



IASLC 2026 World
Conference on Lung Cancer
SEPTEMBER 12 - 15, 2026
SEOUL, REPUBLIC OF KOREA

Microbiome Functional Signatures as Potential Biomarkers and Mechanistic Modulators of Response to Neoadjuvant Therapy in NSCLC

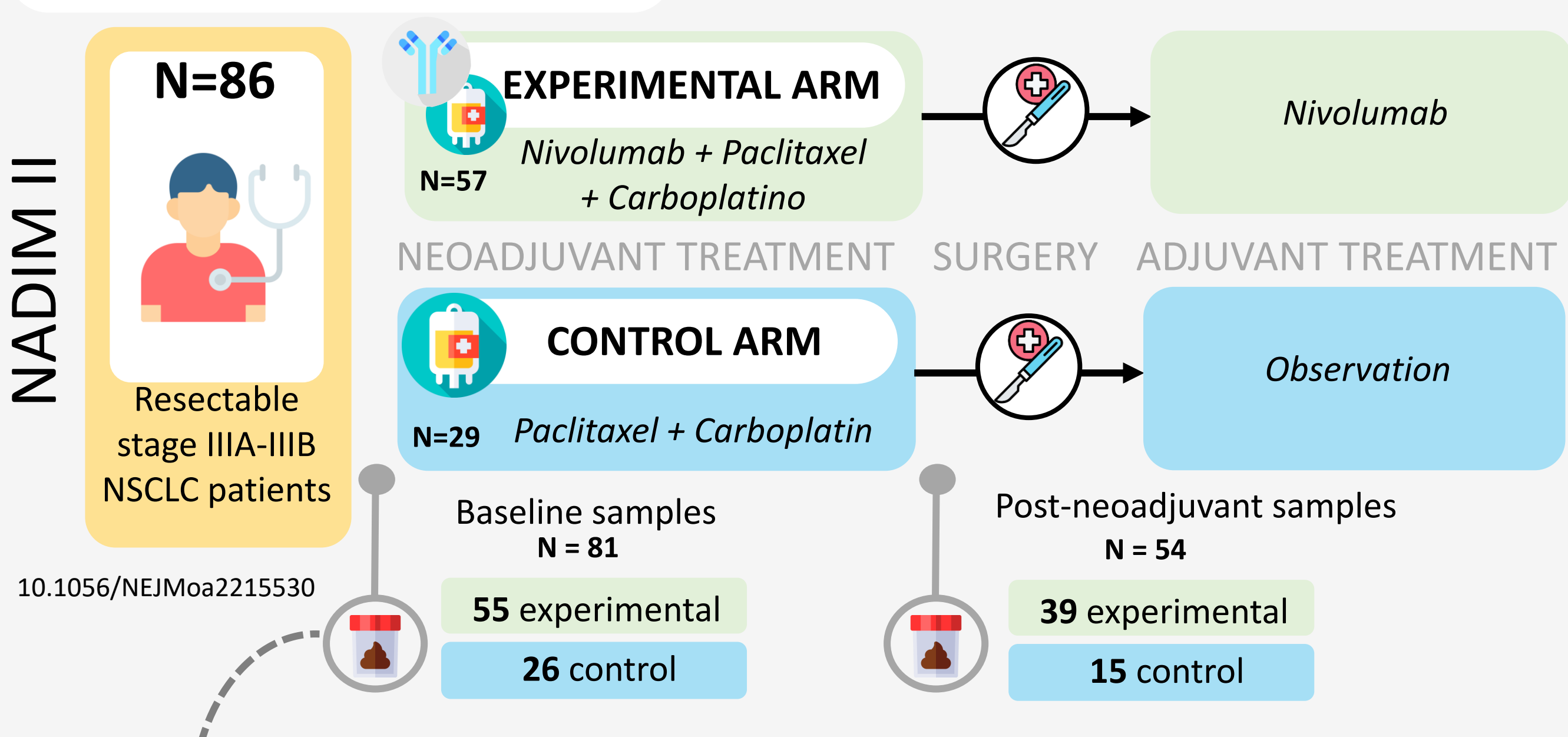
INSTITUTO DE INVESTIGACIÓN SANITARIA
PUERTA DE HIERRO - SEGOVIA DE ARANA
SaludMadrid Hospital Universitario Puerta de Hierro Majadahonda



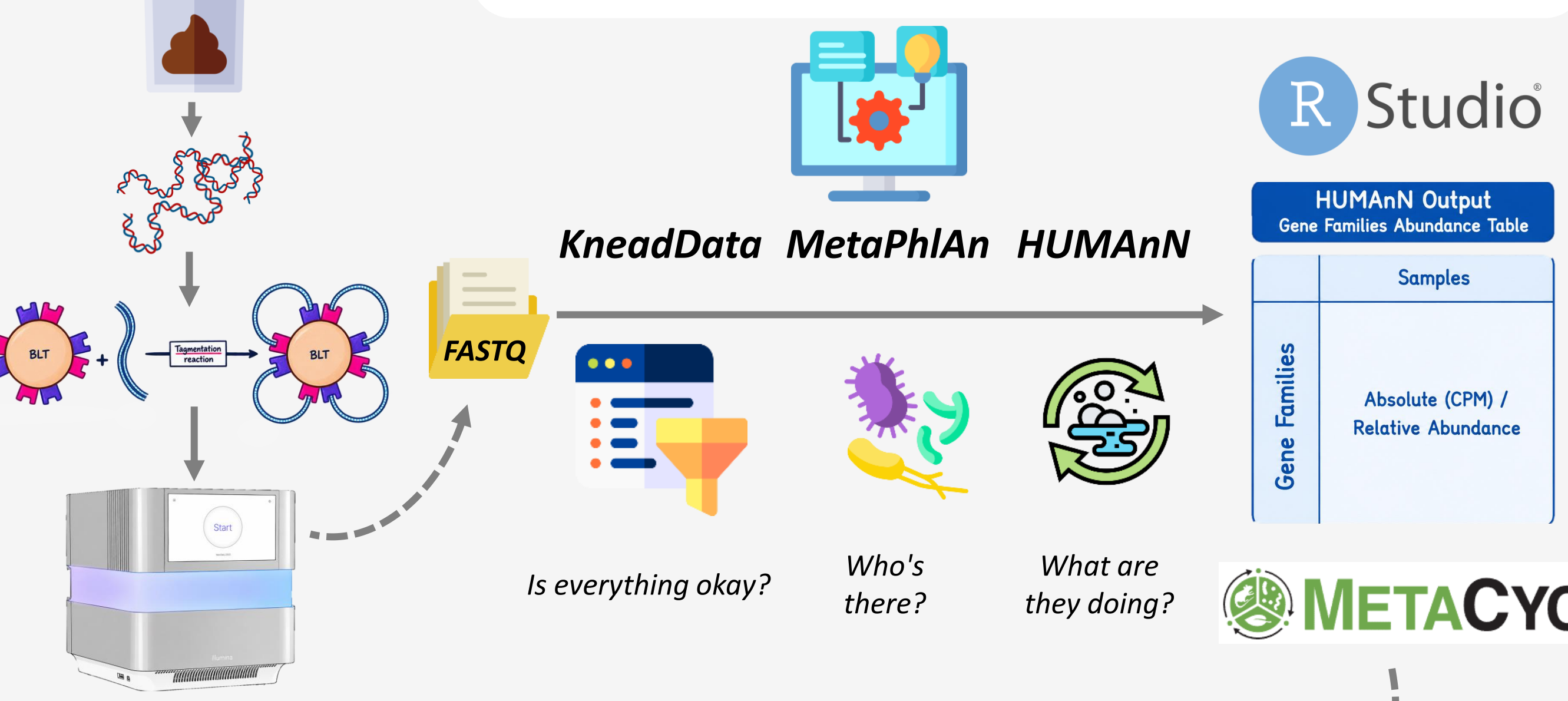
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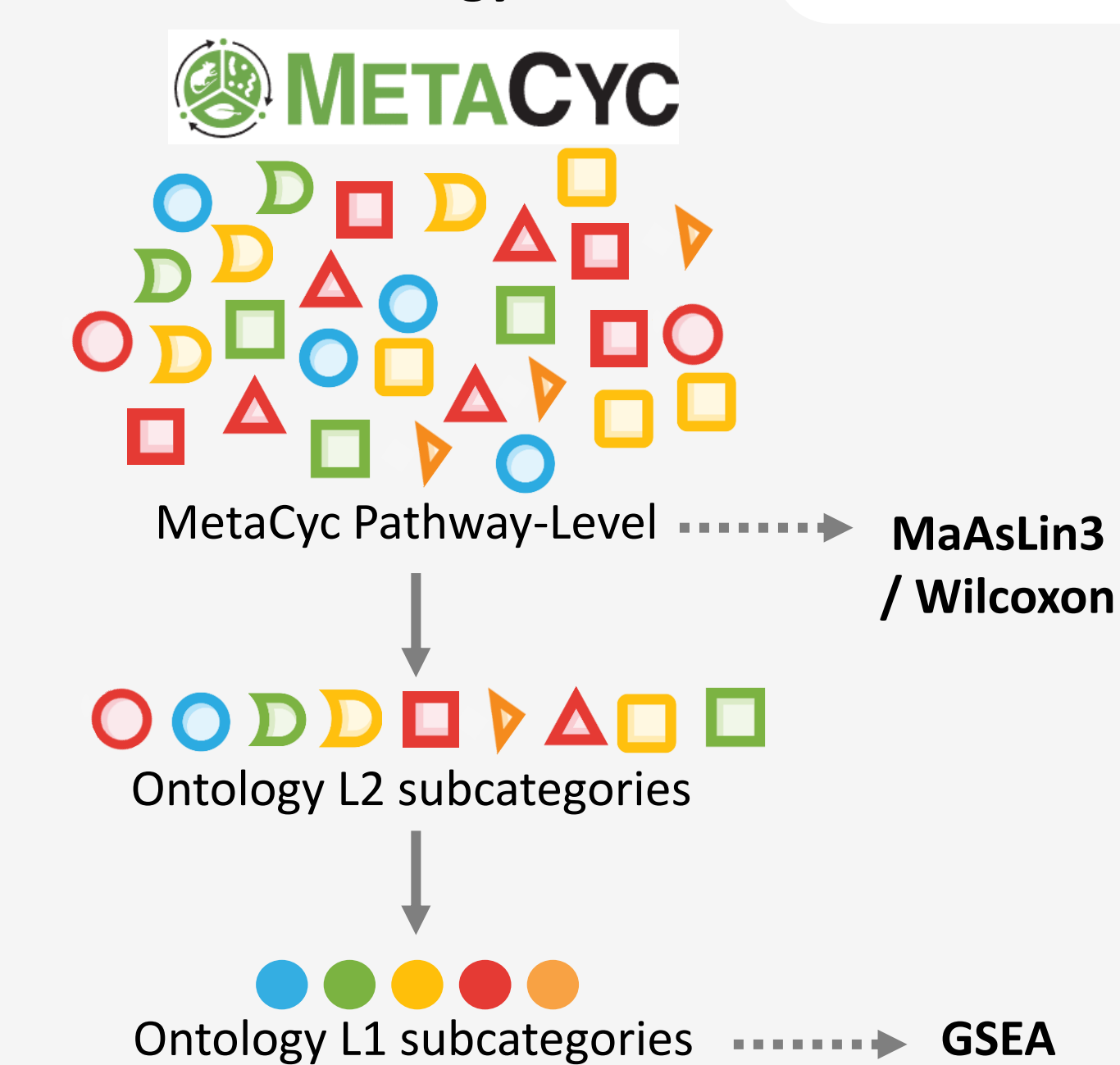
STUDY DESIGN AND SAMPLES



EXPERIMENTAL PROCEDURE AND BIOINFORMATICS



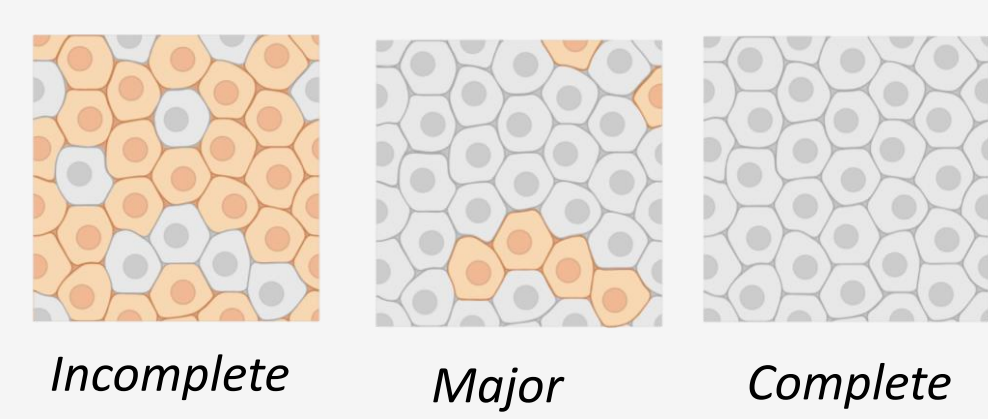
Functional ontology levels



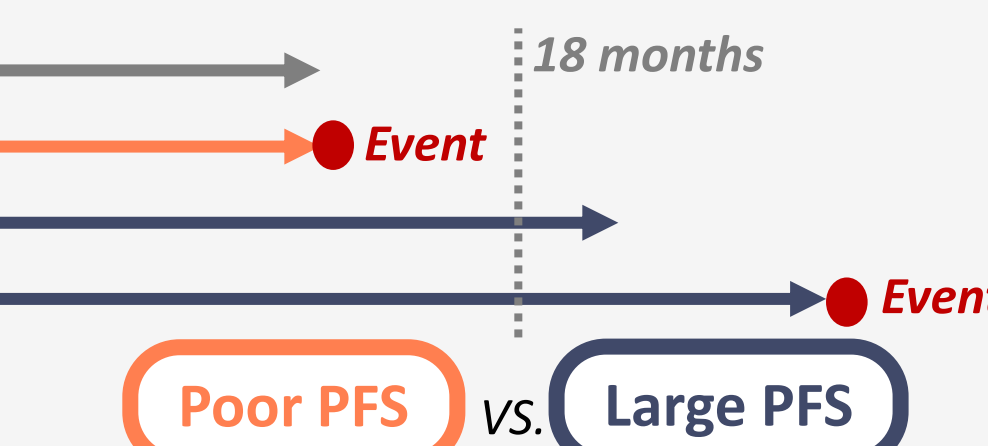
STATISTICS

Clinical outcome selection

A - Pathological response (only for experimntal arm)



B - Progression-Free Survival



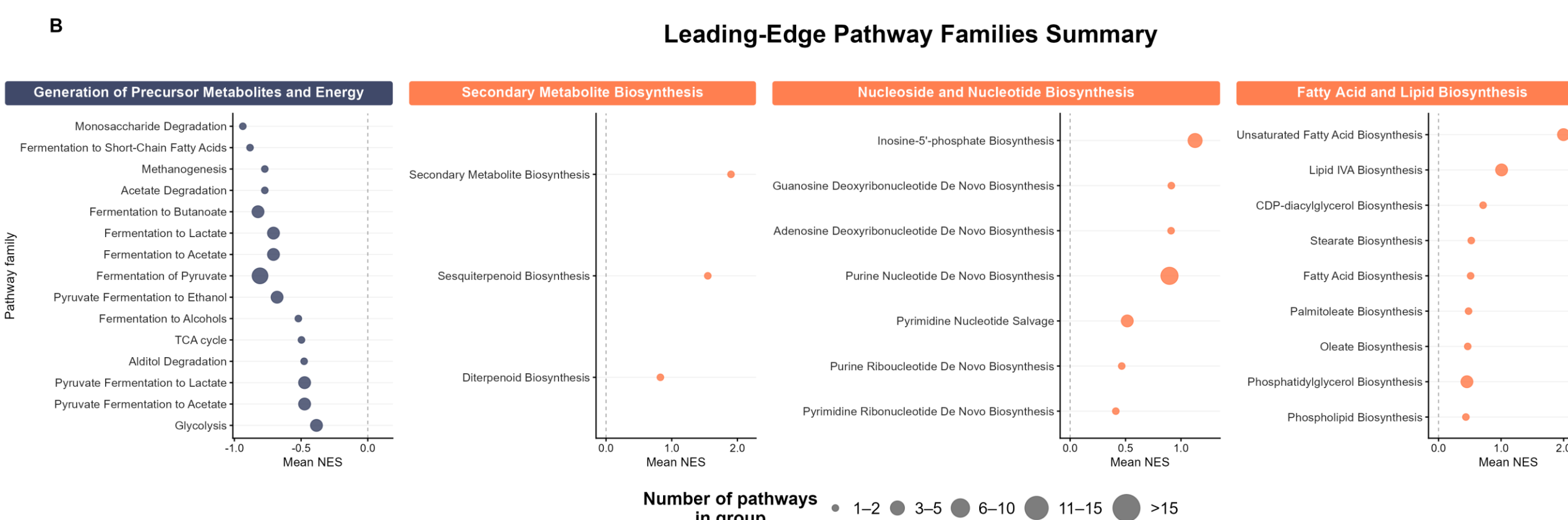
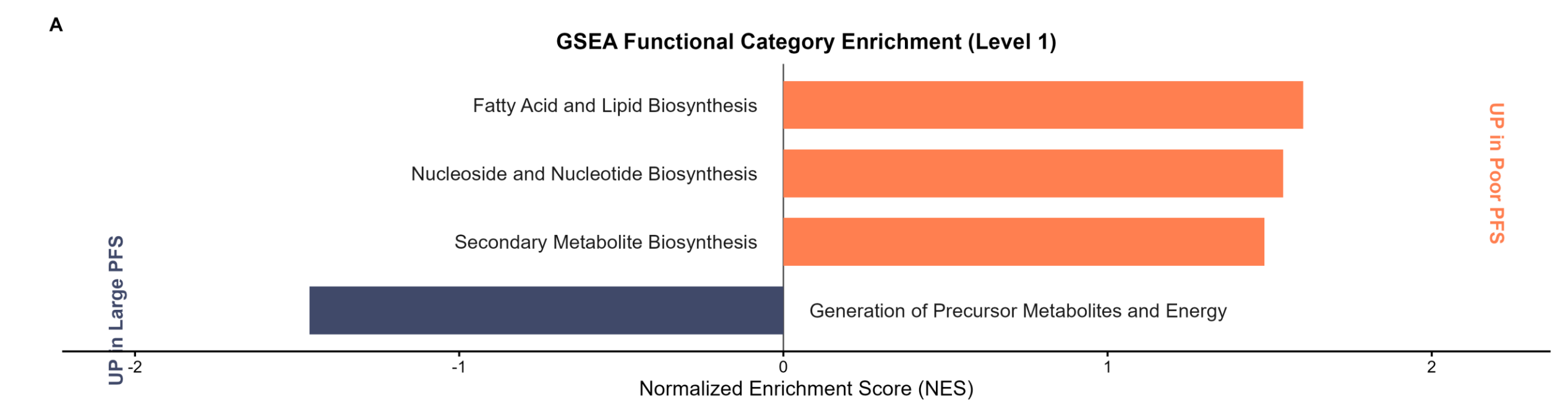
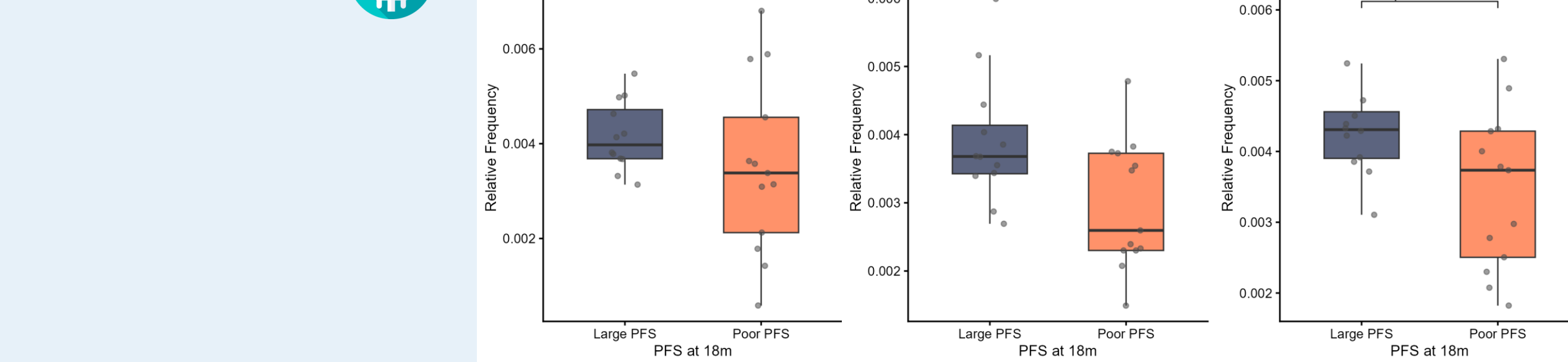
Taxonomic studies have shown limited consistency in identifying specific gut microbial taxa associated with response to immunotherapy

We hypothesized that **functional profiling** could capture **biologically relevant microbiome activity** that is not consistently reflected by taxonomic composition alone

Favorable outcomes were consistently associated with **carbohydrate utilization, fermentation, and energy production**, whereas **nucleotide biosynthesis** characterized **poor response and shorter PFS**.

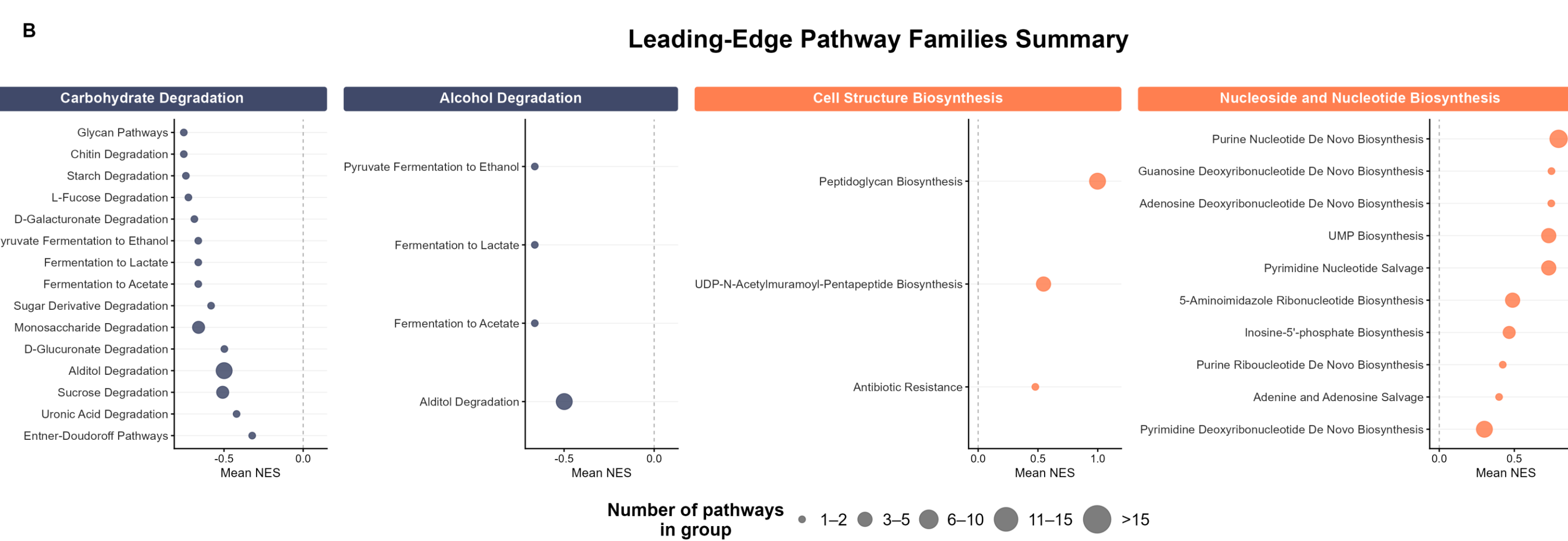
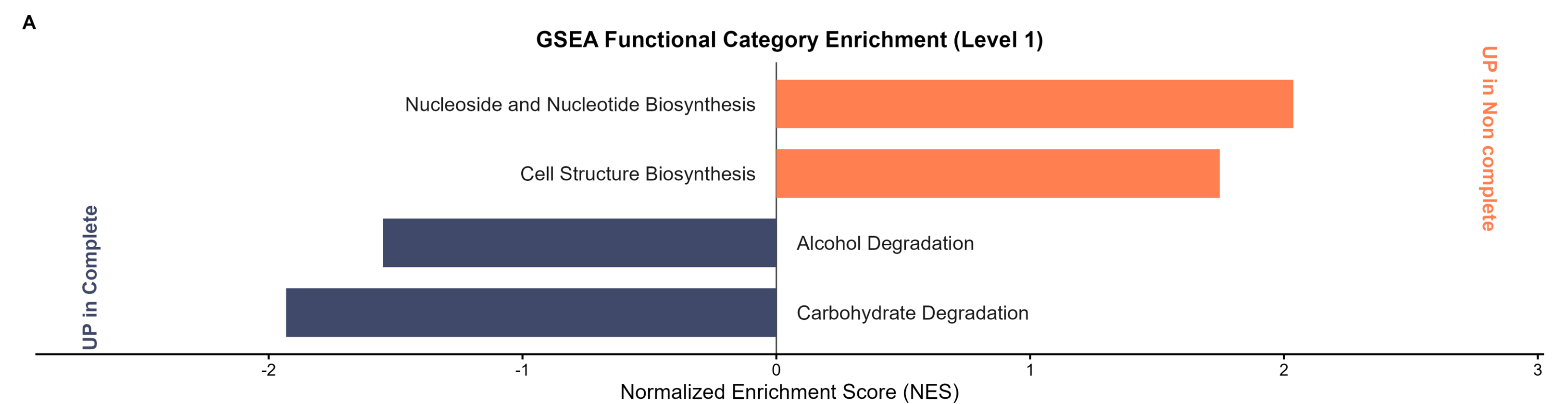
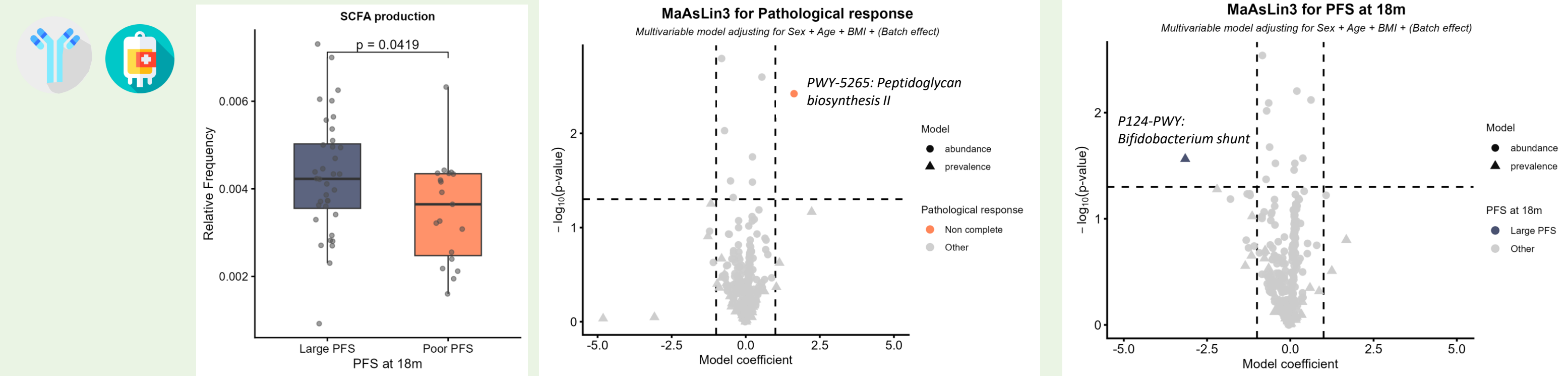
Functional signatures showed greater **cross-outcome and cross-treatment consistency** than individual taxonomic associations.

CONTROL ARM



* Looking for the **taxonomic** side of the story? **Check out our complementary poster!**

EXPERIMENTAL ARM



FUNDING

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