

**CURRICULUM VITAE
OREGON HEALTH & SCIENCE UNIVERSITY**

NAME	Dongseok Choi	DATE	3/5/2014
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PRESENT POSITION AND ADDRESS

Academic Rank:	Professor
Department/Division:	Public Health & Preventive Medicine / Biostatistics
Professional Address:	3181 S.W. Sam Jackson Park Road, CB669 Portland, OR 97239-3098
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II. EDUCATION

Undergraduate and Graduate:

1988	BS	Computer Science and Statistics	Seoul National University, Korea
1999	PhD	Statistics	The University of Chicago

Honors, Fellowships, Awards

1988	Magna cum laude, Seoul National University
1988	University Fellowship, The University of Chicago
1997	Young Professional, The Organization for Economic Cooperation & Development
2003	Travel award for National Bureau of Economic Research/National Science Foundation Time Series conference
2007	The Chair's Award for the Excellence in Service, Department of Public Health & Preventive Medicine, Oregon Health & Science University
2008	The Chair's Award for the Excellence in Research, Department of Public Health & Preventive Medicine, Oregon Health & Science University
2008	Chapter Service Recognition Award, The American Statistical Association, awarded at the Joint Statistical Meeting in Denver, Colorado.
2012	Fellow, The American Statistical Association (Elected)
2012	The Chair's Award for the Excellence in Research, Department of Public Health & Preventive Medicine, Oregon Health & Science University
2013	Elected member, the International Statistical Institute

III. PROFESSIONAL EXPERIENCE

Academic Positions:

- 7/1999 – 6/2001 **Visiting Assistant Professor**, Statistics and Applied Probability, University of California, Santa Barbara, CA
- 8/2001 – 6/2002 **Assistant Professor**, Department of Mathematics & Statistics, Portland State University, Oregon
- 9/2001 – 6/2002 **Adjunct Assistant Professor**, Department of Public Health and Preventive Medicine, Oregon Health & Science University
- 6/2002 – 6/2007 **Assistant Professor**, Division of Biostatistics, Department of Public Health and Preventive Medicine, Oregon Health & Science University
- 6/2002 – 6/2007 **Adjunct Assistant Professor**, Department of Mathematics & Statistics, Portland State University, Oregon
- 7/2007 – 6/2013 **Associate Professor**, Division of Biostatistics, Department of Public Health and Preventive Medicine, Oregon Health & Science University
- 7/2007 – 10/2013 **Adjunct Associate Professor**, Department of Mathematics & Statistics, Portland State University, Oregon
- 7/2013 – present **Professor** (tenured), Division of Biostatistics, Department of Public Health and Preventive Medicine, Oregon Health & Science University
- 11/2013 – present **Adjunct Professor**, Department of Mathematics & Statistics, Portland State University, Oregon
- 1/2014 – present **Professor**, Department of Community Dentistry, School of Dentistry, Oregon Health & Science University
- 3/2014 – present **Professor**, Department of Ophthalmology, School of Medicine, Oregon Health & Science University

Administrative Positions:

- 10/1997 – 9/1999 **Junior Administrator** (A-1 grade, Professional staff) The Organization for Economic Cooperation and Development in Paris, France.
- 7/2004 – 6/2005 **Treasurer/Secretary**, Oregon Chapter, The American Statistical Association
- 7/2005 – 6/2006 **Vice President**, Oregon Chapter, The American Statistical Association
- 7/2005 – 6/2008 **Chapter Representative** for Oregon Chapter, The Council of Chapters, The American Statistical Association
- 7/2006 – 6/2007 **President**, Oregon Chapter, The American Statistical Association
- 7/2007 – 6/2008 **Past President**, Oregon Chapter, The American Statistical Association
- 7/2008 – 6/2011 **Chapter Representative** for Oregon Chapter, The Council of Chapters, The American Statistical Association (2nd term)
- 7/2010 – present **Co-Director**, Biostatistics Programs, Oregon Health & Science University
- 8/2010 – present (Founding) **President**, the Korean International Statistical Society (KISS)
- 7/2011 – 6/2014 **Chapter Representative** for Oregon Chapter, The Council of Chapters,

7/2011– present The American Statistical Association (3rd term)
Asian Representative, The Friends of Australasia, The American
Statistical Association.

7/2012- present **Director for Research**, Graduate Medical Education, Oregon Health &
Science University

1/2013-12/2015 **Program Coordinator**, Western North America Region (WNAR), The
International Biometric Society

Other Professional Positions:

11/1986 – 3/1987 **Research Assistant** (SAS programmer), Dept. of Preventive Medicine,
Medical School, Seoul National Univ., Seoul, Korea.

9/1988 – 3/1991 **Teaching Assistant/Research Assistant**, Dept. of Statistics,
The University of Chicago

4/1991 – 6/1993 **Research Assistant**, Graduate School of Business,
The University of Chicago, U.S.A.
• Worked on environmental projects of assessing long-term trends of
ozone and temperature. NASA and NOAA funded projects.

7/1993 – 12/1994 **Military service**, Korean Army, Korea.
• Computer system manager for a division in Korean Army.
• Develop and maintain electronic transaction system of military supplies.

3/1996 – 7/1996 **Research Assistant**, Department of Statistics, National Tsing Hua Univ.,
Taiwan.

1/1995 – 10/1997 **Research Assistant**, Graduate School of Business, The University of
Chicago
• Worked on environmental projects of assessing long-term trends of
ozone, temperature and ultra violet radiation. Projects were funded by
NASA, NOAA and Department of Energy of U.S.A.
• Developed statistical models and programs for projects.
• Performed system management for 3 UNIX workstations and several PC
systems with many other peripherals.

IV. SCHOLARSHIP

Area(s) of Research/Scholarly Interest:

Current research interests are developing and refining statistical methods used in

- Big data
- Clustering methods for high dimensional data
- Microarrays/Gene network/Motifs and Cis-Regulatory Module prediction

- Multi-level Quantile Regression
- Survey Methods/Analysis in medical education.
- Spatial temporal models for complex data from various medical, public health and environmental data.
- Statistical computing/Geographic Information System

Grants and Contracts:

Federal grants

(Past NIH supports)

R01 DA15237-01 *Gene array analysis of opioid system mutant mice*

- NIH
- Pintar/Nagalla (PI)
- 12/01/01 - 11/30/05
- Direct Costs: \$900,000
- Role/Effort: Biostatistician 15% (2002 - 2004)

R01EY015858-01A1 *Uveitis Gene-Expression Profiling*

- NIH/NEI
- Rosenbaum (PI)
- Direct Costs: \$1,344,339
- 6/1/05-5/31/09
- Role/FTE: Co-investigator, 19.1 - 25%

2 R01 EY013093-06 A1 *Four Dimensional Imaging of the Immune Response In Vivo*

- NIH/NEI
- Rosenbaum (PI)
- Direct Costs: \$2,287,332
- 2/1/06-1/31/11
- Role/FTE: Co-Investigator, 7.9% - 10%

P30EY10572B *Ophthalmology Core Facility Grant*

- NIH/NEI
- Rosenbaum (PI)/ Wirtz (Module director)
- Direct Costs: \$2,831,250
- 5/1/06-4/30/10
- Role/FTE: Biostatistician, 15.0% - 39.0%

K23 DA020487 *Facilitating Adolescent Recovery From Drug Abuse During Transitions in Care*

- National Institute on Drug Abuse
- Wisdom (PI)

- Direct Costs: \$737,247
- 5/1/06 - 4/30/11
- Role/FTE: Advisory Group Member, 3% (7/1/06 – 6/30/08)

R01 DA018282 *Organizational Change to Improve Access and Retention*

- National Institute on Drug Abuse
- McCarty (PI)
- Direct Costs: \$500,000
- 05/1/2005 – 03/31/2011
- Goal: Longitudinal assessment of organization capacity to sustain and generalize improvements in access and retention.
- Role/FTE: Biostatistician, 5%

P50 DA018165 *Methamphetamine Abuse Research Center*

- NIH/NIDA
- Janowsky(Center PI)
- Direct Costs: \$782,138/yr
- 9/01/06-6/30/011
- Main duty: Building central database system for all projects (currently about 15) and supervise the server management (SUN X4500, 24 TB disk array server)
- Role/FTE: Co-Principal Investigator, Biostatistics Core, 20%

R01 DC002368 *Hair-bundle proteins*

- NIH/NIDCD
- Gillespie(PI)
- 7/01/07-6/30/12
- Aim 1 is to characterize hair-bundle cytoskeleton dynamics, Aim 2 is to localize myosin-1c and determine how it couples to the transduction apparatus, Aim 3 is to examine the contribution of cadherin 23 and protocadherin 15 to the tip link, Aim 4 is to identify the transduction channel, and Aim 5 is to determine how the bundle calcium pump operates.
- Role: Co-Investigator, 5%

DA028537 Pre-clinical testing of a novel immunotherapy [recombinant T cell receptor ligand (RTL)] to improve cognitive recovery and brain healing following methamphetamine dependence: From mice to men

- NIH/NIDA
- Loftis/Huckans MPI
- Direction cost: \$791,244 (year 1)
- 9/30/09-9/29/2011
- This proof-of-concept study utilizes both rodent and human components to test the

therapeutic efficacy of RTL in improving cognitive function, decreasing neuronal degeneration, decreasing neuroinflammation, and preserving peripheral immune function following methamphetamine addiction.

- Role: Co-Investigator, 10%

U10 DA13036 (McCarty) 09/1999 – 08/2011 1.2 calendar

- NIH/NIDA
- *Oregon / Hawaii Node of the National Drug Abuse Clinical Trials Network*
- Test emerging drug abuse pharmaceutical and behavioral therapies in community treatment programs.
- The studies are conducted in collaboration with 13 other nodes.
- Role: Biostatistician

1R21EY019935 *Predicting transcript factors in response to TNF or IL-1 treatment on TM cells*

- NIH/NEI
- Dongseok Choi (PI)
- Direct Costs: \$225,060
- 8/01/10 – 7/31/12 (no cost extension to 7/31/2013)
- Goal: Finding putative transcription factors in response to TNF or IL-1 treatment on TM cells
- Role/FTE: PI, 20%

(Current NIH supports)

2P30EY010572-16 *OPHTHALMOLOGY CORE FACILITY*

- NIH/NEI
- Rosenbaum (PI)/Wirtz (Module director)
- Direct costs: \$480,122 (year 1)
- 5/1/2010-4/30/2015
- Support of Molecular Biology, Proteomics and Gene Mapping, as shared facilities in Department of Ophthalmology.
- Role/FTE: Biostatistician, 5%~30%

2R01 DC05593-07 *Steroid Responsive Mechanisms in the Ear*

- NIH-NIDCD
- Dennis Trune (PI)
- Direct costs: \$327,316
- 9/1/08 to 8/31/13 (no cost extension)
- Specific aims: To determine 1) the control of inner ear ion homeostatic and inflammatory gene expression by mineralocorticoids and glucocorticoids; 2) what combination doses of the two steroids most effectively control this gene expression; 3) the molecular function

s mediated by each steroid; and 4) inner ear gene expression mediated by middle ear steroid delivery.

- Role: Co-Investigator, 5%

R01 DC011034 *Hair-bundle structure and dynamics*

- NIH/NIDCD
- Gillespie(PI)
- 7/01/10-6/30/15
- Aim 1 is to refine the identities, concentrations, modifications, and locations of hair-bundle proteins; Aim 2 is to establish how the bundle is constructed during development; and Aim 3 is to determine how the transduction apparatus is reassembled after
- Role: Co-Investigator, 5%

1R01EY020249-01A2 *Gene expression in non-specific orbital inflammation*

- NIH/NEI
- Rosenbaum (PI)
- 9/30/2011 – 8/31/2015
- Goal: Gene expression profiling and genetic classification of non-specific orbital inflammation from multi-site collaborations.
- Role: Co-Investigator, 15%

2R01EY010145-15A1 *Studies in Glaucomatous Optic Nerve Damage*

- NIH/NEI
- Morrison (PI)
- 4/01/13-3/31/18
- Role: Co-Investigator, 10%

Other Support

(Past other supports)

Research to Prevent Blindness - Unrestricted Grant (Private Foundation)

- Research to Prevent Blindness
- Joseph E. Robertson (PI)
- Direct Costs: \$110,000 per year
- 1/1/98-12/30/04
- Role/Effort: Biostatistician 11% (2002 – 2004)

Paths to Recovery Evaluation

- Robert Wood Johnson Foundation
- McCarty (PI)
- Direct Costs: \$1,007,412
- 10/02-09/06
- Role/FTE: Biostatistician, 10% (2005-2007)

UCB 121068 *Serious infections in patients treated with biologic drugs: The creation of a population-based adverse event surveillance system (The Biologic Drug Safety Datalink System)*

- UCB, Inc.
- Winthrop (PI)
- Direct costs \$132,837
- 12/17/2007
- Role/FTE: Co-Investigator /8.3% (7/1/08 – 6/30/09)

Pending Support

Publications/Creative Work:

Peer-reviewed

1. Weatherhead E, Tiao GC, Reinsel GC, Ferederick J, DeLuisi J, **Choi D**, Tam W. Analysis of long-term behavior of ultra-violet radiation measured by Robertson-Berger meters at 14 sites in the United States. *Journal of Geophysical Research*, vol. 102, 8737-8754, 1997.
2. Weatherhead E, Reinsel GC, Tiao GC, Meng X, **Choi D**, Cheang W, Keller T, DeLuisi J, Wuebbles D, Kerr J, Miller AJ, Oltmans S, and Frederick J, Factors affecting the detection of trends: Statistical considerations and applications to environmental data, *Journal of Geophysical Research*, vol. 103, 17149-17161, 1998.
3. Logan JA, Megretskaiia IA, Miller AJ, Tiao GC, **Choi D**, Zhang L, Bishop L, Stolaski R, Labow GJ, Hollandsworth SM, Bodeker GE, Claude H, DeMuer D, Kerr JB, Tarasick DW, Oltmans SJ, Johnson B, Schmidlin F, Staehelin J, Viatte P, Uchino O, Trends in the vertical distribution of ozone: A comparison of two analyses of ozonesonde data, *Journal of Geophysical Research*, vol. 104, 26373-26399, 1999.
4. Nadarajah S, **Choi D**, Ruiz-Espejo M, Singh HP, Singh R, A note on an estimator for the mean of finite populations, *Student*, vol. 4, No. 2, 87-94, 2002.
5. **Choi D***, Tiao GC, Stein ML. A statistical model for latitudinal correlations of satellite data, *Journal of Geophysical Research*, vol. 107, ACL 7.1 – 7.14, No. D16, 4318, doi: 10.1029/2000JD000246, Aug 2002 (*Corresponding author)
6. Mansberger SL, Zangwill LM, Sample PA, **Choi D**, Weinreb RN. Relationship of optic disk topography and visual function in patients with large cup to disc ratios. *American Journal of Ophthalmology*, vol. 136, No. 5, 888-894, 2003.

7. Searle BC, Dasari S, Turner M, Reddy A, **Choi D**, Wilmarth P, McCormack A, David L, Nagalla S. High-throughput identification of proteins and unanticipated sequence modifications using a mass-based alignment algorithm for MS/MS De Novo Sequencing results, *Analytical Chemistry*, 76(8),2220-2230, Mar 2004.
8. Qin L, Kerr KF and Contributing Members of the Toxicogenomics Research Consortium. Empirical evaluation of data transformations and raking statistics for microarray analysis. *Nucleic Acids Research*, vol 32, No. 18, 5471-5479, Oct 2004.
9. Mathers WD, **Choi D**. Cluster analysis of patients with ocular surface disease, blepharitis and dry eye. *Archives of Ophthalmology*, 122:1700-1704, Nov 2004.
10. Fang Y, **Choi D**, Searles R, Mathers WD. A time course microarray study gene expression in the mouse lacrimal gland after acute corneal trauma. *Investigative Ophthalmology & Vision Sciences*. 46: 461-469, Feb 2005. (featured as cover article)
11. Mansberger SL, Johnson CA, Cioffi GA, **Choi D**, Krishnadas SR, Srinivasan M, Balamurugan V, Kim U, Smith S, Wilkins J, Gritz D. Predictive value of frequency doubling technology perimetry for detecting glaucoma in a developing country. *Journal of Glaucoma*, 14(2):128-134, Apr 2005
12. Kim MS, Sabri MI, Lasarev MR, Hashemi S, Lu X, **Choi D**, Nagalla S, Spencer P. Use of structural isomers to isolate transcriptional modulation by the active moieties of chemical and drugs. *Annual Book of 2005 World DNA and Genome Day*, 289-291, Apr 2005.
13. Mansberger SL, Romero, FC, Smith NH, Johnson CA, Cioffi GA, Edmunds B, Francis P, Demirel S, **Choi D**, Becker TM. Causes of visual impairment and common eye problems in northwest American Indians and Alaskan natives. *American Journal of Public Health*, 95(5):881-886, May 2005.
14. Members of the Toxicogenomics Research Consortium. Standardizing gene expression across multiple platforms. *Nature Methods* 2:351-356, May 2005.
15. Girard DE, **Choi D**, Dickey J, Dickerson D, Bloom JD. A comparison study of career satisfaction and emotional states between primary care and specialty residents. *Medical Education*, 40:79-86, Jan 2006.
16. Peterson MB, Kitsos G, Samples JR, Gaudette ND, Economou-Petersen E, Sykes R, Rust K, Grigoriadou M, Aperis G, **Choi D**, Psilas K, Craig JE, Mackey DA, Wirtz MK. A large GLC1C Greek family with a myocilin T377M mutation: Inheritance and phenotypic variability. *Investigative Ophthalmology & Vision Sciences*, 47: 620-625, Feb 2006.

17. **Choi D***, Fang Y*, Mathers W. Condition-specific co-regulation networks of *cis*-regulatory motifs and modules in mouse genome. *Genomics*, 87, 4:500-508, April 2006. (**featured as cover article**: **These authors contributed equally to this work.*)
18. **Choi D***, O'Malley JP, Lasarev MR, Lapidus J, Pattee P, Nagalla S. Extending the dynamic range of signal intensities in DNA microarrays. *Online Journal of Bioinformatics*, 7(1):46-56, 2006. (*Corresponding author)
19. Girard DE*, **Choi D***, Dickey J, Wessel K., Austin D. A mid year comparison study of career satisfaction and emotional states between residents and faculty at one academic medical center. *BMC Medical Education*, 6:36 doi: 10.1186/1472-6920-6-36, 2006. (**These authors contributed equally to this manuscript.*)
20. Michael YL, Beard TE, **Choi D**, Farquhar SA, Carlson NE. Measuring the influence of neighborhood environment on walking among older adults. *Journal of Aging and Physical Activity*, 14(3), 302-312, 2006
21. Nadarajah S, **Choi D**. Products and ratios for Arnold and Strauss's bivariate exponential distribution. *New Zealand Journal of Mathematics*. Vol. 35:189-199, 2006.
22. **Choi D**, Wessel K, Dickey J, Girard DE. The impact of the implementation of work hour requirements on residents' career satisfaction, attitudes and emotions. *BMC Medical Education*, 6:53 doi:10.1186/1472-6290-6-53, Oct. 2006.
23. **Choi D***, Nadarajah S. Information matrix for a mixture of two Laplace distributions. *Statistical Papers*, doi:10.1007/s00362-007-00530-8, Feb. 2007. (*Corresponding author)
24. Michels K, Lauer A, Beard T, **Choi D**. A descriptive statistical analysis of skills used in Ophthalmology. *Ophthalmic Surgery, Lasers & Imaging*. Vol. 38(2):107-114, Mar/Apr 2007.
25. McCarty D, Gustafson DH, Wisdom JP, Ford J, **Choi D**, Molfenter T, Capoccia V, Cotter F. The network for the improvement treatment (NIATx): Strategies to enhance access and retention. *Drug and Alcohol Dependence*, 88(2-3):138-45, May 2007.
26. Smith JR*, **Choi D***, Chipps T, Pan Y, Zamora D, Babra B, Davies M, Planck SR, Rosenbaum JT. Unique gene profiles of human retinal and choroidal vascular endothelium in donor-matched cell cultures. *Investigative Ophthalmology & Vision Sciences*. 48:2676:2684, June 2007 (**Contributed equally to the work and therefore should be considered equivalent authors*)

27. Wirtz MK, Samples JR, **Choi D**, Gaudette ND. Clinical features associated with an Asp380His myocilin mutation in a USA family with primary open angle glaucoma. *American Journal of Ophthalmology*. Vol. 144(1):534-536, May 2007.
28. Nadarajah S, **Choi D**. Maximum daily rainfall in South Korea. *Journal of Earth System Science*. Vol. 116 (4): 311-320, Aug, 2007
29. Bower E, **Choi D**, Becker TM, Girard DE. Physician awareness and determinants of participation in maintenance of professional certification: A prospective study. *Journal of Continuing Education in the Health Professions*. 27(3):164-72, 2007 Summer.
30. Woodward WR, **Choi D**, Grose J, Malmin B, Hurst S, Pang J, Weleber RG, Pillers DM. Isoflurane is an effective alternative to katamine as an anesthetic agent for the mouse electroretinogram. *Documenta Ophthalmologica*. Doi: 10.1007/s10633-007-9079-4, 2007
31. Zamora DO, Riviere M, **Choi D**, Pan Y, Planck SR, Rosenbaum JT, David LL, Smith JR. Proteomics profiling of human retinal and choroidal endothelial cells reveals molecular heterogeneity related to tissue of origin. *Molecular Vision*. 13:2058-65, Oct. 2007.
32. Smith LK, Suhler EB, Lim LL, **Choi D**, Cioffi GA, Rosenbaum JT. Possible association between scleritis and lymphoma. *British Journal of Ophthalmology*. 91(12):1728-9, Dec 2007
33. Rubado D, Schafer S, Winthrop K, **Choi D**, Becker TM. Determining the costs and challenges of tuberculosis case management in a low incidence state. *International Journal of Tuberculosis and Lung Disease*. 2(3):301-7, Mar, 2008.
34. Rosenbaum JT, Ronick MB, Song X, **Choi D**, Planck SR. T cell-antigen-presenting cell interactions visualized in vivo in a model of antigen-specific inflammation. *Clinical Immunology*. 126(3):207-6, Mar, 2008. PMID: PMC2292401
35. Planck SR, Becker MD, Crespo S, **Choi D**, Galster K, Garman KL, Nobiling R, Parker DC, Rosenbaum JT. Characterizing extravascular neutrophil migration in vivo in the iris. *Inflammation*. 31(2):105-11, Apr, 2008.
36. Hoang LT, Lim LL, Valliant B, **Choi D**, Rosenbaum JT. Antineutrophil cytoplasmic autoantibody (ANCA) associated scleritis. *Archives of Ophthalmology*. 126(5): 651-655. May 2008. PMID: PMC2607248
37. Hoffman K, Ford J, **Choi D**, Gustafson DH, McCarty D. Replications and sustainability of improved access and retention within the network for the improvement of addiction treatment. *Drug and Alcohol Dependence*, Jun 2008. PMID: PMC2607248

38. Gellert KS, **Choi D**, Coel M, Braun KL. Nasal ciliary function in Hawaiians. *Hawaii Medical Journal*. 67(8):209-12, Aug, 2008. PMID – In Process
39. **Choi D***⁺, Appukuttan B*, Binek SJ, Planck SR, Stout JT, Rosenbaum JT, Smith JR⁺. Prediction of Cis-Regulatory elements controlling genes differentially expressed by retinal and choroidal vascular endothelial. *Journal of Ocular Biology, Diseases and Informatics*. 1(1):37-45. 2008. (*share the first authorship, ⁺Corresponding authors) PMID: PMC2573398
40. Bower E, Girard DE, Wessel K, Becker TM, **Choi D**. Barriers to innovation in continuing medical education. *Journal of Continuing Education in the Health Professions*. 28(3):148-56, 2008 Summer.
41. Melnick A, Rdesinski RE, Creach ED, **Choi D**, Harvey M. The influence of home visits on self-efficacy and barriers associated with use of contraceptives. *Women's Health Issues*. 18(6):471-81. Epub 2008 Oct 15. Nov-Dec, 2008 PMID: PMC2637766
42. Suhler EB, Lloyd MJ, **Choi D**, Rosenbaum JT, Austin DF. Incidence and Prevalence of Uveitis in Veterans' Affairs Medical Centers of the Pacific Northwest. *American Journal of Ophthalmology*. 146(6):890-6.e8, Dec, 2008.
43. Vatanian K, Slotke R, Johnstone T, Casale A, Planck SR, **Choi D**, Smith JR, Rosenbaum JT, Harrington CA. Gene expression profiling of whole blood: Comparison of target preparation methods for accurate and reproducible microarray analysis. *BMC Genomics*;10(1):2. Jan, 2009. PMID: PMC2649161
44. Fraunfelder R, Winthrop KL, Suhler E, **Choi D**, Fraunfelder F. Uveitis and Scleritis Associated With Bisphosphonate Therapy (letter). *Retina*. 29(2):285-6; author reply 286-7. Feb, 2009
45. Kurz PA, Suhler EB, **Choi D**, Rosenbaum JT. Rituximab for treatment of ocular inflammatory disease. *British Journal of Ophthalmology*. 93(4):546-8; Apr, 2009.
46. McClure TM, Swanson IL, **Choi D**, Becker TM, Cioffi GA, Mansberger SL. The effect of visual impairment on vision-related quality of life in American Indian/Alaska Native population. *Ophthalmic Epidemiology*. 16(2):128-35;Mar-Apr 2009 PMID – In Process
47. Rosenbaum JT, Pasadhika S, Crouse ED, **Choi D**, Harrington CA, Lewis JA, Austin CR, Diebel TN, Vance EE, Braziel RM, Smith JR, Planck SR. Hypothesis: sarcoidosis is a STAT1-mediated disease. *Clinical Immunology*. 132(2):174-83; Aug 2009. PMID: PMC2733945

48. **Choi D***, Sharma SM, Pasadhika S, Kang Z, Harrington CA, Smith JR, Planck SR, Rosenbaum JT. Application of Biostatistics and Bioinformatics tools to identify putative transcription factor –gene regulatory network of Ankylosing Spondylitis and Sarcoidosis. *Communications in Statistics – Theory and Methods*, special issue on Advances in statistics methodology analyzing rheumatic diseases. 38(18):3326-38; 2009. (**Invited paper**, ***Corresponding author**) PMID: PMC2796828
49. Dailey RA, Chavez MR, **Choi D**. Use of a chitosan-based hemostatic dressing in dacryocystorhinostomy. *Ophthalmic Plastic and Reconstructive Surgery*. 25(5):350-3. September/October 2009. PMID – In Process
50. Kim Y, Hwang TS, **Choi D**, Wilson DJ. Comparison of digital fundus photographic and echographic measurements for maximal linear dimension from eyes with choroidal melanoma. *Retina*. Epub Aug 10, 2009. PMID: In Process
51. Sharma SM, **Choi D**, Planck SR, Harrington CA, Austin CR, Lewis JA, Diebel TN, Martin TM, Smith JR, Rosenbaum JT. Insights into the pathogenesis of axial spondyloarthritis based on gene expression profiles. *Arthritis Research and Therapy* 2009 Nov 9;11(6). (**featured in an editorial: New insights in understanding the pathogenesis of spondyloarthropathies. Arthritis Research and Therapy 2009 Dec;12(1)**) PMID: PMC3003511
52. Watkins AS, Kempen JH, **Choi D**, Liesegang TL, Pujari SS, Newcomb C, Nussenblatt RB, Rosenbaum JT, Thorne JE, Foster CS, Jabs DA, Levy-Clarke GA, Suhler EB, Smith JR. Ocular disease in patients with ANCA-positive vasculitis. *Journal of Ocular Biology, Diseases and Informatics*. 2009 Dec 12;3(1):12-10, DOI 10.1007/s12177-009-9044-4 PMID – PMC2933008
53. Campbell BK, Tillotson CJ, **Choi D**, Bryant K, DiCenzo J, Provost SE, Zammarelli L, Booth RE, McCarty D. Predicting outpatient treatment entry following Detoxification for injection drug use: It's not just the patient, it's the program. *Journal of Substance Abuse Treatment*. 38 (Suppl 1) (2010) S87-S96. PMID: PMC2847860
54. Pasadhika S, Fishman GA, **Choi D**, Shahidi M. Selective thinning of the perifoveal inner retina as an early sign of hydroxychloroquine retinal toxicity. *Eye*. (2010) 24, 756-763 (**Selected as the Continuing Medical Education paper of the issue**) PMID – In Process
55. Agnani S, **Choi D**, Martin TM, Austin CR, Smith JR, Lutt JR, Rosenbaum JT. Gender and laterality affect recurrences of acute anterior uveitis. *British Journal of Ophthalmology*. 2010 Dec; 94(12):1643-7. PMID – In Process

56. Bower EA, English C, **Choi D**, Cedfeldt AS, Girard DE. A pilot educational intervention to return nonpracticing physicians to clinical activity. *Journal of Continuing Education in the Health Professions*. Vol (30), Issue 2, Spring 2010.
57. Cedfeldt AS, Bower EA, English C, Grady-Weliky T, Girard DE, **Choi D***. Personal time off and residents' career satisfaction, attitudes & emotions. *Medical Education*. 2010 Oct; 44(10): 977-84 (*Corresponding author).
58. Booth RE, Campbell BK, Mikulich-Gilbertson SK, Tilotson CJ, **Choi D**, Robinson J, Mandler R, Calsyn D, Jenkins L, Thomson L, Dempsey C, Liepman M, McCarty D. Reducing HIV-related risk behaviors among injection drug users in residential detoxification. *AIDS and Behavior*. 2011 Jan;15(1):30-44 PMID: PMC3023839
59. McClure TM, Wooten K, **Choi D**, Nield C, Becker TM, Mansberger SL. The impact of eyeglasses on vision-related quality of life in American Indian/Alaska Natives. *American Journal of Ophthalmology*. 2011 Jan; 15(1):175-182 e2. PMID: PMC3003763
60. Winthrop KL, Baxter R, Liu L, McFarland B, Austin D, Varley C, Radcliffe L, Suhler E, **Choi D**, Herrinton L. The reliability of diagnostic coding and laboratory data to identify tuberculosis and nontuberculous mycobacteria disease among rheumatoid arthritis patients using anti-tumor necrosis factor therapy. *Pharmacoepidemiology and Drug Safety*. 2011 Mar;20(3):229-35. 2010 Dec 10 (Epub ahead of print). PMID – In Process
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Cover illustration in peer-reviewed journals

1. *Investigative Ophthalmology & Vision Science*, Vol. 46, No. 2, February 2005. Cover legend: Composite image of a spotted cDNA microarray of the mouse SMCmou6600A chip hybridized with the RNA from the mouse lacrimal gland after acute corneal injury. The RNA with the corneal injury was labeled with Cy5 (red) and the control RNA was labeled with Cy3 (green). Both Cy3- and Cy5-labeled RNAs were hybridized together on the chip. This image shows a typical output of two-color hybridization with a combinational color of Cy3 and Cy5 in proportion to the intensity of each dye. See Fang et al. on page 461 of this issue.
2. *Genomics*, Vol. 87, No. 4, April 2006. Cover legend: Graph showing the differential gene expression patterns grouped by cluster analysis on the microarray data in mouse lacrimal gland after corneal injury alongside a schematic illustration of the architecture of known binding site motifs and modules of transcription factors commonly shared by the regulatory regions of genes in clusters 2, 10 and 12. For further details, see article by Choi et al., pp. 500-508.

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68. Redd T, Read-Brown S, Kitzmiller A, Yackel TR, **Choi D**, Chiang MF. Implementation of electronic health record systems in ophthalmology: impact on clinical volume compared to other medical fields. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
69. Read-Brown S, Brown AS, Yackel TR, **Choi D**, Tu DC, Sanders DS, Chiang MF. Time-Motion Analysis of Clinical Nursing Documentation during Implementation of an Electronic Operating Room Management System for Ophthalmic Surgery. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
70. Kopplin LJ, **Choi D**, Mansberger SL. Correlation of Ophthalmic Screening Tests in an American Indian/Alaskan Native Cohort. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
71. **Choi D**, Hayashi L, Carr K, Kelley MJ, Acott TS. Predicting Gene Networks and Transcription Factors in TNF α Treatment of Trabecular Meshwork Cells. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013

Other

1. PCT Patent Application: “*System and methods for identifying functional DNA codes of condition-specific cis-regulatory motifs and modules and their corresponding transcription factors.*” A method to use of sequential microarrays to identify tightly co-regulated genes and thereby identify common binding sites located in the promoter regions of those genes. The underlying supposition is that co-regulation depends on common transcription factor binding.
2. Provisional Patent Application: “*DNA-Protein Micoarray Systems and Methods*”. A method to identify the presence of actively binding transcription factors in a given biologic sample by tagging and binding, directly or indirectly, nuclear proteins containing these factors and allowing them to bind to specific sequences of DNA spotted on a glass slide. The method also allows the comparison of two samples and thus detects changes or differences in this binding. Transcription factors are nuclear proteins that bind to DNA and determine the transcription of genes. Identification and modulation of the binding factors offers a means to control the expression of any genome.
3. Founding member of Genefac, Inc. 2008. (Start-up based on the above patents, 2008 OHSU award for technology innovation)

Invited Lectures, Conference Presentations or Professorships:

International and National
Invited presentations/panels

1. NASA/WMO World Ozone Trend, 1999.
2. Invited discussant, NBER/NSF Time Series Conference, Chicago, September 2003.
3. Invited to Bioinformatics expert working group on microarrays, Toxicogenomics Research Consortium, the National Institute of Environmental Health and Sciences (NIEHS), 2003.
4. Invited speaker, Round Table, Joint Statistical Meeting, Salt Lake City, Utah 2007.
5. Seminar, Department of Statistics and Applied Probability, University of California Santa Barbara, 2/2011.
6. Seminar, Department of Mathematical Sciences, University of Nevada Las Vegas, 2/2011.
7. Seminar, Department of Mathematics, University of Portland, 3/2011.
8. Seminar, School of Statistics, University of Minnesota, 4/2011
9. Keynote speaker, The International Conference for Health Statistics in the Pacific Islands, Fiji. July 2011.
10. Seminar, NHMRC Clinical Trials Centre, University of Sydney, Australia, 7/2011.
11. Keynote speaker, Young Statisticians Conference, Statistical Society of Australia, Brisbane, Australia. July 2011.
12. Invited speaker, The First Wuxi International Statistics Forum. Wuxi, China, July 2011.
13. Seminar, Computational Biology Lab, Department of Statistics, Harvard, 11/2011.
14. Seminar, Department of Statistics, UCLA, 1/2012.
15. Seminar, Department of Biostatistics, St. Louis University 2/2012
16. Seminar, Department of Applied Statistics, Yonsei University, 4/2012
17. Seminar, Department of Statistics, Seoul National University, 4/2012

18. Seminar, Department of Statistics, Inha University, 4/2012
19. Seminar, Department of Statistics, Korea University, 4/2012
20. Special invited lecture, School of Dentistry, Kyung Hee University, 4/2012
21. Seminar, Morehouse School of Medicine, Atlanta, 4/2012
22. Invited speaker, 2nd Joint Biostatistics Symposium, Beijing, 7/2012
23. Seminar, Department of Electrical Engineering, KAIST, Daejeon, Korea, 7/2012
24. Seminar, Biostatistics Group, Samsung Comprehensive Cancer Center, Seoul, Korea 7/2012
25. Seminar, Department of Statistic, University of Georgia, Athens, GA 3/2013
26. Seminar, Division of Outcomes Research and Biostatistics, Winthrop University Hospital, Long Island, 3/2013
27. Invited speaker, Joint meeting of the IASC satellite conference for the 59th ISI WSC and the 8th conference of the Asian Regional Section of the IASC. Seoul, Korea. Aug. 22-23, 2013.
28. Workshop, Applied Multivariate Analysis and Clustering (1/2-day), University of Seoul, Jan. 13, 2014.

International and National
Oral presentation

1. **Choi D**, Nadarajah S. Extremes of daily rainfall in South Korea. Presented at Extreme Events & Energie, Agriculture, and Natural resources management conference, Boston, May 2003.
2. Lapidus J, **Choi D**, O'Malley J, Lasarev M, Lu X, Nagalla S, A comparison of reproducibility of gene expression data obtained from double and single label hybridizations on cDNA microarrays. Joint Statistical Meeting in San Francisco, August 2003.
3. **Choi D**, O'Malley JP, Lasarev MR, Lapidus J, Pattee P, Nagalla S. Using two scans to extend the dynamic range of signal intensities in DNA microarrays. International Chinese Statistical Association Applied Statistics Symposium in San Diego, June 2004.
4. Dickey J, Girard DE, Ungerleider R, Anderson J, **Choi D**. The Competent Physician: A Web Based Training Program to Enhance Healthcare Performance through Shared Knowledge of the ACGME/ABMS Competency Area ABMS-ACGME Conference on Systems-based Practice, Accreditation Councils for Graduate Medical Education (ACGME), Chicago, September 2004.
5. Dickey J, Ungerleider R, Anderson J, **Choi D**, Girard DE. The competent physician: A web-based e-learning program to enhance healthcare performance through shared knowledge of the ACGME competencies. The Marvin R. Dunn Poster Session at the ACGME's Annual Education Conference, Kissimmee, FL, March 3-5, 2005
6. **Choi D**, Wang J, Kim JS, Wang J, Nadarajah S, Lapidus J. Comparison background corrections for spotted DNA Microarrays. Joint Statistical Meeting, Minneapolis, MN, 2005.
7. Smith JR, **Choi D**, Chipps T, Pan Y, Zamora D, Planck SD, Davies M, Babra B, Powers M, Planck S, Rosenbaum JT. Microarray Identifies Unique Gene Expression Profiles of Human Retinal and Choroidal Vascular Endothelium in Donor-Matched Cell Cultures. The Association for Research in Vision and Ophthalmology year 2004 annual conference, Fort Lauderdale, Florida, May 2006.

8. Smith JR, **Choi D**, David LL, Rosenbaum JT. Molecular phenotype of retinal vascular endothelial cell. VIIth All India Uveitis Conference, Guwahati, Assam, India, December 2007. (invited)
9. Newton K, **Choi D**. State variation in proportion of children living in households with tobacco smokers. 13th Annual Maternal and Child Health Epidemiology Conference. Atlanta, GA, December 2007. Best abstract award and selected for oral presentation.
10. Wisdom J, Koudelka C, Green CA, **Choi D**. Patterns of publicly-funded adolescent drug treatment mental health treatment, and juvenile justice involvement. Joint Meetings on Adolescent Treatment Effectiveness. Washington DC, April 2008. (invited)
11. Wisdom J, Pavilcova M, Weaver J, Green CA, **Choi D**. Relationships between publicly funded adolescent drug treatment, criminal justice and mental health treatment. Addiction Health Services Research, Oct, 2008.
12. Rdesinski RE, **Choi D**, Simpson EL, Lambert WE. Incidence of malignant melanoma by anatomic site, gender, and geographic location: An unanticipated trend. NAPCRG Annual Meeting, Rio Grande, Puerto Rico, Nov, 2008.
13. **Choi D**, Kang Z, Tiao GC, Orwoll E, Nielson C. Identifying subgroups in outliers by cluster analysis. WNAR-IMS meeting, Portland, OR, Jun, 2009.
14. Rosenbaum JT, Ku J, Ali A, **Choi D**, Suhler EB. The Relationship Between Systemic Vasculitis and Retinal Vasculitis. ACR/ARHP Annual Scientific Meeting. Chicago, Nov. 2011.
15. Trune D, Delaney K, Hausman F, Kempton B, MacArthur C, **Choi D**. Transtympanically delivered steroids impact thousands of inner ear genes over conventional systemic delivery. Association for Research in Otolaryngology. San Diego, CA. Feb. 2012. (Selected as 5 abstracts highlighted by NIDCD).
16. Adamus G, **Choi D**, Schiffman J. Prevalence of Anti-Retinal Autoantibodies in Women with Gynecological Cancers with and without Cancer Associated Retinopathy. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
17. Redd T, Read-Brown S, Kitzmiller A, Yackel TR, **Choi D**, Chiang MF. Implementation of electronic health record systems in ophthalmology: impact on clinical volume compared to other medical fields. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
- 18.

International and National
Poster presentations

1. Phillipi C, **Choi D**, Colaizy T, Pillers D, Wheeler D. Chorioaminionitis: A potential risk factor for retinopathy of prematurity. Poster presentation at the American Association for Pediatric Ophthalmology and Strabismus. 29th Annual Meeting. P46, Waikoloa, HI, 2003
2. Mathers WD, Dolney AM, **Choi D**, Fang Y. Long-term changes in lacrimal gland gene expression following corneal trauma. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2003.

3. Fang Y, **Choi D**, Searles R, Mathers WD. Widespread gene suppression in the lacrimal gland following corneal stimulation, a mouse microarray study. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2004.
4. Lapidus J, **Choi D**, Lasarev M and NIEHS Toxicogenomics Research Consortium Cooperating Research Member at Oregon Health & Science University. Data Analytic Strategies for Combining Microarray Data from Several Sites. Bi-Annual Open Meeting of the National Institute of Environmental Health and Sciences (NIEHS) Toxicogenomics Research Consortium. Chapel Hill, North Carolina, December, 2004.
5. Benes, S.C., **Choi, D.**, Fishman, S.F., Tanne, E., Lobb, B., Smith, C., Litzinger, T. Does the Choice of Primary Surgical Procedure Correlate with A Significant Difference in Total Number of Surgeries Needed in Medical Failure Patients with Intracranial Hypertension (Pseudotumor Cerebri)? Comparing Those Undergoing Optic Nerve Sheath Decompression vs. CSF Shunting As their Primary Surgery. Annual North American Neuro-Ophthalmology Society Meeting, Copper Mountain, CO, Feb 2005.
6. Hunter A, Harrison RA, Desai S, Dickey J, **Choi D**, Girard DE. Developing methodology to monitor the ACGME duty hour requirements: A graduate medical education tool. Society of General Internal Medicine NW annual meeting, Mar 2005.
7. Mansberger SL, Romero FC, Smith NH, Johnson CA, Cioffi GA, Edmunds B, **Choi D**, Becker T. Causes of Visual Impairment and Common Eye Problems in Northwest American Indian/Alaskan Natives. American Glaucoma Society. March 2005.
8. Hunter A, Harrison RA, Desai S, Dickey J, **Choi D**, Girard DE. Developing methodology to monitor the ACGME duty hour requirements: A graduate medical education tool. Accreditation Councils for Graduate Medical Education (ACGME) Annual Educational Conference, Kissimmee, FL March 2005.
9. Mathers WD **Choi D**, Fang Y. Tight cluster analysis of microarray data reveals distinctive patterns of co-regulation in lacrimal gland gene expression. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2005.
10. Nguyen TH, **Choi D**, Merckens M, Wheeler DT. Visual findings in spina bifida patients. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2005.
11. Dhoot D, **Choi D**, Wheeler D. Postsurgical glaucoma in pediatrics cataract patients: Is primary IOL implantation protective? 2005 International Society of Refractive Surgery/American Academy of Ophthalmology, Hong Kong, 2005.
12. Dale RC, **Choi D**, Gattley DM. Colvard Pupillometer Measurement of Routine Dilation in Adult Eyes: Tropicamide and Phenylephrine versus Tropicamide Alone. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2006.
13. Mansberger SL, Cioffi GA, **Choi D**, Johnson CA. Screening Tests for Visually Significant Eye Diseases in American Indian/Alaska Native Participants. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May 2006.

14. **Choi D**, Fang Y, Mathers WD, Gene ontology of abundant transcriptomes in mouse lacrimal gland. Poster presentation at the Association for Research in Vision and Ophthalmology annual meeting, Fort Lauderdale, Florida, May 2006.
15. **Choi D**, Fang Y, Mathers WD. A case study for finding condition-specific *cis*-regulatory motifs and modules in the mouse genome. Joint Statistical Meeting, Seattle, WA, Aug 2006.
16. Riley S, **Choi D**, Larsen G, Morris C. Impact of Treatment Guidelines on Rural Patients with Myocardial Infarction. American Heart Association 7th Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke. American Heart Association, Washington, D. C., May, 2006.
17. Lloyd M, **Choi D**, Rosenbaum JT, Austin DF, Suhler EB. Incidence and Prevalence of Uveitis in Veterans' Affairs Medical Centers (VAMCs) of the Pacific Northwest. American Academy of Ophthalmology, November, 2006
18. Ronick MB, **Choi D**, Planck SR, Rosenbaum JT. OVA-Specific T cells appear to interact with antigen-presenting cells (APCs) loaded with either OVA or irrelevant protein in the inflamed murine Iris. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2007.
19. Glaster KT, Garman K, **Choi D**, Planck SR, Rosenbaum JT. Inhibition of neutrophil migration in the murine eye revealed by intravital microscopy. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2007.
20. Binek SJ, **Choi D**, Stout J, Rosenbaum JT, Appukuttan B, Smith JR. Comparison of *cis*-regulatory elements in genes differentially expressed by retinal and choroidal vascular endothelial cells. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2007.
21. Hoffman K, Ford J, Choi D, Greenawalt J, Free Burke P, Edmundson E, Gallon S, McCarty D. Days to treatment and early retention. College on Problems of Drug Dependence, June 2007.
22. Watkins AS, Kempen JH, **Choi D**, Rosenbaum JT, Thorne JE, Jobs DA, Nussenblatt RB, Foster CS, Suhler EB, Smith JR. Ocular disease in patients with Wegener's granulomatosis. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, Apr, 2008.
23. Lombardi LH, Pasadhika S, Galster KT, Diebel T, **Choi D**, Planck SR, Rosenbaum JT. Do mydriatics worsen anterior uveitis? Data from an animal model. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, Apr, 2008.
24. Sharma SM, **Choi D**, Smith JR, Planck SR, Martin TM, Harrington CA, Austin CR, Rosenbaum JT. Dissecting the transcriptome of ankylosing spondylitis associated with uveitis. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, Apr, 2008.
25. Pasadihika S, Crouse ED, Harrington CA, **Choi D**, SR Planck, Smith JR, Rosenbaum JT. Microarray gene expression profile of peripheral blood from patients with sarcoidosis implicates the transcript factor, STAT1. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, Apr, 2008.

26. Kim Y, Hwang D, **Choi D**, Wilson D. Comparison of digital fundus photographic and echographic measurements from eyes with choroidal melanoma. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2008.
27. English C, Flores C, Bower E, **Choi D**, Wessel K, Girard D. Oregon physician workforce distribution. Crystal City, VA, May 2008.
28. **Choi D**, Kang Z, Tiao G. Cluster analysis and predicting transcription factor regulatory network. Joint Statistical Meeting, Denver, Aug, 2008.
29. Ross JM, Winthrop KL, **Choi D**, Gilman RH, Ortega Y, Cabrera L, Xiao LH, Cama VA. Parasitic co-infection with *Giardia intestinalis* and *Cyclospora cayetanensis* among children in Peru. General Meeting of the American Society for Tropical Medicine and Hygiene. New Orleans, LA, December 2008.
30. Wilkinson J.T., Richards A.B., **Choi D**, Jr. Robertson J.E., Flaxel C.J: Incidence of retinal detachment following fellow performed primary pars plana vitrectomy. Association for research in vision and ophthalmology, May 2009.
31. Agnani S, **Choi D**, Rosenbaum JT. Does acute anterior uveitis preferentially affect the right or left eye? The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2009.
32. **Choi D**, Kang Z, Nielson C, Orwoll E, Tiao GC. Detecting subclusters in outliers by cluster analysis. Joint Statistical Meeting, Washington, DC, Aug, 2009.
33. Pasadihika S, Fisherman GA, **Choi D**, Shahidi M. Perifoveal inner retinal thinning as an early sign of hydroxychloroquine retinal toxicity. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2010.
34. Wilkinson JT, Bailey S, **Choi D**, Flaxel CJ. Outcomes of the surgical repair of molecular hole comparing SF6 to C3F8 or C2F6. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2010.
35. **Choi D**, Kang Z, Tiao GC. Detecting differentially expressed genes in microarray data by Split-and-Recombine. Joint Statistical Meeting, Vancouver, British Columbia, Canada, Aug, 2010.
36. Tillotson CJ, Hoffman K, McCarty D, **Choi D**. Modeling hierarchical structure of complex data from a network of drug treatment programs. Joint Statistical Meeting, Vancouver, British Columbia, Canada, Aug, 2010.
37. Armour RL, **Choi D**, Kempen JH, Daniel E, Kacmaz RO, Jabs DA, Levy-Clarke GA, Nussenblatt, RB, Thorne JE, Foster CS, Rosenbaum JT, Suhler EB. Visual outcome of inflammatory eye disease patients undergoing cataract surgery. American Academy of Ophthalmology. 2010. (“This presentation received the highest grades within its subject area based on either 2010 Annual Meeting attendee evaluations or review by the Annual Meeting Program Committee.”)
38. Lee NG, Planck SR, **Choi D**, Harrington CA, Wilson DJ, Rosenbaum JT. Gene expression profiling in nonspecific orbital inflammation using microarray analysis. The Association for Research in Vision and Ophthalmology annual conference, Fort Lauderdale, Florida, May, 2011.

39. Winthrop KL, Baxter R, McFarland B, Austin D, Varley CD, Radcliffe L, Suhler E, **Choi D**, Rosenbaum JT, Herrinton L. Mycobacterial disease in patients with inflammatory autoimmune disease who use anti-tumor necrosis therapy. Annual American Thoracic Society International Conference, Denver, May, 2011
40. **Choi D**, Carr K, Hayashi L, Acott T. Finding Transcription Factors of Co-regulated Genes. Joint Statistical Meeting, Miami, Aug. 2011.
41. Tu DC, **Choi D**, Lauer AK. Trends in U. S. Ophthalmology Resident Surgical Training. Annual Meeting of American Academy of Ophthalmology. Orlando, FL, Oct. 2011.
42. Cedfeldt A, Bower E, Grady-Weliky T, Flores C, Girard D, **Choi D**. A comparison between physicians and demographically similar peers in assessing personal healthcare. 2012 ACGME Annual Education Conference. Orlando, Fl. March 2012.
43. Hayashi L, **Choi D**, Carr K, Kelley MJ, Acott TS. Transcriptional co-regulatory patterns associated with TNF α treatment of trabecular meshwork cells. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, May, 2012.
44. **Choi D**, Carr K, Hayashi L, Kelley MJ, Acott TS. Identifying de-novo transcription factor binding sites of co-regulated genes. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, May, 2012.
45. Tu DC, Read-Brown S, Bailey S, Karr D, **Choi D**, Hwang T, Yackel T, Chiang MF. Implementation of electronic health record systems in ophthalmology impact on provider time utilization. The Association for Research in Vision and Ophthalmology annual conference. Fort Lauderdale, Florida, May, 2012
46. Read-Brown S, Chiang MF, Sanders D, Tu DC, Yackel T, **Choi D**, Cottle E. Implementation of electronic health record systems in ophthalmology: impact on outpatient clinical volume.
47. **Choi D**, Carr K, Hayashi L, Kelley MJ, Acott TS. A scoring system for consensus sequence matching. Joint Statistical Meeting, San Diego, Aug. 2012
48. Lattin D, Aaker G, Aster-Cansizoglu E, **Choi D**, Keck KM, Gelman R, Kalpathy-Cramer J, Erdogmus D, Chiang MF. Quantifying vascular tortuosity in retinopathy of prematurity: impact of segmentation method and vascular length. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
49. Rosenbaum JT, **Choi D**, Harrington CA, Harris GJ, Czyz CN, White VA, Steele EA, Korn BS, Wilson DJ, Planck SR. Identifying and classifying nonspecific orbital inflammation (NSOI) by gene expression array. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
50. Planck SR, **Choi D**, Harrington CA, Czyz CN, Dailey RA, Dolman PJ, Harris GJ, Stauffer P, Wilson DJ, Rosenbaum JT. Gene expression in thyroid eye disease relative to other orbital diseases. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
51. Hayashi L, **Choi D**, Carr K, Kelley MJ, Acott TS. Transcriptional Co-regulatory Patterns Associated with TNF α Treatment of Trabecular Meshwork Cells. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May,
52. Campbell JP, Beardsley RM, **Choi D**, Flaxel CJ, Bailey S, Lauer A, Hwang TS. Effect of anti-VEGF medication change on central macular thickness and visual acuity in patients with

neovascular age-related macular degeneration. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013

53. Tu DC, Sander DS, Read-Brown S, Brown AS, **Choi D**, Yackel TR, Chiang MF. Electronic Health Record Systems in Ophthalmology: Impact on Operating Room Time Requirements for Cataract Surgery. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
54. Redd T, Read-Brown S, Kitzmiller A, Yackel TR, **Choi D**, Chiang MF. Implementation of electronic health record systems in ophthalmology: impact on clinical volume compared to other medical fields. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
55. Kopplin LJ, **Choi D**, Mansberger SL. Correlation of Ophthalmic Screening Tests in an American Indian/Alaskan Native Cohort. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
56. **Choi D**, Hayashi L, Carr K, Kelley MJ, Acott TS. Predicting Gene Networks and Transcription Factors in TNF α Treatment of Trabecular Meshwork Cells. The Association for Research in Vision and Ophthalmology annual conference. Seattle, WA, May, 2013
57. **Choi D**, Hayashi L, Carr K, Kelley MJ, Acott TS. A case study on predicting transcription factors and gene network. Joint Statistical Meeting. Montreal, Canada, Aug, 2013.

Regional and Local presentation

1. Department seminar, Statistics and Applied Probability, University of California, Santa Barbara, 1999.
2. Statistics seminar, SPSS, Chicago, 2000
3. Grand Rounds, Public Health & Preventive Medicine, OHSU, 2000
4. Department seminar, Mathematics & Statistics, Tennessee Tech University, 2001
5. Department seminar, Mathematical Sciences, University of Cincinnati, 2001
6. Department seminar, Mathematics & Statistics, Mississippi State University, 2001
7. Department seminar Mathematics & Statistics s, American University, Washington, DC. 2001
8. Department seminar, Mathematics, University of South Florida, 2001
9. Department seminar, Statistics, University of Central Florida, 2001
10. Statistics Colloquium, Department of Mathematics and Statistics, Portland State University, 2002
11. Statistics Colloquium, Department of Statistics, Oregon State University, 2003
12. Statistics Colloquium, Department of Statistics, Oregon State University, Mar, 2010
13. Statistics Colloquium, Department of Statistics, Oregon State University, 11/2010.
14. Mathematics Colloquium, Department of Statistics, University of Portland, 3/2011.
15. Department Colloquium, Department of Mathematics, Reed College, 2/2012.
16. Northwest Undergraduate Mathematics Symposium, Invited panel discussion. Portland, OR, 3/2012.
- 17.

V. SERVICE

Membership in Professional Societies:

1. The American Statistical Association since 1988
2. The Institute of Mathematical Statistics since 1988.
3. The Oregon Chapter of the American Statistical Association, since 2001
4. The International Biometric Society/WNAR, since 2003
5. ICSA (International Chinese Statistical Association), since 2003
6. The Association for Research in Vision and Ophthalmology, since 2005
7. KISS (Korean International Statistical Society), since 2010
8. The International Statistical Institute, since 2013
9. American Association for the Advancement of Science, since 2013

Editorial and Ad Hoc Review Activities:

1. Reviewer for *Statistica Sinica*, 2003, 2007 – present
2. Reviewer for *Mathematical and Computer Modeling*, 2003.
3. Reviewer for *Climate Change*, 2004.
4. Reviewer for *Technometrics*, 2004.
5. Reviewer for IEEE International Conference on Image and Graphics 2004.
6. Reviewer for *American Journal of Epidemiology*, 2005.
7. Reviewer for *Journal of Applied Bioinformatics*, 2005-2006
8. Editorial Advisory Board for *Scientific Journals International*, 2006 – 2010
9. Regular reviewer (approx. 3~4 reviews per year) for *Journal of American Medical Association (JAMA)*, 2006 - present
10. Invited to provide an expert opinion on statistical issues, US Forest Service 2006.
11. Reviewer for *Communications in Statistics*, 2007
12. Reviewer for *A SAR-R Dictionary*, Chapman & Hall/CRC press, 2007-2008.
13. Editorial Board Member, *The Open Statistics & Probability Journal*, 2009 – Present.
14. Promotion & Tenure reviewer, Department of Medicine, Indiana University, 2009
15. Editorial Board Member, *Spatial and Spatio-temporal Epidemiology*, 2010 –2013. (publisher: Elsevier)
16. Reviewer for *Computational Statistics and Data Analysis*, 2010
17. Editorial Board Member, *Journal of Proteomics & Bioinformatics*, 2010 – Present.
18. Associate Editor, *Annals of Applied Statistics*, Institute of Mathematical Statistics (one of top 5 statistics journals, Editor: Dr. Stephen Fienberg), 2011 – Present.
19. Associate Editor, *Journal of Statistics and Mathematics*, 2011 – 2016.
20. Ad-hoc Member (Statistical Genetics), Neurological, Aging, and Musculoskeletal Epidemiology Study Section (NAME), NIH, 2012.
21. Grant review, The Chilean Antarctic Institute (INACH, the national institution of the Chilean scientific research activity in Antarctica). 2012.
22. Promotion & Tenure reviewer, Department of Statistics, Virginia Tech, 2012

23. Scientific reviewer, PCORI (Patient-Centered Outcomes Research Institute, established by the 2010 Patient Protection and Affordable Care Act), 2012.

Committees:

International/National

1. Chapter Representative (Oregon), the Council of Chapters, The American Statistical Association, 2005-2014. (Elected for the 3rd term.)
2. Committee on International Relations, The American Statistical Association 2005-2010. (reappointed for the 2nd term 2008 – 2010)
3. Session chair at the Joint Statistical Meeting 2005, 2006.
4. Poster Chair, Program committee for 2007 Joint Statistical Meeting (the biggest international statistical meeting in the North America, responsible for organizing all poster presentation sessions). 2006-2007.
 - a. Led a major reform of poster sessions
 - b. Poster display from 2 hrs to all day
 - c. Change the location to next commercial vendors
5. Organizer/Chair, Invited Poster Session, Joint Statistical Meeting, 2007
 - a. Invited 12 posters.
6. Subcommittee on Website Evaluation, The American Statistical Association, 2007-2008
7. Committee on Nominations, Council of Chapters, The American Statistical Association, 2008 - 2009.
8. Founding member, Statistics without Borders (SWB – International volunteers group), The American Statistical Association. 2008-present
 - a. Statistical software evaluation group for developing countries. 2010 - present
9. Steering Committee, USCensus @ School, The American Statistical Association. 2009 – 2010
10. Planning Committee, The International Korean Statistical Association. 2009 – 2010.
11. Program Committee, The International Chinese Statistical Association. 2010 – 2012
12. Organizer/Chair, Invited Session for Joint Statistical Meeting (JSM), Vancouver. 2010
 - Title: Spatial Epidemiology, GIS and Disease Mapping.
 - Sponsored by Section on Statistics in Epidemiology, CHANCE, ENAR, IMS, International Chinese Statistical Association, Section on Statistics in Defense and National Security, Section on Statistics and the Environment, WNAR.
13. Founding President, Korean International Statistical Society, 2010 – present.
14. Organizer, Invited Session for 2011 KSS International Conference on Statistics and Probability, Busan, Korea, July 2011.
15. Conference Organizing Committee, International Conference for Health Statistics in the Pacific Islands, Suva, Fiji, July 2011.
16. Asian Representative of the Friends of Australasia. 2010 – present.

17. Committee on the Statistical Partnerships among Academe, Industry and Government (SPAIG), The American Statistical Association, appointment 2012-2014.
18. The Strategic Issues Committee, The International Biometric Society, 2012-2013.
19. Symposium chair, Executive Committee, 2014 Applied Statistics Symposium, International Chinese Statistical Association, 2012 – 2014.
20. International Organizing Committee, Joint Meeting of the IASC Satellite Conference for the 59th ISI WSC and the 8th Conference of the Asian Regional Section of the International Association for Statistical Computing. 2012-2013.

Regional

1. Treasurer/Secretary, Oregon Chapter, The American Statistical Association, 2004-2005.
2. Vice President, Oregon Chapter, The American Statistical Association, 2005-2006.
3. President, Oregon Chapter, The American Statistical Association, 2006-2007.
4. Past President, Oregon Chapter, The American Statistical Association, 2007-2008.

Institutional

1. Research Information Systems Steering Committee, OHSU 2005 - 2009.
2. Biostatistics working group, Clinical and Translational Science Institute at OHSU, 2006.
3. Research Committee. 2007 – 2010
4. Chair for Biostatistics Faculty Search Committee-PHPM/OCTRI/Pediatrics, 2007 -2008.
5. Chair for Biostatistics Faculty Search Committee-PHPM/OCTRI/Cancer Institute, 2007 – 2008

Departmental

1. Faculty search committee, Public Health & Preventive Medicine, OHSU 2002 - 2003
2. MPH committee, Public Health & Preventive Medicine, OHSU 2004 – present
3. Department web design committee, Public Health & Preventive Medicine, OHSU 2005 – present
4. Ad-hoc consulting in computer and technology, OHSU 2002 – present.
5. Faculty Search committee for Epidemiology, 2007
6. Committee on Biostatistics Certificate Program, 2007
7. Committee on developing MS and Graduate Certificate Program in Biostatistics, 2008 - 2009
8. Curriculum Committee of Graduate Certificate Program in Biostatistics, 2009 – 2012
9. Admission Committee of Graduate Certificate Program in Biostatistics, 2010 – 2012
10. Committee on MS in Biostatistics, 2010 – 2012

Community Service:

1. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, May 2003.
2. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, April 2004.

3. Statistics award judge, 2004 Intel International Science and Engineering Fair, Portland, Representing the American Statistical Association, May 2004.
4. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, April 2005.
5. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, March 2006.
6. Project leader, a partnership with high schools in statistical education, 2006 – September, 2007.
7. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, March 2007.
8. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, March 2008.
9. Special award judge (Statistics), The Northwest Intel Science Expo, Portland, March 2009.
10. Statistics Without Borders, 2009-present
11. Hosted 2014 Applied Statistics Symposium, the International Chinese Statistical Association in Portland.
12. Congress visit to promote statistical education in K-12, the American Statistical Association, Washington, D.C., 2009
13. Statistical Literacy Grassroots Campaign, the American Statistical Association, 2010

Statistical consulting and biostatistics supports

1. with investigators in Casey Eye Institute

	Total Projects	Peer-reviewed Publications	Grant Assistant	Abstract	Article Review	Protocols Review
2004	22	1	4	2	0	7
2005	29	1	3	3	2	3
2006	23	3	5	5	3	0
2007	36	6	5	6	5	0
2008	25	5	4	4	0	0
2009	23	8	3	4	0	1
2010	22	6	5	4	1	2
2011	24	3	5	5	0	0
Total	204	33	34	33	11	13

2. with other OHSU investigators via Center for Biostatistics Computing and Informatics in Biology and Medicine (CBCIBM) or other collaborations
 - 2004: 6 projects (CBCIBM)
 - 2005: 8 projects(CBCIBM)
 - 2006: 6 projects(CBCIBM)
 - 2007: 5 projects (CBCIBM)
 - 2008: 1 project with investigators in Methamphetamine Abuse Research Center (Methamphetamine Abuse Research Center - MARC)
 - 2009: 2 projects (MARC and Otolaryngology)

- 2010: 2 projects (MARC)