



BHAGAVAD GITA: Chapter 10, Verse 32

sarganam adir antash cha madhyam chaivaham arjuna adhyatma-vidya vidyanam vadah pravadatam aham

sargānām—of all creations; ādih—the beginning; antah—end; cha—and; madhyam—middle; cha—and; eva—indeed; aham—I; arjuna—Arjun; adhyātma-vidyā—science of spirituality; vidyānām—amongst sciences; vādah—the logical conclusion; pravadatām—of debates; aham—I

sarganam adir antash cha madhyam chaivaham arjuna adhyatma-vidya vidyanam vadah pravadatam aham

TRANSLATION

BG 10.32: O Arjun, know Me to be the beginning, middle, and end of all creation. Amongst sciences I am the science of spirituality, and in debates I am the logical conclusion.

COMMENTARY

Earlier in the twentieth verse, Shree Krishna had stated that he is the beginning, middle, and end of all living beings. Now, he states the same for all creation. "All that is created, such as space, air, fire, water, and earth, is called sarga. I am the Creator (ādi), Maintainer (madhya), and Annihilator (anta) of these. Therefore, the processes of creation, maintenance, and dissolution can be meditated upon as my vibhūti."

Vidyā is the education that a person acquires in relation to subjects of knowledge. The scriptures describe eighteen types of vidyās. Amongst them, fourteen are prominent:

angāni vedāshchātvarō mīmāṃsā nyāya vistarāh purānām dharmashāstram cha vidyā hyetāshchaturdaśha āyurvedo dhanurvedo gāndharvaśchehaiva te trayāh arthashāstram chaturtham tu vidyā hyashatādaśhaiva tāh (Vishnu Purān 3.6.27-28)[v29]

“Shikshā, Kalp, Vyākaran, Nirukti, Jyotish, Chhanda—these are the six types of knowledge known as Vedāṅg (limbs of the Vedas). rig, Yajur, Sāma, Atharva—these are the four branches of Vedic knowledge. Along with Mīmāṃsā, Nyāya, Dharma Shāstra, and the Puranas, these comprise the fourteen chief vidyās.” Practice of these vidyās cultivates the intellect, deepens the knowledge, and increases awareness of the path of dharma. Additionally, the science of spirituality liberates human beings from material bondage and gives them immortality. Thus, it is superior to the previously mentioned vidyās. This is mentioned in the Shrimad Bhāgavatam as well: sā vidyā tanmatiryaṁ (Verse 4.29.49)[v30] “The best knowledge is that by which the intellect becomes attached to the lotus feet of God.”

In the field of argument and logic, jalpa means to find fault with the opponent’s statements, for the sake of establishing one’s own opinion. Vitanda means to avoid proper deliberation on the truth through evasion and frivolous arguments. Vāda is the logical conclusion of the discussion. Logic is the basis for communication of ideas and establishment of truths.



This Tiny Device Could Solve One of Immunotherapy’s Biggest Weaknesses

A tiny implant may give cancer-fighting immune cells the boost they need to keep working longer.

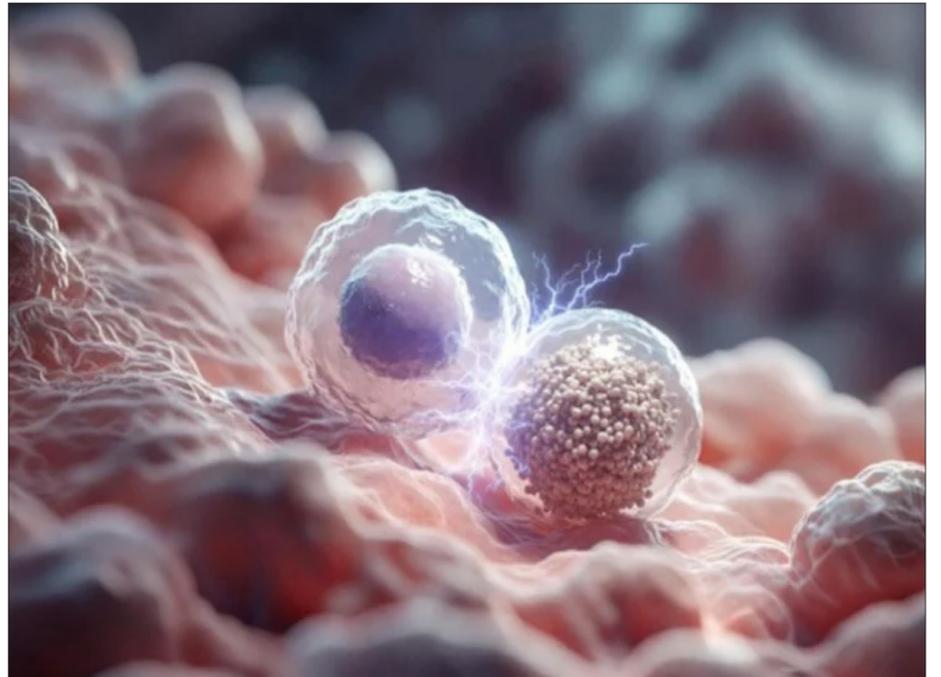
Immunotherapy has changed cancer care by turning the immune system into a weapon against disease. But there is a major weakness in that strategy: many lab-engineered immune cells lose momentum soon after they enter the body. That problem is especially severe inside solid tumors, where cancer can create a hostile environment that dampens immune activity.

Researchers at UCLA say they may have found a way to help those cells keep fighting.

They developed an implantable device that works like a nearby support station, giving cancer-targeted immune cells the signals they need to stay active longer. The study, published in Nature Biomedical Engineering, showed promising results in human melanoma and lymphoma samples and in lab-based experiments.

Chimeric antigen receptor-invariant natural killer T cells, known as CAR-iNKT cells, have shown early promise, particularly for solid tumors that are difficult to treat with standard CAR-T therapy. Still, these cells often lose their effectiveness after being introduced into the body. To address this, the UCLA team created a system that works like a recharging station. Once placed near a tumor, it draws in CAR-iNKT cells that are engineered to recognize cancer.

At the heart of the approach are tiny biomimetic particles designed to mimic the activation signals for iNKT cells.



“These engineered microparticles are where CAR-iNKT cells recharge and switch back into attack mode,” said study co-leader Song Li, chancellor’s professor of bioengineering at the UCLA Samueli School of Engineering. “Instead of delivering a one-time boost, the device provides sustained signals that help the cells stay active, multiply and form long-term memory.”

How the Device Reactivates Immune Cells The particles reactivate immune cells using a molecule called TCR antigen. They also contain capsules filled with IL-15, a signaling protein that promotes cell growth.

“It’s similar in concept to plugging your phone into a charging cable,” said study first author Yan-Ruide “Charlie” Li, a postdoctoral scholar of microbiology, immunology & molecular genetics at UCLA. “In this case, the CAR-iNKT cells connect to the TCR antigen, which sets off a series of molecular signals that activate them, sending them back out to destroy cancer cells.”

Experiments showed that the effects extend throughout the body. Once reactivated, the immune cells entered the bloodstream and eliminated cancer cells in multiple locations.

“This approach significantly improves the durability and effectiveness of CAR-iNKT cell responses in both solid tumor and systemic blood cancer models, offering a new strategy to strengthen cell-based cancer therapies and expand their clinical potential,” said study co-leader Lili Yang, a UCLA professor of microbiology, immunology & molecular genetics.

Balancing Activation and Safety Developing the system required careful fine-tuning. Too much stimulation can wear out immune cells, while too little allows them to lose function. The researchers optimized the strength of activation signals, the release of growth-supporting proteins, and the physical design of

the material to maintain a balanced immune response. Keeping the signals localized was also critical. Earlier methods that relied on immune-activating drugs circulating through the body often caused harmful side effects. By concentrating these signals at a small implanted site near the tumor, the new approach supports immune cells while limiting exposure elsewhere in the body.

In preclinical testing, the platform showed strong compatibility with biological systems. The team is continuing to refine the technology and investigate how it could be applied to other types of cancer immunotherapy.

Word of the Day

EUREKA yoo-REE-kuh

What It Means

As an interjection, eureka is used to express excitement when a discovery has been made. When used as an adjective, eureka describes something (typically a moment) that is characterized by a usually sudden triumphant discovery.

// After years of trying to piece together a concrete business idea, I had a eureka moment and everything made sense.

EUREKA IN CONTEXT

“Back in 2020, Trautmann and fellow college student Max Steitz were lamenting the unrelenting loss of Louisiana wetlands, while sharing a bottle of wine. It was a eureka moment, as Trautmann and Steitz realized that by crushing wine bottles and other disposable glass into sand, they could relieve pressure on landfills and simultaneously help fend off coastal erosion.” — Doug MacCash, nola.com (New Orleans, Louisiana), 5 Dec. 2025

Did You Know?

When people exclaim “Eureka!” they are harking back to a legendary event in the life of the Greek mathematician and inventor Archimedes. While wrestling with the problem of how to determine the purity of gold, he had the sudden realization that the buoyancy of an object placed in water is equal in magnitude to the weight of the water the object displaces. According to one popular version of the legend, he made his discovery at a public bathhouse, whereupon he leapt out of his bath, exclaiming in Greek “Heurēka! Heurēka!” (“I have found it!”), and ran home naked through the streets.

Is it your Birthday Today?

MARCH 21

Governed by number 3 and the planet Jupiter, you are imaginative, ambitious, dignified, jovial, cheerful and highly optimistic person. You search for meaning and purpose in life and you often find this through your work. You are friendly and helpful, but you need to control your tendency to behave jealous, extravagant and dominating at times. This year your self-confidence and determination would be at its peak. The organization that you work for would undergo major administrative changes and the chances of your promotion or transfer would be strong. Your income would be from at least two sources. Your finances would improve towards the middle of the year bringing prosperity and happiness at domestic level. Your emotional partner would be a major support. Health of a sibling might need extra attention. The months of October, December and April seem to be eventful.

SUDOKU PUZZLES

SEND YOUR SOLUTIONS AT: EARTHNEWSROOM@GMAIL.COM

Sudoku puzzle grid with numbers 1-9 in some cells.

SOLUTION OF PREVIOUS PUZZLE

Sudoku solution grid with numbers 1-9 in all cells.

STARS & PLANETS

What is My Zodiac Sign?

List of Zodiac Signs Based on Birth Dates



List of 12 Zodiac Signs

- List of 12 zodiac signs: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, Pisces.

ARIES: A lot of paperwork, perhaps involving contracts, could lead to financial gain on the job, Aries. You could make or save some money for your employer, which could prove important. Expect some sort of acknowledgement or recognition for your efforts from superiors, which could lead to advancement or a possible raise. However, there may be some delay with regard to the latter.

TAURUS: Today you might want to put your innate business sense into making a success of a pet project of your own. This is a good idea, Taurus, because all signs indicate that whatever you begin today, whether it's for your employer or yourself, could well lead to success. You could, however, find yourself spending a little more money than you would normally care to. Don't hold yourself back, but be careful!

GEMINI: New discoveries that capture your imagination could find you spending most of your day sequestered in your home and learning as much as you can. All indications are that you aren't going to want to do much else, Gemini, but it's important to remember to take breaks and get a little exercise throughout the day. Moving the body and shaking out the kinks in your muscles can get your mind going as well.

CANCER: You may have plans to get together with friends, and you're probably looking forward to it. However, Cancer, delays could get in the way, although you aren't likely to let them stop you. Your concentration and perseverance are both higher than usual, so it isn't likely that you'll give up on anything you start today. Therefore, this is a good day to either begin or continue projects that mean

LEO: Your hard work on the job may appear to be finally paying off, Leo, as all signs indicate that a raise, promotion, or other form of advancement is coming your way. Your ambition and concentration have led and will continue to lead to significant accomplishment, which isn't likely to escape the notice of those above you in the hierarchy. Draw satisfaction from your achievements and continue as you are.

VIRGO: Studying in solitude may appeal to you today, Virgo. A new interest has captured your imagination, so you may decide to sequester yourself at home or in the library to learn about it. Your concentration is high, as is your perseverance, so anything you begin today is likely to succeed. The downside is that you might strain your eyes or give yourself headaches trying to accomplish too much at once.

LIBRA: Memories welling up today could trigger a desire to get in touch with old friends, Libra, or relatives you haven't seen in a long time. Some of these recollections could be bittersweet, bringing pain experienced in the past to the surface once more. Don't hang on to these ancient grievances. Work them out in your mind and then let them go. You might experience a deep-seated relief.

SCORPIO: Business-oriented social events could take up a lot of your time today, Scorpio. You could either be planning or attending them. If the latter, however, it could well be more than one. You're feeling especially outgoing at this time, so you should make a good impression and possibly even make a few new friends. However, it's also important to remember to take some time for yourself.

SAGITTARIUS: Your innate charm and good manners have brought you good relationships with both co-workers and superiors, and today you might find that this has served you well, Sagittarius. Authority figures may seem a little intimidating, but hang on to your self-confidence. Hard work and dedication have also brought you some corporate kudos. Therefore, it's quite possible that you might hear of forthcoming career advancement. Onward and upward!

CAPRICORN: Work on your own projects may be very much on your mind today, Capricorn. They could involve studies of some kind or the arts. It's possible that you may be considering innovative ways of earning extra money. All signs indicate that any enterprise begun or continued today is likely to succeed, so go to it. However, it's important to give whatever you're working on a lot of thought before presenting it to others.

AQUARIUS: Long-term investments, especially those involving real estate, could pay off now, Aquarius. If you've been thinking of buying or selling a home, this is the time to do it. All signs indicate that your patience is likely to bear fruit, so at least one of your longtime goals should bring success right now. Also, if you've been considering investing some money in your house, such as remodeling or building an addition, start planning today.

PISCES: Kicking ideas around with colleagues today could lead to planning social events and bringing important people together in order to ensure cooperation on ambitious projects. You might find yourself in a number of meetings, Pisces, or spending considerable time on the phone. Your mind is especially business oriented today, so you'll be operating very efficiently.