan CC, Tung CH, **Conrad DF**, O'Bryan MK, Lin YH. J Cell Mol Med 2023 Nov 8. Doi: 10.1111/jcmm.18031
15. Improved phenotype classification of male infertility to promote discovery of genetic causes. Wyrwoll MJ, van der Heijden GW, Krausz C, Aston KI, Kliesch S, McLachlan R, Ramos L, **Conrad DF**, O'Bryan MK, Veltman JA, Tüttelmann F. Nat Rev Urol. 2023 Sep 16: doi: 10.1038/s41585-023-00816-0.
16. In vivo versus in silico assessment of potentially pathogenic missense variants in human reproductive genes. Ding X, Singh P, Schimenti K, Tran TN, Fragoza R, Hardy J, Orwig KE, Olszewska M, Kurpisz MK, Yatsenko AN, **Conrad DF**, Yu H, Schimenti JC. Proc Natl Acad Sci U S A. 2023 Jul 25;120(30):e2219925120.
17. Consensus label propagation with graph convolutional networks for single-cell RNA sequencing cell type annotation. Lewinsohn DP, Vigh-Conrad KA, **Conrad DF**, Scott CB. Bioinformatics. 2023 Jun 1;39(6):btad360.
18. Rhesus macaque fetal and placental growth demographics: A resource for laboratory animal researchers. Roberts VHJ, Castro JN, Wessel BM, **Conrad DF**, Lewis AD, Lo JO. Am J Primatol. 2023 Aug;85(8):e23526.
19. Genomic study of *TEX15* variants: prevalence and allelic heterogeneity in men with spermatogenic failure. Qureshi S, Hardy JJ, Pombar C, Berman AJ, Malcher A, Gingrich T, Hvasta R, Kuong J, Munyoki S, Hwang K, Orwig KE, Ahmed J, Olszewska M, Kurpisz M, **Conrad DF**, Jaseem Khan M, Yatsenko AN. Front Genet. 2023 May 10;14:1134849.
20. The origins and functional effects of postzygotic mutations throughout the human life span. Rockweiler N, Ramu A, Nagirnaja L, Wong WH, Noordam MJ, Drubin CW, Huang N, Miller B, Todres EZ, Vigh-Conrad KA, Zito A, Small KS, Ardlie K, Cohen BA, **Conrad DF**. Science. 2023; Apr 14; 380(6641):eabn7113.
21. DDX3Y is likely the key spermatogenic factor in the AZFa region that contributes to human non-obstructive azoospermia. Dicke AK, Pilatz A, Wyrwoll MJ, Punab M, Ruckert C, Nagirnaja L, Aston KI, **Conrad DF**, Di Persio S, Neuhaus N, Fietz D, Laan M, Stallmeyer B, Tüttelmann F. Commun Biol. 2023 Mar 31;6(1):350.
22. Diverse monogenic subforms of human spermatogenic failure. Nagirnaja L, Lopes AM,…Almstrup K, Ason KI, **Conrad DF**. Nat Commun. 2022; 13(1):7953.
23. SATINN: an automated neural network-based classification of testicular sections allows for high-throughput histopathology of mouse mutants. Yang R, Stendahl AM, Vigh-Conrad KA, Held M, Lima AC, **Conrad DF**. Bioinformatics. 2022; 28(23):5288-5298.
24. Comparative single-cell analysis of biopsies clarifies pathogenic mechanisms in Klinefelter syndrome. Mahyari E, Guo J, Lima AC, Lewinsohn DP, Stendahl AM, Vigh-Conrad KA, Nie X, Nagirnaja L, Rockweiler NB, Carrell DT, Hotaling JM, Aston KI, **Conrad DF.** Am J Hum Genet. 2021 Oct 7;108(10):1924-1945.
25. Variant PNLDC1, Defective piRNA Processing, and Azoospermia. Nagirnaja L, Mørup N, Nielsen JE, Stakaitis R, Golubickaite I, Oud MS, Winge SB, Carvalho F, Aston KI, Khani F, van der Heijden GW, Marques CJ, Skakkebaek NE, Rajpert-De Meyts E, Schlegel PN, Jørgensen N, Veltman JA, Lopes AM, **Conrad DF**, Almstrup K. N Engl J Med. 2021 Aug 4; doi: 10.1056/NEJMoa2028973.

26. Lack of evidence for a role of PIWIL1 variants in human male infertility. Oud MS, Volozonoka L, Friedrich C, Kliesch S, Nagirnaja L, Gilissen C, O'Bryan MK, McLachlan RI, Aston KI, Tüttelmann F, **Conrad DF**, Veltman JA. Cell. 2021 Apr 15; 184(8):1941-1942.
27. Mutation of CFAP57, a protein required for the asymmetric targeting of a subset of inner dynein arms in Chlamydomonas, causes primary ciliary dyskinesia. Bustamante-Marin XM, Horani A, Stoyanova M, Charng WL, Bottier M, Sears PR, Yin WN, Daniels LA, Bowen H, **Conrad DF**, Knowles MR, Ostrowski LE, Zariwala MA, Dutcher SK. PLoS Genet. 2020 Aug 7;16(8):e1008691.
28. Genetic dissection of spermatogenic arrest through exome analysis: clinical implications for the management of azoospermic men. Krausz C, Riera-Escamilla A, Moreno-Mendoza D, Holleman K, Cioppi F, Algaba F, Pybus M, Friedrich C, Wyrwoll MJ, Casamonti E, Pietroforte S, Nagirnaja L, Lopes AM, Kliesch S, Pilatz A, Carrell DT, **Conrad DF**, Ars E, Ruiz-Castañé E, Aston KI, Baarends WM, Tüttelmann F. Genet Med. 2020 Aug 3. Online ahead of print.
29. Bi-allelic Mutations in M1AP Are a Frequent Cause of Meiotic Arrest and Severely Impaired Spermatogenesis Leading to Male Infertility. Wyrwoll MJ, Temel ŞG, Nagirnaja L, Oud MS, Lopes AM, van der Heijden GW, Heald JS, Rotte N, Wistuba J, Wöste M, Ledig S, Krenz H, Smits RM, Carvalho F, Gonçalves J, Fietz D, Türkgenç B, Ergören MC, Çetinkaya M, Başar M, Kahraman S, McEleny K, Xavier MJ, Turner H, Pilatz A, Röpke A, Dugas M, Kliesch S, Neuhaus N; GEMINI Consortium, Aston KI, **Conrad DF**, Veltman JA, Friedrich C, Tüttelmann F. Am J Hum Genet. 2020 Aug 6;107(2):342-351.
30. A framework for high-resolution phenotyping of candidate male infertility mutants: from human to mouse. Houston BJ, **Conrad DF**, O'Bryan MK. Hum Genet. 2020 Apr 4. Online ahead of print.
31. Identification of genetic variants in CFAP221 as a cause of primary ciliary dyskinesia. Bustamante-Marin XM, Shapiro A, Sears PR, Charng WL, **Conrad DF**, Leigh MW, Knowles MR, Ostrowski LE, Zariwala MA. J Hum Genet. 2020 Jan;65(2):175-180.
32. Rare mutations in the complement regulatory gene CSMD1 are associated with male and female infertility. Lee AS, Rusch J, Lima AC, Usmani A, Huang N, Lepamets M, Vigh-Conrad KA, Worthington RE, Mägi R, Wu X, Aston KI, Atkinson JP, Carrell DT, Hess RA, O'Bryan MK, **Conrad DF**. Nat Commun. 2019 Oct 11;10(1):4626.
33. Unified single-cell analysis of testis gene regulation and pathology in five mouse strains. Jung M, Wells D, Rusch J, Ahmad S, Marchini J, Myers SR, **Conrad DF**. Elife. 2019 Jun 25;8:e43966.
34. Bi-allelic Recessive Loss-of-Function Variants in FANCM Cause Non-obstructive Azoospermia. Kasak L, Punab M, Nagirnaja L, Grigorova M, Minajeva A, Lopes AM, Punab AM, Aston KI, Carvalho F, Laasik E, Smith LB; GEMINI Consortium, **Conrad DF**, Laan M. Am J Hum Genet. 2018 Aug 2;103(2):200-212.
35. Genetic intersection of male infertility and cancer. Nagirnaja L, Aston KI, **Conrad DF**. Fertil Steril. 2018 Jan;109(1):20-26.
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Invited publications (reviews, book chapters)

1. KI Aston and **DF Conrad**. The sperm genome: effect of aneuploidies, structural variation, single nucleotide changes, and DNA damage on embryogenesis and development, chapter in: Paternal influences on human reproductive success (ed. DT Carrell). Cambridge University Press, 2013.
2. KI Aston and **DF Conrad**. A review of genome-wide approaches to study the genetic basis for spermatogenic defects. Methods Mol Biol. 927:397-410. 2013.
3. **DF Conrad** and ME Hurles. The population genetics of structural variation. Nat Genet, 39:S30-6, 2007.
4. **DF Conrad** and JK Pritchard. Population Genetics and Disease, chapter in: Genes and common diseases-genetics in modern medicine (eds. AF Wright and ND Hastie). Cambridge University Press, 2007.

Movies, videotapes, etc.

1. **DF Conrad.** "Copy number variation and association studies", in Marchini, J. (ed.), Statistical Methods for the Analysis of Genome-Wide Association Studies: Practical advice and guidance, The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd, London (online at https://hstalks.com/t/873/copy-number-variation-and-association-studies/?biosci), 2008.
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