

GENTLE.NEWS

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"Always find opportunities to make someone smile, and to offer random acts of kindness in everyday life."

— Roy T. Bennett

Scientists Gather to Explore the Power of Quantum Science

Some of the brightest minds in science came together recently for a very special meeting. It was called the Southeastern Quantum Conference. It took place in Chattanooga, Tennessee.

Scientists, engineers, and technology experts all attended. They came from universities, government labs, and businesses. The meeting was hosted by Oak Ridge National Laboratory in Tennessee.

The conference lasted three days. Experts talked about quantum computing, quantum networking, and quantum sensing. These are exciting new areas of science that could change how we solve big problems.

Quantum science uses the tiny building blocks of nature in new ways. It could one day help doctors, researchers, and everyday people in amazing ways. Scientists are working hard to turn these ideas into real tools.

Leaders at the event were hopeful and excited. One director said that bringing experts together helps science move faster. Working as a team helps turn big discoveries into real-world results for everyone.

Scientists Spot Whales and Dolphins in Hawaii Waters

Hawaii is a wonderful place for sea animals in winter. Humpback whales travel thousands of miles to get there. They come to warm Hawaiian waters to have their babies.

Scientists recently spent two months on a ship near Hawaii. They were counting and watching whales and dolphins. It was only the second time anyone had done this in winter. The researchers wanted to learn more about these amazing animals.

The work was not easy. Winter seas can be rough and choppy. Big waves make it hard to spot animals. But the scientists knew just what to do. Skilled watchers on the ship spotted more than 200 groups of whales and dolphins. That is a wonderful result, even in difficult conditions.

The team saw some truly beautiful things. Humpback mothers swam gently with their young calves nearby. Bottlenose dolphins played beside the moving ship. Spotted dolphins leaped high and joyfully into the air. Special listening tools also picked up whale sounds beneath the waves.

This research helps protect rare and special animals. One important group is the false killer whale, which lives only around Hawaii. By counting these animals each winter, scientists can make sure they stay safe for years to come.

Scientists Find Smart Way to Make Batteries Last Longer

Scientists have made an exciting discovery about batteries. Researchers at Stanford University and SLAC found a clever way to stop batteries from breaking down too soon. Their findings appeared in the journal *Nature*.

The new research focuses on solid-state batteries. These batteries use a firm ceramic material inside instead of liquid. Scientists believe this type of battery could be much better than the ones we use today.

The problem was tiny cracks that formed inside the solid material during charging. These cracks filled with a metal called lithium and caused batteries to stop working. Scientists called these cracks "dendrites." They had long wondered exactly where these cracks began to form.

The team found a simple but brilliant solution. By gently squeezing the battery material, they could stop the cracks from spreading. This kept the battery working properly. It also allowed the battery to charge faster and last much longer before needing to be replaced.

This discovery could change how batteries are built in the future. Better batteries mean our phones, cars, and many other devices would work more reliably. Scientists are hopeful this research will lead to batteries that need far less maintenance and last for many more years.

Students Win NASA Prize for Space Recycling Idea

A group of students from MIT has won a big prize from NASA. MIT stands for Massachusetts Institute of Technology. It is a famous school in Boston.

The students came up with a clever way to recycle trash in space. On long space missions, waste builds up fast. There is no easy way to throw it away.

Their idea grinds mixed trash into a fine powder. That powder can then be used to make new parts. It works with plastics, foam, fabrics, and metals. The team called their project CERBERUZ.

NASA gave the students \$775,000 for their work. They won first place in two parts of the contest. The challenge asked teams to find smart ways to cut down waste during trips to the Moon and beyond.

NASA ran this contest over two years. Fourteen teams from across the country took part. A NASA leader said it was wonderful to see such creative ideas grow from start to finish. Recycling in space could one day help astronauts live and work farther from Earth than ever before.

Tomatoes May Help Keep Your Liver Healthy

Most people know tomatoes are good for you. But scientists are finding even more reasons to love this favorite fruit.

A new study from Tufts University looked at a special compound in tomatoes. It is called phytoene. It is colorless and invisible in ripe red tomatoes. But it may do wonderful things for your health.

Researchers found that phytoene helped protect the liver. Mice that received this compound developed far less liver disease. This is exciting news for scientists and doctors alike.

For years, experts believed lycopene was the tomato's main healthy ingredient. Lycopene gives tomatoes their bright red color. But now it seems phytoene may be just as important. The body actually absorbs phytoene very well, which is great news.

Fatty liver disease is very common in America. Eating tomatoes and tomato products like sauce or paste may help protect against it. So enjoying tomatoes in your meals could be doing your liver a big favor. What a delicious way to stay healthy!

Activity Time - Word Search

Find the words below in the puzzle. Words go across or down only.

Words to Find:

HUMPBACK NETWORK PIGMENT POWDER
ROCKET LIVER FOAM

K	X	R	Q	O	O	A	S	O	M	H
P	I	G	M	E	N	T	G	L	S	U
E	S	N	E	T	W	O	R	K	O	M
J	L	N	X	L	T	R	E	M	K	P
L	J	C	F	O	A	M	Y	Z	B	B
R	T	L	I	V	E	R	D	D	C	A
O	U	J	J	P	O	W	D	E	R	C
C	W	L	N	E	F	A	G	M	T	K
K	E	E	R	M	S	H	K	R	R	T
E	J	P	R	H	C	Z	R	K	K	Q
T	B	K	G	V	A	J	A	L	R	D