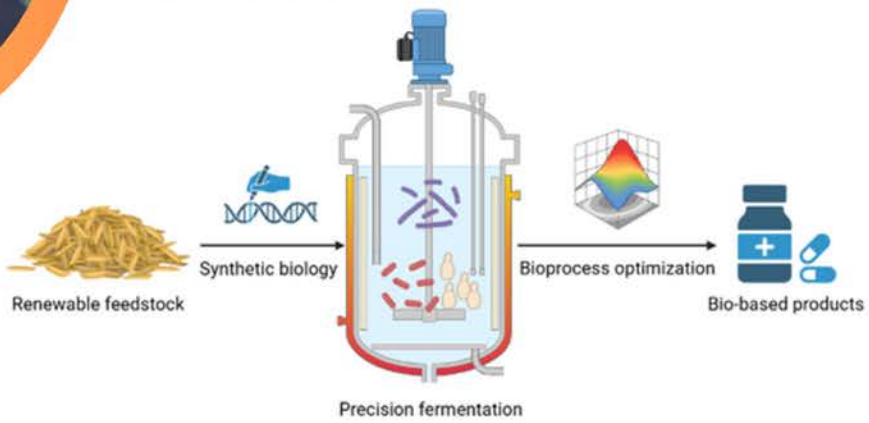
Meet Our Faculty

2026

Department of Microbiology
Faculty of Science
Mahidol University

Dr. Akaraphol Watcharawipas

Lecturer



Research Areas

Yeast metabolic engineering, Synthetic biology, Precision fermentation, Fungal secondary metabolites, Functional foods, Sustainable biorefiner

Research Summary

My research focuses on engineering microorganisms as sustainable cell factories for the production of high-value bioactive compounds. Using *Saccharomyces cerevisiae*, *Bacillus subtilis*, filamentous fungi, and lactic acid bacteria, my work integrates metabolic engineering, synthetic biology, and microbial consortia design to enhance the biosynthesis of carotenoids, flavonoids, aromatic amino acids, GABA, and fungal secondary metabolites. A key emphasis is placed on precision fermentation, stress tolerance, and utilization of low-cost agro-industrial residues such as sugarcane bagasse and crude glycerol. In parallel, my research extends to functional food development, including probiotic-enriched sourdough and corn milk-based yogurt, aligning with Thailand's Bio-Circular-Green (BCG) economy and sustainable biotechnology initiatives.

Current Projects

- Metabolic engineering of Shikimate pathway to overproduce high-value aromatic amino acids in *Saccharomyces cerevisiae* and/or *Bacillus subtilis*
- Diversification of quercetin and its derivatives via glycosylation in *Saccharomyces cerevisiae* and biotransformation in *Bacillus subtilis*
- Synthetic exo/endosymbiosis and cell-to-cell adhesion systems between *Saccharomyces cerevisiae* and *Bacillus subtilis*
- Development of *Saccharomyces cerevisiae* platform for polyketide synthesis
- Studying effects of the HECT-type E3 ubiquitin ligase Rsp5 to sodium transporter trafficking under sodium acetate stress in *Saccharomyces cerevisiae*
- Development of GABA-enriched corn milk-based yogurt via precision fermentation

MUREX Profile

Dr. Ampa Suksatu

Assistant Professor

Research Areas

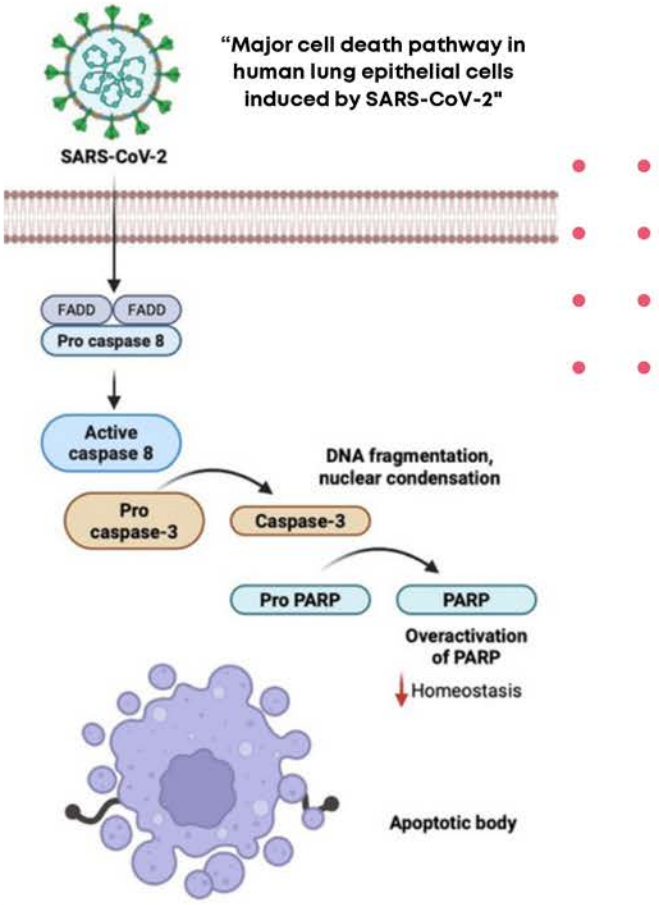
Viral pathogenesis, Emerging viruses

Research Interests

- Emerging virus diseases and *in vitro* viral pathogenesis
- Antiviral activities of Thai traditional plant extracts against SARS-CoV-2
- Cell death induction triggered by SARS-CoV-2 variants
- Connection between signaling lipids and programmed cell deaths induced by virus infection
- Association of extracellular vesicle (EV) signatures in specific programmed cell death pathways in virus-infected cells

Current Projects

- SARS-CoV-2 infection induces specific programmed cell death in human pulmonary epithelial cells
- Cell death-extracellular vesicle pathways in respiratory viruses: mechanisms, therapeutic targets, and a pipeline for emerging pathogens



MUREX Profile

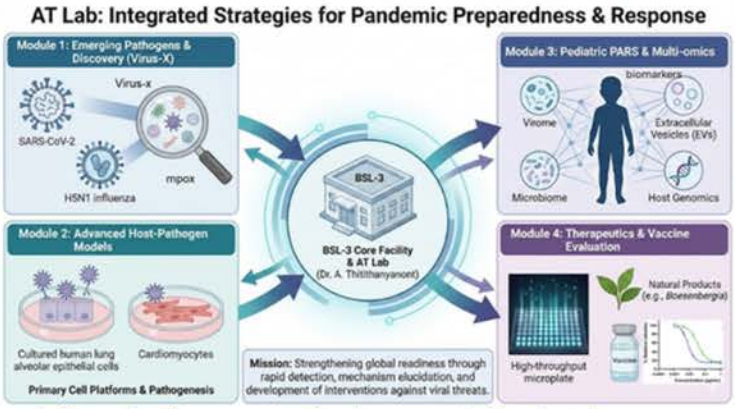
Dr. Arunee Thitithanyanont

Associate Professor

Research Areas

Emerging viral pathogens, Virus-host interactions, Antiviral drug discovery, Vaccine evaluation platforms, Pathogen discovery (Virus-X)

Research Summary



Dr. Arunee Thitithanyanont's research program focuses on strengthening global pandemic preparedness through a multidisciplinary approach spanning pathogen discovery to therapeutic intervention. As Director of the BSL-3 Core Facility, she leads the Virus-X program to identify and characterize novel viruses with pandemic potential, ensuring rapid outbreak readiness. Her laboratory utilizes SARS-CoV-2, H5N1 and Mpox as primary models for drug discovery within advanced antiviral modeling platforms, employing specialized cell systems such as primary human lung epithelium, mesenchymal stem cells, and cardiomyocytes for high-content screening of natural products and novel antiviral agents. This expertise extends to vaccine evaluation platforms, where high-throughput systems are implemented to monitor the neutralizing activity and efficacy of vaccines against emerging viruses with pandemic potential, including H5N1, Mpox, and SARS-CoV-2. Furthermore, the lab investigates Pediatric Post-Acute Respiratory Syndrome (PARS), performing longitudinal analyses of host genomics, viromes, microbiomes, and extracellular vesicles in children following RSV and SARS-CoV-2 infections to uncover the biological drivers of long-term health outcomes.

Current Projects

- **Pathogen Discovery (Virus-X):** Identifying and characterizing novel viruses with pandemic potential to strengthen global outbreak readiness
- **Pediatric Post-Acute Respiratory Syndrome (PARS):** Investigating the interplay of host genomics, viromes, microbiomes, and extracellular vesicles (EVs) in children following respiratory viral infections (RSV and SARS-CoV-2)
- **Advanced Antiviral Modeling:** Developing and utilizing specialized cell models (e.g., lung epithelium and primary tissue models) for high-content screening of antiviral agents and natural products
- **Vaccine and Neutralization Studies:** Implementing high-throughput systems to evaluate vaccine efficacy and neutralizing activity against emerging viruses with pandemic potential

MUREX Profile

Dr. Bharkbhoom Jaemsai

Researcher

Research Areas

Bacterial genomics, Phylogenetics, *Mycobacterium tuberculosis*, Antimicrobial resistance, Bioinformatics

Research Summary

Our group focuses on the evolutionary genomics and macroevolutionary history of human bacterial pathogens, with emphasis on the *Mycobacterium tuberculosis* complex. We use whole-genome sequencing, comparative genomics, and phylogenetic methods to reconstruct transmission histories, lineage diversification, and the distribution of antimicrobial-resistance determinants. Projects often combine wet-lab isolate processing with computational analyses (assembly, variant calling, phylogenomics) and public-health datasets. Students learn genomic pipelines, phylogenetic inference, and interpretation of pathogen evolution in epidemiological context.

MUREX Profile

Dr. Chartchai Changsen

Assistant Professor

Research Areas

Vibrio spp., Quorum sensing, Biofilms, Molecular diagnostics, Bacterial molecular biology

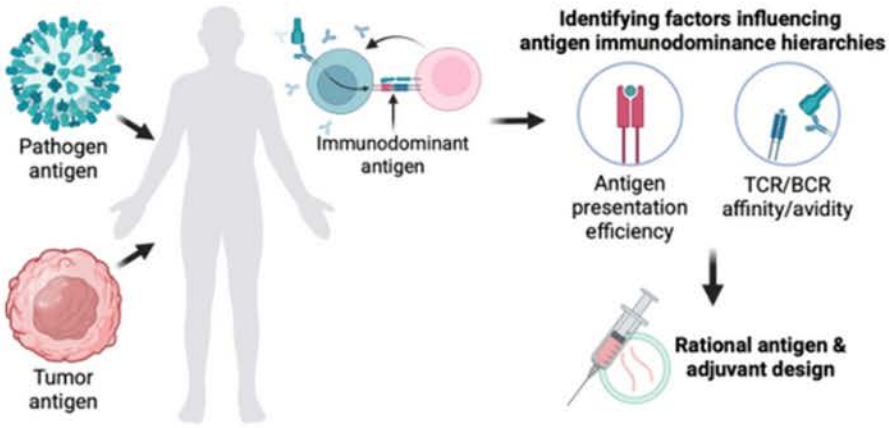
Research Summary

The lab focuses on molecular biology and epidemiology of *Vibrio* species (e.g., *V. harveyi*, *V. parahaemolyticus*, *V. cholerae*) and on mechanisms such as quorum sensing and biofilm formation that underlie virulence and environmental survival. We also develop rapid detection assays (LAMP, colorimetric readouts) for pathogenic *Vibrio* in seafood and explore quorum-sensing inhibitors and biofilm control strategies for aquaculture and food safety applications. Students gain experience in molecular microbiology, assay development, and applied surveillance.

MUREX Profile

Dr. Chotiwat Seephetdee

Lecturer



Research Areas

mRNA-based vaccines and therapeutics, Reverse vaccinology, Antigen and epitope engineering

Research Summary

Dr. Chotiwat Seephetdee's research program focuses on elucidating how antigen immunodominance hierarchies are established and how they shape the quality, magnitude, and durability of vaccine-induced immunity. By dissecting adaptive immune responses to complex pathogen- and tumor-associated antigens, his laboratory aims to identify the molecular and cellular factors that bias immune recognition toward dominant or subdominant epitopes. To address these questions, the lab employs models of the human adaptive immune system to investigate immune responses to vaccination in the contexts of infectious diseases and cancer. Insights gained from these studies are applied to the rational design of next-generation vaccine antigens and immunization strategies that promote broader, more effective, and long-lasting immune protection.

Current Projects

- Infectious disease vaccine and adjuvant development for pandemic preparedness
- Epitope engineering to enhance vaccine immunogenicity against cancer and pathogens
- Cellular responses to mRNA-LNP and their regulators

MUREX Profile

Dr. Fabien Loison

Assistant Professor

Research Areas

Neutrophil biology, NETosis, Inflammation, Innate immunity, Immunopathogenesis

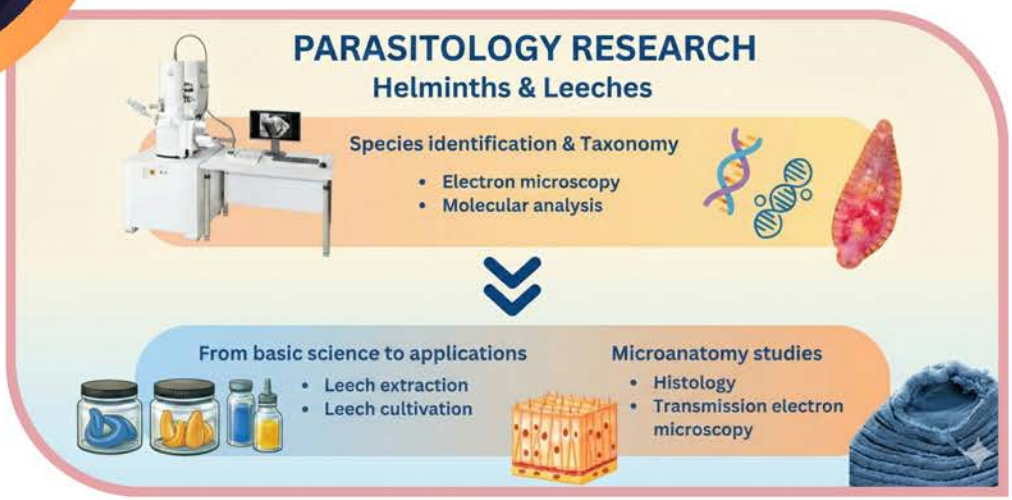
Research Summary

The lab investigates neutrophil biology and the role of neutrophils in host defense versus immunopathology. We study neutrophil activation, survival, heterogeneity, and NETosis during infections—particularly pathogens relevant to Southeast Asia—and seek ways to modulate neutrophil responses therapeutically. Approaches combine primary-cell assays, cell culture, flow cytometry, imaging and functional readouts to probe neutrophil death pathways, inflammatory signalling, and interactions with pathogens and other immune cells. Projects are ideal for students interested in innate immunity, cellular assays, and translational angles on inflammation.

MUREX Profile

Dr. Krittiya Trivalairat

Lecturer



Research Areas

Parasitology, Histology, Leeches, Electron microscopy

Research Summary

Leech lab research has been conducted in the field of parasitology, focusing on animal parasites, particularly helminths and leeches. Emphasis has been placed on species identification and taxonomy using scanning electron microscopy and molecular techniques. Histological methods have been applied for comparative studies of parasite microanatomy. In addition to fundamental research, applied studies have been carried out on leech extraction techniques and their potential biomedical and therapeutic applications. This integrated approach contributes to a broader understanding of parasite diversity, structure, and practical utility.

Current Projects

- A project to develop effectiveness of cannabis extract (CBD) on external wound healing
- Survey reptile diversity and assessing parasitic occurrence in reptiles in Mae Wong National Park region
- A study of diversity and biology of freshwater leeches in Southeast Asia
- Development of leech cultivation methods for medical applications

MUREX Profile

Dr. Marisa Ponpuak

Associate Professor

Research Areas

Autophagy, Host–pathogen interactions, Immunology, Mycobacterial infection, Antigen presentation

Research Summary

Our lab studies autophagy and related pathways in host defence and immunity during infectious disease. We examine how autophagy contributes to clearance of intracellular bacteria, parasites and viruses, influences antigen presentation, and regulates inflammation and immune cell survival. Using molecular cell biology, infection models and imaging, we aim to define mechanisms by which pathogens evade or exploit autophagy and to identify targets for modulating host responses. The lab offers opportunities in cell-based autophagy assays, infection experiments, and translational projects that link basic autophagy biology to pathogen control.

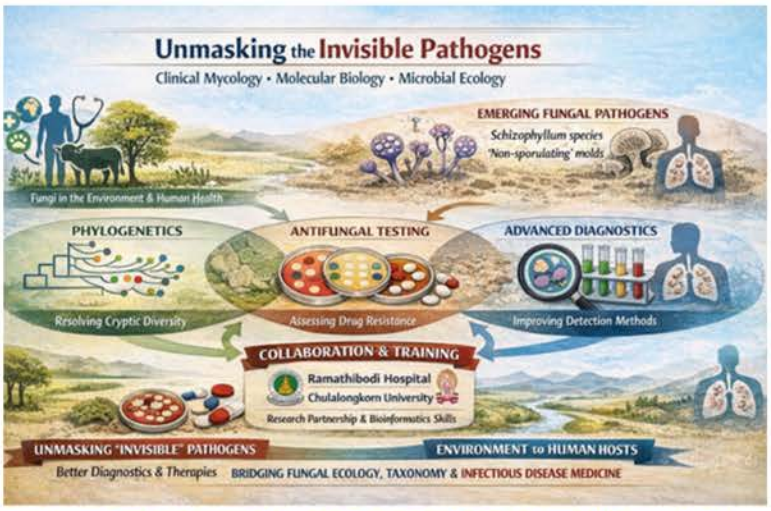
MUREX Profile

Dr. Nattapol Kraisitudomsook

Lecturer

Research Areas

Emerging fungal pathogens, Fungal systematics, Environmental health, Antifungal resistance



Research Summary

Our research program investigates the intersection of clinical mycology, molecular biology, and microbial ecology. We focus on characterizing neglected emerging fungal pathogens from the environment, e.g., *Schizophyllum* species and 'non-sporulating' molds, which often evade conventional diagnostics. By integrating molecular systematics and antifungal susceptibility testing, we aim to resolve cryptic fungal pathogen diversity and address the rising threat of antifungal resistance. Working in tandem with researchers from Ramathibodi Hospital and Chulalongkorn University, we strive to bridge the gap between fungal taxonomy, fungal ecology, and infectious disease medicine. Our program provides specialized training in molecular lab techniques and bioinformatic analyses, preparing researchers to solve complex research questions in clinical mycology. Our primary mission is to unmask the "invisible" pathogens by providing clinicians with effective diagnostic approaches and therapeutic strategies for uncommon and rare fungal diseases, and also to understand the transition of fungal pathogens from environmental reservoirs to human hosts.

Current Projects

- The search for WHO-FPPL in agricultural settings of Ratchaburi province
- Investigating the taxonomy, phylogenetic diversity, and antifungal resistance of *Schizophyllum* species, an emerging fungal pathogen in Asia
- Investigating the diversity of non-sporulating molds recovered from Ramathibodi Hospital

MUREX Profile

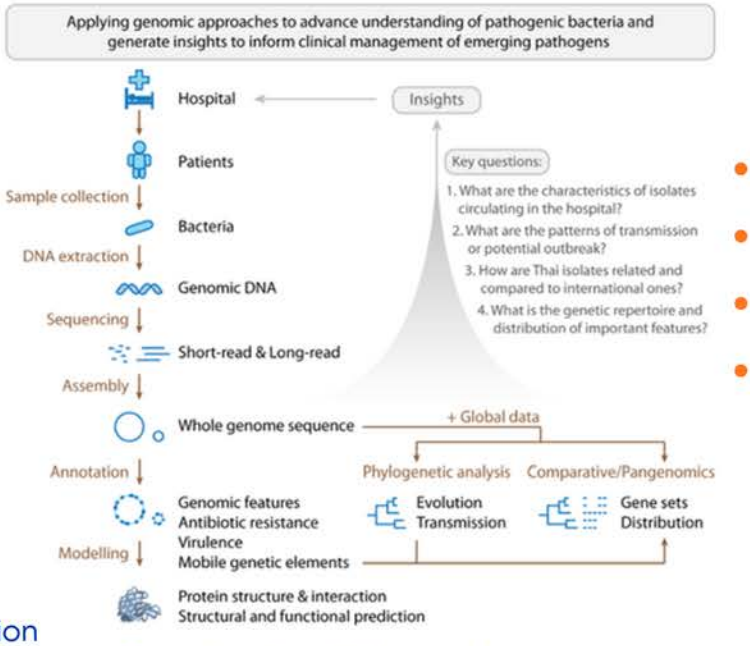
Dr. Nattapong Sanguankiattichai

Lecturer

Research Areas

Bacterial genetics and genomics

Research Summary



Our research aims to apply genomic approaches to advance our understanding of pathogenic bacteria and address the growing threat of emerging pathogens and antimicrobial resistance. These threats to global public health necessitate a comprehensive understanding of bacterial biology, evolution, and epidemiology. Advances in genome sequencing and bioinformatics provide powerful tools for these investigations, including the generation of whole genome sequences of clinical isolates, identification of clinically important features and genetic determinants, functional prediction and characterization of related proteins, phylogenetic analyses to elucidate pathogen evolution and transmission, and comparative genomic analyses to reveal the collection and distribution of clinically important features. The insights generated from these approaches will inform clinical management, strengthen outbreak detection, and enhance preparedness for emerging bacterial threats.

Current Projects

- Genomic analysis of emerging pathogenic bacteria
- Dissemination of antibiotic resistance genes through plasmid transfer across bacteria

MUREX Profile

Dr. Pakorn (Gahn) Aiewsakun

Associate Professor

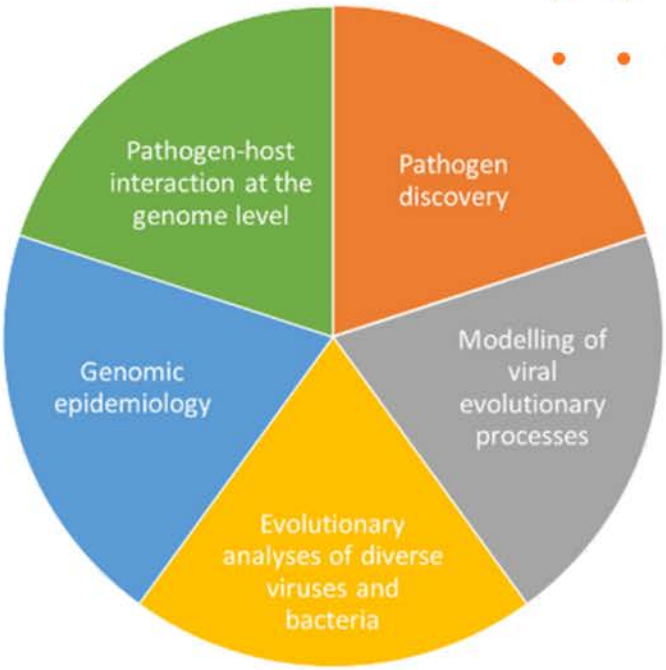
Research Areas

Microbial genomics, Evolutionary microbiology, Genomic epidemiology, Pathogen discovery and metagenomics, Virus and bacterial classification

Research Summary

Dr. Pakorn Aiewsakun's research program focuses on microbial genomics, spanning pathogen discovery through metagenomic sequencing, modelling of viral evolutionary processes, and micro- and macro-evolutionary analyses of diverse viruses and bacteria, such as SARS-CoV-2 and *Mycobacterium tuberculosis*, to elucidate how they evolve and spread across space and time, as well as pathogen-host interaction at the genome level.

As one of the founders of Pornchai Matangkasombut Center for Microbial Genomics, Department of Microbiology, Mahidol University, he leads interdisciplinary projects that translate genomic data into actionable public-health insights, working closely with academic collaborators and government agencies, including Thailand's Ministry of Public Health, to strengthen outbreak preparedness and disease control.



Current Projects

- Cluster detection of *Mycobacterium tuberculosis* using whole genome sequence data analysis
- Evolutionary histories and population dynamics of viruses and bacterial pathogens
- Caged evolutionary model for understanding constrained sequence evolution

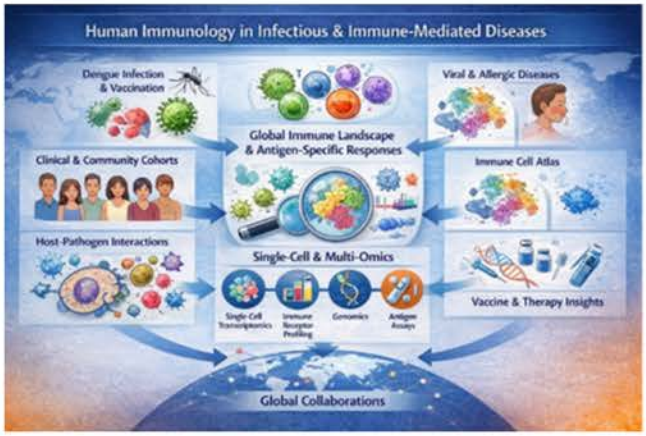
MUREX Profile

Dr. Ponpan Matangkasombut Choopong

Associate Professor

Research Areas

Human immunology & infectious diseases, Advanced single-cell omics and multi-omics platforms, Translational immunology, Antigen-specific immune responses, Human immune cell atlases



Research Summary

Our research focuses on fundamental human immunology in infectious and immune-mediated diseases, particularly dengue virus infection and vaccination. We investigate both the global immune landscape and antigen-specific immune responses, examining how immune cell composition, coordination, and functional states shape disease outcomes. A central strength of the lab is the design, coordination, and long-term management of clinical cohorts, coupled with the development, optimization, and application of cutting-edge single-cell and multi-omics platforms to dissect host–pathogen interactions at high resolution. By integrating single-cell transcriptomics, immune receptor profiling, antigen-specific assays, and host genomics, we aim to link deeply profiled immune phenotypes to clinical outcomes and responses to interventions. Our work is embedded within active international collaborative networks, including eAsia partnerships with RIKEN IMS and the University of Western Australia, and HCA Asia–linked initiatives through the Asian Immune Diversity Atlas (AIDA) involving GIS, RIKEN, Samsung, and KAIST, providing mechanistic insights that can inform future vaccine and immunotherapy development.

Current Projects (in close collaboration with Dr. Waradon Sungnak)

- **Antigen-Specific Immune Profiling Using Single-Cell Multi-Omics:** Profiling dengue-specific T and B cells using multiplexed DNA-barcoded antigen tagging, single-cell transcriptomics, and immune receptor (TCR/BCR) sequencing to define the rules of immune recognition and response and construct high-resolution immune cell atlases
- **Single-Cell eQTL Mapping of Dengue Immune Responses:** Linking human genetic variation from whole-genome sequencing to immune cell gene expression at single-cell resolution to characterize genetic determinants of disease severity and vaccine responses.
- **Single-Cell Multi-Omics Analysis of Host–Pathogen and Allergen Interactions:** Applying advanced platforms to characterize immune responses across viral infections, ocular inflammation, and allergic diseases
- **Asian Immune Diversity Atlas (AIDA):** Building a regionally representative immune cell atlas through coordinated human cohorts, single-cell multi-omics profiling, and international collaboration to capture immune diversity across Asian populations

MUREX Profile

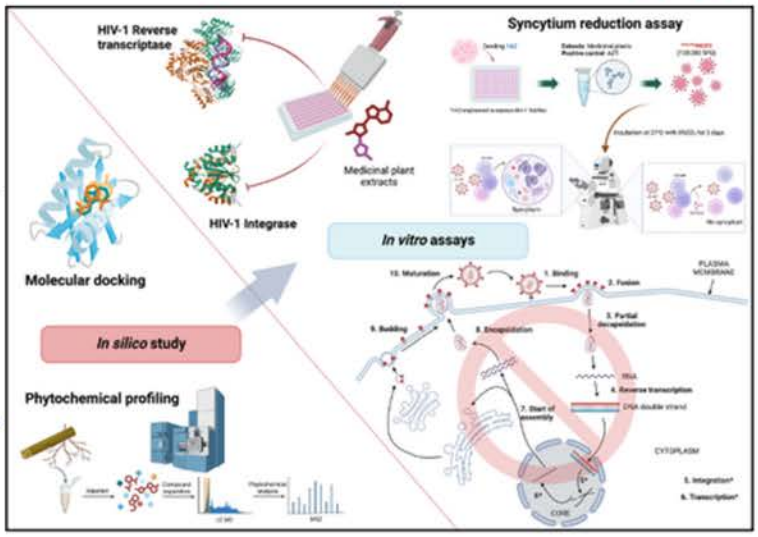
Dr. Radeekorn Akkarawongsapat

Assistant Professor

Research Areas

Antiviral drug discovery, Thai medicinal plants & natural products, HIV-1, Porcine Epidemic Diarrhea Virus (PEDV)

Research Summary



I. HIV-1: From Plant Extracts to Molecular Mechanisms Our laboratory investigates the anti-HIV-1 potential of Thai medicinal plants by combining *in vitro* assays, *in silico* molecular docking, and phytochemical profiling (LC-MS/MS QTOF). We utilize syncytium reduction assays to evaluate the ability of extracts to inhibit virus-induced cell fusion, a critical step in HIV-1 transmission. Promising candidates are then screened for their ability to disrupt key viral enzymes, specifically integrase and reverse transcriptase, providing a comprehensive understanding of their mechanisms of action.

II. PEDV: Multidisciplinary Breakthroughs In recent years, the lab has expanded into agricultural virology, specifically targeting Porcine Epidemic Diarrhea Virus (PEDV). In collaboration with NSTDA and the Departments of Physiology and Chemistry (MUSC), we identified Pinostrobin, a flavonoid from *Boesenbergia rotunda*, as a potent anti-PEDV agent. Our work demonstrates that Pinostrobin targets the early stages of infection by reducing cell-cell fusion mediated by the viral spike protein.

Current Projects

- **HIV-1 Inhibitor Screening:** Continuing the systematic testing of plant-derived compounds
- **Anti-HIV-1 Mechanism Studies:** Utilizing *in silico* docking and *in vitro* validation to identify specific plant metabolites that block viral integration and reverse transcription
- **Anti-PEDV and Mechanism Characterization:** Performing detailed mechanistic studies on repurposed drugs and natural compounds

MUREX Profile

Dr. Ratchara Kalawong

Lecturer

Research Areas

Antimicrobial resistance (AMR), Bacterial membrane vesicles (BMVs), Bacterial genetics & genomics, Enzyme production & biodegradation

Research Summary

Our lab focuses on the molecular mechanisms of bacterial pathogenesis and environmental adaptation. We investigate Antimicrobial Resistance (AMR) in high-priority pathogens including *Pseudomonas aeruginosa*, carbapenem-resistant *Klebsiella pneumoniae*, and vancomycin-resistant *Enterococcus faecium* (VRE). By utilizing Whole Genome Sequencing (WGS) and molecular approaches, we uncover novel resistance mechanisms and track species distribution at both national and regional levels.

In parallel, we study Bacterial Membrane Vesicles (BMVs). We utilize transcriptomic and proteomic approaches to characterize the cargo—including DNA, proteins, and virulence factors—secreted by pathogens to understand their role in host-pathogen interactions. Additionally, we explore Biotechnology by screening for bacterial strains capable of producing enzymes for industrial use, such as the biodegradation of oil and plastics. By optimizing production conditions, we aim to develop sustainable solutions for environmental waste management.

Current Projects

- **Genomic Mapping of AMR:** Using WGS to correlate resistance phenotypes with genotypes in clinical and environmental isolates
- **Functional Genomics:** Identifying and characterizing the functions of "genes of interest" related to novel antibiotic resistance mechanisms
- **Vesicle Cargo Analysis:** Investigating the functional role of MV-encapsulated DNA and proteins in bacterial communication and virulence
- **Bioremediation Research:** Screening and optimizing indigenous bacterial strains for high-efficiency plastic, oil and waste degradation

MUREX Profile

Dr. Suradej Siripattanapipong

Assistant Professor

Research Areas

Molecular epidemiology of parasitic infections, Antiparasitic drug resistance & novel targets, Diagnostic innovation

Research Summary

Our research focuses on the molecular biology of parasites, with particular emphasis on emerging parasites such as *Leishmania* and *Plasmodium*. By combining genome-wide analyses, population epidemiology, and phenotypic characterization, we seek to understand parasite diversity, transmission dynamics, and drug resistance. Our work bridges computational modeling and laboratory experimentation to identify novel drug targets and inform therapeutic strategies. In parallel, translational research advances field-ready diagnostic platforms with real-world clinical utility. Together, these efforts transform fundamental discoveries into actionable solutions for global parasitic disease challenges.

Current Projects

- Genome-wide characterization of *Leishmania* and *Plasmodium* to support downstream applications
- Integration of parasite genetic diversity with geographic and clinical data to define disease distribution in endemic regions
- Development of translational diagnostic platforms designed for practical deployment in real-world clinical and field settings
- Investigation of novel treatment approaches to overcome drug resistance and improve therapeutic efficacy

MUREX Profile

Dr. Tana Taechalertpaisarn

Lecturer

Research Areas

Plasmodium biology, Molecular parasitology, Malaria, Drug resistance, Microscopy

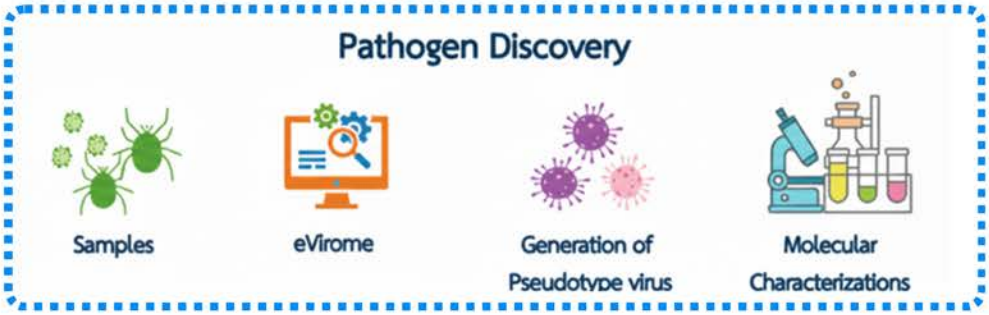
Research Summary

My lab studies the molecular biology of *Plasmodium falciparum* to understand parasite biology and mechanisms underlying drug susceptibility and resistance. We combine parasite culture, molecular genetics, and microscopy to dissect stage-specific gene function and host–parasite interactions. Ongoing work includes characterizing genes involved in invasion and intracellular survival, validating drug targets, and developing assays to monitor parasite responses to candidate antimalarials. The lab welcomes students who want hands-on experience in molecular parasitology, cell-based assays, and microscopy-based phenotyping.

MUREX Profile

Dr. Thiprampai Thamamongood

Assistant Professor



Research Areas

Pathogen-host interplay, Pathogen discovery

Research Summary

My research integrates virus discovery with functional virology to elucidate mechanisms of viral entry, membrane fusion, and host range in emerging and clinically important viruses. The laboratory focuses on tick-borne viruses identified through virome sequencing efforts in Thailand, employing pseudotyped virus systems to safely investigate viral glycoprotein function, host cell tropism, and zoonotic potential under BSL-2 conditions.

In parallel, we develop respiratory syncytial virus (RSV) pseudotype platforms to dissect RSV fusion mechanisms and to support high-throughput screening of viral entry and fusion inhibitors. By integrating metagenomic analysis, molecular cloning, pseudotyped virus production, and cell-based entry assays, our work bridges fundamental virology with translational research. Collectively, this research advances understanding of virus–host interactions and supports the development of antiviral strategies and future vaccine platforms.

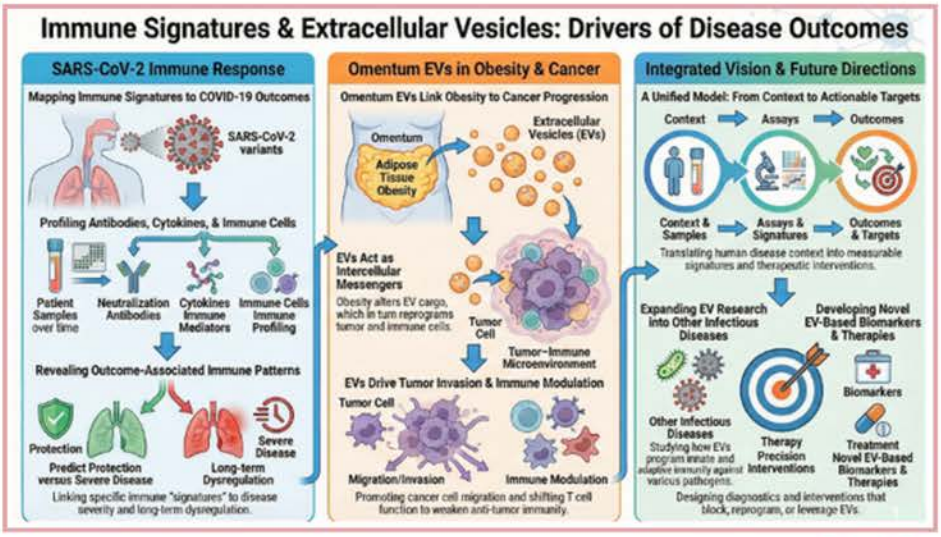
Current Projects

- Virus discovery through virome sequencing
- Molecular characterization of viral entry and fusion
- Antiviral and entry inhibitor screening

MUREX Profile

Dr. Vimvara Vacharathit

Assistant Professor



Research Areas

Extracellular vesicles (EVs), Tumor immunology, Obesity, Inflammation biology, Immune profiling & biomarkers

Research Summary

My lab investigates how immune signals and extracellular vesicles (EVs) shape disease trajectories in infection and cancer. In SARS-CoV-2, we profiled variant- and timepoint-specific immune responses—integrating serology/neutralization, immune mediator signatures, and immune-cell phenotyping—to identify biomarkers linked to severity and post-acute outcomes. Currently, we study human omentum-derived EVs, particularly in obesity, and define how EV cargo remodels the tumor–immune microenvironment to influence ovarian cancer migration/invasion and immune-cell function. Looking forward, we extend EV immunology into infectious and inflammatory settings to test how EVs tune innate sensing, antigen presentation, and T-cell polarization, aiming to uncover shared pathways and actionable targets for precision diagnostics and interventions.

Current Projects

- Come and discuss with me 😊

MUREX Profile

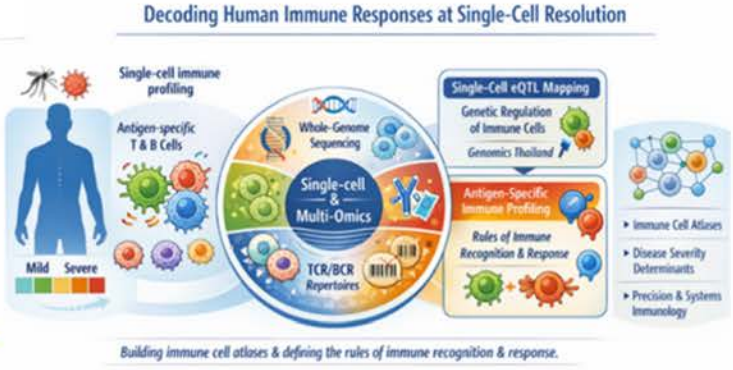
Dr. Waradon Sungnak

Lecturer

Research Areas

Data-driven & systems immunology, Single-cell omics & multi-omics, Human genomics, Immune receptor repertoires, Infectious diseases

Research Summary



Our lab investigates human immune responses in health and disease using single-cell omics and multi-omics approaches. We aim to build atlases of immune cells and uncover the rules of immune recognition and responses, including how immune cell states, interactions, and dynamics are shaped by genetic variation, infections, immune history, and environmental exposures. Our research focuses on viral infections, including dengue as well as common and rare viral diseases, and immune-mediated conditions such as allergies. By integrating single-cell transcriptomics, antigen-specific T and B cell profiling, TCR/BCR sequencing, whole-genome and host genomic data, and computational analysis, we aim to generate high-resolution, data-driven maps of human immune responses across individuals and disease states. Our work contributes to efforts aligned with the Human Cell Atlas and supports broader goals in precision immunology and systems immunology. The lab emphasizes interdisciplinary research and training at the interface of immunology, multi-omics, and data science.

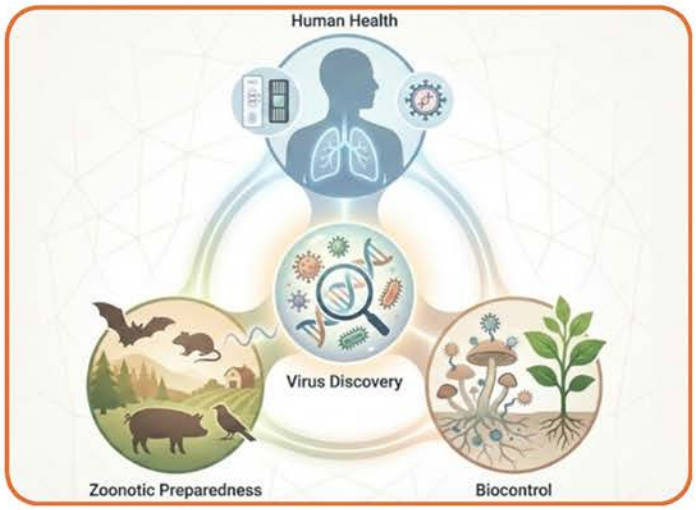
Current Projects (in close collaboration with Dr. Ponpan Matangkasombut)

- **Single-Cell eQTL Mapping of Dengue Immune Responses:** Linking human genetic variation from whole-genome sequencing to immune cell gene expression at single-cell resolution to characterize genetic determinants of disease severity and vaccine responses
- **Antigen-Specific Immune Profiling Using Single-Cell Multi-Omics:** Profiling dengue-specific T and B cells using multiplexed DNA-barcoded antigen tagging, single-cell transcriptomics, and immune receptor (TCR/BCR) sequencing to define the rules of immune recognition and response and construct high-resolution immune cell atlases
- **Single-Cell Multi-Omics Analysis of Host–Pathogen and Allergen Interactions:** Applying advanced platforms to characterize immune responses across viral infections, ocular inflammation, and allergic diseases

MUREX Profile

Dr. Worakorn Phumiphanjarphak

Lecturer



Research Areas

Virus discovery, Viral genomics, Virus-host interactions, Viral biological control

Research Summary

Our laboratory focuses on virus discovery, viral genomics, and the complex interactions between viruses and their hosts. As the field of viromics is still emerging in Thailand, our current work aims to comprehensively chart the viral landscape of Thailand.

Our research is divided into three key areas:

Human Health: We aim to improve rapid diagnosis by detecting both known and novel viruses using sequencing technologies. Additionally, we are investigating the potential roles of anelloviruses in human health.

Zoonotic Preparedness: We are exploring animal viromes to identify potential zoonotic threats, helping us prepare for future viruses that may jump from animals to humans.

Biocontrol: We are developing new methods to detect, discover, and isolate mycoviruses (viruses that infect fungi) to explore their potential use in controlling fungal pathogens.

Current Projects

- Human virome explorations and human virus surveillance
- Effects of anelloviruses in humans
- Animal virome explorations (arachids, mosquitoes, dogs)
- Myoviruses detection and discovery
- Development of web application for virus sequence analysis pipeline

MUREX Profile