Intratumoral microbiota is associated with prognosis in patients with adrenocortical carcinoma

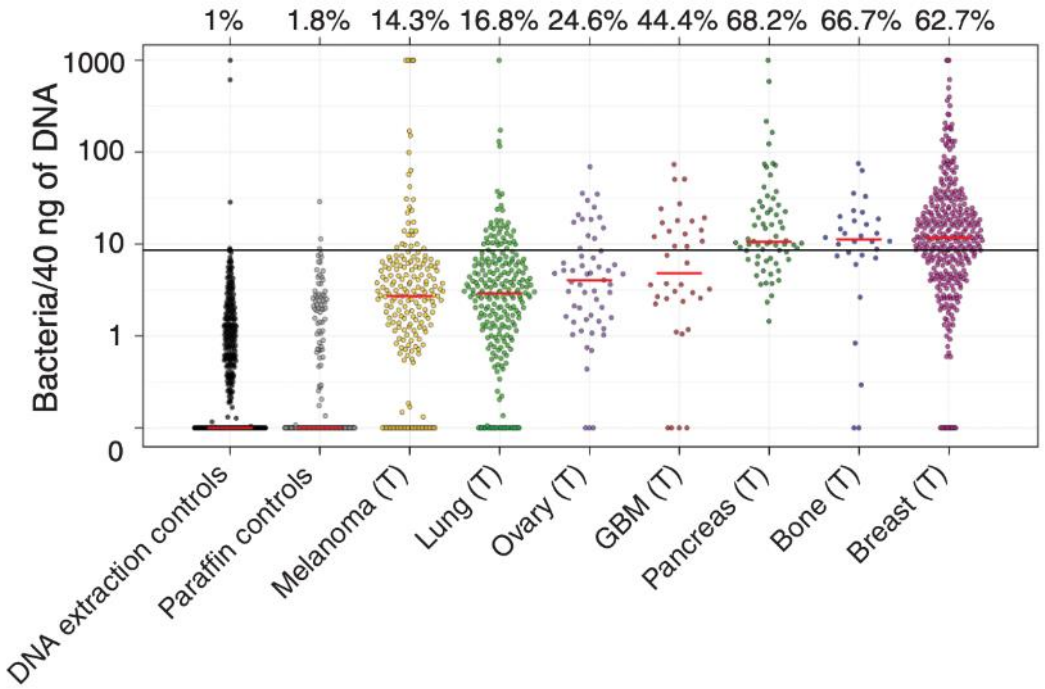
Yuqing Li[1], Dengwei Zhang[2,3], Minghua Wang[1]
Haowen Jiang[1], Chenchen Feng[1], Yong-Xin Li[2,3]

[1]Department of Urology, Huashan Hospital, Fudan University, Shanghai, China
[2]Department of Chemistry and The Swire Institute of Marine Science, The University of Hong Kong, Hong Kong, China
[3]Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), Guangzhou, China

Li, Yuqing, Dengwei Zhang, Minghua Wang, Haowen Jiang, Chenchen Feng, and Yong-Xin Li. 2023. "Intratumoral Microbiota is Associated with Prognosis in Patients with Adrenocortical Carcinoma." iMeta e102. https://doi.org/10.1002/imt2.102

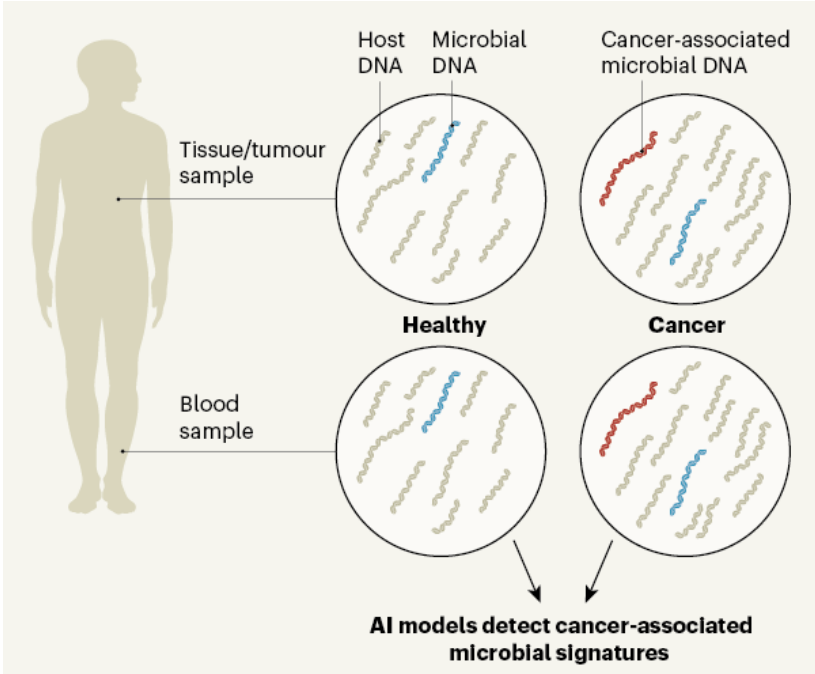
Introduction

Nejman et al. found that **each tumor type has a distinct microbiome composition.**
The correlations between intratumor bacteria or their predicted functions with tumor types and the response to immunotherapy were also observed.



(Nejman et al., Science, 2020)

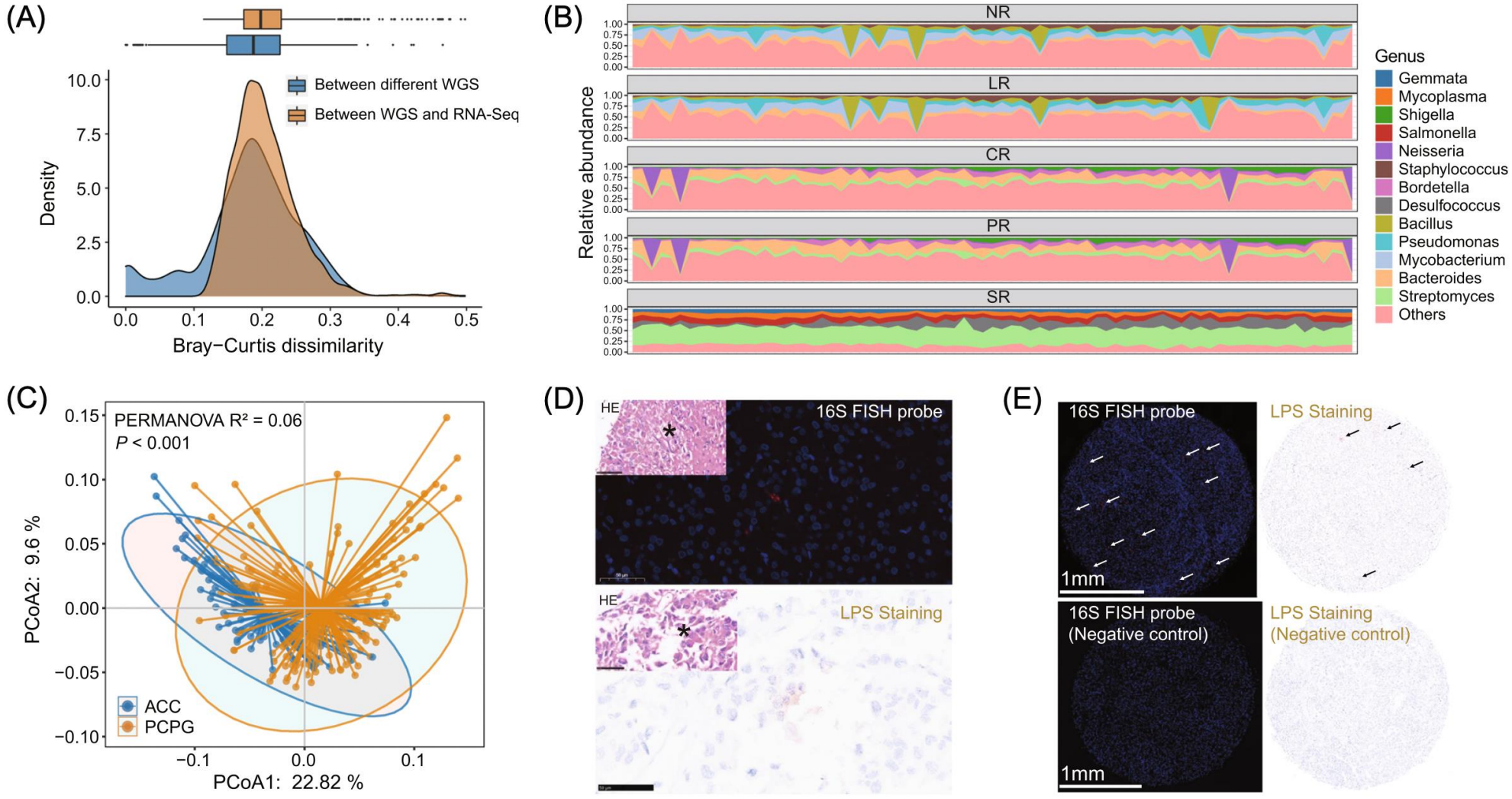
Poore et al. found unique microbial signatures in tissue and blood within and between 33 types of cancer from The Cancer Genome Atlas (TCGA).



(Poore et al., Nature, 2020)

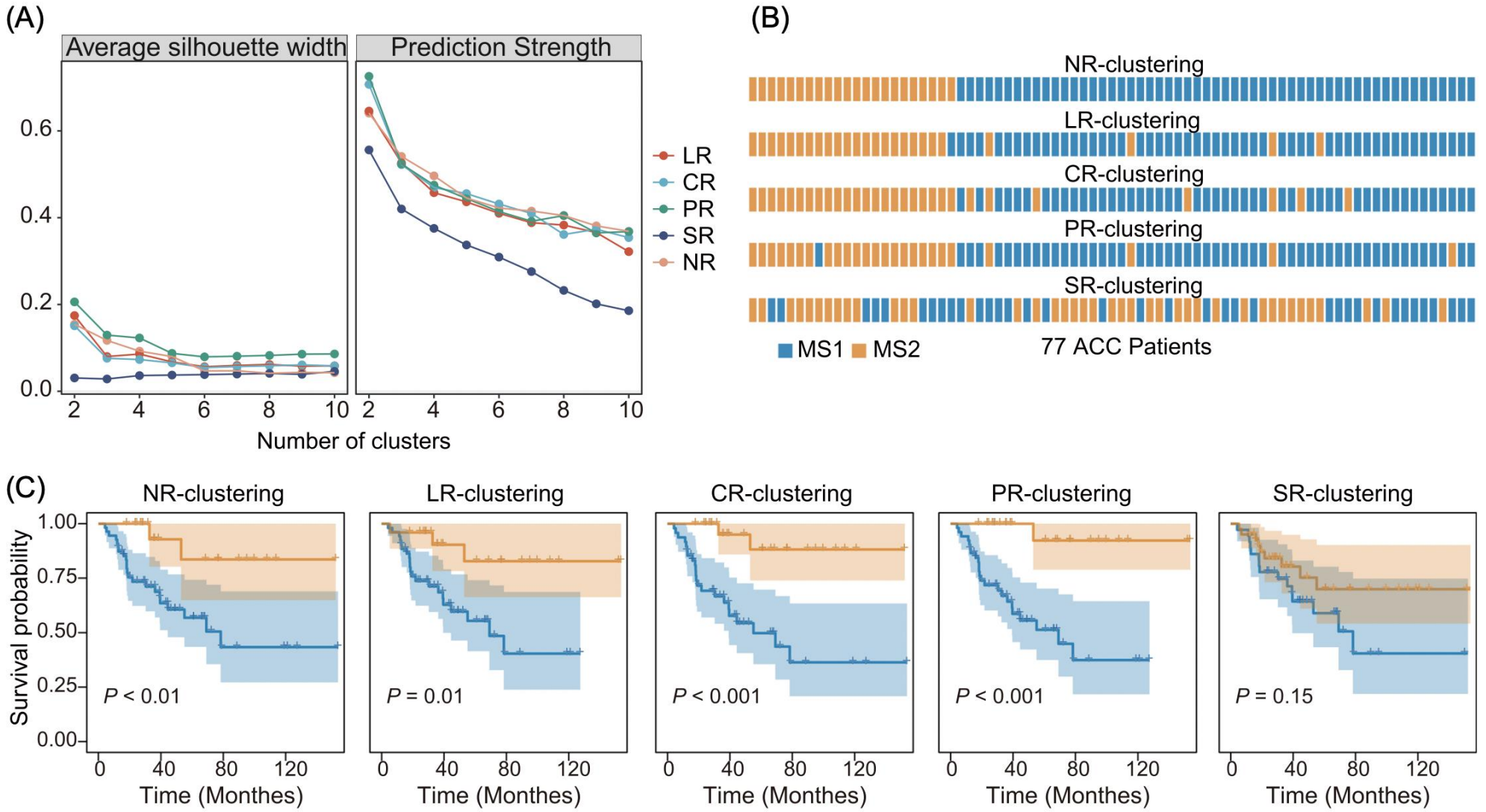
Results

ACC harbors intratumoral microbes.



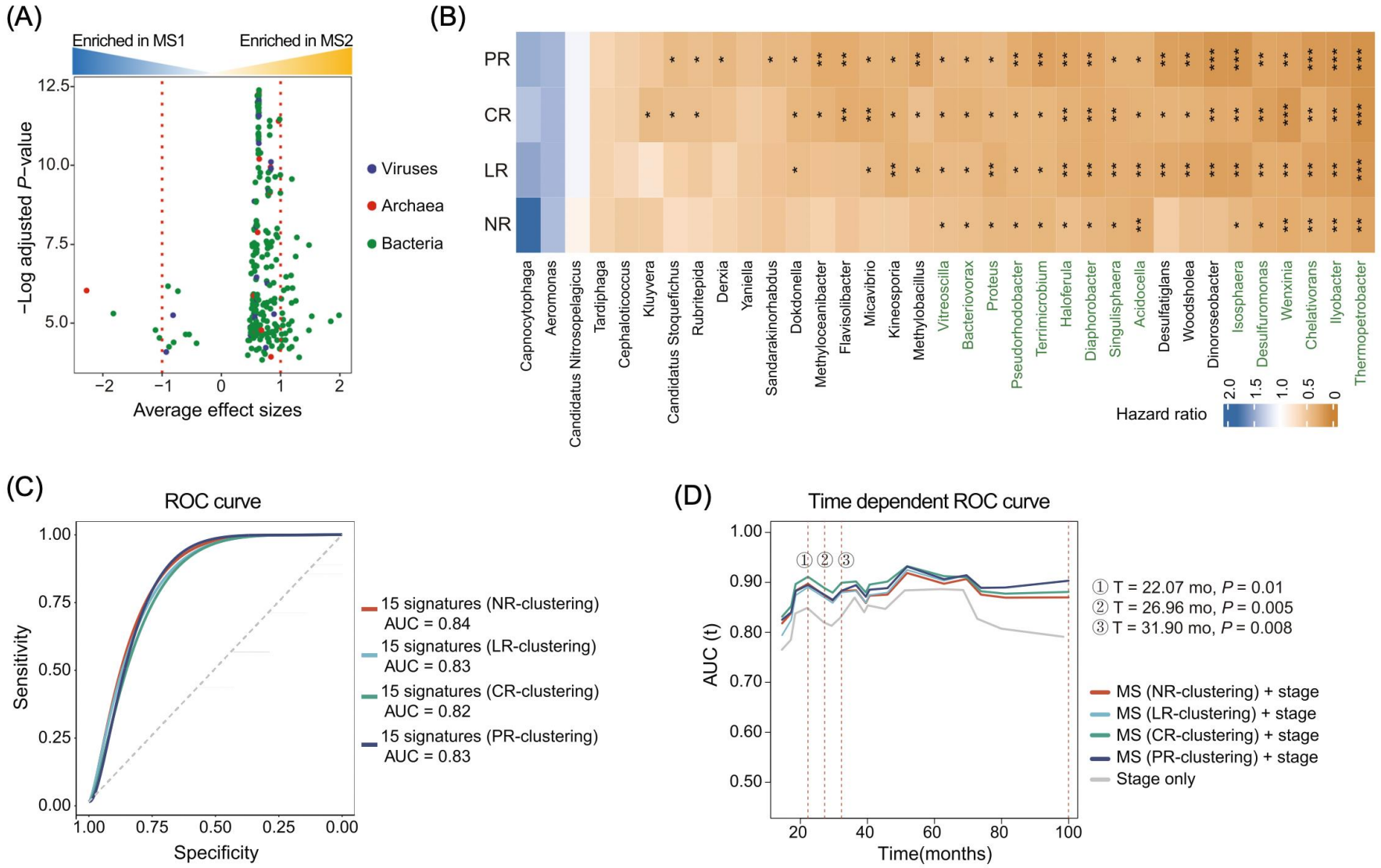
Results

Intratumoral microbiome composition is associated with prognosis in ACC.



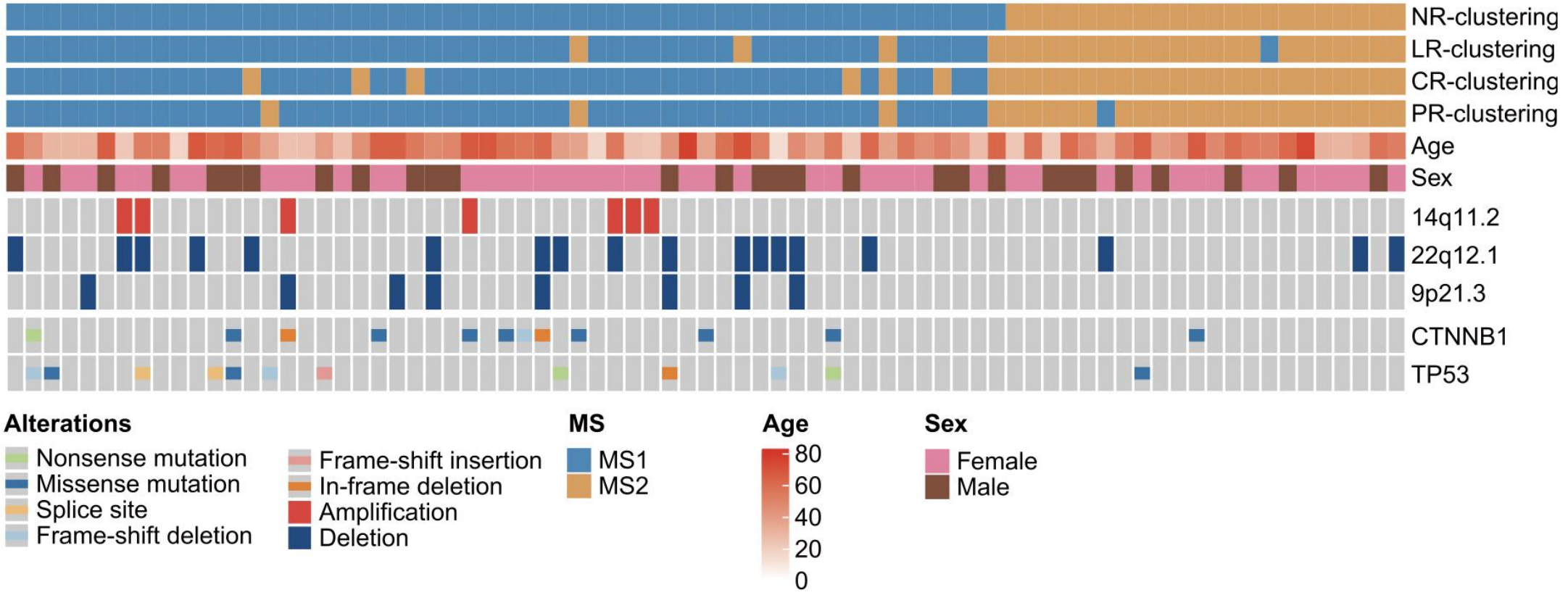
Results

Intratumoral microbial signatures can improve prognosis prediction.



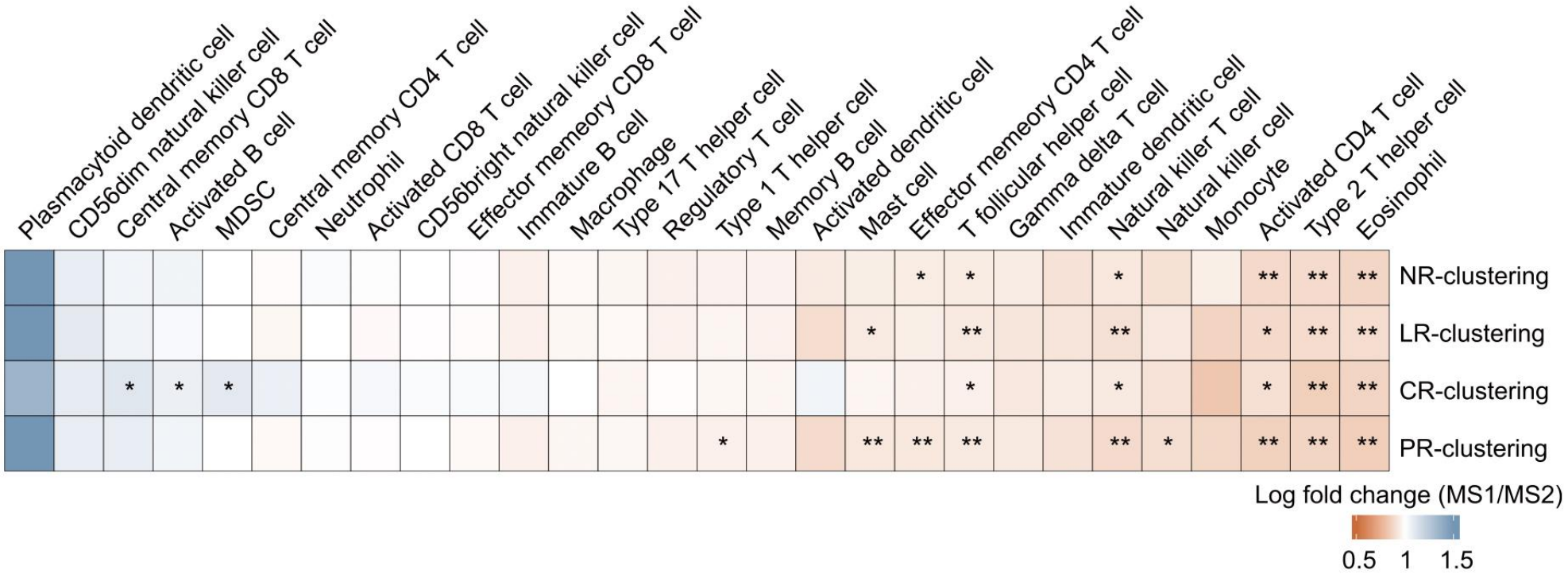
Results

Intratumoral microbial composition is associated with host genomic events.



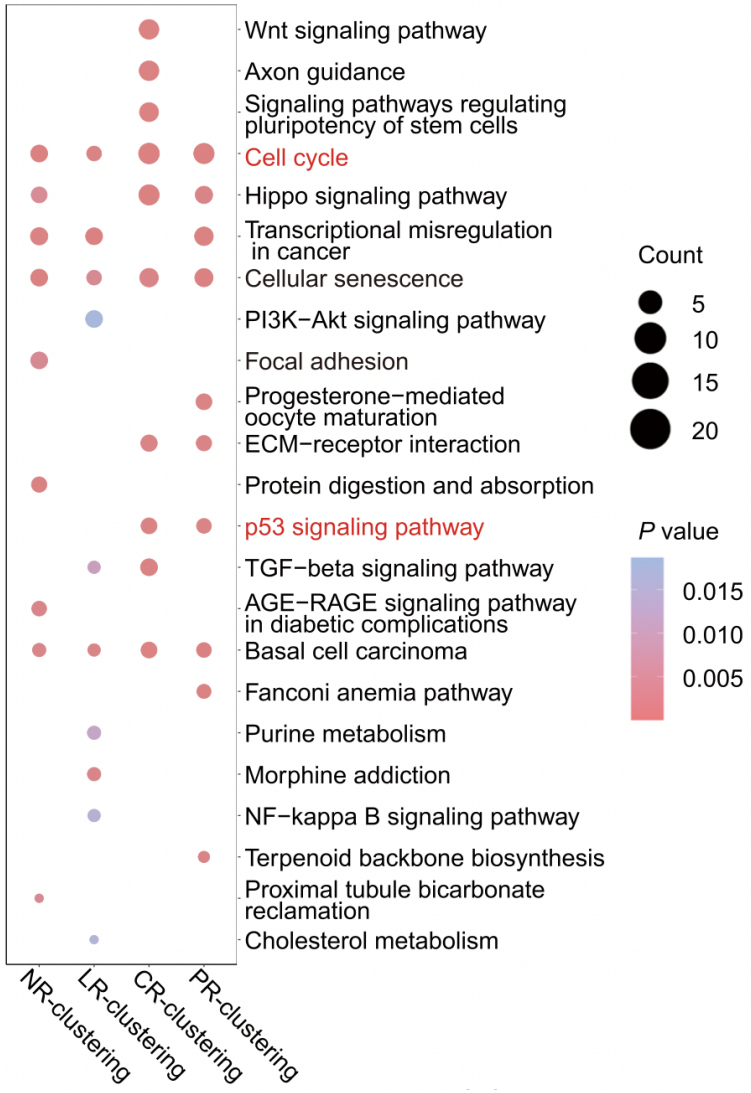
Results

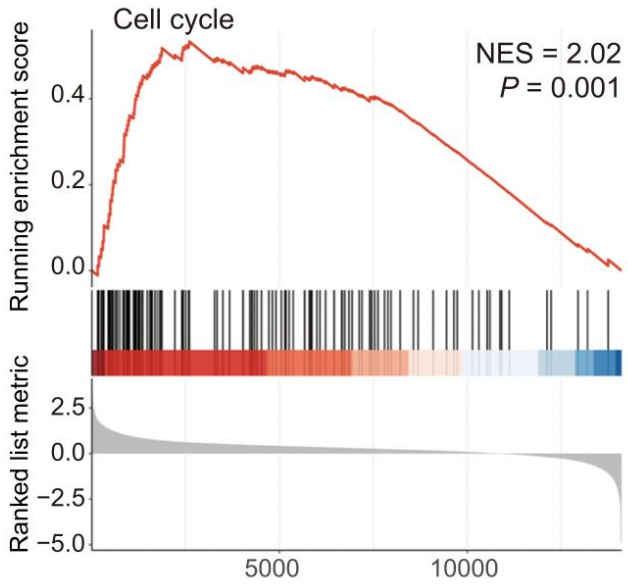
Intratumoral microbiota might play roles in an immunity-dependent manner.

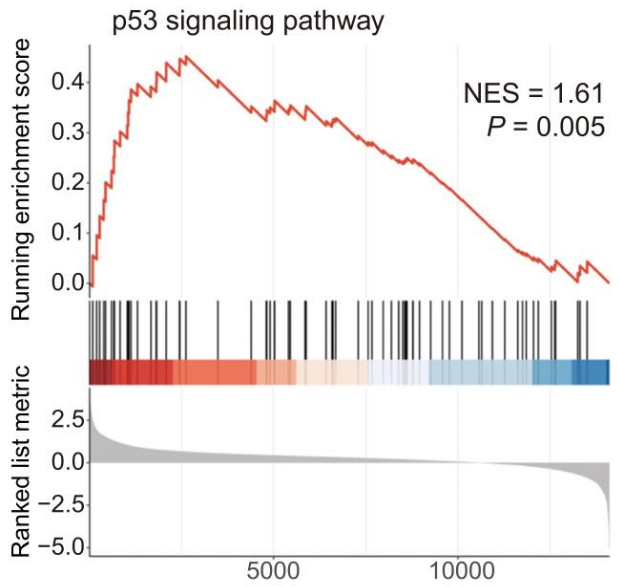


Results

Intratumoral microbiota might activate carcinogenic pathways.







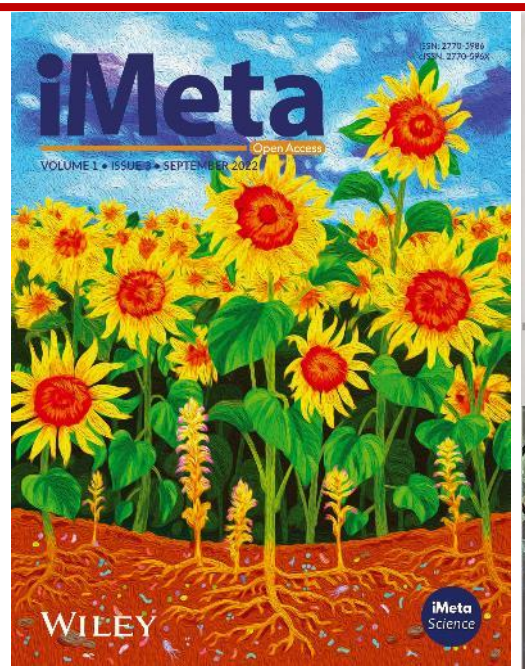
Summary

- Adrenocortical carcinoma (ACC) harbors intratumoral microbes.
- The intratumoral microbiome is associated with prognosis in ACC.
- The intratumoral microbiota might correlate with genomic events, immune status and specific carcinogenic pathways.

Li, Yuqing, Dengwei Zhang, Minghua Wang, Haowen Jiang, Chenchen Feng, and Yong-Xin Li. 2023. “Intratumoral Microbiota is Associated with Prognosis in Patients with Adrenocortical Carcinoma.” iMeta e10[illegible] https://doi.org/10.1002/imt2.102

iMeta: Integrated meta-omics to change the understanding of the biology and environment

WILEY



"*iMeta*" is an open-access Wiley partner journal launched by iMeta Science Society consist of scientists in bioinformatics and metagenomics world-wide. iMeta aims to promote microbiome, and bioinformatics research by publishing research, methods/protocols, and reviews. The goal is to publish high-quality papers (top 10%, IF > 15) targeting a broad audience. Unique features include video submission, reproducible analysis, figure polishing, APC waiver, and promotion by social media with 500,000 followers. Four issues were released in March, June, September, and December 2022. Index by Google Scholar, Crossref, Dimensions, PubMed(partial), DOAJ and Scopus.

Society: http://www.imeta.science
Publisher: https://wileyonlinelibrary.com/journal/imeta
Submission: https://mc.manuscriptcentral.com/imeta

office@imeta.science
Promotion Video

iMetaScience
iMetaScience