



Summer School 2012

Program



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筑波大学
University of Tsukuba

July 23, 2012

Dear students,

Welcome to the Summer School 2012 in Tsukuba. This is our third summer school to be held in Tsukuba, which lasts from July 23 to August 3. The Summer School is part of our efforts to globalize the University of Tsukuba and aims to let students from other countries learn about our researches, to facilitate communication between students from different countries and to promote our global presence. This year, we have 13 students from Vietnam, 12 students from Taiwan and 3 students from Tsukuba. They will participate in research in one or two labs within the campus of the Medical Faculty and present their results on the final day. In addition to laboratory work, the students attend research and presentation lectures. Thus this two-week Summer School is an intensive course.

The Summer School, however, is not all about work. Indeed, we plan to have welcome and farewell parties on the first and last days of the Summer School, which facilitate communication between participating students and the faculty. There will also be a weekend tour around Tokyo to provide the students with opportunities to learn more about Japan. In short, the students are expected to work hard and play hard to get the most out of the course in the coming two weeks. I sincerely hope that the Summer School becomes an unforgettable experience for all the participants.



Sincerely,

A handwritten signature in black ink that reads "Koji Hisatake".

Koji Hisatake
Organizer of Summer School

Professor of the Graduate School of Comprehensive Human Sciences
University of Tsukuba


Summer School 7/22~7/28 Schedule

	7/22(SUN)	7/23(MON)	7/24(TUE)	7/25(WED)	7/26(THU)	7/27(FRI)	7/28(SAT)
		7/22 23:50 HCMC 7:35 NARITA(JL 750)					
9:00	19:30 Taiwanese students arrive at Haneda (JAL 032) 20:45-22:15 Bus from Haneda to Tsukuba Center 22:30-23:00 Taiwanese students check-in	Take Taiwanese students to Master Bldg 2F(204) >Virus check > Lab rotation	9:00-10:00 Lecture by (Dr.Shibuya) Master Bldg 2F(204)	Lab rotation	Lab rotation	9:00-10:00 Lecture (Dr. Fukuda) Master Bldg 2F(204)	Trip to Kamakura (Time to be announced)
10:00		Vietnam >10:40 Tsukuba center >Take students to Master Bldg 2F(204) >Virus check > Lab rotation	Lab rotation			Lab rotation	
11:00							
12:00		Lunch (Igaku Syokudo)					
13:00							
14:00		13:00~14:30 Orientation for all students 4A203					
15:00							
16:00		16:00~ Vietnamese check in (TA from each lab)					
17:00		17:00-18:15 Lecture by Dr. Chien -Kou Lee 4A203					
18:00		18:30~ Welcome Party Master Bldg 2F(204)					
19:00							
20:00							
21:00							

Summer School 7/29~8/4 Schedule

	7/29(SUN)	7/30(MON)	7/31(TUE)	8/1(WED)	8/2(THU)	8/3(FRI)	8/4(SAT)
9:00			9:00-10:00 Lecture (Brian Purdue) Master Bldg 2F(204)	9:00-10:00 Lecture (Brian Purdue) Master Bldg 2F(204)		8:30-10:20 Presentation section 1 (6 min +2 min/person) Innovation center 8F	6:00 Hue student leaves Tsukuba center for Narita
10:00							10:00 Check out
11:00						10:20-10:30 Tea break	17:50 HCMC students leave for Narita JL 759
12:00						10:30-12:20 Presentation section 2 (6 min +2 min/person) Innovation center 8F	18:25 Taiwanese students leave Haneda KE717
13:00						12:30-13:30 Lunch and Lecture by Dr. Shi-Chuen Miaw	
14:00	Free	Lab rotation	Lab rotation	Lab rotation	Lab rotation	13:40-15:30 Presentation 3 (6 min +2 min/person) Innovation center 8F	
15:00						15:30 Commencement ceremony and Closing	
16:00						16:00~ Award Giving & Farewell Party (BBQ Party)	
17:00							
18:00							
19:00							
20:00							
21:00							

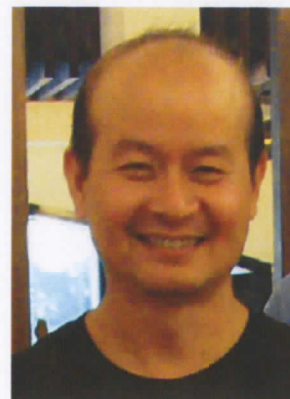
Lab Rotation

 : Lab rotation

[illegible]

Chien-Kuo LEE PhD

Graduate Institute of Immunology Phone : 886-2-2395-5913
National Taiwan University Fax : 886-2-2321-7921
No. 1, Jen Ai Road, Section 1 e-mail : leeck@
ntu.edu.tw
Rm 513, Taipei 100, Taiwan



EXPERIENCE

1993-1998	PhD	Dept. Pathology, NYU School of Medicine, USA
1998-1999	PDF	Dept. Pathology, NYU School of Medicine, USA
1999-2000	PDF	National Institute for Medical Research, UK
2000-2002	PDF	Dept. Pathology, NYU School of Medicine, USA
2002-2009	Assist. Prof.	Grad. Inst. Immunol. National Taiwan University, Taiwan
2009-	Assoc. Prof.	Grad. Inst. Immunol. National Taiwan University, Taiwan

RESEARCH INTERESTS

We have been interested in elucidating the biological roles of STATs, especially STAT1, STAT2 and STAT3, in the immune system. We have focused on the role of STAT3 in hematopoiesis, including granulopoiesis and B lymphopoiesis. We have demonstrated a negative role of STAT3 for granulocyte development (Immunity 2002) and a positive role for early step of B cell development (Blood 2006). Other than hematopoiesis, we also investigate the role of STAT3 in type I IFN response. We showed that, in contrast to STAT1 and STAT2, two positive regulators, STAT3 negatively regulates type I IFN response independent of its transcriptional activity (J. Immunol. 2011). Recently, we have identified a STAT2 hypomorphic mutant mouse from screening of the ENU-mutagenized mice. Like STAT2KO mice, the STAT2 mutant mice also displayed impaired IFN α -mediated antiviral response. Interestingly, STAT2 mutant mice also show defective DC development and differentiation (J. Biomed. Sci. 2009). Interestingly, STAT2 controls the expression of Flt3 receptor on DC precursors, including CLPs (common lymphoid progenitor) and dictates the fate determination of pDC and cDC in a manner dependent on type I IFNs and partially independent of STAT1 (manuscript in submission). Other than STAT2 and STAT3, we are also interested in unveiling the role of STAT1 in immune response. We have shown that STAT1 affects lymphocyte survival and proliferation (J. Immunol. 2000a) and modulates NK activity partially independent of type I IFNs (J. Immunol. 2000b). More recently, we have shown that type I IFN has pro- and anti-proliferative effect on lymphocytes. The mitogenic effect of type I IFN is only revealed in the absence of STAT1 or STAT2, suggesting that the ultimate outcome of IFN action results from a balance between growth-inhibitory and stimulatory effects (Mol. Cell. Biol. 2005). In addition to a role of STAT1 in innate immunity, we also found that STAT1 regulates antibody responses in B cells in response to T-dependent antigens in vitro and in vivo. Interestingly, production of IgM by MZB (marginal zone B), and not FOB (follicular B), is impaired in the absence of STAT1. Impaired TLR response in MZB may account for the defect in STAT1KO mice and cells (manuscript in preparation).

EDITORIAL BOARD

ISRN Molecular Biology 2011

SELECTED PUBLICATIONS

1. Wei-Bei Wang, David E. Levy and Chien-Kuo Lee 2011 STAT3 negatively regulates type I IFN-mediated antiviral response. *J. Immunology* 187:2578-2585
2. Wesoly J, Sikorski K, Lee CK, Bluysen HA. 2010 Suppressor of cytokine signaling and accelerated atherosclerosis in kidney disease. *Acta Biochim Pol.* 57:251-60
3. Lan-Sun Chen, Pei-Chi Wei, Taming Liu, Chung-Hsuan Kao, Li-Mei Pai, Chien-Kuo Lee 2009 STAT2 hypomorphic mutant mice display impaired dendritic cell development and antiviral response. *J Biomed. Sci.* 16:22.
4. Hsiao-Tang Hu, Yi-Hsien Huang, Yi-Ann Chang, Chien-Kuo Lee, Meei-Jyh Jiang, and Li-Wha Wu 2008 Tie2-R849W mutant in venous malformations chronically activates a functional STAT1 to modulate gene expression *J. Invest. Dermatology* 128:2325-2333
5. Chen ST, Lin YL, Huang MT, Wu MF, Cheng SC, Lei HY, Lee CK, Chiou TW, Wong CH, Hsieh SL 2008 CLEC5A is critical for dengue-virus-induced lethal disease. *Nature* 453:672-676
6. Wei-Chun Chou, David E. Levy and Chien-kuo Lee 2006 STAT3 positively regulates an early step in B development. *Blood* 108:3005-3011
7. Ramon Gimeno, Chien-kuo Lee, Christian Schindler, and David E. Levy 2005 Stat1 and Stat2 but not Stat3 arbitrate contradictory growth signals elicited by IFN α in T Lymphocytes. *Mol. Cell. Biol.* 25:5456-5465
8. Arun Prakash, Eric Smith, Chien-kuo Lee, and David E. Levy 2005 Tissue-specific positive feedback requirements for production of type I interferon following virus infection. *J. Biol. Chem.* 280:18651-18657
9. Chien-kuo Lee, Regina Raz, Ramon Gimeno, Rachel Gertner, Birte Wistinghausen, Kenichi Takeshita, Ronald A. DePinho, and David E. Levy 2002 STAT3 is a negative regulator of granulopoiesis but is not required for G-CSF-dependent differentiation. *Immunity* 17:63-72.
10. David E. Levy and Chien-kuo Lee 2002 What does Stat3 do? *J. Clin. Invest.* 109:1143-1148.
11. Chien-kuo Lee, Eric Smith, Ramon Gimeno, Rachel Gertner, and David E. Levy 2000a STAT1 affects lymphocyte survival and proliferation partially independent of its role downstream of IFN. *J. Immunol.* 164:1286-1292.
12. Chien-kuo Lee, Dharma T. Rao, Alan B. Frey, and David E. Levy 2000b Distinct requirements for IFNs and STAT1 in NK cell function. *J Immunol.* 165:3571-3577.

Dr. Shi-Chuen Miaw
Associate Professor
Graduate Institute of Immunology,
College of Medicine, National Taiwan University, Taiwan
Phone: 886-2-2356-2931
E-mail:smiaw@ntu.edu.tw



Experience:

1991-1998	Ph.D. University of Maryland Baltimore County (UMBC), USA
1998-2003	Postdoctoral Fellow, Harvard School of Public Health, USA
2003-2011	Assistant Professor, National Taiwan University
2011-	Associate Professor, National Taiwan University

Research Interests:

The research interests in my laboratory are (i) molecular and cellular regulation in T helper cell differentiation and (ii) expression of IL-4, IL-10 and IL-21 cytokine genes by post-translational modified c-Maf.

Selected Publications:

1. **Miaw, S.-C.**, B.Y. Kang, I.A. White and I.-C. Ho. 2004. A repressor of GATA-mediated negative feedback mechanism of T cell activation. *J. Immunol.* 172:170-177.
2. Kang, B.Y.[#], **S.-C. Miaw[#]**, and I.-C. Ho. 2005. ROG negatively regulates T-cell activation but is dispensable for Th-cell differentiation. *Mol. Cell. Biol.* 25:554-562. ([#]: Co-first authors)
3. Grenningloh R., **S.-C. Miaw**, J. Moisan, B. J. Graves and I.-C. Ho. 2008. Role of Ets-phosphorylation in the effector function of Th1 cells. *Eur. J. Immunol.* 38: 1700-1705.
4. Wang, L.-F., H.-C. Chiu, C.-J. Hsu, C.-Y. Liu, Y.-H. Hsueh, and **S.-C. Miaw**. 2009. Epicutaneous sensitization with a protein antigen induces Th17 cells. *J. Dermatol. Sci.* 54: 192-197.
5. Pot, C., H. Jin, A. Awasthi, S. M. Liu, C.-Y. Lai, R. Madan, A. H. Sharpe, C. L. Karp, **S.-C. Miaw**, I.-C. Ho and V. K. Kuchroo. 2009. Cutting Edge: IL-27 induces the transcription factor c-Maf, cytokine IL-21, and the costimulatory receptor ICOS that coordinately act together to promote differentiation of IL-10-producing Tr1 cells. *J.*

Immunol. 183: 797-801.

6. Lin, B.-S., P.-Y. Tsai, W.-Y. Hsieh, H.-W. Tsao, M.-W. Liu, R. Grenningloh, L.-F. Wang, I.-C. Ho, and **S.-C. Miaw**. 2010. SUMOylation attenuates c-Maf-dependent IL-4 expression. *Eur. J. Immunol.* 40: 1174-1184.

7. **Miaw, S.-C.**, J.-S. Chen, P.-C. Hsieh, C.-Y. Liu, M.-H. Chung, P. C. Chen, M.-L. Chang, F.-L. Chen, J. T. Kung, and L.-F. Wang. 2010. CD44-deficient mice do not exhibit impairment of epidermal Langerhans cell migration to lymph nodes after epicutaneous sensitization with protein. *J. Invest. Dermatol.* 130: 2674-2677.

8. Lin, J.-Y., J.-S. Chen, C.-J. Hsu, **S.-C. Miaw**, C.-Y. Liu, S.-J. Lee, P.-C. Chen and L.-F. Wang. 2012. Epicutaneous Sensitization with Protein Antigen Induces Th9 Cells. *J. Invest. Dermatol.* 132: 739-741.

9. Chang, H.-H., T.-S. Tai, B. Lu, C. Iannaccone, M. Cernadas, M. Weinblatt, N. Shadick, **S.-C. Miaw** and I.-C. Ho. 2012. PTPN22.6, a Dominant Negative Isoform of PTPN22 and Potential Biomarker of Rheumatoid Arthritis. *PLoS One* 7(3): e33067.

10. Chen-Yen Lai, Shin-Ying Lin, Chia-Kai Wu, Li-Tzu Yeh, Huey-Kang Sytwu and **S.-C. Miaw*** 2012. Tyrosine phosphorylation of c-Maf enhances the expression of IL-4 gene. *J. Immunol.* published online 13 July 2012

Presentation Component of the Summer School

taught by Brian Purdue, brian@md.tsukuba.ac.jp

Associate Professor in the Graduate School of Comprehensive Human Sciences

Presentations in English are an important and exciting part of international science, so in our summer school the final day is a simulation of a conference in which you will give a presentation that will be judged and hopefully awarded a prize. A native speaker professor specialized in teaching scientific presentations in English will personally coach you over three days to prepare you for your star performance on the fourth day and so that you can take home improved presentation and English skills.



Presentation component schedule

7/31 Tue 9 ~ 10 am Master Building
2F 204

lecture: How to give a good
presentation 1 - preparing your
presentation

coaching - I will be available all day till
5:30 to coach you one on one
in MECC (Medical English
Communications Center) Gakkei Tou
472, tel 5797

8/1 Wed 9 ~ 10 am Master Building 2F
204

lecture: How to give a good presentation
2 - giving your presentation

coaching I will be available all day till
5:30 to coach you one on one in MECC

8/2 Thu Innovation Building 8F
rehearsal and final coaching - during
the day you must come once
individually to the conference venue, for
about 15 minutes between 10:10 am ~ 6
pm to do a rehearsal of your
presentation in front of me and get
some final private coaching

8/3 Fri Innovation Building 8F
conference - you will give your 6-
minutes-plus-2 minutes- for discussion
presentation in front of everybody
including the judges

Advice

From the beginning consider what pictures you will need to make good slides and check a dictionary for the pronunciation and usage of words that will be important in your presentation.

Tuning in to another person's accent takes time, but the more you talk with each other and listen to each other the easier it gets. So, be patient and listen; and don't be shy, talk.

Let's communicate well with each other! brian@md.tsukuba.ac.jp

What do you mean? What do you mean by "... "?

What does ... mean? = What is the meaning of ...?

What does AZ stand for? = What does the abbreviation AZ stand for?

What do you think? What do you think about? Not, How do you think? !

Does X affect Y? X affects Y = Does X have an effect on Y? X has an effect on Y

"Influence" and "impact" can be used in the same constructions.

What causes B? A causes B. = What is the cause of B? A is the cause of B.

What is the reason for B? A is the reason for B.

What causes the change in B? A causes the change in B.

Could you repeat that, please?

Could you say that more slowly, please?

Could you say that a different way? Could you say that in different words?

What is the difference between X and Y?

How long does it take? = How much time does it take? It takes 20 minutes.

≠ How many times should we do it? You should do it 5 times.

How much longer will it take? = How much more time will it take?

≠ How many more times should we do it?

Is this the same as that?

How much bigger than X is Y?

Pronunciation: "genes" and "jeans" sound the same. "Genome" sounds like "jean-ome". "Protein" sounds like "pro-teen".

My friend,

"Would you like something?" is the commonest **offer**.

e.g. Would you like a drink?

"Would you like to do something?" is the commonest **invitation**.

e.g. Would you like to go to the cafeteria?

Orientation Program

Summer School 2012

University of Tsukuba
1:00 PM (Room 4A203)
Monday, July 23, 2012

13 : 00~	Opening and Welcome Remarks	Dr. Koji Hisatake
13 : 05~	Greetings from Students	Kotaro. Mori
13 : 10~	Outline of program	Dr. Kiong Ho
13 : 20~	Introduction of Presentation lecture	Brian Purdue
13 : 35~	Regarding trip	Yuichi Kimura
13 : 40~	Administrative Paperwork	International Office staff

Welcome party Program

Summer School 2012

University of Tsukuba
6:30 PM (Master bldg 204)
Monday, July 23, 2012

18 : 30~	Welcome Remarks	Dr. Koji Hisatake
18 : 35~	Greetings from Taiwan	Dr. Chien -Kou Lee
18 : 40~	Greetings from Vietnam	Ms. Hoang Ngoc Nhung
18 : 45~	Toast	Dr. Osamu Ohneda
19 : 20~	Self Introduction	Every student
20 : 00~	Closing Remarks	Dr. Kiong Ho

Presentation Conference

University of Tsukuba
8:30 AM (Innovation center 8F)
Friday, August 3, 2012

8 : 30~	Opening remarks	Dr. Koji Hisatake
8 : 40~	Section 1	
10 : 20~	Coffee break	
10 : 30~	Section 2	
12 : 30~	Luncheon seminar	Dr. Shi-Chuen Miaw
13 : 40~	Section 3	
15 : 30~	Commencement ceremony	Dr. Kyosuke Nagata
15 : 50~	Closing remarks	Dr. Kiong Ho

* We have three awards for presentation and several awards for question.
When you do excellent presentation or discussion among all students,
you will receive the award.

* Our professors will evaluate your presentations.

Evaluation points:

- (1) Do you have a clear understanding of your experiment results?
- (2) Do you have a clear understanding of background of the experiment?
- (3) Do you sufficiently discuss the experiment result?
- (4) Can you adequately present the result?

Do your best!

Enjoy science so much together!!

Award Ceremony & BBQ Party

Summer School 2012

University of Tsukuba

4:00 PM

Friday, August 3, 2012

16 : 00~ Opening remarks

Dr. Kiong Ho

16 : 05~ General overview

Dr. Yasunori Kanaho

17 : 00~ Award ceremony

Dr. Koji Hisatake

18 : 30~ Closing remarks

Dr. Osamu Ohneda