

Thesis Title Immunophenotyping of Acute Lymphoblastic
 Leukemia and Lymphoma in Thai Patients by
 Immuno-alkaline Phosphatase (APAAP) Staining

Name Chaleow Salakij

Degree Master of Science (Clinical Pathology)

Thesis Supervisory Committee

Suntaree Apibal, M.Sc.
 Vichai Atichartakarn, M.D.
 Prawat Nitivanant, M.D.

Date of Graduation 22 May B.E. 2533 (1990)

ABSTRACT

Using APAAP immunocytochemical technique with a panel of eight monoclonal antibodies; HLA-DR, CD19, CALLA, IgM, CD7, CD3, CD4 and CD8; to stain peripheral blood and/or bone marrow smears from 30 Thai children with newly diagnosed acute lymphoblastic leukemia and three patients with leukemic phase of lymphoma revealed followings. 67 percent of ALL cases (20/30) were common ALL (HLA-DR⁺, CD19⁺, CALLA⁺, IgM⁻, CD7⁻). 17 percent (5/30) were null ALL (HLA-DR⁺, CD19⁺, CALLA⁻). 3 percent (1/30) were pre-B ALL (HLA-DR⁺, CD19⁺, CALLA⁺, IgM⁺ cytoplasmic). 3 percent (1/30) were B-ALL (HLA-DR⁺, CD19⁺, CALLA⁺, IgM⁺ surface membrane). 3 percent (1/30) were T-ALL common thymocyte (HLA-DR⁻, CD7⁺, CD3⁺, CD4⁺, CD8⁺). 7 percent were T-ALL mature thymocyte (HLA-DR⁻, CD7⁺, CD3⁺, CD4⁺, CD8⁻). Three cases of leukemic phase of lymphoma were classified as null cell type in 2 cases and common cell type in 1 case. Some subtypes of ALL; null ALL, common ALL, T-ALL both common and mature thymocytes; correlated well with known cytochemistry; β -glucuronidase, alpha-naphthyl acetate esterase and acid phosphatase.