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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

- **Small molecule OTS167 increases erythropoiesis and improves anemia in diamond blackfan anemia models in vitro and In Vivo**
Shibuya, A., Mark, K., Nair, R., Liu, L., Wilkes, M., Goyal, A., Sakamoto, K.
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- **Activation of Nemo-like Kinase in Diamond Blackfan Anemia suppresses early erythropoiesis by preventing mitochondrial biogenesis.** *The Journal of biological chemistry*
Wilkes, M. C., Shibuya, A., Liu, Y. L., Mark, K., Mercado, J., Saxena, M., Sathianathen, R. S., Kim, H. N., Glader, B., Kenny, P., Sakamoto, K. M.
2024: 107542
- **Novel Mouse Model That Recapitulates the Hematologic Phenotype of Diamond Blackfan Anemia**
Liu, Y., Wang, N., Neoman, N., Wong, C., Glader, B., Doty, R. T., Wilkes, M. C., Abkowitz, J. L., Sakamoto, K. M.
AMER SOC HEMATOLOGY.2023
- **Small Molecule Inhibitor Targeting Nemo-like Kinase Improves Erythropoiesis in Human and Mouse Models of Diamond Blackfan Anemia**
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AMER SOC HEMATOLOGY.2023
- **SATB1 chromatin loops regulate Megakaryocyte/Erythroid Progenitor Expansion by facilitating HSP70 and GATA1 induction.** *Stem cells (Dayton, Ohio)*
Wilkes, M. C., Chae, H. D., Scanlon, V., Cepika, A. M., Wentworth, E. P., Saxena, M., Eskin, A., Chen, Z., Glader, B., Roncarolo, M. G., Nelson, S. F., Sakamoto, K. M.
2023
- **Animal models of Diamond-Blackfan anemia: updates and challenges.** *Haematologica*
Liu, Y. L., Shibuya, A., Glader, B., Wilkes, M. C., Barna, M., Sakamoto, K. M.
2022
- **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., Celika, A. M., Eskin, A., Chen, Z., Narla, A., Glader, B., Roncarolo, M. G., Nelson, S. F., Sakamoto, K. M. 2022
- **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
 - **The Serine Threonine Kinase Inhibitor Ots-167 Improves Erythropoiesis through Suppression of Nlk Activity in Diamond Blackfan Anemia Models**
Shibuya, A., Wilkes, M. C., Serrano, M., Flygare, J., Glader, B., Narla, A., Sakamoto, K. M. AMER SOC HEMATOLOGY.2021
 - **SATB1 Regulates Chromatin Organization and HSP70 Expression in Early Erythropoiesis and Is Downregulated in Models of Diamond Blackfan Anemia**
Wilkes, M. C., Shibuya, A., Scanlon, V. M., Chae, H., Narla, A., Sakamoto, K. M. AMER SOC HEMATOLOGY.2021
 - **Nutritional Supplements, Ginseng and Leucine, Increase Erythropoiesis in Diamond Blackfan Anemia Models through Inhibition of Nemo-like Kinase**
Wilkes, M. C., Shibuya, A., Mercado, J. D., Narla, A., Glader, B., Sakamoto, K. M. AMER SOC HEMATOLOGY.2021
 - **Signaling Pathways That Regulate Normal and Aberrant Red Blood Cell Development.** *Genes*
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 - **The active component of Ginseng, Ginsenoside Rb1, improves erythropoiesis in models of Diamond Blackfan Anemia by targeting Nemo-like Kinase.** *The Journal of biological chemistry*
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 - **Metformin-induced suppression of NLK improves erythropoiesis in pre-clinical models of Diamond Blackfan Anemia through induction of miR-26a.** *Experimental hematology*
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 - **MMP9 inhibition increases erythropoiesis in RPS14-deficient del(5q) MDS models through suppression of TGF-beta pathways.** *Blood advances*
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 - **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*
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- **Beyond mRNA: The role of non-coding RNAs in normal and aberrant hematopoiesis.** *Molecular genetics and metabolism*
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