Stanford



Kevin Grimes

Professor (Teaching) of Chemical and Systems Biology

CLINICAL OFFICE (PRIMARY)

- **Stanford Internal Medicine**

  211 Quarry Rd Ste 302

  Palo Alto, CA 94304

  Tel (650) 498-9000 **Fax** (650) 725-7078

Bio

CLINICAL FOCUS

- Internal Medicine

ACADEMIC APPOINTMENTS

- Professor-Teaching, Chemical and Systems Biology
- Member, Bio-X
- Member, SPARK at Stanford
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Assistant Professor of Medicine, Stanford University, (1985-1993)
- White House Fellow, Washington, DC, (1993-1994)
- Senior Consultant, The Advisory Board, Washington DC, (1994-1995)
- Director of Medical Affairs, Heartport - Redwood City, CA, (1995-1999)
- Healthcare Consultant, ., (1999-2004)
- Senior Director, Clinical Research, KAI Pharmaceuticals, Inc, (2004-2007)
- Co-Director, SPARK Program, (2008- present)

PROFESSIONAL EDUCATION

- Residency: Stanford University Internal Medicine Residency (1985) CA
- Internship: Stanford University Internal Medicine Residency (1983) CA
- Medical Education: Brown University School of Medicine (1982) RI
- Board Certification: Internal Medicine, American Board of Internal Medicine (1985)
- MA, Santa Clara University , Pastoral Ministries (2007)

- MD, Brown University , School of Medicine (1982)
- MBA, Stanford University-GSB , Health Management (1993)
- BS, Brown University , Biological Sciences (1979)

LINKS

- Spark: http://sparkmed.stanford.edu

Research & Scholarship

CLINICAL TRIALS

- Ulinastatin for the Treatment of COVID-19 in Hospitalized Patients, Not Specified

Teaching

COURSES

2026-27

- A Practical Approach to Drug Discover and Development: CSB 240B (Spr)
- A Practical Approach to Drug Discovery and Development: CSB 240A (Win)
- Analysis of Public Companies in the Life Sciences: BIOS 319 (Aut)
- Drug Discovery and Development Seminar Series: CSB 242 (Aut, Win, Spr)
- Economics of Biotechnology: CSB 245 (Spr)
- Research Seminar: CSB 270 (Aut, Win, Spr)

2025-26

- AI in Drug Discovery and Development: BIOS 269 (Win)
- Analysis of Public Companies in the Life Sciences: BIOS 319 (Aut)
- Drug Discovery and Development Seminar Series: CSB 242 (Aut, Win, Spr)
- Economics of Biotechnology: CSB 245 (Spr)
- Research Seminar: CSB 270 (Aut, Win, Spr)

2024-25

- A Practical Approach to Drug Discover and Development: CSB 240B (Spr)
- A Practical Approach to Drug Discovery and Development: CSB 240A (Win)
- Analysis of Public Companies in the Life Sciences: INDE 209 (Aut)
- Drug Discovery and Development Seminar Series: CSB 242 (Aut, Win, Spr)
- Economics of Biotechnology: CSB 245 (Spr)
- Research Seminar: CSB 270 (Aut, Win, Spr)

2023-24

- Analysis of Public Companies in the Life Sciences: INDE 209 (Aut)
- Biotechnology and Development of Therapeutics: CSB 243 (Aut)
- Drug Discovery and Development Seminar Series: CSB 242 (Aut, Win, Spr)
- Economics of Biotechnology: CSB 245 (Spr)
- Research Seminar: CSB 270 (Aut, Win, Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Leyna Duong, Travis Lantz, Isaac Paddy, Michelle Tang, Shivam Verma

Publications

PUBLICATIONS

- **Model-based clinical utility of pharmacogenetic testing and its potential population impact on the use of essential medicines in Zimbabwe.** *Frontiers in pharmacology*
  Mazhindu, T. A., Chikwambi, Z., Grimes, K. V., Borok, M. Z., Ndlovu, N., Masimirembwa, C.
  2026; 17: 1864897

- **Haematological, renal and hepatic toxicity profiles of infusional 5-fluorouracil versus capecitabine in African gastrointestinal cancer patients: a retrospective cohort study** *ECANCERMEDICALSCIENCE*
  Mazhindu, T., Ndlovu, N., Borok, M. Z., Grimes, K., Masimirembwa, C.
  2026; 20

- **Haematological, renal and hepatic toxicity profiles of infusional 5-fluorouracil versus capecitabine in African gastrointestinal cancer patients: a retrospective cohort study.** *Ecancermedicalscience*
  Mazhindu, T. A., Ndlovu, N., Borok, M. Z., Grimes, K., Masimirembwa, C.
  2026; 20: 2121

- **Identification of drug repurposing candidates for amyotrophic lateral sclerosis using electronic health records: a retrospective cohort study.** *The Lancet. Digital health*
  Reimer, R. J., Soper, B., Wilson, J. L., Goncalves, A. R., Cadena, J., Suarez, P., Gryshuk, A. L., Osborne, T. F., Grimes, K. V., Ray, P.
  2026: 100963

- **A Pharmacogenomic Basis for Tolerance of 5-Fluorouracil Following Early, Severe Toxicity from Capecitabine in a CDA Ultrarapid Metabolizer Colon Cancer Patient: A Case Report.** *Cancer management and research*
  Mazhindu, T. A., Chikwambi, Z., Matsikidze, E., Grimes, K. V., Borok, M. Z., Ndlovu, N., Masimirembwa, C.
  2026; 18: 571794

- **A Pharmacogenomic Basis for Tolerance of 5-Fluorouracil Following Early, Severe Toxicity from Capecitabine in a CDA Ultrarapid Metabolizer Colon Cancer Patient: A Case Report** *CANCER MANAGEMENT AND RESEARCH*
  Mazhindu, T., Chikwambi, Z., Matsikidze, E., Grimes, K., Borok, M. Z., Ndlovu, N., Masimirembwa, C., Consortium Genomics & Therapeutics in Africa
  2026; 18

- **Opportunities and challenges for the implementation of pharmacogenomics in supportive care for gastrointestinal cancer patients in Zimbabwe.** *Pharmacogenomics*
  Mazhindu, T. A., Ndlovu, N., Borok, M. Z., Grimes, K., Masimirembwa, C.
  2025: 1-9

- **Trends in gastrointestinal cancer burden in Zimbabwe: 10-year retrospective study 2009-2018** *ECANCERMEDICALSCIENCE*
  Mazhindu, T., Ndlovu, N., Borok, M., Nyangwara, V., Chikondowa, P., Madeleine, M., Masimirembwa, C., Chihaka, O., Matsikidze, E., Jang, C., Grimes, K.
  2025; 19

- **Trends in gastrointestinal cancer burden in Zimbabwe: 10-year retrospective study 2009-2018.** *Ecancermedicalscience*
  Mazhindu, T. A., Ndlovu, N., Borok, M., Nyangwara, V. A., Chikondowa, P., Madeleine, M. H., Masimirembwa, C., Chihaka, O., Matsikidze, E., Jang, C., Grimes, K.
  2025; 19: 1839

- **SPARKing academic technologies across the valley of death.** *Nature biotechnology*
  Kim, J. S., Kargotich, S., Lee, S. H., Yajima, R., Garcia, A. A., Ehrenkaufer, G., Romeo, M., Maria, P. S., Grimes, K. V., Mochly-Rosen, D.
  2024; 42 (2): 339-342

- **Beta-2 adrenergic receptor agonism alters astrocyte phagocytic activity and has potential applications to psychiatric disease.** *Discover mental health*
  Bowen, E. R., DiGiacomo, P., Fraser, H. P., Guttenplan, K., Smith, B. A., Heberling, M. L., Vidano, L., Shah, N., Shamloo, M., Wilson, J. L., Grimes, K. V.
  2023; 3 (1): 27
- **An electronic health record cohort of Veterans with amyotrophic lateral sclerosis.** *Amyotrophic lateral sclerosis & frontotemporal degeneration*
  Reimer, R. J., Goncalves, A., Soper, B., Cadena, J., Wilson, J. L., Gryshuk, A. L., Suarez, P., Osborne, T. F., Grimes, K. V., Ray, P.
  2023: 1-7
- **A Call for Discovery and Therapeutic Development for Cutaneous Neurofibromas.** *The Journal of investigative dermatology*
  Blakeley, J. O., Le, L. Q., Lee, S. Y., Ly, I., Rhodes, S. D., Romo, C. G., Sarin, K. Y., Staedtke, V., Steensma, M. R., Wolkenstein, P.
  2023
- **Existing and Developing Preclinical Models for Neurofibromatosis Type 1-Related Cutaneous Neurofibromas.** *The Journal of investigative dermatology*
  Staedtke, V., Topilko, P., Le, L. Q., Grimes, K., Largaespada, D. A., Cagan, R. L., Steensma, M. R., Stemmer-Rachamimov, A., Blakeley, J. O., Rhodes, S. D., Ly, I., Romo, C. G., Lee, et al
  2023
- **A network paradigm predicts drug synergistic effects using downstream protein-protein interactions.** *CPT: pharmacometrics & systems pharmacology*
  Wilson, J. L., Steinberg, E., Racz, R., Altman, R. B., Shah, N., Grimes, K.
  2022
- **A US clinical trial network is needed for the next pandemic.** *Nature medicine*
  Yajima, R., More, A. F., Garvan, C., Harper, C., Grimes, K. V.
  2022
- **Azetidine-2-Carboxylic Acid-Induced Oligodendrogliopathy: Relevance to the Pathogenesis of Multiple Sclerosis.** *Journal of neuropathology and experimental neurology*
  Sobel, R. A., Albertelli, M., Hinojoza, J. R., Eaton, M. J., Grimes, K. V., Rubenstein, E.
  2022
- **Controlling astrocyte-mediated synaptic pruning signals for schizophrenia drug repurposing with deep graph networks.** *PLoS computational biology*
  Gravina, A., Wilson, J. L., Bacciu, D., Grimes, K. J., Priami, C.
  2022; 18 (5): e1009531
- **Preventive drugs for Huntington's disease: A choice-based conjoint survey of patient preferences.** *Journal of clinical and translational science*
  Parrish, M. C., Hanson-Kahn, A., Srinivasan, V., Grimes, K. V.
  2022; 6 (1): e35
- **From random to predictive: a context-specific interaction framework improves selection of drug protein-protein interactions for unknown drug pathways.** *Integrative biology : quantitative biosciences from nano to macro*
  Wilson, J. L., Gravina, A., Grimes, K.
  2022
- **Treatment-refractory ulcerative colitis responsive to indigo naturalis.** *BMJ open gastroenterology*
  Saiki, J. P., Andreasson, J. O., Grimes, K. V., Frumkin, L. R., Sanjines, E., Davidson, M. G., Park, K. T., Limketkai, B.
  1800; 8 (1)
- **Mechanisms of Azetidine-2-carboxylic Acid (Aze)-Induced Oligodendrogliopathy In Vivo and In Vitro**
  Sobel, R., Albertelli, M., Hinojoza, J., Eaton, M., Grimes, K., Rubenstein, E.
  OXFORD UNIV PRESS INC.2020: 661
- **p38 MAPK inhibition: A promising therapeutic approach for COVID-19.** *Journal of molecular and cellular cardiology*
  Grimes, J. M., Grimes, K. V.
  2020

- **A Qualitative Study on the Differences Between Trial Populations and the Approved Therapeutic Indications of Antineoplastic Agents by 3 Regulatory Agencies From 2010 to 2018.** *Clinical therapeutics*
  Sumi, E., Asada, R., Lu, Y., Ito-Ihara, T., Grimes, K. V.
  2020

- **Results from a Phase 1 Study of Sodium Selenite in Combination with Palliative Radiation Therapy in Patients with Metastatic Cancer.** *Translational oncology*
  Knox, S. J., Jayachandran, P. n., Keeling, C. A., Stevens, K. J., Sandhu, N. n., Stamps-DeAnda, S. L., Savic, R. n., Shura, L. n., Buyyounouski, M. K., Grimes, K. n.
  2019; 12 (11): 1525–31

- **Surviving in the Valley of Death: Opportunities and Challenges in Translating Academic Drug Discoveries.** *Annual review of pharmacology and toxicology*
  Parrish, M. C., Tan, Y. J., Grimes, K. V., Mochly-Rosen, D.
  2018

- **Human Chitotriosidase Does Not Catabolize Hyaluronan.** *International journal of biological macromolecules*
  Danielson, B. n., Chen, C. H., Kaber, G. n., Mochly-Rosen, D. n., Grimes, K. n., Stern, R. n., Bollyky, P. L.
  2017

- **Protein kinase C, an elusive therapeutic target?** *NATURE REVIEWS DRUG DISCOVERY*
  Mochly-Rosen, D., Das, K., Grimes, K. V.
  2012; 11 (12): 937-957

- **Myocardial salvage in acute myocardial infarction - Challenges in clinical translation** *JOURNAL OF MOLECULAR AND CELLULAR CARDIOLOGY*
  Mochly-Rosen, D., Grimes, K. V.
  2011; 51 (4): 451-453

- **Intracoronary KAI-9803 as an adjunct to primary percutaneous coronary intervention for acute ST-segment elevation myocardial infarction** *CIRCULATION*
  Roe, M. T., Hartmann, F., LINS, J., Batchelor, W., Ruzyllo, W., Kochman, J., Armstrong, B., Buszman, P., Buszman, P., Leisch, F., Baran, K., Roubin, G., Zenni, et al
  2008; 117 (7): 886-896

- **Recognition, diagnosis, and treatment of primary focal hyperhidrosis** *JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY*
  Hornberger, J., Grimes, K., NAUMANN, M., Glaser, D. A., Lowe, N. J., Naver, H., Ahn, S., Stolman, L. R.
  2004; 51 (2): 274-286

- **GRANULOCYTE COLONY-STIMULATING FACTOR MOBILIZED PERIPHERAL-BLOOD PROGENITOR CELLS ACCELERATE GRANULOCYTE AND PLATELET RECOVERY AFTER HIGH-DOSE CHEMOTHERAPY** *BLOOD*
  Chao, N. J., Schriber, J. R., Grimes, K., Long, G. D., Negrin, R. S., RAIMONDI, C. M., Horning, S. J., Brown, S. L., Miller, L., Blume, K. G.
  1993; 81 (8): 2031-2035