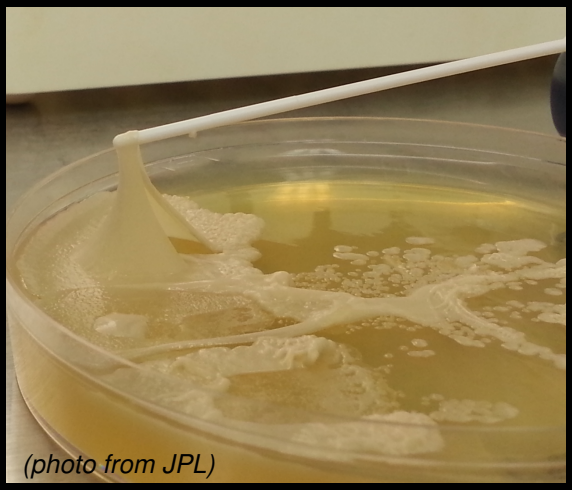
Paenibacillus elgii


(photo from JPL)

Where we found it:
On a Mars Exploration Rover before launch (2004) at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This microbe produces (currently unknown) antimicrobials effective against a wide range of fungi and bacteria

Fun Fact:

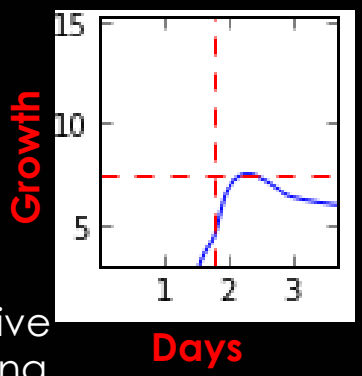
When applied to soil this microbe has been shown to enhance growth of both tobacco and peanut

Regular Season Stats

Time to saturation: 83 hrs

Time to exponential growth: 50 hrs

Growth density: 52%



Description: Gram variable, faculative anaerobe, rod-shaped, spore forming

Originally isolated from: Shiso roots in Korea (2004)

Kocuria rosea

(photo by Alex Alexiev)

Where we found it:
On a Mars Exploration Rover before launch (2004) at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This microbe is being studied for its ability to degrade feathers which would have applications in industrial waste management

Fun Fact:

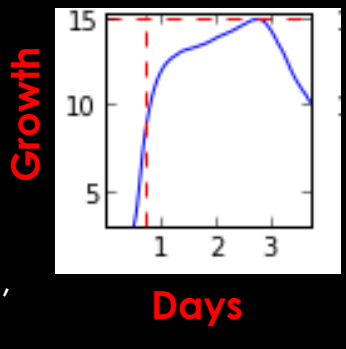
This microbe is so commonly found on microbiology plates at UC Davis that the students have nicknamed it "Henry"

Regular Season Stats

Time to saturation: 67 hrs

Time to exponential growth: 9 hrs

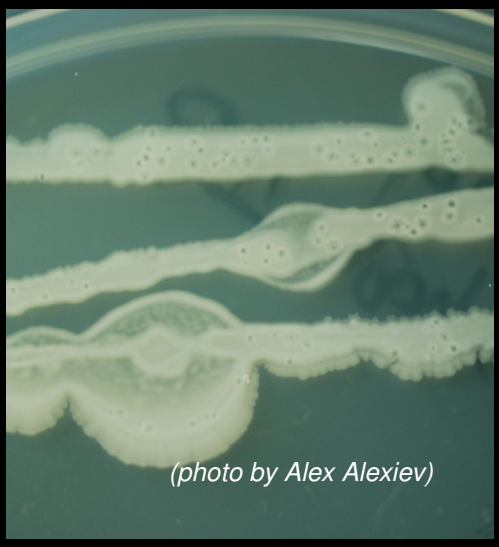
Growth density: 100%



Description: Gram-positive, coccoid, anaerobic

Originally isolated: In Germany as "*Micrococcus roseus*" in 1889

Bacillus horikoshii



Where we found it:
On a football field sample collected by the Pop Warner Saints cheerleaders (Port Reading, NJ)

Why it's awesome:
This microbe has been isolated from diverse marine organisms where it appears to produce useful enzymes

Fun Fact:

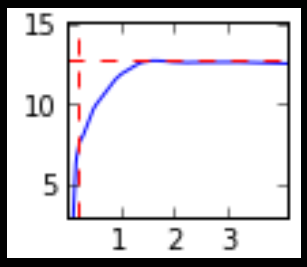
This microbe was found to be one of several that produces tetrodotoxin in pufferfish

Regular Season Stats

Time to saturation: 39 hrs

Time to exponential growth: 6 hrs

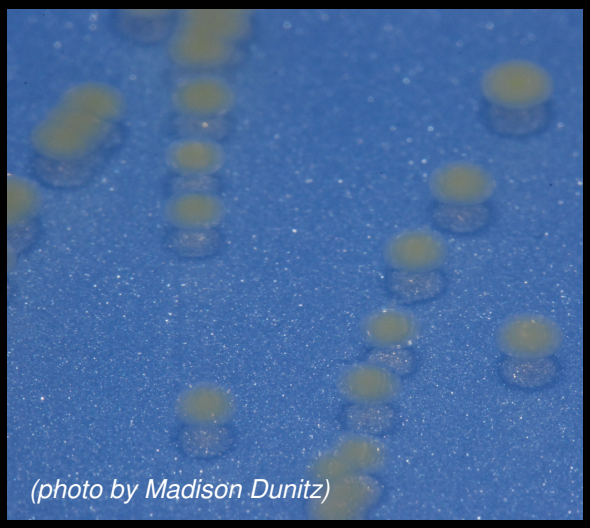
Growth density: 94%



Description: Gram-positive, spore-forming aerobic

Originally isolated from: Soil in Germany (1995)

Curtobacterium pusillum



Where we found it:
On the outside of Aggie Stadium, UC Davis, CA.

Why it's awesome:
Several other members of this genus are plant pathogens but this one was isolated hundreds of meters under the surface in an oil brine

Fun Fact:

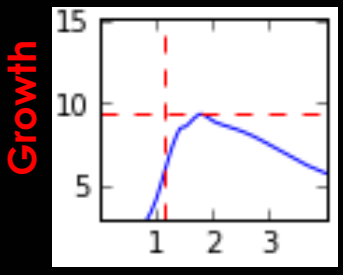
This microbe is often sold as a microbiology "standard" for testing new media and assays

Regular Season Stats

Time to saturation: 44 hrs

Time to exponential growth: 27 hrs

Growth density: 69%



Description: Gram-positive, aerobic, motile, irregular rods

Originally isolated from: A deep oil brine in Japan (1965)

Micrococcus luteus (3)

Where we found it:
On a football field goalpost sample collected by the Lake Brantley Pop Warner cheerleaders (Orlando, FL)

Why it's awesome:
This microbe can survive under conditions of virtually no water and can withstand massive doses of UV radiation

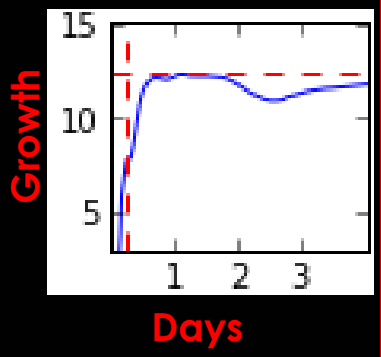
Fun Fact: Because this bacteria is highly resistant to toxic metals it is used in both bioremediation and biotechnology

Regular Season Stats

Time to saturation: 27 hrs

Time to exponential growth: 6 hrs

Growth density: 92%



Description: Gram-positive, spherical, aerobic, non-motile, yellow-pigmented

Originally isolated from:
Germany in 1872

Bacillus flexus

Where we found it:
On LP Field (Tennessee Titans)

Why it's awesome:
This microbe produces a fat-degrading compound that works under very alkaline (basic) conditions, making it of use to the laundry and leather industries

Fun Fact:

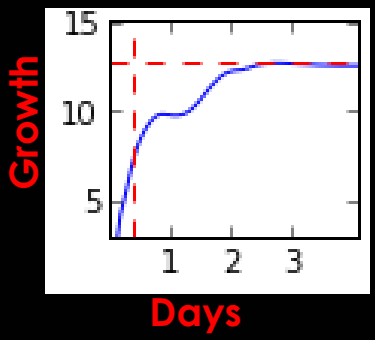
A strain of this microbe, isolated from a Saudi lake, has been shown to degrade some important freshwater toxins

Regular Season Stats

Time to saturation: 66 hrs

Time to exponential growth: 10 hrs

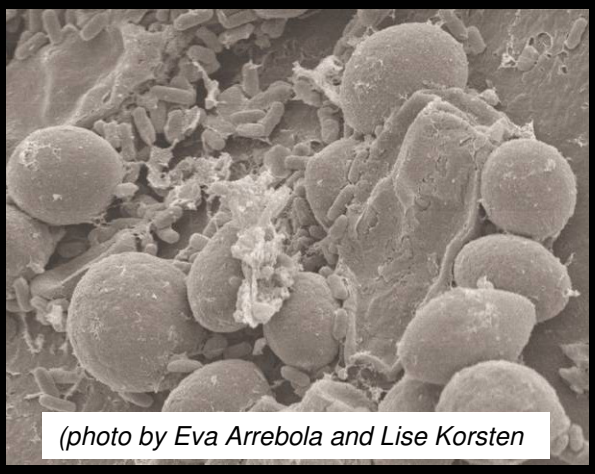
Growth density: 94%



Description: Gram-variable, rod-shaped, aerobic, motile

Originally isolated from: Cooked cabbage in Germany (1884)

Bacillus amyloliquefaciens (2)



(photo by Eva Arrebola and Lise Korsten

Where we found it:
On a stadium seat at Gillette Field (New England Patriots)

Why it's awesome:
This is an important industrial organism, used for the production of enzymes that degrade protein, such as those used in contact lens cleaner

Fun Fact:

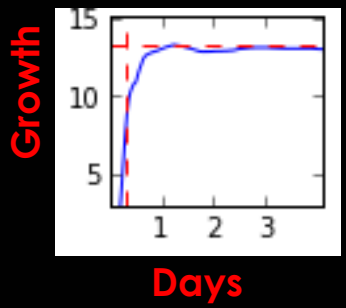
A strain of this bacteria found on plants has been shown to produce a variety of potential "biocontrol" agents that might be used to battle plant pathogens

Regular Season Stats

Time to saturation: 30 hrs

Time to exponential growth: 8 hrs

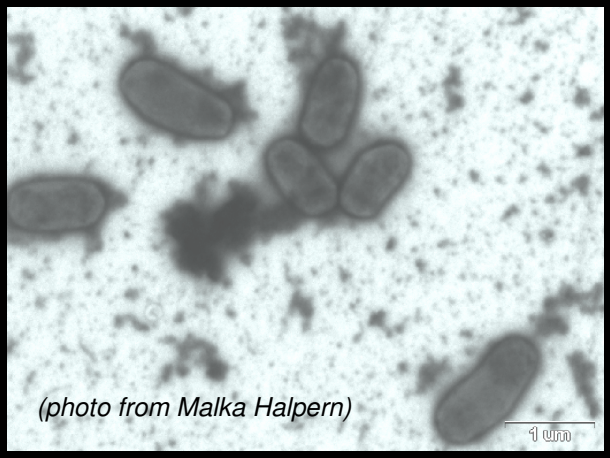
Growth density: 98%



Description: Gram-positive, rod-shaped, aerobic, motile

Originally isolated from:
Japanese soil in 1943

Leucobacter chironomi



Where we found it:
In a residential toilet in Davis, CA

Why it's awesome:
This organism is extremely resistant to chromium

Fun Fact:

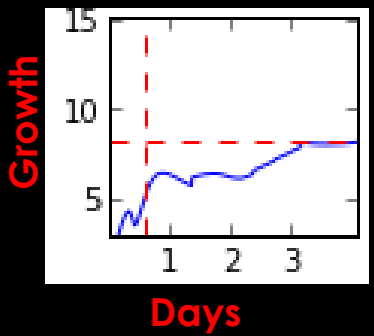
This microbe recently had its genome sequenced as part of an undergraduate research project at UC Davis.

Regular Season Stats

Time to saturation: 98 hrs

Time to exponential growth: 14 hrs

Growth density: 60%



Description: Gram-positive, rod-shaped, aerobic, non-motile, yellow-pigmented

Originally isolated from:
Wastewater in Israel (2009)

Streptomyces kanamyceticus

Where we found it:
In the kitchen on the set of Kare11 Morning News (Minneapolis/St. Paul, MN)

Why it's awesome:
One of the earliest antibiotics, kanamycin, was isolated from this microbe in 1957. Plus, it looks cool.

Fun Fact:

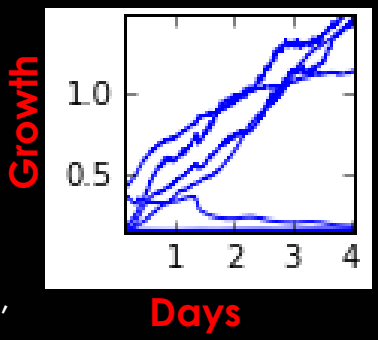
The antibiotic produced by this microbe is still widely used in industry, research, and medicine

Regular Season Stats

Time to saturation: 98 hrs

Time to exponential growth: 48 hrs

Growth density: 46%



Description: Gram-positive, aerobic, unusual colony morphology

Originally isolated from: Japanese soil (1957)

Unclassified Spingomonadaceae

Where we found it:
On a stadium seat sample from Niedermeyer Field collected by the Pop Warner Coronado cheerleaders (San Diego, CA)

Why it's awesome:
After preliminary examination at UC Davis, this bacteria appears to be an entirely new species, maybe even a new genus!

Fun Fact:

No idea… yet! All we know so far is that it's in the Spingomonadaceae family… (that's like saying in plants we don't know if it's a tomato, potato, chili pepper or tobacco)

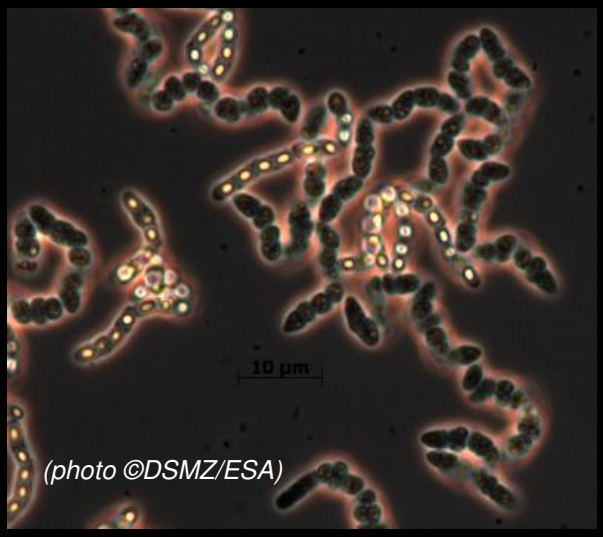
Regular Season Stats

NOTE: This microbe doesn't appear to grow in this assay on earth, but it's so cool that we're going to send it to space anyway… maybe it'll grow there!

Description: Mostly unknown, appears brown, prefers growth at lower temperatures. Details TBA

Originally isolated from: See above (2013)

Bacillus aryabhatti (1)



Where we found it:
On a field sample collected by the Pop Warner Broncos cheerleaders (Lauderhill, FL)

Why it's awesome:
This bacteria was first collected from the stratosphere, over 25 miles above the surface of the earth!

Fun Fact:

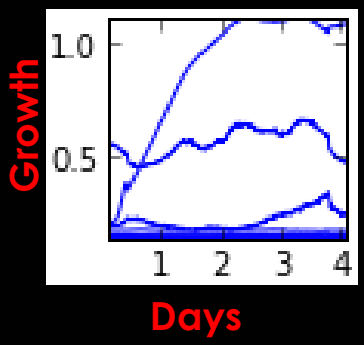
This bacteria has been shown to promote plant growth in barren areas and has been proposed as an aid for re-vegetation projects

Regular Season Stats

Time to saturation: 82 hrs

Time to exponential growth: 30 hrs

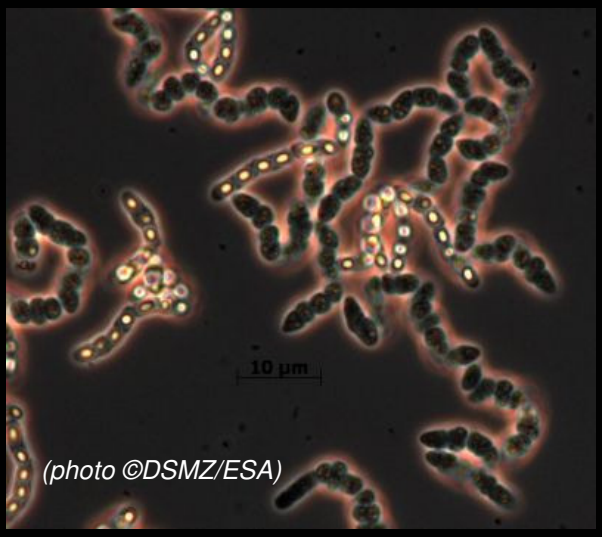
Growth density: 22%



Description: Gram-positive, mobile, spore forming,

Originally isolated from: Air sampling from a balloon 25 miles above the earth (2009)

Bacillus aryabhatti (2)



Where we found it:
On a practice football field used by the Oakland Raiders

Why it's awesome:
This bacteria was first collected from the stratosphere, over 25 miles above the surface of the earth!

Fun Fact:

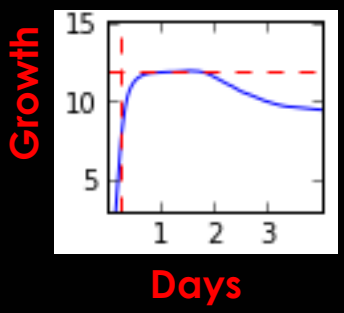
This bacteria has been shown to promote plant growth in barren areas and has been proposed as an aid for re-vegetation projects

Regular Season Stats

Time to saturation: 39 hrs

Time to exponential growth: 6 hrs

Growth density: 89%



Description: Gram-positive, mobile, spore forming,

Originally isolated from: Air sampling from a balloon 25 miles above the earth (2009)

Microbacterium arborescens


(photo by Madison Dunitz)

Where we found it:
On the Viking Mars Orbiter at JPL/NASA before launch in 1975 (Pasadena, CA)

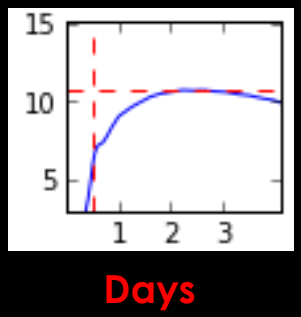
Why it's awesome:
This microbe produces an enzyme used in industrial processes to convert glucose to fructose

Fun Fact:

This salt-resistant microbe secretes a compound that is though to be important in the stabilization of coastal sand dunes.

Regular Season Stats

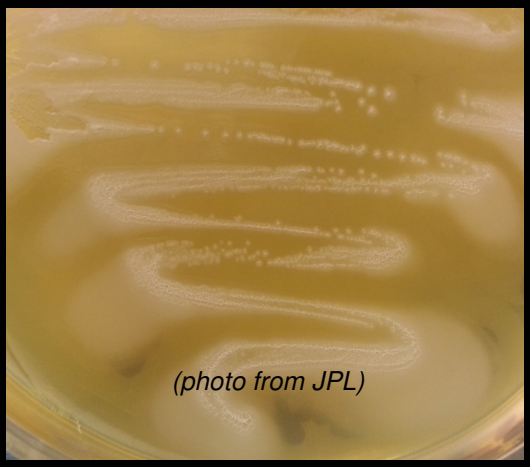
Time to saturation: 55 hrs
Time to exponential growth: 12 hrs
Growth density: 72%



Description: Gram-positive, aerobic, non-motile, rod-shaped

Originally isolated from: Lake water under the name *Flavobacterium arborescens* (1889)

Bacillus safensis



Where we found it:
On a Mars Exploration Rover before launch (2004)at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This microbe was first discovered and characterized in the "clean" rooms where spacecraft are assembled at JPL.

Fun Fact:

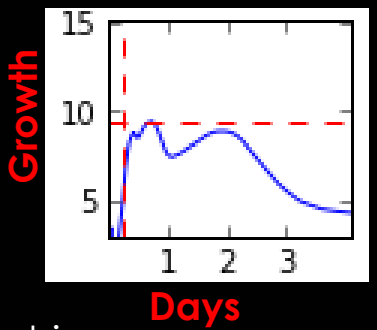
This salt-tolerant microbe has been sent into space before, but on a Russian mission that failed during launch.

Regular Season Stats

Time to saturation: 17 hrs

Time to exponential growth: 6 hrs

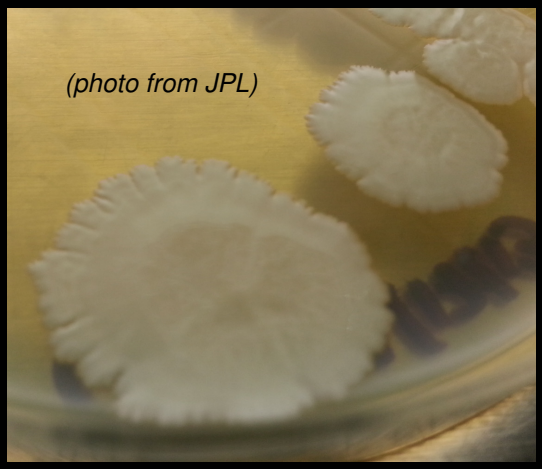
Growth density: 63%



Description: Gram-positive, spore-forming, aerobic, chemo-heterotrophic

Originally isolated from: MARS Odyssey Spacecraft and associated facilities at JPL (1999-2001)

Bacillus pumilus (1)



Where we found it:
On a Mars Exploration Rover before launch (2004) at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This common soil microbe has numerous antibacterial and antifungal properties that naturally help both plants and animals thrive

Fun Fact:

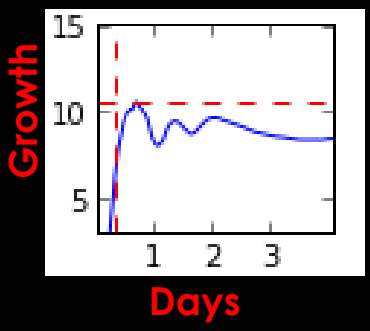
Strains of this microbe found at JPL are resistant to desiccation, UV radiation, and hydrogen peroxide… suggesting the possibility of surviving unprotected spaceflight

Regular Season Stats

Time to saturation: 16 hrs

Time to exponential growth: 8 hrs

Growth density: 71%



Description: Gram-positive, spore-forming, aerobic, rod-shaped

Originally isolated from: Plant tissues (1901)

Bacillus megaterium(3)

Where we found it:
- On Mars Curiosity Rover before launch at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This is an important industrial organism, used for the production of penicillin, vitamins, various drugs, and numerous enzymes

Fun Fact:

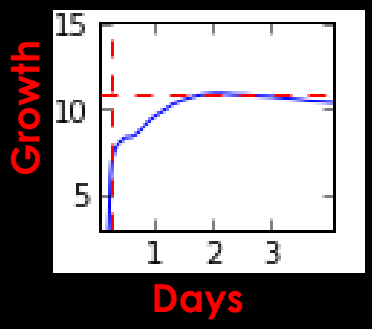
The species name of this microbe means "big beast" and it is among the largest bacteria ever discovered

Regular Season Stats

Time to saturation: 51 hrs

Time to exponential growth: 5 hrs

Growth density: 73%



Description: Gram-positive, rod-shaped, mainly aerobic, spore-forming

Originally isolated from:
Germany in 1884

Bacillus atrophaeus (2)

(photo from JPL)

Where we found it:
On a Mars Exploration Rover before launch (2004) at the Jet Propulsion Laboratory (JPL-NASA, Pasadena, CA)

Why it's awesome:
This hardy organism is commonly used to test the efficiency of biomedical sterilization procedures

Fun Fact:

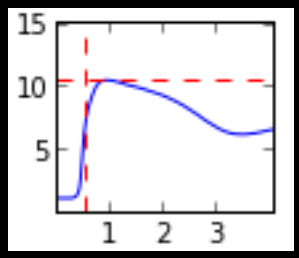
During the 1960's this organism was used in mock biowarfare simulations by the US military as a substitute for harmful bacteria

Regular Season Stats

Time to saturation: 23 hrs

Time to exponential growth: 12 hrs

Growth density: 81%



Description: Gram-positive, rod-shaped, facultative anaerobe, motile

Originally isolated from: Soil in Colorado (1946)

Bacillus subtilis (2)

Where we found it:
On a robotic arm from a future (2017) Mars mission rover (MDA US Systems LLC)

Why it's awesome:
This organism is extremely well-studied and has been used for the production of laundry detergent and explosives

Fun Fact:

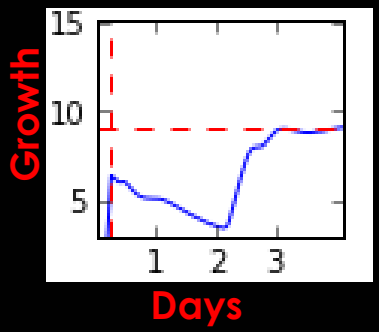
At various times this bacteria has been used to treat dysentery, as an alternative medicine, and recently as a probiotic

Regular Season Stats

Time to saturation: 99 hrs

Time to exponential growth: 5 hrs

Growth density: 60%



Description: Gram-positive, rod-shaped, mostly aerobic, motile

Originally isolated from:
Germany in 1835

Micrococcus luteus (1)


(photo from Wikipedia Commons)

Where we found it:
On a sweat mop at a Sacramento Kings basketball game

Why it's awesome:
This microbe can survive under conditions of virtually no water and can withstand massive doses of UV radiation

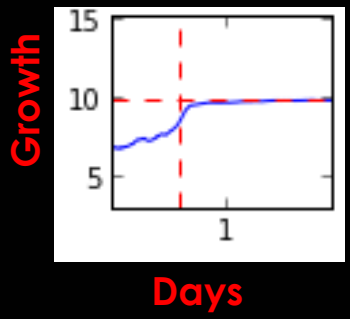
Fun Fact: Because this bacteria is highly resistant to toxic metals it is used in both bioremediation and biotechnology

Regular Season Stats

Time to saturation: 42 hrs

Time to exponential growth: 14 hrs

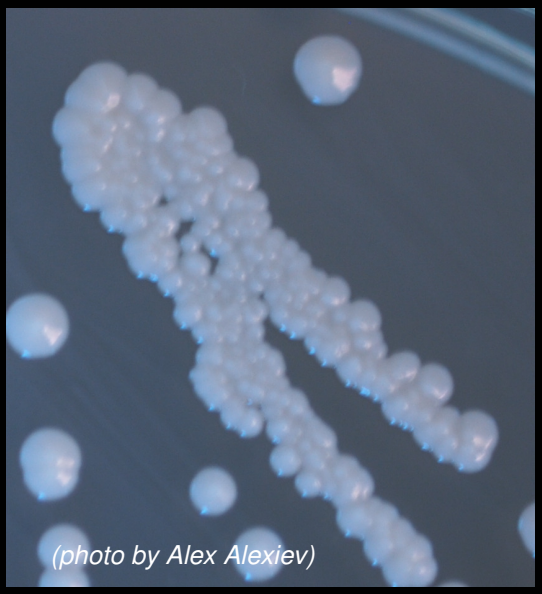
Growth density: 76%



Description: Gram-positive, spherical, aerobic, non-motile, yellow-pigmented

Originally isolated from:
Germany in 1872

Kocuria kristinae



Where we found it:
On the court after a San Antonio Spurs game

Why it's awesome:
This microbe is very common on normal human skin and in the mouth

Fun Fact:

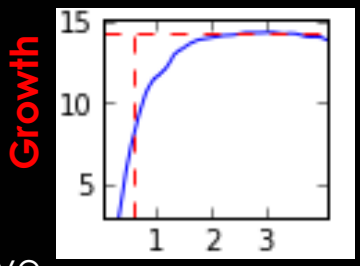
This species was named after the person from whom the microbe was originally isolated (immortality comes in many forms)

Regular Season Stats

Time to saturation: 73 hrs

Time to exponential growth: 14 hrs

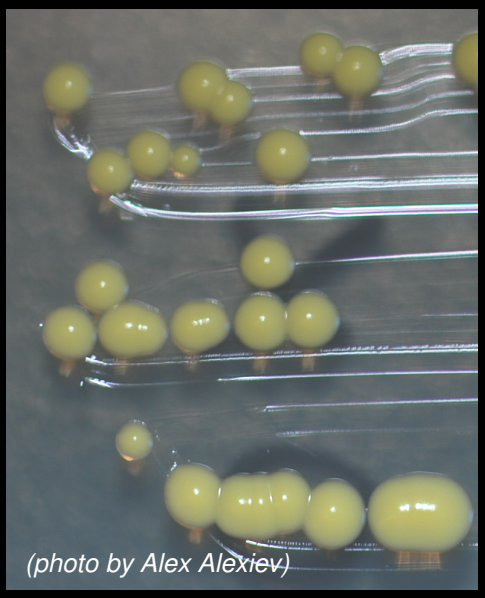
Growth density: 96%



Description: Gram-positive, facultative anaerobe, often orange or pink

Originally isolated from: Healthy human skin under the name "Micrococcus kristinae" (1974)

Kocuria rhizophila


(photo by Alex Alexiev)

Where we found it:
On a camera at a Yuri's Night Party with Buzz Aldrin in Los Angeles, CA

Why it's awesome:
This microbe grows rapidly, to high densities, and is resistant to organic solvents… making it a candidate for industrial applications.

Fun Fact:

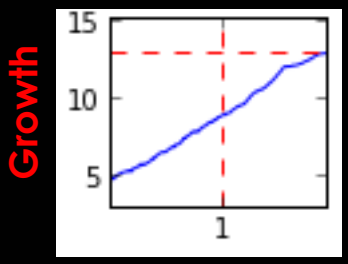
This bacteria is used throughout the world to test the effectiveness of new antimicrobials.

Regular Season Stats

Time to saturation: 46 hrs

Time to exponential growth: 24 hrs

Growth density: 100%



Description: Gram-positive, coccoid

Originally isolated from: Narrowleaf cattail roots (1999)

Bacillus methylotrophicus

Where we found it:
On a doorknob at a Yuri's Night party in New York

Why it's awesome:
This microbe appears to be important in promoting plant growth in the soil

Fun Fact:

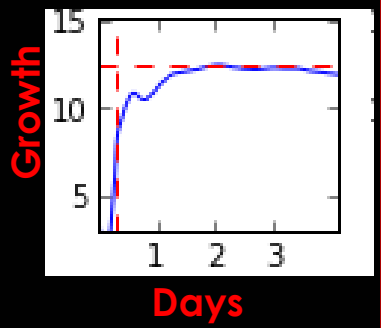
As described in the name, this microbe is capable of using methanol as a carbon source

Regular Season Stats

Time to saturation: 51 hrs

Time to exponential growth: 8 hrs

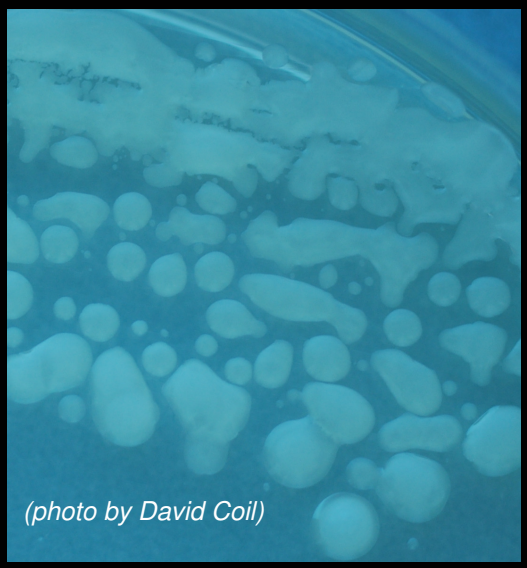
Growth density: 83%



Description: Gram-positive, rod-shaped, aerobic, motile

Originally isolated from: Rice plant roots in Korea (2010)

Kocuria marina


(photo by David Coil)

Where we found it:
On a water fountain at a Yuri's Night party in the Museum of Life and Science (Durham, NC)

Why it's awesome:
This microbe can tolerate very high levels of salt (up to 15%) that would kill most other bacteria

Fun Fact:

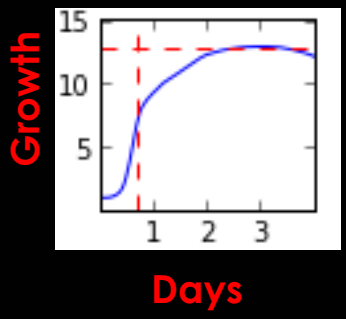
This was the first Kocuria species to be found in the ocean, though they are very common on land (and on people)

Regular Season Stats

Time to saturation: 76 hrs

Time to exponential growth: 17 hrs

Growth density: 100%



Description: Gram-positive, aerobic, non-motile, coccoid

Originally isolated from: Marine sediment in the Siberian Sea (2004)

Bacillus subtilis

Where we found it:
On the game ball at an Orlando Magic basketball game

Why it's awesome:
This organism is extremely well-studied and has been used for the production of laundry detergent and explosives

Fun Fact:

At various times this bacteria has been used to treat dysentery, as an alternative medicine, and recently as a probiotic

Regular Season Stats

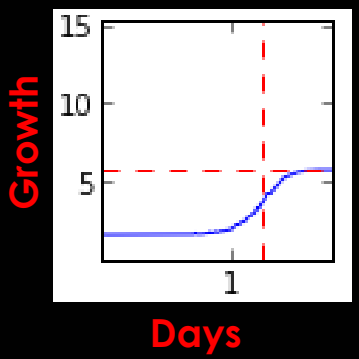
Time to saturation: 41 hrs

Time to exponential growth: 30 hrs

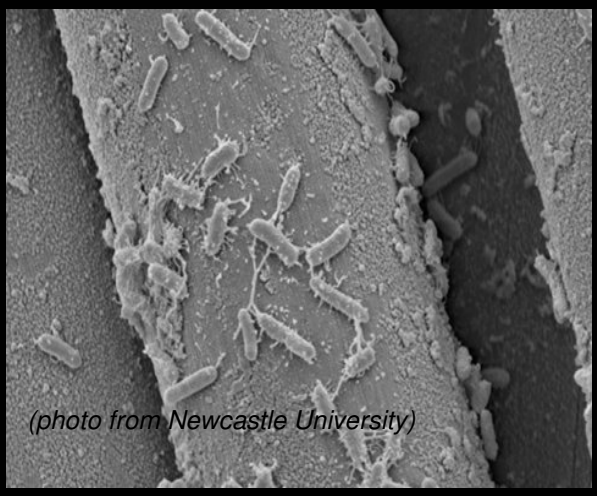
Growth density: 100%

Description: Gram-positive, rod-shaped, mostly aerobic, motile

Originally isolated from:
Germany in 1835



Bacillus stratosphericus


(photo from Newcastle University)

Where we found it:
In a butterfly water dish at the Academy of Natural Sciences in Philadelphia, PA

Why it's awesome:
This organism is found at high concentrations in the stratosphere (up to 25 miles high!)

Fun Fact:

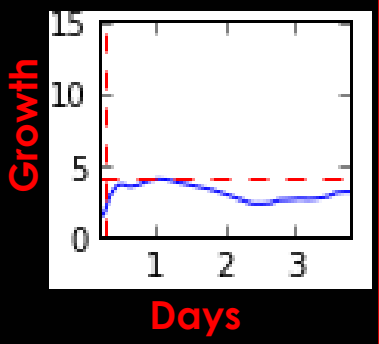
This organism has been engineered into colonies of cells that produce electricity.

Regular Season Stats

Time to saturation: 25 hours

Time to exponential growth: 7 hours

Growth density: 27%



Description: Gram-positive, rod-shaped, motile

Originally isolated from: Air sampling 25 miles high (2001)

Bacillus megaterium(2)

Where we found it:
-On an antique pressure vessel at the Chemical Heritage Foundation in Philadelphia, PA

Why it's awesome:
This is an important industrial organism, used for the production of penicillin, vitamins, various drugs, and numerous enzymes

Fun Fact:

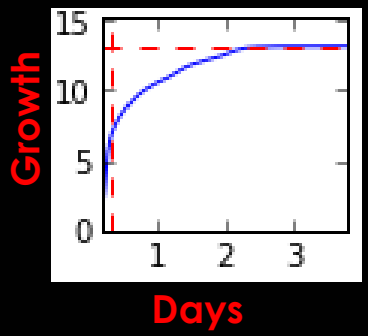
The species name of this microbe means "big beast" and it is among the largest bacteria ever discovered

Regular Season Stats

Time to saturation: 89 hrs

Time to exponential growth: 8 hrs

Growth density: 88%



Description: Gram-positive, rod-shaped, mainly aerobic, spore-forming

Originally isolated from:
Germany in 1884

Bacillus atrophaeus

Where we found it:
On an antique microscope at the Denver Museum of Natural History

Why it's awesome:
This hardy organism is commonly used to test the efficiency of biomedical sterilization procedures

Fun Fact:

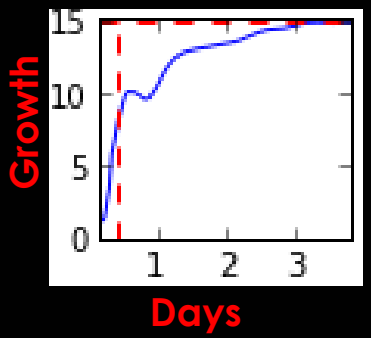
During the 1960's this organism was used in mock biowarfare simulations by the US military as a substitute for harmful bacteria

Regular Season Stats

Time to saturation: 79 hrs

Time to exponential growth: 10 hrs

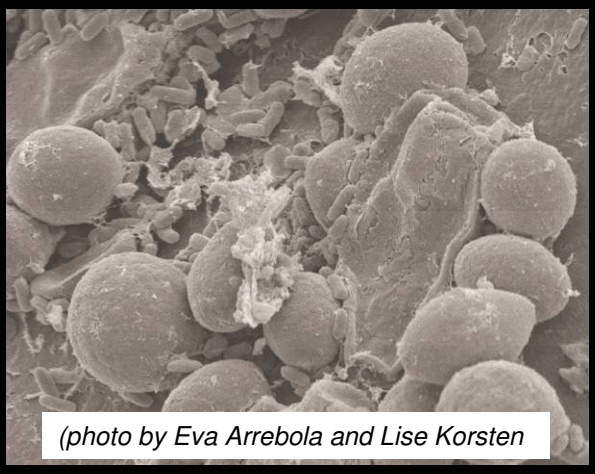
Growth density: 100%



Description: Gram-positive, rod-shaped, facultative anaerobe, motile

Originally isolated from: Soil in Colorado (1946)

Bacillus amyloliquefaciens (1)



(photo by Eva Arrebola and Lise Korsten

Where we found it:
On the statue of Benjamin Franklin at the Franklin Institute in Philadelphia, PA

Why it's awesome:
This is an important industrial organism, used for the production of enzymes that degrade protein, such as those used in contact lens cleaner

Fun Fact:

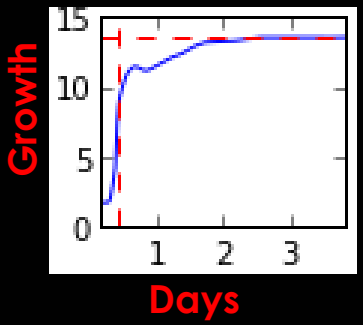
A strain of this bacteria found on plants has been shown to produce a variety of potential "biocontrol" agents that might be used to battle plant pathogens

Regular Season Stats

Time to saturation: 79 hrs

Time to exponential growth: 10 hrs

Growth density: 91%



Description: Gram-positive, rod-shaped, aerobic, motile

Originally isolated from:
Japanese soil in 1943

Bacillus megaterium(1)

Where we found it:
-On the Liberty Bell (Philadelphia, PA)

Why it's awesome:
This is an important industrial organism, used for the production of penicillin, vitamins, various drugs, and numerous enzymes

Fun Fact:

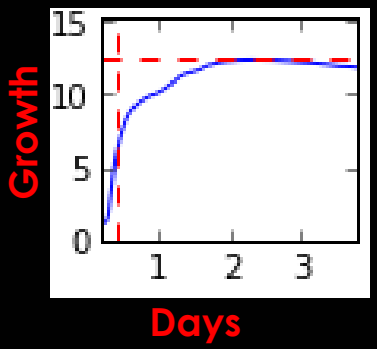
The species name of this microbe means "big beast" and it is among the largest bacteria ever discovered

Regular Season Stats

Time to saturation: 56 hrs

Time to exponential growth: 10 hrs

Growth density: 83%



Description: Gram-positive, rod-shaped, mainly aerobic, spore-forming

Originally isolated from:
Germany in 1884

Bacillus tequilensis (1)


(photo by Alex Alexiev)

Where we found it:
- In the home dugout of the Philadelphia Phillies

Why it's awesome:
This microbe produces a compound that has been shown to inhibit the growth of pathogenic bacteria

Fun Fact:

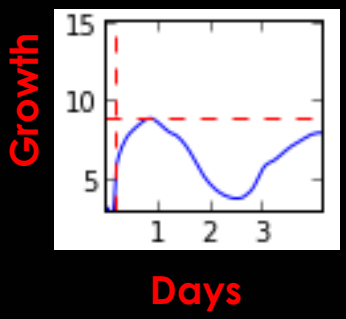
This microbe also produces a protein-digesting compound that has been shown to be effective in removing blood stains and dehairing hides

Regular Season Stats

Time to saturation: 21 hrs

Time to exponential growth: 5 hrs

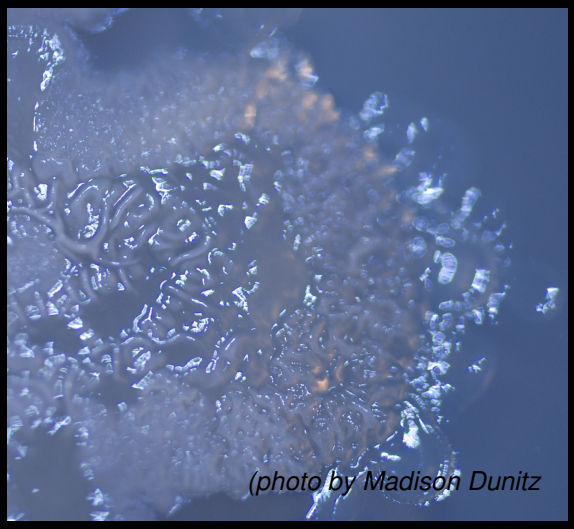
Growth density: 59%



Description: Gram-positive, rod-shaped, aerobic, spore-forming

Originally isolated from: A 2000-year old tomb shaft near Tequila, Mexico

Bacillus licheniformis



Where we found it:
On the practice court for the Philadelphia 76ers

Why it's awesome:
This widespread bacteria is used in a variety of industries including leather production, paper production, and laundry detergent.

Fun Fact:

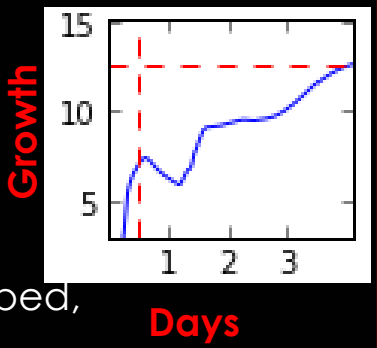
Because this bacteria is often found on feathers it is being studied for its ability to convert feather waste into livestock feed

Regular Season Stats

Time to saturation: 99 hrs

Time to exponential growth: 12 hrs

Growth density: 85%



Description: Gram-positive, rod-shaped, sporulating,

Originally isolated from: Cheese (1898)

Exiguobacterium acetylicum


(photo by Alex Alexiev)

Where we found it:
- On the 50-yard line at Candlestick Park (San Francisco 49ers)

Why it's awesome:
This soil microbe helps plants to grow by inhibiting the spread of pathogenic fungi

Fun Fact:

A cold-tolerant strain of this microbe from the Himalayas was found to help wheat seeds germinate at very low soil temperatures

Regular Season Stats

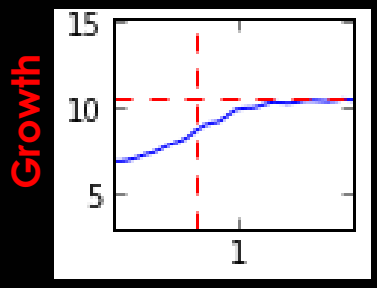
Time to saturation: 44 hrs

Time to exponential growth: 16 hrs

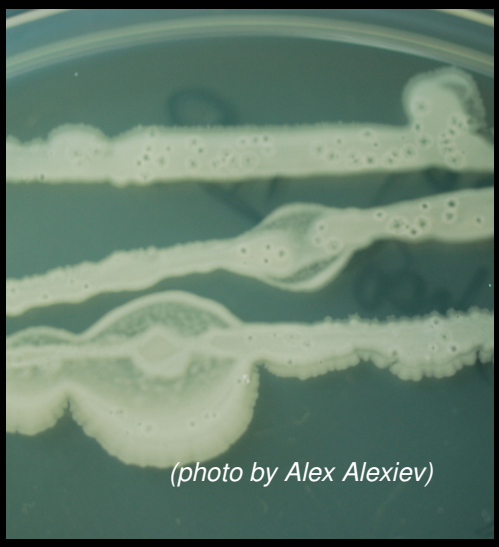
Growth density: 81%

Description: Gram-positive, yellow-pigmented, rod-shaped, non-spore forming

Originally isolated from:
Creamery waste (1926)



Bacillus horikoshii



Where we found it:
On a lobby banister at Parkway Middle School as part of a Broward County STEM teachers event (Lauderdale, FL)

Why it's awesome:
This microbe has been isolated from diverse marine organisms where it appears to produce useful enzymes

Fun Fact:

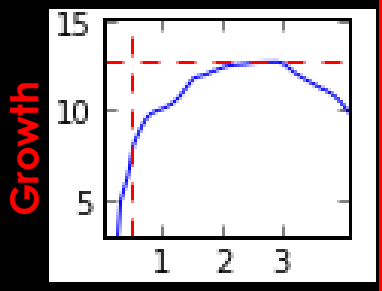
This microbe was found to be one of several that produces tetrodotoxin in pufferfish

Regular Season Stats

Time to saturation: 69 hrs

Time to exponential growth: 11 hrs

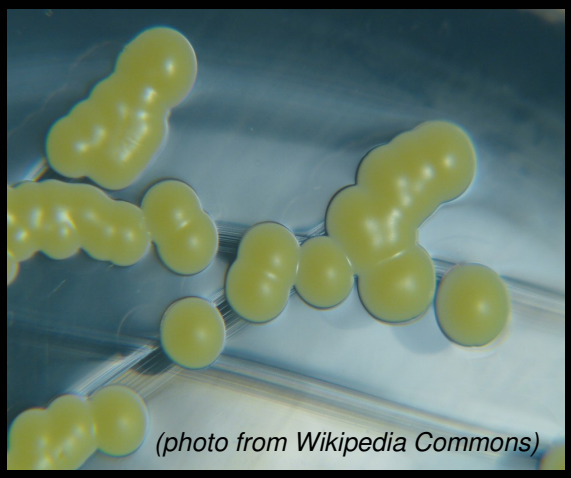
Growth density: 85%



Description: Gram-positive, spore-forming aerobic

Originally isolated from: Soil in Germany (1995)

Micrococcus luteus (2)



Where we found it:
On a practice mat sample taken by the Pop Warner Apopka cheerleaders (Apopka, FL)

Why it's awesome:
This microbe can survive under conditions of virtually no water and can withstand massive doses of UV radiation

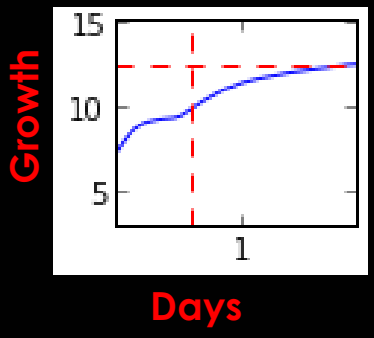
Fun Fact: Because this bacteria is highly resistant to toxic metals it is used in both bioremediation and biotechnology

Regular Season Stats

Time to saturation: 46 hrs

Time to exponential growth: 15 hrs

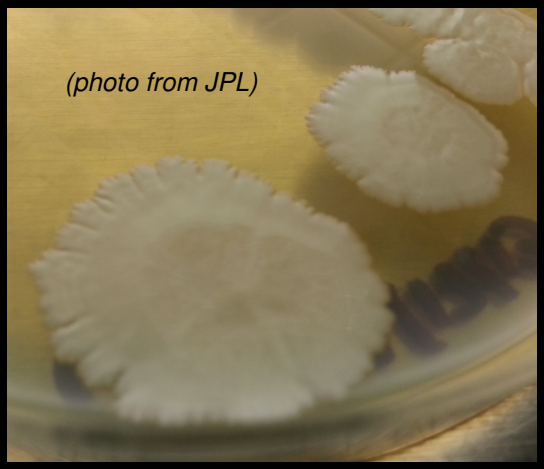
Growth density: 91%



Description: Gram-positive, spherical, aerobic, non-motile, yellow-pigmented

Originally isolated from:
Germany in 1872

Bacillus pumilus (2)



Where we found it:
Porta-Potty handle sample collected by Pop Warner Chittenango Bears cheerleaders (Chittenango, NY)

Why it's awesome:
This common soil microbe has numerous antibacterial and antifungal properties that naturally help both plants and animals thrive

Fun Fact:

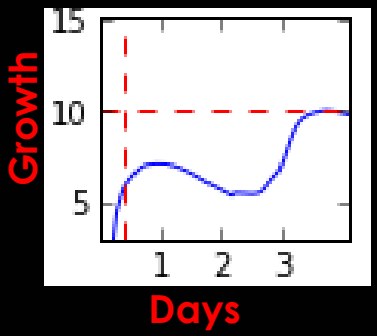
Strains of this microbe found at JPL-NASA are resistant to desiccation, UV radiation, and hydrogen peroxide… suggesting the possibility of surviving unprotected spaceflight

Regular Season Stats

Time to saturation: 90 hrs

Time to exponential growth: 10 hrs

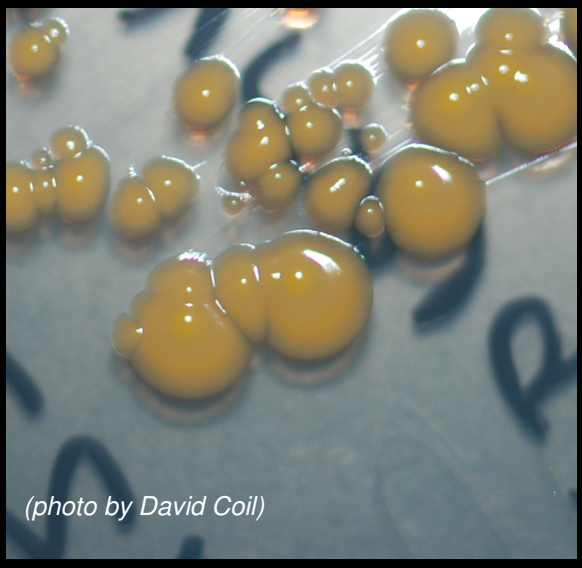
Growth density: 67%



Description: Gram-positive, spore -forming, aerobic, rod-shaped

Originally isolated from: Plant tissues (1901)

Bacillus marisflavi



Where we found it:
- On grass field sample collected by the Pop Warner Pee Wee Bengals cheerleaders (Wilmington, NC)

Why it's awesome:
This microbe has been induced to form silver nanoparticles that show antibacterial activity

Fun Fact:

This bacteria has been isolated from both seawater and agricultural waste

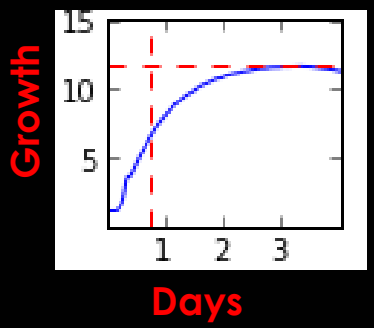
Regular Season Stats

Time to saturation: 82 hrs

Time to exponential growth: 18 hrs

Growth density: 91%

Description: Gram positive, rod shaped, spore forming



Originally isolated from: Seawater in a tidal flat in Korea (2003)

Pantoea eucrina

Where we found it:
- On the Mercury Orbiter at the Smithsonian Museum of Air and Space

Why it's awesome:
Because Project MERCCURI is sending a sample from Project Mercury!

Fun Fact:

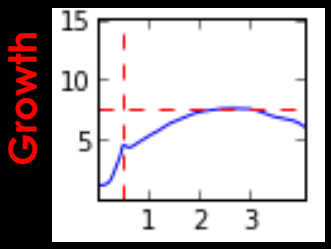
Most members of the Pantoea genus are plant pathogens

Regular Season Stats

Time to saturation: 63 hrs

Time to exponential growth: 12 hrs

Growth density: 59%



Description: Gram negative, non spore-forming, rod shaped, motile, faculative anaerobe

Originally isolated from: Human trachea (1971)

Paenibacillus mucilaginosus

(photo by Alex Alexiev)

Where we found it:
On "SUE" the *T. rex* fossil skeleton at the Field Museum in Chicago, IL

Why it's awesome:
This microbe is very widely used in "microbial fertilizer" for agriculture

Fun Fact:

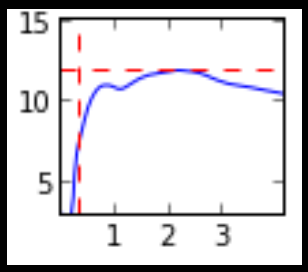
This microbe secrets compounds that precipitate metals, suggesting applications in both mining and wastewater remediation

Regular Season Stats

Time to saturation: 54 hrs

Time to exponential growth: 8 hrs

Growth density: 79%



Description: Gram variable, faculative anaerobe, rod-shaped, spore forming

Originally isolated from: Russia in 1998

Arthrobacter nitroguajacolicus

Where we found it:
On the 50-yard line of McCulloch Stadium in Salem OR, collected by Chapman Hill Elementary School students

Why it's awesome:
This microbe was found in a screen for organisms who could degrade compounds in contaminated soil

Fun Fact:

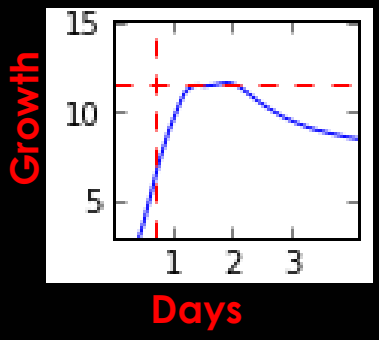
Enzymes from this microbe may be useful in degrading excess pesticide residues in soil

Regular Season Stats

Time to saturation: 46 hrs

Time to exponential growth: 18 hrs

Growth density: 78%



Description: Gram-positive, irregular rods, motile, aerobic

Originally isolated from: Forest soil in the Czech Republic (2004)

Bacillus altitudinis

Where we found it:
- At Jim Smith Field, Deerfield Academy, Deerfield, MA

Why it's awesome:
This microbe was originally collected from sampling the upper atmosphere up to 25 miles high!

Fun Fact:

This microbe has been shown to be effective in promoting plant growth and inhibiting plant pathogens in the field

Regular Season Stats

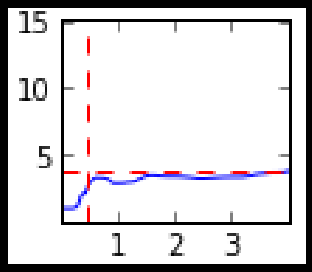
Time to saturation: 98hrs

Time to exponential growth: 11 hrs

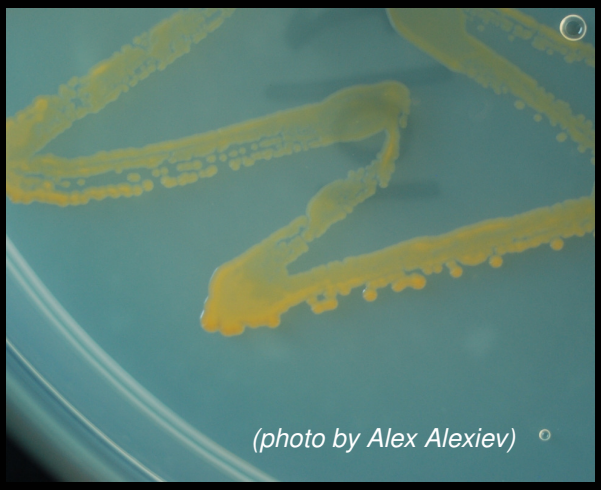
Growth density: 29%

Description: Gram-positive, rod shaped, motile

Originally isolated from: Balloon sampling of the upper atmosphere (2001)



Curtobacterium herbarum



Where we found it:
On a stadium seat cushion at Georgia Tech University

Why it's awesome:
While not well-studied, this microbe has shown up in several studies looking at bacteria resistant to heavy metals

Fun Fact:

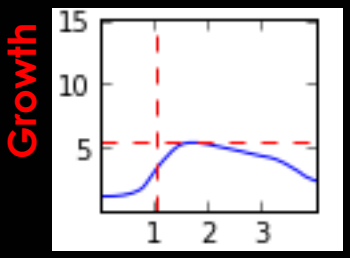
Other members of this genus are plant pathogens but it is not yet known whether this microbe is problematic as well

Regular Season Stats

Time to saturation: 42 hrs

Time to exponential growth: 26 hrs

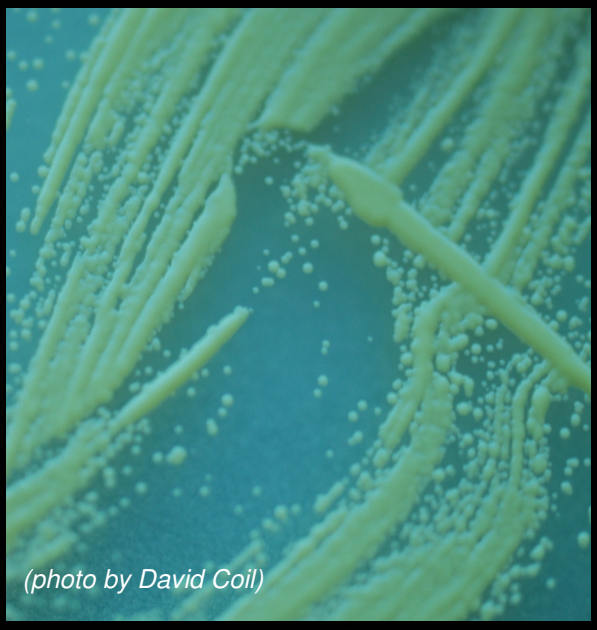
Growth density: 41%



Description: Gram-positive, aerobic, motile, irregular rods

Originally isolated from: Grasses in Germany (2002)

Micrococcus yunnanensis



Where we found it:
In a dictionary at the offices of Discover Magazine

Why it's awesome:
This microbe produces a "restriction enzyme" used for cutting DNA in biotechnology applications

Fun Fact: Strains of this microbe have been re-classified numerous times. Previous names include *Micrococcus luteus* and *Sarcina subflava*

Regular Season Stats

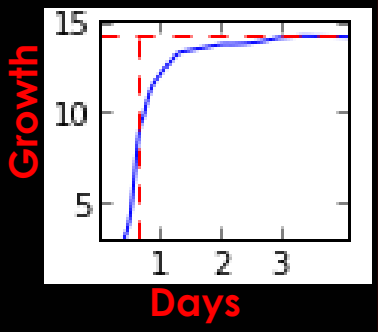
Time to saturation: 82 hrs

Time to exponential growth: 15 hrs

Growth density: 95%

Description: Gram-positive, aerobic, non spore forming, coccoid

Originally isolated from: Inside plant roots (*Polyspora axillaris*) in China (2009)



Macrococcus equipercicus

Where we found it:
On the floor under a couch at the Catholic Montessori School in Kirtland, OH

Why it's awesome:
For reasons unknown, this microbe grows to large (non-harmful) populations on horses and ponies but not many other places

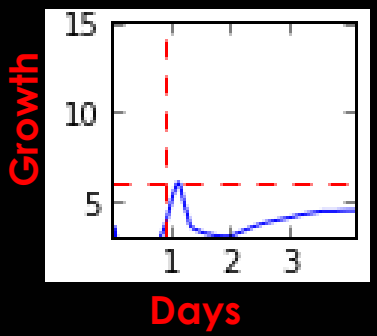
Fun Fact: The microbes in this genus are closely related to the much more famous Staphylococcus (e.g. MRSA) genus but have not been shown to cause disease

Regular Season Stats

Time to saturation: 27 hrs

Time to exponential growth: 22 hrs

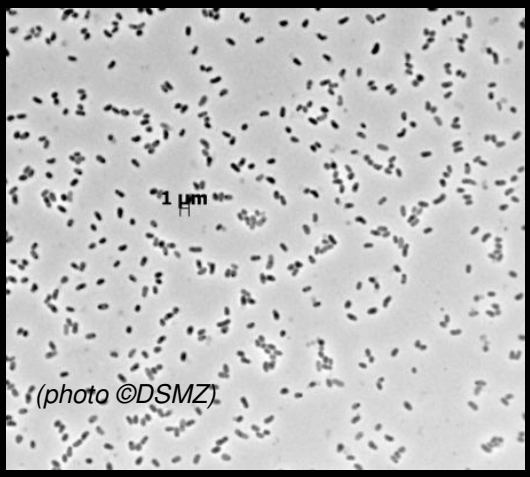
Growth density: 40%



Description: Gram-positive, non spore forming, non motile,

Originally isolated from: Skin of an Irish thoroughbred horse (1998)

Microbacterium oleivorans



Where we found it:
On the school mascot at St. Joseph's Preparatory School in Philadelphia, PA

Why it's awesome:
This microbe has been shown to grow on and to degrade crude oil, suggesting applications in bioremediation

Fun Fact:

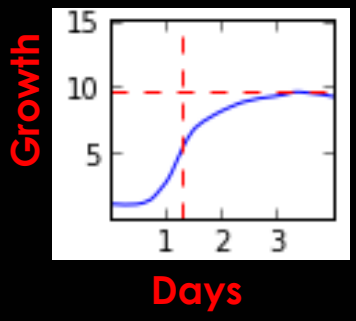
This microbe was discovered by mixing seawater and crude oil, incubating for weeks in the dark, and seeing what could grow

Regular Season Stats

Time to saturation: 82 hrs

Time to exponential growth: 32 hrs

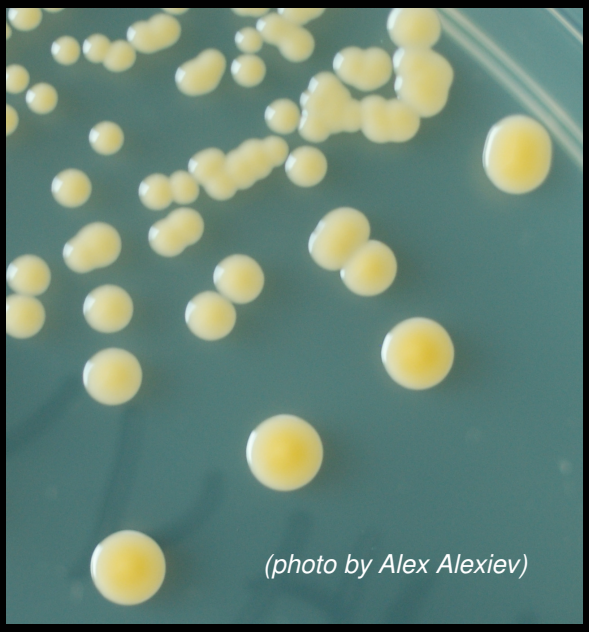
Growth density: 74%



Description: Gram positive, non spore forming, irregular rod shaped, non motile

Originally isolated from: An oil storage cavern in Germany (2005)

Macrococcus brunensis



Where we found it:
On the central keyboard at the WHYY-FM radio studio in Philadelphia, PA

Why it's awesome:
Almost nothing is known about this microbe, but hey… isolated from llamas!

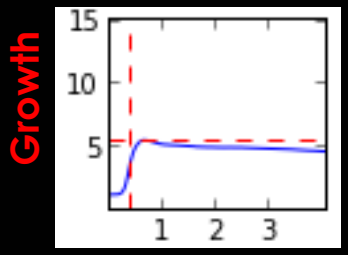
Fun Fact: The microbes in this genus are closely related to the much more famous Staphylococcus (e.g. MRSA) genus but have not been shown to cause disease

Regular Season Stats

Time to saturation: 16 hrs

Time to exponential growth: 10 hrs

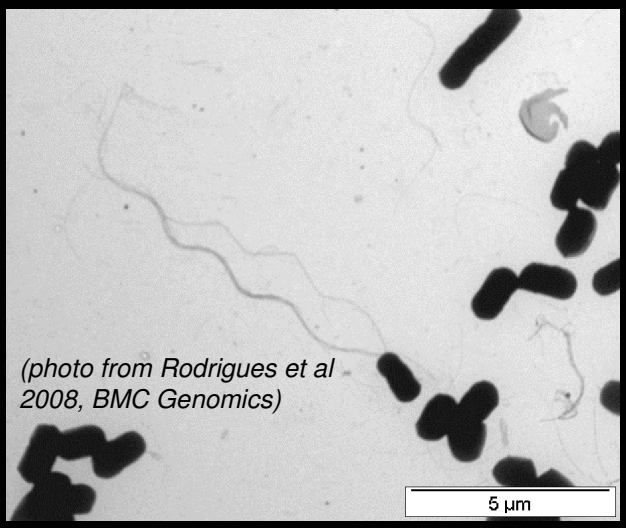
Growth density: 42%



Description: Gram positive, coccoid, faculative anaerobe

Originally isolated from: Llama skin in the Czech Republic (2003)

Exiguobacterium sibiricum



(photo from Rodrigues et al 2008, BMC Genomics)

Where we found it:
On second base at AT&T Park in San Francisco (Giants stadium)

Why it's awesome:
This microbe is so cold-adapted that it can grow at temperatures below freezing!

Fun Fact:

Scientist claim (controversially) to have originally discovered this microbe in 3 million year old permafrost in Siberia

Regular Season Stats

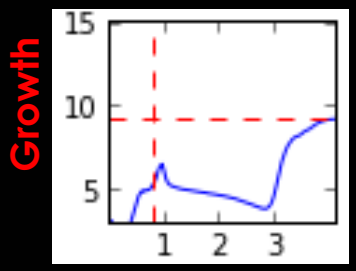
Time to saturation: 99 hrs

Time to exponential growth: 20 hrs

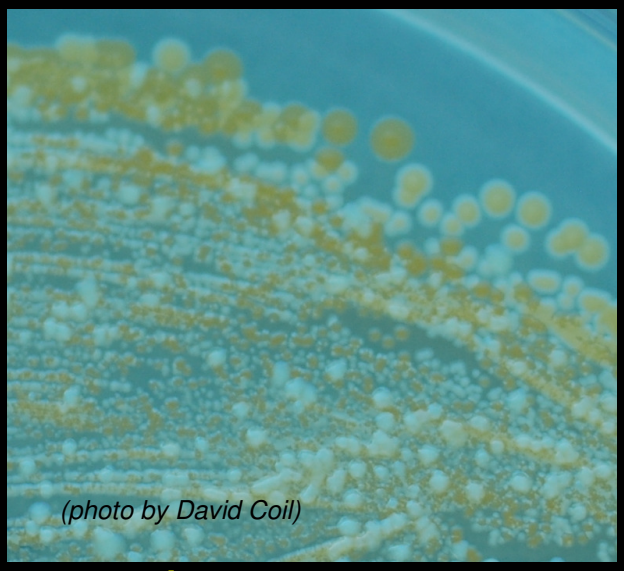
Growth density: 61%

Description: Gram-positive, non spore forming, rod-shaped, motile, faculative anaerobe

Originally isolated from: 3 million year old permafrost in Siberia (2006)



Exiguobacterium indicum



Where we found it:
On the center field logo at FedEx Field (Washington NFL team) in Maryland

Why it's awesome:
This microbe was isolated from glacial meltwater at an elevation of over 14,000 feet in the Himalayas

Fun Fact:

This microbe is "psychrophilic" meaning it can grow at very low temperatures… even in a fridge!

Regular Season Stats

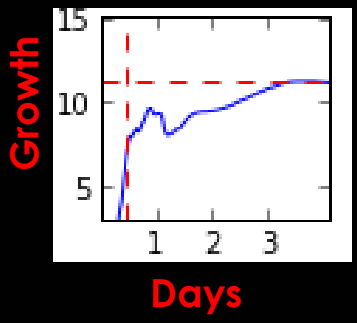
Time to saturation: 90 hrs

Time to exponential growth: 11 hrs

Growth density: 75%

Description: Gram-positive, motile, rod-shaped, non spore-forming

Originally isolated from: A glacier in the Himalayas (2006)



Bacillus tequilensis (2)


(photo by Alex Alexiev)

Where we found it:
- In the candy jar on the set of the Today Show

Why it's awesome:
This microbe produces a compound that has been shown to inhibit the growth of pathogenic bacteria

Fun Fact:

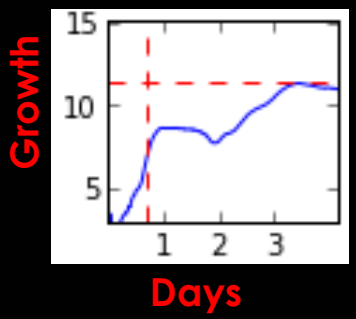
This microbe also produces a protein-digesting compound that has been shown to be effective in removing blood stains and dehairing hides

Regular Season Stats

Time to saturation: 83 hrs

Time to exponential growth: 16 hrs

Growth density: 76%



Description: Gram-positive, rod-shaped, aerobic, spore-forming

Originally isolated from: A 2000-year old tomb shaft near Tequila, Mexico