

Resource Summary Report

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ComBase: A Combined Database For Predictive Microbiology

RRID:SCR_008181

Type: Tool

Proper Citation

ComBase: A Combined Database For Predictive Microbiology (RRID:SCR_008181)

Resource Information

URL: <http://www.combase.cc/index.php/en/>

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Description: A database of information about how microorganisms respond to different environments. The information in ComBase is referred to as quantitative microbiological data since it describes how levels of microorganisms, both spoilage organisms and pathogens, change over the course of time. The primary goal of the ComBase consortium is to improve efficiency in locating specific microbiological information, provide a more rapid means to compare data from different laboratories, and to reduce unnecessary redundancy in conducting microbiological studies. Cornbase was launched in 2003 The ComBase Initiative is a collaboration between the Food Standards Agency and the Institute of Food Research from the United Kingdom; the USDA Agricultural Research Service and its Eastern Regional Research Center from the United States; and the Food Safety Center in Australia. Its purpose is to make data and predictive tools on microbial responses to food environments freely available via web-based software. The ComBase Database (accessible via the ComBase Browser) consists of thousands of microbial growth and survival curves that have been collated in research establishments and from publications. They form the basis for numerous microbial models presented in ComBase Predictor, a useful tool for industry, academia and regulatory agencies. They can be used in developing new food technologies while maintaining food safety; in teaching and research; in assessing the microbial risk in foods or setting up new guidelines.

Synonyms: ComBase

Resource Type: data or information resource, database

Keywords: environment, food, food microbiology, condition, growth, microbial, microbiological, microbiology, microorganism, pathogen, public health database, quantitative, safety, spoilage, survival, temperature, water, predictive microbiology

Resource Name: ComBase: A Combined Database For Predictive Microbiology

Resource ID: SCR_008181

Alternate IDs: nif-0000-21095, r3d100010878

Alternate URLs: <https://doi.org/10.17616/R3N32G>, <https://doi.org/10.17616/R3N32G>

Old URLs: <http://wyndmoor.arserrc.gov/combase/Search.aspx>

Record Creation Time: 20220129T080246+0000

Record Last Update: 20260905T133151+0000

Ratings and Alerts

No rating or validation information has been found for ComBase: A Combined Database For Predictive Microbiology.

No alerts have been found for ComBase: A Combined Database For Predictive Microbiology.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 45 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Panda A, et al. (2026) Enhanced formulation of precision probiotics through active machine learning. *Biology methods & protocols*, 11(1), bpag007.

Lim CG, et al. (2026) Predictive modeling of Salmonella Thompson growth in unpasteurized liquid egg products. *Animal bioscience*, 39(6), 250655.

Nakamura A, et al. (2025) Ultrahigh-throughput screening of environmental bacteria for proteolytic activity using droplet-based microfluidics. *Applied and environmental microbiology*, 91(7), e0010925.

Martinez-Rios V, et al. (2025) Modeling and predicting growth and growth boundary of *Bacillus cereus* s.l. from phylogroups II, IV, V, and VI in starchy foods at or below 12°C. *Frontiers in microbiology*, 16, 1531014.

Roila R, et al. (2024) The Effects of Encapsulation on the In Vitro Anti-Clostridial Activity of Olive Mill Wastewater Polyphenolic Extracts: A Promising Strategy to Limit Microbial Growth in Food Systems. *Molecules (Basel, Switzerland)*, 29(7).

Katsouli M, et al. (2024) Shelf-Life Enhancement Applying Pulsed Electric Field and High-Pressure Treatments Prior to Osmotic Dehydration of Fresh-Cut Potatoes. *Foods* (Basel, Switzerland), 13(1).

Athanasopoulou E, et al. (2024) Synthesis and characterization of polysaccharide- and protein-based edible films and application as packaging materials for fresh fish fillets. *Scientific reports*, 14(1), 517.

Mvuyekure ALS, et al. (2023) Lethality Validation for Human Pathogenic *Salmonella enterica* on Chicken Feathers and Blood during Simulated Commercial Low-Temperature Dry Rendering. *Microorganisms*, 11(8).

Coleman ME, et al. (2023) Suppression of pathogens in properly refrigerated raw milk. *PloS one*, 18(12), e0289249.

Primavilla S, et al. (2022) Antibacterial Activity of *Crocus sativus* L. Petals Extracts against Foodborne Pathogenic and Spoilage Microorganisms, with a Special Focus on *Clostridia*. *Life* (Basel, Switzerland), 13(1).

MacKenzie K, et al. (2022) Phylogeny and potential virulence of cryptic clade *Escherichia coli* species complex isolates derived from an arable field trial. *Current research in microbial sciences*, 3, 100093.

Katsouli M, et al. (2022) Active and Intelligent Packaging for Enhancing Modified Atmospheres and Monitoring Quality and Shelf Life of Packed Gilthead Seabream Fillets at Isothermal and Variable Temperature Conditions. *Foods* (Basel, Switzerland), 11(15).

Alexi N, et al. (2022) Raw and Cooked Quality of Gilthead Seabream Fillets (*Sparus aurata*, L.) after Mild Processing via Osmotic Dehydration for Shelf Life Extension. *Foods* (Basel, Switzerland), 11(14).

Myintzaw P, et al. (2022) Variability in Cold Tolerance of Food and Clinical *Listeria monocytogenes* Isolates. *Microorganisms*, 11(1).

Lobacz A, et al. (2021) Fate of *Salmonella* spp. in the Fresh Soft Raw Milk Cheese during Storage at Different Temperatures. *Microorganisms*, 9(5).

Ban GH, et al. (2021) Endogenous Metabolites Released by Sanitized Sprouting Alfalfa Seed Inhibit the Growth of *Salmonella enterica*. *mSystems*, 6(1).

Huang C, et al. (2021) *Debaryomyces hansenii* Strains Isolated From Danish Cheese Brines Act as Biocontrol Agents to Inhibit Germination and Growth of Contaminating Molds. *Frontiers in microbiology*, 12, 662785.

Giannakourou MC, et al. (2021) Combined Effect of Impregnation with an *Origanum vulgare* Infusion and Osmotic Treatment on the Shelf Life and Quality of Chilled Chicken Fillets. *Molecules* (Basel, Switzerland), 26(9).

Hiura S, et al. (2021) Prediction of population behavior of *Listeria monocytogenes* in food using machine learning and a microbial growth and survival database. *Scientific reports*, 11(1), 10613.

Baert L, et al. (2021) Genetic changes are introduced by repeated exposure of Salmonella spiked in low water activity and high fat matrix to heat. Scientific reports, 11(1), 8144.