Stanford

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Bio

ACADEMIC APPOINTMENTS

- Instructor, Pediatrics - Hematology & Oncology

PATENTS

- Edward Leof, Mark Wilkes, Claire Repellin, Jeong-Han Kang, Xueqian Yin, Mahefian Andrianifahanana. "United States Patent 62/297,277 Polypeptide Inhibitors of Smad3 Polypeptide Activities", Mayo Clinic and Foundation, Feb 19, 2016
- Edward Leof, Mark Wilkes, Claire Repellin, Jeong-Han Kang, Xueqian Yin, Mahefian Andrianifahanana. "United States Patent 62/295,843 Polypeptide Inhibitors of Smad3 Polypeptide Activities", Mayo Clinic and Foundation, Feb 16, 2016

Publications

PUBLICATIONS

- **Downregulation of SATB1 by miRNAs Reduces Megakaryocyte/Erythroid Progenitor Expansion in pre-clinical models of Diamond Blackfan Anemia** *Experimental Hematology*
  Wilkes, M. C., Scanlon, V., Shibuya, A., Cepika, A., Eskin, A., Chen, Z., Narla, A., Glader, B., Roncarolo, M., Nelson, S. F., Sakamoto, K. M.
  2022
- **MMP9 inhibition increases erythropoiesis in RPS14-deficient del(5q) MDS models through suppression of TGF-beta pathways.** *Blood advances*
  Youn, M., Huang, H., Chen, C., Kam, S., Wilkes, M. C., Chae, H., Sridhar, K. J., Greenberg, P. L., Glader, B., Narla, A., Lin, S., Sakamoto, K. M.
  2019; 3 (18): 2751–63
- **INHIBITION OF NEMO-LIKE KINASE IMPROVES ERYTHROPOIESIS IN MODELS OF DIAMOND BLACKFAN ANEMIA**
  Takasaki, K., Wilkes, M., Chen, J., Siva, K., Varetti, G., Dever, D., Youn, M., Chae, H., Mercado, J., Saxena, M., Narla, A., Glader, B., Porteus, et al
  WILEY.2019
- **Pharmacological Inhibition of Nlk (Nemo-like Kinase) Rescues Erythropoietic Defects in Pre-Clinical Models of Diamond Blackfan Anemia**
  Wilkes, M. C., Chen, J., Siva, K., Veretti, G., Dever, D. P., Youn, M., Chae, H., Mercado, J. D., Saxena, M., Narla, A., Glader, B., Porteus, M., Repellin, et al
  AMER SOC HEMATOLOGY.2018
- **MMP9 Inhibition Rescues the Erythroid Defect in RPS14-Deficient Del(5q) MDS Models**
  Youn, M., Huang, H., Chen, C., Kam, S., Wilkes, M. C., Chae, H., Narla, A., Lin, S., Sakamoto, K. M.
  AMER SOC HEMATOLOGY.2018
- **Chromatin Organization By SATB1 Regulates HSP70 Induction in Early Erythropoiesis and Lost in Diamond Blackfan Anemia**
  Wilkes, M. C., Takasaki, K., Youn, M., Chae, H., Narla, A., Sakamoto, K. M.
  AMER SOC HEMATOLOGY.2018
- **Innate immune system activation in zebrafish and cellular models of Diamond Blackfan Anemia** *SCIENTIFIC REPORTS*
  Danilova, N., Wilkes, M., Bibikova, E., Youn, M., Sakamoto, K. M., Lin, S.
  2018; 8: 5165

- **Beyond mRNA: The role of non-coding RNAs in normal and aberrant hematopoiesis.** *Molecular genetics and metabolism*
  Wilkes, M. C., Repellin, C. E., Sakamoto, K. M.
  2017

- **Sorting nexin 9 differentiates ligand-activated Smad3 from Smad2 for nuclear import and transforming growth factor beta signaling** *MOLECULAR BIOLOGY OF THE CELL*
  Wilkes, M. C., Repellin, C. E., Kang, J., Andrianifahanana, M., Yin, X., Leof, E. B.
  2015; 26 (21): 3879-3891

- **Profibrotic TGF beta responses require the cooperative action of PDGF and ErbB receptor tyrosine kinases** *FASEB JOURNAL*
  Andrianifahanana, M., Wilkes, M. C., Gupta, S. K., Rahimi, R. A., Repellin, C. E., Edens, M., Wittenberger, J., Yin, X., Maidl, E., Becker, J., Leof, E. B.
  2013; 27 (11): 4444-4454

- **Retromer maintains basolateral distribution of the type II TGF-beta receptor via the recycling endosome** *MOLECULAR BIOLOGY OF THE CELL*
  Yin, X., Murphy, S. J., Wilkes, M. C., Ji, Y., Leof, E. B.
  2013; 24 (14): 2285-2298

- **Imatinib mesylate causes genome-wide transcriptional changes in systemic sclerosis fibroblasts in vitro** *CLINICAL AND EXPERIMENTAL RHEUMATOLOGY*
  Hinchcliff, M., Huang, C. C., Ishida, W., Fang, F., Lee, J., Jafari, N., Wilkes, M., Bhattacharyya, S., LEOF, E., Varga, J.
  2012; 30 (2): S86-S96

- **Non-Smad Transforming Growth Factor-beta Signaling Regulated by Focal Adhesion Kinase Binding the p85 Subunit of Phosphatidylinositol 3-Kinase** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Hong, M., Wilkes, M. C., Penheiter, S. G., Gupta, S. K., Edens, M., Leof, E. B.
  2011; 286 (20): 17841-17850

- **Type II Transforming Growth Factor-beta Receptor Recycling Is Dependent upon the Clathrin Adaptor Protein Dab2** *MOLECULAR BIOLOGY OF THE CELL*
  Penheiter, S. G., Singh, R. D., Repellin, C. E., Wilkes, M. C., Edens, M., Howe, P. H., Pagano, R. E., Leof, E. B.
  2010; 21 (22): 4009-4019

- **ERBB Receptor Activation Is Required for Profibrotic Responses to Transforming Growth Factor beta** *CANCER RESEARCH*
  Andrianifahanana, M., Wilkes, M. C., Repellin, C. E., Edens, M., Kottom, T. J., Rahimi, R. A., Leof, E. B.
  2010; 70 (19): 7421-7430

- **Noncanonical TGF-beta pathways, mTORC1 and Ab1, in renal interstitial fibrogenesis** *AMERICAN JOURNAL OF PHYSIOLOGY-RENAL PHYSIOLOGY*
  Wang, S., Wilkes, M. C., Leof, E. B., Hirschberg, R.
  2010; 298 (1): F142-F149

- **Erbin and the NF2 Tumor Suppressor Merlin Cooperatively Regulate Cell-Type-Specific Activation of PAK2 by TGF-beta** *DEVELOPMENTAL CELL*
  Wilkes, M. C., Repellin, C. E., Hong, M., Bracamonte, M., Penheiter, S. G., Borg, J., Leof, E. B.
  2009; 16 (3): 433-444

- **A non-Smad mechanism of fibroblast activation by transforming growth factor-beta via c-Abl and Egr-1: selective modulation by imatinib mesylate** *ONCOGENE*
  Bhattacharyya, S., Ishida, W., Wu, M., Wilkes, M., Mori, Y., Hinchcliff, M., LEOF, E., Varga, J.
  2009; 28 (10): 1285-1297

- **Distinct Roles for Mammalian Target of Rapamycin Complexes in the Fibroblast Response to Transforming Growth Factor-beta** *CANCER RESEARCH*
  Rahimi, R. A., Andrianifahanana, M., Wilkes, M. C., Edens, M., Kottom, T. J., Blenis, J., Leof, E. B.
  2009; 69 (1): 84-93

- **Transforming growth factor beta signaling via ras in mesenchymal cells requires p21-activated kinase 2 for extracellular signal-regulated kinase-dependent transcriptional responses** *CANCER RESEARCH*
  Suzuki, K., Wilkes, M. C., Garamszegi, N., Edens, M., Leof, E. B.
  2007; 67 (8): 3673-3682

- **Transforming growth factor beta activation of c-Abl is independent of receptor internalization and regulated by phosphatidylinositol 3-kinase and PAK2 in mesenchymal cultures** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Wilkes, M. C., Leof, E. B.

2006; 281 (38): 27846-27854

- **Transforming growth factor-beta activation of phosphatidylinositol 3-kinase is independent of Smad2 and Smad3 and regulates fibroblast responses via p21-activated kinase-2** *CANCER RESEARCH*
  Wilkes, M. C., Mitchell, H., Penheiter, S. G., Dore, J. J., Suzuki, K., Edens, M., Sharma, D. K., Pagano, R. E., Leof, E. B.
  2005; 65 (22): 10431-10440

- **Imatinib mesylate blocks a non-smad TGF-beta pathway and reduces renal fibrogenesis in vivo** *FASEB JOURNAL*
  Wang, S. N., Wilkes, M. C., LEOF, E. B., Hirschberg, R.
  2005; 19 (1): 1-11

- **Imatinib mesylate inhibits the profibrogenic activity of TGF-beta and prevents bleomycin-mediated lung fibrosis** *JOURNAL OF CLINICAL INVESTIGATION*
  Daniels, C. E., Wilkes, M. C., Edens, M., Kottom, T. J., Murphy, S. J., Limper, A. H., Leof, E. B.
  2004; 114 (9): 1308-1316

- **Differential trafficking of transforming growth factor-beta receptors and ligand in polarized epithelial cells** *MOLECULAR BIOLOGY OF THE CELL*
  Murphy, S. J., Dore, J. J., Edens, M., Coffey, R. J., BARNARD, J. A., Mitchell, H., Wilkes, M., Leof, E. B.
  2004; 15 (6): 2853-2862

- **Cell-type-specific activation of PAK2 by transforming growth factor beta independent of Smad2 and Smad3** *MOLECULAR AND CELLULAR BIOLOGY*
  Wilkes, M. C., Murphy, S. J., Garamszegi, N., LEOF, E. B.
  2003; 23 (23): 8878-8889