Review examines machine learning concepts for microbiologists

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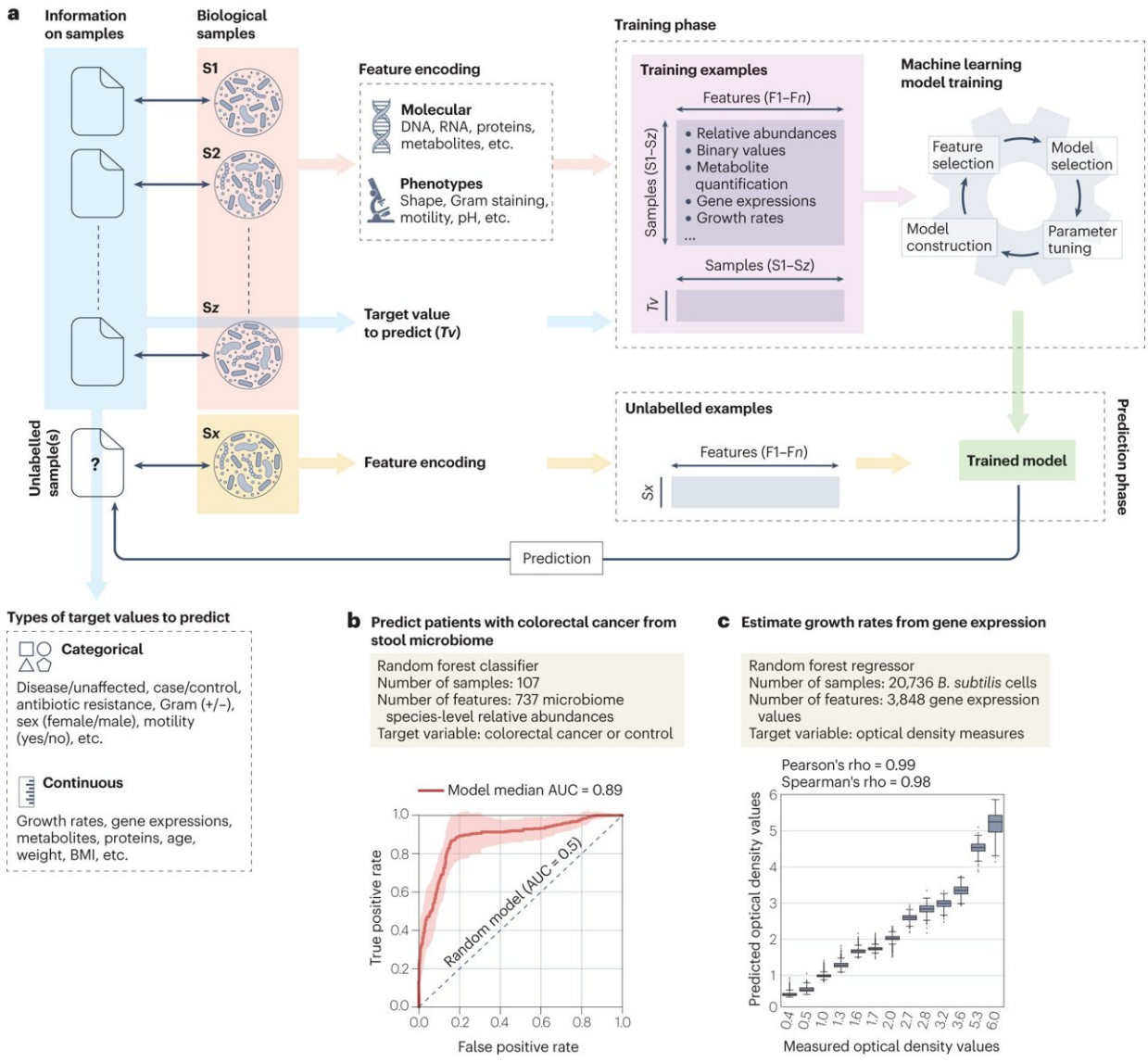

General workflow and examples for machine learning applications in

microbiology. Credit: *Nature Reviews Microbiology* (2023). DOI: 10.1038/s41579-023-00984-1

In a review in *Nature Reviews Microbiology*, Professor Levi Waldron and colleagues highlight the increasing importance of machine learning in microbiology, where it is used for tasks such as predicting antibiotic resistance and associating human microbiome features with complex host diseases.

Together with co-authors from the University of Trento and the European Institute for Oncology in Italy, Waldron examines the main machine learning concepts, tasks, and applications that are relevant for experimental and clinical microbiologists. The review provides the minimal toolbox for a microbiologist to be able to critically evaluate and apply machine learning in their field.

"It was exciting to try to distill the essential concepts of machine learning for a broad audience of microbiologists, and to do it as part of a team with so much expertise," says Waldron. "I think this review will also be interesting for other public health professionals outside the field of microbiology, who just would like a conceptual, comprehensible, but rigorous overview of machine learning."

More information: Francesco Asnicar et al, Machine learning for microbiologists, *Nature Reviews Microbiology* (2023). DOI: 10.1038/s41579-023-00984-1

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