



<b>Name</b>	<b>Anastasia N. Tikhonova</b>	
<b>Current Position</b>	Scientist, Princess Margaret Research Center Assistant Professor, Department of Medical Biophysics, University of Toronto Assistant Professor, Department of Immunology, University of Toronto	
<b>Country</b>	<b>Canada</b>	
<b>Major Field</b>	<b>Hematopoiesis</b>	

## Educational Background

Bethel College	Natural Science	B.A.	2005
University of Pennsylvania	Immunology	Ph.D.	2011

## Professional Experience

Graduate Research	University of Pennsylvania/NCI	2007-2011
Postdoctoral Fellow	New York University Medical Center	2012-2020
Assistant Professor	University of Toronto	2020-
Scientist	Princess Margaret Research Center	2020-

## Other Experience and Professional Memberships

American Society of Hematology

Canadian Hematology Society

## Main Scientific Publications

1. Bride K. L.\*, Hu H.\*, Tikhonova A.N.\*, Fuller T.J., Vincent T.L., Shraim R., Li M.M., Carroll W.L., Raetz E.A., Aifantis I.#, Teachey D.T# (2021). Rational drug combinations with CDK4/6 inhibitors in acute lymphoblastic Leukemia. Haematologica. 2021 Dec 23. doi: 10.3324/haematol.2021.279410.  
\*Equal contribution, #Co-corresponding author
2. Akhmetzyanova I., Aaron T., Galbo P., Tikhonova A., Dolgalev I., Tanaka M., Aifantis I., Zheng D., Zang X., Fooksman D (2021). Tissue-resident macrophages promote early dissemination of multiple myeloma via IL-6 and TNF $\alpha$ . Blood Adv. Sep 28;5(18):3592-3608
3. Gower, M., Foster, G. & Tikhonova, A. N. (2021). There won'T be blood. Nat Immunol **22**, 396-397, doi:10.1038/s41590-021-00893-6.
4. Dolgalev I.# and Tikhonova, A. N.# (2021). Connecting the Dots: Resolving the Bone Marrow Niche Heterogeneity. Front. Cell Dev. Biol., 12 March 2021 | <https://doi.org/10.3389/fcell.2021.622519>  
#Co-corresponding author  
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5. Tikhonova A.N.# & Aifantis I.# (2020). Stem Cells pack some chillis for the road. Nature. <https://doi.org/10.1038/d41586-020-03577-7>
6. Tikhonova A.N.#, A. Lasry, R. Austin, and I. Aifantis# (2020). Cell-by-Cell Deconstruction of Stem Cell Niches. Cell Stem Cell **27** (1): 19-34.  
#Co-corresponding author  
Citations: **5**
7. Lu J, F. Van Laethem, I. Saba, J. Chu, A. N. Tikhonova, A. Bhattacharya, A. Singer, P. Sun. (2020) Structure of MHC-Independent TCRs and Their Recognition of Native Antigen CD155. J Immunol 204(12):3351-3359.  
Citations: **2**
8. Witkowski M.T., I. Dolgalev, N. A. Evensen, C. Ma, T. Chambers, K. G. Roberts, S. Sreeram, Y. Dai, A. N. Tikhonova, A. Lasry, C. Qu, D. Pei, C. Cheng, G. A. Robbins, J. Pierro, S. Selvaraj, V. Mezzano, M. Daves, P. J. Lupo, M. E. Scheurer, C. A. Loomis, C. G. Mullighan, W. Chen, K. R. Rabin, A. Tsigirigos, W. L. Carroll, and I. Aifantis (2020). Extensive Remodeling of the Immune Microenvironment in B Cell Acute Lymphoblastic Leukemia. Cancer Cell **37**: 867–882.  
Citations: **53**
9. Guillaumot M., D. Ouazia, I. Dolgalev, S.T. Yeung, N. Kourtis, Y. Dai, K. Corrigan, L. Zea-Redondo, A. Saraf, L. Florens, M.P. Washburn, A. N. Tikhonova, M. Malumbres, Y. Gong, A. Tsigirigos, C. Park, C. Barbieri, K. M. Khanna, L. Busino, I. Aifantis (2019). The E3 ubiquitin ligase SPOP controls resolution of systemic inflammation by triggering MYD88 degradation. Nat Immunol. **20**(9):1196-1207.  
Citations: **19**

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10. Tikhonova, A. N.<sup>\*,#</sup>, I. Dolgalev\*, H. Hu, K. K. Sivaraj, E. Hoxha, A. Cuesta-Dominguez, S. Pinho, I. Akhmetzyanova, J. Gao, M. Witkowski, M. Guillamot, M. C. Gutkin, Y. Zhang, C. Marier, C. Diefenbach, S. Kousteni, A. Heguy, H. Zhong, D. R. Fooksman, J. M. Butler, A. Economides, P. S. Frenette, R. H. Adams, R. Satija, A. Tsirigos<sup>#</sup> and I. Aifantis<sup>#</sup> (2019). The bone marrow microenvironment at single-cell resolution. Nature **569**(7755): 222-228.  
\*Equal contribution, <sup>#</sup>Co-corresponding author.  
Citations: **375**
11. Lu, J., F. Van Laethem, A. Bhattacharya, M. Craveiro, I. Saba, J. Chu, N. C. Love, A. Tikhonova, S. Radaev, X. Sun, A. Ko, T. Arnon, E. Shifrut, N. Friedman, N. P. Weng, A. Singer and P. D. Sun (2019). Molecular constraints on CDR3 for thymic selection of MHC-restricted TCRs from a random pre-selection repertoire. Nat Commun **10**(1): 1019.  
Citations: **29**
12. Saint Fleur-Lominy, S., M. Maus, M. Vaeth, I. Lange, I. Zee, D. Suh, C. Liu, X. Wu, A. Tikhonova, I. Aifantis and S. Feske (2018). STIM1 and STIM2 Mediate Cancer-Induced Inflammation in T Cell Acute Lymphoblastic Leukemia. Cell Rep **24**(11): 3045-3060 e3045.  
Citations: **7**
13. Pitt, L. A.\* , A. N. Tikhonova\* , H. Hu, T. Trimarchi, B. King, Y. Gong, M. Sanchez-Martin, A. Tsirigos, D. R. Littman, A. A. Ferrando, S. J. Morrison, D. R. Fooksman, I. Aifantis and S. R. Schwab (2015). CXCL12-Producing Vascular Endothelial Niches Control Acute T Cell Leukemia Maintenance. Cancer Cell **27**(6): 755-768.  
\*Equal contribution  
Citations: **194**
14. Van Laethem, F., I. Saba, A. N. Tikhonova and A. Singer (2014). Crucial role of CD4 and CD8 coreceptors in antigen recognition of alphabetaT lymphocytes. Med Sci (Paris) **30**(5): 511-513.  
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15. Van Laethem, F., A. N. Tikhonova, L. A. Pobeziński, X. Tai, M. Y. Kimura, C. Le Saout, T. I. Guinter, A. Adams, S. O. Sharrow, G. Bernhardt, L. Feigenbaum and A. Singer (2013). Lck availability during thymic selection determines the recognition specificity of the T cell repertoire. Cell **154**(6): 1326-1341.  
Citations: **94**
16. Poulos, M. G., P. Guo, N. M. Kofler, S. Pinho, M. C. Gutkin, A. Tikhonova, I. Aifantis, P. S. Frenette, J. Kitajewski, S. Rafii and J. M. Butler (2013). Endothelial Jagged-1 is necessary for homeostatic and regenerative hematopoiesis. Cell Rep **4**(5): 1022-1034.  
Citations: **205**
17. Oh, P., C. Lobry, J. Gao, A. Tikhonova, E. Loizou, J. Manet, B. van Handel, S. Ibrahim, J. Greve, H. Mikkola, S. Artavanis-Tsakonas and I. Aifantis (2013). In vivo mapping of notch pathway activity in normal and stress hematopoiesis. Cell Stem Cell **13**(2): 190-204.  
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18. Tikhonova, A. and I. Aifantis (2012). The taming of the NF-kappaB: PP4R1 navigates while PP4c dephosphorylates. Immunity **37**(4): 594-596.  
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19. Van Laethem, F., A. N. Tikhonova and A. Singer (2012). MHC restriction is imposed on a diverse T cell receptor repertoire by CD4 and CD8 co-receptors during thymic selection. Trends Immunol **33**(9): 437-441.  
Citations: **75**
20. Tikhonova, A. N.\*, F. Van Laethem\*, K. Hanada, J. Lu, L. A. Pobezinsky, C. Hong, T. I. Guintier, S. K. Jeurling, G. Bernhardt, J. H. Park, J. C. Yang, P. D. Sun and A. Singer (2012). alphabeta T cell receptors that do not undergo major histocompatibility complex-specific thymic selection possess antibody-like recognition specificities. Immunity **36**(1): 79-91.  
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21. Stephen, T. L., A. Tikhonova, J. M. Riberdy and T. M. Laufer (2009). "The activation threshold of CD4+ T cells is defined by TCR/peptide-MHC class II interactions in the thymic medulla." J Immunol **183**(9): 5554-5562.  
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22. Olivera, A., K. Mizugishi, A. Tikhonova, L. Ciaccia, S. Odom, R. L. Proia and J. Rivera (2007). The sphingosine kinase-sphingosine-1-phosphate axis is a determinant of mast cell function and anaphylaxis. Immunity **26**(3): 287-297.  
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