



Teri Klein

Professor (Research) of Biomedical Data Science and of Medicine (BMIR)

 NIH Biosketch available Online

CONTACT INFORMATION

- **Alternate Contact**

Tiffany Murray

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Bio

CURRENT ROLE AT STANFORD

Co Principal Investigator & Director, PharmGKB

Co-Principal Investigator, CPIC

ACADEMIC APPOINTMENTS

- Professor (Research), Biomedical Data Science
- Professor (Research), Medicine - Biomedical Informatics Research

PROFESSIONAL EDUCATION

- B.A., UC Santa Cruz , Chemistry/Biology (1980)
- Ph.D., UC San Francisco , Medical Information Sciences (1987)

COMMUNITY AND INTERNATIONAL WORK

- PharmGKB Director, 1501 S. California Avenue, Palo Alto, CA 94304
- Co-founder, Pacific Symposium on Biocomputing

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests extend over the broad spectrum of pharmacogenomics, personalized medicine, computational biology and bioinformatics. Applications include the development of a pharmacogenomics knowledge base, clinical dosing guidelines for pharmacogenomics, annotation of human genome, de novo modeling and the structural basis of disease.

My current research areas involve the studies of the following:

* development of an integrated knowledge base about how variation in human genetics leads to variation in our response to drugs

* the stability of the collagen triple helix

* the relationship and prediction of lethal mutations for the genetic collagenous disease Osteogenesis imperfecta

Teaching

STANFORD ADVISEES

Doctoral (Program)

Larry Kalesinskas, Anna Shcherbina, Dan Sosa, Kevin Thomas

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Informatics (Masters Program)
- Biomedical Informatics (Phd Program)
- Genetics (Phd Program)

Publications

PUBLICATIONS

- **A Call for Clear and Consistent Communications Regarding the Role of Pharmacogenetics in Antidepressant Pharmacotherapy.** *Clinical pharmacology and therapeutics*
Hicks, J. K., Bishop, J. R., Gammal, R. S., Sangkuhl, K., Bousman, C. A., Leeder, J. S., Llerena, A., Mueller, D. J., Ramsey, L. B., Scott, S. A., Skaar, T. C., Caudle, K. E., Klein, et al
2019
- **PharmVar GeneReview: CYP2D6.** *Clinical pharmacology and therapeutics*
Nofziger, C., Turner, A. J., Sangkuhl, K., Whirl-Carrillo, M., Agundez, J. A., Black, J. L., Dunnenberger, H. M., Ruano, G., Kennedy, M. A., Phillips, M. S., Hachad, H., Klein, T. E., Gaedigk, et al
2019
- **Are Randomized Controlled Trials Necessary to Establish the Value of Implementing Pharmacogenomics in the Clinic?** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Huddart, R., Sangkuhl, K., Whirl-Carrillo, M., Klein, T. E.
2019; 106 (2): 284–86
- **Pharmacogenomics Clinical Annotation Tool (PharmCAT).** *Clinical pharmacology and therapeutics*
Sangkuhl, K., Whirl-Carrillo, M., Whaley, R. M., Woon, M., Lavertu, A., Altman, R. B., Carter, L., Verma, A., Ritchie, M. D., Klein, T. E.
2019
- **Standardized Biogeographic Grouping System for Annotating Populations in Pharmacogenetic Research** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Huddart, R., Fohner, A. E., Whirl-Carrillo, M., Wojcik, G. L., Gignoux, C. R., Popejoy, A. B., Bustamante, C. D., Altman, R. B., Klein, T. E.
2019; 105 (5): 1256–62
- **Are Randomized Controlled Trials Necessary to Establish the Value of Implementing Pharmacogenomics in the Clinic?** *Clinical pharmacology and therapeutics*
Huddart, R., Sangkuhl, K., Whirl-Carrillo, M., Klein, T. E.
2019
- **The Clinical Pharmacogenetics Implementation Consortium: 10 Years Later.** *Clinical pharmacology and therapeutics*
Relling, M. V., Klein, T. E., Gammal, R. S., Whirl-Carrillo, M., Hoffman, J. M., Caudle, K. E.
2019
- **Standardized biogeographic grouping system for annotating populations in pharmacogenetic research.** *Clinical pharmacology and therapeutics*
Huddart, R., Fohner, A. E., Whirl-Carrillo, M., Wojcik, G. L., Gignoux, C. R., Popejoy, A. B., Bustamante, C. D., Altman, R. B., Klein, T. E.
2018

- **The Case for Pharmacogenetics-Guided Prescribing of Codeine in Children.** *Clinical pharmacology and therapeutics*
Gammal, R. S., Caudle, K. E., Quinn, C. T., Wang, W. C., Gaedigk, A., Prows, C. A., Haidar, C. E., Taylor, A. K., Klein, T. E., Sangkuhl, K., Hankins, J. S., Crews, K. R.
2018
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for CYP2D6 and Tamoxifen Therapy** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Goetz, M. P., Sangkuhl, K., Guchelaar, H., Schwab, M., Province, M., Whirl-Carrillo, M., Symmans, W., McLeod, H. L., Ratain, M. J., Zembutsu, H., Gaedigk, A., van Schaik, R. H., Ingle, et al
2018; 103 (5): 770-77
- **PharmGKB: A worldwide resource for pharmacogenomic information.** *Wiley interdisciplinary reviews. Systems biology and medicine*
Barbarino, J. M., Whirl-Carrillo, M., Altman, R. B., Klein, T. E.
2018
- **PharmCAT: A Pharmacogenomics Clinical Annotation Tool.** *Clinical pharmacology and therapeutics*
Klein, T. E., Ritchie, M. D.
2017
- **Recommendations for reporting of secondary findings in clinical exome and genome sequencing, 2016 update (ACMG SF v2.0): a policy statement of the American College of Medical Genetics and Genomics** *GENETICS IN MEDICINE*
Kalia, S. S., Adelman, K., Bale, S. J., Chung, W. K., Eng, C., Evans, J. P., Herman, G. E., Hufnagel, S. B., Klein, T. E., Korf, B. R., McKelvey, K. D., Ormond, K. E., Richards, et al
2017; 19 (2): 249-255
- **Standardizing terms for clinical pharmacogenetic test results: consensus terms from the Clinical Pharmacogenetics Implementation Consortium (CPIC).** *Genetics in medicine*
Caudle, K. E., Dunnenberger, H. M., Freimuth, R. R., Peterson, J. F., Burlison, J. D., Whirl-Carrillo, M., Scott, S. A., Rehm, H. L., Williams, M. S., Klein, T. E., Relling, M. V., Hoffman, J. M.
2016
- **Prediction of CYP2D6 phenotype from genotype across world populations.** *Genetics in medicine*
Gaedigk, A., Sangkuhl, K., Whirl-Carrillo, M., Klein, T., Leeder, J. S.
2016
- **Genetic variant in folate homeostasis is associated with lower warfarin dose in African Americans** *BLOOD*
Daneshjou, R., Gamazon, E. R., Burkley, B., Cavallari, L. H., Johnson, J. A., Klein, T. E., Limdi, N., Hillenmeyer, S., Percha, B., Karczewski, K. J., Langaee, T., Patel, S. R., Bustamante, et al
2014; 124 (14): 2298-2305
- **CYP2D6 Genotype and Adjuvant Tamoxifen: Meta-Analysis of Heterogeneous Study Populations** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Province, M. A., Goetz, M. P., Brauch, H., Flockhart, D. A., Hebert, J. M., Whaley, R., Suman, V. J., Schroth, W., Winter, S., Zembutsu, H., Mushiroda, T., Newman, W. G., Lee, et al
2014; 95 (2): 216-227
- **Clinical Implementation of Pharmacogenetics: More Than One Gene at a Time** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Johnson, J. A., Klein, T. E., RELLING, M. V.
2013; 93 (5): 384-385
- **Pharmacogenomics Knowledge for Personalized Medicine** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Whirl-Carrillo, M., MCDONAGH, E. M., Hebert, J. M., Gong, L., Sangkuhl, K., Thorn, C. F., Altman, R. B., Klein, T. E.
2012; 92 (4): 414-417
- **Clopidogrel: A Case for Indication-Specific Pharmacogenetics** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Johnson, J. A., Roden, D. M., Lesko, L. J., Ashley, E., Klein, T. E., Shuldiner, A. R.
2012; 91 (5): 774-776
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guidelines for Codeine Therapy in the Context of Cytochrome P450 2D6 (CYP2D6) Genotype** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Crews, K. R., Gaedigk, A., Dunnenberger, H. M., Klein, T. E., Shen, D. D., Callaghan, J. T., Kharasch, E. D., Skaar, T. C.
2012; 91 (2): 321-326

- **CPIC: Clinical Pharmacogenetics Implementation Consortium of the Pharmacogenomics Research Network** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Relling, M. V., Klein, T. E.
2011; 89 (3): 464-467
- **Clinical assessment incorporating a personal genome** *LANCET*
Ashley, E. A., Butte, A. J., Wheeler, M. T., Chen, R., Klein, T. E., Dewey, F. E., Dudley, J. T., Ormond, K. E., Pavlovic, A., Morgan, A. A., Pushkarev, D., Neff, N. F., Hudgins, et al
2010; 375 (9725): 1525-1535
- **PGxMine: Text mining for curation of PharmGKB.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
Lever, J., Barbarino, J. M., Gong, L., Huddart, R., Sangkuhl, K., Whaley, R., Whirl-Carrillo, M., Woon, M., Klein, T. E., Altman, R. B.
2020; 25: 611-22
- **PharmVar and the Landscape of Pharmacogenetic Resources.** *Clinical pharmacology and therapeutics*
Gaedigk, A., Whirl-Carrillo, M., Pratt, V. M., Miller, N. A., Klein, T. E.
2019
- **Pharmacogenomic Polygenic Response Score Predicts Ischemic Events and Cardiovascular Mortality in Clopidogrel-Treated Patients.** *European heart journal. Cardiovascular pharmacotherapy*
Lewis, J. P., Backman, J. D., Reny, J., Bergmeijer, T. O., Mitchell, B. D., Ritchie, M. D., Dery, J., Pakyz, R. E., Gong, L., Ryan, K., Kim, E., Aradi, D., Fernandez-Cadenas, et al
2019
- **PharmGKB summary: methylphenidate pathway, pharmacokinetics/pharmacodynamics** *PHARMACOGENETICS AND GENOMICS*
Stevens, T., Sangkuhl, K., Brown, J. T., Altman, R. B., Klein, T. E.
2019; 29 (6): 136-54
- **Considerations for pharmacogenomic testing in a health system** *GENETICS IN MEDICINE*
Gammal, R. S., Caudle, K. E., Klein, T. E., Relling, M. V.
2019; 21 (8): 1886-87
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for CYP2B6 and Efavirenz-Containing Antiretroviral Therapy** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Desta, Z., Gammal, R. S., Gong, L., Whirl-Carrillo, M., Gaur, A. H., Sukasem, C., Hockings, J., Myers, A., Swart, M., Tyndale, R. F., Masimirembwa, C., Iwuchukwu, O. F., Chirwa, et al
2019
- **Clinical Pharmacogenetics Implementation Consortium Guideline for Cytochrome P450 (CYP)2D6 Genotype and Atomoxetine Therapy** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Brown, J. T., Bishop, J. R., Sangkuhl, K., Nurmi, E. L., Mueller, D. J., Dinh, J. C., Gaedigk, A., Klein, T. E., Caudle, K. E., McCracken, J. T., de Leon, J., Leeder, J.
2019; 106 (1): 94-102
- **PharmGKB summary: Ondansetron and tropisetron pathways, pharmacokinetics and pharmacodynamics** *PHARMACOGENETICS AND GENOMICS*
Huddart, R., Altman, R. B., Klein, T. E.
2019; 29 (4): 91-97
- **The Case for Pharmacogenetics-Guided Prescribing of Codeine in Children** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Gammal, R. S., Caudle, K. E., Quinn, C. T., Wang, W. C., Gaedigk, A., Prows, C. A., Haidar, C. E., Taylor, A. K., Klein, T. E., Sangkuhl, K., Hankins, J. S., Crews, K. R.
2019; 105 (6): 1300-1302
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for the Use of Potent Volatile Anesthetic Agents and Succinylcholine in the Context of RYR1 or CACNA1S Genotypes** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Gonsalves, S. G., Dirksen, R. T., Sangkuhl, K., Pulk, R., Alvarellos, M., Vo, T., Hikino, K., Roden, D., Klein, T. E., Poler, S., Patel, S., Caudle, K. E., Gordon, et al
2019; 105 (6): 1338-44
- **Clinical Pharmacogenetics Implementation Consortium Guideline for Thiopurine Dosing Based on TPMT and NUDT15 Genotypes: 2018 Update** *CLINICAL PHARMACOLOGY & THERAPEUTICS*

- Relling, M., Schwab, M., Whirl-Carrillo, M., Suarez-Kurtz, G., Pui, C., Stein, C. M., Moyer, A. M., Evans, W. E., Klein, T. E., Guillermo Antillon-Klussmann, F., Caudle, K. E., Kato, M., Yeoh, et al
2019; 105 (5): 1095–1105
- **The ACCOuNT Consortium: A Model for the Discovery, Translation, and Implementation of Precision Medicine in African Americans** *CTS-CLINICAL AND TRANSLATIONAL SCIENCE*
Friedman, P. N., Shaazuddin, M., Gong, L., Grossman, R. L., Harralson, A. F., Klein, T. E., Lee, N. H., Miller, D. C., Nutescu, E. A., O'Brien, T. J., O'Donnell, P. H., O'Leary, K. J., Tuck, et al
2019; 12 (3): 209–17
 - **Pharmacogene Variation Consortium Gene Introduction: NUDT15** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Yang, J. J., Whirl-Carrillo, M., Scott, S. A., Turner, A. J., Schwab, M., Tanaka, Y., Suarez-Kurtz, G., Schaeffeler, E., Klein, T. E., Miller, N. A., Gaedigki, A.
2019; 105 (5): 1091–94
 - **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for CYP2B6 and Efavirenz-containing Antiretroviral Therapy.** *Clinical pharmacology and therapeutics*
Desta, Z., Gammal, R. S., Gong, L., Whirl-Carrillo, M., Gaur, A. H., Sukasem, C., Hockings, J., Myers, A., Swart, M., Tyndale, R., Masimirembwa, C., Iwuchukwu, O. F., Chirwa, et al
2019
 - **PharmGKB summary: methylphenidate pathway, pharmacokinetics/pharmacodynamics.** *Pharmacogenetics and genomics*
Stevens, T., Sangkuhl, K., Brown, J. T., Altman, R. B., Klein, T. E.
2019
 - **Pharmacogenomics in dermatology: tools for understanding gene-drug associations.** *Seminars in cutaneous medicine and surgery*
Daneshjou, R., Huddart, R., Klein, T. E., Altman, R. B.
2019; 38 (1): E19–E24
 - **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for CYP2D6 Genotype and Atomoxetine Therapy.** *Clinical pharmacology and therapeutics*
Brown, J. T., Bishop, J. R., Sangkuhl, K., Nurmi, E. L., Mueller, D. J., Dinh, J. C., Gaedigk, A., Klein, T. E., Caudle, K. E., McCracken, J. T., de Leon, J., Steven Leeder, J.
2019
 - **PharmGKB summary: Ondansetron and tropisetron pathways, pharmacokinetics and pharmacodynamics.** *Pharmacogenetics and genomics*
Huddart, R., Altman, R. B., Klein, T. E.
2019
 - **Considerations for pharmacogenomic testing in a health system.** *Genetics in medicine : official journal of the American College of Medical Genetics*
Gammal, R. S., Caudle, K. E., Klein, T. E., Relling, M. V.
2019
 - **The association of obesity and coronary artery disease genes with response to SSRIs treatment in major depression.** *Journal of neural transmission (Vienna, Austria : 1996)*
Amare, A. T., Schubert, K. O., Tekola-Ayele, F., Hsu, Y., Sangkuhl, K., Jenkins, G., Whaley, R. M., Barman, P., Batzler, A., Altman, R. B., Arolt, V., Brockmoller, J., Chen, et al
2019
 - **Standardizing CYP2D6 Genotype to Phenotype Translation: Consensus Recommendations from the Clinical Pharmacogenetics Implementation Consortium and Dutch Pharmacogenetics Working Group.** *Clinical and translational science*
Caudle, K. E., Sangkuhl, K., Whirl-Carrillo, M., Swen, J. J., Haidar, C. E., Klein, T. E., Gammal, R. S., Relling, M. V., Scott, S. A., Hertz, D. L., Guchelaar, H. J., Gaedigk, A.
2019
 - **TRY plant trait database - enhanced coverage and open access** *Global Change Biology*
Kattge, J., et al
2019
 - **The association of obesity and coronary artery disease genes with response to SSRIs treatment in major depression** *JOURNAL OF NEURAL TRANSMISSION*
Amare, A. T., Schubert, K., Tekola-Ayele, F., Hsu, Y., Sangkuhl, K., Jenkins, G., Whaley, R. M., Barman, P., Batzler, A., Altman, R. B., Arolt, V., Brockmoller, J., Chen, et al

2019; 126 (1): 35–45

- **The ACCOuNT Consortium: a model for the discovery, translation and implementation of precision medicine in African Americans.** *Clinical and translational science*
Friedman, P. N., Shaazuddin, M., Gong, L., Grossman, R. L., Harralson, A. F., Klein, T. E., Lee, N. H., Miller, D. C., Nutescu, E. A., O'Brien, T. J., O'Donnell, P. H., O'Leary, K. J., Tuck, et al
2018
- **The Evolution of PharmVar.** *Clinical pharmacology and therapeutics*
Gaedigk, A., Sangkuhl, K., Whirl-Carrillo, M., Twist, G. P., Klein, T. E., Miller, N. A., PharmVar Steering Committee
2018
- **Pharmacogene Variation Consortium Gene Introduction: NUDT15.** *Clinical pharmacology and therapeutics*
Yang, J. J., Whirl-Carrillo, M., Scott, S. A., Turner, A. J., Schwab, M., Tanaka, Y., Suarez-Kurtz, G., Schaeffeler, E., Klein, T. E., Miller, N. A., Gaedigk, A.
2018
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline for the use of potent volatile anesthetic agents and succinylcholine in the context of RYR1 or CACNA1S genotypes.** *Clinical pharmacology and therapeutics*
Gonsalves, S. G., Dirksen, R. T., Sangkuhl, K., Pulk, R., Alvarelllos, M., Vo, T., Hikino, K., Roden, D., Klein, T., Mark Poler, S., Patel, S., Caudle, K. E., Gordon, et al
2018
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline for thiopurine dosing based on TPMT and NUDT15 genotypes: 2018 update.** *Clinical pharmacology and therapeutics*
Relling, M. V., Schwab, M., Whirl-Carrillo, M., Suarez-Kurtz, G., Pui, C., Stein, C. M., Moyer, A. M., Evans, W. E., Klein, T. E., Antillon-Klussmann, F. G., Caudle, K. E., Kato, M., Yeoh, et al
2018
- **Essential characteristics of pharmacogenomics study publications.** *Clinical pharmacology and therapeutics*
Thorn, C. F., Whirl-Carrillo, M., Hachad, H., Johnson, J. A., McDonagh, E. M., Ratain, M. J., Relling, M. V., Scott, S. A., Altman, R. B., Klein, T. E.
2018
- **PharmGKB summary: oxycodone pathway, pharmacokinetics** *PHARMACOGENETICS AND GENOMICS*
Huddart, R., Clarke, M., Altman, R. B., Klein, T. E.
2018; 28 (10): 230–37
- **PharmGKB summary: clozapine pathway, pharmacokinetics** *PHARMACOGENETICS AND GENOMICS*
Thorn, C. F., Mueller, D. J., Altman, R. B., Klein, T. E.
2018; 28 (9): 214–22
- **Substitutions for arginine at position 780 in triple helical domain of the alpha 1 (I) chain alter folding of the type I procollagen molecule and cause osteogenesis imperfecta** *PLOS ONE*
Makareeva, E., Sun, G., Mirigian, L. S., Mertz, E. L., Vera, J. C., Espinoza, N. A., Yang, K., Chen, D., Klein, T. E., Byers, P. H., Leikin, S.
2018; 13 (7): e0200264
- **Standardization can accelerate the adoption of pharmacogenomics: current status and the path forward** *PHARMACOGENOMICS*
Caudle, K. E., Keeling, N. J., Klein, T. E., Whirl-Carrillo, M., Pratt, V. M., Hoffman, J. M.
2018; 19 (10): 847–60
- **Pharmacogenomics and big genomic data: from lab to clinic and back again.** *Human molecular genetics*
Lavertu, A., McInnes, G., Daneshjou, R., Whirl-Carrillo, M., Klein, T. E., Altman, R. B.
2018; 27 (R1): R72–R78
- **PharmGKB summary: atazanavir pathway, pharmacokinetics/pharmacodynamics** *PHARMACOGENETICS AND GENOMICS*
Alvarelllos, M., Guillemette, C., Altman, R. B., Klein, T. E.
2018; 28 (5): 127–37
- **Research Directions in the Clinical Implementation of Pharmacogenomics: An Overview of US Programs and Projects** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Volpi, S., Bult, C. J., Chisholm, R. L., Deverka, P. A., Ginsburg, G. S., Jacob, H. J., Kasapi, M., McLeod, H. L., Roden, D. M., Williams, M. S., Green, E. D., Rodriguez, L., Aronson, et al

2018; 103 (5): 778–86

- **Genome-wide and candidate gene approaches of clopidogrel efficacy using pharmacodynamic and clinical end points-Rationale and design of the International Clopidogrel Pharmacogenomics Consortium (ICPC)** *AMERICAN HEART JOURNAL*
Bergmeijer, T. O., Reny, J., Pakyz, R. E., Gong, L., Lewis, J. P., Kim, E., Aradi, D., Fernandez-Cadenas, I., Horenstein, R. B., Lee, M., Whaley, R. M., Montaner, J., Franco Gensini, et al
2018; 198: 152–59
- **PharmGKB summary: clobazam pathway, pharmacokinetics** *PHARMACOGENETICS AND GENOMICS*
Huddart, R., Leeder, J., Altman, R. B., Klein, T. E.
2018; 28 (4): 110–15
- **Comparison of the Guidelines of the Clinical Pharmacogenetics Implementation Consortium and the Dutch Pharmacogenetics Working Group** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Bank, P. D., Caudle, K. E., Swen, J. J., Gammal, R. S., Whirl-Carrillo, M., Klein, T. E., Relling, M. V., Guchelaar, H.
2018; 103 (4): 599–618
- **Clinical Pharmacogenetics Implementation Consortium Guideline for HLA Genotype and Use of Carbamazepine and Oxcarbazepine: 2017 Update** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Phillips, E. J., Sukasem, C., Whirl-Carrillo, M., Mueller, D. J., Dunnenberger, H. M., Chantratita, W., Goldspiel, B., Chen, Y., Carleton, B. C., George, A. L., Mushiroda, T., Klein, T., Gammal, et al
2018; 103 (4): 574–81
- **Association of the Polygenic Scores for Personality Traits and Response to Selective Serotonin Reuptake Inhibitors in Patients with Major Depressive Disorder** *FRONTIERS IN PSYCHIATRY*
Amare, A. T., Schubert, K., Tekola-Ayele, F., Hsu, Y., Sangkuhl, K., Jenkins, G., Whaley, R. M., Barman, P., Batzler, A., Altman, R. B., Arolt, V., Brockmoeller, J., Chen, et al
2018; 9: 65
- **THE PHARMACOGENE VARIATION CONSORTIUM: INCORPORATION OF THE HUMAN CYTOCHROME P450 ALLELE NOMENCLATURE DATABASE.**
Gaedigk, A., Klein, T. E., Twist, G. P., Whirl-Carrillo, M., Miller, N. A.
WILEY.2018: S67
- **The Pharmacogene Variation (PharmVar) Consortium: Incorporation of the Human Cytochrome P450 (CYP) Allele Nomenclature Database** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Gaedigk, A., Ingelman-Sundberg, M., Miller, N. A., Leeder, J., Whirl-Carrillo, M., Klein, T. E., PharmVar Steering Comm
2018; 103 (3): 399–401
- **Response to "Impact of CYP3A4 Genotype on Voriconazole Exposure: New Insights Into the Contribution of CYP3A4(star)22 to Metabolism of Voriconazole"** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Walsh, T. J., Moriyama, B., Penzak, S. R., Klein, T. E., Caudle, K. E.
2018; 103 (2): 187
- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for Dihydropyrimidine Dehydrogenase Genotype and Fluoropyrimidine Dosing: 2017 Update** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Amstutz, U., Henricks, L. M., Offer, S. M., Barbarino, J., Schellens, J. M., Swen, J. J., Klein, T. E., McLeod, H. L., Caudle, K. E., Diasio, R. B., Schwab, M.
2018; 103 (2): 210–16
- **New Pharmacogenomics Research Network: An Open Community Catalyzing Research and Translation in Precision Medicine** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Relling, M. V., Krauss, R. M., Roden, D. M., Klein, T. E., Fowler, D. M., Terada, N., Lin, L., Riel-Mehan, M., Do, T. P., Kubo, M., Yee, S. W., Johnson, G. T., Giacomini, et al
2017; 102 (6): 897–902
- **PharmGKB summary: very important pharmacogene information for ABCG2** *PHARMACOGENETICS AND GENOMICS*
Fohner, A. E., Brackman, D. J., Giacomini, K. M., Altman, R. B., Klein, T. E.
2017; 27 (11): 420–27
- **PharmGKB summary: pazopanib pathway, pharmacokinetics** *PHARMACOGENETICS AND GENOMICS*
Thorn, C. F., Sharma, M. R., Altman, R. B., Klein, T. E.
2017; 27 (8): 307–12

- **Clinical Pharmacogenetics Implementation Consortium (CPIC) Guidelines for CYP2C19 and Voriconazole Therapy** *CLINICAL PHARMACOLOGY & THERAPEUTICS*
Moriyama, B., Obeng, A., Barbarino, J., Penzak, S. R., Henning, S. A., Scott, S. A., Agundez, J. G., Wingard, J. R., McLeod, H. L., Klein, T. E., Cross, S. J., Caudle, K. E., Walsh, et al
2017; 102 (1): 45-51
- **PharmGKB summary: sorafenib pathways** *PHARMACOGENETICS AND GENOMICS*
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