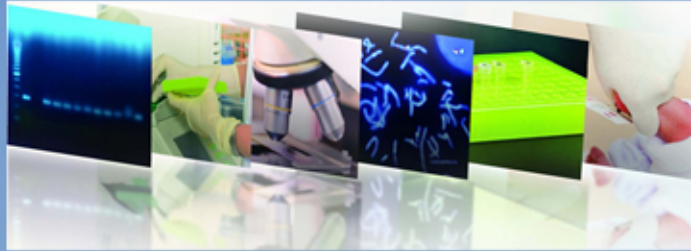


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## MICROARRAY CORE LABORATORY

Advancing the genetic understanding of common diseases in the Filipino Population

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1. Cytogenetics Laboratory
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3. Biochemical Genetics Laboratory
4. Microarray Core Laboratory
5. Hemoglobinopathy Reference Unit
6. Clinical Genetics at PGH
7. Newborn Screening Center - NIH



For inquiries on services, please contact:



**Institute of Human Genetics**  
National Institutes of Health  
University of the Philippines, Manila

Pedro Gil Street, Malate, Manila  
Tel No.: (632) 3101780  
Fax No.: (632) 5269997  
Website: <http://ihg.upm.edu.ph>



The Institute of Human Genetics is ISO 9001:2008 certified



Contact the Microarray Core Laboratory for more information:

The UP-NIH Microarray Core Laboratory  
Institute of Human Genetics  
The National Institutes of Health  
2nd floor, 620 Pedro Gil St., Ermita, Manila 1000  
Telephone: 310-1780 local 116  
Email: [upnih\\_microarray@upm.edu.ph](mailto:upnih_microarray@upm.edu.ph)

# MICROARRAY CORE LABORATORY

Located at the National Institutes of Health, University of the Philippines-Manila, the Microarray Core Laboratory conducts research services on the genetic basis of commonly prevalent diseases among Filipinos using high-throughput screening and expression profiling of candidate genes.

Currently, the Microarray Core Laboratory has on-going projects on the following diseases:

- Cardiovascular Diseases: Coronary Artery Diseases, Hypertension, Dyslipidemia
- Type 2 Diabetes Mellitus
- Leptospirosis
- Sepsis
- Systemic Lupus Erythematosus
- Asthma

## What is Microarray?

Variations in DNA can result to various conditions or phenotypes. Single nucleotide polymorphisms (or SNPs) are sequences that occur when a nucleotide in the DNA differs between paired chromosomes or biological species.

Microarray is a technique used to detect multiple target sequences in an organism’s genome. It can genotype multiple regions in the DNA (deoxyribonucleic acid), can be used to measure expression levels of large number of genes using RNA (ribonucleic acid) simultaneously, and it can also detect changes in DNA methylation.

## Where can microarray be applied?

Microarray technology can be used to: look for biomarkers associated with certain conditions; seek molecular targets for manipulation; and explain molecular processes related to a

trait. Microarray can be applied into different fields such as biomedical, agri-fisheries, forensics, veterinary, environmental, diversity, etc.

## What are the research services offered by the Microarray Core Laboratory?

The microarray workflow consists of the creation of an array of oligonucleotides, the hybridization of fluorescently-labeled DNA/RNA, scanning of the array in the chip, and the computational analysis of the raw image data. The microarray research services offered in the laboratory cover chip processing, sample processing, scanning, and data quality assessment.

### Custom Genotyping

This analysis provides customized solutions that allow researchers to optimize the number of loci per sample and throughput level to best suit to their study goals.

### Whole-Genome Genotyping

This analysis allows flexibility in genotyping samples with hundreds of thousands to millions of markers that deliver dense genome-wide coverage with the most up-to-date content available from the scientific community.

### Whole-Genome Gene Expression Analysis

The Illumina® Whole-Genome Gene Expression Direct Hybridization Assay provides the highest level of multiplexing for whole-genome expression profiling with the most up-to-date expression content and high-throughput processing, hence producing high-quality data for large gene expression studies, efficiently and economically.

## How much is the fee for the microarray research services?

SERVICES	Service Fee (Php) per sample
Custom Genotyping Services (384-plex)	Php 5,430.00
Whole-Genome Genotyping Services (HumanOmni2.5-8)	Php 23,720.00
Whole-Genome Gene Expression Analysis Services (HumanHT-12 v4)	Php15,890.00
Other services	
DNA Extraction	Php2,310.00
PBMC (Peripheral blood mononuclear cell) isolation	Php920.00
RNA Extraction	Php2,980.00

*\*Prices as of January 2016. Please call the lab to confirm current rates.*

## Can the microarray results be used for clinical applications?

As of the moment, the Illumina microarray beadchips are for research use only and are not approved for diagnostic use.

## What will be the arrangement in doing microarray research with the laboratory?

A Research Service Contract between the Microarray Core Laboratory and the Research Service Customer is agreed upon and signed by both parties. Research Service Contract shall include the following provisions: sample collection, sample quality and quantity requirements, sample transport condition, sample receipt schedule, type of service needed, turn-around time of processing, billing and payment schedule and penalties, result release and analysis, and intellectual property sharing or waiver