## Hematology, Endocrinology and Metabolism

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Our department, consisting of many faculties and staff, deals with hematological diseases such as leukemia and malignant lymphoma as well as metabolic/endocrine diseases such as diabetes and atherosclerosis. Currently, many research groups are working together in various aspects of these areas from basic/clinical to public health research. In particular, the analysis of medical big data to establish scientific and clinical evidences is our specialty. Various medical databases, such as health insurance claims and health check-up examinations, are analyzed with advanced techniques that can help to identify or assess risk for health which can be utilized for prediction and prevention. We have been publishing tremendous amount of papers and many of them are adopted by important clinical guidelines.

Ongoing research projects:

- 1. Big medical data analytics including artificial intelligence and clinical epidemiology
- 2. Pathophysiology of lymphoid hematopoietic tumors
- 3. Development of new treatments for leukemia (from chemotherapy to hematopoietic cell transplantation)
- 4. Role of extracellular matrix (ECM) in hematopoiesis and diabetic complications
- 5. Mechanisms of chronic inflammation through SOCS family in hematological and metabolic disorders.
- 6. Functional foods to prevent chronic diseases

For collaborations:

- Large health checkup database including lifestyles such as dietary, exercise of representative Japanese people with and without non-communicable diseases for comparison with other ethnic groups
- Government-funded graduate students (three- or four-year course for Ph.D. degree) from abroad can be accepted.

Additional info: <u>https://www.med.niigata-u.ac.jp/emh/index.html</u>