



INCEPTION Symposium

focus on

GWAS

Paving the way for The Future of Genomics

November 25, 2025

Invited Speakers

Eli Barthome Institut Pasteur, FR

Na Cai ETH Zurich, CH

Capucine Garnier-Muller Institut Pasteur, FR

Iuliana Ionita-Laza Columbia Univ, US

Raphaël Malak Institut Pasteur, FR

Bogdan Pasaniuc Univ of Pennsylvania, US

Sriram Sankararaman UCLA Computer Science, US

INCEPTION Multidisciplinary Poster Session

Gwenaëlle André, Juliette Bellengier, Gloria Benoit, Michael Casera, Marie-Amandine Chabry, Rayan Chikhi, Estee Cramer, Annaig De Walsche, Cristina Di Silvestre, Maria Fuentes Carias, Capucine Garnier-Muller, Catherine Helbing, Soufiane Jhilal, Jérémie Kalfon, Camille Keck, Benedetta Lana, Arthur Lensen, Shiyu Liu, and many more



INRAE



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DE FRANCE
1530

PSL
UNIVERSITÉ PARIS



INCEPTION

INSTITUT
Pasteur

GWAS: Paving the way for the Future of Genomics**13:30 – 17:15**

- 13:30 – 13:40 **Thomas Bourgeron** *INCEPTION coordinator*
Introduction
- 13:40 – 14:10 **1st Session – Chair: Rayan Chikhi**
Na Cai *ETH Zurich*
Invasion of the Heritable Confounders
- 14:10 – 14:40 **Sriram Sankararaman** *UCLA Computer Science Center*
The role of context-specific genetic architecture underlying human complex traits revealed by biobank-scale analyses
- 14:40 – 14:55 **Raphaël Malak** *Institut Pasteur, INCEPTION PhD Student*
Taxonomic-free metagenomic GWAS for gut microbiome analysis
- 14:55 – 15:10 **Capucine Garnier-Muller** *Institut Pasteur, INCEPTION Structuring Action*
Data Catalogue INCEPTION, a single tool to centralize and accelerate access to Human Databases
- 14:55 – 15:10 **Flash Talks**
Camille Schneider *Institut Pasteur*
Arve Lee Willingham *Institut Pasteur*
Arthur Lensen *Institut Pasteur*
Shiyu Liu *Institut Pasteur*
Estée Cramer *Institut Pasteur*
- 15:20 – 15:45 **Coffee break**
- 15:45 – 16:15 **2nd Session – Chair: Hugues Aschard**
Iuliana Ionita-Laza *Columbia University*
Beyond linear models for genetic discovery and genomic trait prediction
- 16:15 – 16:45 **Bogdan Pasaniuc** *University of Pennsylvania*
Promises and challenges of genetic risk prediction in precision medicine
- 16:45 – 17:00 **Eli Barthome** *Institut Pasteur, INCEPTION PhD Student*
Contribution of regulatory variants to differences in clinical and brain profiles among autistic individuals
- 17:00 – 17:10 **Flash Talks**
Marcela Fuentes Carias *Institut Pasteur*
Kevin Reynolds *IBENS*
Gwenaëlle André *INRAe*
Jeremie Kalfon *Institut Pasteur*
Jules Samaran *Institut Pasteur*

Multidisciplinary Poster Session
Cocktail, Food and Social Time
17:15 – 18:45

- 1 Gwenaelle André INRAE**
INCEPTION P2I collaborative project
Mfd an innovative weapon in the war against antimicrobial-resistance
- 2 Juliette Bellengier / Isabelle Rosinski-Chupin Institut Pasteur**
INCEPTION PhD Student
Evolutionary dynamics of Escherichia coli through recombination: investigating the emergence and spread of antibiotic resistance
- 3 Mounib Benimam Institut Pasteur**
INCEPTION PhD Student
Statistical analysis of spatial patterns in tumor microenvironments
- 4 Gloria Benoit Institut Pasteur**
INCEPTION partner
Transitioning to DNA Nexus
- 5 Michael Casera Institut Pasteur**
INCEPTION Structuring Action
The Outbreak Investigation Taskforce
- 6 Marie-Amandine Chabry Institut Pasteur**
INCEPTION End of thesis
Origin of ventricular hypoplasia in the heterotaxy syndrome
- 7 Rayan Chikhi Institut Pasteur**
Former INCEPTION G5
The Sequence Bioinformatics Unit at Institut Pasteur
- 8 Estée Cramer Institut Pasteur**
INCEPTION G5
Estimating Population-Level Seroprevalence Across 140 Seromakers and Five Countries
- 9 Annaig De Walsche Institut Pasteur**
INCEPTION partner
Multitrait GWAS to enhance single detection for a single trait
- 10 Cristina Di Silvestre Institut Pasteur**
INCEPTION End of thesis
A secreted arginine methyltransferase inhibits host cell apoptosis to promote bacterial survival during Legionella pneumophila infection
- 11 Marcela Fuentes Carias Institut Pasteur**
INCEPTION End of thesis
Unlocking the secrets of Leishmania sex: Gex1 revealed as a key regulator of hybridization
- 12 Capucine Garnier-Muller Institut Pasteur**
INCEPTION Structuring Action
Data Catalogue INCEPTION, a single tool to centralize and accelerate access to Human Databases
- 13 Soufiane Jhilal Institut de l'Audition**
INCEPTION End of thesis
Vowel-based imagined speech decoding from intracranial recordings
- 14 Jeremie Kalfon Institut Pasteur**
INCEPTION G5
scPRINT: pre-training on 50 million cells allows robust gene network predictions
- 15 Camille Keck Institut Pasteur**
Nitrate-responsive Mycobacterial Intracytoplasmic Membranes dampen Inflammation during Mycobacterium tuberculosis Infection
- 16 Kelvin Kho Institut Pasteur**
INCEPTION P2I collaborative project
Deep learning recognises antibiotic modes of action from brightfield images
- 17 Benedetta Lana Institut Pasteur**
INCEPTION partner
Health vulnerabilities of migrants arriving to Northeastern Italy via the Balkan Route

Multidisciplinary Poster Session
Cocktail, Food and Social Time
17:15 – 18:45

- 18 Arthur Lensen Institut Pasteur**
INCEPTION End of thesis
Endomembrane reshaping by Shigella effector IcsB controls the successive steps for bacterial intracellular niche formation
- 19 Shiyu Liu Institut Pasteur**
INCEPTION End of thesis
Characterizing tunneling nanotubes in zebrafish early embryo and adult zebrafish pallium
- 20 Maria Lopopolo Institut Pasteur**
Former INCEPTION PhD Student
Pre-European contact leprosy in the Americas and its current persistence
- 21 Phuong Y Mai Institut Pasteur**
INCEPTION P2I collaborative project
Deep learning-based metabolomics for drug discovery
- 22 Iwan Quemada & Robin Cremese**
Institut Pasteur
INCEPTION PhD Student
Multi-modal Cochlear Images Co-registration: Bridging T2-weighted MRI and CT for Enhanced Surgical Planning
- 23 Kevin Reynolds IBENS**
INCEPTION End of thesis
Electromyographic Signal Markers for Tremor Classification: A Novel Approach for Differentiating Parkinsonian vs Essential Tremor
- 24 Jules Samaran Institut Pasteur**
INCEPTION G5
scConfluence : single-cell diagonal integration with regularized Inverse Optimal Transport on weakly connected features
- 25 Camille Schneider Institut Pasteur**
INCEPTION PhD Student
Understanding antibiotic resistance transmission within and between humans in Klebsiella pneumonia and Escherichia coli – a theoretical modelling study
- 26 Jules Villa Institut Pasteur**
INCEPTION partner
Anthropological takes on the DRC mpox epidemic
- 27 Alex Westbrook MNHN**
INCEPTION PhD Student
Towards a transcriptionally inactive DNA sequence in yeast: neural network assisted in silico designs with tailored properties
- 28 Arve Lee Willingham Institut Pasteur**
INCEPTION End of thesis
Microbial Time Capsules: using oral microbes as new models to investigate host-microbe interactions & human demography.
- 29 Catherine Helbing Institut Pasteur**
INCEPTION End of thesis
Characterization of a host susceptibility factor for maternal-fetal listeriosis