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Education

Ph.D., Immunobiology, Iowa State University, USA. 1997.

B.S., Biology, FU JEN Catholic University, Taiwan, R.O.C. 1989.



The major direction in my research is developing the strategy for engraftment improving and GvHD preventing after solid organ and hematopoietic stem cell transplantation. The regulation on stroma-HSC niche and T-cell mediated immune regulation are major theoretic principles that used for approached. Therefore, two directory projects are going in my lab:

First part is screening optimum synthetic or natural compounds that can be used as immunosuppressive leading drugs on GvHD prevention. We have established both fetal and adult allogenic hematopoietic stem cell transplantation mice model, as well as, a GvHD mouse model

Second part is focused on HSC niche investigation: to understand the development of hematopoiesis and subsequently the formation of immune cell. We use mouse transplantation model, hematopoietic stem cell (HSC), and fetal mesenchymal stromal cell models to search for molecules that function in early events of hematopoietic development and later immune regulation. To this end, we established several stromal or mesenchymal stem cell lines from fetal and adult tissues, such as amniotic fluid, amniotic membrane, placenta, bone marrow.

For this purpose, we currently devote on several projects Identification of molecules that regulate mesoderm induction and differentiation.

Selected publication

1. In utero transplantation of human bone marrow-derived multipotent mesenchymal stem cells in mice, Journal of Orthopaedic Research, Jan 2006; 24(3): p301-312.
2. A New Synthetic Compound, 2-OH, Enhances Interleukin-2 and Interferon- γ Gene Expression in Human Peripheral Blood Mononuclear Cells. Molecules 2009, July 2, 14, 2345-2355
3. Protection of bone marrow-derived CD45+/CD34-/lin-stroma cells with immunosuppressant activity against ischemia/Reperfusion injury in rats. The Chinese Journal of Physiology 54(3): 169-182, 2011.
4. Cardiac Injury Protection from Mouse Bone Marrow Stromal Cells with In Utero Transplantation Followed by Secondary Postnatal Boost. Chinese Journal of Physiology, 54(4): 205-218, 2011.
5. A knock-in Npm1 mutation in mice results in myeloproliferation and implies a perturbation in hematopoietic microenvironment. PLoS ONE 2012 Nov. 30; 7(11): e49769.
6. Mesenchymal Stem Cell Insights: Prospects in Hematologic Transplantation. Cell Transplantation 2013; 22(4):711-21.

Financial support for Ph.D. students

[Stipend]

- 1.National Science Council (NSC) Scholarship for Ph.D : up to NT 12,000/mo
- 2.Ministry of Education Teaching Excellent Project for Ph.D: up to NT 12,000/mo (Teaching assistant, optional)
- 3.Fu Jen Catholic University International PhD student Scholarship: NT 10,000/mo

[Tuition]

- 1.The 1st and 2nd year tuition is waived (around NT 220.000).
- 2.The tuition will be free after the 3rd year of Ph.D program