

12-8-2017

Editorial: Murine models of leukemia and lymphoma

Christine E. Cutucache
University of Nebraska

Pierluigi Porcu
Thomas Jefferson University, pierluigi.porcu@jefferson.edu

Let us know how access to this document benefits you

Follow this and additional works at: <https://jdc.jefferson.edu/kimmelccfp>

 Part of the [Oncology Commons](#)

Recommended Citation

Cutucache, Christine E. and Porcu, Pierluigi, "Editorial: Murine models of leukemia and lymphoma" (2017). *Faculty papers Kimmel Cancer Center*. Paper 65.
<https://jdc.jefferson.edu/kimmelccfp/65>

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Faculty papers Kimmel Cancer Center by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.



Editorial: Murine Models of Leukemia and Lymphoma

Christine E. Cutucache^{1*} and Pierluigi Porcu²

¹University of Nebraska Omaha, Omaha, NE, United States, ²Sidney Kimmel Cancer Center, Philadelphia, PA, United States

Keywords: murine models, leukemia, lymphoma, tumor cell plasticity, cytokines/chemokines

Editorial on the Research Topic

Murine Models of Leukemia and Lymphoma

OPEN ACCESS

Edited by:

Sara Galimberti,
University of Pisa, Italy

Reviewed by:

Giuseppe Alberto Palumbo,
Policlinico Universitario di
Catania, Italy

***Correspondence:**

Christine E. Cutucache
ccutucache@unomaha.edu

Specialty section:

This article was submitted to
Hematology Oncology,
a section of the journal
Frontiers in Oncology

Received: 25 October 2017

Accepted: 29 November 2017

Published: 08 December 2017

Citation:

Cutucache CE and Porcu P (2017)
Editorial: Murine Models of
Leukemia and Lymphoma.
Front. Oncol. 7:309.
doi: 10.3389/fonc.2017.00309

Murine models serve as an effective way to mimic the *in vivo* tumor microenvironmental interactions that take place in patients with leukemias and lymphomas. Specifically, leukemias and lymphomas rely heavily on the surrounding stroma and tissue microenvironmental cytokine and chemokine signals to ensure survival and expansion of tumor cells. Finally, leukemic cells migrate thanks to signals from varying regions of the host, furthering the progression and severity of disease. It is therefore impossible to fully understand such a dynamic relationship between tumor cells and their surrounding microenvironment, and the events to transformation in leukemias and lymphomas without an *in vivo*, or murine model. While many models have been established, their strengths and weaknesses must be realized in order to best interpret findings from each model and ultimately apply that to the clinic. All of this knowledge is useful in determining the etiology of the tumor cells, the plasticity of them, their relationship with the surrounding microenvironment, diagnostic and prognostic markers, as well as serve as a way to test novel therapeutic regimens.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2017 Cutucache and Porcu. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.