## TRINITY MIRROR



# **Synthetic immunology:** New approach to prevention

Synthetic immunology, an innovative field of research which could lead to fundamentally new approaches and methods in the treatment of infectious diseases and cancer, is the topic of a recently published article. Herein, Heidelberg researchers Prof. Dr Kerstin Göpfrich, Prof. Dr Michael Platten, Prof. Dr Friedrich Frischknecht, and Prof. Dr Oliver T. Fackler describe a so-called bottom-up approach that uses the toolbox of nanotechnology and synthetic biology to construct systems from molecular building blocks and specifically equip them with

immune functions. The experts in the fields of synthetic biology, neuroimmunology, parasitology, and virology conduct research at Heidelberg University, the Heidelberg and Mannheim University Hospitals, the German Cancer Research Centre, and the Max Planck Institute for Medical Research. In the new bottom-up approach in synthetic immunology, complex immune functions are no longer created by modifying existing cells or molecules, but rather originate from molecular building blocks like nanoscale components or artificial cells assembled into



complex systems. The process is based on technologies and techniques from synthetic biology such as the design of proteins and peptides, polymer synthesis as well as DNA/ RNA modification and DNA/RNA origami -- the three-dimensional "folds" of DNA or RNA strands - to produce functional nanostructures.

As the authors discuss in their article in the Perspectives section of Nature Nanotechnology, the new bottom-up approach in synthetic immunology is expected to allow for unparalleled precision and control in shaping immune functions.

By manufacturing immune components from the ground up, immune responses can be customengineered with great specificity and efficiency.

This opens up groundbreaking approaches in the development of new therapies and vaccines that circumvent the constraints of traditional approaches, like unwanted side effects or time-limited efficacy.

The Heidelberg researchers believe that the bottom-up approach not only promises improved therapeutic approaches and methods but can also push the future boundaries of what is possible in the treatment of complex illnesses.

The further development of this research field could lead to the development of completely synthetic immune effectors that, according to the vision, could then prevent and treat diseases.

"We are facing a turning point in the treatment and prevention of infectious diseases and cancer. The synergies between synthetic biology and immunology open up a number of possibilities that could one day create a completely new basis for how we deal with disease," states Prof. Göpfrich.

### **Strength training activates** cellular waste disposal

damaged cell components is essential for the maintenance of the body's tissues and organs. An international research team led by the University of Bonn has made significant findings on mechanisms for the clearing of cellular wastes, showing that strength training activates such mechanisms. The findings could form the basis for new therapies for heart failure and nerve diseases, and even afford benefits for manned space missions.

Muscles and nerves are long-lasting, highperformance organs whose cellular components are subject to constant wear and tear. The protein BAG3 plays a critical role in the elimination of damaged components, identifying these and ensuring that they are enclosed by cellular membranes to form an "autophagosome" Autophagosomes are like a garbage bag in which involvement by sports

The elimination of cellular waste is collected for later shredding and recycling.

The research team led by Professor Jörg Höhfeld of the University of Bonn Institute of Cell Biology has shown that strength training activates BAG3 in the muscles. This has important ramifications for cellular waste disposal because BAG3 has to be activated to efficiently bind damaged cell components and promote membrane envelopment. An active elimination or clearing system is essential for the long-term preservation of muscle tissues. "Impairment of the BAG3 system does indeed cause swiftly progressing muscle weakness in children as well as heart failure - one of the most common causes of death

in industrialised Western nations," Professor Höhfeld explains. The study was conducted with significant

enzyme, particularly with

compounds that have been

previously investigated in

human clinical trials for

cancer, could be a big

and the University of Hildesheim. Professor Sebastian Gehlert of Hildesheim emphasizes how important the findings are: "We now know what intensity level of strength training it takes to activate the BAG3 system, so we can optimize training programs for top athletes and help physical therapy patients build muscle better." Professor Gehlert also makes use of these findings to support members of the German Olympic team.

physiologists of German

Sport University Cologne

The BAG3 system is not only active in the muscles. Mutations in BAG3 can lead to a nerve disease known as Charcot-Marie-Tooth syndrome (named after the discovering scientist). The disease cause nerve fibers in the arms and legs to die off, leaving the individual unable to move his or her hands or feet.

### Vital role of vaccination in preventing diseases

Dr Spoorthi Arun, diseases. By promoting Internal Medicine, vaccine awareness, NIAM **Promed Hospital** 

August marks an important period for public health as it is recognized as National Immunization Awareness on public health. Month (NIAM). This

critical role in highlighting the significance of vaccination and promoting vaccine awareness across all age groups. With the goal of educating the public on the importance of immunization, NIAM aims to ensure that

vaccinations. Why Month Matters

encourages people to stay up-to-date with their immunization schedules and to understand the broader impact of vaccines The observance of

annual observance plays a NIAM is essential for several reasons: Prevention of Disease

protect against infectious diseases that can lead to outbreaks if left unchecked. By ensuring high vaccination rates within communities, we

everyone understands the can prevent the spread benefits and necessity of of diseases and protect keeping up with their vulnerable populations. Protection Across the Lifespan: Immunization is Immunization Awareness not limited to childhood. overstated. Vaccines save Adults also need vaccines to maintain their health Awareness Month and prevent diseases such that can lead to severe is celebrated to draw as influenza, pneumonia, health complications, attention to the crucial and shingles. NIAM role that vaccines play in highlights the need for ongoing vaccination immunization is crucial: throughout life. Building the most effective tools Immunity: When a large numerous infectious available to prevent portion of the community diseases, including a variety of serious is vaccinated, it creates measles, polio, hepatitis, and potentially deadly herd immunity, which and HPV. By receiving

protects those who cannot be vaccinated, such as individuals with certain medical conditions or allergies. NIAM helps reinforce the importance of vaccination for achieving this collective

protection. Combating Misinformation: In the era of misinformation, it's Outbreaks: Vaccinations vital to provide accurate and reliable information about vaccines. NIAM serves as a platform to dispel myths and provide evidence-based facts about the safety and efficacy of vaccines. The Importance of

Immunization The importance of

immunization

vaccines, individuals protect themselves from these diseases and contribute to the overall health of their community.

Reduction in Healthcare Costs: Preventing diseases through vaccination helps reduce healthcare costs associated with treating illnesses, managing longterm health complications, and handling disease outbreaks.

Improved Quality of Life: Immunization helps maintain a good quality of life by preventing diseases that can lead to chronic health issues, disabilities, and diminished life quality.

Eradication of Diseases:

### A type of drug developed for treating cancer holds promise as a new treatment for neurodegenerative diseases such as Alzheimer's, according to a recent study by researchers at Penn State, Stanford University and an international team of collaborators.

The researchers discovered that by blocking a specific enzyme called indoleamine-2,3dioxygenase 1, or IDO1 for short, they could rescue memory and brain function in models that mimic Alzheimer's disease.

The findings suggest that IDO1 inhibitors currently being developed as a treatment for many types of cance



**Cancer drug helps treat Alzheimer's: Study** 

and Molecular Biology at Penn State and co-author on the paper.

"In the broader context of aging, neurological decline is one of the biggest co-factors of being unable to age healthier. The benefits of understanding and treating metabolic decline irological disorders

step forward in finding ways to protect our brains from the damage caused by aging and neurodegeneration," said Katrin Andreasson, the Edward F. and Irene Pimley Professor of Neurology and Neurological Sciences at the Stanford University School of Medicine and the study's senior author.

Alzheimer's disease affects the parts of the brain that control thought, memory and language, the result of progressive and irreversible loss of synapses and neural circuitry.



National Immunization safeguarding individual and community health. Vaccines are one of

millions of lives each year by preventing diseases hospitalizations, and even death. Here's why

Disease Prevention: Herd Vaccines protect against

### Vaccination programs have been instrumental in eradicating diseases such as smallpox and significantly reducing the incidence of others, such as polio and measles. Key Vaccines for All

Ages Vaccination is crucial at every stage of life. During National Immunization Awareness Month, it's important to review recommended vaccines for different age groups:

Infants and Children: Vaccines are critical for infants and children to protect against diseases like measles, mumps, rubella, whooping cough, and diphtheria. The early years of life are when children receive a series of vaccines to build immunity.

Adolescents: Teenagers benefit from vaccines such as the HPV vaccine, which helps prevent certain cancers, and the Tdap booster for protection against tetanus, diphtheria, and pertussis.

Adults: Adults need vaccines too, including those for influenza, shingles, and pneumococcal disease. It's also important for adults to keep up with booster shots and catch up on any missed childhood vaccines.

Older Adults: As people age, their immune systems may weaken, making vaccines even more important. Vaccines for influenza, pneumococcal disease, and shingles are particularly important for older adults to prevent serious illnesses.

melanoma, leukemia and breast cancer, could be repurposed to treat the early stages of neurodegenerative diseases - a first for the chronic conditions that lack preventative

treatments. 'We're showing that there is high potential for IDO1 inhibitors, which are already within the repertoire of drugs being developed for cancer treatments, to target and treat Alzheimer's," said Melanie McReynolds, the Dorothy Foehr Huck and J. Lloyd Huck Early Career Chair in Biochemistry

will impact not just those who are diagnosed, but our families, our society, our entire economy."

Alzheimer's disease is the most common type of dementia, an umbrella term that refers to all age-associated neurodegenerative disorders, McReynolds explained. In 2023, as many as 6.7 million Americans were living with Alzheimer's disease, according to the Centers for Disease Control and Prevention, and its prevalence is expected to triple by 2060. "Inhibiting this

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944/1, As Per Sub-division S.ne	b. 944/1, As Per Sub-division S,no- 944/43, Hectare 252 In This For An			aita
Extent 2335 1/2 Sq.ft Of Land,	Rcc Building In Door No. 12/300, In Dharmapuri District, Dharmapuri			site
Registration District, Palacode	Sro., Palacode Village. "D" Schedule Mushtaq Ahamed Property		1	serv
Boundaries: East: Hussen Prop	perty, West: Sabeer Ahamed Property, North: Road, South: Abdul Kadhar			No

Property, East West Northern Side 27 Feet, East West Southern Side 27 Feet, North South Eastern Side Property Last web South Vestern Side 32 / Feet, Last web Southern Side 27 / Feet, Norm South Vestern Side 32 / Feet, Nestronal (South Vestern Side 32 / Feet, Nestronal), South Vestern Side 32 / Feet, Nestronal, North:road, South:abdul Kadha

roperty, East West Northern Side 27 Feet, East West Southern Side 27 Feet, North South Eastern Sid 43 ¼ Feet, North South Western Side 43 ¼ Feet. Measuring Of 1167 ¾ Sq.ft. Totally Measuring Of 2335

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Regist Mahar Floor,

The Borrowers' Attention Is Invited To The Provisions Of Sub Section 8 Of Section 13, Of The Act, Respect Of The Time Available, To Redeem The Secured Asset. Borrowers In Particular And Public I General May Please Take Notice That If In Case Auction Scheduled Herein Fails For Any Reaso Whatsoever Then Secured Creditor May Enforce Security Interest By Way Of Sale Through Privat Treaty. In Case Of Any Clarification/requirement Regarding Assets Under Sale, Bidder May CONTACT Mi Mr. Velmurugan Kathirvel (+91988471838), Mr. Mr. Vignesh S (+91 9092919036), Bidder May Abs Contact The Bank's Ivr No. (+91-9152219751) For Clarifications. For Detailed Terms And Condition Of The Sale, Please Refer To The Link https://www.kotak.com/en/bank-auctions.html PROVIDED II THE BANK'S WEBSITE I.E. www.kotak.com AND/OR ON http://bankauctions.in/ Authorized Office Place : Dharmapuri, Tamil Nadu Date: 29.08.2024 Kotak Mahindra Bank Limite

td, (ACHFL), Under the Securitisation and Re Enforcement of Security Interest Act, 2002 ("SARFAESI Act, 2002") and in exercis of powers conferred under Section 13(12) read with Rule 3 of the Security Interest (Enforcement) Rules, 2002 ("Enforcement Rules"). Demand Notice(s) issued by the Authorized Officer of the company to the Borrower(s)/ Co-Borrower(s) and Guarantor(s (collectively referred to as the "Borrowers") mention herein below to repay the amour mentioned in the notice within 60 days from the date of receipt of the said notice. The borrowers having failed to repay the amount, notice is hereby given to Borrowers and the public in general that the under signed has taken symbolic / physical possession o the property described herein below in supersize of powers conferred upon him under Sub-section(4)of Section 13 of the said act read with Rule 8 of the Security Interes Enforcement rules, 2002. The borrower's attention is invited to prevision of sub-sectio (8) of section 13 of the Act, in receipt of time available, to redeem the secured assets The borrowers in particular and the public in general are hereby caution not to deal with the property and any dealings with the property will be subject to the charge of ACHF

101.1	ior an amount mention nerein ander war are interest arecent.				
Sr.	Name of Borrower(s)/ Co-	Date of Demand Notice &	Date of		
No.	Borrower(s)/ Guarantor(s)	Amount (in Rs.)	Possession		
	& Loan A/c No.				
1	1. Mr. Meenamanikandan R	11-06-2024	27-08-2024		
	Alias Mr. Meenamanikandan	Rs. 9,08,698/-			
	Rathanasamy (Applicant)	(Rs. Nine Lakh Eight Thousand Six			
	2. Mrs. Vasantha	Hundred and Ninety Eight Rupees			
	Rathanasamy (Co-Applicant)	Only) as on 31-05-2024			
	LAN: S127205000005	NPA: 31-05-2024			

Description of Secured Asset: All that piece and parcel of the Property bearin no Site No 43 Part, one part, Total Admeasuring area 1108 Sg.feet, Survey r T.S. No. 7-5A, 7-5BP, Old ward-O, old block-11, New T.S no 59/0, Ward ck-81, Tirupur Village, Tiruppur Corporation, Perichipalayam, South, Oorgounde gar, Tiruppur Regd. District. Tiruppur Joint No -II SRO is bounded as: On an wards East- Suppam Schedule Land; On and Towards West- Site No- 43. Pa ongs to Chellamutha, Rangasamy; On and Towards South- Colony Land; O Towards North- 10 Ft Wide East West Road. North- East West 5.715 mtr; South st West 5.029 mtr; East- South North 18.821 mtr; West- South North 19.507 mt al- 102.93 Sq.mtr (1108 sq.ft).

2	1.	Mr. Senthikmar Murugesan	11-06-2024	28-08-2024
		(Applicant)	Rs. 5,54,400/-	20 00 202
	2.	Mrs. Dharani S Alias	(Rs.Five Lakh Fifty Four Thousand	
		Mrs. Dharani Annamalai	and Four Hundred Rupees Only)	
		(Co-Applicant)	as on 31-05-2024	
	LA	N: 1262040100049	NPA: 31-05-2024	

scription of Secured Asset: All that piece and parcel of the Property Bearing opadi Taluk, Idappaditaluk, Idappadi Village, Previous Idappadi Town Street, a sent Bhavani Road Street, Natham Survey No 80/1, Door No 82A, for an Tota end of 320 1/2 Sa feet House site with buildings within the following boundarie st- West Municipality Lane on the South, M. Kaliyappan share house on the North nnadurai house, Gopalvahayara house on the East, Krishnagoundervahayar use on the West. 1st Thakku:- For an extent of 2081/2 Sq.feet within the above I boundaries: East- West Northern sides 13 feet (7 Angulam); East- West Soutl Sides 13 feet (7 Angulam): South- North Western sides 15 feet (4 Angulam uth- North Eastern sides 15 feet (4 Angulam). Total extend of 2081/2 Sq.feet hous with building with all rooms, doors, door fittings, electric fittings, will, electr vice connection, with usual pathway, common road, common right etc., TNEB S 403. Idappadi Panchavat. 2nd Thakku:- For an extent of 112 So feet within th above said boundaries: East- West Northern side 11 feet (6 Angulam), East - Wes outhern sides 11 feet (6 Angulam), South- North Western side 8 feet (11 Angu m), South- North Eastern sides 8 feet (11 Angulam), Total extent of 112 Sq.fee House site with building with all rooms, doors, door fittings, electric fittings, Will lectric seervice connection, with usual pathway, common road, common rights et Idappadi Panchayat. 1st Thakku- 2081/2 Sq.feet, 2nd Thakku - 112 Sq.feet, Total

STATUTORY NOTICE TO BORROWERS / CO-BORROWERS AND GUARANTORS prrower(s) / Co-Borrower(s) and Guarantor(s) are hereby put to caution that th operty may be sold at any time hereinafter by way of public auction / tenders and s such this may also be treated as a notice under Rule 6, 8 & 9 of Security (interest Enforcement Rules, 2002. SD Date: 29-

Place: Tir

08-2024	Authorised Officer
uppur & Erode, TN	Altum Credo Home Finance Pvt. Ltd. (ACHFL)

#### INDOSTAR HOME FINANCE PRIVATE LIMITED Registered Office - Office: Unit No. 305, 3rd Floor, Wing 2/E, Corporate Avenue, AndheriGhatkopar Link Road, Chakala, Andheri (East), Mumbai 400093 Notice under Section 13 (2) of Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 INDOSTAR HOME FINANCE PRIVATE LIMITED has sanctioned home loan/mortgage loan/construction loan to the following borrowers against mortgage of residential premises. The repayment of the said loans were irregular and the accounts are finally classified as Non Performing Asset in accordance with directions and guidelines of National Housing Bank/RBI. INDOSTAR HOME FINANCE PRIVATE LIMITED has therefore invoked its rights and issued a notice under section 13(2) of the SARFAES ACT, 2002 and called upon the borrowers to repay the total outstanding mentioned against respective borrowers within 60 days from the date of the demand notice. The following borrowers are hereby called upon by this publication to pay the total dues mentioned agains

them plus further charges & amp; interest accrued till payment within 60 days from the date of the said demand notice, failing which IHFPL shall resort to all or any of the legal rights to take possession of the properties, dispose/sale it and adjust the proceeds against the outstanding amount.

The borrowers are also restrained from alienating or creating third party interest on the ownership of the properties

Sr. No	LOCATION/ LOAN ACCOUNT NUMBER.	NAME OF BORROWER/ CO-BORROWERS/ GUARANTOR	DATE OF DEMAND NOTICE SENT	AMOUNT AS PER DEMAND NOTICE	DESCRIPTION OF PROPERTY
1.	SALEM LNSAL0HL- 12190012714	PRABHU SUBASH (BORROWER) KANNAGI PRABHU (CO-BORROWER)	21-AUG- 2024	Rs.412041/- (Rupees Four Lakh Twelve Thousand Fourty One Only	All That Piece And Parcel Of The Property Bearing Natham Survey No - 302/1, As Per The Subdivision Natham Survey No 726/14, Measuring An Extent Of 1189 Sq. Feet, Siatuated At Kedhunaiken-pattypudhur Village, Pappireddipatty Sub Reg Office, Kedayampatti Taluk, Salem District, Tamil Nadu - 636354 Which Is <b>Bounded As Under_East:</b> House Of Gopal Reddy, <b>West:</b> House OfAmutha, <b>North:</b> Thar Road, <b>South:</b> Street
2.	TIRUPUR LNTIROHL- 12210020434	GURUNATHAN KALIMUTHU (BORROWER) SARANYA GURUNATHAN (CO-BORROWER)	21-AUG- 2024	Rs.1095345/- (Rupees Ten Lakh Ninety Five Thousand Three Hundred Fourty Five Only	All That Piece And Parcel Of The Land In Tiruppur Registration Dist, Avinashi Sro, Avinashi Taluk, Kalipalayam Village Panchayath, Kalipalayam Village, S. F. Nos. 421/1a, 422/1a, 295/1e With Larger Extent Modified Into Sevral House Sites Namely "Guruayarappan Nagar Virivu East "A" Group Layout In Bearing Site No. 175 On Eastern Portion An Extent Of 550 Sq. Ft. Situated At Within The Sub- Registration District Of AvinashiAnd Registration District Of Tiruppur Land Which Is <b>Bounded As Under_East</b> : 40ft North-South Layout Road, <b>West</b> : Site No. 175, <b>North:</b> Site No. 176 On One Portion, <b>South:</b> Site No. 174 On One Portion Measurements_East-West On Both Sides 25ft, North South On Both Sides 22ft, In Between This Land Measureing 550sq. Ft.
3.	DHARAMAPURI LNLEALAP- 10230036191	SUDHA GOPI (BORROWER) GOPI (CO- BORROWER)	21-AUG- 2024	Rs.674794/- (Rupees Six Lakh Seventy Four Thousand Seven Hundred Ninety Four Only	All That Piece And Parcel Of The Property Bearing Sy No - 169/1part In This Sub Division Sy No - 330/12, Measuring An Extent Of 65 Sq. Meter Of Land, Situated At Marandahalli Village, Palacode Taluk, Dharmapuri District - 636806 Which Is <b>Bounded As Under_East</b> : Street, <b>West</b> : Government Puramboku Land, <b>North</b> : Land Belongs To Mr. Karunanithi In Sy. No. 330/11, <b>South</b> : M. Settihalli To Almarapatti Tar Road Measurements_East To West On North Side: 30.42 Feet, East To West On South Side: 30.42 Feet, South To North On East Side: 23 Feet, South To North On West Side: 23 Feet, Total Extent: 699.66 Sq. Feet Or 65 Sq. Meter
PL D/	PLACE: -SALEM, TIRUPUR, DHARMAPURI Sd/- Authorized Officer DATE : 29.08.2024 For IndoStar Home Finance Private Limited				