

加齢医学研究所・東北大学グローバルCOEプログラム

「Network Medicine創生拠点」共催セミナー

Joint Seminar Presented by IDAC and The Tohoku University Global
COE Program for Network Medicine

Regulation of myelopoiesis by the cytokine receptor CD137

Dr. Herbert Schwarz

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日時；平成20年9月30日（火）17:30-18:30

場所；加齢医学研究所プロジェクト総合研究棟1Fセミナー室

CD137 is a member of the TNF receptor family, and a T cell costimulatory molecule. Stimulation of CD137 enhances T cell activity leading to eradication of tumors in mice, and agonistic anti-CD137 antibodies are being developed for cancer immunotherapy. CD137 ligand is expressed as a transmembrane protein on the surface of antigen presenting cells (APC) and APC use the CD137 ligand to costimulate T cell activity.

A less well known aspect of the CD137 biology is that CD137 ligand also functions as a receptor, i.e. it too can transmit signals into the cells it is expressed on. Recently, we detected expression of CD137 ligand on a small subset of hematopoietic progenitor cells in the bone marrow, and expression of CD137 on certain bone marrow cells, implying a role for the CD137 receptor / ligand system in hematopoiesis. Indeed, we found that stimulation of CD137 ligand on human and murine hematopoietic progenitor cells induces proliferation and differentiation towards myeloid cells, in particular monocytes and macrophages. Our current work focuses on the role of CD137 and its ligand in the generation and differentiation of granulocytes and dendritic cells.

聴講は自由ですので、皆様のご来聴をお待ちしております

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