

# 特定非営利活動法人

# 日本分子生物学会プログラム

The Molecular Biology Society of Japan

Conferences

**Search for presentations** 



The 41st Annual Meeting of the Molecular Biology Society of Japan

Nov 28, 2018 - Nov 30, 2018 Pacifico Yokohama

# **Q Search Criteria**

Keywords		
Title		

Speaker, Author, Co-Author

Hartono Hartono

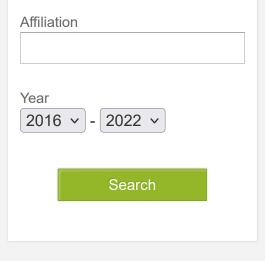
# [3P-0321] THE SPATIOTEMPORAL DYNAMICS OF NUCLEOPORIN NUP58 DURING CELL DIVISION

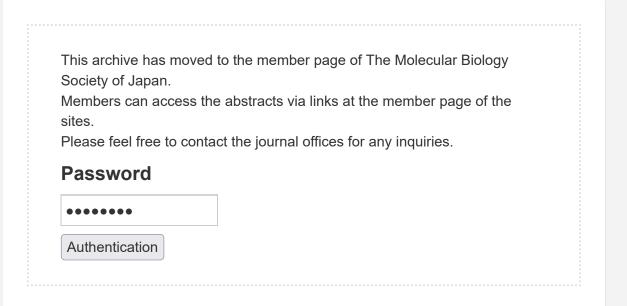
OHartono Hartono<sup>1,2,3</sup>, Masaharu Hazawa<sup>1,2,3</sup>, Firli Rahmah Primula Dewi<sup>1,2,3</sup>, Akiko Kobayashi<sup>1,2,3</sup>, Mahmoud Shaaban Mohamed<sup>1,2,3</sup>, Lim Kee Siang<sup>1,2,3</sup>, Richard W. Wong<sup>1,2,3</sup> (1.Laboratory of Molecular Cell Biology, Division of Natural System, Graduate School of Natural Science and Technology (NST), 2.WPI Nano Life Science Institute (WPI-NanoLSI), Kanazawa University, Kanazawa, Ishikawa, Japan, 3.Cell-Bionomics Research Unit, Innovative Integrated Bio-Research Core, Institute for Frontier Science Initiative, Kanazawa University, Kanazawa, Ishikawa, Japan)

NPC, Nup58, Centrosome, Cell division









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# THE SPATIOTEMPORAL DYNAMICS OF NUCLEOPORIN NUP58 DURING CELL DIVISION



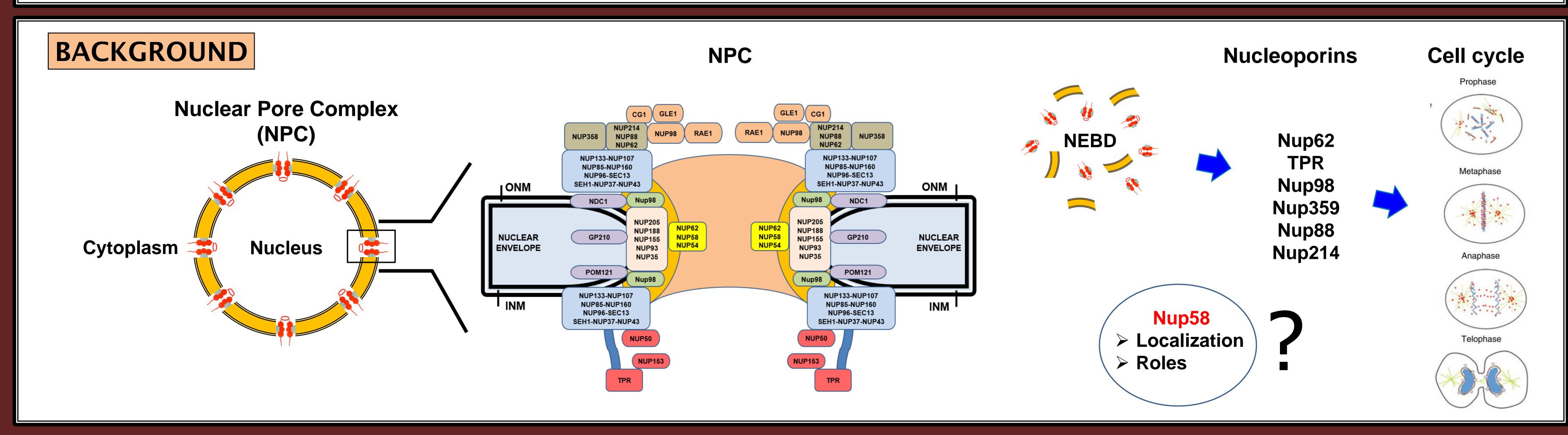
OHartono<sup>1</sup>, Masaharu Hazawa<sup>1,2,3</sup>, Firli Rahmah Primula Dewi<sup>1</sup>, Akiko Kobayashi<sup>2</sup>, Mahmoud Shaaban Mohamed<sup>3</sup> Kee Siang Lim<sup>2</sup> and Richard W. Wong<sup>1,2,3</sup>

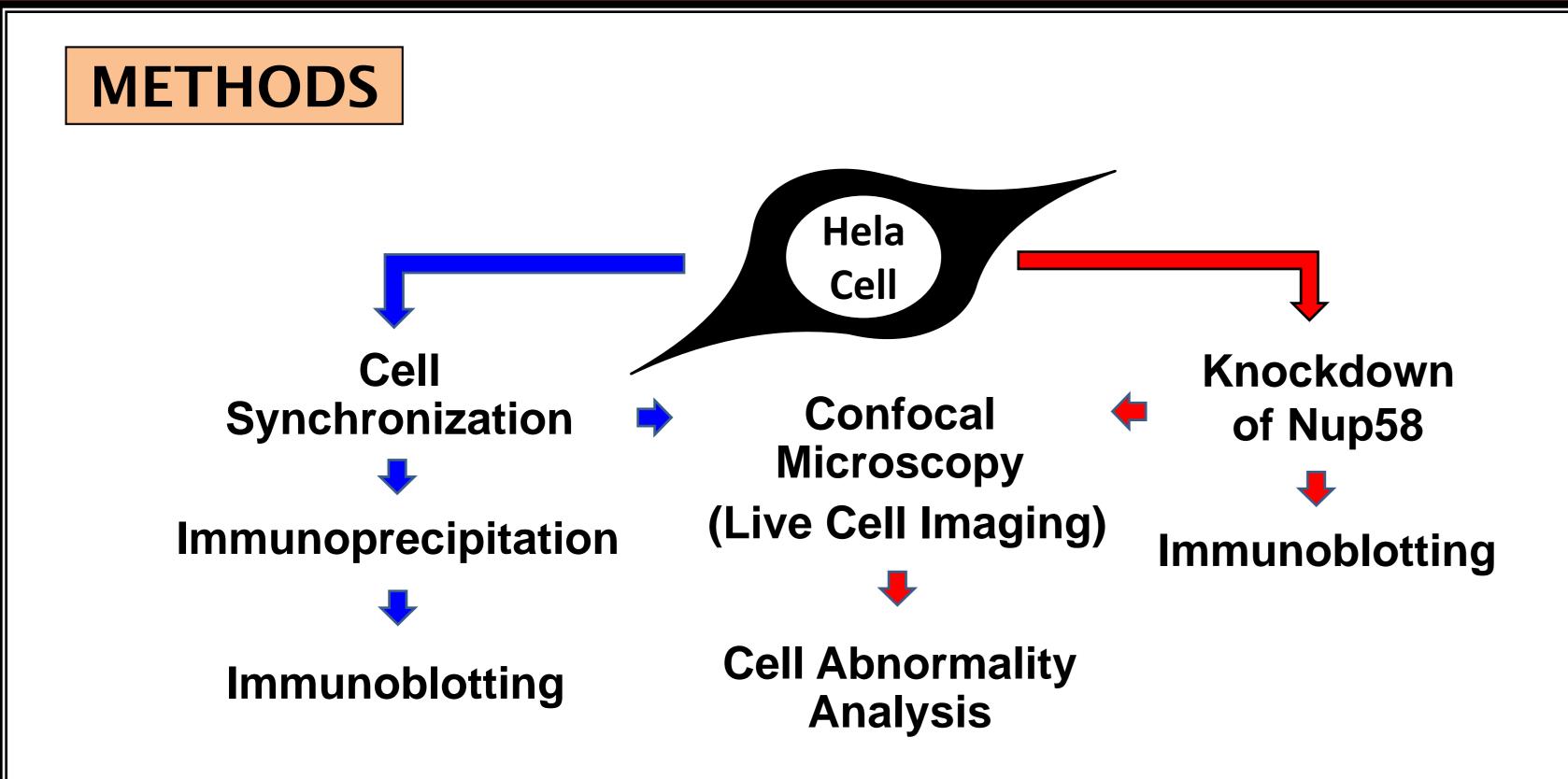
<sup>1</sup>Laboratory of Molecular Cell Biology, Division of Natural System, Graduate School of Natural Science and Technology (NST), Kanazawa University, Japan. <sup>2</sup>WPI Nano Life Science Institute (WPI-NanoLSI), Kanazawa University, Kanazawa, Ishikawa, Japan. <sup>3</sup>Cell-Bionomics Research Unit, Innovative Integrated Bio-Research Core, Institute for Frontier Science Initiative, Kanazawa University, Kanazawa, Ishikawa, Japan.

# **ABSTRACT**

Nuclear pore complexes (NPCs) are transport channels between the nucleus and the cytoplasm. The NPCs are composed by around 30 different proteins, termed nucleoporins (Nups) and each Nup is present in multiple copies. Recently, we and others discovered that several nucleoporins play critical roles during cell division including centrosome integrity, kinetochore assembly, spindle formation and orientation. Nup58 is a part of the central transport channel of the NPC, which forms a complex protein with other nucleoporins such as Nup62 and Nup54. Where Nup58 localize and what their roles during cell division are still poorly understood. Here, we show that Nup58 localizes at the centrosome during prophase to metaphase, interacting with Nup62, Nup54 and also two centrosome marker protein gamma tubulin and SAS6. Depletion of Nup58 leads to monopolar spindle formation, multi-nucleic cell formation, and delayed cytokinesis. We suggest that Nup58 may regulate cytokinesis abscission. Our study gives novel insight into the role of Nup58 in cell division.

Keywords: NPC, Nup58, Centrosome, Cell division

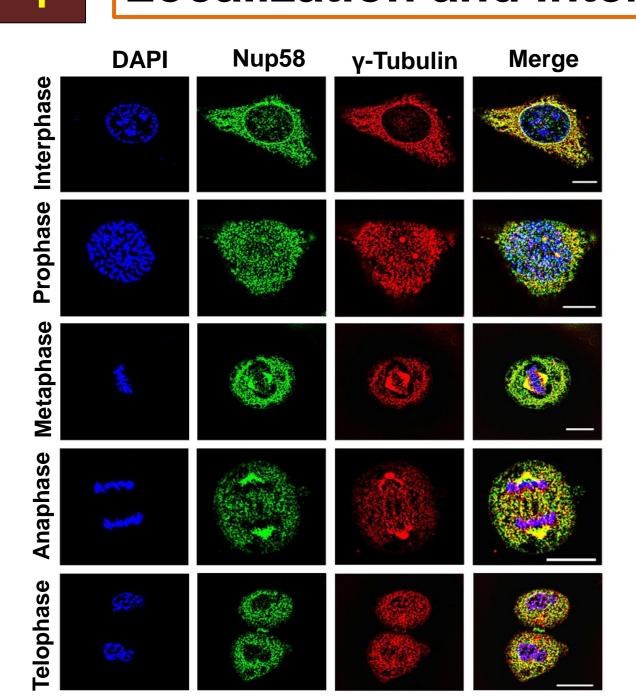


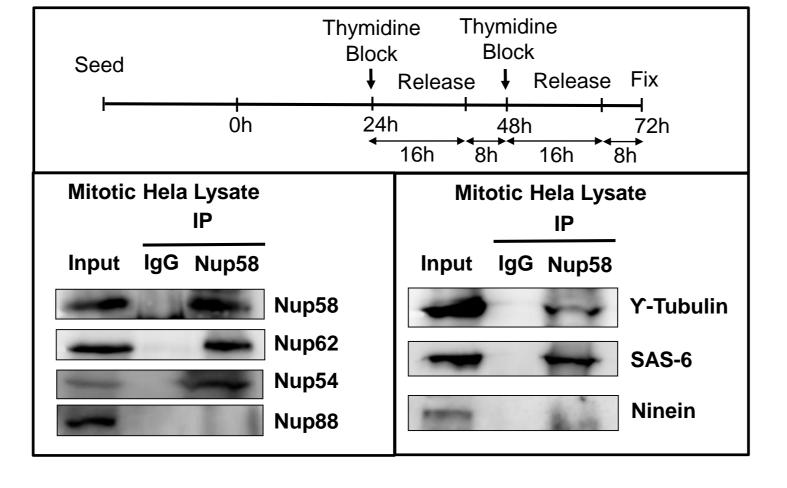


# Nup58 depletion induced cell abnormality Act a-Tubulin, Nup58, DAPI Nup54 Nup54 Actin Nup58 Nup54 Nup58 Nup54 Nup58 Nup54 Nup58 Nu

# RESULTS

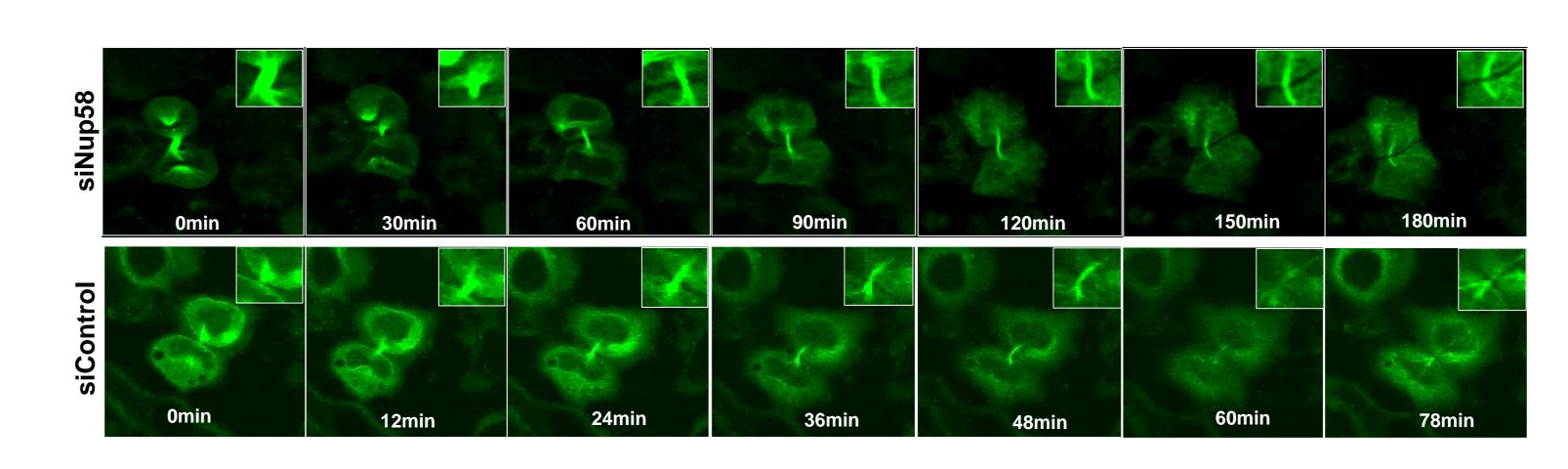
# Localization and interaction of Nup58 during mitosis



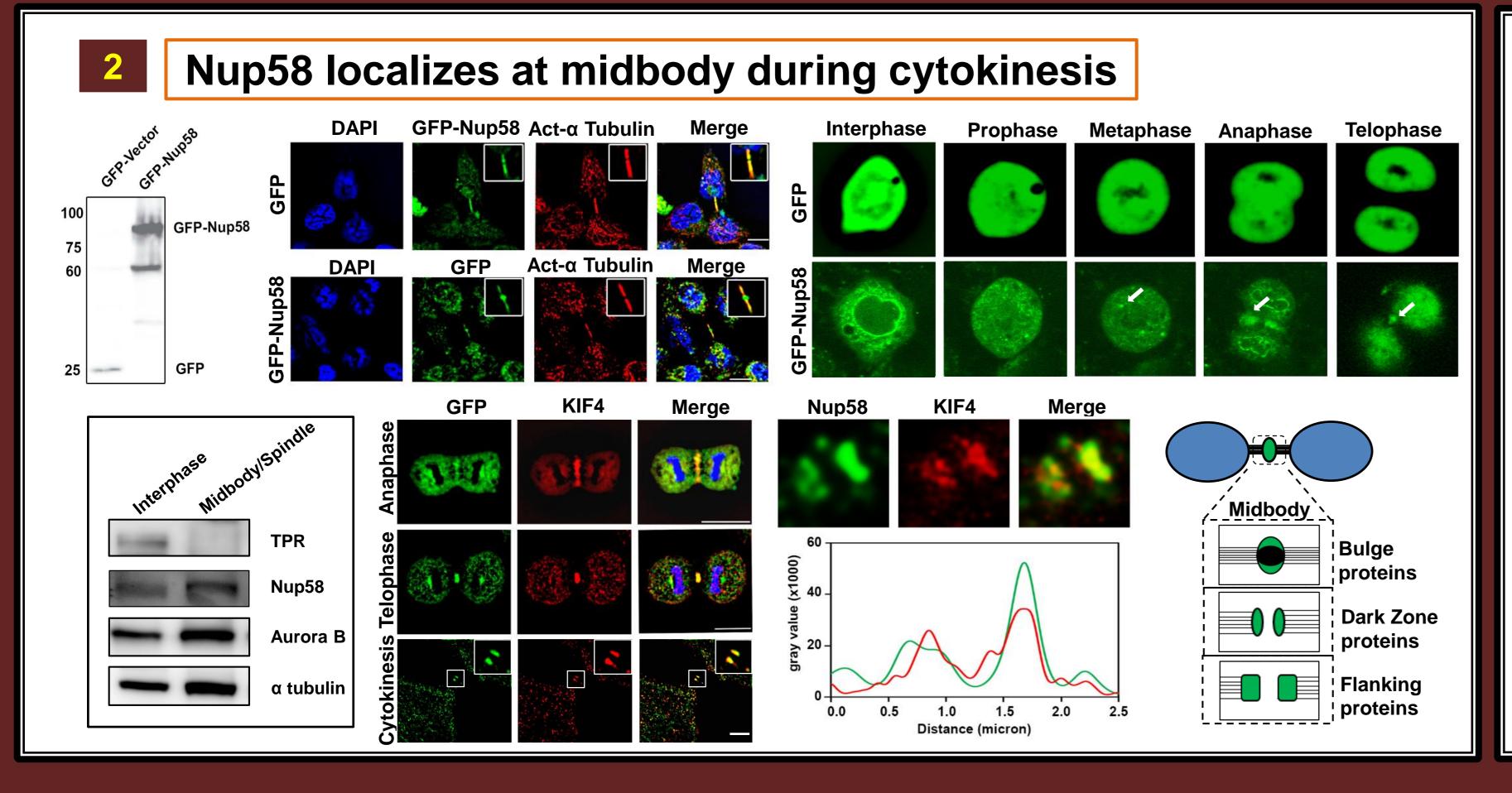


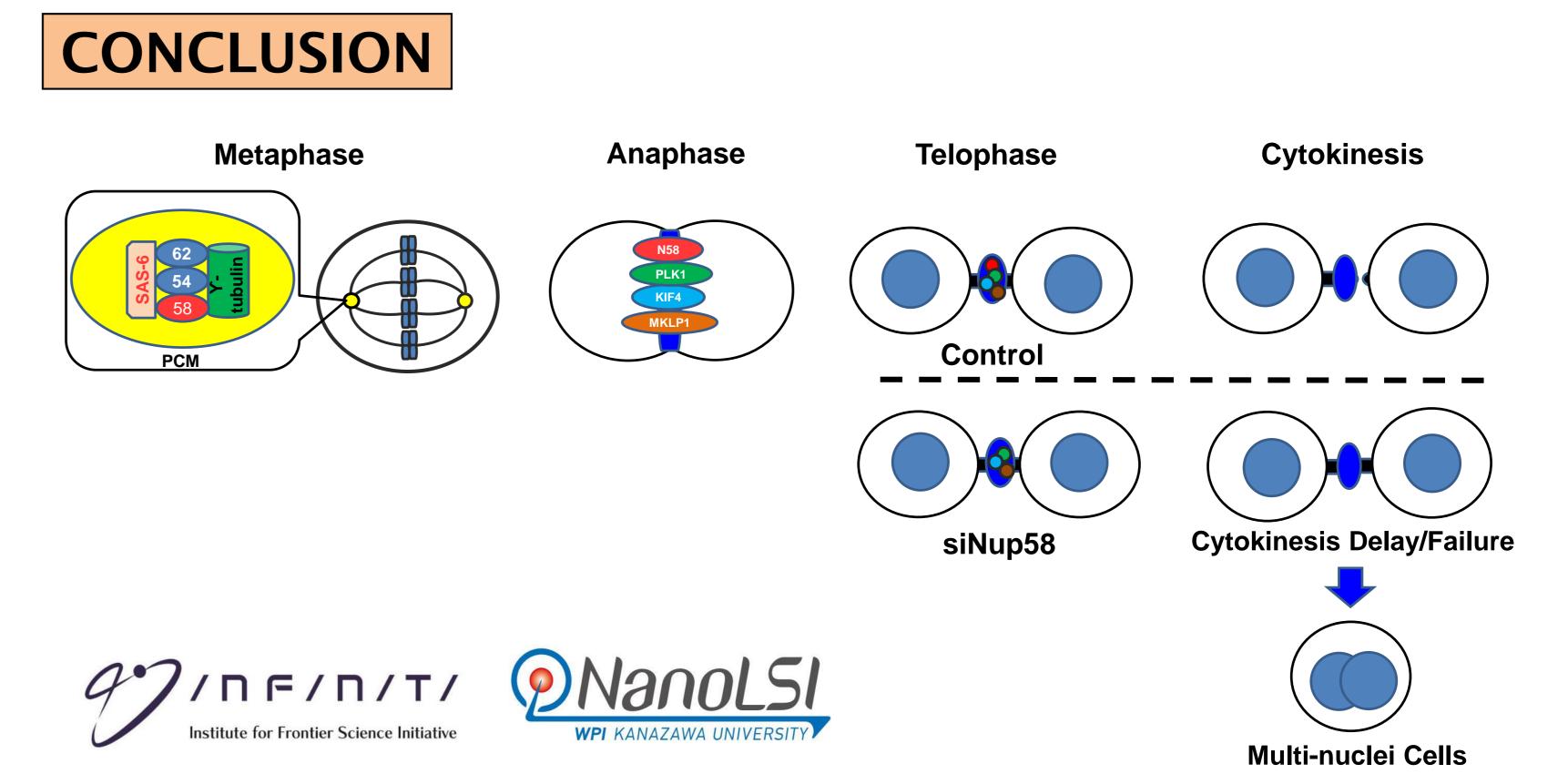
Nup58 localized to the centrosome and interacted with members of Nup62 complex and centrosome markers protein during cell mitosis

# Nup58 depletion induced cytokinesis delay



Depletion of Nup58 on HeLa cells expressing stable GFP-α-tubulin leads to prolonged duration between mature midbody formation and final abscission









# The 41st Annual Meeting of The Molecular Biology Society of Japan

Period: November 28	(Wed) - 3	30 (Fri),	2018
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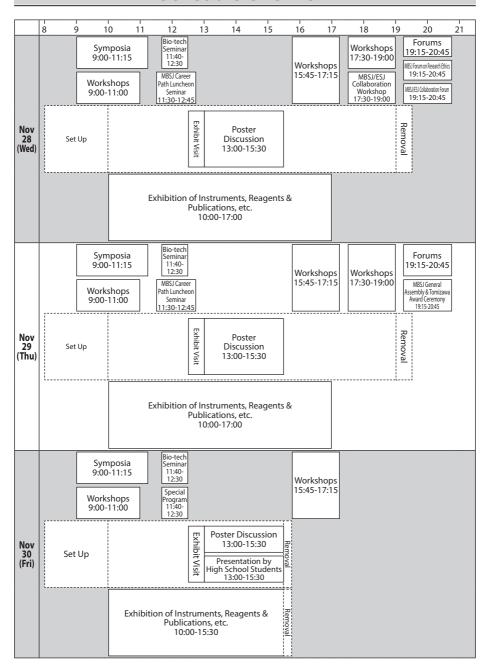
Venue: Pacifico Yokohama

Presidents: Fumitoshi Ishino (Tokyo Medical and Dental University (TMDU))

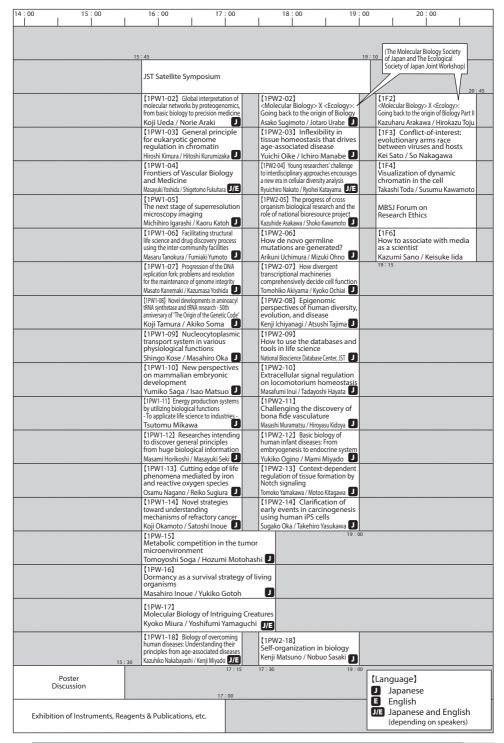
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Information for Organizers, Poster Discussers and Presenters	21



### Schedule Overview



Building	Floor	Room	Venue	9:00 10:00 11:00 12:00 13:00	
	1F	Room 1	Main Hall	[1S-01] Development of novel technologies derived from genome editing Takashi Yamamoto	
	2F	Special Venue	211+212	9:00 11:15 9:00 11:15 11:30 12:45	
		Room 2	301	[15-02] Molecular Mechanisms for Cell Division Tatsuo Fukagawa (Co-chair: lain Cheeseman)  MBSJ Career Path Luncheon Seminar 1	
		Room 3	302	[15-03] Non-coding DNA tells the past, the present and the future Takehiko Kobayashi  [1BT03] FUJIFILM Wako Pure Chemical Corporation	
		Room 4	303	[1AW-04] Intracellular signaling regulating animal behavior Hiromasa Funato	
	3F	Room 5	304	[18-05] New Principles of Morphogenesis, unraveled by advanced multidisciplinary approach Tohru Ishitani	
		Room 6	311+312	[1AW-06] Physiology and pathology of non-canonical nucleic acid structures and their regulation  Hiroyuki Seimiya / Hisao Masai	
PACIFIC		Room 7	313+314	[1AW-07] Roles of Lymphatic Systems during Maintenance of Homeostasis and Cancer Progression Fumiko Itoh / Tetsuro Watabe	
PACIFICO Yokohama Conference Center		Room 8	315	[1AW-08] The Biology of RNA-Binding Proteins with Emerging Topics—Analysis at atomic and molecular levels, neurobiology and therapeutics—Riki Kurokawa / Masato Katahira	
ama Con		Room 9	411+412	[1AW-09] You don't know TOR yet Takashi Ushimaru / Tatsuya Maeda	
ference		Room 10	413	9:00 11:00 9:00 11:00	
Center	4F	Room 11	414+415	[1AW-11] "Zinc Biology": An emerging life science research field Toshiyuki Fukada / Taiho Kambe	
	46	Room 12	416+417	[1AW-12] Open the door to a more detailed understanding of Wnt signaling Bisei Ohkawara / Maki Takagishi	
		Room 13	418	[1AW-13] Nascent chain polypeptides of organelle proteins: selective transport and quality control Yukio Fujiki / Hiroyuki Kawahara	
		Room 14	419	[1AW-14] Leading edge of pathophysiology of neurological disorders caused by Na pump gene mutations  Kiyoshi Kawakami / Keiko Ikeda	
		Room 15	501	[1S-15] Cutting edge biology led by plant models Tetsuya Higashiyama  [1BT15] TAKARA BIO INC.	
	5F	Room 16	502	[15-16] Direct reprograming -artificial cell generation and its application- Kinichi Nakashima (Co-chair: Soeren Leinkamp)  [18T16] Nepa Gene Co., Ltd.	
	31	Room 17	503	[15-17] Bioimaging: From Molecule to Tissue Yoshie Harada (Co-chair: Madoka Suzuki)	
		Room 18	511+512	9:00 11:15 12:30 13:00	
Exhibit	15	Α	216	Exhibit Poster Discussion	n
Exhibition Hall	1F	A+t	3+C	Exhibition of Instruments, Reagents & Publications, etc.	



Building	Floor	Room	Venue	9:00 10:00 11:00 12:00 13:00
	1F	Room 1	Main Hall	[2S-01] Supramolecular world revealed by Cryo-EM Osamu Nureki
	2F	Special Venue	211+212	9:00 11:15 11:30 12:45
		Room 2	301	[2S-02] Stemness and metabolism for cancer malignancy Atsushi Hirao  MBSJ Career Path Luncheon Seminar 2
		Room 3	302	[25-03] Cell cooperation through organelle sharing Ken Sato (Co-chair: Mitsunori Fukuda)  [2BT03] SHIMADZU CORPORATION
		Room 4	303	[2AW-04] Molecular and neural basis for appetite and food preferences Hiroo Imai / Tsutomu Sasaki
	3F	Room 5	304	[25-05] Ultimate understanding of cell competition Yasuyuki Fujita (Co-chair: Tatsushi Igaki)  [2BT05] Beyond Next Ventures Inc.
		Room 6	311+312	[ZAW-06] Single-cell Analytical Technology & Its Application in Lifesciences, Update Itoshi Nikaido / Hajime Mizuno
PACIFIC		Room 7	313+314	I2AW-07) Recent progress of RNA synthesis coupled to transcription, RNA processing and signal transduction Hidehisa Takahashi / Yuki Yamaguchi
PACIFICO Yokohama Conference Center		Room 8	315	[2AW-08] Formation of non-membranous organelles driven by liquid-liquid phase separation Daiju Kitagawa / Tetsuro Hirose
ama Con		Room 9	411+412	[2AW-09] ADP-ribosylation in intra- & extracellular communication and diseases Hideaki Tsuge / Mitsuko Masutani
ference (		Room 10	413	9:00 11:00
Center	4F	Room 11	414+415	[2AW-11] Signaling and disease affected by pseudokinase Takuro Nakamura / Yoshikane Kikushige
	••	Room 12	416+417	[2AW-12] Multi-scale pattern formation by cilia Daisuke Takao / Kogiku Shiba
		Room 13	418	[2AW-13] Cell and Molecular Mechanisms leading to the morphological diversity of vertebrates Yuki Sato / Noriaki Sasai
		Room 14	419	9;00 11;15 11;40 12;30
		Room 15	501	[2LCS15] Developmental Organology Ryuichi Nishinakamura  [2LCS15] Benesse-i- Career co.,Ltd.
	5F	Room 16	502	[25-16] T cell repertoire, of mice and men: Competence and tolerance Yousuke Takahama (Co-chair: Taku Okazaki)  [28T16] Promega K.K.
	5	Room 17	503	[25-17] Metabolic organ network in homeostasis and pathobiology Yoshihiro Ogawa (Co-chair: Ichiro Manabe)
		Room 18	511+512	12;30 13;00
Exhibition Hall	1F	A+I	B+C	Exhibit Visit Poster Discussion
on Hall		7,11	•	Exhibition of Instruments, Reagents & Publications, etc.

14:00 15:00	16:00 17:00	18:00 19:	00 20:00
	15:45 17:15	17:30 19:00	19:15 20:45
	[2PW1-02] RNA regulation in biological processes and diseases Osamu Takeuchi / Akio Yamashita	[2PW2-02] In Vivo Mechanobiology to Explore Fundamental Operating Principles of Life and Their Applications Yasuhiro Sawada	[2F2] Open Forum on Organelle Zone: From Organelle to Organelle Zone Shiqeomi Shimizu / Hiderou Yoshida
	[2PW1-03] Recent progress on MYC research Akihiko Okuda / Hideyuki Saya	[2PW2-03] Perivascular cells play pivotal roles in health and disease Akiyoshi Uemura / Seiji Yamamoto	[2F3] Can you survive? - "The Lab" How to handle possible misconduct. Tohru Ikegami
	[2PW1-04] Chemical communication, a survival strategy of living organisms Yoko Yashiroda / Shinichi Nishimura	[2PW2-04] Mathematical Design Dojo in MBSJ2018 Atsushi Mochizuki	[2F4] Environmental Factors and Biological Reaction Tatsuya Mimura / Yasuhiro Yoshida
	[2PW1-05] The fifth insect meeting: Releasing "originality" by symphony of entomology and molecular biology	【2PW2-05】 Fundamental Molecular Mechanisms for Controlling Characteristics of Pluripotent Stem Cells	[2F5] Functional network of Japanese researchers to promote science and technology
	Kakeru Yokoi / Takeru Nakazato  [2PW1-06]  Versatile cellular and molecular functions of AAA+ ATPase rings  Masatoshi Esaki / Hajime Niwa	Tadayuki Akagi / Yasuhiro Takashima  [2PW2-06]  Evolution free from the restriction of the Magic number 20 and 4  Daisuke Kiga / Satoshi Akanuma	Masato Suzuki / Kazuyuki Yamagata  [2F6] 'Smart matters' create collective intelligence in diverse hierarchies of natural sciences Makoto Sato / Hiroshi Abe
	[2PW1-07] Insights for the natural lows and diversity in 3R systems and higher-order complexes  Tsutomu Katayama / Hiroshi lwasaki	[2PW2-07] Ubiquitin on Chromatin - ubiquitin-mediated DNA transaction Shinsuke Ito / Tadashi Nakaqawa	MBSJ General Assembly & Tomizawa Award Ceremony
	[2PW1-08] Organ-wide cell repositioning in health and diesease	[2PW2-08] Technological singularity in oxygen biology: novel approaches to see oxygen and know its role in vivo	
	Kazunobu Sawamoto / Hitoshi Takizawa  [2PW1-09]  How do cells use mechanical cues to regulate cellular functions?	Keizo Nishikawa / Reiko Sakaguchi  [2PW2-09]  Evolution and function of GTP sensing system	
	Keiko Kawauchi / Hiroaki Hirata  [2PW1-10] Exploration of function in genes or proteins, identified within genomic data, without similarity	Toshiya Senda / Risa Kawaguchi  [2PW2-10] Analyses of Protein Complex in Solution -Toward Insights into Protein Behavior from Multiple Approaches-	
	Yutaka Kawarabayasi / Seiki Kuramitsu  [2PW1-11] Technological innovation in the construction of libraries for drug discovery Daisuke Sakano / Tetsuya Kadonosono	Tadayuki Ogawa / Takayuki Uchihashi  [2PW2-11] Understanding Genome-Maintenance Strategies by Comparing Plants and Animals Tomomi Tsubouchi / Masaaki Umeda	
	[2PW1-12] Molecular mechanisms of vertebrate sex determination and differentiation Asato Kuroiwa / Shuji Takada	[2PW2-12] Complex developmental program to construct brain, and its evolution  Ken-ichi Mizutani / Chiaki Ohtaka-Maruyama	
	[2PW1-13] Diversified approaches to the nature of cancer Kentaro Kajiwara / Nobuyuki Onishi	[2PW2-13] Regulation of tumor microenvironment by trisomy related genes Miwa Tanaka / Takashi Minami	
	[2PW1-14] Genetically Modified Nonhuman Primates for Human Disease Modeling Jun Kawai / Masatsugu Ema	[2PW2-14] Varied gene reponse to early-life environment and disease vulnerability Noriko Sato / Takeo Kubota	
	[2PW1-15] How to use public databases for your life science research? Yuichi Kodama / Hidemasa Bono	[2PW2-15] Molecular mechanisms for robustness and flexibility of chromosome dynamics Junko Kanoh / Miho Ohsugi J/E	
	[2PW1-16] Cell adhesion and migration during development of multicelluar organisms Takaaki Matsui / Ayuko Sakane	[2PW2-16] Regulation of the nuclear events by long non-coding RNAs Noriko Saitoh / Nobuyoshi Akimitsu	
	[2PW1-17] How big data contribute to find biological meanings? Akio Kanai / Norihiro Okada	[2PW2-17] Molecular mechanism of ribosome regulation by nascent chain and physiological function of novel translation products Shinobu Chiba / Hideki Taguchi	
15	[2PW1-18] Next-generation mammalian genetics for organism-level systems biology Hiroshi Kiyonari / Hideki Ukai	[2PW2-18] Complexity of microbial cell growth and behavior. A novel insight from diverse microbial systems Setsu Kato / Shogo Ozaki	
Poster Discussion	17:00		[Language]  J Japanese E English
Exhibition of Instruments, Re	agents & Publications, etc.		J/E Japanese and English (depending on speakers)

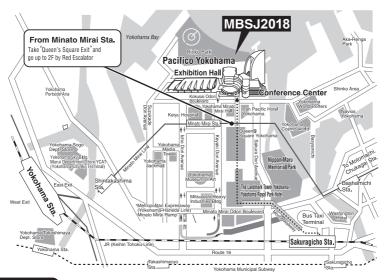
Building	Floor	Room	Venue	9:00	0 10:	00	11:00	12:00	13 : I I	00	
	1F	Room 1	Main Hall	C st	3S-01] ell fate determinatio tem cell aging vs. cell mi Nishimura (Co-o	lular senescence	ns:	Special Program Masaru Sato Chair: Fumitoshi Ishino			
	2F	Special Venue	211+212	9:00			11:15	11:40 12	: 30		
		Room 2	301	Ti Ti	3S-02】 rans-omic analysis res atsuhiko Tsunoda Co-chair: Shinya Kui			[3BT02] KLV CO., LTD.			
		Room 3	302	re	3S-03] issue stem cell syste egeneration umiko Toyoshima(			[3BT03] MAB Institute, Inc.			
		Room 4	303	N h	3AW-04] Nitochondria-goverr igher-order functio oji Okamoto / Kaori	ns in life	and E	[3BT04] FUJIFILM Wako Pure Chemical Corporation			
	3F	Room 5	304	G	3S-05] ienome evolution th hanges lideki Innan	nrough copy nu	umber				
		Room 6	311+312	R Fi	3AW-06] econstitution of cel umio Motegi / Akat:		<b>7/</b>				
PACIFIC		Room 7	313+314	U M Yi	3AW-07] Ibiquitin New Fronti Ianipulation of the I asushi Saeki / Kazul	Ubiquitin Code niro Iwai	<b>a</b>				
PACIFICO Yokohama Conference Center		Room 8	315	TI u N	3AW-08】Beyond th he future direction o nderstanding exosor lobuyoshi Kosaka / \	f the reseach the me in cancer res	rough search				
ama Con		Room 9	411+412	E d S	3AW-09] merging roles of no uring development oichiro Yamanaka /		s D				
ference (		Room 10	413	Fi m A	3AW-10】 lexible and dynamic naintain the genom .sako Furukohri / Yas	e integrity sukazu Daigakı	_				
Center	4F	Room 11	414+415	re m	3AW-11】Molecular ( egulating junction for naintenance in the mu hisa Shukunami / H	mation and Isculoskeletal sys	stem .				
	71	Room 12	416+417	tr - L	3AW-12】New resea reating Alzheimer's From biomarker to eo Tsuda / Koichi liji	disease therapeutic dru ma	ıgs -				
		Room 13	418	g	3AW-13】Pathophy lycation biology ~fr rug development~ eiko Inagi / Ryoji Na	om food scien	hts of ce to				
		Room 14	419	P C	3AW-14] ractical education fo onduct of Research ohru Ikegami / Emik	) in Biosciences					
		Room 15	501	n re	3S-15】A challenge nechanisms underly esponses to the env kue Mori	ring appropriat	e selective				
	5F	Room 16	502	Ei Yi (i	3S-16] mergence of new R ukihide Tomari Co-chair: Shin-ichi N		<b>G</b>				
	51	Room 17	503	R te To	3S-17】 obotic Biology: hardv echnology for acceler ohru Natsume(Co-c	ating life science	e researches				
		Room 18	511+512	B ir Ti	3AW-18] iological research b ntelligence akuma Shiraki / Tsuy	•	11:00	12	30 13:	00	
Exhi				9:00	)		11:00		Exhibit Visit	Post	
Exhibition Hall	1F	A+l	3+C		10 :	00					
n Hall						Ex	hibition of In	struments, Reagents & P	ublications,	etc.	

14:00	15:00	16:00	17:00	18	: 00	19:00	20:	00
		15:45	17:	15				
		hiotechnologies	oploration of life science and by fusing cell measurement					
		and machine lea	arning methods					
		Katsuyuki Shi	roguchi / Sadao Ota 🛂					
		[3PW-03]						
		Anti-viral re silencing	esponse and RNA					
			eyama / Kumiko Ui-Tei 🗾					
		[3PW-04]	,					
		Spatio-Tem	poral Omics Drives					
			Renaissance					
			nura / Tsuyoshi Osawa 😃					
		[3PW-05]	ge of Intracellular					
		Super-imag	ging					
		Toyoshi Fuji	moto / Isei Tanida 🗾					
		[3PW-06] in	situ structural biology					
		for understar	nding eukaryotic protein behaviours					
			Takanori Kigawa					
			New insights into					
		Chromatin	biology –machinery,					
			d regulation-					
			to / Kaoru Sato 😃					
		[3PW-08]	pathway, functions					
		and its disc	orders					
		Miki Nishio	/ Erika Ishihara 🔲					
		[3PW-09]						
		Frontiers of						
			rial research tani / Takeshi Kobayashi					
			Exploration of novel					
		function of ge	nes through the					
		comparative la	aboratory animal science					
			e / Takashi Kuramoto 😃					
		[3PW-11]	Germ cell ns by environmental					
		stress and t	heir inheritance					
			ara / Yuki Okada 🚺					
		[3PW-12]						
			s and neurological					
		diseases	oto / Shuji Wakatsuki 🗾					
		[3PW-13]						
		pathogene	sis associated with					
		DNA repair	disorder					
			Shinichiro Nakada 😃					
			ntiers of studies on the nology and chromosomal					
			lation to Down syndro <u>me</u>					
			ke / Hideyuki Tanabe					
		[3PW-15]						
		Molecular I	oiology of behavior					
		in Drosoph	Daisuke Yamamoto					
		[3PW-16]	Daisuke famamoto					
		Chemical bio	ology opens up new					
		horizons for	ology opens up new RNA regulation study					
			a / Daisuke Kaida 🌿					
		[3PW-17]	inamii anto al in coniacco					
		ecologies of	implicated in unique f some organisms					
			ma / Akiko Satake					
		[3PW-18] Deve	lopment of novel functional					
		nucleic acides b	y evolutionary molecular					
		Tallah Calaan	d structural biology noto / Yoshiya Ikawa					
	15	: 30   Talichi Sakam	ioto / Tostilya Ikawa 🖴					
D	icarracion					rı.	anguage]	
Poster Di	iscussioi1							
							English	
Exhibition of	Instruments						Japanese a	and Fnalish
Reagents & Pu							(depending	on speakers)
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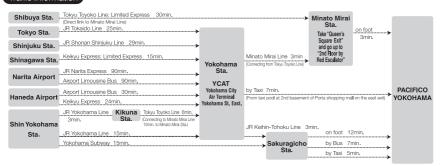


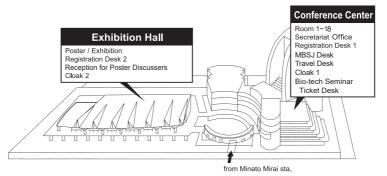
### Access & Floor Guide

### Access



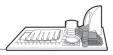
### Traffic Information

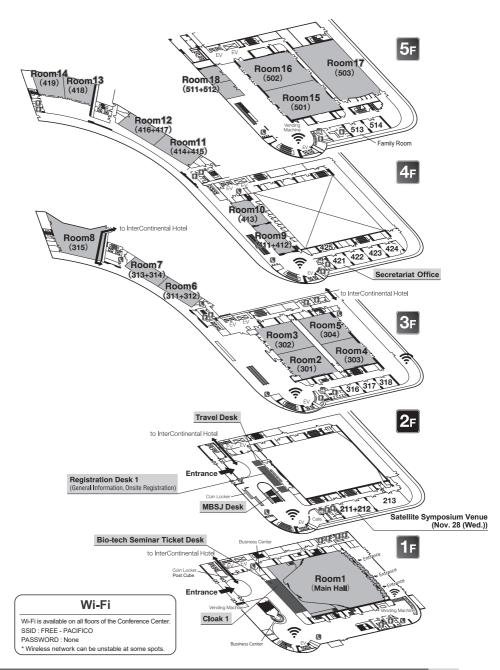






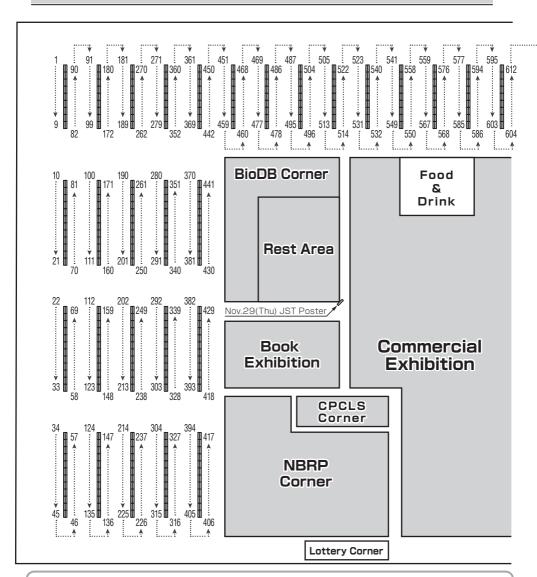
### **Conference Center**







### Poster & Exhibition Hall



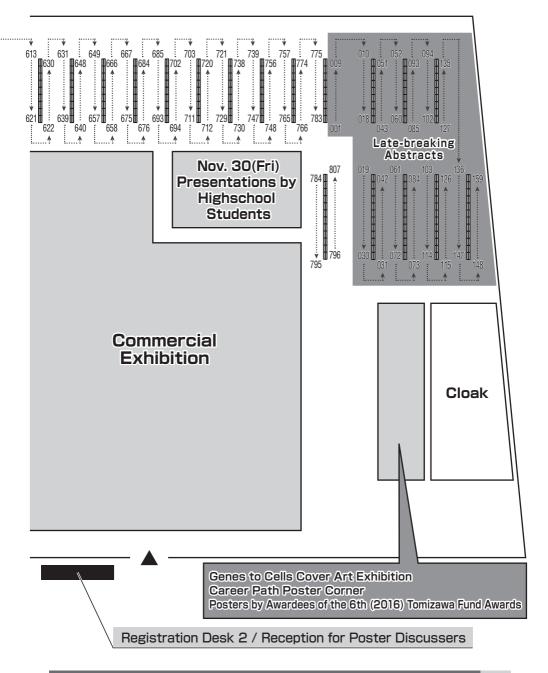
### Wi-Fi

Wi-Fi is available throughout the Exhibition Hall.

SSID: FREE-PACIFICO Password: None

\*Wireless network can be unstable in some spots.







### Poster Timetable

Date: November 28 (Wed) - November 30 (Fri) \*Each poster will be displayed for ONE DAY only.

Vevue: Exhibition Hall 1F (A+B+C)

Presentation / Discussion: Odd Numbers 13:00 – 14:15 Even Numbers 14:15 – 15:30

ex.) 1P-0053 (Day 1 / Panel No. 0053)

			ex.) IP-0053	Day 1 / Panel No. 0053)
	Catagories	Day 1	Day 2	Day 3
1	Categories	Nov. 28 (Wed)	Nov. 29 (Thu)	Nov. 30 (Fri)
1. M	olecular Structure and Bioinformatics	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(112)	
a	Genome / Genes / Nucleic Acids	1P-0001~1P-0036	2P-0001~2P-0020	3P-0001~3P-0033
b	Proteins	1P-0037~1P-0066	2P-0021~2P-0052	3P-0034~3P-0080
C	Carbohydrates / Lipids / Metabolites	1P-0067~1P-0085	2P-0053~2P-0064	31 0034 31 0000
d	Omics	1P-0086~1P-0111	2F-0033 -2F-0004	3P-0081~3P-0090
_			20.0065 20.0072	3F-00817-3F-0090
e	Molecular Evolution	1P-0112~1P-0121	2P-0065~2P-0073	
	nctions of Molecules and Complexes			
a	DNA Replication		2P-0074~2P-0097	3P-0091~3P-0102
b	Recombination / Mutation / Repair	1P-0122~1P-0145	2P-0098~2P-0107	3P-0103~3P-0124
С	Epigenetics	1P-0146~1P-0163	2P-0108~2P-0159	3P-0125~3P-0141
d	Transcription	1P-0164~1P-0173	2P-0160~2P-0191	3P-0142~3P-0163
е	RNA / Ribonucleoproteins	1P-0174~1P-0200	2P-0192~2P-0210	3P-0164~3P-0189
f	Translation	1P-0201~1P-0208	2P-0211~2P-0218	3P-0190~3P-0197
g	Others		2P-0219~2P-0229	3P-0198~3P-0208
3. Ce	Ilular Structures and Functions			
а	Chromosome / Nuclear Bodies	1P-0209~1P-0230	2P-0230~2P-0250	3P-0209~3P-0228
				3P-0229~3P-0259
b	Cytoplasmic Organelles	1P-0231~1P-0240	2P-0251~2P-0258	3P-0805
С	Cell Adhesion / Cell Motility / Extracellular Matrix		2P-0259~2P-0287	3P-0260~3P-0280
d	Protein Processing, Transport and Localization	1P-0241~1P-0275	2P-0288~2P-0310	
е	Cell Membranes / Cytoskeleton	1P-0276~1P-0285	2P-0311~2P-0319	3P-0281~3P-0290
f	Cell Proliferation / Division / Cell Cycle	1P-0286~1P-0311	2P-0320~2P-0327	3P-0291~3P-0324
g	Signal Transduction (Post-Translational Modification)	1P-0312~1P-0340	2P-0328~2P-0336	3P-0325~3P-0342
h	Signal Transduction (Bioactive Substances)	1P-0341~1P-0359	2P-0337~2P-0355	3P-0343~3P-0352
H"	Cell Death	1P-0360~1P-0384	2P-0356~2P-0363	31 0343 31 0332
H	Others	11-0300 - 11-0304	2P-0364~2P-0386	
	evelopment and Regeneration		2P-0364~2P-0386	
		10.0305 10.0303	2P-0387~2P-0415	
a	Early Embryonic Development	1P-0385~1P-0392		20 2252 20 2222
b	Organogenesis / Morphogenesis / Regeneration	1P-0393~1P-0420	2P-0416~2P-0437	3P-0353~3P-0380
C	Stem Cells	1P-0421~1P-0435	2P-0438~2P-0465	3P-0381~3P-0406
d	Cell Differentiation	1P-0436~1P-0454	2P-0466~2P-0475	3P-0407~3P-0425
е	Reproduction	1P-0455~1P-0472	2P-0476~2P-0484	3P-0426~3P-0441
f	Others	1P-0473~1P-0478		3P-0442~3P-0448
5. Ph	ysiology and Pathology			
a	Brain - Nervous System / Neurodevelopment	1P-0479~1P-0511		
b	Brain - Nervous System / Behavior	1P-0512~1P-0522	2P-0485~2P-0507	3P-0449~3P-0460
С	Brain - Nervous System / Structure			3P-0461~3P-0468
d	Brain - Nervous System / Disorder	1P-0523~1P-0533	2P-0508~2P-0535	3P-0469~3P-0499
е	Immunity	1P-0534~1P-0556	2P-0536~2P-0545	3P-0500~3P-0534
f	Infection	1P-0557~1P-0566	2P-0546~2P-0555	3P-0535~3P-0553
g	Aging	1P-0567~1P-0586	2P-0556~2P-0574	
h	Cancer Cells	1P-0587~1P-0632	2P-0575~2P-0618	3P-0554~3P-0576
⊢ <del>"</del>	Cancer Tissue	555, 11 5552	2P-0619~2P-0629	3P-0577~3P-0593
H	Cancer Treatment	1P-0633~1P-0642	2P-0631~2P-0652	
k	Metabolism	1P-0643~1P-0670	2P-0653~2P-0662	3P-0594~3P-0630
I	Genetic Disorders	1P-0643~1P-0670	21-0033-21-0002	3P-0631~3P-0654
		1P-0671~1P-0692 1P-0693~1P-0705		
m	Plants		2P-0663~2P-0675	3P-0655~3P-0666
<u></u>	Others	1P-0805	2P-0676~2P-0686	3P-0667~3P-0689
n 6 M	ethods and Techniques		Zr-00/0°-2r-0080	Jr-000//~Jr-0089
=		10.070/ 10.0725	20.0607 20.0710	20.0000 20.0720
a	Nucleic Acid Engineering / Genome Editing	1P-0706~1P-0725	2P-0687~2P-0718	3P-0690~3P-0720
b	Protein Engineering	1P-0726~1P-0736	2P-0719~2P-0740	3P-0721~3P-0752
С	Cell Engineering / Developmental Engineering	1P-0737~1P-0756		3P-0753~3P-0761
d	Chemical Biology	1P-0757~1P-0777		
е	Analysis and Diagnosis of Diseases		2P-0741~2P-0751	
f	Bioinformatics	1P-0778~1P-0799	2P-0752~2P-0761	3P-0762~3P-0771
g	Imaging		2P-0762~2P-0772	3P-0772~3P-0790
h	Lab Automation / Robotics	1P-0800~1P-0804		
i	Others		2P-0773~2P-0794	3P-0791~3P-0802
7. Ec	ology			
	Ecology		2P-0795~2P-0805	
	hers			
	Others			3P-0803~3P-0804
-				



## Online Program Search & Abstract Browsing System / App

### ◆ How to access and login program search and online abstract browsing system

Please access the program search and online abstract browsing system via MBSJ2018 website.

MBSJ2018website http://www2.aeplan.co.jp/mbsj2018

\*Abstracts are available from November 9 (Fri), 2018.

### [For those who have completed advance registration]

By logging in the system, you can browse / download the abstracts and also make your own customized "My schedule". Enter your ID and PW.

ID: your registration No.

PW: sent by email / printed on your name badge

# [For those who register on-site (including those who failed to pay advance registration fee)]

An ID and PW will be provided at the registration desk for those who register on-site.

You can search and view the programs without logging in, but cannot browse or download the abstracts.

Those who will not attend the meeting but want to purchase an ID and PW, please contact the secretariat at <mbsj2018@aeplan.co.jp>.

### Use of the system at the meeting site

Wireless internet access is available at the meeting site.

SSID: FREE-PACIFICO

Password: None

### ◆ How to install program search and abstract browsing app

Free to download from App Store or Google Play.

OS: iOS 8 or later (iPhone, iPad, iPad touch), Android 4 or later

App name: MBSJ2018 Search word: mbsj2018



### Information for Participants

### 1. Registration

### Registration

On-site registration is available at the conference center 2F (Registration Desk 1) or Exhibition Hall 1F (Registration Desk 2).

Residents of Japan who have already completed advance registration with a full payment by the due date will receive a name badge by postal mail in early November, and do not need to stop by at the registration desk. Please be sure to wear the name badge when entering the meeting site.

Overseas residents who have already completed advance registration with a full payment should go first to the General Information Desk at the Registration Desk 1 to receive your name badge.

### Registration Desk

	Location	Open Hours	Operations
Registration Desk 1	Conference Center 2F	November 28 (Wed) / 29 (Thu) 8:00 - 17:00 November 30 (Fri) 8:00 - 15:00	On-site registration General information MBSJ membership registration Accommodation, etc
Registration Desk 2	Exhibition Hall 1F	November 28 (Wed) / 29 (Thu) 8:00 - 16:00 November 30 (Fri) 8:00 - 14:00	On-site registration

### Registration Fees

	Advance Registration July 2 – October 12	On-site Registration		
Regular Member	JPY9,000 (untaxed)	JPY11,000 (untaxed)		
Student Member	JPY3,000 (untaxed)	JPY4,000 (untaxed)		
Non-member	JPY12,500 (tax-included)	JPY14,500 (tax-included)		
Undergraduate Student	JPY 0 with	) with Student ID.		
(Regardless of membership)	*Not applicable to Graduate Students			

<sup>\*</sup>Payment by cash and credit card (VISA, MasterCard, JCB, AMEX, Diners) is acceptable.

### **♦** Name badge

Please be sure to wear your name badge showing your name and affiliation while you are at the meeting site. No entry without name badge is acceptable. (except for JST Satellite Symposium on November 28 (Wed.))



### Abstracts

The abstracts will be released only on the online system and app and no booklets or CD-ROM will be issued. The registrants can search, browse and download the abstracts with their ID and password.

Refer to page 15 for the details.

### **♦ Program Booklet**

Program booklet is issued ONLY in JAPANESE. MBSJ Members will receive the program booklet along with the Bulletin Vol.121 in early November. For non-members and undergraduate students who purchased a booklet and live in Japan, the program booklet will be sent together with the name badge in early November.

### **♦** Membership Application and Payment (MBSJ Desk)

You can apply for a membership or pay your annual membership fee at MBSJ Desk located next to Registration Desk 1 (2F, Conference Center). Please visit for the payment if you have not yet paid your membership fee.

### 2. Biotechnology Seminar (Luncheon Seminar)

The lunch tickets will be distributed at the Biotechnology Seminar Ticket Desk below.

Biotechnology Seminar Ticket Desk (Only tickets for the seminars on the day)

Location: Conference Center 1F

Hours: Nov. 30 (Wed) - Dec. (Fri) 8:00am - 11:00am

\*close as all the tickets are distributed

Requirements: Please show your name badge at the seminar ticket desk.

The number of lunch tickets differs depending on the seminars.

### Attention

The lunch tickets are invalid after the starting time of the seminars. Lunch tickets holders should arrive at the seminar room by then. Please be aware that if you are late, lunch will be provided to those who are attending the seminar without the tickets.

### ◆ Attending the Biotechnology Seminar after the ticket distribution

Please come directly to the room where the seminar is held. Please note that there will be no lunch provided in this case. (Lunch will be provided if there is any left.)

<sup>\*</sup>Lunch is provided by courtesy of companies and groups co-sponsoring Biotechnology Seminars. Please be advised that the lunch tickets will be distributed on a first-come, first-serve basis.



### 3. Services & Facilities

### Snacks · Drinks

Snacks and drinks are available for purchase at the Exhibition Hall 1F.

### **♦** Paging service · Bulletin board

No paging service is available to call an individual except for an emergency. Please use a bulletin board in front of the registration desk in order to communicate with the other participants.

### Cloaks

Cloaks are open as followings. No valuables or computers can be checked in to the cloak since the society/meeting does not hold any responsibility for loss or damage of your items.

Location	Open Hours
Conference Center 1F	Nov. 28 (Wed) / Nov. 29 (Thu) 8:00 – 19:15 Nov. 30 (Fri) 8:00 – 17:30
Exhibition Hall 1F	Nov. 28 (Wed) / Nov. 29 (Thu) 8:00 – 19:15 Nov. 30 (Fri) 8:00 – 15:45

### Internet

Wireless internet access is available at the meeting site for you to use own devices. (see page 11-13 for wireless network area)

SSID: FREE-PACIFICO

Password: None

### ◆ Travel Desk

Travel Desk by JTB Corp. is located near Registration Desk 1 (Conference Center 2F) to help you to find accommodations and transportations.

### Parking

Parking is available at the Pacifico Yokohama (Parking fee: JPY270/30mim, JPY540/hour). Participants are encouraged to use public transportation due to the limited number of the parking lots.

### **◆** ATM

ATMs are located below.

E-net bank's ATM: Daily Yamazaki at Exhibition Hall 1F Hall A Seven bank's ATM: Seven-Eleven at Exhibition Hall 2F concourse

### Business Center (courier, copy, fax)

The business center is located at the Exhibition Hall 2F. Copy, Fax, PC output are provided with a charge. Courier service (Yamato Transport, Yu-Pack, FedEX) is also provided.



### **◆** Convenience Store

Convenience stores are located at the exhibition Hall for the purchase of food and beverage. Courier service (Yamato Transport) and ATM are also available.

Daily Yamazaki: Exhibition Hall 1F Hall A Seven-Eleven: Exhibition Hall 2F concourse

### 4. Information for Participants with Children

### **◆ Childcare Room**

The childcare room by babysitting company is available at the meeting site. (Pay service, advance application required)

Open hours: Nov. 28 (Wed) / Nov. 29 (Thu) 8:30 – 19:30 Nov. 30 (Fri) 8:30 – 17:30

Location: For security reasons, only those signed up for the service will be informed of the location.

Age limitation: 8 weeks old – 12 years old Babysitting company: Family Support Co., Ltd

Fee: JPY400/hour

\*Payment can be made in cash when you leave your child.

\*As staff will be arranged upon application, full amount will be charged even in the case of last-minute cancellation or shortening of use. Also, extra charge will be charged for extended use.

Lunch: Lunch is available for JPY700 (advance application required)

\*\*\*Note for lunch\*\*\*

\*Over 2 years only

\*Allergy-free meals are not available

\*Payment can be made in cash along with babysitting fee

\*Cancellation deadline: Nov. 15 (Thu) 17:00

(In case of cancellation after the deadline, the full amount the fees will be charged.)

\*If you do not order a lunch, please prepare meal for your child by yourself.

How to apply: Please email directly to the babysitting company Family Support Co., Ltd. including the necessary information below.

E-mail: houjin@familysupport.co.jp

Subject: MBSJ2018 childcare reservation

Necessary Info.

1) Parent's / Participant's name, affiliation, contact

2) Child's name, age, sex

3) Date and time of use

4) Special notes on taking care of your child (if any)

5) Lunch: Need (date, qty.) / No need



Application deadline: Nov. 14 (Wed) 17:00

Application & Inquiry to: Family Support Co., Ltd.

E-mail: houjin@familysupport.co.jp / Tel: +81-3-6300-9307 / Fax +81-3377-3178

Note: Though the babysitting company's insurance will cover damages of unexpected accidents within the coverage limit, Molecular Biology Society and The 41st Annual Meeting of the Molecular Biology Society of Japan will not take any responsibility for any accidents at the nursery.

### ◆ Family Room

The Family Room is available for parents to nurse their children, change diapers, have meals or just relax. The room can be used for free of charge without reservation at the following hours. Please note there is no staffs in this room, so children must be accompanied at all times by parents or guardians. Please note that Molecular Biology Society of Japan and The 41st Annual Meeting of the Molecular Biology Society of Japan will not take any responsibility for any accidents at the nursery.

Place: Conference center 5F 513

Open hours: Nov. 28 (Wed) / Nov. 29 (Thu) 8:00 – 19:00 Nov. 30 (Fri) 8:00 – 17:00

### **♦** Nursing room

A nursing room is also located at exhibition hall 2F. A baby bed and hot-water supply equipment are available.

### 5. Prohibitions

### **♦** Photography · Recording

No photography and recording with camera, video, cellphone and any device is allowed at the meeting site.

### **♦** Cellphone use

Talking on the cellphone in the lecture/presentation rooms is not accepted. Please set your cellphone on the silent mode and make sure it will not make a noise during lectures/presentations.

### Smoking

Smoking is prohibited in all area except for the separate smoking spots.



### Information for Organizers, Poster Discussers and Presenters

### For Organizers of Symposia / Workshops / Forums

### 1. Arrival

Please come to the "Time Keeper's Desk" at the right-front of the room and let the staff know of your arrival by 15 minutes before the starting time.

### 2. Process and Timing

The organizers are expected to ensure that all presentations start and finish punctually as scheduled.

If there is any change on the program schedule, please let the staff know of the changes. For symposia and workshops, staff will assist organizers with timing. If there is no request, remaining time for each presentation will be notified with bell signals as follows;

- 1 ring: 5 minutes to the end of allotted time
- 2 rings: 2 minutes to the end of allotted time
- 3 rings: End of allotted time
- \*Allotted time includes time for Q & A.

For forums, organizers are asked to manage timing and let the speakers know of it.

### For Presenters of Symposia / Workshops / Forums

### 1. Language

Language of presentations in symposia is English.

Language of presentations in workshops differs depending on each theme. (Language of each theme is indicated in "Program at a Glance" on page 4 - 9)

All the presentation slides are to be prepared in English.

Forums are all conducted in Japanese.

### 2. Time Allocation

Please be aware that the time allocation for presentation and discussion differs depending on each lecture.

For symposia and workshops, staff will assist organizers with timing. If there is no request, remaining time for each presentation will be notified with bell signals as follows;

- 1 ring: 5 minutes to the end of allotted time
- 2 rings: 2 minutes to the end of allotted time
- 3 rings: End of allotted time
- \*Allotted time includes time for Q & A.

For forums, organizers are asked to manage timing and let the speakers know of it.



### 3. Presentation Method

Presentations are to be given with your own laptop. Please do not forget to bring your laptop.

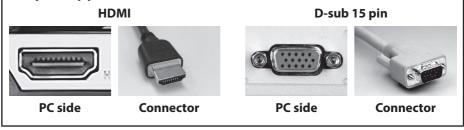
\*No sound output is available. (Please see "Technical requirements for your laptop" below.)

### 4. Preview

Please bring your laptop at "Preview Desk" in the session room at least 15 minutes prior to the start of your session.

[Technical requirements for your laptop]

- •Ensure that your computer is equipped with the proper monitor connector (either HDMI or D-sub 15 pin) as shown below. If your computer does not have one of these connections, please bring an appropriate converter with you.
- •Be sure to bring an AC adaptor. Please note that voltage in Japan is 100V and the frequency ranges 50-60 Hz depending on the area (50Hz in Yokohama). The socket is type A, which has two flat plug holes. If your laptop is not convertible, transformers and/or plug adaptors are necessary.
- ·Please deactivate the screen-saver and power saving mode of your laptop.
- A display, computer mouse, and keyboard will be prepared on the podium for you to operate by yourself.



### **For Poster Discussers**

### 1. Arrival

Please come to the "Reception Desk for Poster Discussers" at the entrance of the Poster/Exhibition Hall by 12:45 on the day of your assigned session and receive the following items.

- ·Blue ribbon (Please wear it on your chest during the session.)
- ·Abstracts of your assigned session

### 2. Process and Timing

Discussers are asked to visit all the posters of their assigned session during 150 minutes from 13:00 to 15:30. Time allocation for each poster is left up to the discussers.

The primary role of discussers is to activate poster discussions by involving other participants. If discussion of a poster is already sufficiently active, discussers can skip the poster rather than cutting into the discussion.



### **For Poster Presenters**

### 1. Periods of Poster Display

Each poster will be displayed for one day during the meeting period (November 28 (Wed) - 30 (Fri)). Please set up your poster in the morning of your presentation day.

### 2. Time for Set up, Presentation / Discussion, Removal

All accepted abstracts including those selected for presentations at workshops are to be presented at a poster session.

Please make sure to stand by in front of your poster during the time for presentation / discussion.

Please wear a yellow ribbon indicating a poster presenter on your chest.

Set up	8:00 – 10:00
Presentation /	Odd Numbers 13:00 – 14:15
Discussion	Even Numbers 14:15 – 15:30
	November 28 (Wed) 19:00 – 19:30
Removal	November 29 (Thu) 19:00 – 19:30
	November 30 (Fri) 15:30 – 15:45

### 3. Posting Information

### [Location]

The last 4-digit of presentation number is on the upper left of each panel. Please use the panel that matches your presentation number. Push pins are prepared at each panel.

### [Panel size]

Each panel space available is 120 cm wide x 150 cm high. Please indicate your presentation title, author(s), and affiliation(s) on top of the poster. Your presentation title, author(s), and affiliation(s) must be written big enough to see from 5 meters away.

### [Mark for the presenter]

Please put a small circle on the upper left of the presenter's name.

### [Language]

It is recommended for all presenters to prepare their posters in English.

### [Text size]

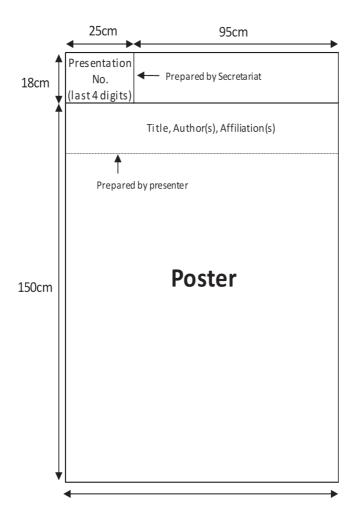
Text on the poster should be as large as you can read from 2 meters away. Please create the figures and charts as large as possible.

### [Removal]

Please remove your poster by yourself when the presentation time is over. We do not keep or return any of the posters left.



### [Example]





The 41st Annual Meeting of the Molecular Biology Society of Japan

[3P-0313] Quantitative single-cell live imaging for endogenous cell cycle proteins. OMasaya Mukai<sup>1,2,3</sup>, Yuhei Goto<sup>2,3</sup>, Kazuhiro Aoki<sup>1,2,3</sup> (1.Dept of Basic Biol, Sch of Life Sci, SOKENDAI, 2.Div of Quan Biol, ExCELLS, NINS, 3.Div of Quan Biol, NIBB, NINS) [3P-0314] Elucidation of G2/M phase regulation by transcription factor YB-1 ONagisa Arikawa<sup>1</sup>, Yuuga Sawata<sup>1</sup>, Yojiro Kotake<sup>1</sup> (1.Graduate School of Humanity-Oriented Science and Engineering, Kindai University) Phosphorylation that triggers the ubiquitin-dependent [3P-0315] degradation of Swi5 OHayashi Hiroki<sup>1</sup>, Ogawa Naoya<sup>1</sup>, Kishi Tsutomu<sup>1</sup> (1.Dept of Chem Bio, Univ of Nihon) [3P-0316] Transition from tetraploidy to aneuploidy is determined by Eg5-dependent spindle pole positioning OMakoto limori<sup>1</sup>, Sei Shu<sup>2,3</sup>, Hiroshi Saeki<sup>2</sup>, Eiji Oki<sup>2</sup>, Yoshihiko Maehara<sup>2,4</sup> (1.Dept. Mol. Can. Biol., Grad. Sch. Pharm. Sci, Kyushu Univ., 2.Dept. Surg. Sci., Grad. Sch. Med. Sci., Kyushu Univ., 3.Chugai Pharm. Co., Ltd., 4.Kyushu Central Hosp.) [3P-0317] Heat shock-induced SAC activation requires heat shock protein 105 for the mitotic arrest OAyana Kakihana<sup>1</sup>, Yui Oto<sup>1</sup>, Youhei Saito<sup>1</sup>, Yuji Nakayama<sup>1</sup> (1.Dept. of Biochem. &Mol. Biol., Kyoto Pharm. Univ.) [3P-0318] Mechanism of acentrosomal spindle bipolarization in mouse oocyte OShuhei Yoshida<sup>1</sup>, Tomoya S Kitajima<sup>1</sup> (1.BDR, RIKEN) [3P-0319] Chiasma-dependent coordinated homologous centromere oscillation contributes to elimination of erroneous attachments at meiosis I. OMisuzu Wakiya<sup>1</sup>, Eriko Nishi<sup>1</sup>, Shinnosuke Kawai<sup>1</sup>, Yuta Itabashi<sup>1</sup>, Kazuhiro Katsumata<sup>1</sup>, Ami Hirayasu<sup>1</sup>, Ayumu Yamamoto<sup>1</sup> (1.Dept. of Chem., Grad. Sch. of Int. Sci. Tech., Shizuoka Univ.) [3P-0320(2PW2-15-2)] Crucial roles of kinetochore recruitment of the RZZ complex in the maintenance of chromosome stability OMasanori Ikeda<sup>1</sup>, Kozo Tanaka<sup>1</sup> (1.Department of Molecular Oncology, Institute of Development, Aging and Cancer, Tohoku University) [3P-0321] THE SPATIOTEMPORAL DYNAMICS OF NUCLEOPORIN NUP58 DURING CELL DIVISION OHartono Hartono<sup>1,2,3</sup>, Masaharu Hazawa<sup>1,2,3</sup>, Firli Rahmah Primula Dewi <sup>1,2,3</sup>, Akiko Kobayashi<sup>1,2,3</sup>, Mahmoud Shaaban Mohamed<sup>1,2,3</sup>, Lim Kee Siang <sup>1,2,3</sup>, Richard W. Wong<sup>1,2,3</sup> (1.Laboratory of Molecular Cell Biology, Division of Natural System, Graduate School of Natural Science and Technology (NST), 2.WPI Nano Life Science Institute (WPI-NanoLSI), Kanazawa University, Kanazawa, Ishikawa, Japan, 3.Cell-Bionomics Research Unit, Innovative Integrated Bio-Research Core, Institute for

	Frontier Science Initiative, Kanazawa University, Kanazawa, Ishikawa, Japan)
[3P-0322]	Role of DNA replication licensing factor, Cdt1 in M phase
	OTastuya Hatano <sup>1</sup> , Takeshi Maeda <sup>1</sup> , Akiyo Hayashi <sup>1</sup> , Yasushi Shiomi <sup>1</sup> , Hideo Nishitani <sup>1</sup> (1.Grad. Sch. of Life Sci., Univ. of Hyogo)
[3P-0323]	Relevance of Kintoun / H10BH-BP and Topoisomerase 2A
	OMaho Furukawa <sup>1</sup> , Yoshitami Hashimoto <sup>1</sup> , Hirofumi Tanaka <sup>1</sup> (1.Tokyo University of Pharmacy and Life Sciences)
[3P-0324]	Reconstitution of Min system using PURE system
	OAoi Yoshida <sup>1</sup> , Shunshi Kohyama <sup>1</sup> , Nobuhide Doi <sup>1</sup> , Kei Fujiwara <sup>1</sup> (1.Grad. Sch. Sci. Tech., Keio univ.)
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