

Stanford



David McIlwain

Sr Res Scientist-Basic Life, Microbiology and Immunology - Baxter Labs

Bio

HONORS AND AWARDS

- Canadian Institutes of Health Research Fellow, Canadian Institutes of Health Research (2014-2017)

LINKS

- Nolan Lab: <http://web.stanford.edu/group/nolan/index.html>
- WCCT-Global Collaboration: <http://bit.ly/1LrPLMA>

Publications

PUBLICATIONS

- **iRhom2 Regulation of TACE Controls TNF-Mediated Protection Against Listeria and Responses to LPS** *SCIENCE*
McIlwain, D. R., Lang, P. A., Maretzky, T., Hamada, K., Ohishi, K., Maney, S. K., Berger, T., Murthy, A., Duncan, G., Xu, H. C., Lang, K. S., Haeussinger, D., Wakeham, et al
2012; 335 (6065): 229-232
- **Multiplexed Imaging for the simultaneous detection of nucleic acids and proteins to dissect the tissue immune landscape and microenvironment of viral diseases**
Jiang, S., Clave, X., Chan, C., Zhu, B., Bai, Y., Bosse, M., McIlwain, D., Bendall, S., Angelo, M., Estes, J., Nolan, G.
BMC.2019
- **Neurological, Cognitive, and Psychological Findings Among Survivors of Ebola Virus Disease From the 1995 Ebola Outbreak in Kikwit, Democratic Republic of Congo: A Cross-sectional Study** *CLINICAL INFECTIOUS DISEASES*
Kelly, J., Hoff, N. A., Spencer, D., Musene, K., Bramble, M. S., McIlwain, D., Okitundu, D., Porco, T. C., Rutherford, G. W., Glymour, M., Bjornson, Z., Mukadi, P., Okitolonda-Wemakoy, et al
2019; 68 (8): 1388-93
- **Multionics modeling of the immunome, transcriptome, microbiome, proteome and metabolome adaptations during human pregnancy.** *Bioinformatics (Oxford, England)*
Ghaemi, M. S., DiGiulio, D. B., Contrepolis, K., Callahan, B., Ngo, T. T., Lee-McMullen, B., Lehallier, B., Robaczewska, A., Mcilwain, D., Rosenberg-Hasson, Y., Wong, R. J., Quaintance, C., Culos, et al
2019; 35 (1): 95-103
- **Blood-Induced Bone Loss In A Mouse Model Of Hemophilic Arthropathy Is Prevented By Blocking The iRhom2/ADAM17/TNF alpha Pathway**
Haxaire, C., Hakobyan, N., Panellini, T., Carballo, C., Mcilwain, D., Mak, T. W., Acharya, S., Li, D., Szymonifka, J., Rodeo, S., Song, X., Monette, S., Srivastava, et al
WILEY.2018: 369
- **Blood-induced bone loss in murine hemophilic arthropathy is prevented by blocking the iRhom2/ADAM17/TNF-alpha pathway** *BLOOD*
Haxaire, C., Hakobyan, N., Pannellini, T., Carballo, C., McIlwain, D., Mak, T. W., Rodeo, S., Acharya, S., Li, D., Szymonifka, J., Song, X., Monette, S., Srivastava, et al

2018; 132 (10): 1064–74

- **Neurological, cognitive, and psychological findings among survivors of Ebola virus disease from the 1995 Ebola outbreak in Kikwit, Democratic Republic of Congo: a cross-sectional study.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
Kelly, J. D., Hoff, N. A., Spencer, D., Musene, K., Bramble, M. S., McIlwain, D., Okitundu, D., Porco, T. C., Rutherford, G. W., Glymour, M. M., Bjornson, Z., Mukadi, P., Okitolonda-Wemakoy, et al
2018
- **The xenoestrogens biphenol-A and nonylphenol differentially regulate metalloprotease-mediated shedding of EGFR ligands** *JOURNAL OF CELLULAR PHYSIOLOGY*
Urriola-Munoz, P., Li, X., Maretzky, T., McIlwain, D. R., Mak, T. W., Reyes, J. G., Blobel, C. P., Moreno, R. D.
2018; 233 (3): 2247–56
- **The xenoestrogens biphenol-A and nonylphenol differentially regulate metalloprotease-mediated shedding of EGFR ligands.** *Journal of cellular physiology*
Urriola-Muñoz, P., Li, X., Maretzky, T., McIlwain, D. R., Mak, T. W., Reyes, J. G., Blobel, C. P., Moreno, R. D.
2018; 233 (3): 2247–56
- **NEUROLOGICAL, COGNITIVE, AND PSYCHOLOGICAL FINDINGS AMONG SURVIVORS OF EBOLA VIRUS DISEASE FROM THE 1995 KIKWIT OUTBREAK IN DEMOCRATIC REPUBLIC OF CONGO: A CROSS-SECTIONAL STUDY**
Kelly, J., Hoff, N., Spencer, D., Bramble, M., McIlwain, D., Musene, K., Okitolonda, E., Porco, T., Rutherford, G., Glymour, M., Mukadi, P., Rimoin, A.
AMER SOC TROP MED & HYGIENE.2018: 214
- **iRhom2 Deficiency Protects Fcgr2b-/- Lupus-Prone Mice from Kidney Damage By Modulating ADAM17-Dependent Shedding of TNF-alpha and EGFR Ligand**
Qing, X., Chinenov, Y., Redecha, P. M., Madaio, M., Issuree, P., McIlwain, D., Mak, T., Blobel, C., Salmon, J. E.
WILEY.2017
- **An immune clock of human pregnancy.** *Science immunology*
Aghaepour, N., Ganio, E. A., Mcilwain, D., Tsai, A. S., Tingle, M., Van Gassen, S., Gaudilliere, D. K., Baca, Q., McNeil, L., Okada, R., Ghaemi, M. S., Furman, D., Wong, et al
2017; 2 (15)
- **iRhom2 regulates CSF1R cell surface expression and non-steady state myelopoiesis in mice** *EUROPEAN JOURNAL OF IMMUNOLOGY*
Qing, X., Rogers, L. D., Mortha, A., Lavin, Y., Redecha, P., Issuree, P. D., Maretzky, T., Merad, M., McIlwain, D. R., Mak, T. W., Overall, C. M., Blobel, C. P., Salmon, et al
2016; 46 (12): 2737-2748
- **iRhoms 1 and 2 are essential upstream regulators of ADAM17-dependent EGFR signaling** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Li, X., Maretzky, T., Weskamp, G., Monette, S., Qing, X., Issuree, P. D., Crawford, H. C., McIlwain, D. R., Mak, T. W., Salmon, J. E., Blobel, C. P.
2015; 112 (19): 6080-6085
- **Deficiency of the B Cell-Activating Factor Receptor Results in Limited CD169+ Macrophage Function during Viral Infection.** *Journal of virology*
Xu, H. C., Huang, J., Khairnar, V., Duhan, V., Pandyra, A. A., Grusdat, M., Shinde, P., McIlwain, D. R., Maney, S. K., Gommerman, J., Löhning, M., Ohashi, P. S., Mak, et al
2015; 89 (9): 4748-4759
- **Deficiency of the B Cell-Activating Factor Receptor Results in Limited CD169(+) Macrophage Function during Viral Infection** *JOURNAL OF VIROLOGY*
Xu, H. C., Huang, J., Khairnar, V., Duhan, V., Pandyra, A. A., Grusdat, M., Shinde, P., McIlwain, D. R., Maney, S. K., Gommerman, J., Loehning, M., Ohashi, P. S., Mak, et al
2015; 89 (9): 4748-4759
- **T-cell STAT3 is required for the maintenance of humoral immunity to LCMV.** *European journal of immunology*
McIlwain, D. R., Grusdat, M., Pozdeev, V. I., Xu, H. C., Shinde, P., Reardon, C., Hao, Z., Beyers, M., Bergthaler, A., Häussinger, D., Nolan, G. P., Lang, K. S., Lang, et al
2015; 45 (2): 418-427
- **T-cell STAT3 is required for the maintenance of humoral immunity to LCMV.** *European journal of immunology*
McIlwain, D. R., Grusdat, M., Pozdeev, V. I., Xu, H. C., Shinde, P., Reardon, C., Hao, Z., Beyers, M., Bergthaler, A., Häussinger, D., Nolan, G. P., Lang, K. S., Lang, et al
2015; 45 (2): 418-427

- **Deletions in the cytoplasmic domain of iRhom1 and iRhom2 promote shedding of the TNF receptor by the protease ADAM17.** *Science signaling*
Maney, S. K., McIlwain, D. R., Polz, R., Pandyra, A. A., Sundaram, B., Wolff, D., Ohishi, K., Maretzky, T., Brooke, M. A., Evers, A., Vasudevan, A. A., Aghaeepour, N., Scheller, et al
2015; 8 (401): ra109-?
- **IRF4 and BATF are critical for CD8(+) T-cell function following infection with LCMV** *CELL DEATH AND DIFFERENTIATION*
Grusdat, M., McIlwain, D. R., Xu, H. C., Pozdeev, V. I., Knievel, J., Crome, S. Q., Robert-Tissot, C., Dress, R. J., Pandyra, A. A., Speiser, D. E., Lang, E., Maney, S. K., Elford, et al
2014; 21 (7): 1050-1060
- **iRhom2 controls the substrate selectivity of stimulated ADAM17-dependent ectodomain shedding** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Maretzky, T., McIlwain, D. R., Issuree, P. D., Li, X., Malapeira, J., Amin, S., Lang, P. A., Mak, T. W., Blobel, C. P.
2013; 110 (28): 11433-11438
- **Caspase Functions in Cell Death and Disease** *COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY*
McIlwain, D. R., Berger, T., Mak, T. W.
2013; 5 (4)
- **Reactive oxygen species delay control of lymphocytic choriomeningitis virus.** *Cell death and differentiation*
Lang, P. A., Xu, H. C., Grusdat, M., McIlwain, D. R., Pandyra, A. A., Harris, I. S., Shaabani, N., HONKE, N., Maney, S. K., Lang, E., Pozdeev, V. I., Recher, M., Odermatt, et al
2013; 20 (4): 649-658
- **Involvement of Toso in activation of monocytes, macrophages, and granulocytes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Lang, K. S., Lang, P. A., Meryk, A., Pandyra, A. A., Boucher, L., Pozdeev, V. I., Tusche, M. W., Goethert, J. R., Haight, J., Wakeham, A., You-Ten, A. J., McIlwain, D. R., Merches, et al
2013; 110 (7): 2593-2598
- **iRHOM2 is a critical pathogenic mediator of inflammatory arthritis** *JOURNAL OF CLINICAL INVESTIGATION*
Issuree, P. D., Maretzky, T., McIlwain, D. R., Monette, S., Qing, X., Lang, P. A., Swendeman, S. L., Park-Min, K., Binder, N., Kalliolias, G. D., Yarilina, A., Horiuchi, K., Ivashkiv, et al
2013; 123 (2): 928-932
- **Sng1 is required for embryogenesis and regulates diverse genes via alternative splicing coupled to nonsense-mediated mRNA decay** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
McIlwain, D. R., Pan, Q., Reilly, P. T., Elia, A. J., McCracken, S., Wakeham, A. C., Itie-Youten, A., Blencowe, B. J., Mak, T. W.
2010; 107 (27): 12186-12191