

The 9<sup>th</sup> Princess Chulabhorn International Science Congress THE CHALLENGES OF ONE HEALTH: THE ROLES OF BIOSCIENCES AND CHEMISTRY

December 15 - 18, 2024, Shangri-La Hotel, Bangkok, THAILAND

# **POSTER SESSIONS**

Location: The Ballroom Foyer on the Lobby level of the Shangri-La Hotel.

#### List of Poster Presentations:

Code	Торіс	Poster No.	Group	Board No.
PA	Diseases of Public Health Concerns (Genetic Diseases, Cancer)	PA-01 to PA-42	1	001 - 042
PB	Drug Development for Prevention and Treatment	PB-01 to PB-30	1	042 - 072
PC	Antimicrobial Resistance	PC-01 to PC-26	2	001 - 026
PD	Climate Change and Communicable Diseases	PD-01 to PD-11	2	027 - 037
PE	Environmental Health Issues	PE-01 to PE-22	2	038 - 059
PF	Food Safety and Security	PF-01 to PF-07	2	060 - 066

#### Hours:

### Group 1: Poster Number PA-01 to PB-30, Board Number 001 - 072

Posters should be set up for display on Monday, December 16 from 08:00. *Display* - Monday, December 16, 08:00 to Tuesday, December 17, 10:00. *Discussion* - Monday, December 16 from 08:30 to 09:00 and 12:30 to 13:00. *The display must be removed by 10:00, on Tuesday, December 17, 2024.* 

### Group 2: Poster Number PC-01 to PF-07, Board Number 001 - 066

Posters should be set up for display on Tuesday, December 17 from 11:00.

Display - Tuesday, December 17 from 11:00 to Wednesday, December 18, 18:00.

Discussion - Tuesday, December 17 from 12:30 to 13:00 and 16:30 to 17:00.

The display must be removed by 18:00, on Wednesday, December 18, 2024.

The Poster Board is 1.0 m. (width) x 2.5 m. (height). The poster size should not be larger than 0.9 m. (width) x 1.2 m. (height).

Please check the **Poster Number and Board Number** from the list of Poster Presentations in the Poster Session of the "Program and Abstracts" book. **The Board Number** refers to the location that does not change throughout the Congress and will be posted at the top of the poster boards by the organizers. Posters can be mounted with double-sided foam mounting tape, which will be available on site.

Staff will be available in the morning of Monday, December 16 to Wednesday, November 18, and at all times during the day (08:00 to 17:00) to assist presenters.

## LIST OF POSTER PRESENTATIONS

GROUP 1:	_	
A. DISEASES OF PUBLIC HEALTH CONCERNS	<u>Poster</u> No.	<u>Board</u> No.
(GENETIC DISEASES, CANCER)		
Apoptosis induction and molecular docking of 3,4-dihydro-lactucin from Microbispora rosea AL22 with anticancer properties Thongchai Taechowisan	PA-01	001
Kinase library screening identifies IGF-1R as an oncogenic vulnerability in cholangiocarcinoma stem-like cells Chotirat Rattanasinchai	PA-02	002
Inhibition of breast cancer cell migration and invasion by a novel neutralizing monoclonal antibody targeting ADAM9 Chayapat Thammarak	PA-03	003
Gene alterations detection in Thai patients with solid tumors Phanasit Phuwasanphet	PA-04	004
Prevalence of JAK2V <sup>617F</sup> mutation in polycythemia vera and essential thrombocythemia patients at Chulabhorn hospital Nattida Cholnakasem	PA-05	005
Correlation of HER-2 testing methods by immunohistochemistry and fluorescence <i>in situ</i> hybridization in Chulabhorn hospital <i>Thivaratana Sinthuwiwa</i>	PA-06	006
The assessment of concordant of HER2 status using fluorescence in situ hybridization (FISH) technique within the ASCO/CAP guideline between 2013 and 207 Kanthida Jangyubol	<b>PA-07</b> 18	007
Detection of Legionella pneumophila and its amoeba host in wastewater treatment plants using droplet digital polymerase chain reaction Rojana Sukchawalit	PA-08	008
Development of a droplet digital PCR (ddPCR) assay for detection of Legionella species Benya Nontaleerak	PA-09	009
Frequency of CALR mutation in Thai myeloproliferative neoplasm patients Kriangpol Wiriyaukaradecha	PA-10	010
Capsaicin exhibits anti-metastatic activity in human nasopharyngeal carcinoma cells through the modulation of mTOR signaling Pattama Singhirunnusorn	5 PA-11	011
Targeting mitotic proteins induces G2/M arrest and apoptosis in cholangiocarcinoma cells Benchamart Moolmuang	PA-12	012
Methylome profiling reveals subtype-specific epigenetic patterns in Thai intrahepatic cholangiocarcinoma Jittiporn Chaisaingmongkol	PA-13	013
Urinary biomarkers for intrahepatic cholangiocarcinoma using metabolomics Nattamon Narkwichearn	PA-14	014
Manganese induced inflammation in oral cancer cells Nutsira Vajeethaveesin	PA-15	015
Evaluation of the anticancer potentials of sugar-rich fraction and crude aqueous extract of Moringa oleifera seeds in estrogen receptor-positive and triple-negative breast Omowumi O. Adewale	PA-16 cancer c	016 ells
Local invasion suppressor in intraductal papillary neoplasm of the bile duct tumors identified by clonal evolution analysis <i>Khajeelak Chiablaem</i>	PA-17	017
Metformin modulates pancreatic stellate cell migration and cancer stemness in 3D pancreatic ductal adenocarcinoma models, suggesting potential for enhanced therap Soojung Hahn	PA-18 Deutic ef	018 ficacy

	<u>Poster</u> <u>No.</u>	<u>Board</u> <u>No.</u>
EGFR mutations in 592 Thai NSCLC patients Nithiphut Tantirukdham	PA-19	019
Serum and urinary galectin-1 as a biomarker of chronic kidney disease progression Nachayada Chaiyagot	PA-20	020
VDa, VLe, and VLi demonstrated anti-tumor activity against A549 by targeting the JAK2/STAT3 pathway Siriporn Keeratichamroen	PA-21	021
The novel Q500X and r619x IDUA mutations in Thai patients and their potential treatment through aminoglycoside induced premature stop codon read-through mut Phannee Sawangareetrakul	PA-22 tations	021
Characterization and functional study of a novel CTSA variant in a family with late-infantile galactosialidosis associated with T-cell defects Lukana Ngiwsara	PA-23	023
The role of ANKRD1-NF-KB-MAGE-A6 in metastatic breast cancer Penchatr Diskul-Na-Ayudthaya	PA-24	024
Identifying autoantibodies against NDE1, PYCR1, and VIM combined with CA19-9 for enhanced ICCA diagnosis Wachira Kajornsrichon	r PA-25	025
Identification of NDRG1 as a potential target for anoikis resistance in breast cancer metastasis Amnart Khongmanee	PA-26	026
Elucidating the molecular mechanism of IMPDH2 in osteosarcoma metastasis Petlada Yongpitakwattana	PA-27	027
Label-free impedimetric immunosensors for detection of cervical cancer biomarkers Kamolwan Watcharatanyatip	6 PA-28	028
Label-free quantification mass spectrometry reveals metastatic proteins and advanced-stage prognostic biomarkers in cholangiocarcinoma <i>Toollayapron Audsasan</i>	PA-29	029
Investigation of the inhibitory effects of protein O-GlcNAcylation on SW620 metastatic colon cancer cells Thirasak Bunsuk	PA-30	030
Multidrug-resistant lung cancer cells are highly susceptible to ferroptosis Phichamon Phetchahwang	PA-31	031
Glycoproteomics of plasma immunoglobulin A in patients with colorectal cancer Juthamard Chantaraamporn	PA-32	032
Charge-based diagonal chromatography for isolating O-GlcNAc-modified peptides in HELA cell extracts Churat Weearphan	PA-33	033
CEliver: a novel cell-free DNA fragmentation-based prediction model for early hepatocellular carcinoma Sasimol Udomruk	PA-34	034
Investigation of cancer colony formation and proteomes of colorectal cancer cell lines using 3D culture models Photsathorn Mutapat	PA-35	035
Culture supernatants from cholangiocarcinoma cell lines induce the M2 phenotype of primary human monocytes Sittisak Pui-ock	PA-36	036
Actionable genetic alterations in non-small cell lung cancer identified through multi-gene panel testing Chumut Phanthunane	PA-37	037
The effect of passive smoking on inflammatory factors in infertile women in Southern China Rongju Liu	PA-38	038

		<u>Poster</u> <u>No.</u>	<u>Board</u> <u>No.</u>
	Nurse sonographer competency in liver and bile duct cancer screening: an alternative to radiologist assessment Teerapat Ungtrakul	PA-39	039
	The association of gut microbiome in Thai colorectal adenomas Thoranin Intarajak	PA-40	040
	Health literacy regarding liver and bile duct cancer in high-risk groups Kamonwan Soonklang	PA-41	041
	Predictor of advanced colorectal neoplasia development after polypectomy Dawn Aneknuan	PA-42	042
В.	DRUG DEVELOPMENT FOR PREVENTION AND TREATMENT		
	Synergistic antibacterial activity of 1-methyl ester-nigericin and methyl 5-(hydroxymethyl) furan-2-carboxylate against <i>Proteus</i> spp. <i>Thongchai Taechowisan</i>	PB-01	043
	Adenosine: its molecular mechanisms and potential in cholangiocarcinoma tumor inhibition <i>in vivo Jomnarong Lertsuwan</i>	PB-02	044
	<b>Piper nigrum extract reduces breast cancer incidence by modulation of cancer cytokines/chemokines and T cells</b> Sirinapa Dokduang	PB-03	045
	Lycopodium alkaloids: isolation, semi-synthesis, anti-acetylcholinesterase activity and novel protective application against neurodegenerations Nopporn Thasana	PB-04	046
	The first bioactive polyphenolic glycosides and methods validation for the quantification from <i>Hypodematium</i> sp. <i>Wachirasak Thaisaeng</i>	PB-05	047
	Base-mediated and silver-catalyzed divergent synthesis of naphthalene derivatives from enone-oxazolone Rattana Worayuthakarn	PB-06	048
	Synthesis and evaluation of tacrine-α-onocerin hybrids as cholinesterase inhibitors against Alzheimer's disease Chuleeporn Ngernnak	PB-07	049
	Two unprecedented classes of biflavonoid linkage from Selaginella plants Wanlaya Thamnarak	PB-08	050
	Photoinduced cascade reaction of ene-yne-oxazolones with TMSN3 and NIS: Synthesis of azidyl spiroindenox-azolones Sireethon Khotsombat	PB-09	051
	Photosensitizer-loaded polymer-lipid hybrid nanoparticles; synthesis, photophysical properties and <i>in vitro</i> photodynamic therapy with thyroid cancer cells Sasivimon Pramual	PB-10 s	052
	Troloxamide derivatives as potent acetylcholinesterase inhibitors Jitkanya Holim	PB-11	053
	The utilization of a combined protein selection strategy to isolate anti-PCSK9 nanobodies from synthetic libraries Apisitt Thaiprayoon	PB-12	054
	Novel sulfonamide derivatized Zn(II)-dipicolylamine complexes as potential antibacterial drug leads <i>Kithmini Yasarathna</i>	PB-13	055
	The application of boron nitride nanostructures in anti-cancer and anti-inflammatory drugs delivery <i>Elham Tazikeh-Lemeski</i>	PB-14	056
	Preparation and evaluation of sprayable hydrogel formulations for wound dressing Amlika Rungrod	PB-15	057

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		<u>Poster</u> <u>No.</u>	<u>Board</u> <u>No.</u>
	Repurposing ceftriaxone: A potential therapy for acquired epilepsy in Alzheimer's disease: findings from <i>in vivo</i> and <i>in vitro</i> studies Hattapark Dejakaisaya	PB-16	058
	The active constituent roles in anti-cancer activity of <i>Bulbophyllum</i> orchid <i>Pattana Srifah</i>	PB-17	059
	Synthesis of Caerulomycin analogues for improve anti-cancer activity Rungnapha Saeeng	PB-18	060
	Synthesis and characterization of syringic acid-loaded MIL-100(FE) metal-organic framework for potential therapeutic applications <i>Rikkamae Zinca Marie L. Walde</i>	PB-19	061
	Phytochemical and antimicrobial potential of endemic philippine <i>Vanoverberghia</i> species: Unveiling their me-dicinal value <i>Rikkamae Zinca Marie L. Walde</i>	PB-20	062
	Development and validation of ELISA for the measure-ment of trastuzumab anti-drug antibody in rat serum Patchara Ngok-ngam	PB-21	063
	Bioaccessibility and bioactivity of microencapsulated calamansi waste extract during simulated digestion Boon Jen Lee	PB-22	064
	The effect of melatonin and small molecules on cell re-programming in human skin fibroblast Nongnuch Singrang	PB-23	065
	Legume-5K protects SH-SY5Y cells from erastin-induced neurite outgrowth damage linked with OTUB1 and midkine Theetat Ruangjaroon	PB-24	066
	Development and validation of an HPTLC method for determining mitragynine in OD-FIN polyherbal extract Jaenjira Angsusing	PB-25	067
	ALOIFOL I: A novel anti-inflammatory agent with favor-able CNS safety profile for treating sickness behaviors Peththa Wadu Dasuni Wasana	PB-26	068
	Formulation and evaluation of topical gel using Securinega leucopyrus and Aloe vera for wound healing activity Vindya Pathiraja	PB-27	069
	Uncovering the potential of DEAB as a compound selectively kills multidrug-resistant lung cancer cells Kriengsak Lirdprapamongkol	PB-28	070
	HMG-CoA reductase and cholinesterase inhibitors of <i>Citrus hystrix</i> : Molecular docking–enzymatic evaluations Suriphon Singha	PB-29	071
	Developing a system for the rational use of antibiotics in agriculture in a participatory manner in Amnatcharoen Province Sutida Paboot	PB-30	072

GROUP 2:	<u>Poster</u> <u>No.</u>	<u>Board</u> No.
C. <u>ANTIMICROBIAL RESISTANCE</u>	<u></u>	
Tracking antibiotic resistance genes and human fecal marker CrAssphage in hospital effluents Supitchaya Theplhar	PC-01	001
Prospects of bacteriophages in developing solutions to reduce antibiotic abuse in aquaculture in Thailand Tharindu Pollwatta Gallage	PC-02	002
The study of antibiotic resistance mechanisms in <i>Pseudomonas aeruginosa</i> PCIP screened from PAO1 genomic DNA library <i>Punyawee Dulyayangkul</i>	PC-03	003
Tracking ESBL-producing <i>E. coli</i> and antibiotic resistance genes in livestock waste for one health surveillance <i>Phub Zam</i>	PC-04	004
Oxidative stress mediated mechanistic insights of silver nanoparticles in bacterial cells to overcome antimicrobial resistance Aakash Shukla	PC-05	005
A synergistic antibiotic combination against pulmonary NTM Peiying Ho	PC-06	006
Developing a novel class of antibiotic by targeting tRNA methyltransferase (TrmD) Peiying Ho	PC-07	007
Investigation of the Agrobacterium tumefaciens novel Zur-regulon members in zinc modulation Nirmani Wishwakala Nawarathne	PC-08	008
Roles of 16S rRNA methyltransferase KsgA in oxidative stress response and antibiotic resistance of <i>Pseudomonas aeruginosa</i> <i>Kamonwan Phatinuwat</i>	PC-09	009
Antimicrobial resistance mechanisms: Investigation of role of the ferritin-like gene on antibiotic resistance in <i>Stenotrophomonas maltophilia Parinya Tipanyo</i>	PC-10	010
Enrofloxacin-induced antimicrobial resistance of Stenotrophomonas maltophilia Nuchjaree Boonyong	PC-11	011
Quinoclamine inhibits mitomycin-C-induced SOS response in <i>Pseudomonas aeruginosa</i> PAO1 Saknarin Nin-injan	PC-12	012
Tetracycline induces minocycline resistance in Stenotrophomonas maltophilia Amita Mekarunothai	PC-13	013
Killing effect of phage-ceftazidime combination against ceftazidime-resistant Burkholderia pseudomallei on pig skin Kunsuda Saleepoung	PC-14	014
Characterization of 5-methyluridine in TRNA in <i>Pseudomonas aeruginosa</i> Jurairat Chittrakanwong	PC-15	015
Role of herbicides in antibiotic resistance in Stenotrophomonas maltophilia Pitthawat Grittanaanun	PC-16	016
SoxR-regulated oxidative stress response and its impact on antibiotic resistance in Stenotrophomonas maltophilia Poonyaporn Kanawong	PC-17	017
Gaps in antimicrobial resistance research in southeast Asian water sources: An environmental one health perspective <i>Prasert Makkaew</i>	PC-18	018
An automated snakemake-based pipeline for the detection of antimicrobial resistance genes in the genus <i>Burkholderia</i> Auripan Porat	PC-19	019
Antibiotic resistance genes and mobile genetic elements from the microbiome of Barbour's seahorses Rose Chinly Mae H. Ortega-Kindica	PC-20	020

		<u>Poster</u> No.	<u>Board</u> No.
	Innovative strategies to combat antimicrobial resistance: integrating biofilm disruption, nanotechnology, and one health approaches <i>Muhammad Hassnain</i>	PC-21	021
	Biofilm structure of colistin-resistant <i>Pseudomonas aeruginosa</i> on foley catheter <i>Piyaporn polyiam</i>	PC-22	022
	Agrochemical-induced multidrug antibacterial resistance in Staphylococcus aureus and Escherichia coli Shanaka Karunathilaka	PC-23	023
	Factors affecting resistance to multiple drugs of pulmonary tuberculosis treatment in Thai Charoen Hospital. Thai Charoen District, Yasothon Province Chanchai Booncherd	PC-24	024
	Genetic diversity and antimicrobial resistance of <i>Salmonella enterica</i> isolated from <i>Nile tilapia</i> in retail markets: implications for public health and aquaculture <i>Justice Opare Odoi</i>	PC-25	025
	Prevalence of colistin-resistant and plasmid-mediated colistin resistance genes in <i>E. coli</i> isolates from the Chao Phraya River Suleepon Poomchuchit	PC-26	026
D.	CLIMATE CHANGE AND COMMUNICABLE DISEASES		
	Climate change and health nexus: Measures taken by the health sector in Sri Lanka for adaptation and mitigation Inoka Suraweera	PD-01	027
	Risk-based thresholds for enteric pathogens in recreational waters: Implications for public health Thitima Srathongneam	PD-02	028
	Evaluating tomato brown rugose fruit virus as a one health tool for detecting human-specific contamination Phongsawat Paisantham	PD-03	029
	Discovery of novel anelloviruses in Thai Human Sequencing Data Worakorn Phumiphanjarphak	PD-04	030
	Development of a wastewater assay for sensitive immunosurveillance of pathogen exposure Megan E McBee	PD-05	031
	Development of a prototype of rapid CRISPR/Cas12a based diagnosis for human papillomavirus Parichat Srinok	PD-06	032
	Regulation of curcumin reductase curA through NaOCI and NEM sensing by CurR repressor in Pseudomonas aeruginosa Jintana Duang-Nkern	PD-07	033
	Optimizing saliva microbial DNA extraction to reduce human DNA contamination Donlaporn Sripan	PD-08	034
	Charaterization of PA0242 in shikimate pathway and its regulation in Pseudomonas aeruginosa Sopapan Atichartpongkul	PD-09	035
	Analysis of the immune response to structural and non-structural proteins derived from chikungunya virus Jiratchaya Charoenkul	PD-10	036
	Analysis of the non-structural proteins deduced from whole-genome sequencing of SARS-CoV-2 strains in Bangkok Nathaphon Khamthani	PD-11	037

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	<u>ENVIRONMENTAL HEALTH ISSUES</u> Attenuating effects of vitamin C on lead (Pb)-induced physiological and	PE-01	038
	endocrine disruptive responses in male albino rats Ukam Uno-Ubarei Uno		
	Adverse health effects of PM <sub>2.5</sub> in Ho Chi Minh City, Vietnam Tinh Ho Huu	PE-02	039
	The health effects of household air pollution on children under five in Addis Ababa, Ethiopia Kidus Workineh Tebikew	PE-03	040
	Awareness of dental fluorosis in Ban Huy Phak School, Suan Phueng, Ratchaburi province, Thailand Patcharaporn Gavila	PE-04	041
	Potentially toxic trace elements and their health risk assessment in Lake Rara, a Ramsar site, of west Nepal Rita Bhatta	PE-05	042
	Effects worker at risk of asbestos related diseases in Lao PDR Naly Khaminsou	PE-06	043
	Contents of arsenic in free-range chicken in suburban area of Kui Buri, Prachuap Khiri Khan, Thailand Phanwimol Tanhan	PE-07	044
	Screening of microplastic degradable bacteria from Samut Songkhram mangrove area, Thailand Kanjana Imsilp	PE-08	045
	Genotoxicity and fibrosis in human hepatocytes <i>in vitro</i> from exposure to low doses of PBDE-47, arsenic, or both chemicals <i>Chonnikarn Jirasit</i>	PE-09	046
	Efficient removal of bisphenol a using a magnetic carbon nanofiber adsorbent derived from bacterial cellulose <i>Piyatida Thaveemas</i>	PE-10	047
	Diesel exhaust nanoparticle exposure disrupts CD34+ hematopoietic stem and progenitor cell differentiation in experimental stem cell Niche models Mayer Calma	PE-11	048
	Natural rubber foam: Utilizing clean energy for water purification and Parichart Onsri	PE-12	049
	Effects of particulate air pollution (PM <sub>2.5</sub> , ultrafine particles, and PAHs) on the formation of BPDE-DNA adducts, telomere length, and mitochondrial DNA copy number in human exhaled breath condensate and human bronchial epithelial cell line (BEAS-2B) Naruporn Pedklang	PE-13	050
	Comparisons of measurements and modelling of pollutants at an urban and Peri-Urban site in Bangkok James C. Matthews	PE-14	051
	Distribution and accumulation of per- and polyfluoroalkyl substances in human tissue with thyroid cancer Xiyan Zhang	PE-15	052
	Microbial regrowth and biostability control in Bangkok water purification processes Parinda Thayanukul	PE-16	053
	Assessment of immunomodulatory effects of five commonly used parabens on human THP-1 derived macrophages: Implications for ecological and human health <i>Phum Tachachartvanich</i>	PE-17 impacts	054
	Effect of the tidal regime and season on bacterial community composition in a tropical estuary Chantima Piyapong	PE-18	055
	Exposure to dichloromethane or glyphosate stimulated the transformation of cholangiocytes and increased the invasiveness of cholangiocarcinoma cell lines Angkhameen Buranarom	PE-19	056

	<u>Poster</u> <u>No.</u>	<u>Board</u> <u>No.</u>
The relationship between DNA damage and lead exposure in children Nguyen Thi Huyen	PE-20	057
Exposure to airborne PAHs during pregnancy increases DNA damage in pregnant women and placental tissues Preeyanut Ratanayut	PE-21	058
Assessment of prenatal exposure to airborn microplastics and potential health effects in mother and newborns Wanrada Jiranantawut	PE-22	059
Characterization and sources of elemental carbon, organic carbon in fine particulate matter (PM <sub>2.5</sub> ) in the southern key economic region of Vietnam <i>Tran Hoang Minh</i>	PE-23	059a
F. <u>FOOD SAFETY AND SECURITY</u>		
Safety assessment of low piperine Piper nigrum extract Juntakarn Sangket	PF-01	060
Microbiome profiling of hydroponic greenhouses for development of rapid pathogen diagnostics <i>Wei Lin Lee</i>	PF-02	061
TUSLOB: rapid dipstick DNA extraction system for African swine fever virus detection John Paulo G. Jose	PF-03	062
One health challenge from heavy metal exposure risk in a coastal area of northern Vietnam Nguyen Thi Minh Ngoc	PF-04	063
Effect of different storage temperatures on aflatoxin contamination of peanut ( <i>Arachis hypogaea</i> I.) in Myanmar Cho Mar	PF-05	064
Impact of vaccination and water management on Tilapia lake virus control in hatchery systems Montakarn Sresung	PF-06	065
Comparison of allergens in common beans ( <i>Phaseolus vulgaris</i> ) and soybeans ( <i>Glycine max</i> ) Pantipa Subhasitanont	PF-07	066