

DRUG DISCOVERY & DEVELOPMENT

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## VASTU VIHAR BIOTECH

DEVELOPING RELIABLE  
THERAPEUTIC SOLUTIONS  
FOR AUTOIMMUNE  
DISEASES

VINAY TIWARY,  
DIRECTOR

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**siliconindia** 10 MOST PROMISING  
**DRUG DISCOVERY**  
& DEVELOPMENT COMPANIES - 2022

# VASTU VIHAR BIOTECH

## DEVELOPING RELIABLE THERAPEUTIC SOLUTIONS FOR AUTOIMMUNE DISEASES

BY MARY JANIFHA EVANGELINE X

**A**utoimmune diseases today account for around 4 percent of the world population and are also considered the third most common cause of chronic illness in countries such as the United States. These are generally life-long and are a result of an overactive immune system that mistakenly starts killing the healthy cells, ultimately leading to several other complexities of the body.

Most patients suffer from chronic conditions of the liver, kidney or skin, etc. and majority of them have autoimmune conditions that occur due to the chemokine

and cytokine storm in the body. Also, the recent pandemic has been an eye-opener for the world in a similar way. "Most deaths during COVID-19 pandemic have been either due to multiple organ disorders or the pro-inflammatory response/various autoimmune conditions of the body. That was when we realized, our drug molecule, which is an exRNA, having an anti-inflammatory and immune suppressant competence is an answer to all the challenges that we have been facing to date," says Mr. Vinay Tiwary, Director, Vastu Vihar Biotech.

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VASTU VIHAR VISION  
IS TO BECOME ONE  
OF THE LEADING  
CONTRIBUTORS BY  
DEVOTING ALL THEIR  
TIME AND RESOURCES  
IN FINDING WAYS  
TO HELP CONTROL  
DISEASES WHICH HAVE  
BEEN CHALLENGING THE  
EXISTENCE OF MANKIND



VINAY TIWARY,  
DIRECTOR



### Striving to create a disease-free nation

While Vastu Vihar is steadfastly investing in developing novel therapies for certain life-threatening diseases, the company is committed to making its medicines easily accessible to patients all over the world, at affordable prices. We strive to create a disease-free nation. “Being a Research & Development unit, it is our duty to provide reliable, 100 percent efficient, and long-lasting healthcare solutions for a healthy future,” says Vinay. Vastu Vihar Biotech has also made its priority to be able to come up with a cost-efficient drug therapy that can prove to be beneficial for all.

Approaching towards the pre-clinical and clinical trials for Vastu Vihar’s potential drug based on Ribozyme concerning various auto-immune diseases, the company exhibits a strong will to conquer millions of hearts as well as emerge victorious in every aspect of its business. With its team of well-qualified and passionate researchers, the company is working towards finding possible ways to contribute to a healthy and disease-free nation.

### Well Equipped Laboratories

Vastu Vihar has ISO-9001:2015 certified analytical laboratories and more than 25-acre areas covering labs and offices. It has 12 well-equipped laboratories such as microbiology lab, molecular biology lab, cell culture lab, and tissue culture lab. These are certified by the Department of Scientific & Industrial Research. The company also comprises an in-house R&D center and considers its teams as an important asset contributing to the growth of the company.

The microbiology lab of Vastu Vihar is located within the campus. The lab is well-equipped with all the possible facilities needed for executing research work smoothly. Apart from the microbiology lab, the company also has a well-equipped Molecular biology lab, cell culture lab, and Bio-instrumentation lab, wherein protocols are followed. All labs of Vastu Vihar are BSL-2 approved and licensed by the Department of Scientific and Industrial Research (DSIR).

### Committed to finding a possible cure

Vastu Vihar Biotech is an emerging drug development company committed to finding a possible cure for certain autoimmune diseases. The company focuses on

specific techniques that include Extracellular RNA-based therapies which can help in accelerating the discovery of a novel therapeutic solution for the benefit of patients as well as healthcare providers.

“We at Vastu Vihar Biotech are committed to finding a novel drug therapy using exRNA as its drug molecule, which is unlike the currently available drugs in the market, capable of providing long-lasting, reliable, non-toxic, and also a cost-effective therapeutic solution for the globally prevalent, non-curable, and complex autoimmune diseases such as Psoriasis, Rheumatoid Arthritis, Multiple Sclerosis, Asthma, Chronic Obstructive Pulmonary Disorder (COPD), Polycystic Ovary Syndrome (PCOS), etc.,” explains Mr. Vinay Tiwary.



## IN 100 YEARS OF DRUG DEVELOPMENT, NEW CHEMICAL ENTITIES AND SMALL PEPTIDE MOLECULES HAVE WORKED MIRACULOUSLY

### Accelerating the discovery of novel therapeutic solutions

Vastu Vihar Biotech focuses on ribozyme technology to accelerate the discovery of novel therapeutic solutions for the benefit of patients and healthcare providers. However, therapeutic development and its regulatory procedures are expensive as well as time-consuming. Therefore, it needs the patience of investors and academics as well.

### Finding a novel therapeutic solution

“In 100 years of drug development, new chemical entities and small peptide molecules have worked miraculously. However, most diseases remain clueless due to lack of adequate research. There is no possible cure for various autoimmune diseases that are becoming a major concern worldwide,” says Mr. Satyam Tiwari, CEO, Vastu Vihar Biotech.

“We at Vastu Vihar Biotech, with a commitment to finding a novel therapeutic solution for addressing





such challenges, are working upon RNA as our drug molecule with an achieved success in both fields such as autoimmune diseases and cancer,” he adds.

### Developing a drug molecule with immune suppressant competence

Incepted in 2014, Vastu Vihar Biotech Private Limited has stayed focused on finding a reliable and long-lasting therapeutic solution for serious diseases where it could achieve a prodigious impact for patients, not just an incremental benefit. In addition to it, VastuVihar Biotech has DSIR approved biotech lab. VastuVihar Biotech is a part of VastuVihar Group which is functional in a different arena.

Realizing, the available drug therapies are short-term and fail to target the root cause of the disease, the company has been focusing on the mechanism in which, targeting and downregulation of responsible genes, cytokines, and chemokines or the pathways involved in the development of the disease is prioritized. Vastu Vihar Biotech, unlike the existing solutions, does not aim to provide temporary solutions, rather it is working towards the development of a drug molecule, namely exRP250, which is an exRNA having an anti-inflammatory as well as immune suppressant competence.

### Robust team

The Vastu Vihar team comprises various group of experts who have pursued PhDs and Masters in the biotechnology field. Not just that, but the team also consists of students pursuing their Masters’ degrees, working with VastuVihar on technologies. The company is currently working with


different laboratories across India and different countries around the world for characterization of the drug molecule, animal studies of the molecule on different disease models that include other autoimmune diseases such as psoriasis, asthma, etc.

VastuVihar team also has 25 scientists who are working on the diagnostics projects and 55 Scientists from molecular biology, cell culture, microbiology, microfluidics, mechanical, electrical, electronics, computer science departments.

“Our vision is to become one of the leading contributors to the service of mankind. We are devoting all our time and resources in finding ways to help control some of the deadly diseases which have been challenging the existence of mankind,” affirms Mr. Satyam Tiwary.

### The road ahead

“Since we are in the start-up phase, we are focused more on strengthening our research pathway and achieving our discovery targets rather than hurrying ourselves to augment the marketing process and selling our drug. Currently, we are undergoing the crucial regulatory phase and we are soon planning to initiate the IND (Investigational new drug) procedures for the treatment of Psoriasis, which is a persistent as well as relapsing inflammatory skin disease that usually occurs due to the autoimmune hyper response and strong genetic predisposition,” says Mr. Vinay Tiwary.

“Also, our upcoming drug ‘VV Psoriasis Spray’ is a proprietary medicine that has been approved by the ‘Ministry of Ayush’ under the category of Ayurvedic medicine for the treatment of Psoriasis,” he concludes. 





## **siliconindia** 10 MOST PROMISING **DRUG DISCOVERY** & DEVELOPMENT COMPANIES - 2022

**T**he development of drug discovery and pharmaceuticals in India has witnessed excellent growth in the recent times. There are research and development viewed by expert professionals suggest that increasing contract-based product manufacturing and collaborative research are leading to progress of the Indian drug discovery and development sector. India is setting its footprint in global locations with a wide array of pharmaceutical companies providing scientific productivity of the highest quality through proprietary drug discovery. India's ongoing achievement in the global drug discovery and development pipeline is contributing to different businesses such as logistics, trading of knowledge, intellectual aesthetics, and thereby increasing the gross domestic product.

Drug discovery in India is in a paradigm-shifting phase with scientific helps in new drug formations and solving extreme healthcare challenges. The patients' needs are aligned with medicines because of the foremost medical intervention in the research labs from primary stages to final product of any public or private industries. The scientists state that the

discovery of a drug integrates a lot of stages such as targeting the main cause of a disease, identification of the medicinal values which has the best probable percentage of removing the disease, validation of the drug, identification of hitting points, marketing of the drug while generating leads, finalizing the candidate for the further development. The steps also include optimization of the chemical synthesis and formulation of the toxicological studies in animal subjects and getting the final approval. The development of the technology in the drug discovery sector including artificial intelligence, machine learning, augmented reality and virtual reality are helping in decreasing the time of drug discovery.

In this issue of the Siliconindia magazine, a list of '10 Most Promising Drug Discovery and Development Companies - 2022', developed by a team of excellent researchers and market evaluators, presents the impeccable information of the drug discovery and development sector while the companies furthermore conveying their efficient work procedure and mindset. The list is developed by a team of industry CEOs, VCs, CXOs and Siliconindia editorial board.

## 10 MOST PROMISING DRUG DISCOVERY AND DEVELOPMENT COMPANIES - 2022

Company	Management	Description
Acubiosys Hyderabad acubiosys.com	Srinivas Maddi, Founder & CEO	Acubiosys is a Biotechnology organisation that focuses on providing natural, cheap and cost effective safe drugs to the people suffering from serious ailments and side effects of synthetic drugs
DPHS India Aurangabad dphsindia.com	Dr. Krutikesh Age, Dr. Ankesh Pawar & Dr. Abhijit Patil Founders	Providing topnotch medicines for saving lives, improvement of medicines, niche treatments with specializations in clinical research and medical development
Imgenex India Bhubaneswar imgenexindia.com	Dr. Sujay Singh, Founder	Offering services in custom antibody development, stable cell line development, protein production & drug discovery screening services
Kola Pharma Hyderabad kolapharma.com	Meenakshi Kola Punyavati, Director	Proffering excellent products of Enteric-Coated-Pellets, Combination-Pellets, Sustained-Release-Pellets, Immediate-Release-Pellets, Taste-Masked-Granules & Multi-Vitamin-Pellets
NATCO Pharma Hyderabad natcopharma.co.in	VC Nannapaneni, Founder	A platform for New Drug Development with innovation opportunities for research and development of medicines for incurable diseases
Prescience Insilico Bengaluru prescience.in	Sudip Roy, Founder	Specialized in offering technology solutions of artificial intelligence for augmented computational modeling, industrial revolution in smart materials/molecules and excellent drug manufacturing
Rusan Mumbai rusanpharma.com	Dr. Navin Saxena, Chairman	Offers excellent quality products for De-Addiction, Pain Management, OTC & Herbal Products, Emergency Kit and Aposan
Sai Life Hyderabad sailife.com	Krishna Kanumuri, MD	A world class provider of contract research, contract manufacturing, chemistry discovery, biology medicines, drug development & discovery, formulation development & chemical development
Sanopeutics Hyderabad sanopeutics.com	Shrikrishna Dadke, Founder & CEO	Helping in formations of topnotch quality affordable drugs for a healthier living
Vastu Vihar Biotech Bodh Gaya vvbiotech.com	Vinay Tiwary, Director Satyam Tiwari, CEO	Aspiring to be the finest contributor for trustable, toxic-free, sustainable and affordable therapeutic solution for the incurable and complex autoimmune diseases"