# KHUPO 19<sup>th</sup> ANNUAL INTERNATIONAL PROTEOMICS CONFERENCE

'Proteomics for Precision Medicine'

March 28 (Thu) – 29 (Fri), 2019

5F, Global Education Center for Engineers,

Seoul National University, Seoul, Korea

The Korean Human Proteome Organization



#### WELCOME MESSAGE

Dear colleagues,

We are delighted to announce that KHUPO's 19th Annual International Proteomics Conference is scheduled to be held March 28–29, 2019 at Global Education Center for Engineers located in Seoul National University. On behalf of the Organizing Committee, I cordially welcome you to this wonderful event.

The theme of this year's conference is "Proteomics for Precision Medicine". Four plenary lectures and ten symposia are planned. The symposia will cover various subjects including two clinical proteomics sessions. We have also reserved one session for presentations by scientists in their early career to encourage the participation of the young talents in the field. As KHUPO is entering its 19th year and chosen to host AOHUPO 2020, our annual conference will continue to provide an excellent platform for sharing the ideas and building friendship among the participants.

I look forward to greeting you all in Seoul at the 19th Annual International Proteomics Conference.

Best Wishes,

Je-Yoel Cho, DVM, PhD

President, The Korean Human Proteome Organization

Professor, Department of Biochemistry, College of Veterinary Medicine

m/ on

Seoul National University

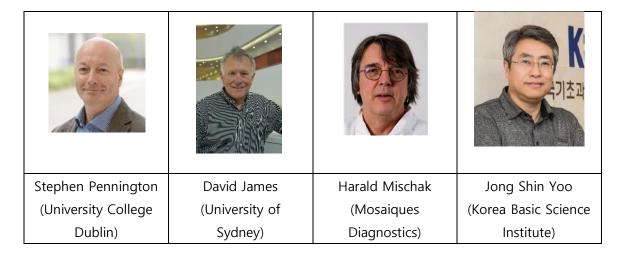
# **ORGANIZING COMMITTEE**

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,	Eunyoung Lim, Thermo Fisher Scientific Korea Yong-Seung Shin, Agilent Technologies Byung-Hee Shin, AB SCIEX Korea Sung Goo Park, Korea Research Institute of Bioscience and

## **GENERAL INFORMATION**

Title	19 <sup>th</sup> Annual International Proteomics Conference	
Theme	Proteomics for Precision Medicine	
Date	March 28 (Thu) – 29 (Fri), 2019	
Venue	5F, Global Education Center for Engineers, Seoul National University	
Program	4 Plenary Lectures, 10 Symposia, Poster Session, Reception etc.	
Industrial Events	Exhibition, Exhibition Tour, etc.	
Expected	200 Participants (comp 0 according)	
Participants	300 Participants (over 8 countries)	
Organized by	The Korean Human Proteome Organization	
Official Language	English	
Website	http://2019.khupo.org	

# **PLENARY SPEAKERS**



## **SYMPOSIA**

Protein Modification	Young Scientists
Proteins in Pathology	Exploring the Unknown Proteins
Biomarkers for Disease	Antibody & Biologics
Omics Research in Aging	Multi-omics
Clinical Proteomics	Proteogenomics

# **PROGRAM AT A GLANCE**

	March 2	28 (Thu)	March	29 (Fri)
8:00				
9:00	- Regist	ration		
	Opening Cerer	nony(9:30-9:40)		
10:00	SYM-1(9: "Protein M	40-10:50) odification"	SYM-6(10 " <b>Young S</b>	:00-10:50) cientists"
11:00	Break	20 min	Break	20 min
		10-11:50) Pennington		10-11:50) I Mischak
12:00	Lunch(11	:50-12:40)	Lunch(11	:50-12:40)
13:00	Exhibition Tour&F	Poster(12:40-14:00)	Exhibition Tour&l	Poster(12:40-14:00)
14:00	SYM-2(14:00-15:10) "Proteins in Pathology"	SYM-3(14:00-15:10) "Biomarkers for Diseases"	SYM-7(14:00-15:10) "Exploring the Unknown Proteins"	SYM-8(14:00-15:10) "Antibody & Biologics"
13.00	Break	20 min	Break 20 min	
16:00	SYM-4(15:30-16:40) "Omics Research in Aging"	SYM-5(15:30-16:40) "Clinical Proteomics"	SYM-9(15:30-16:40) "Multi-omics"	SYM-10(15:30-16:40) "Proteogenomics"
	Break	20 min	Break	20 min
17:00	PL-2(17:00-17:40) by David James			by Jong Shin Yoo
18:00		embly(17:40-)	Awards&Clo	osing(17:40-)
	Keceptio	n(18:30-)	l	

# **SCIENTIFIC PROGRAM**

March 28 (Thu), 2019

8:30-	Reg	istration	
9:30-9:40	Openin	g Ceremony	
SYM-1 Prote	SYM-1 Protein Modification (Chair: Hyun Joo An, Chungnam National University)		
		Room 520	
0.40 10.02	Brain somatic mutations in neurological	disorders	
9:40-10:03	Jeong Ho Lee (KAIST)		
	Monitoring of Non-human Glycan Moti	f in Biotherapeutics for Immunogenicity	
10:03-10:26	Prediction		
	Unyong Kim (GLYCAN Co., Ltd.)		
	Defining the molecular mechanism of th	ne UBA6-USE1 in lung cancer	
10:26-10:49	Peter Chang Whan Lee (University of U	Isan College of Medicine, ASAN Medical	
	Center)		
10:50-11:10	1	Break	
	PL-1 (Chair: Je-Yoel Cho, Seoul Natio	onal University)	
		Room 520	
	Development and Delivery Advanced	Protein Biomarker Tests for an Era of	
11:10-11:50	Precision Medicine		
	Stephen Pennington (University College Dublin)		
11:50-12:40	Lunch		
	Exhibition Tour & Po	ster	
12:40-14:00			
	SYM-2 Proteins in Pathology		
	(Chair: Youngsoo Kim, Seoul	SYM-3 Biomarkers for Diseases	
	National University College of	(Chair: Sang Hoon Song, Seoul	
	Medicine, Han Suk Ryu, Seoul	National University Hospital)	
	National University Hospital)	Room 517	
	Room 520		
	Prediction of response to PD-1	Discovery and validation of cancer	
14:00-14:17	blockade by immune cell profiling.	biomarkers by DIA and targeted	
17.00-14.17	(Machine learning analysis of		
	multiplex IHC images)	proteomics	

	Woo Ho Kim (Seoul National	Sumio Ohtsuki (Kumamoto
	University College of Medicine)	University)
	Tyrosine aminoacyl-tRNA synthetase	Exosomes are Tiny vesicle but Huge
	sensitize breast cancer to the	impact on cancer biomarker study
14:17-14:34	combined chemotherapeutic regimen	Jisook Park (Samsung Medical Center,
	Han Suk Ryu (Seoul National	Sungkyunkwan University School of
	University Hospital)	Medicine)
	Improved Quantitation of HER2	
	protein by Multiple Reaction	Discovery of blood biomarker for
	Monitoring Mass Spectrometry in	major mental illness by high-
14:34-14:51	Formalin-Fixed Paraffin-Embedded	throughput plasma proteome profiling
	(FFPE) Breast Cancer Tissue	Dohyun Han (Seoul National
	Youngsoo Kim (Seoul National	University Hospital)
	University College of Medicine)	
	In-depth Serum Proteomics Reveals	Serum Trace Elements and Their
	Biomarkers of Psoriasis Severity and	Associations with Breast Cancer
14:51-15:08	Response to Traditional Chinese	Subgroups in Korean Breast Cancer
14.51 15.00	Medicine	Patients
	Xiaobo Yu (Beijing Proteome	Rihwa Choi (Green Cross
	Research Center)	Laboratories)
15:10-15:30	I	Break
	SYM-4 Omics Research in Aging	SYM-5 Clinical Proteomics
	(Chair: Je Kyung Seong, Seoul	(Chair: Hyewon Chung, Konkuk
	National University)	University School of Medicine,
	Room 520	Konkuk University Medical Center)
		Room 517
15:30-15:47	Developmental proteomics: the importance of age specific differences in the human plasma proteome  Vera Ignjatovic (Murdoch Children's Research Institute)	Clinical Proteomic Study and Diagnostic Application for Antibiotic Resistant Bacteria Using High-End to Low-End Mass Spectrometry  Je-Hyun Baek (Seegene Medical Foundation)
15:47-16:04	Effect of aging on lipidomic changes in mouse serum, kidney, and heart by nanoflow UHPLC-ESI-MS/MS	Clinical proetomics, divergence and convergence of mass spectrometry

	Myeong Hee Moon (Yonsei University)	<b>Kyunggon Kim</b> (Asan Medical	
		Center/University of Ulsan)	
16:04-16:21	The role of <i>Dlk1-Dio3</i> miRNA cluster in muscle aging <b>Kwang-Pyo Lee</b> (Korea Research Institute of Bioscience & Biotechnology)	Quantitative proteomic analysis of aqueous humor from patients with age-related macular degeneration  Hyewon Chung (Konkuk University  School of Medicine, Konkuk University  Medical Center)	
16:21-16:38	Proteomic analysis of an Alzheimer's-in-a-dish model  Young Hye Kim (Korea Basic Science Institute)	In-depth proteomic analysis of pleural effusion for lung cancer biomarker discovery  Chia-Jung Yu (Chang Gung University)	
16:40-17:00	Break		
	PL-2 (Chair: Je Kyung Seong, Seoul National University)		
		Room 520	
17:00-17:40	Global redox proteome and phosphopi Akt regulation	roteome analysis reveals novel mode of	
	David James (University of Sydney)		
17:40-	Genera	al Assembly  Room 520	
18:30-	Re	ception 1F BBQ cafe	

March 29 (Fri), 2019

SYM-6 Young Scientists (Chair: Jun Won Choi, Korea Institute of Science and		
	Technology)	
	Room 520	
	Proteomics approach to discover the unrinary protein biomarkers to predict	
10:00-10:10	kidney function decline in type 2 diabetes	
	Hee-Sung Ahn (Asan Medical Center)	
	Raft-localized CD147 with proximal proteins confers drug-resistance	
10:10-10:20	phenotype in cancer stemness	
	Sohyun Kim (Seoul National University)	

SYM-7 Exploring the Unknown SYM-8 Antibody & Biologics Proteins	12:40-14:00	SYM-7 Exploring the Unknown	S\ (Chair	: Junho Chung, Seoul National versity College of Medicine)  Room 517  Fully international system of units-traceable protein quantification: what we can
(Chair: Ho Jeong Kwon, Yonsei University)  Room 520  Fully international system of	14:00-14:23		14:17	quantification: what we can really measure  Ji-Seon Jeong (Korea Research Institute of Standards and Science)
(Chair: Ho Jeong Kwon, Yonsei University)  Room 520  Exploring the Function of Dark Proteome for Biomedical Applications  The description of Dark Proteome for Biomedical Applications  University College of Medicine)  Fully international system of units-traceable protein quantification: what we can really measure  Ji-Seon Jeong (Korea Research)			14:17-	
(Chair: Junho Chung Seoul National	14:00-14:23	University)  Room 520  Exploring the Function of Dark  Proteome for Biomedical  Applications	<b>Uni</b> 14:00-	Fully international system of units-traceable protein quantification: what we can really measure  Ji-Seon Jeong (Korea Research
Exhibition Tour & Poster	11:50-12:40		Lunch	
Exhibition Tour & Poster	11:10-11:50	discovery to actual routine impleme	entation	is and patient management: from
Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster	PL-3 (C	nair: Youngsoo kim, Seoui Nationa	i Univer	Room 520
Application of proteomics in clinical diagnosis and patient management: from discovery to actual routine implementation  Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster				it. Callana at Madiaina)
PL-3 (Chair: Youngsoo Kim, Seoul National University College of Medicine)  Room 520  Application of proteomics in clinical diagnosis and patient management: from discovery to actual routine implementation  Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster	10:40-10:50			ute)
Kwang Hoe Kim (Korea Basic Science Institute)  10:50-11:10  Break  PL-3 (Chair: Youngsoo Kim, Seoul National University College of Medicine)  Room 520  Application of proteomics in clinical diagnosis and patient management: from discovery to actual routine implementation  Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster	10:30-10:40	Hyoung-Min Park (Seoul National	Universit	y)
Hyoung-Min Park (Seoul National University)  N-Glycoprotein Biomarkers for Detection of Hepatocellular Carcinoma by Parallel Reaction Monitoring  Kwang Hoe Kim (Korea Basic Science Institute)  10:50-11:10  Break  PL-3 (Chair: Youngsoo Kim, Seoul National University College of Medicine)  Room 520  Application of proteomics in clinical diagnosis and patient management: from discovery to actual routine implementation  Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster		, ,		
N-Glycoprotein Biomarkers for Detection of Hepatocellular Carcinoma by Parallel Reaction Monitoring Kwang Hoe Kim (Korea Basic Science Institute)  10:50-11:10  Break  PL-3 (Chair: Youngsoo Kim, Seoul National University College of Medicine) Room 520  Application of proteomics in clinical diagnosis and patient management: from discovery to actual routine implementation Harald Mischak (Mosaiques Diagnostics)  11:50-12:40  Exhibition Tour & Poster	10:20-10:30	iNrich, a rapid and robust method to enrich N-terminal proteome in a highly multiplexable platform		

15:47-16:04 16:04-16:21	Metabolic signatures of steroids in clinical endocrinology  Man Ho Choi (Korea Institute of Science and Technology)  Multi-Omics analysis of pancreatic ductal adenocarcinomas	National Dongw Center) Proteog medicir	al Cancer Center Korea  an Hong (National Cancer  genomics: the path to precision  ne in cholangiocarcinoma  lyung Woo (National Cancer
	in clinical endocrinology  Man Ho Choi (Korea Institute of Science and Technology)	National Dongw Center) Proteog	al Cancer Center Korea  an Hong (National Cancer  genomics: the path to precision
15:47-16:04	in clinical endocrinology  Man Ho Choi (Korea Institute of	Nationa  Dongw  Center)	al Cancer Center Korea an Hong (National Cancer
15:47-16:04	in clinical endocrinology  Man Ho Choi (Korea Institute of	Nationa <b>Dongw</b>	al Cancer Center Korea  an Hong (National Cancer
15:47-16:04	in clinical endocrinology	Nationa	al Cancer Center Korea
15:47-16:04			
	Metabolic signatures of steroids	Proteog	genomic data sharing of
		Proteogenomic data sharing of	
l	of Sydney)	Jiiiiya	Cita (Nocili Offiversity)
	Stuart Cordwell (The University		<b>Ohta</b> (Kochi University)
15:30-15:47	injury	Forest	somes with using hand italiadili
	during ischemia / reperfusion		somes with using nano Random
	Multi-omics of the myocardium	Drotoor	nics analysis of mitotic
	Room 520		Room 517
	National University)		Cancer Center)
	(Chair: Eugene C. Yi, Seoul	(Chai	r: Sang Myung Woo, National
	SYM-9 Multi-omics		SYM-10 Proteogenomics
15:10-15:30		Break	· · · · · · · · · · · · · · · · · · ·
			Cheng Kung University)
		15:08	Chien-Sheng Chen (National
		14:51-	proteome microarrays
			Antibodyome analysis using
	Center)		Antibody Institute)
	Tadashi Kondo (National Cancer		Dae Hee Kim (Scripps Korea
14:46-15:09	model, and proteogenomics	14:51	cancer therapy
	probability, patient-derived cancer	14:34-	conjugate(ADC)' for anti-
	biomarker study; priori		of 'antibody-drug
	What we can learn from		Current status and challenges
	Science Institute)		University)
	<b>Heeyoun Hwang</b> (Korea Basic		Sukmook Lee (Kookmin
	Spectrometry		Epithelial Ovarian Cancer
	Chromatography-Tandem Mass		Targeting TSPAN8-Expressing

	Min-Sik Kim (Daegu Gyeongbuk Institute of Science and Technology)		
16:21-16:38	Multiomics-Engaging colors  Sureyya Ozcan (Middle East  Technical University)	Proteogenomic Analysis of a Model Diatom Feng Ge (University of Chinese Academy of Sciences)	
16:40-17:00	Break		
PL-4 (Chair: Jin Young Kim, Korea Basic Science Institute)			
		Room 520	
17.00 17.40	Glycoproteomics and Clinical Applications by Mass Spectrometry		
17:00-17:40	Jong Shin Yoo (Korea Basic Science Institute)		
17:40-	Award	ls & Closing	
17.40-	Room 5		

## **POSTER SESSION**

All poster presentations must be in English. Presenters are responsible for setting up their displays, being present during the entire scheduled poster session, and removing their displays at the conclusion of the poster session. On your assigned day, please plan to spend the entire session at your poster for questions and discussion. Each poster should be allocated on a poster board corresponding to its abstract number.

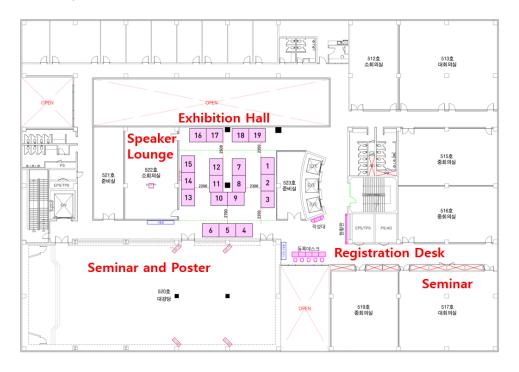
- \*\* Posters are displayed for entire day, although presenters are only required to be present at their board from 12:40 to 14:00 on March 29 (Fri).
- X Poste Size 90cm wide x 120cm high (Board Size 95cm wide x 165cm high)
- ※ Poster Set-up March 28 (Thu) 8:00-11:00, Poster Session March 29 (Fri) 12:40-14:00, Poster Removal March 29 (Fri) after 18:00

Category
Protein Modification
Proteins in Pathology
Biomarkers for Diseases
Omics Research in Aging
Clinical Proteomics
Young Scientists
Exploring the Unknown Proteins
Antibody & Biologics
Multi-omics
Proteogenomics

# **Exhibition Information**

Date & Time: March 28 (Thu) - 29 (Fri) 9:00-18:00

Place: 5F Lobby, Global Education Center for Engineers, Seoul National University



#### Booth No.

No.	Exhibitor	No.	Exhibitor	
1	SMAnalytical	11	Shimadzu Scientific Korea Corp.	
2	Younginfrontier	12	Agilent Technologies	
3	Kim & Friends Inc.,	13	CHEMBRIDGE	
4		14	Korea Basic Science Institute	
5	Waters Korea Limited	15	Korea Centers for Disease Control	
			and Prevention	
6	AB SCIEX Korea Pte. Ltd.	16	PhileKorea Technology, Inc	
7	Bio-Medical Science Co., Ltd.	17	SARTORIUS KOREA BIOTECH Co, Ltd	
8	SeouLin Bioscience	18	Bruker Korea, SCINCO	
9	ANYGEN CO., LTD.	19		
10	Binaree, Inc.			

### **Exhibition Tour**

Time	Exhibitor	Time	Exhibitor
12:40-12:45	2:40-12:45 SMAnalytical		Binaree, Inc.
12.45 12.50	Younginfrontier	12.20 12.25	Shimadzu Scientific Korea
12:45-12:50		13:20-13:25	Corp.
12.50 12.55	Waters Korea Limited	12.25 12.20	Korea Centers for Disease
12:50-12:55		13:25-13:30	Control and Prevention
12:55-13:00	AB SCIEX Korea Pte. Ltd.	13:30-13:35	PhileKorea Technology, Inc
12.00 12.05	Bio-Medical Science Co., Ltd.	12.25 12.40	SARTORIUS KOREA BIOTECH
13:00-13:05		13:35-13:40	Co, Ltd
13:05-13:10	SeouLin Bioscience	13:40-13:45	Bruker Korea, SCINCO
13:10-13:15	ANYGEN CO., LTD.		

## **VENUE**

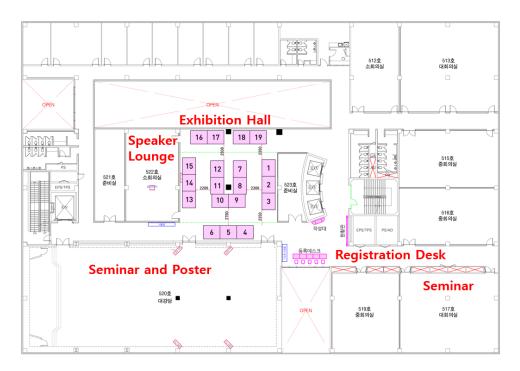


5F, Global Education Center for Engineers (GECE, building no. 38), Seoul National University

Address: 1 Gwanak-ro, Gwanak-gu, Seoul, 08826, Korea

Homepage: http://convention.gece.snu.ac.kr/convxe/index.php

#### Floor Plan

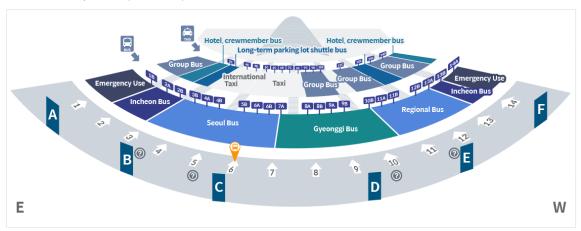


## **TRANSPORTATION**

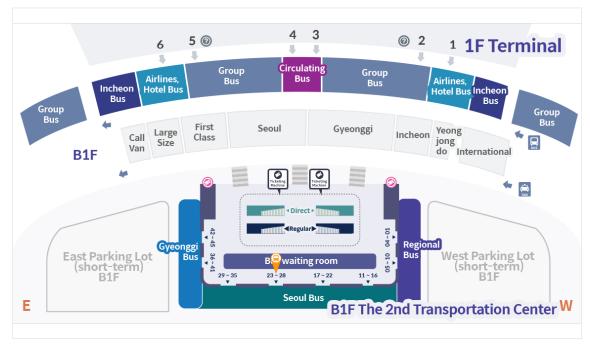
#### From Incheon Airport to GECE



Terminal 1 Bus stop location (1Floor No. 6)



Terminal 2 Bus stop location (Transportation center Basement 1 No. 27)

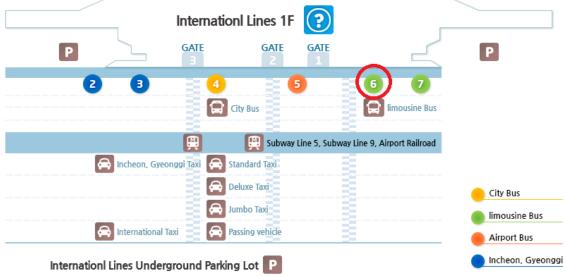


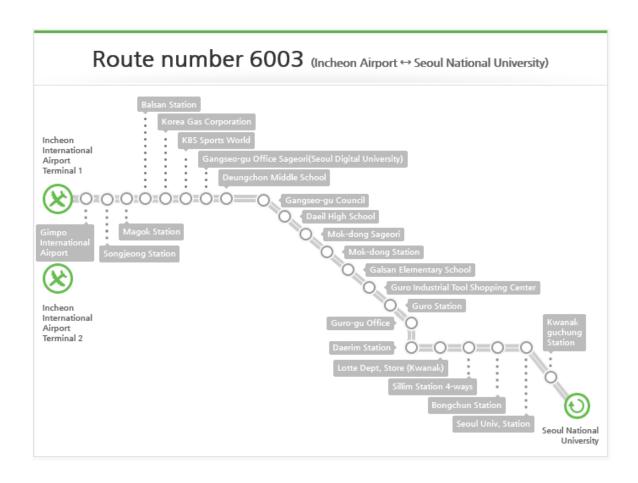
#### Route information



#### From Gimpo Airport to GECE







## **Awards**

Qualification: Poster presenters

The number of people: 10 people

Award details: Cash prize and Certificate

Winner announcement: March 29 (Fri) 17:40 Awards & Closing Ceremony



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# **Welcome Reception**

Date & Time: March 28 (Thu) 18:30

Venue: 1F BBQ cafe, Global Education Center for Engineers, Seoul National

University



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