性型の自験例のうち、増悪・急性転化した症例について、その時点における臨床所見に関して後方視的な検討を行なった。

B. 研究方法

当科で経験した慢性型、くすぶり型90症例（Takasaki Y. et al. Blood 2010）について、病型分類の診断基準に着目し、増悪様式について検討した。90例中12例では診断時にLDH上昇など（11例）または骨髄浸潤による血球減少（1例）のため治療を開始されていた。残りの症例のうち、経過中に増悪した44例を解析対象とした。病型分類の基準に準じて、以下のように増悪様式を分類した。①ATLの悪化による中枢神経、骨、腹水、胸水、消化管病変の出現、②ATLの悪化による11.5mg/dlを超える補正血清Ca値の上昇、③ATLの悪化による正常上限の1.5倍（慢性型では2倍）を超える血清LDH値の上昇、④リンパ節病変の増悪（増加）、⑤上記以外で問診、理学所見、血液検査などに基づいて臨床的に判断されたATLの増悪・急性転化。

C. 研究結果

検討した44例全例で、①から④のいずれかの項目に該当しており、⑤に該当する症例は認めなかった。44例中32例で高LDH血症を、29例でリンパ節病変の増悪を、20例で臓器浸潤を、8例で高カルシウム血症を来していた。多くの症例で複数項目の増悪を同時に来していたが、臓器浸潤単独例を１例、高LDH血症単独例を4例、リンパ節病変増悪単独例を3例認めた。増悪時のPSについて検討したところ、44例中16例でPSの悪化（≧３）を伴っていた。

（倫理面への配慮）

ヘルシンキ宣言および臨床試験に関するわが国の倫理指針に従って研究を実施した。

D. 考察

臨床的に増悪と判断された症例のうち、リンパ節病変単独の増悪を認めた症例の中には慢性型の症例が１例含まれていた。この症例では、現行の病型分類の基準では増悪の基準は満たしていなかった。増悪・急性転化と判断された症例のうち約35％では、PSの悪化（≧３）を伴っており、病型分類の診断基準は急性転化の早期診断には不十分な可能性が示唆された。ATLに対して、近年、同種造血幹細胞移植や抗体医薬などの有用性が報告されており、適切な診断に基づく治療介入時期の判断が必要である。

E. 結論

ATL のゲノム異常を対象とした本研究班の解析結果により、ATL の病勢・病態に特異的な遺伝子異常が同定され、急性転化の診断に有用な分子マーカーが開発されることが期待される。

F. 健康危険情報

なし

G.研究発表

1.論文発表

1. Karube K, Nakagawa M, Tsuzuki S, Takeuchi I, Honma K, Nakashima Y, Shimizu N, Ko YH, Morishima Y, Ohshima K, Nakamura S, Seto M.: Identification of FOXO3 and PRDM1 as tumor suppressor gene candidates in NK cell neoplasms by genomic and functional analyses. Blood, 118: 3195-3204, 2011.

2. Sung CO, Kim SC, Karnan S, Karube K, Shin HJ, Nam DH, Suh YL, Kim SH, Kim JY, Kim SJ, Kim WS, Seto M, Ko YH.: Genomic profiling combined with gene expression profiling in primary central nervous system lymphoma. Blood, 117: 1291-1300, 2011.

3. Kato H, Kagami Y, Kodaira T, Oka S, Oki Y, Chihara D, Taji H, Yatabe Y, Nakamura T, Nakamura S, Seto M, Yamamoto K, Morishima Y.: Nodal Relapse After Helicobacter pylori Eradication in a Patient With Primary Localized Gastric Mucosa-Associated Lymphoid Tissue Lymphoma. Am J Gastroenterol, 106: 549-551, 2011.

4. Umino A, Nakagawa M, Utsunomiya A, Tsukasaki K, Taira N, Katayama N, Seto M.: Clonal evolution of adult T-cell leukemia/lymphoma takes place in lymph node. Blood, 117: 5473-5778, 2011.

5. Nakada C, Tsukamoto Y, Matsuura K, Nguyen TL, Hijiya N, Uchida T, Sato F, Mimata H, Seto M, Moriyama M.: Overexpression of miR-210, a downstream target of HIF1α, causes centrosome amplification in renal carcinoma cells. J Pathol, 224: 280-288, 2011.

6. Tsuzuki S, Taguchi O, Seto M.: Promotion and maintenance of leukemia by ERG. Blood, 117: 3858-3868, 2011.

7. Iqbal J, Weisenburger DD, Chowdhury A, Tsai MY, Srivastava G, Greiner TC, Kucuk C, Deffenbacher K, Vose J, Smith L, Au WY, Nakamura S, Seto M, Delabie J, Berger F, Loong F, Ko YH, Sng I, Liu X, Loughran TP, Armitage J, Chan WC.: International Peripheral T-cell Lymphoma Project. Natural killer cell lymphoma shares strikingly similar molecular features with a group of non-hepatosplenic $\gamma\delta$ T-cell lymphoma and is highly sensitive to a novel aurora kinase A inhibitor in vitro. Leukemia, 25: 348-358, 2011.

8. Kuroda A, Tsukamoto Y, Nguyen LT, Noguchi T, Takeuchi I, Uchida M,

Uchida T, Hijiya N, Nakada C, Okimoto T, Kodama M, Murakami K, Matsuura K, Seto M, Ito H, Fujioka T, Moriyama M.: Genomic profiling of submucosal-invasive gastric cancer by array-based comparative genomic hybridization. PLoS One, 6: e22313, 2011.

9. Nakagawa M, Tsuzuki S, Honma K, Taguchi O, Seto M.: Synergistic effect of Bcl2, Myc and Ccnd1 transforms mouse primary B-cells into malignant cells. Haematologica, 96: 1318-1326, 2011.

10. Kumar V, Matsuo K, Takahashi A, Hosono N, Tsunoda T, Kamatani N, Kong SY, Nakagawa H, Cui R, Tanikawa C, Seto M, Morishima Y, Kubo M, Nakamura Y, Matsuda K.: Common variants on 14q32 and 13q12 are associated with DLBCL susceptibility. J Hum Genet, 56: 436-439, 2011.

11. Kurahashi S, Hayakawa F, Miyata Y, Yasuda T, Minami Y, Tsuzuki S, Abe A, Naoe T.: PAX5-PML acts as a dual dominant-negative form of both PAX5 and PML. Oncogene, 30: 1822-1830, 2011.

12. Sakurai N, Maeda M, Lee SU, Ishikawa Y, Li M, Williams JC, Wang L, Su L, Suzuki M, Saito TI, Chiba S, Casola S, Yagita H, Teruya-Feldstein J, Tsuzuki S, Bhatia R, Maeda T.: The LRF transcription factor regulates mature B cell development and the germinal center response in mice. J Clin Invest, 121: 2583-2598, 2011.

13. Satou Y, Yasunaga J, Zhao T, Yoshida M, Miyazato P, Takai K, Shimizu K, Ohshima K, Green PL, Ohkura N, Yamaguchi T, Ono M, Sakaguchi S, Matsuoka M.: HTLV-1 bZIP factor induces T-cell lymphoma and systemic inflammation in vivo. PLoS Pathog, 7: e1001274, 2011.

14. Hagiya K, Yasunaga J, Satou Y, Ohshima K, Matsuoka M.: ATF3, an HTLV-1 bZip factor binding protein, promotes proliferation of adult T-cell leukemia cells. Retrovirology, 8: 19, 2011.

15. Fujimoto K, Kawaguchi T, Nakashima O, Ono J, Ohta S, Kawaguchi A, Tonan T, Ohshima K, Yano H, Hayabuchi N, Izuhara K, Sata M.: Periostin, a matrix protein, has potential as a novel serodiagnostic marker for cholangiocarcinoma. Oncol Rep, 25: 1211-1216, 2011.

16. Okamoto M, Hoshino T, Kitasato Y, Sakazaki Y, Kawayama T, Fujimoto K, Ohshima K, Shiraishi H, Uchida M, Ono J, Ohta S, Kato S, Izuhara K, Aizawa H.: Periostin, a matrix

protein, is a novel biomarker for idiopathic interstitial pneumonias. Eur Respir J, 37: 1119-1127, 2011.

17. Hamabashiri M, Daichou A, Yasumoto M, Ogasawara S, Nishinakagawa T, Enjoji M, Ohshima K, Yano H, Nakashima M.: Novel monoclonal antibodies against pancreatic juice from pancreatic cancer patients and their possible application in differential diagnosis. Int J Mol Med, 28: 599-603, 2011.

18. Shimizu-Kohno K, Satou Y, Arakawa F, Kiyasu J, Kimura Y, Niino D, Sugita Y, Ishikawa F, Matsuoka M, Ohshima K.: Detection of HTLV-1 by means of HBZ gene in situ hybridization in formalin-fixed and paraffin-embedded tissues. Cancer Sci, 102: 1432-1436, 2011.

19. Naito Y, Okabe Y, Nagayama M, Nishinakagawa T, Taira T, Kawahara A, Hattori S, Machida K, Ishida Y, Kaji R, Mikagi K, Kinoshita H, Yasumoto M, Akiba J, Kage M, Nakashima M, Ohshima K, Yano H.: Accuracy of differential diagnosis for pancreatic cancer is improved in the combination of RCAS1 and CEA measurements and cytology in pancreatic juice. Med Mol Morphol, 44: 86-92, 2011.

20. Kimura Y, Sato K, Imamura Y, Arakawa F, Kiyasu J, Takeuchi M, Miyoshi H, Yoshida M, Niino D, Sugita Y, Morito T, Yoshino T, Nakamura S, Ohshima K.: Small cell variant of mantle cell lymphoma is an indolent lymphoma characterized by bone marrow involvement, splenomegaly, and a low Ki-67 index. Cancer Sci, 102: 1734-1741, 2011.

21. Pongpruttipan T, Kummalue T, Bedavanija A, Khuhapinant A, Ohshima K, Arakawa F, Niino D, Sukpanichnant S.: Aberrant antigenic expression in extranodal NK/T-cell lymphoma: a multi-parameter study from Thailand. Diagn Pathol, 6: 79, 2011.

22. Asano N, Kinoshita T, Tamaru J, Ohshima K, Yoshino T, Niitsu N, Tsukamoto N, Hirabayashi K, Izutsu K, Taniwaki M, Morishima Y, Nakamura S.: Cytotoxic molecule-positive classical Hodgkin's lymphoma: a clinicopathological comparison with cytotoxic molecule-positive peripheral T-cell lymphoma of not otherwise specified type. Haematologica, 96: 1636-1643, 2011.

23. Pongpruttipan T, Kummalue T, Bedavanija A, Khuhapinant A, Ohshima K, Arakawa F, Niino D,

Sukpanichnant S.: Aberrant antigenic expression in extranodal NK/T-cell lymphoma: a multi-parameter study from Thailand. Diagn Pathol, 6: 79, 2011.

24. Takahashi E, Ohshima K, Kimura H, Hara K, Suzuki R, Kawa K, Eimoto T, Nakamura S; for the NK-cell Tumor Study Group.: Clinicopathological analysis of the age-related differences in patients with Epstein-Barr virus (EBV)-associated extranasal natural killer (NK)/T-cell lymphoma with reference to the relationship with aggressive NK cell leukaemia and chronic active EBV infection-associated lymphoproliferat ve disorders. Histopathology, 59: 660-671, 2011.

25. Oka T, Satou H, Ouchida M, Utsunomiya A, Yoshino T. Cumulative epigenetic abnormalities in host genes with viral and microbial infection during initiation and progression of malignant lymphoma/ leukemia. Cancers, 3: 568-581, 2011.

26. Kannagi M, Hasegawa A, Kinpara S, Shimizu Y, Takamori A, Utsunomiya A.: Double control systems of for human T-cell virus type 1 (HTLV-1) by innate and acquired immunity. Cancer Sci, 102: 670-676, 2011.

27. Araya N, Sato T, Yagishita N, Ando H, Utsunomiya A, Jacobson S, Yamano Y.: Human T-lymphotropic virus type 1 (HTLV-1) and regulatory T cells in HTLV-1-associated neuro-inflammatory disease. Viruses , 3: 1532-1548, 2011.

28. Takamori A, Hasegawa A, Utsunomiya A, Maeda Y, Yamano Y, Shimizu Y, Tamai Y, Sasada A, Zeng N, Choi I, Uike N, Okamura J, Watanabe T, Masuda T, Kannagi M.: Functional impairment of Tax-specific but not CMV-specific $CD8^+$ T-cells in a minor population of asymptomatic HTLV-1-carriers. Retrovirology, 8: 100, 2011.

29. Fukushima T, Taguchi J, Moriuchi Y, Yoshida S, Itonaga H, Ando K, Sawayama Y, Imaizumi Y, Imanishi D, Hata T, Miyazaki Y.: Allogeneic hematopoietic stem cell transplantation for ATL with central nervous system involvement: the Nagasaki transplant group experience. Int J Hematol, 94: 390-394, 2011.

30. Hasegawa H, Komoda M, Yamada Y, Yonezawa S, Tsutsumida H, Nagai K, Atogami S, Tsuruda K, Osaka A, Sasaki D, Yanagihara K, Imaizumi Y,

Tsukasaki K, Miyazaki Y, Kamihira S.: Aberrant overexpression of membrane-associated mucin contributes to tumor progression in adult T-cell leukemia/lymphoma cells. Leuk Lymphoma, 52: 1108-1117, 2011.

31. Sasaki D, Imaizumi Y, Hasegawa H, Osaka A, Tsukasaki K, Choi YL, Mano H, Marquez VE, Hayashi T, Yanagihara K, Moriwaki Y, Miyazaki Y, Kamihira S, Yamada Y.: Overexpression of Enhancer of zeste homolog 2 with trimethylation of lysine 27 on histone H3 in adult T-cell leukemia/lymphoma as a target for epigenetic therapy. Haematologica, 96: 712-719, 2011.

32. Liu F, Karube K, Kato H, Arita K, Yoshida N, Yamamoto K, Tsuzuki S, Kim W, Ko YH, Seto M.: Mutation analysis of NF-κB signal pathway-related genes in ocular MALT lymphoma. Int J Clin Exp Pathol, 5: 436-441, 2012.

33. Karube K, Tsuzuki S, Yoshida N, Arita K, Liu F, Kondo E, Ko YH, Ohshima K, Nakamura S, Kinoshita T, Seto M.: Lineage-specific growth inhibition of NK cell lines by FOXO3 in association with Akt activation status. Exp Hematol, 40: 1005-1015, 2012.

34. Yoshida N, Umino A, Liu F, Arita K, Karube K, Tsuzuki S, Ohshima K, Seto M.: Identification of multiple subclones in peripheral T-cell lymphoma, not otherwise specified with genomic aberrations. Cancer Med, 1: 289-294, 2012.

35. Suefuji N, Niino D, Arakawa F, Karube K, Kimura Y, Kiyasu J, Takeuchi M, Miyoshi H, Yoshida M, Ichikawa A, Sugita Y, Ohshima K.: Clinicopathological analysis of a composite lymphoma containing both T- and B-cell lymphomas. Pathol Int, 62: 690-698, 2012.

36. Hikino S, Ohga S, Kinjo T, Kusuda T, Ochiai M, Inoue H, Honjo S, Ihara K, Ohshima K, Hara T.: Tracheal aspirate gene expression in preterm newborns and development of bronchopulmonary dysplasia. Pediatr Int, 54: 208-214, 2012.

37. Kiyasu J, Aoki R, Tanaka PY, Pracchia LF, Calore EE, Perez NM, Kimura Y, Niino D, Sugita Y, Takayanagi R, Abe Y, Matsuoka M, Ohshima K. FOXP3(+) regulatory and TIA-1(+) cytotoxic T lymphocytes in HIV-associated Hodgkin lymphoma. Pathol Int, 62: 77-83, 2012.

38. Sugata K, Satou Y, Yasunaga J, Hara H, Ohshima K, Utsunomiya A, Mitsuyama M, Matsuoka M.: HTLV-1

bZIP factor impairs cell-mediated immunity by suppressing production of Th1 cytokines. Blood, 119: 434-444, 2012.

39. Hirose Y, Kaida H, Ishibashi M, Uozumi J, Arikawa S, Kurata S, Hayabuchi N, Nakahara K, Ohshima K.: Comparison between endoscopic macroscopic classification and F-18 FDG PET findings in gastric mucosa-associated lymphoid tissue lymphoma patients. Clin Nucl Med, 37: 152-157, 2012.

40. Yoshida S, Arakawa F, Higuchi F, Ishibashi Y, Goto M, Sugita Y, Nomura Y, Niino D, Shimizu K, Aoki R, Hashikawa K, Kimura Y, Yasuda K, Tashiro K, Kuhara S, Nagata K, Ohshima K. Gene expression analysis of rheumatoid arthritis synovial lining regions by cDNA microarray combined with laser microdissection: up-regulation of inflammation-associated STAT1, IRF1, CXCL9, CXCL10, and CCL5. Scand J Rheumatol, 41:170-179, 2012.

41. Kimura H, Ito Y, Kawabe S, Gotoh K, Takahashi Y, Kojima S, Naoe T, Esaki S, Kikuta A, Sawada A, Kawa K, Ohshima K, Nakamura S.: EBV-associated T/NK-cell lymphoproliferative diseases in nonimmunocompromised hosts: prospective analysis of 108 cases. Blood, 119: 673-686, 2012.

42. Shimizu-Kohno K, Kimura Y, Kiyasu J, Miyoshi H, Yoshida M, Ichikawa R, Niino D, Ohshima K. Malignant lymphoma of the spleen in Japan: A clinicopathological analysis of 115 cases. Pathol Int, 62: 577-582, 2012.

43. Kimura Y, Arakawa F, Kiyasu J, Miyoshi H, Yoshida M, Ichikawa A, Nakashima S, Ishibashi Y, Niino D, Sugita Y, Ishiyama K, Higuchi M, Takasaki Y, Shimomura T, Koike C, Kuwahara N, Fujikawa K, Ohshima K.: A spindle cell variant of diffus e large B-cell lymphoma is characterized by T-cell/ myofibrohistio-rich stromal alterations: analysis of 10 cases and a review of the literature. Eur J Haematol, 89: 302-310, 2012.

44. Kawano N, Ochiai H, Yoshida S, Yamashita K, Shide K, Shimoda H, Hidaka T, Kubuki Y, Katayose K, Toyama T, Kawano H, Matsuoka H, Ishizaki J, Maeda K, Satou S, Yano T, Yamaguchi K, Takenaka K, Shimao Y, Oshima K, Ueda A, Shimoda K.: Clinical features and treatment outcomes of isolated secondary central nervous system lymphomas in

Miyazaki Prefecture. Int J Clin Oncol. 17: 336-340, 2012.

45. Ko YH, Kim HJ, Oh YH, Park G, Lee SS, Huh J, Kim CW, Kim I, Ng SB, Tan SY, Chuang SS, Nakamura N, Yoshino T, Nakamura S, Kimura H, Ohshima K.: EBV-associated T and NK cell lymphoproliferative disorders: consensus report of the 4th Asian Hematopathology Worksgop. J Hematopatol, 5: 319-324, 2012.

46. Nakamura T, Oku E, Nomura K, Morishige S, Takata Y, Seki R, Imamura R, Osaki K, Hashiguchi M, Yakushiji K, Mouri F, Mizuno S, Yoshimoto K, Ohshima K, Nagafuji K, Okamura T.: Unrelated cord blood transplantation for patients with adult T-cell leukemia/lymphoma: experience at a single institute. Int J Hematol, 96: 657-663, 2012.

47. Miyoshi H, Sato K, Niino D, Arakawa F, Kimura Y, Kiyasu J, Takeuchi M, Yoshida M, Okada Y, Nakamura Y, Sugita Y, Ohshima K.: Clinicopathologic analysis of peripheral T-cell lymphoma, follicular variant, and comparison with angioimmunoblastic T-cell lymphoma: Bcl-6 expression might affect progression between these disorders. Am J Clin Pathol, 137: 879-889, 2012.

48. Nakahata S, Saito Y, Marutsuka K, Hidaka T, Maeda K, Hatakeyama K, Shiraga T, Goto A, Takamatsu N, Asada Y, Utsunomiya A, Okayama A, Kubuki Y, Shimoda K, Ukai Y, Kuosawa G, Morishita K.: Clinical significance of CADM1/TSLC1/IgSF4 expression in adult T-cell leukemia/lymphoma. Leukemia, 26: 1238-1246, 2012.

49. Kanda J, Hishizawa M, Utsunomiya A, Taniguchi S, Eto T, Moriuchi Y, Tanosaki R, Kawano F, Miyazaki Y, Masuda M, Nagafuji K, Hara M, Takanashi M, Kai S, Atsuta Y, Suzuki R, Kawase T, Matsuo K, Nagamura-Inoue T, Kato S, Sakamaki H, Morishima Y, Okamura J, Ichinohe T, Uchiyama T.: Impact of graft-versus-host disease on outcomes after allogeneic hematopoietic cell transplantation for adult T-cell leukemia: a retrospective cohort study. Blood, 119: 2141-2148, 2012.

50. Ishida T, Joh T, Uike N, Yamamoto K, Utsunomiya A, Yoshida S, Saburi Y, Miyamoto T, Takemoto S, Suzushima H, Tsukasaki K, Nosaka K, Fuzjiwara H, Ishitsuka K, Inagaki H, Ogura M, Akinaga S, Tomonaga M, Tobinai K, Ueda R.: Defucosylated anti-CCR4 monoclonal antibody (KW-0761) for relapsed adult T-cell leukemia-

lymphoma: a multicenter Phase II study. J Clin Oncol, 30: 837-842, 2012.

51. Nishikawa H, Maeda Y, Ishida T, Gnjatic S, Sato E, Mori F, Sugiyama D, Ito A, Fukumori Y, Utsunomiya A, Inagaki H, Old LJ, Ueda R, Sakaguchi S.: Cancer/testis antigens are novel targets of immunotherapy for adult T cell leukemia/lymphoma. Blood, 119: 3097-3104, 2012.

52. Katsuya H, Yamanaka T, Ishitsuka K, Utsunomiya A, Sasaki H, Hanada S, Eto T, Moriuchi Y, Saburi Y, Miyahara M, Sueoka E, Uike N, Yoshida S, Yamashita K, Tsukasaki K, Suzushima H, Ohno Y, Matsuoka H, Jo T, Suzumiya J, Tamura K.: Prognostic index for acute- and lymphoma-type adult T-cell leukemia/lymphoma. J Clin Oncol, 30: 1635-1640, 2012.

53. Satou Y, Utsunomiya A, Tanabe J, Nakagawa M, Nosaka K, Matsuoka M.: HTLV-1 modulates the frequency and phenotype of FoxP3+CD4+ T cells in the HTLV-1 infected individuals. Retrovirology, 9: 46, 2012.

54. Kannagi M, Hasegawa A, Takamori A, Kinpara S, Utsunomiya A.: The roles of acquired and innate immunity in human T-cell leukemia virus type 1-mediated diseases. Frontiers in Virology, 3: 323, 2012.

55. Sugata K, Satou Y, Yasunaga J, Hara H, Suzutani T, Ohshima K, Utsunomiya A, Mitsuyama M, Matsuoka M.: HTLV-1 bZIP factor impairs cell-mediated immunity by inhibiting production of Th1 cytokines. Blood, 119: 434-444, 2012.

56. Ishida T, Hishizawa M, Kato K, Tanosaki R, Fukuda T, Taniguchi S, Eto T, Takatsuka Y, Miyazaki Y, Moriuchi Y, Hidaka M, Akashi K, Uike N, Sakamaki H, Morishima Y, Kato K, Suzuki R, Nishiyama T, Utsunomiya A.: Allogeneic hematopoietic stem cell transplantation for adult T-cell leukemia- lymphoma with special emphasis on preconditioning regimen: a nationwide retrospective study. Blood, 120: 1734-1741, 2012.

57. Fukuda RI, Tsuchiya K, Suzuki K, Itoh K, Fujita J, Utsunomiya A, Tsuji T.: HTLV-I Tax regulates the cellular proliferation through the down-regulation of PIP3-phosphatase expression via the NF-kB pathway. Int J Biochem Mol Biol, 3: 95-104, 2012.

58. Yamagishi M, Nakano K, Miyake A, Yamochi T, Kagami Y, Tsutsumi A, Matsuda Y, Sato-Otsubo A, Muto S,

Utsunomiya A, Yamaguchi K, Uchimaru K, Ogawa S, Watanabe T.: Polycomb-mediated loss of miR-31 activates NIK-dependent NF-κB pathway in adult T cell leukemia and other cancers. Cancer Cell, 21: 121-135, 2012.

59. Uota S, Dewan MZ, Saitoh Y, Muto S, Itai A, Utsunomiya A, Watanabe T, Yamamoto N, Yamaoka S.: An IkB kinase 2 inhibitor IMD-0354 suppresses the survival of adult T-cell leukemia cells. Cancer Sci, 103: 100-106, 2012.

60. Liu F, Yoshida N, Suguro M, Kato H, Karube K, Arita K, Yamamoto K, Tsuzuki S, Oshima K, Seto M.: Clonal heterogeneity of mantle cell lymphoma revealed by array comparative genomic hybridization. Eur J Haematol, 90: 51-58, 2013.

61. Tsuzuki S, Seto M.: TEL (ETV6)-AML1 (RUNX1) Initiates Self-Renewing Fetal Pro-B Cells in Association with a Transcriptional Program Shared with Embryonic Stem Cells in Mice. Stem Cells, 31: 236-247, 2013.

62. Karube K, Tsuzuki S, Yoshida N, Arita K, Kato H, Katayama M, Ko YH, Ohshima K, Nakamura S, Kinoshita T, Seto M.: Comprehensive gene expression profiles of NK cell neoplasms identify vorinostat as an effective drug candidate. Cancer Lett, 333: 47-55, 2013.

63. Arita K, Maeda-Kasugai Y, Ohshima K, Tsuzuki S, Suguro-Katayama M, Karube K, Yoshida N, Sugiyama T, Seto M.: Generation of mouse models of lymphoid neoplasm using retroviral gene transduction of in vitro-induced germinal center B and T cells. Exp Hematol, 41: 731-741, 2013.

64. Yamamoto K, Tsuzuki S, Minami Y, Yamamoto Y, Abe A, Ohshima K, Seto M, Naoe T.: Functionally deregulated AML1/RUNX1 cooperates with BCR-ABL to induce a blastic phase-like phenotype of chronic myelogenous leukemia in mice. PLoS One, 8: e74864, 2013.

65. Yoshida N, Oda M, Kuroda Y, Katayama Y, Okikawa Y, Masunari T, Fujiwara M, Takashi Nishisaka, Sasaki N, Sadahira Y, Mihara K, Asaoku K, Matsui H, Seto M, Kimura A, Arihiro K, Sakai A.: Clinical significance of sIL-2R levels in B-cell lymphomas. PLoS One 8: e78730, 2013.

66. Watanabe Y, Suefuji H, Hirose Y, Kaida H, Suzuki G, Uozumi J, Ogo E, Miura M, Takasu K, Miyazaki K, Nakahara K, Ishibashi M, Okamura T,

Ohshima K, Hayabuchi N.: 18F-FDG uptake in primary gastric malignant lymphoma correlates with glucose transporter 1 expression and histologic malignant potential. Int J Hematol, 97: 43-49, 2013.

67. Ando M, Sato Y, Takata K, Nomoto J, Nakamura S, Ohshima K, Takeuchi T, Orita Y, Kobayashi Y, Yoshino T.: A20 (TNFAIP3) deletion in Epstein-Barr virus-associated lymphoproliferative disorders/ lymphomas. PLoS One, 8: e56741, 2013.

68. Yoshida N, Nishikori M, Izumi T, Imaizumi Y, Sawayama Y, Niino D, Tashima M, Hoshi S, Ohshima K, Shimoyama M, Seto M, Tsukasaki K.: Primary peripheral T-cell lymphoma, not otherwise specified of the thyroid with autoimmune thyroiditis. Br J Haematol, 161: 214-223, 2013.

69. Ishimura M, Yamamoto H, Mizuno Y, Takada H, Goto M, Doi T, Hoshina T, Ohga S, Ohshima K, Hara T.: A non-invasive diagnosis of histiocytic necrotizing lymphadenitis by means of gene expression profile analysis of peripheral blood mononuclear cells. J Clin Immunol, 33: 1018-1026, 2013.

70. Niino D, Tsuchiya T, Tomonaga M, Miyazaki Y, Ohshima K.: Clinicopathological features of acute megakaryoblastic leukaemia: Relationship between fibrosis and platelet-derived growth factor. Pathol Int, 63: 141-149, 2013.

71. Arita K, Maeda-Kasugai Y, Ohshima K, Tsuzuki S, Suguro-Katayama M, Karube K, Yoshida N, Sugiyama T, Seto M.: Generation of mouse models of lymphoid neoplasm using retroviral gene transduction of in vitro-induced germinal center B and T cells. Exp Hematol, 41: 731-741, 2013.

72. Kimura Y, Arakawa F, Kiyasu J, Miyoshi H, Yoshida M, Ichikawa A, Niino D, Sugita Y, Okamura T, Doi A, Yasuda K, Tashiro K, Kuhara S, Ohshima K.: The Wnt signaling pathway and mitotic regulators in the initiation and evolution of mantle cell lymphoma: Gene expression analysis. Int J Oncol, 43: 457-468, 2013.

73. Ichikawa A, Arakawa F, Kiyasu J, Sato K, Miyoshi H, Niino D, Kimura Y, Takeuchi M, Yoshida M, Ishibashi Y, Nakashima S, Sugita Y, Miura O, Ohshima K.: Methotrexate/ iatrogenic lymphoproliferative disorders in rheumatoid arthritis:

histology, Epstein-Barr virus, and clonality are important predictors of disease progression and regression. Eur J Haematol, 91: 20-28, 2013.

74. Teshima K, Nara M, Watanabe A, Ito M, Ikeda S, Hatano Y, Oshima K, Seto M, Sawada K, Tagawa H.: Dysregulation of BMI1 and microRNA-16 collaborate to enhance an anti-apoptotic potential in the side population of refractory mantle cell lymphoma. Oncogene, 2013 May 20. [Epub ahead of print]

75. Kim SW, Yoon SS, Suzuki R, Matsuno Y, Yi HG, Yoshida T, Imamura M, Wake A, Miura K, Hino M, Ishikawa T, Kim JS, Maeda Y, Lee JJ, Kang HJ, Lee HS, Lee JH, Izutsu K, Fukuda T, Kim CW, Yoshino T, Ohshima K, Nakamura S, Nagafuji K, Suzumiya J, Harada M, Kim CS.: Comparison of outcomes between autologous and allogeneic hematopoietic stem cell transplantation for peripheral T-cell lymphomas with central review of pathology. Leukemia, 27: 1394-1397, 2013.

76. Tamai Y, Hasegawa A, Takamori A, Sasada A, Tanosaki R, Choi I, Utsunomiya A, Eto T, Koh H, Suehiro Y, Kato K, Takemoto S, Okamura J, Uike N, Kannagi M.: Identification of an HLA-DRB1*0101-restricted dominant epitope of Tax-specific CD4+ T-cells augmenting in vitro CTL expression in ATL patients after allo-HSCT. J Immunol, 190: 4382-4392, 2013.

77. Asanuma S, Yamagishi M, Kawanami K, Nakano K, Sato-Otsubo A, Muto S, Sanada M, Yamochi T, Kobayashi S, Utsunomiya A, Iwanaga M, Yamaguchi K, Uchimaru K, Ogawa S, Watanabe T.: Adult T-cell leukemia cells are characterized by abnormalities of Helios expression that promote T-cell growth. Cancer Sci, 104: 1097-1106, 2013.

78. Kinpara S, Kijiyama M, Takamori A, Hasegawa A, Sasada A, Masuda T, Tanaka Y, Utsunomiya A, Kannagi M.: Interferon-α (IFN-α) suppresses human T-lymphotropic virus type-1 (HTLV-1) gene expression and cell cycling, while IFN-α combined with zidovudin induces p53 signaling and apoptosis in HTLV-1- infected cells. Retrovirology. 2013, May 20, [Epub ahead of print]

79. Ishihara M, Araya N, Sato T, Tatsuguchi A, Saichi N, Utsunomiya A, Nakamura Y, Nakagawa H, Yamano Y, Ueda K.: Preapoptotic protease calpain-2 is frequently suppressed in adult T-cell leukemia. Blood,

121: 4340-4347, 2013.

80. Ando H, Sato T, Tomaru U, Yoshida M, Utsunomiya A, Yamauchi J, Araya N, Yagishita N, Coler-Reilly A, Shimizu Y, Yudo K, Nishioka K, Nakajima T, Jacobson S, Yamano Y.: Positive feedback loop via astrocytes causes chronic inflammation in virus-associated myelopathy. Brain, 136: 2876-2887, 2013.

81. Ishida T, Hishizawa M, Kato K, Tanosaki R, Fukuda T, Takatsuka Y, Eto T, Miyazaki Y, Hidaka M, Uike N, Miyamoto T, Tsudo M, Sakamaki H, Morishima Y, Suzuki R, Utsunomiya A.: Impact of GVHD on allogeneic HCT for adult T-cell leukemia-lymphoma focusing on preconditioning regimens: nationwide retrospective study. Biol Blood Marrow Transplant, 19: 1731-1739, 2013.

82. Chihara D, Ito H, Matsuda T, Katanoda K, Shibata A, Taniguchi S, Utsunomiya A, Sobue T, Matsuo K.: Association between decreasing trend in the mortality of adult T-cell leukemia/lymphoma and allogeneic hematopoietic stem cell transplants in Japan: Analysis of Japanese vital statistics and Japan Society for Hematopoietic Cell Transplantation (JSHCT). Blood Cancer Journal, 3: e159, 2013.

83. Sato T, Coler-Reilly A, Utsunomiya A, Araya N, Yagishita N, Ando H, Yamauchi J, Inoue E, Ueno T, Hasegawa Y, Nishioka K, Nakajima T, Jacobson S, Izumo S, Yamano Y.: CSF CXCL10, CXCL9, and neopterin as candidate prognostic biomarkers for HTLV-1-associated myelopathy/ tropical spastic paraparesis. PLoS Negl Trop Dis, 7: e2479, 2013.

84. Taniguchi M, Imaizumi Y, Taguchi J, Imanishi D, Sasaki D, Hasegawa H, Tsushima H, Hata T, Miyazaki Y.: Transient proliferation of donor-derived ATL cell-like lymphocytes early after allogeneic stem cell transplantation in an adult T-cell leukemia/lymphoma patient. Blood, 121: 4428-4430. 2013.

85. Fukushima T, Itonaga H, Moriuchi Y, Yoshida S, Taguchi J, Imaizumi Y, Imanishi D, Tsushima H, Sawayama Y, Matsuo E, Hata T, Miyazaki Y.: Feasibility of cord blood transplantation in chemosensitive adult T-cell leukemia/lymphoma: a retrospective analysis of the Nagasaki Transplantation Network. Int J Hematol, 97: 485-490, 2013..

86. Itonaga H, Taguchi J, Fukushima T, Tsushima H, Sato S, Ando K, Sawayama

Y, Matsuo E, Yamasaki R, Onimaru Y, Imanishi D, Imaizumi Y, Yoshida S, Hata T, Moriuchi Y, Honda S, Miyazaki Y.: Distinct clinical features of infectious complications in adult T cell leukemia/lymphoma patients after allogeneic hematopoietic stem cell transplantation: a retrospective analysis in the Nagasaki transplant group. Biol Blood Marrow Transplant, 19: 607-615, 2013.

87. Itonaga H, Tsushima H, Taguchi J, Fukushima T, Taniguchi H, Sato S, Ando K, Sawayama Y, Matsuo E, Yamasaki R, Onimaru Y, Imanishi D, Imaizumi Y, Yoshida S, Hata T, Moriuchi Y, Uike N, Miyazaki Y.: Treatment of relapsed adult T-cell leukemia/lymphoma after allogeneic hematopoietic stem cell transplantation: the Nagasaki Transplant Group experience. Blood, 121: 219-225, 2013.

88. Nakano N, Kusumoto S, Tanaka Y, Ishida T, Takeuchi S, Takatsuka Y, Akinaga S, Mizokami M, Ueda R, Utsunomiya A.: Reactivation of hepatitis B virus in a patient with adult T-cell leukemia-lymphoma receiving the anti-CC chemokine receptor 4 antibody mogamulizumab. Hepatol Res, 44: 354-357, 2014.

2.学会発表

1. Hiroaki Miyoshi, Kensaku Sato, Daisuke Niino, Fumiko Arakawa, Yoshizo Kimura, Junichi Kiyasu, Masanori Takeuchi, Maki Yoshida, Yosuke Okada, Yukihiko, Nakamura, Yasuo Sugita, Koichi Ohshima, Bcl-6 expression in peripheral T-cell lymphoma, follicular variant correlates with clinicopahological characteristics of angioimmunoblastic T-cell lymphoma, 第 100 回 日本病理学会総会、横浜、2011 年 4 月 28 日

2. Hiroaki Taniguchi, Yoshitaka Imaizumi, Junya Makiyama, Hidehiro Itonaga, Shinya Satou, Takeshi Tsuchiya, Jun Taguchi, Daisuke Imanishi, Hideki Tsushima, Takuya Fukushima, Tomoko Hata, Kunihiro Tsukasaki, Shimeru Kamihira, Tomayoshi Hayashi, Koichi Ohshima, Yasushi Miyazaki, Outcome of adult T-cell leukemia -lymphoma(ATL) after salvage therapy. 第73回日本血液学会学術集会, 2011年10月14日-16日, 名古屋

3. 田浦直太、市川辰樹、宮明寿光、柴田英貴、本田琢也、山口東平、福田祥子、久保田陽子、磯本 一、竹島史直、松尾真稔、谷口広明、今泉芳孝、中尾一彦, 急性肝障害における血液疾患の頻度についての検討, 第15回日本肝

臓学会大会：第19回日本消化器関連学会週間-JDDW2011(福岡)，2011年10月20日-21日，福岡

4. 長谷川寛雄、山田恭暉、佐々木大介、今泉芳孝、塚崎邦弘、宮﨑泰司、岩尾正倫、上平　憲，新規インテグラ-ゼ阻害薬ラメラリンによる抗HTLV-１薬開発の検討：厚生労働科学研究補助金研究事業　2010年度　HTLV-1関連合同班会議(HTLV-1撲滅に向けて)：2011年2月19日，東京

5. 佐々木大介、山田恭暉、長谷川寛雄、今泉芳孝、塚崎邦弘、宮﨑泰司、上平憲、Victor E.Marquez、ATLに対する治療薬としてのヒストンメチル化阻害薬DZNepの可能性、厚生労働科学研究補助金研究事業　2010年度HTLV-1関連合同班会議(HTLV-1撲滅に向けて)、2011年2月19日(土)、東京

6. 岸本 渉，錦織桃子，田嶌政治，山本玲，坂井智美，都築 忍，瀬戸加大，高折晃史.：Establishment of a mouse model for mantle cell lymphoma. 第71回日本癌学会学術総会，2012，札幌

7. 加留部謙之輔，都築 忍，中村栄男，瀬戸加大.：　FOXO3 is a lineage-specific tumor suppressor gene to NK cell neoplasms. 第71回日本癌学会学術総会，2012，札幌

8. 都築 忍、瀬戸加大.：　Cooperation of altered AML1/RUNX1 with BCR-ABL in inducing blast crisis-like disease of chronic myelogenous leukemia. 第71回日本癌学会学術総会，2012，札幌

9. 吉田稚明，海野 啓，劉 芳，在田幸太郎，加留部謙之輔，都築 忍，大島孝一，瀬戸加大.：　Identification of multiple subclones in Peripheral T-cell lymphoma, not otherwise specified with genomic aberrations. 第71回日本癌学会学術総会，2012，札幌

10. Ayako ichikawa, Junichi Kiyasu, Fumiko Arakawa, Yoshizo Kimura, Masanori Takeuchi,Maki Yoshida, Hiroaki Miyoshi, Kensaku Sato, Daisuke Niino, Yasuo Sugita, Koichi Ohshima Detection of Tax-specific cytotoxic T lymphocyte in lymph nodes of adult T-cell leukemia/lymphoma 第71回日本癌学会総会、札幌、2012年9月20日

11. Yoshitaka Imaizumi, Michinori Ogura, Naokuni Uike, Norio Asou, Atae Utsunomiya, Toshiki Uchida, Tomohiro Aoki, Kunihiro Tsukasaki, Jun Taguchi, Ilseung Choi, Dai Maruyama, Kisato Nosaka, Nianhang Chen, Tetsuhiro Shiota and Kensei Tobinai：Phase I Dose-Escalation Study of Lenalidomide in Relapsed Patients with ATL or PTCL(CC-5013-ATLL-001). 第75回日

本血液学会学術総会、札幌、2012年10月13日

12. Hiroaki Taniguchi, Yoshitaka Imaizumi, Makiko Horai, Masataka Taguchi, Junya Makiyama, Shinya Sato, Koji Ando, Yasushi Sawayama, Yuji Moriwaki, Emi Matsuo, Daisuke Imanishi, Jun Taguchi, Hideki Tsushima, Tomoko Hata, Hiroo Hasegawa, Shinichiro Yoshida, Yukiyoshi Moriuchi, Koichi Oshima, Yasushi Miyazaki.: Mogamulizumab in clinical practice for relapsed/refractory adult T-cell leukemia-lymphoma. 第75回日本血液学会学術総会、札幌、2012年10月12日

13. Jynya Makiyama, Yoshitaka Imaizumi, Hiroaki Taniguchi, Yasushi Sawayama, Daisuke Imanishi, Jun Taguchi, Hideaki Tsushima, Tomoko Hata, Kunihiro Tsukasaki, Yasushi Miyazaki. :Re-evaluation of VCAP-AMP-VECP in clinical practice for aggressive adult T-cell leukemia-lymphoma. 第75回日本血液学会学術総会、札幌、2012年10月11日

14. Noriaki Yoshida, Kennosuke Karube, Atae Utsunomiya, Kunihiro Tsukasaki, Yoshitaka Imaizumi, Naoya Taira, Naokuni Uike, Akira Umino, Kotaro Arita, Miyuki Katayama, Hsinobu Tsuzuki, Koichi Ohshima, Masao Seto. :Alterations of cell lycle-related genes are involved in transformation of chronic ATL. 第75回日本血液学会学術総会、札幌、2012年10月11日

15. Yoshitaka Imaizumi, Kunihiro Tsukasaki, Hideki Tsushima, Masatoshi Matsuo, Daisuke Sasaki, Hiroo Hasegawa, Shimeru Kamihira, Daisuke Niino, Kouichi Ohshima, Yasushi Miyazaki.: Lymphoma cases without detectable monoclonal HTLV-1 integration in HTLV-1 carrier. 第74回日本血液学会学術総会、京都、2012年10月20日

16. 吉田稚明、加留部謙之輔、宇都宮與、塚崎邦弘、今泉芳孝、平良直也、鵜池直邦、海野啓、在田幸太郎、片山幸、都築忍、大島孝一、瀬戸加大.: Cell cycle 関連遺伝子の異常が慢性型 ATL の急性転化に関与する. 第 53 回日本リンパ網内系学会, 2013, 京都

17. 吉田稚明、加留部謙之輔、宇都宮與、塚崎邦弘、今泉芳孝、平良直也、鵜池直邦、海野啓、在田幸太郎、片山幸、都築忍、大島孝一、瀬戸加大.: Cell cycle 関連遺伝子の異常が慢性型 ATL の急性転化に関与する. 第 53 回日本リンパ網内系学会, 2013, 京都

18. 都築 忍、片山幸、吉田稚明、在田幸太郎、大島孝一、瀬戸加大.: インビトロで誘導した T 細胞への遺伝子導

入によるマウスリンパ腫モデル．第72回日本癌学会学術総会，2013，横浜，

19. 勝呂　幸，田川博之，竹内一郎，吉田 稚明，在田幸太郎，都築 忍，瀬戸 加大.：リンパ腫を形成するクローン細胞の多様性は、臨床病態を反映する.第72回日本癌学会学術総会，2013，横浜

20. 吉田稚明、加留部謙之輔、宇都宮與、塚崎邦弘、今泉芳孝、平良直也、鵜池直邦、海野啓、在田幸太郎、片山幸、都築忍、大島孝一、瀬戸加大.：Cell cycle 関連遺伝子の異常が慢性型 ATL の急性転化に関与する．第 72 回日本癌学会学術総会，2013，横浜

21. 在田幸太郎、都築忍、大島孝一、杉山敏郎、瀬戸加大.：レトロウイルスによる正常 B 細胞への遺伝子導入を用いた B 細胞リンパ腫マウスモデル．第 72 回日本癌学会学術総会，2013，横浜

22. 都築　忍、瀬戸加大.：TEL(ETV6)-AML1(RUNX1)は自己複製能を有する胎児プロB細胞を開始する．第 75 回日本血液学会学術集会，2013，札幌，

23. 吉田稚明、加留部謙之輔、宇都宮與、塚崎邦弘、今泉芳孝、平良直也、鵜池直邦、海野啓、在田幸太郎、片山幸、都築忍、大島孝一、瀬戸加大.：Cell cycle 関連遺伝子の異常が慢性型 ATL の急性転化に関与する．第 75 回日本血液学会学術集会，2013，札幌在田幸太郎、都築忍、大島孝一、杉山敏郎、瀬戸加大.：新規マウス胚中心由来 B 細胞リンパ腫モデル．第 75 回日本血液学会学術集会，2013，札幌 Ying Guo, Hiroaki Miyoshi, Fumiko Arakawa, Daisuke Niino, Koichi Ohshima.：Clinicopathological analysis of Peripheral T Cell lymphoma T zone variant.　第 53 回 日本リンパ網内系学会総会、京都、2013 年 5 月 18 日

24. 牧山純也、今泉芳孝、谷口広明、森脇裕司、澤山靖、今西大介、田口潤、對馬秀樹、波多智子、塚崎邦弘、宮﨑泰司、当科における高齢者成人Ｔ細胞白血病・リンパ腫の診療実態と治療成績.第53回日本リンパ網内系学会総会：2013年5月18日、京都

25. 吉田稚明、加留部謙之輔、宇都宮與、塚崎邦弘、今泉芳孝、平良直也、鵜池直邦、海野啓、在田幸太郎、片山幸、都築忍、大島孝一、瀬戸加大、Cell cycle 関連遺伝子の異常は慢性型 ATLL の急性転化に関与する．第 53 回日本リンパ網内系学会総会：2013 年 5 月 18 日、京都

H. 知的財産権の出願・登録状況

なし

III. 研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Karube K, Nakagawa M, Tsuzuki S, Takeuchi I, Honma K, Nakashima Y, Shimizu N, Ko YH, Morishima Y, Ohshima K, Nakamura S, Seto M.	Identification of FOXO3 and PRDM1 as tumor suppressor gene candidates in NK cell neoplasms by genomic and functional analyses.	Blood	118	3195-3204	2011
Sung CO, Kim SC, Karnan S, Karube K, Shin HJ, Nam DH, Suh YL, Kim SH, Kim JY, Kim SJ, Kim WS, Seto M, Ko YH.	Genomic profiling combined with gene expression profiling in primary central nervous system lymphoma.	Blood	117	1291-1300	2011
Kato H, Kagami Y, Kodaira T, Oka S, Oki Y, Chihara D, Taji H, Yatabe Y, Nakamura T, Nakamura S, Seto M, Yamamoto K, Morishima Y.	Nodal Relapse After Helicobacter pylori Eradication in a Patient With Primary Localized Gastric Mucosa-Associated Lymphoid Tissue Lymphoma.	Am J Gastroenterol	106	549-551	2011
Umino A, Nakagawa M, Utsunomiya A, Tsukasaki K, Taira N, Katayama N, Seto M.	Clonal evolution of adult T-cell leukemia/lymphoma takes place in lymph node.	Blood	117	5473-5778	2011
Nakada C, Tsukamoto Y, Matsuura K, Nguyen TL, Hijiya N, Uchida T, Sato F, Mimata H, Seto M, Moriyama M.	Overexpression of miR-210, a downstream target of HIF1 α, causes centrosome amplification in renal carcinoma cells.	J Pathol	224	280-288	2011
Tsuzuki S, Taguchi O, Seto M.	Promotion and maintenance of leukemia by ERG.	Blood	117	3858-3868	2011
Iqbal J, Weisenburger DD, Chowdhury A, Tsai MY, Srivastava G, Greiner TC, Kucuk C, Deffenbacher K, Vose J, Smith L, Au WY, Nakamura S, Seto M, Delabie J, Berger F, Loong F, Ko YH, Sng I, Liu X, Loughran TP, Armitage J, Chan WC.	International Peripheral T-cell Lymphoma Project. Natural killer cell lymphoma shares strikingly similar molecular features with a group of non-hepatosplenic $\gamma\delta$ T-cell lymphoma and is highly sensitive to a novel aurora kinase A inhibitor in vitro.	Leukemia	25	348-358	2011
Kuroda A, Tsukamoto Y, Nguyen LT, Noguchi T, Takeuchi I, Uchida M, Uchida T, Hijiya N, Nakada C, Okimoto T, Kodama M, Murakami K, Matsuura K, Seto M, Ito H, Fujioka T, Moriyama M.	Genomic profiling of submucosal-invasive gastric cancer by array-based comparative genomic hybridization.	PLoS One	6	e22313	2011

Nakagawa M, Tsuzuki S, Honma K, Taguchi O, Seto M.	Synergistic effect of Bcl2, Myc and Ccnd1 transforms mouse primary B-cells into malignant cells.	Haematologica	96	1318-1326	2011
Kumar V, Matsuo K, Takahashi A, Hosono N, Tsunoda T, Kamatani N, Kong SY, Nakagawa H, Cui R, Tanikawa C, Seto M, Morishima Y, Kubo M, Nakamura Y, Matsuda K.	Common variants on 14q32 and 13q12 are associated with DLBCL susceptibility.	J Hum Genet	56	436-439	2011
Kurahashi S, Hayakawa F, Miyata Y, Yasuda T, Minami Y, Tsuzuki S, Abe A, Naoe T.	PAX5-PML acts as a dual dominant-negative form of both PAX5 and PML.	Oncogene	30	1822-1830	2011
Sakurai N, Maeda M, Lee SU, Ishikawa Y, Li M, Williams JC, Wang L, Su L, Suzuki M, Saito TI, Chiba S, Casola S, Yagita H, Teruya-Feldstein J, Tsuzuki S, Bhatia R, Maeda T.	The LRF transcription factor regulates mature B cell development and the germinal center response in mice.	J Clin Invest	121	2583-2598	2011
Ando K, Miyazaki Y, Sawayama Y, Tominaga S, Matsuo E, Yamasaki R, Inoue Y, Iwanaga M, Imanishi D, Tsushima H, Fukushima T, Imaizumi Y, Taguchi J, Yoshida S, Hata T, Tomonaga M.	High expression of 67-kDa laminin receptor relates to the proliferation of leukemia cells and increases expression of GM-CSF receptor.	Exp Hematol	39	179 -186	2011
Sasaki D, Imaizumi Y, Hasegawa H, Osaka A, Tsukasaki K, Choi YL, Mano H, Marquez VE, Hayashi T, Yanagihara K, Moriwaki Y, Miyazaki Y, Kamihira S, Yamada Y.	Overexpression of enhancer of zeste homolog 2 with trimethylation of lysine 27 on histone H3 in adult T-cell leukemia/lymphoma as a target for epigenetic therapy.	Haematologica	96	712-719	2011
Hasegawa H, Komoda M, Yamada Y, Yonezawa S, Tsutsumida H, Nagai K, Atogami S, Tsuruda K, Osaka A, Sasaki D, Yanagihara K, Imaizumi Y, Tsukasaki K, Miyazaki Y, Kamihira S.	Aberrant overexpression of membrane-associated mucin contributes to tumor progression in adult T-cell leukemia/lymphoma cells.	Leuk Lymphoma	52	1108-1117	2011
Tominaga-Sato S, Tsushima H, Ando K, Itonaga H, Imaizumi Y, Imanishi D, Iwanaga M, Taguchi J, Fukushima T, Yoshida S, Hata T, Moriuchi Y, Kuriyama K, Mano H, Tomonaga M, Miyazaki Y.	Expression of myeloperoxidase and gene mutations in AML patients with normal karyotype: double CEBPA mutations are associated with high percentage of MPO positivity in leukemic blasts.	Int J Hematol	94	81-89	2011