



AROUND THE WORLD IN 80 MICROBES

Tick off the sites on your travels!

This list was in part crowd-sourced from our Twitter followers but is by no means exhaustive, please add your own, and let us know! @NatureMicrobiol

AFRICA

- 1. Thebes, Ancient Egypt: Tuberculosis infection in mummy from 600BC
- 2. Zika Forest, Uganda: Zika virus first identified from Rhesus macaques here, 1947
- 3. Semliki Forest, Uganda: Semliki Forest Virus first isolated from mosquitoes here, 1942
- 4. Ebola River, Congo: Ebola virus named after an outbreak near here, 1976
- 5. Mogadishu, Somalia: Last natural case of smallpox before eradication
- 6. Western Sahara: Saharan dust is a source of iron for Atlantic primary producers
- 7. Mponeng mine, S. Africa: *Desulfuroxidans audaxviator* found to survive 2.8 km below ground

ANTARCTICA

- 8. McMurdo Dry Valleys, Antarctica: Permafrost soil microbial communities
- 9. Lake Vostok, Antarctica: Microbial life thrives in lakes under the Antarctic ice

ASIA

- 10. Tokyo, Japan: Meguro Parasitology Museum
- 11. Matlab, Bangladesh: Cholera vaccine trials led by icddr,b
- 12. Beijing, China: Purification of artemisinin for malaria treatment (2015 Nobel Prize)
- 13. Seoul, South Korea: Museum Kimchikan
- 14. Manshuin, Japan: Japanese Microbial Memorial
- 15. Nha Trang, Vietnam: Yersin Museum
- 16. Chersky, Russia: Permafrost soil microbial communities
- 17. Eilat, Israel: *Epulopiscium fishelsoni*, one of the largest bacteria, in reef surgeonfish
- 18. Xi'an, China: Fermentation began in the Zhou dynasty with *Aspergillus oryzae*
- 19. Dead Sea: Microbial mats are found here, one of the world's saltiest water bodies
- 20. Chukotka, Russia: Soil amoeba contains huge viruses such as *Mollivirus sibiricum*
- 21. Al-Ahsa, Saudi Arabia: The first reported case of MERS in 2012

EUROPE

- 22. London, England: Bart's Pathology Museum
- 23. Delft, Netherlands: Beijerinck Museum & Oude Kerk, resting place of Van Leeuwenhoek
- 24. Amsterdam, Netherlands: Micropia Museum
- 25. Kos, Greece: Hippocratic Museum

- 26. Alkmaar, Netherlands: Dutch Cheese Museum
- 27. Lascaux, France: Palaeolithic cave paintings are under threat by an invasive black mould
- 28. Alicante, Spain: Francisco Mojca characterised the CRISPR locus
- 29. Sheffield, England: Cholera Monument
- 30. Vienna, Austria: Pestsäule plague monument
- 31. Berlin, Germany: Robert Koch Institute museum
- 32. Eyam, England: Plague infection control in 1665-66
- 33. Gruinard Island, Scotland: Anthrax testing during WWII
- 34. London, England: Alexander Fleming Laboratory Museum
- 35. London England: Broad Street pump identified as source of cholera outbreak by John Snow, 1854
- 36. Bath, England: *Methylococcus capsulatus* isolated from Roman Bath thermal springs
- 37. Modra, Slovakia: *Saccharomyces* sculpture
- 38. Paris, France: Pasteur Museum
- 39. Glasgow, Scotland: Hunterian Museum
- 40. Copenhagen, Denmark: Carlsberg Laboratory & Brewery
- 41. Svalbard, Norway & Greenland: Glacial snow algae give colour to ice and snow
- 42. Isle of Riems, Germany: Friedrich-Loeffler-Institut - discovery of foot & mouth disease
- 43. Berkeley, England: Edward Jenner's house
- 44. Valletta, Malta: Unpasteurised milk identified as the source of Malta Fever (*Brucella melitensis*)
- 45. Geneva, Switzerland: Home of the World Health Organization
- 46. Étaples, France: Proposed first outbreak that led to the 1918 Spanish Influenza pandemic

- 47. Ötztal Alps: Ötzi the Iceman was found to harbour *Helicobacter pylori* in his stomach
- 48. Paris, France: HIV reported to be the causative agent of AIDS
- 49. Tokaj, Hungary: Botrytized wines are made from grapes infected with *Botrytis cinerea*
- 50. London, UK: Home of the Nature Microbiology office!

LATIN AMERICA

- 51. Gamboa, Panama: Leaf-cutter ants tend to fungal gardens
- 52. Bioluminescent Bay, Puerto Rico: Bioluminescent dinoflagellates glow when disturbed
- 53. Havana, Cuba: Carlos Finlay helps eradicate yellow fever in Cuba through mosquito control

NORTH AMERICA

- 48. Bethesda, USA: HIV was reported to be the causative agent of AIDS
- 54. Seattle, USA: Home of the Bill and Melinda Gates Foundation
- 55. Yellowstone National Park, USA: Thermophilic bacteria in hot springs & geysers
- 56. Urbana, USA: Carl Woese & George Fox characterise Archaea as a 3rd domain of life
- 57. Washington, USA: Home of the American Society of Microbiology
- 58. Philadelphia, USA: Bellevue-Stratford Hotel Philadelphia - first Legionnaires outbreak
- 59. Sargasso Sea, Atlantic Ocean: First identification of SAR11
- 60. San Francisco, USA: Salt ponds in San Francisco bay
- 61. San Francisco, USA: Winogradsky column at Exploratorium
- 62. Atlanta, USA: home of the Carter Center
- 63. Foster City, California: First effective drug cure for Hepatitis C virus - ledipasvir/Sofaldi
- 64. Mid-west USA: Symbiotic N-fixing bacteria in soybean agriculture

- 65. Texas, USA: The first zoonotic disease was Texas Fever (*Babesia microti*)
- 66. Nashville, USA: Max Delbrück's lab (1969 Nobel Prize - bacterial resistance to viral infection)
- 67. Hayward, USA: First development of massively parallel DNA sequencing
- 68. O'ahu, USA: Station ALOHA long-term monitoring site set up in 1988
- 69. Madison, USA: Joshua Lederberg's lab (1958 Nobel Prize - transduction)
- 70. Corvallis, USA: Arthur Anderson discovered radiation-resistant bacterium, *Deinococcus radiodurans*, 1956
- 71. Winslow, USA: Impact crater meteorite - can microorganisms survive in space?

OCEANIA

- 72. Shark Bay, Australia: Stromatolite colonies of cyanobacteria with a laminated structure
- 73. Great Barrier Reef, Australia: zooxanthellae coral colonies form the world's largest coral reef system
- 74. Rotorua, New Zealand: Extremophiles thrive in geothermal pools
- 75. Lake Clifton, Australia: Thrombolite colonies of cyanobacteria with a clotted structure

SOUTH AMERICA

- 76. Oliveira, Brazil: Carlos Chagas described the *Trypanosoma cruzi* infection
- 77. Easter Island (Rapa Nui), Chile: Rapamycin discovered in *Streptomyces hygroscopicus*
- 78. Andes: Quechua people first used quinine from Cinchona tree bark to treat malaria
- 79. Atacama Desert, Chile: Microorganisms even thrive here, one of the driest places on earth
- 80. Galapagos Islands, Ecuador: The inspiration behind Charles Darwin's work on evolution