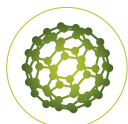


**MACRO**

**MICRO**

**NANO**

Memory Deck



A NISE NETWORK  
**NANO GAME**

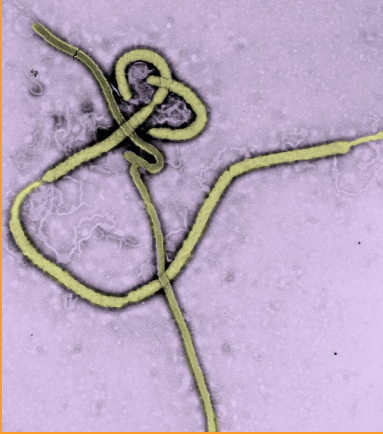
Brought to you by:



[www.nisenet.org](http://www.nisenet.org)

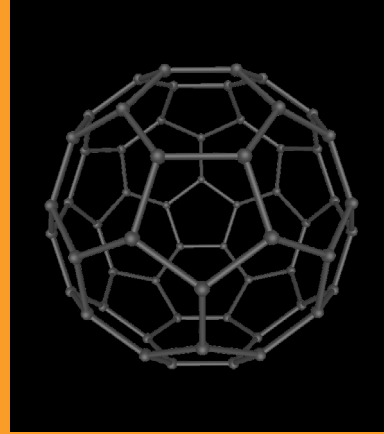
This project was supported by the National Science Foundation under Grant No. ESI-0532536.

**Virus**  
80 nm



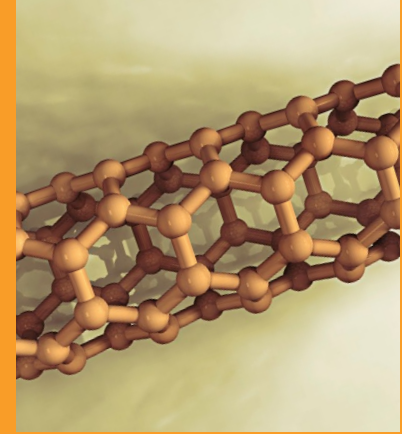
*Ebola* virus that causes a viral hemorrhagic fever in humans and primates.

**Bucky ball**  
1 nm



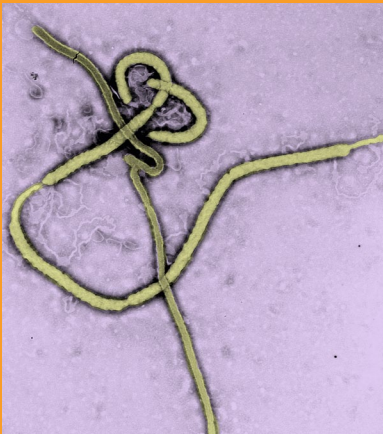
Molecule of 60 carbon atoms, shaped like a soccer ball. Possible use as a drug delivery system.

**Carbon nanotube**  
10 nm



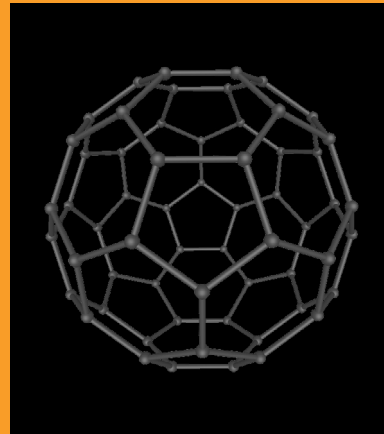
Nanotube structures made of carbon with special properties like extreme strength and conductivity.

**Virus**  
80 nm



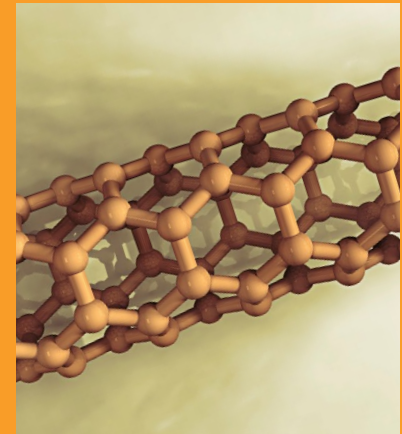
*Ebola* virus that causes a viral hemorrhagic fever in humans and primates.

**Bucky ball**  
1 nm



Molecule of 60 carbon atoms, shaped like a soccer ball. Possible use as a drug delivery system.

**Carbon nanotube**  
10 nm



Nanotube structures made of carbon with special properties like extreme strength and conductivity.

**DNA**  
2.5 nm



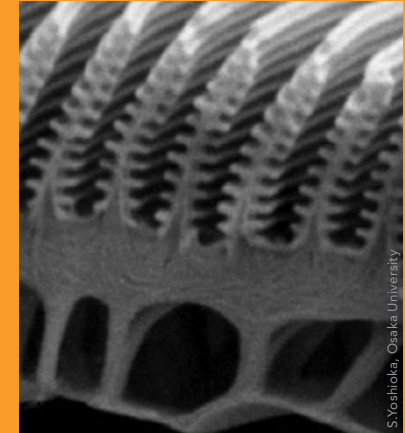
Genetic code present in all life.

**Hair on gecko's feet**  
200 nm



Nano-sized split-hairs called *spatulae* located on gecko feet that make geckos really good climbers.

**Butterfly wing microribs**  
400 nm



Tree-like structures on the undersides of the Blue Morpho's wing that reflect light to create the namesake blue iridescent color.

**DNA**  
2.5 nm



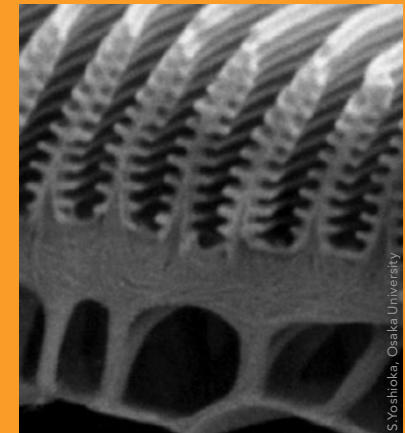
Genetic code present in all life.

**Hair on gecko's feet**  
200 nm



Nano-sized split-hairs called *spatulae* located on gecko feet that make geckos really good climbers.

**Butterfly wing microribs**  
400 nm

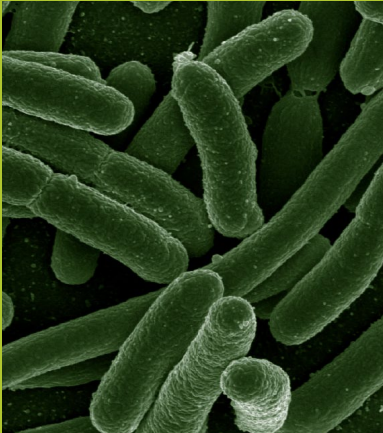


Tree-like structures on the undersides of the Blue Morpho's wing that reflect light to create the namesake blue iridescent color.



## Bacteria

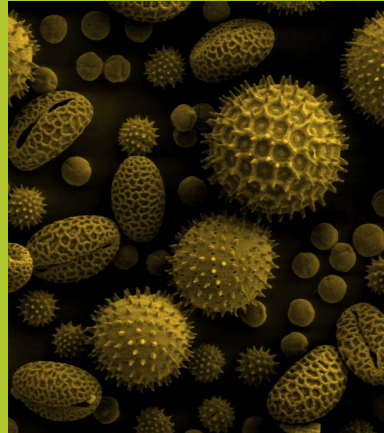
2  $\mu\text{m}$



*E. coli* bacteria normally found in intestines that can make people very sick.

## Pollen

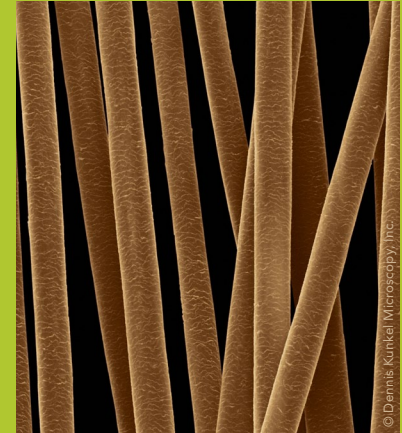
50  $\mu\text{m}$



Dust containing large amounts of microspores, a part of plant reproduction.

## Hair detail

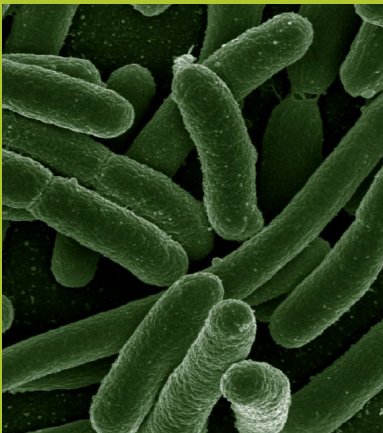
50  $\mu\text{m}$



Protein filaments that grow from a follicle beneath the skin.

## Bacteria

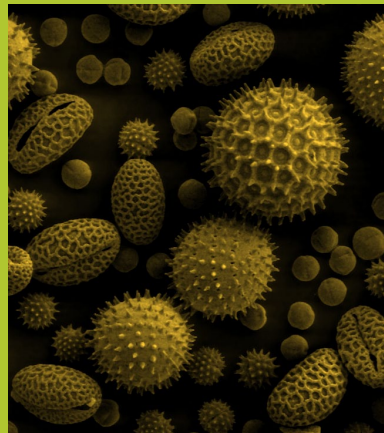
2  $\mu\text{m}$



*E. coli* bacteria normally found in intestines that can make people very sick.

## Pollen

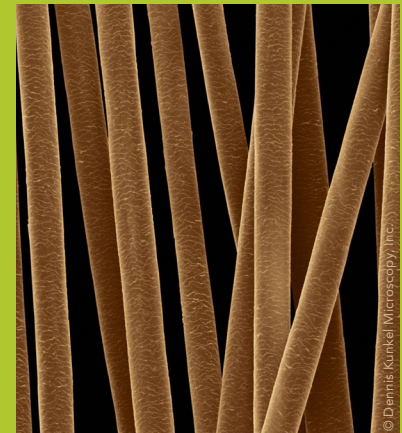
50  $\mu\text{m}$



Dust containing large amounts of microspores, a part of plant reproduction.

## Hair detail

50  $\mu\text{m}$



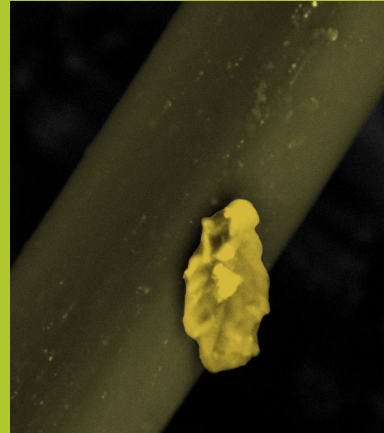
Protein filaments that grow from a follicle beneath the skin.

**Dust mite**  
300  $\mu\text{m}$



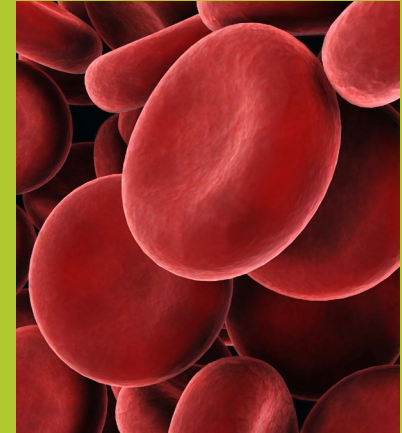
Arachnid commonly found in homes that eats flakes of dead skin.

**Dust mite poop**  
17  $\mu\text{m}$



Dust mite fecal matter, a major cause of asthma and allergies.

**Red blood cell**  
7  $\mu\text{m}$



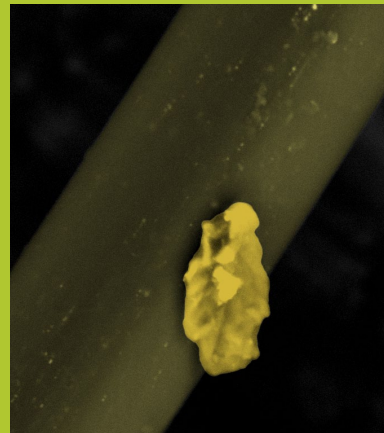
Cells that carry oxygen throughout the body from the lungs.

**Dust mite**  
300  $\mu\text{m}$



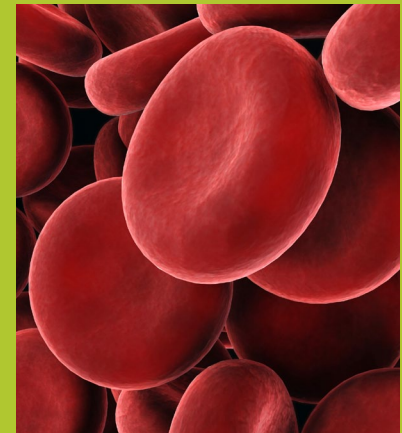
Arachnid commonly found in homes that eats flakes of dead skin.

**Dust mite poop**  
17  $\mu\text{m}$



Dust mite fecal matter, a major cause of asthma and allergies.

**Red blood cell**  
7  $\mu\text{m}$



Cells that carry oxygen throughout the body from the lungs.



## Oak Tree

20 m



Deciduous tree that can live over 200 years.

## Humpback whale

14 m



Large whale species that communicate through complex songs.

## You

1 m



An average 6 to 7 year old is one meter tall. One meter is one billion nanometers.

## Oak Tree

20 m



Deciduous tree that can live over 200 years.

## Humpback whale

14 m



Large whale species that communicate through complex songs.

## You

1 m



An average 6 to 7 year old is one meter tall. One meter is one billion nanometers.

**Gecko**  
13 cm



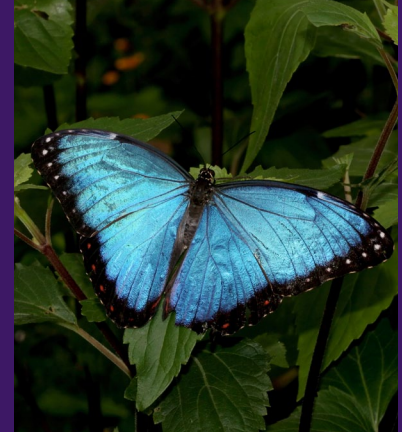
Lizards who are excellent climbers because of nanoscale structures on their feet.

**Soccer ball**  
70 cm



Ball used for a game involving kicking a ball into a goal to score points.

**Butterfly**  
15 cm



Blue Morpho Butterfly, found in Central and South America

**Gecko**  
13 cm



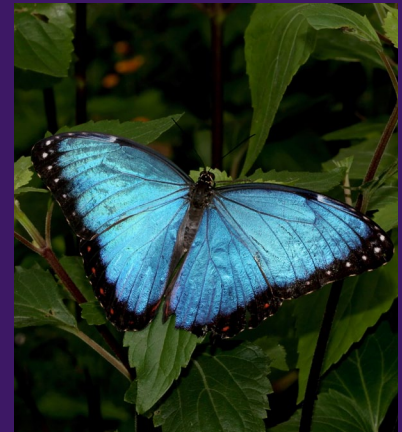
Lizards who are excellent climbers because of nanoscale structures on their feet.

**Soccer ball**  
70 cm



Ball used for a game involving kicking a ball into a goal to score points.

**Butterfly**  
15 cm

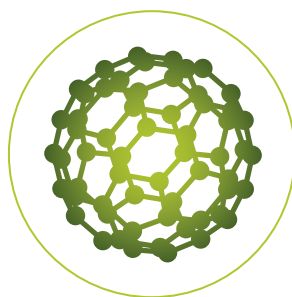


Blue Morpho Butterfly, found in Central and South America



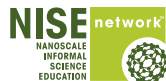






A NISE NETWORK  
**NANO GAME**

Brought to you by:



[www.nisenet.org](http://www.nisenet.org)

This project was supported by the National Science Foundation under Grant No. ESI-0532536.