第18屆亞澳畜產學大會心得分享

報告人：李秀蘭

Outline

Introduction

Program

Oral Presenter

Poster Presenter

Academic exchange

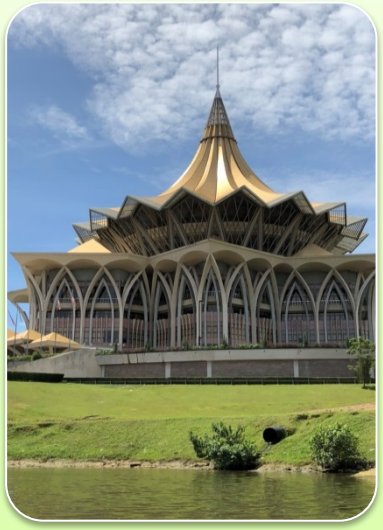
Conclusion

Introduction

Global Livestock Production in Challenging Environment

- Animal Physiology
- Animal Reproduction
- Animal Breeding
- Animal Health

- Forage Science
- Feed Technology
- Feed Technology Silage
- Non-Ruminant Nutrition
- Ruminant Nutrition



- Livestock Industry
- Crop-Livestock Integration
- Socioeconomics
- Swiftlet Symposium
- Aquaculture

- Biotechnology
- Environmental Issues
- Meat Science
- Dairy Science

Program

AAAP 2018 CONGRESS
GLOBAL LIVESTOCK PRODUCTION IN CHALLENGING ENVIRONMENT

31ST JULY 2018 (TUESDAY)	
1430 – 1830	**CONFERENCE REGISTRATION & SUBMISSION OF SPEAKERS' PRESENTATION** Riverside Majestic Hotel Astana Wing, Kuching

1ST AUGUST 2018 (WEDNESDAY) – DAY 1						
0730 – 0830	**CONFERENCE REGISTRATION & SUBMISSION OF SPEAKERS' PRESENTATION** Concourse, Borneo Convention Centre, Kuching					
0830 – 0845	**WELCOME SPEECH** *Organising Chairman of the AAAP 2018 Congress* Hall A					
0845 – 0945	**KN1**: Future Global Livestock Production in Challenging Environment *Quaza Nizamuddin, H. N.* Hall A					
0945 – 1045	**POSTER SESSION 1 & TEA BREAK** Rooms 12, 13 & 14					
1045 – 1145	**KN2**: The Digital Future: The Role of 'Big Data' for Agricultural Development in the Region *Thomson, P. C.* Hall A					
1145 – 1215	**PL1**: Buffalo Production in the Philippines amidst Climate Change *del Barrio, A. N.* Hall A					
1215 – 1330	**LUNCH** Hall B & C					
	Hall A	**Hall D**	**Room 2 & 3**	**Room 4 & 5**	**Room 8 & 9**	**Room 10 & 11**
	Non-Ruminant Nutrition	***Animal Physiology***	***Meat Science***	***Ruminant Nutrition***	***Animal Health***	***Socioeconomics***
1330 – 1345	**PL2**: Palm Kernel Expeller in Poultry Diets: Is it the Right Move? *Alimon, A. R.*	**PL3**: Challenges in Livestock Production: Moving on from the Five Freedoms *Sumita, S*	MS1	RN1	**PL4**: Immunological Approaches to Maximize Livestock Productivity *Yun, C-H.*	**PL5**: Development of Beef and Dairy Industries in Indonesia: Government's Initiative and Future Directions *Agus, A.*
1345 – 1400			MS2	RN2		
1400 – 1415	NRN1	AP1	MS3	RN3	AH1	SE1
1415 – 1430	NRN2	AP2	MS4	RN4	AH2	SE2
1430 – 1445	NRN3	AP3	MS5	RN5	AH3	SE3
1445 – 1500	NRN4	AP4	MS6	RN6	AH4	SE4
1500 – 1515	NRN5	AP5	MS7	RN7	AH5	SE5
1515 – 1530	NRN6	AP6	MS8	RN8	AH6	SE6
1530 – 1545	NRN7	AP7	MS9	RN9	AH7	SE7
1545 - 1600	NRN8	AP8	MS10	RN10	AH8	SE8
1600 – 1700	**POSTER SESSION 1 & TEA BREAK** Rooms 12, 13 & 14					
1700 – 1830	**PRE-DINNER NETWORKING SESSION** Concourse, Borneo Convention Centre, Kuching					
1900 – 2200	**CONGRESS OPENING CEREMONY & SARAWAK STATE HOSTED DINNER** Hall B & C					

2ND AUGUST 2018 (THURSDAY) – DAY 2						
0745 - 0845	**CONFERENCE REGISTRATION & SUBMISSION OF SPEAKERS' PRESENTATION** Concourse, Borneo Convention Centre, Kuching					
0845 – 0915	**PL6**: The Global Current Status in the Animal Reproduction and Biotechnology for Improving Livestock Production in the Near Future *Sato, E.* Hall A					
0915 – 0945	**PL7**: The Use and Misuse of Antibiotics in the Developing World *Wynn, P. C.* Hall A					
0945 – 1015	**PL8**: Sustainability of Bird Nest Resources and Production to Meet Global Demand *Babji, A. S.* Hall A					
1015 – 1115	**POSTER SESSION 2 & TEA BREAK** Rooms 12, 13 & 14					
	Hall A	**Hall D**	**Room 2 & 3**	**Room 4 & 5**	**Room 8 & 9**	**Room 10 & 11**
	Non-Ruminant Nutrition	***Biotechnology***	***Animal Reproduction***	***Ruminant Nutrition***	***Livestock Industry***	***Environmental Issues***
1115 – 1130	NRN9	BT1	AR1	RN11	**PL9**: Opportunities of Livestock Industry in Challenged Environment *Li, D.*	EI1
1130 – 1145	NRN10	BT2	AR2	RN12		EI2
1145 – 1200	NRN11	BT3	AR3	RN13	LI1	EI3
1200 – 1215	NRN12	BT4	AR4	RN14	LI2	EI4
1215 – 1230	NRN13	BT5	AR5	RN15	LI3	EI5
1230 – 1330	**LUNCH** Hall B & C					
	Hall A	**Hall D**	**Room 2 & 3**	**Room 4 & 5**	**Room 8 & 9**	**Room 10 & 11**
	Non-Ruminant Nutrition	***Biotechnology***	***Animal Reproduction***	***Forage Science***	***Swiftlet Symposium***	***Animal Breeding***
1330 – 1345	**PL10**: Future Applications of Insects as an Alternative Protein Source for Human and Livestock Nutrition *Henuk, Y. L.*	BT6	AR6	FS1	SSym1 SSym2 SSym3 SSym4 SSym5	AB1
1345 – 1400		BT7	AR7	FS2		AB2
1400 – 1415	NRN14	BT8	AR8	FS3		AB3
1415 – 1430	NRN15	BT9	AR9	FS4		AB4
1430 - 1445	NRN16	BT10	AR10	FS5		AB5
1445 – 1500	NRN17	BT11	AR11	FS6		AB6
1500 – 1515	NRN18	BT12	AR12	FS7		AB7
1515 – 1530	NRN19	BT13	AR13	FS8		AB8
1530 – 1630	**POSTER SESSION 2 & TEA BREAK** Rooms 12, 13 & 14					
FREE & EASY						

3RD AUGUST 2018 (FRIDAY) – DAY 3						
0730 – 0830	**CONFERENCE REGISTRATION & SUBMISSION OF SPEAKERS' PRESENTATION** Concourse, Borneo Convention Centre, Kuching					
0830 – 0900	**PL11**: Animal Welfare during Transport: Still A Major Problem! *Zulkifli, I.* Hall A					
0900 – 0930	**PL12**: Nutrients Affecting Feed Intake of Livestock *Kim, Y. Y.* Hall A					
0930 – 1000	**PL13**: New Concept: From Practical Monogastric Animal Management to Greenhouse Gas Production *Hsia, L. C.* Hall A					
1000 – 1100	**POSTER SESSION 3 & TEA BREAK** Rooms 12, 13 & 14					
	Hall A	**Hall D**	**Room 2 & 3**	**Room 4 & 5**	**Room 8 & 9**	**Room 10 & 11**
	Non-Ruminant Nutrition	***Ruminant Nutrition***	***Socioeconomics***	***Feed Technology***	***Crop-Livestock Integration***	***Aquaculture***
1100 – 1115	NRN20	RN16	**PL14**: Livestock and Poultry Production in Cambodia: Challenges and Opportunity Seng, M.	FT1	**PL15**: Livestock Integration in Oil Palm Plantation: Potential and Limitation *Daud, A.*	AQ1
1115 – 1130	NRN21	RN17		FT2		AQ2
1130 – 1145	NRN22	RN18	SE9	FT3	CLI1	AQ3
1145 – 1200	NRN23	RN19	SE10	FT4	CLI2	AQ4
1200 – 1330	**LUNCH & FRIDAY PRAYERS** Hall B & C					
	Hall A	**Hall D**	**Room 2 & 3**	**Room 4 & 5**	**Room 8 & 9**	**Room 10 & 11**
	Feed Technology-Silage	***Animal Physiology***	***Meat Science***	***Livestock Industry***	***Animal Health***	***Dairy Science***
1400 – 1415	FTS1	AP9	MS11	**PL16**: Interaction of Climatic Factors with Production and Reproduction of Livestock and Poultry in Bangladesh *Khan, M. K. I.*	AH9	DS1
1415 – 1430	FTS2	AP10	MS12		AH10	DS2
1430 – 1445	FTS3	AP11	MS13	LI4	AH11	DS3
1445 – 1500	FTS4	AP12	MS14	LI5	AH12	DS4
1500 – 1515	FTS5	AP13	MS15	LI6	AH13	DS5
1515 – 1530	FTS6	AP14	MS16	LI7	AH14	DS6
1530 – 1630	**POSTER SESSION 3 & TEA BREAK** Rooms 12, 13 & 14					
1630 – 1730	**CLOSING CEREMONY & AWARD PRESENTATION** Hall A					

Oral Presenter

Evaluation of Boar Semen Quality by WST-8 Assay

Summary

- The purpose of this study was to compare the results between WST-8 assay, flow cytometry (FC) and computer-assisted sperm analysis (CASA), in order to establish the protocol of WST-8 assay on boar semen.
- The results indicated that the most optimal boar semen concentration for WST-8 assay is **300×10^6 sperm/mL**.
- The WST-8 reduction rates are highly correlated to sperm viability, acrosome integrity, mitochondria activity and motility, and the correlation coefficients increased with the prolonging of incubation time.
- **WST-8 assay can be efficient and economical practice for the evaluation of boar semen quality.**

Moving Towards Agricultural 4.0 in Taiwan with Smart Technology of Top Five Robotic Applications in Dairy Cattle Farm

Summary

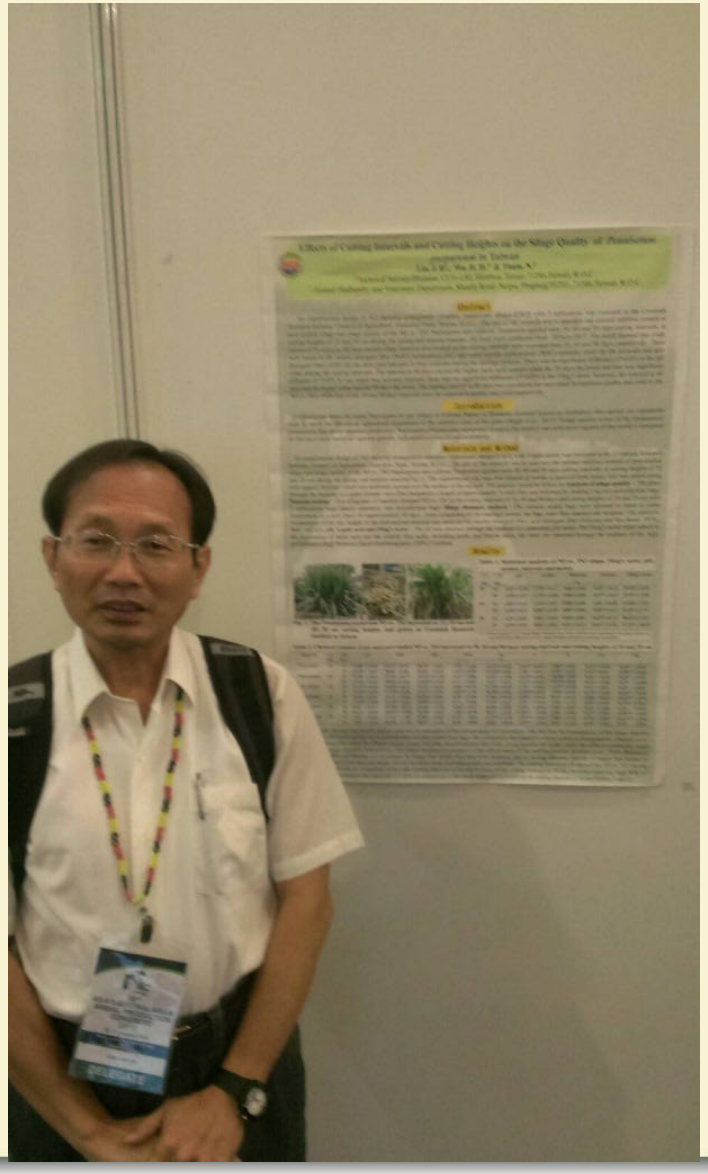
- Smart Agriculture 4.0 Program of Taiwan targets three major fields, namely agriculture biotechnology, quality agriculture, and precision agriculture; precision agriculture is divided into two major categories: establishing foundations and promoting excellence.

- Five working lines with robots in the dairy farm were designed to do smart farming as follows: (1) daily milking line, (2) daily feeding line for milking cows, (3) daily clean up the cow excrement and environmental clean line, (4) cycle management of cow calving and young calf feeding line, and (5) cycle monitoring of cattle health line for cows and heifers.

- The enhancement of automatic operations in dairy cow herds in assistance of the artificial technical components and the intelligent robots could be used to increase precision farming with replacement of aged-labors on the five daily work lines of dairy farming.

Poster Presenter

Effects of Cutting Intervals and Cutting Heights on the Silage Quality of *Pennisetum purpureum* in Taiwan

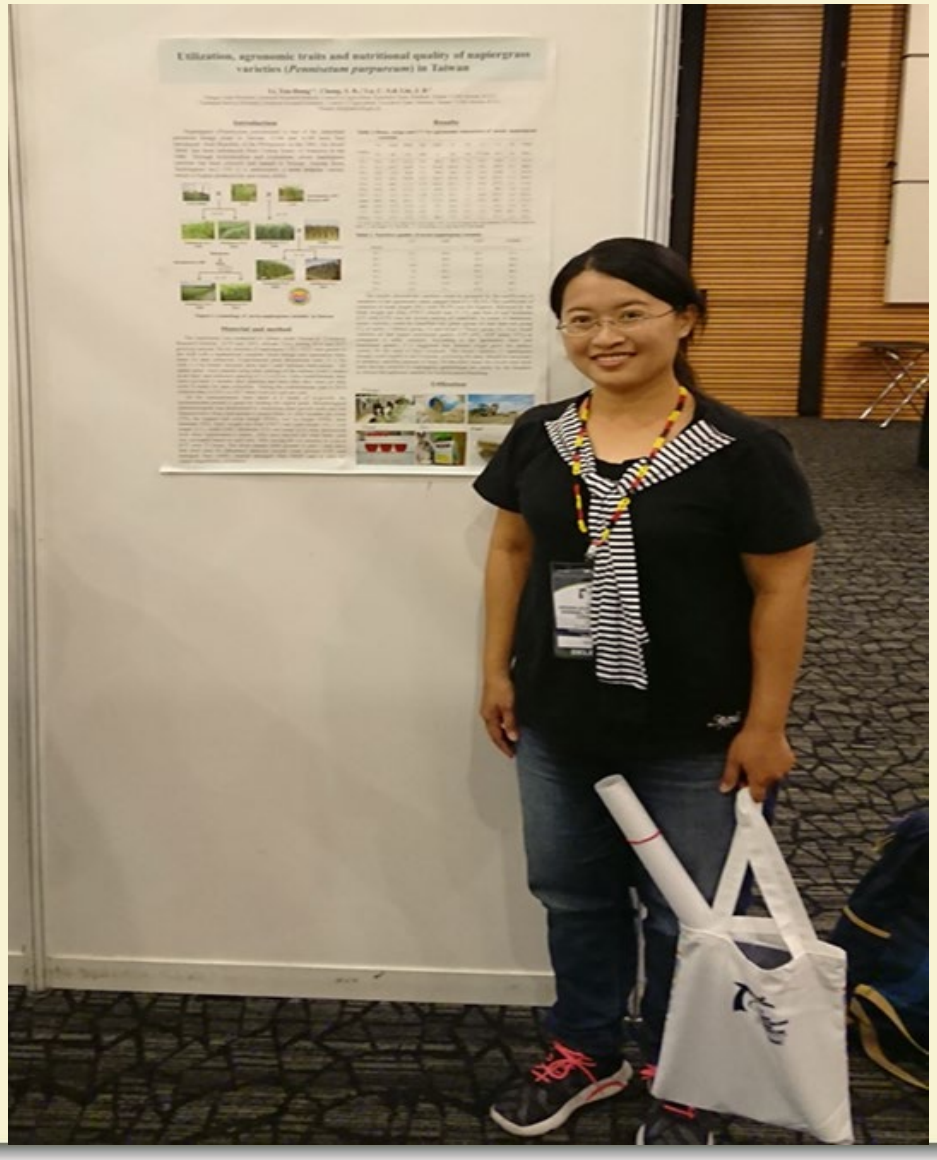


Summary

- Napiergrass (*Pennisetum purpureum*) found in the tropical and subtropical regions of the world is renowned for having a track record of vigorous growth, high nutritive contents and palatability.

- The **cutting interval at 60 days** was considered the most ideal for optimum quality and yield in the NP cv. TS3, while that of the 30 and 90 days intervals were far superior in quality and yield respectively.

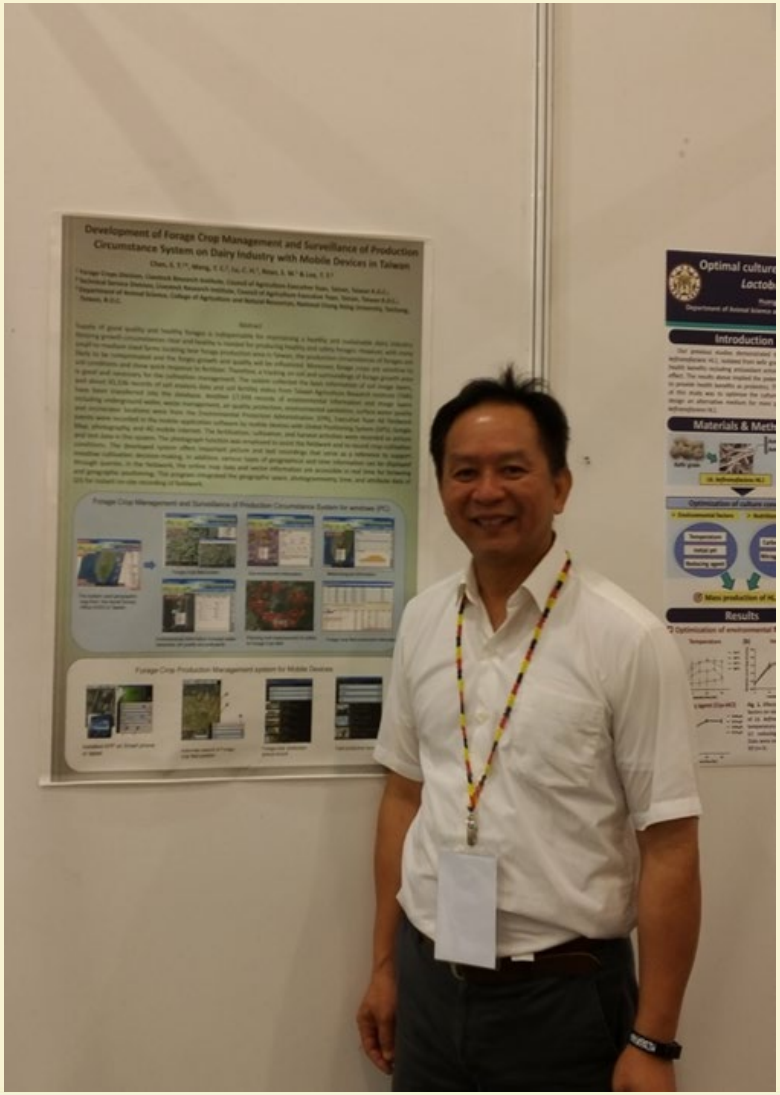
Utilization, Agronomic Traits and Nutritional Quality of Napier grass Varieties (*Pennisetum purpureum*) in Taiwan



Summary

- Napier grass (*Pennisetum spp*.) is one of the important perennial forage crops in Taiwan, and seven Napier grass varieties has been selected and named. Among them, **Taishiu no.2 (TS 2) is particularly a more popular variety, which is higher productivity and more utility.**
- The dwarf varieties of napier grass though could benefit to all livestock, extending the area should be necessary to produce satisfied amount of feed.
- The results that there were diverse sources in Napier grass germplasms are useful for the breeders to choose the optimum parents for hybridization breeding.

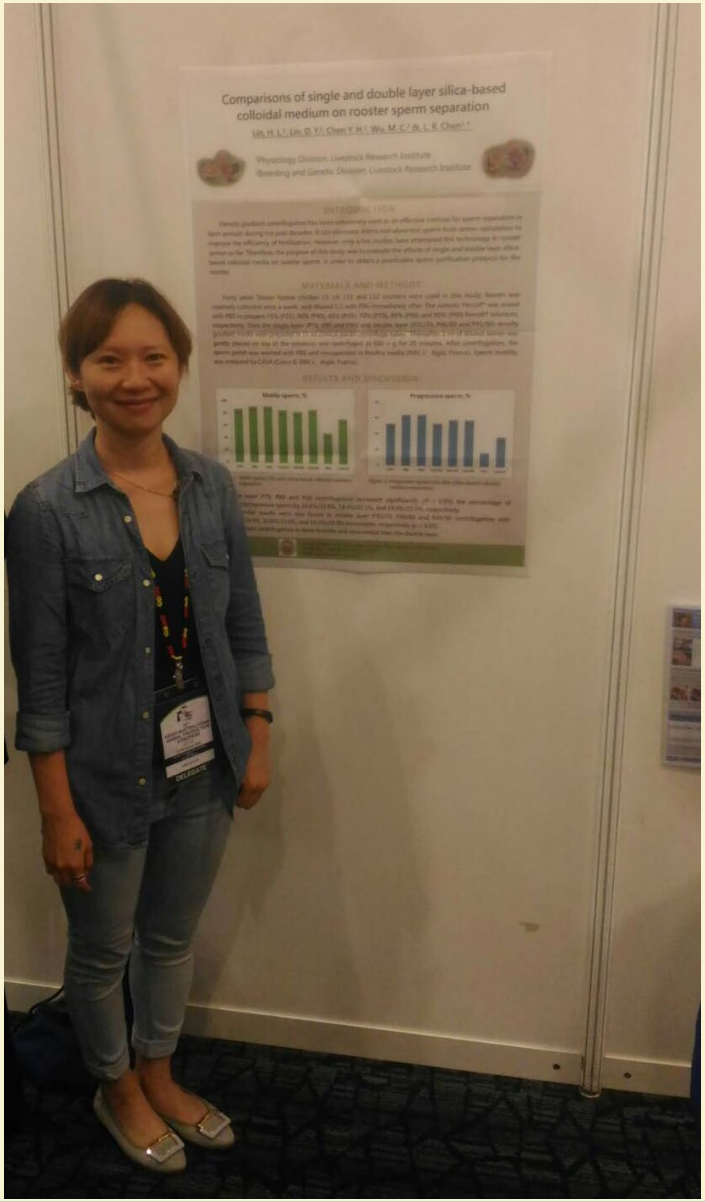
Development of Forage Crop Management and Surveillance of Production Circumstance System on Dairy Industry with Mobile Devices in Taiwan



Summary

- Forage crops are sensitive to soil conditions and show quick response to fertilizer. Therefore, a tracking on soil and surroundings of forage growth area is good and necessary for the cultivation management.
- The developed system offers important picture and text recordings that serve as a reference to support meadow cultivation decision-making.
- This program integrated the geographic space, photogrammetry, time, and attribute data of GIS for instant on-site recording of fieldwork.

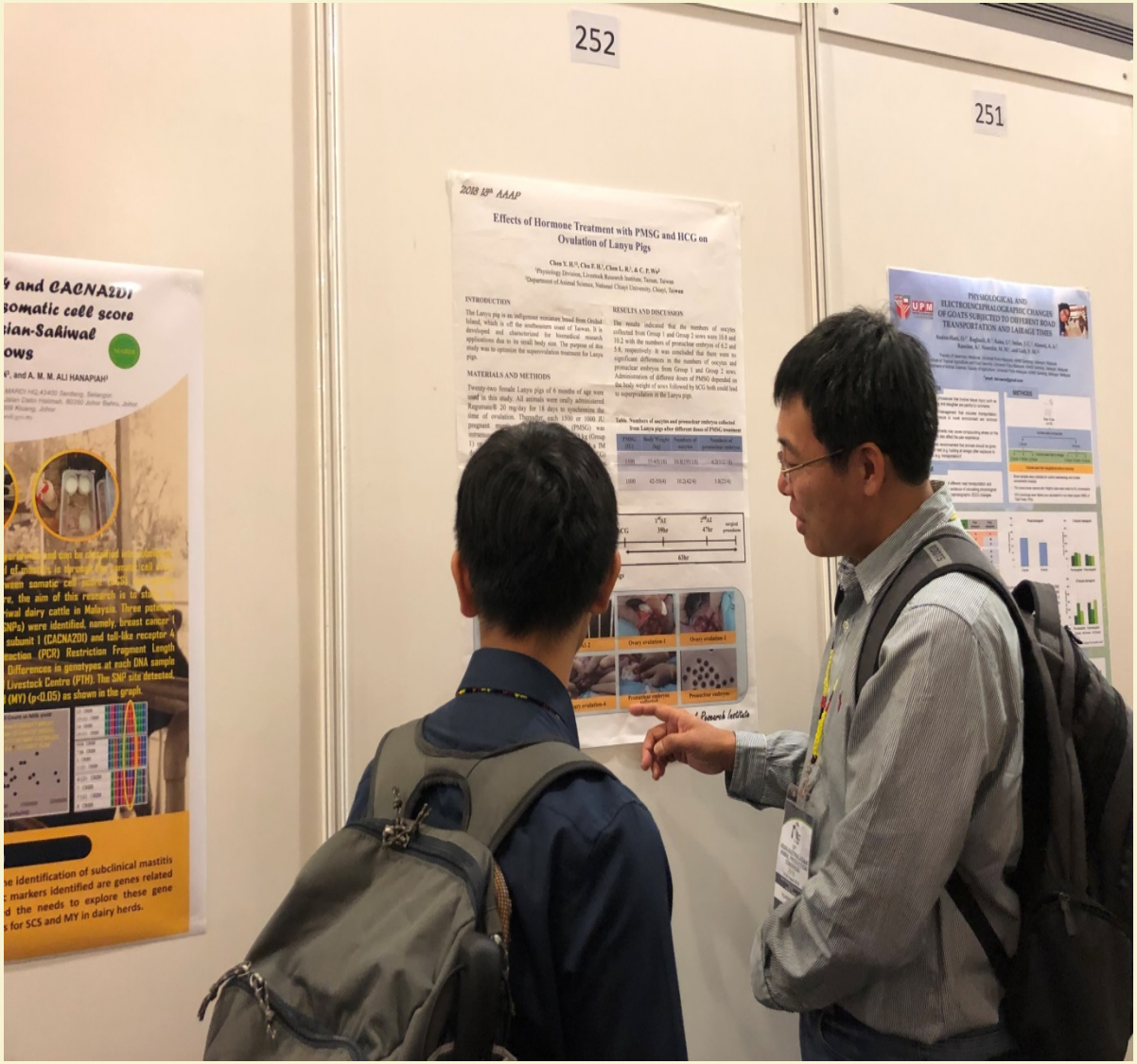
Comparisons of Single and Double Layer Silica-Based Colloidal Medium on Rooster Sperm Separation



Summary

- The purpose of this study was to evaluate the effects of single and double layer silica-based colloidal media on rooster sperm, in order to obtain a practicable sperm purification protocol for the rooster.
- Our results initially indicated that either single layer or double layer silica-based colloidal medium centrifugation could be a feasible procedure for rooster sperm separation.Additionally, **single layer centrifugation** is **more feasible and economical** than the double layer.

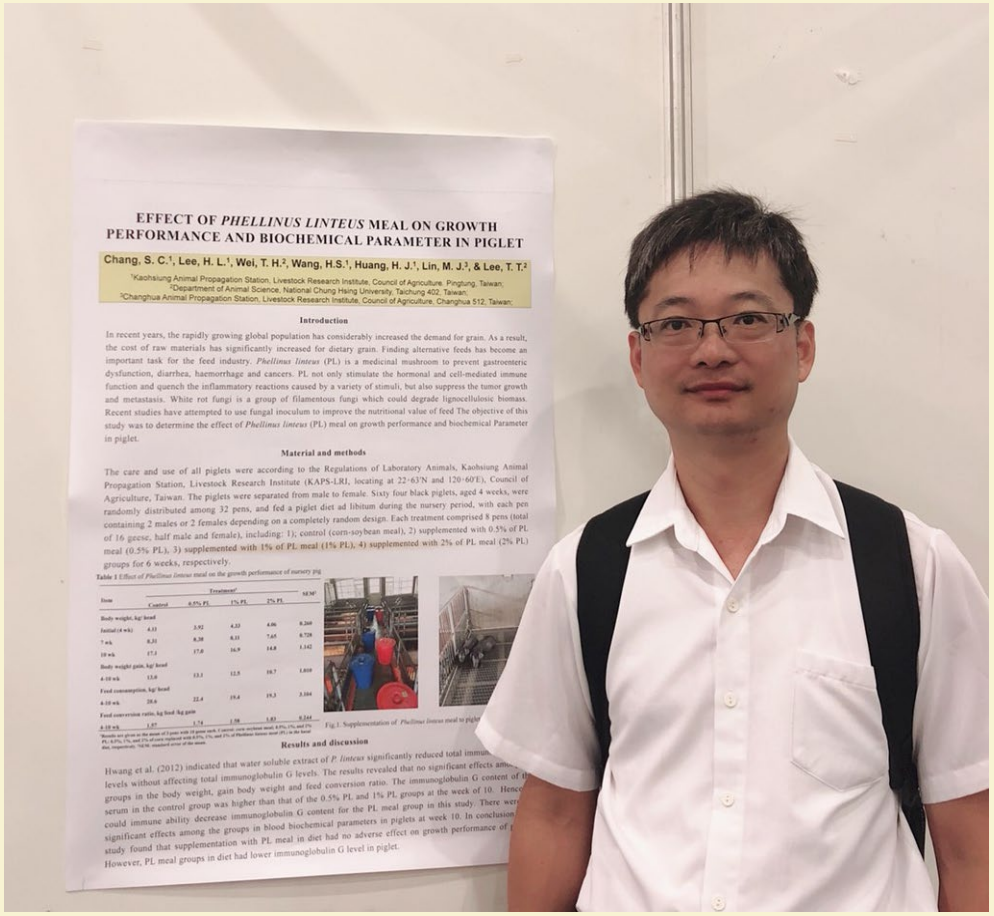
Effects of Hormone Treatment with PMSG and HCG on Ovulation of Lanyu Pigs



Summary

- The purpose of this study was to optimize the superovulation treatment for Lanyu pigs.
- Administration of different doses of **PMSG** depended on the **bodyweight** of sows followed by hCG both could lead to superovulation in the Lanyu pigs.

Effects of *Phellinus linteus* Meal on Growth Performance and Biochemical Parameter in Piglet



EFFECT OF *PHELLINUS LINTEUS* MEAL ON GROWTH PERFORMANCE AND BIOCHEMICAL PARAMETER IN PIGLET

Chang, S. C.[1], Lee, H. L.[1], Wei, T. H.[2], Wang, H.S.[1], Huang, H. J.[1], Lin, M. J.[3], & Lee, T. T.[2]

[1]Kaohsiung Animal Propagation Station, Livestock Research Institute, Council of Agriculture, Pingtung, Taiwan;
[2]Department of Animal Science, National Chung Hsing University, Taichung 402, Taiwan;
[3]Changhua Animal Propagation Station, Livestock Research Institute, Council of Agriculture, Changhua 512, Taiwan;

Introduction

In recent years, the rapidly growing global population has considerably increased the demand for grain. As a result, the cost of raw materials has significantly increased for dietary grain. Finding alternative feeds has become an important task for the feed industry. *Phellinus linteus* (PL) is a medicinal mushroom to prevent gastroenteric dysfunction, diarrhea, haemorrhage and cancers. PL not only stimulate the hormonal and cell-mediated immune function and quench the inflammatory reactions caused by a variety of stimuli, but also suppress the tumor growth and metastasis. White rot fungi is a group of filamentous fungi which could degrade lignocellulosic biomass. Recent studies have attempted to use fungal inoculum to improve the nutritional value of feed The objective of this study was to determine the effect of *Phellinus linteus* (PL) meal on growth performance and biochemical Parameter in piglet.

Material and methods

The care and use of all piglets were according to the Regulations of Laboratory Animals, Kaohsiung Animal Propagation Station, Livestock Research Institute (KAPS-LRI, locating at 22°63'N and 120°60'E), Council of Agriculture, Taiwan. The piglets were separated from male to female. Sixty four black piglets, aged 4 weeks, were randomly distributed among 32 pens, and fed a piglet diet ad libitum during the nursery period, with each pen containing 2 males or 2 females depending on a completely random design. Each treatment comprised 8 pens (total of 16 geese, half male and female), including: 1) control (corn-soybean meal), 2) supplemented with 0.5% of PL meal (0.5% PL), 3) supplemented with 1% of PL meal (1% PL), 4) supplemented with 2% of PL meal (2% PL) groups for 6 weeks, respectively.

Table 1 Effect of *Phellinus linteus* meal on the growth performance of nursery pig

Item	Treatment[1]				SEM[2]
	Control	0.5% PL	1% PL	2% PL	
Body weight, kg/ head					
Initial (4 wk)	4.33	3.92	4.33	4.06	0.260
7 wk	8.31	8.38	8.33	7.65	0.728
10 wk	17.3	17.0	16.9	14.8	1.142
Body weight gain, kg/ head					
4-10 wk	13.0	13.1	12.5	10.7	1.010
Feed consumption, kg/ head					
4-10 wk	20.6	22.4	19.4	19.3	3.104
Feed conversion ratio, kg feed /kg gain					
4-10 wk	1.57	1.74	1.58	1.83	0.244

[1]Results are given as the mean of 3 pens with 10 geese each. 2 control - corn soybean meal, 0.5%, 1%, and 2% PL; 0.5%, 1%, and 2% of pork replaced with 0.5%, 1%, and 2% of Phellinus linteus meal (PL), in the basal diet, respectively. [2]SEM: standard error of the mean.

Fig.1. Supplementation of *Phellinus linteus* meal to piglet

Results and discussion

Hwang et al. (2012) indicated that water soluble extract of *P. linteus* significantly reduced total immun... levels without affecting total immunoglobulin G levels. The results revealed that no significant effects am... groups in the body weight, gain body weight and feed conversion ratio. The immunoglobulin G content of t... serum in the control group was higher than that of the 0.5% PL and 1% PL groups at the week of 10. Hence... could immune ability decrease immunoglobulin G content for the PL meal group in this study. There wer... significant effects among the groups in blood biochemical parameters in piglets at week 10. In conclusion... study found that supplementation with PL meal in diet had no adverse effect on growth performance of ... However, PL meal groups in diet had lower immunoglobulin G level in piglet.

Summary

- The objective of this study was to determine the effect of *Phellinus linteus* (PL) meal on growth performance and biochemical parameter in piglets.
- This study found that supplementation with PL meal in diet had no adverse effect on growth performance of piglets. However, PL meal groups in diet had **lower** immunoglobulin G level in piglets.

Effects of Cytoplasmic Inheritance on Growth and Physiological Values of Meishan and Duroc Crossbred Pig in Taiwan

Summary

- Heat wave is a meteorological extreme event, which happened more frequent globally in recent years. Heat stress negatively influences farm animal productivity and health, and thus causes an increasing concern in tropical area.
- Our primary results of non-direct genetic factors, cytoplasm, showed the important effects of **Meishan cytoplasmic inheritance on growing and finishing periods of pigs under heat stress production system.**

Academic exchange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KEMENTERIAN PEMODENAN PERTANIAN,
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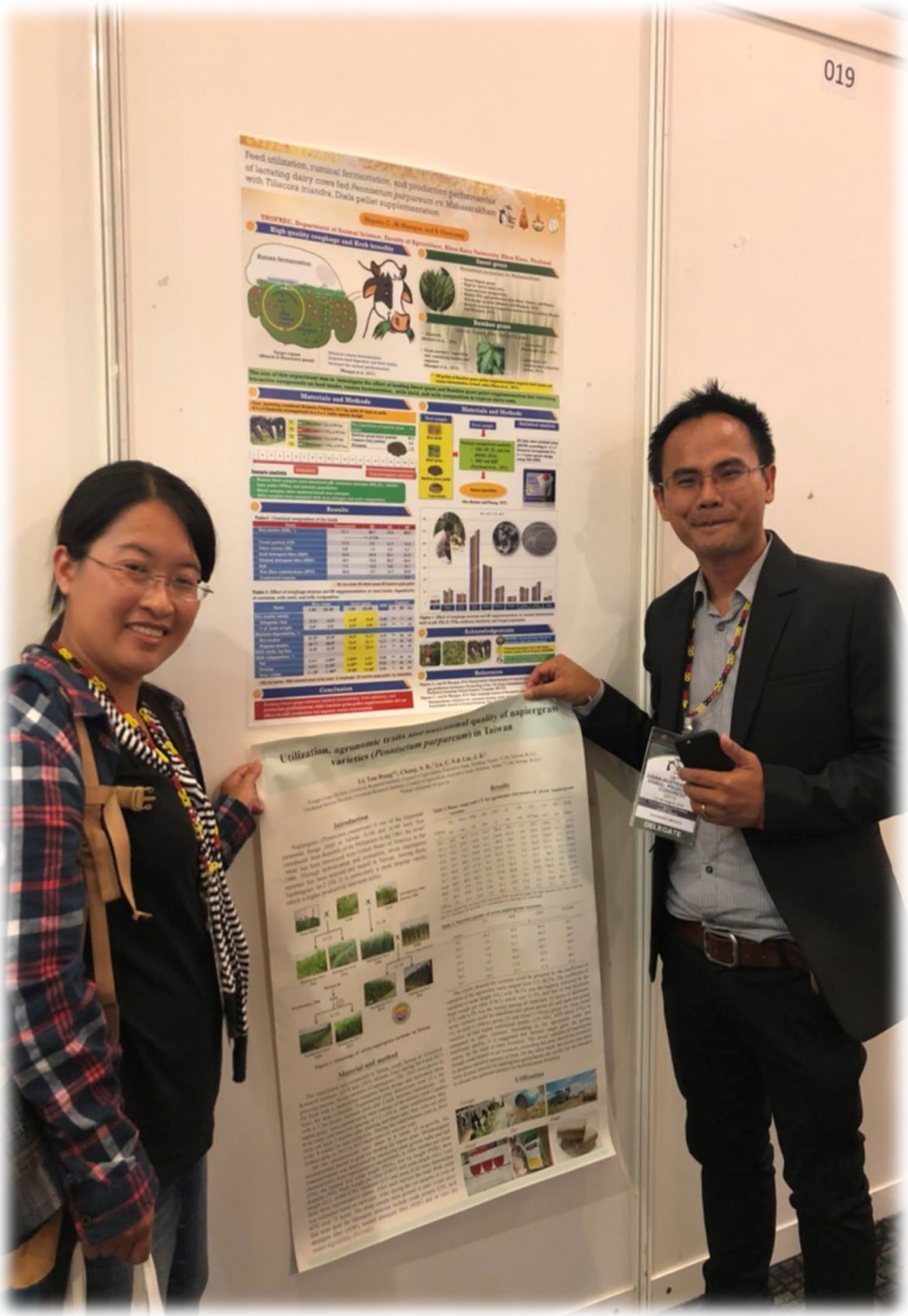
MINISTRY OF MODERNISATION OF AGRICULTURE, NATIVE LAND AND REGIONAL DEVELOPMENT SARAWAK (MANRED)
Transforming Sarawak Agricultural Sector & Rural Economy to be
THE NET EXPORTER OF FOOD BY 2030
KOPERASI SARANG BURUNG WALIT SARAWAK BERHAD
KOWALIT
Bird's Nest
Bird's Nest Cup Cake
Bird's Nest Fruit Jam


019
Feed utilization, ruminal fermentation, and production performance of lactating dairy cows fed Pennisetum purpureum cv. Mahasarakham with Tithonia tirandra, Diels pellet supplementation
Utilization, agronomic traits and nutritional quality of napiergrass varieties (Pennisetum purpureum) in Taiwan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Animal Science Journal


HYPER FERTIGATION ENTERPRISE
HFE AGRO
HOW SPICY IS THAT PEPPER?
HYEFIJ
Nikon D750


18th Asian-
Australasian Animal Production Congress
Global Livestock Production in Challenging Environment
01-05 August 2018
Borneo Convention Centre Kuching, Sarawak
Organized by:
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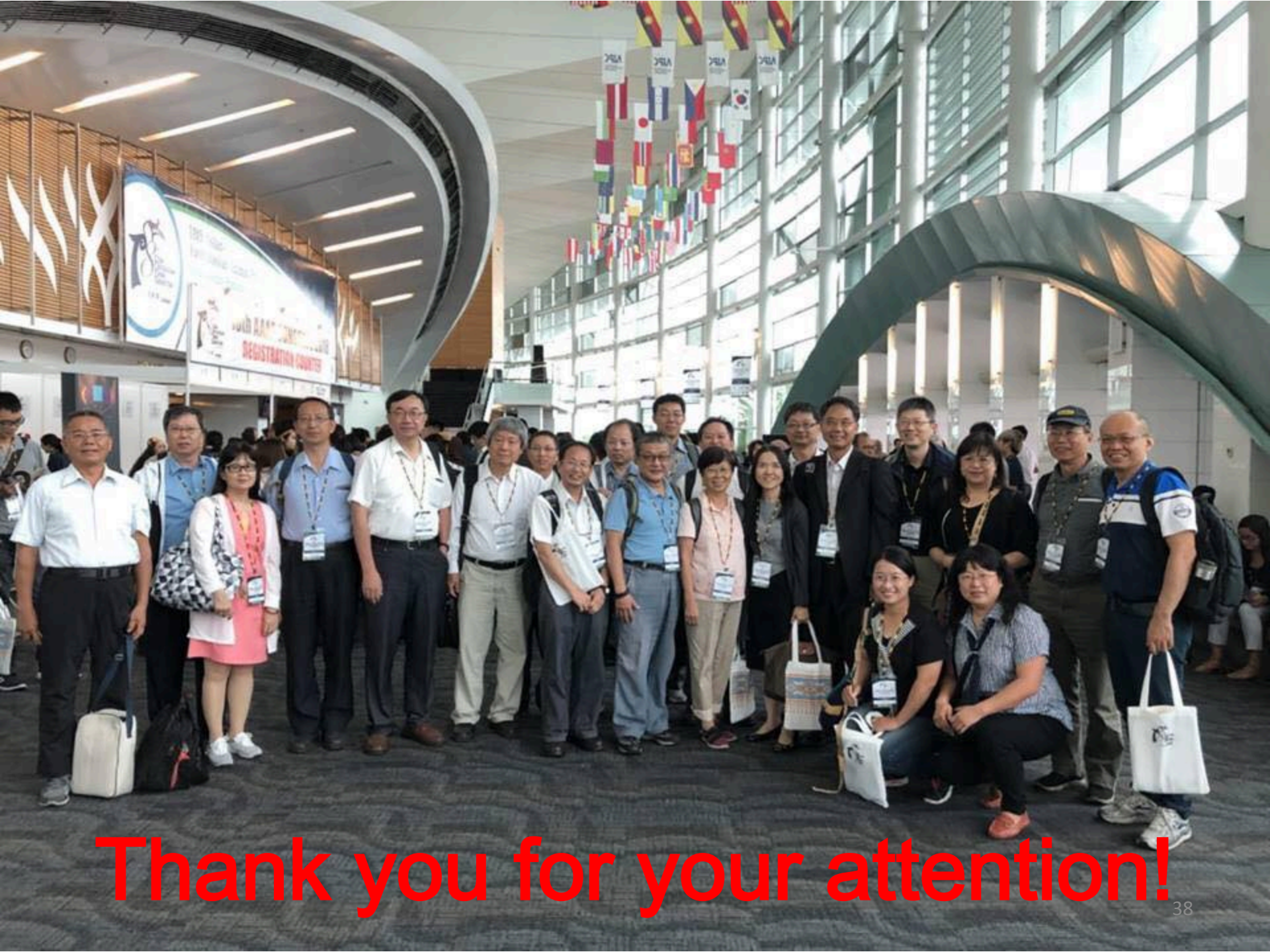
Conclusion

- 藉此機會瞭解各國研究議題方向，同時也比對相關領域之研究設備，積極認識各國研究團隊，藉此鞏固本所與各國技術交流，同時並拓展未來更多國際合作之機會及推動。

- 藉由此次研討會交流及精進科技研發，達成與國際接軌及推動我國新南向政策。



Thank you for your attention!