APPLY

PPU Pasteur – classic

#1
PhD Project Title: The phylodynamics of bacterial STIs: leveraging clonal data in multi-cluster outbreaks
PhD Supervisor: Sebastian Duchene
Laboratory Team name: Evolutionary Dynamics of Infectious Diseases

#2
PhD Project Title: Unraveling the NK cell signatures and mechanisms of durable HIV remission
PhD Supervisor: Asier Saez-Cirion
Laboratory Team name: Viral Reservoirs and Immune Control

#3
PhD Project Title: Neuroimmune Interactions in Mood Disorders: Unraveling the Brain–Immune System Dialogue
PhD Supervisor: Pierre-Marie Lledo
Laboratory Team name: Perception & Action

#4
PhD Project Title: Unraveling a-Synuclein Spreading in Human Midbrain Organoids
PhD Supervisor: Anna Pepe
Laboratory Team name: Membrane Traffic and Pathogenesis

#5
PhD Project Title: Proximity Labelling-Based Identification and Molecular Characterization of Nicotinic Receptor partners
PhD Supervisor: Marie Prevost
Laboratory Team name: Signalisation and Receptors Dynamics

#6
PhD Project Title: Stromal regulation of skin immunity and repair
PhD Supervisor: Lucie Peduto
Laboratory Team name: Stroma, Inflammation and Tissue Repair

#7
PhD Project Title: Functional analyses of genetically modified natural killer cells (Genetically Altered Innate immunity: GAIN)
PhD Supervisor: Michaela Müller-Trutwin
Laboratory Team name: HIV, Inflammation and Persistence

#8
PhD Project Title: Homeostasis and repair of cranial myofibres
PhD Supervisor: Glenda Comai
Laboratory Team name: Stem Cells And Development

#9
PhD Project Title: Autophagy in real time - molecular imaging of cellular recycling and renewal
PhD Supervisor: Thomas Wollert
Laboratory Team name: Membrane Biochemistry and Transport

#10
PhD Project Title: Role of Leishmania-induced host microRNAs in suppressing regulated cell death (RCD) during macrophage infection
PhD Supervisor: Gerald Spaeth
Laboratory Team name: Molecular Parasitology and Signaling

#11
PhD Project Title: Using advanced genome editing to probe the P. falciparum genome and eradicate malaria
PhD Supervisor: Sebastian Baumgarten
Laboratory Team name: Parasite RNA Biology

#12
PhD Project Title: Mechanisms involved in production and regulation of Extracellular Vesicles (EVs) in the human pathogenic fungus Cryptococcus
PhD Supervisor: Isabelle Mouyna
Laboratory Team name: RNA Biology of Fungal Pathogens

#13
PhD Project Title: Generative Deep learning model for Drug Design: From receptor pocket to molecules, modulations and screening
PhD Supervisor: Arnaud Blondel
Laboratory Team name: Structural Bioinformatics

#14
PhD Project Title: Beyond order: structure and function of flexible phage attachments
PhD Supervisor: Francesca Gubellini
Laboratory Team name: Biologie Cellulaire Structurale Intégrative

#15
PhD Project Title: Neurological consequences of pulmonary tuberculosis and its treatment
PhD Supervisor: Ludovic Tailleux
Laboratory Team name: Integrated Mycobacterial Pathogenomics

#16
PhD Project Title: Mechanotransduction at focal adhesions: impact of brain matrix rigidity on cytoskeletal organization of glial cells
PhD Supervisor: Sandrine Etienne-Manneville
Laboratory Team name: Cell Polarity, Migration and Cancer

#17
PhD Project Title: How do molecular motors find the way?
PhD Supervisor: Philippe Bastin
Laboratory Team name: Trypanosome Cell Biology

#18
PhD Project Title: Go with the flow: the impact of interactions between mobile genetic elements in bacterial adaptation
PhD Supervisor: Eduardo Rocha
Laboratory Team name: Microbial Evolutionary Genomics

#19
PhD Project Title: Understanding the role of ATRX in the de novo initiation of transcriptional and post-transcriptional gene silencing
PhD Supervisor: Eugene Gladyshev
Laboratory Team name: Molecular Genetics and Epigenetics

#20
PhD Project Title: CRISPR-mediated virus-virus interactions in archaea
PhD Supervisor: Mart Krupovic
Laboratory Team name: Cell Biology and Virology of Archaea Unit

#21
PhD Project Title: Signaling and regulatory network for host adaptation in leptospires
PhD Supervisor: Nadia Benaroudj
Laboratory Team name: Biology of Spirochetes

#22
PhD Project Title: Deciphering gene function in the fungal pathogen of humans Candida albicans through large-scale imaging of overexpression strains
PhD Supervisor: Christophe d'Enfert
Laboratory Team name: Fungal Biology and Pathogenicity

#23
PhD Project Title: Development of multi-stage mRNA vaccines for malaria
PhD Supervisor: Chetan Chitnis
Laboratory Team name: Malaria Parasite Biology and Vaccines

#24
PhD Project Title: Nuclear shape, chromatin topology and cellular quiescence in adult brain neural stem cells
PhD Supervisor: Laure Bally-Cuif
Laboratory Team name: Zebrafish Neurogenetics

#25
PhD Project Title: Understanding the long-term consequences of the fate of Listeria monocytogenes-infected cells
PhD Supervisor: Marc Lecuit
Laboratory Team name: Biology of Infection

#26
PhD Project Title: Exploring the dual role of CD98 in human erythropoiesis and Plasmodium vivax infection
PhD Supervisor: Sylvie Garcia
Laboratory Team name: Biology of Plasmodium Infection and Transmission

#27
PhD Project Title: Impact of Gut Microbiota on Epigenetic Inheritance of Fertility
PhD Supervisor: Germano Cecere
Laboratory Team name: Epigenetic Chemical Biology

#28
PhD Project Title: Investigating the impact of Cellular Reprogramming on Cellular Senescence
PhD Supervisor: Han Li
Laboratory Team name: Cellular Plasticity in Age-related Pathologies

#29
PhD Project Title: Investigating the synthesis and evolution of the peptidoglycan cell wall in the Archaea
PhD Supervisor: Simonetta Gribaldo
Laboratory Team name: Evolutionary Biology of the Microbial Cell

#30
PhD Project Title: Flavivirus envelope protein dynamics studies by cryo electron microscopy
PhD Supervisor: Giovanna Barba Spaeth
Laboratory Team name: Structural Virology

#31
PhD Project Title: Mathematical mOdels and Tracking of Infectious receptOr dyNamics
PhD Supervisor: Thibault Lagache
Laboratory Team name: Biological Image Analysis

#32
PhD Project Title: Exploring the role of MAIT cells in the pathogenesis of immune-mediated inflammatory disease
PhD Supervisor: Lars Rogge
Laboratory Team name: Immunoregulation

#33
PhD Project Title: Type V Pili as Interbacterial Adhesin Driving Community Assembly in Bacteroidia
PhD Supervisor: Jean-Marc Ghigo
Laboratory Team name: Genetics of Biofilms

#34
PhD Project Title: Role of IL-23 in modulating immune cell cytoskeleton and migration. Potential implication in the pathogenesis of chronic inflammatory diseases.
PhD Supervisor: Vincenzo Di Bartolo
Laboratory Team name: Immunoregulation

PPU Pasteur – Hearing Institute

#1
PhD Project Title: Lateralization of auditory functions
PhD Supervisor: Jérémie Barral
Laboratory Team name: Neural Coding in the Auditory System

#2
PhD Project Title: Gene replacement and precision editing therapies for hearing and balance restoration
PhD Supervisor: Aziz El Amraoui
Laboratory Team name: Progressive Sensory Disorders, Pathophysiology and Therapy

#3
PhD Project Title: Can Spontaneous auditory Synaptic Activity Impact the Therapeutic Window of Gene Therapy? Lessons from Preclinical Models
PhD Supervisor: Saaid Safieddine
Laboratory Team name: Technologies and Gene Therapy for Deafness

#4
PhD Project Title: Dynamics of prediction of time and content in the speech hierarchy
PhD Supervisor: Keith Doelling
Laboratory Team name: Human and Artificial Perception

#5
PhD Project Title: Restore SpeecH Audibility using Phoneme Enhancement for Hearing Implants
PhD Supervisor: Dorothée Arzounian
Laboratory Team name: Neural coding and neuroengineering of human speech functions

PPU Pasteur – MD-PhD

These projects are also available to students who have a Master's degree from a French university

#1
PhD Project Title: Next-Generation Cancer Vaccines: Harnessing B- and T-Cell Immunity to Halt KSHV-induced malignancies
PhD Supervisor: Marija Backovic
Laboratory Team name: Structural Virology

#2
PhD Project Title: Molecular mechanisms underlying eye muscle physiopathology
PhD Supervisor: Glenda Comai
Laboratory Team name: Stem Cells And Development

#3
PhD Project Title: Designing new version of CAR T cells to target solid tumors
PhD Supervisor: Philippe Bousso
Laboratory Team name: Dynamics of Immune Responses

#4
PhD Project Title: Malaria co-infections in children in sub-Saharan Africa
PhD Supervisor: Bich Tram Huynh
Laboratory Team name: Epidemiology and Modelling of Antibacterial Evasion

#5
PhD Project Title: Ventricular dysfunction in structural congenital heart defects
PhD Supervisor: Sigolène Meilhac
Laboratory Team name: Heart Morphogenesis (Imagine - Pasteur Unit)

#6
PhD Project Title: Study of kidney colonization by leptospires, its effect on the innate immune defense system, and testing of therapeutic host-directed strategies to prevent chronic renal leptospirosis
PhD Supervisor: Catherine Werts
Laboratory Team name: Biology and Genetics of Bacterial Cell Wall

PPU Pasteur – Emerging Infectious Diseases

#1
PhD Project Title: Impact of human-driven disruption of ecosystems' equilibrium on the composition and diversity of the virome of arthropods in hot-spots of pathogens emergence
PhD Supervisor: Nolwenn Dheilly
Laboratory Team name: Pathogen Discovery Laboratory

#2
PhD Project Title: Paleophylogenomics of Pre-Contact Infectious Diseases in the Americas: Emergence and Spread through a One Health Perspective
PhD Supervisor: Nicolas Rascovan
Laboratory Team name: Microbial Paleogenomics

#3
PhD Project Title: Predicting gene networks underlying mosquito-virus compatibility
PhD Supervisor: Sarah Merkling
Laboratory Team name: Insect Infection & Immunity

#4
PhD Project Title: Phylogenomics of emerging non-cholera Vibrio cholerae
PhD Supervisor: François-Xavier Weill
Laboratory Team name: Enteric Bacterial Pathogens

PPU Pasteur – Antimicrobial Resistance (in collaboration with Oxford University)

#1
PhD Project Title: Membrane dynamics and inhibition of lipoprotein modification enzyme Lgt in pathogenic bacteria
PhD Supervisor: Nienke Buddelmeijer

Laboratory Team name: Biology and Genetics of the Bacterial Cell Wall

PPU Pasteur – Research & Technology

These projects are also available to students who have a Master's degree from a French university

#1
PhD Project Title: InDeep v2–driven conversion of peptide binders into drug-like small molecules at protein–protein interfaces: an FtsQ case study with NMR validation
PhD Supervisor 1: Olivier Sperandio. Laboratory Team name: Structural Bioinformatics.
PhD Supervisor 2: Iñaki Guijarro. Core facility: Biological NMR and HDX-MS

#2
PhD Project Title: Two photon stimulation in freely moving animals to understand the causal role of sleep reactivation in learning
PhD Supervisor 1: Brice Bathellier. Laboratory Team name: Hearing Institute - Neural Codes and Dynamics.
PhD Supervisor 2: Maia Brunstein. Core facility: Hearing Institute Bioimaging

#3
PhD Project Title: Developing next-generation mass spectrometry-based proteomics for diagnostics and discovery in inherited mitochondrial diseases
PhD Supervisor 1: Timothy Wai. Laboratory Team name: Mitochondrial Biology
PhD Supervisor 2: Mariette Matondo. Core facility: Mass Spectrometry for Biology

PPU Imagine

Students will be in a laboratory of the Institut Imagine and will join Pasteur and the PPU for all the educational, social and follow-up activities

#1
PhD Project Title: An iNnovAtive EpigenoMe edIting Approach to beta-hemoglobinopathies
PhD Supervisor: Annarita MICCIO
Laboratory Team name: Laboratory of Chromatin and gene regulation during development

#2
PhD Project Title: Evaluation of the oncogenic cooperation between KIT and FAS genes in Mastocytosis and identification of alternative FAS transcripts involved in mastocytosis pathophysiology using “targeted long reads sequencing”
PhD Supervisor: Leïla MAOUCHE CHRÉTIEN
Laboratory Team name: Laboratory of Molecular mechanisms of hematological disorders and therapeutic implications

#3
PhD Project Title: Dissecting the regulatory network of genes that escape X chromosome inactivation
PhD Supervisor: Agnese LODA
Laboratory Team name: Laboratory of Epigenetics and sex differences in development and disease (new research group coming in January 2026)

#4
PhD Project Title: Targeting PI3Kd: Mechanistic Insights into Immune Dysregulation and Therapeutic Modulation
PhD Supervisor: Sven KRACKER
Laboratory Team name: Laboratory of Lymphocyte activation and susceptibility to EBV – Human genetics of infectious diseases

#5
PhD Project Title: Disentangling the human genetic determinants of long COVID using innovative and cutting-edge approaches to analyze whole exome/genome sequencing data
PhD Supervisor: Aurélie COBAT
Laboratory Team name: Human genetics of infectious diseases: complex predisposition

#6
PhD Project Title: Functions of Reelin in cortical astrocyte development
PhD Supervisor: Pierre BILLUARD
Laboratory Team name: Genetics and development of the cerebral cortex

#7
PhD Project Title: Molecular and cellular bases of a new neurodevelopmental disorder with impaired cerebellar development using human cellular models and zebrafish
PhD Supervisor: Vincent CANTAGREL
Laboratory Team name: Developmental Brain Disorders – Translational Research in Neurological Diseases

#8
PhD Project Title: Somatic mosaicism and clonal dynamics in the human cerebral cortex
PhD Supervisor: Sara BIZZOTTO
Laboratory Team name: Somatic mosaicism in neurodevelopment and disease

#9
PhD Project Title: Mechanisms underlying MYo-inositol-Dependent Dysregulation of GUT Metabolism in rare and common diseases
PhD Supervisor: Marianna PARLATO
Laboratory Team name: Immunology – Tissue Immunity in homeostasis and Disease

#10
PhD Project Title: Characterization of Osteogenesis imperfecta type V and Type VI: common and specific features
PhD Supervisor: Corinne COLLET
Laboratory Team name: Molecular and physiopathological bases of osteochondrodysplasia

#11
PhD Project Title: Deciphering New Molecular Mechanisms and Developing Therapeutic Approaches for Craniosynostoses using Zebrafish models
PhD Supervisor: Emilie DAMBROISE
Laboratory Team name: Embryology and genetics of malformations

#12
PhD Project Title: Monogenic etiologies of myasthenia gravis
PhD Supervisor: Paul BASTARD
Laboratory Team name: Human genetics of infectious diseases: monogenic predisposition

#13
PhD Project Title: Elucidating molecular mechanisms linked to TDP-43 pathological spreading
PhD Supervisor: Sorana CIURA
Laboratory Team name: Mechanisms and therapy of genetic brain diseases

#14
PhD Project Title: Understanding Darier disease using integrative mRNA sequencing and (Phosphor)proteomics to guide therapeutic repurposing
PhD Supervisor: Alain HOVNANIAN
Laboratory Team name: Genetic skin diseases: from disease mechanism to therapy

#15
PhD Project Title: Genetics of autoimmune hepatitis: highlight the mTORC1 pathway
PhD Supervisor: Aude MAGERUS
Laboratory Team name: Immunogenetics of pediatric autoimmune diseases

#16
PhD Project Title: Exploring somatic mutation–associated immune mechanisms shared by chronic autoimmunity and lymphoid malignancy: a study in refractory celiac disease
PhD Supervisor: Anaïs LEVESCOT
Laboratory Team name: Hereditary kidney diseases

APPLY