



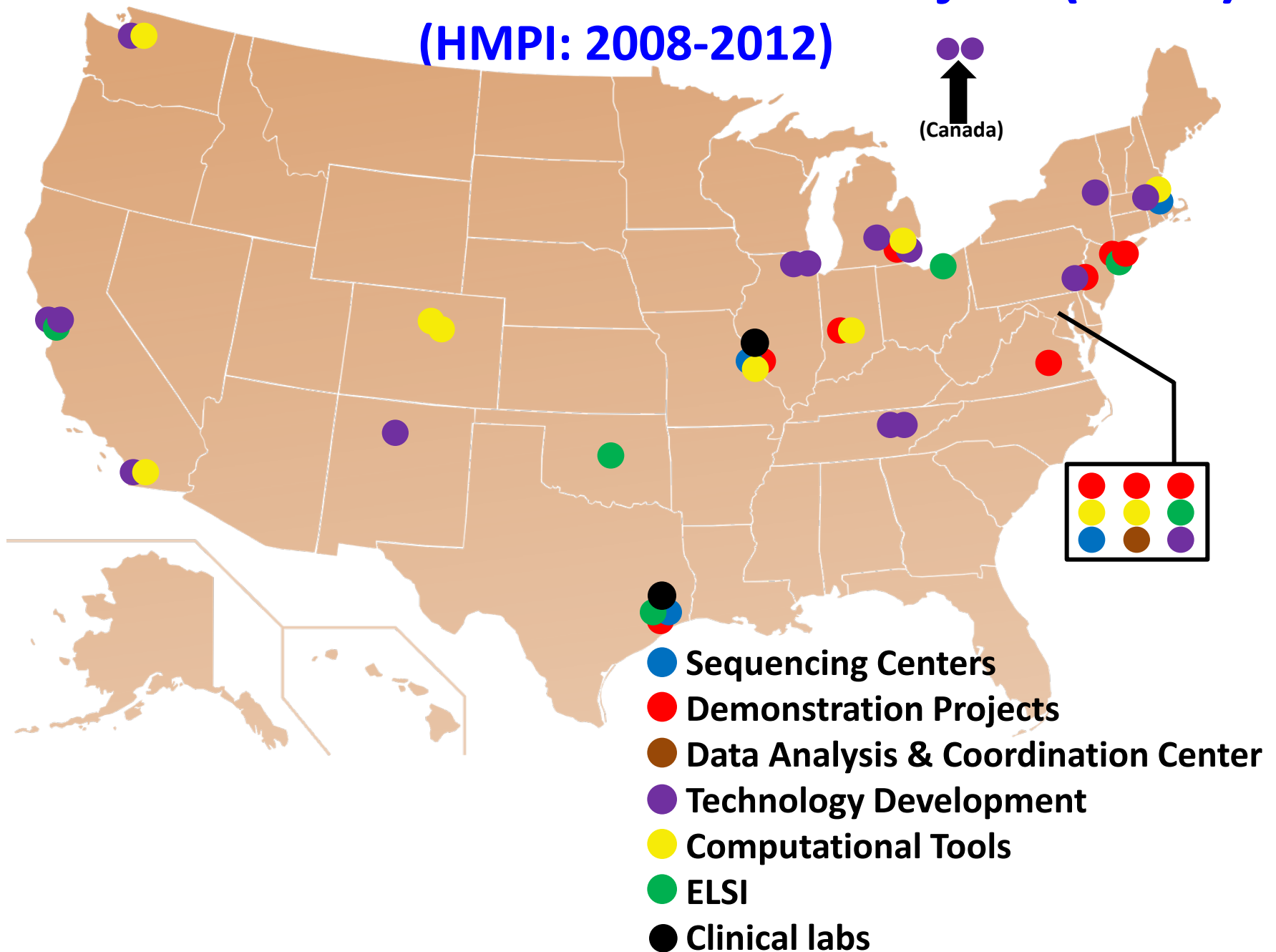
The NIH Human Microbiome Project: An Update

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The NIH Human Microbiome Project (HMP)

(HMPI: 2008-2012)

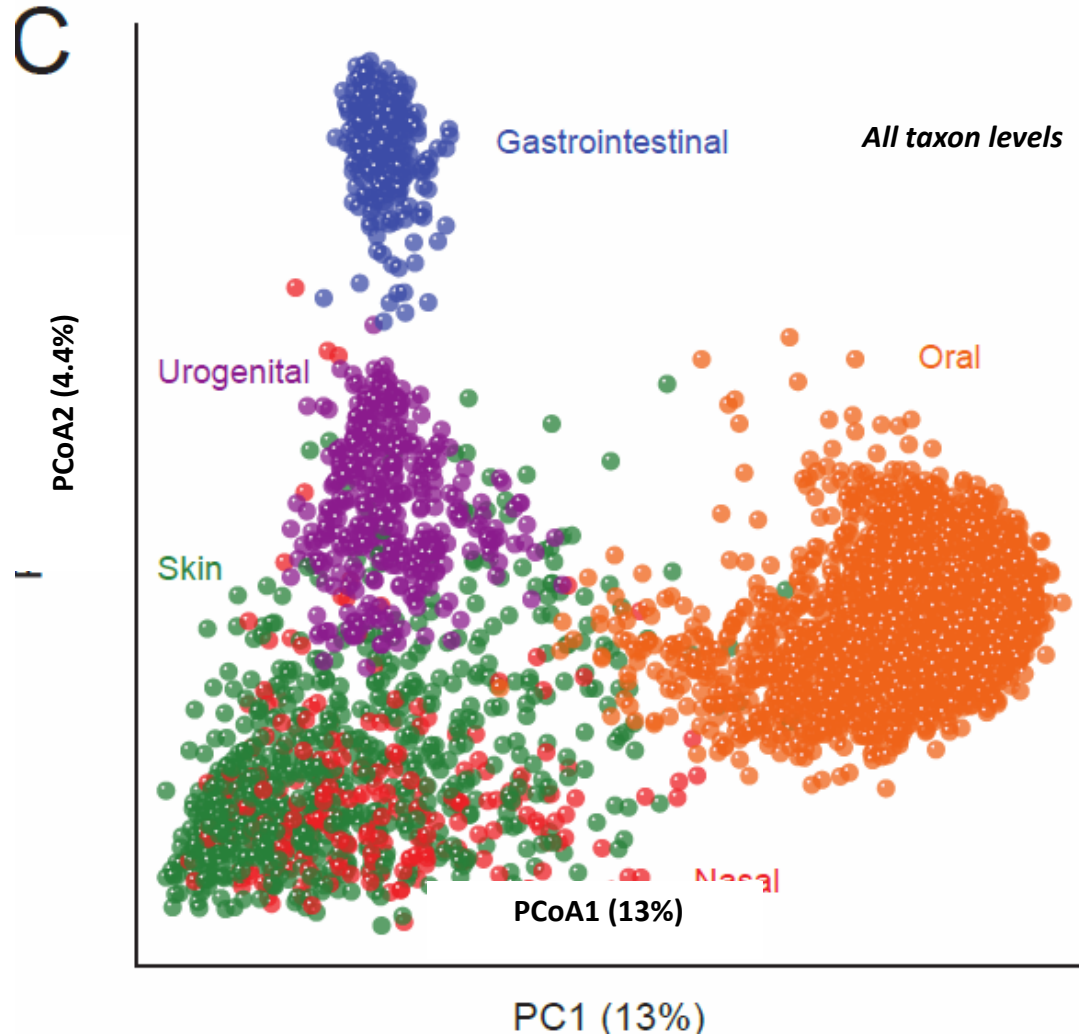
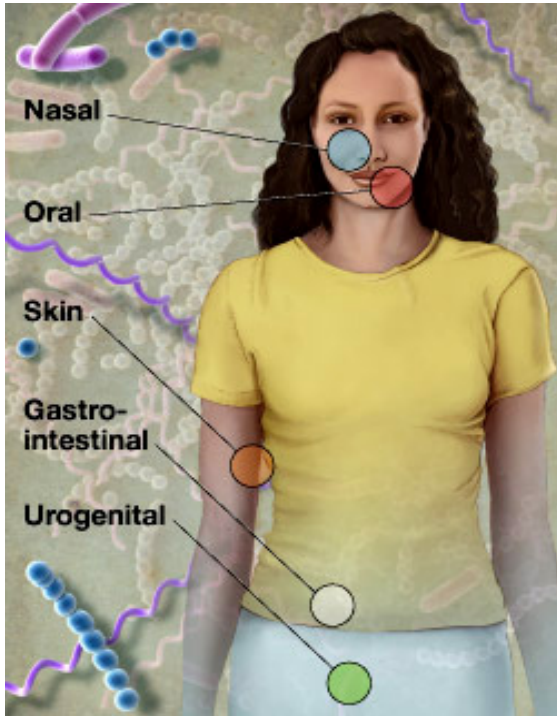


1st Phase of the Human Microbiome Project (HMP1)

HMP1: Survey of the microbiome in humans

- ✓ **Taxonomic analysis of microbial communities living in/on human body**
- ✓ **Analysis of collective genetic potential in these microbial genomes (metagenomics)**

In adults, each part of the body supports a distinct microbial community



No apparent relationship with gender, age, weight, ethnicity, or race

HMP1 suggests that microbiomes in healthy U.S. adults reflect a global pool of:

~ 10,000 microbial species

~ 8 million unique microbial genes

Key HMP1 Publications (open access)

NATURE | ARTICLE OPEN

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A framework for human microbiome research

The Human Microbiome Project Consortium

doi:10.1038/nature11234

[Affiliations](#) | [Contributions](#) | [Corresponding author](#)

Nature 486, 215–221 (14 June 2012) | doi:10.1038/nature11209

Received 02 November 2011 | Accepted 10 May 2012 | Published online 13 June 2012

Abstract

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Structure, function and diversity of the healthy human microbiome

doi:10.1038/nature11209

The Human Microbiome Project Consortium

[Affiliations](#) | [Contributions](#) | [Corresponding author](#)

Nature 486, 207–214 (14 June 2012) | doi:10.1038/nature11234

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The Human Microbiome Project Collection

doi:10.1371/issue.pcol.v01.i13



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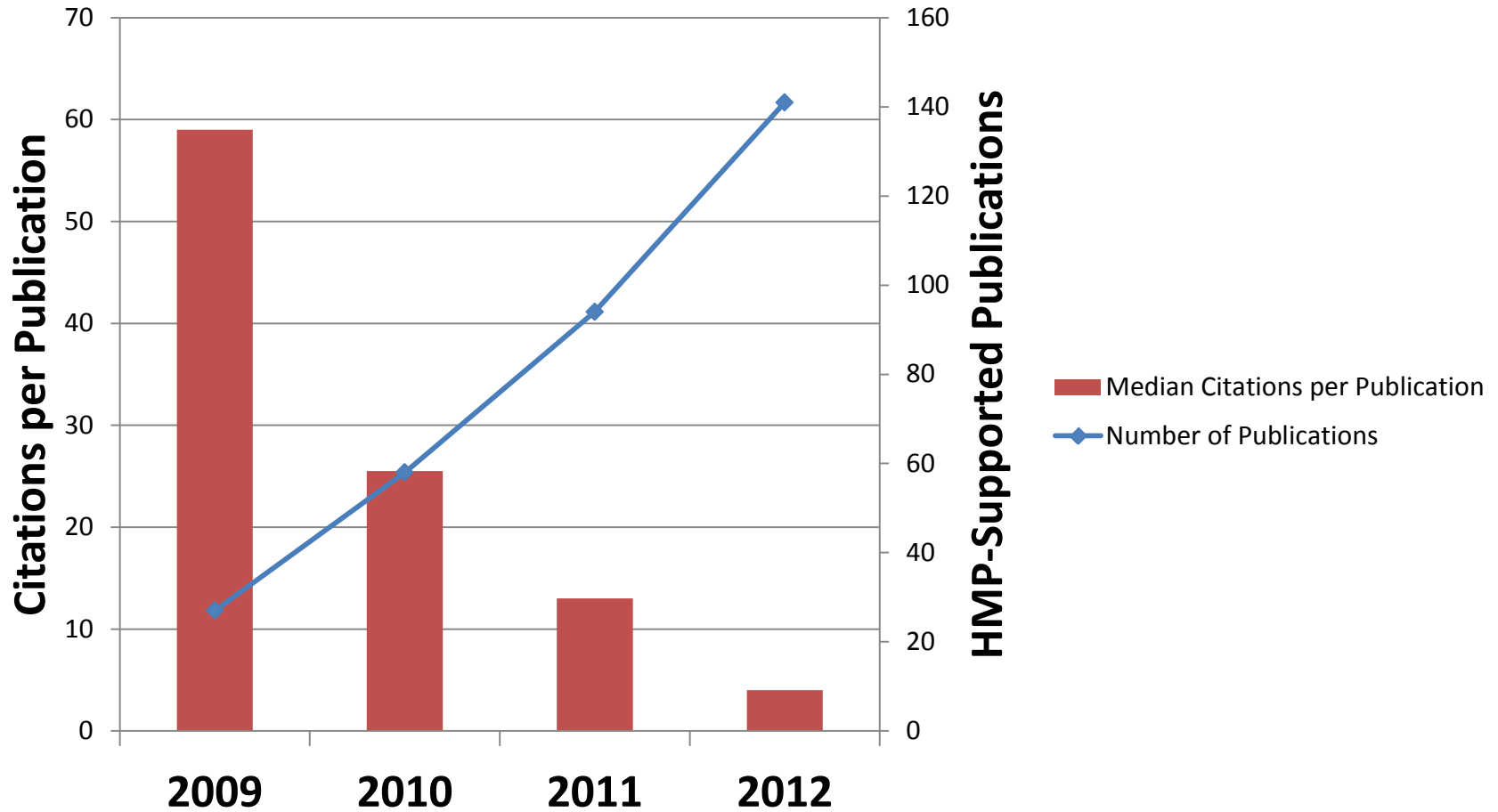
The healthy adult body hosts ten times as many microbial cells as human cells, including bacteria, archaea, viruses, and eukaryotic microbes resident on nearly every body surface. The metagenome carried collectively by these microbial communities dwarfs the human genome in size, and their influences on normal development, diet and obesity, immunity, and disease are under active research.

Funded by the National Institutes of Health Common Fund, the Human Microbiome

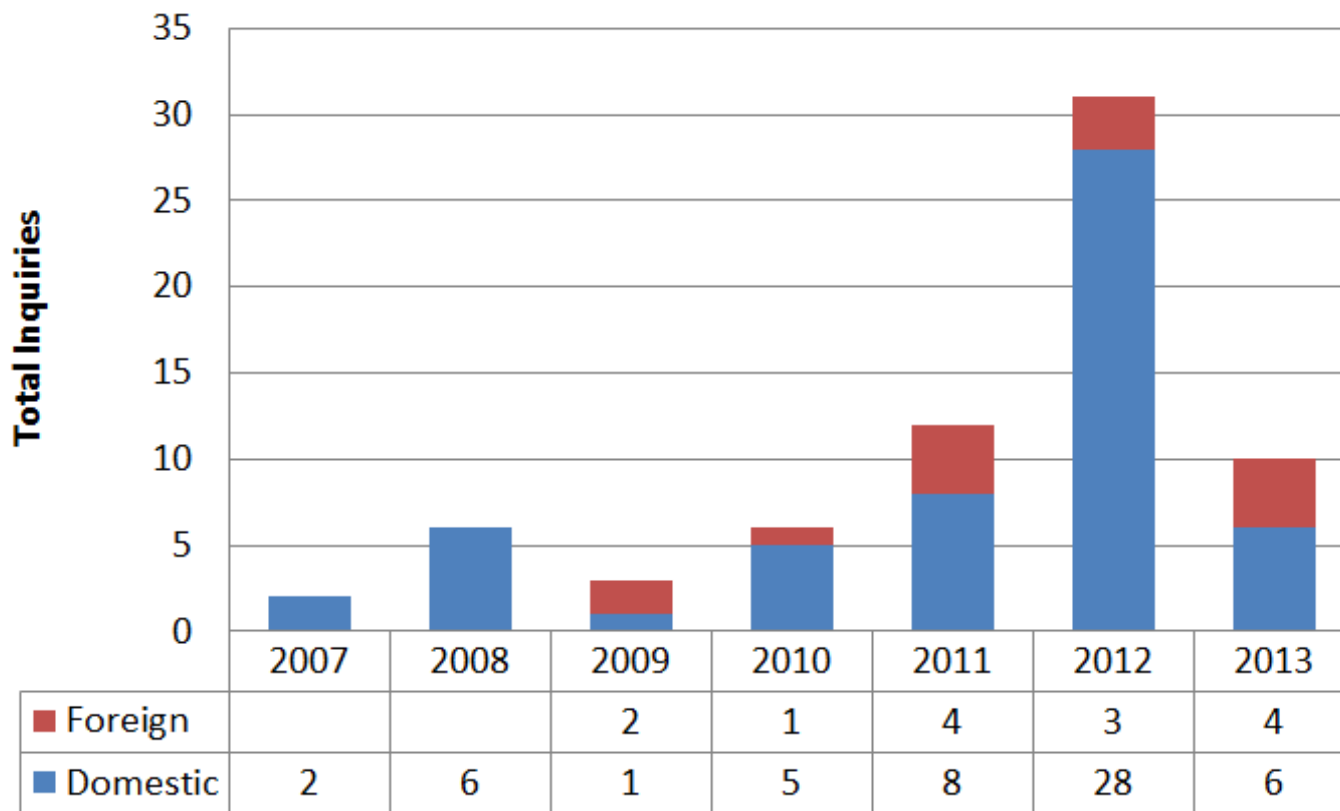
[Research Articles](#)

20+ companion papers

HMP1 Publications and Their Impact



HMP1-Related Media Inquiries: 2007-2013

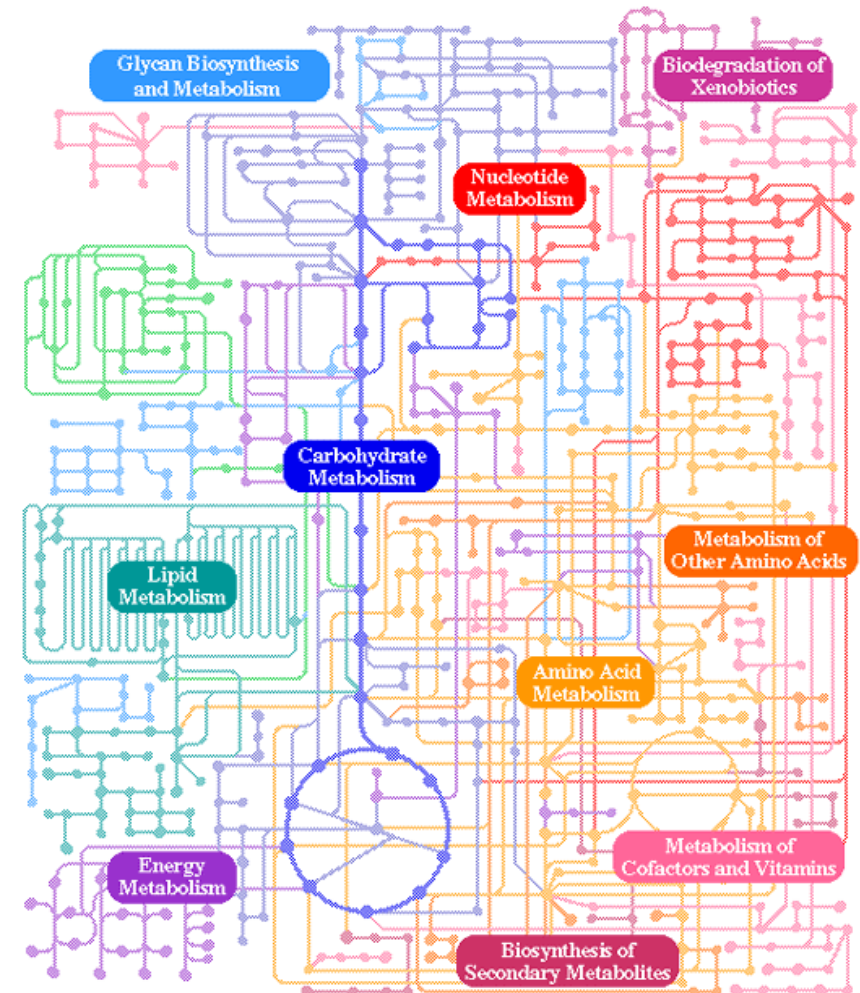


The following outlets each submitted multiple inquiries:

Outlet	Requests
BBC	4
New York Times	4
Bloomberg	3
Discover	3
FOX	3
Nature	3
NPR	3
Public Broadcasting Service (PBS)	3
Smithsonian	3
Center for Science in the Public Interest	2
USA Today	2

What are the 8 million microbial genes doing?

DNA



Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH) AHRQ disclaimer:
Components of Participating Organizations	This Funding Opportunity Announcement (FOA) is developed as a Common Fund initiative (http://commonfund.nih.gov) through the NIH Office of the NIH Director, Office of Strategic Coordination (http://dpcpsi.nih.gov/osc/). The FOA will be administered by the National Institute for Dental and Craniofacial Research (NIDCR, http://www.nidcr.nih.gov/) on behalf of the NIH.
Funding Opportunity Title	Human Microbiome Project Transition Program: Evaluation of multi-'omic data in understanding the microbiome's role in health and disease (U54)
Activity Code	U54 Specialized Center- Cooperative Agreements
Announcement Type	New

HMP2 (2013-2015):

- 1) Dataset of microbiome & host genomic and biological properties
- 2) Community resource
- 3) Up to \$5M/yr, up to 2 awards

Announcement Type
Related
Funding Opportunity Announcement (FOA) Type
Competing Funding Opportunity
Number of Applications
Catalog of Domestic Assistance

Number(s)	
Funding Opportunity Purpose	<p>This FOA invites applications for projects that will: 1. Generate microbiome genomic and functional data from clinical biospecimens obtained from a cohort(s) of carefully-phenotyped subjects with a specific disease or health state and 2. To the extent possible, perform an initial analysis on this set of data in order to explore whether examination of microbiome functional data will lead to new insights about the human microbiome's function in health and disease. This program is a component of the NIH Common Fund Human Microbiome Project (http://commonfund.nih.gov/hmp/).</p> <p>The total amount of funds available for these awards is approximately \$15 million total costs in FY 13-15 at \$5 million/year. Applications may request up to \$2.0 million direct costs/year.</p> <p>Up to 2 awards are anticipated from this solicitation.</p>



Where to go for more information about HMP?

Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI) National Institutes of Health U.S. Department of Health and Human Services

The NIH Common Fund Office of Strategic Coordination WE ACCELERATE DISCOVERY.

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Human Microbiome Project Publications Search GO

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Common Fund Home > Programs > Human Microbiome Project (HMP) Like 278 Follow Printer Friendly Text Size GO

<http://commonfund.nih.gov/hmp>

Program Snapshot

The Common Fund's Human Microbiome Project (HMP) aims to characterize the microbial communities found at several different sites on the human body, including nasal passages, oral cavities, skin, gastrointestinal tract, and urogenital tract, and to analyze the role of these microbes in human health and disease. HMP includes the following initiatives.

- [Development of a reference set of microbial genome sequences and preliminary characterization of the human microbiome](#)
- [Elucidation of the relationship between disease and changes in the human microbiome](#)
- [Development of new technologies for computational analysis](#)
- [Development of new tools for computational analysis](#)
- [Establishment of a data analysis and coordinating center \(DACC\)](#)
- [Establishment of resource repositories](#)
- [Examination of the ethical, legal and social implications \(ELSI\) of HMP research](#)

[Read More...](#)

Program Highlights

View the genomes of 100s of HMP reference strains in Gen Bank:
<http://www.ncbi.nlm.nih.gov/bioproject/28331>

Order an HMP reference strain:
<http://www.beiresources.org/>

View the HMP BioProjects page at NCBI with sequence and phenotype data:
<http://www.ncbi.nlm.nih.gov/genomeprj/43021>

Visit the HMP Data Analysis and Coordination Center (DACC) site:
<http://www.hmpdacc.org>

Four Human Microbiome Project (HMP) Investigators Honored by Election to the Institute of Medicine.
[Read more](#)



Also – visit NIH Common Fund site for current list of 320+ HMP papers:
<http://commonfund.nih.gov/hmp/publications.aspx>