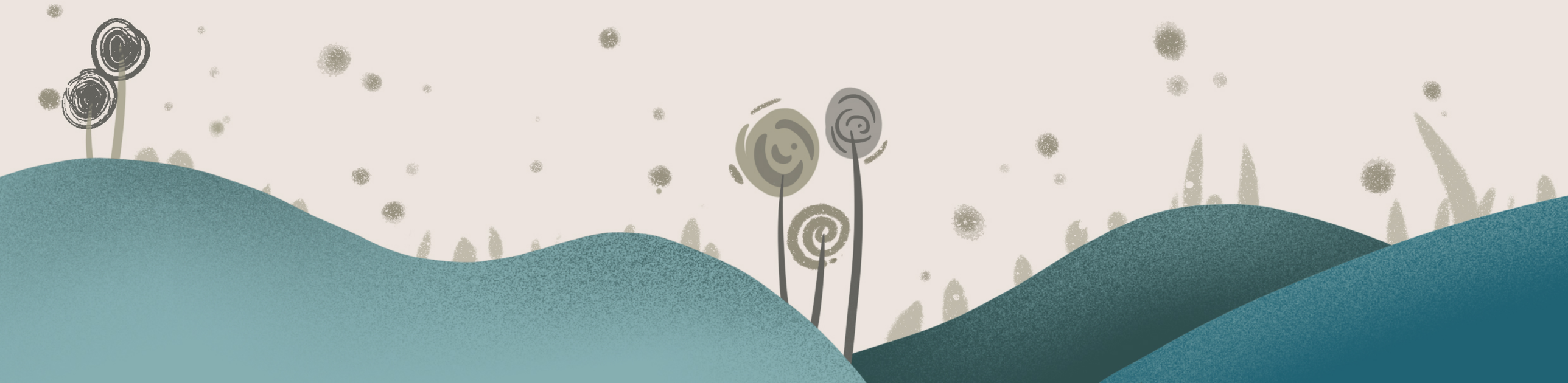
IISER TVM

iGEM

2021 PROJECT MARKETING BROCHURE



ABOUT iGEM.

The International Genetically Engineered Machine (iGEM) Foundation, initiated at Massachusetts Institute of Technology in 2004, is an independent, non-profit organization dedicated to the advancement of synthetic biology education and the development of an open community.

The iGEM Competition inspires thousands of students each year to work in teams to address unique challenges in their local communities and solve real-world problems using synthetic biology. The platform gives students the opportunity to push the boundaries of synthetic biology and genetic engineering by tackling everyday issues faced by the world. Every year, it sees participation from more than 45 countries with over 300 teams. In addition, teams worldwide gather around to present their project to an international audience in the Annual Giant Jamboree.

www.igem.org
@igem

Photo: iGEM Jamboree Event 2019 / iGEM HQ

ABOUT IISER TVM.

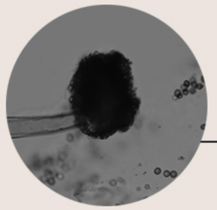
Established in 2008 by the Ministry of Human Resource and Development (MHRD), the Indian Institute of Science Education and Research (IISER) Thiruvananthapuram is a premier autonomous institution dedicated to advancing science education and research of global standards. With a sprawling 200 acre campus nestled amongst the forests and foothills of the serene Western Ghats, we are one of India's finest research institutes. The picturesque and luscious green campus provides an ideal environment for young minds to live, learn and grow.

IISER
THIRUVANANTHAPURAM

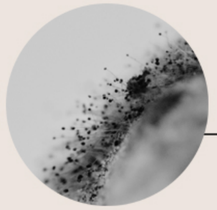
www.iisertvm.ac.in
@tvmiiser

With the quest for knowledge and aim to integrate multidisciplinary sciences, the institute is the main resource center for innovations and the primary supporter of the iGEM Team.

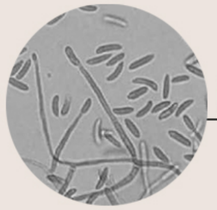
What we are tackling



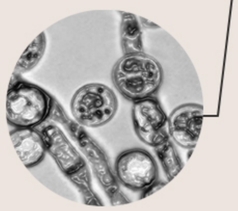
aspergillus



rhizopus



fusarium



candida

iGEM IISER TVM News Radar

SCIENTIFIC AMERICAN.

PUBLIC HEALTH

Why Deadly 'Black Fungus' Is Ravaging COVID Patients in India

Standard treatments such as steroids, as well as illnesses such as diabetes, make the fungal infection worse

By Maryn McKenna on May 28, 2021

iGEM IISER TVM News Radar

THE CITIZEN IS QUEER+

ADNAN KHAN | 11 JUNE, 2021 | Dermatologists say there is an urgent need for redressal

An Unreported Epidemic of Skin Fungal Infections is Gripping South Asia

iGEM IISER TVM News Radar

Turk J Hematol 2018;35:75-93

Invasive Aspergillosis in Refractory Angioimmunoblastic T-Cell Lymphoma

Refrakter Anjiyoimmünoblastik T-Hücreli Lenfomada İnvaziv Aspergilloz

Prakash NP[1], Anoop TM[1], Rakul Nambiar[1], Jaisankar Puthusseri[1], Swapna B[2]

[1]Regional Cancer Centre, Department of Medical Oncology, Thiruvananthapuram, India
[2]Regional Cancer Centre, Department of Microbiology, Thiruvananthapuram, India

₹70K

recent price shot-up for LAB antifungals

60-90%

mortality rate among all ICU patients with IFIs

Fungal infestation in several settings is known to pose severe health risks, especially towards immunocompromised patients. **Invasive Fungal Infections (IFIs)** are becoming more prevalent with immunosuppressive therapies.

It has been reported that newer and rarer forms of opportunistic pathogens are becoming resistant to chemical antifungals, and their unrestricted use has been shown to cause environmental degradation.

4.6M

cases of asthma in the US is attributed to mold exposure

5K$

cost of professional mold remediation from walls

125M

tonnes of the top five food crops are destroyed by fungi

Meet Moldemort

moldemort [ˈməʊldəmɔ:(t)] (n.): death of mold

Our project aims to develop a **novel**, **broad-spectrum**, and **eco-friendly** synthetic biology solution in the form of a biodegradable protein to tackle the persistent problem of harmful fungal contamination in the environment. The beauty of our design allows the application of the same principles to therapeutics, agriculture, housing, or pretty much any other industry where fungal contamination is an issue.

The essence of our project lies in effectively using GMOs in generating novel therapeutics and fungicides. We plan to have our first broad-spectrum enzymes in hand and demonstrate their enhanced activity by October 2021.

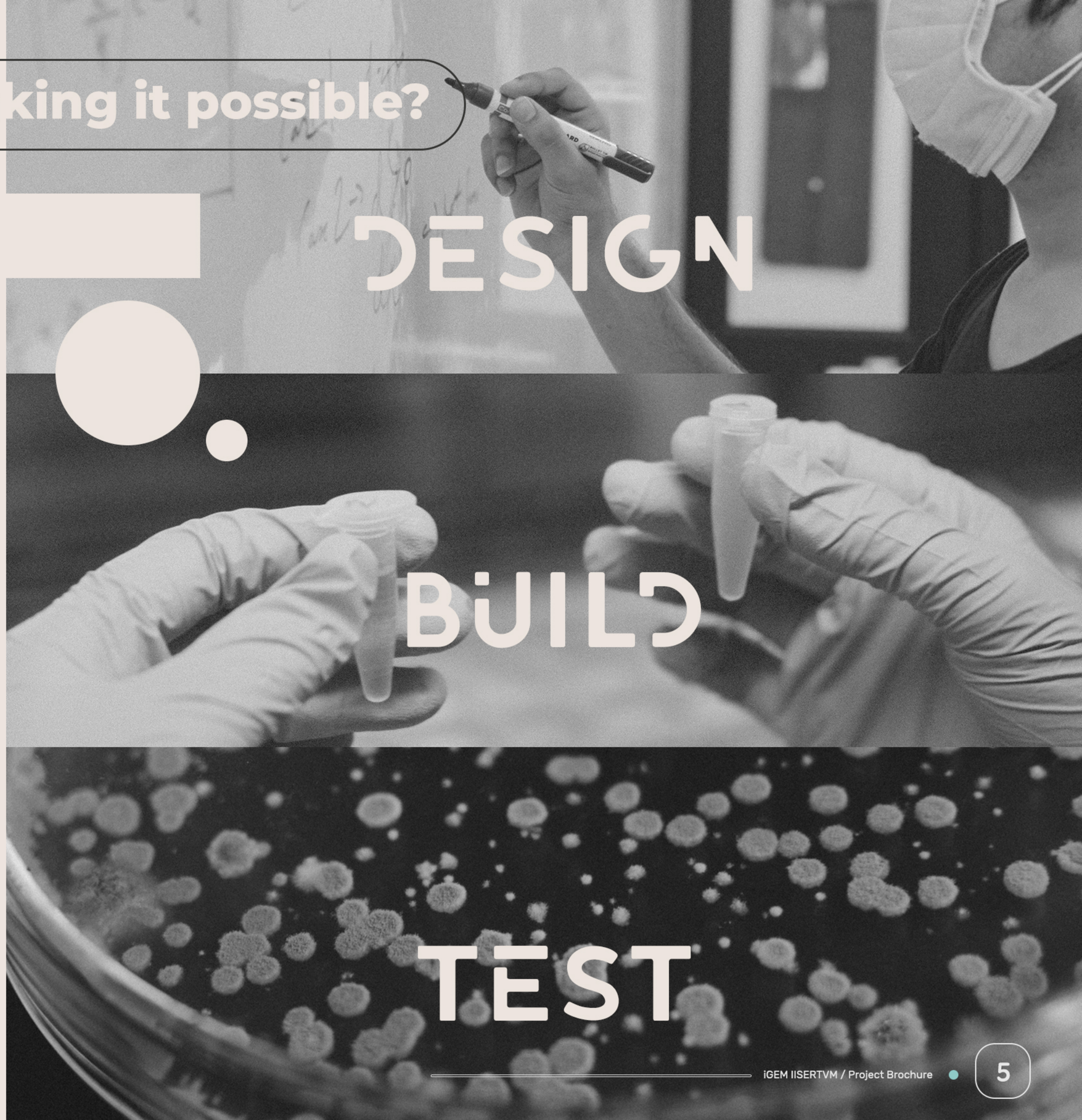
How are we making it possible?

At iGEM IISER Thiruvananthapuram, we are on track with the **Design-Build-Test** strategy to achieve our goal of building a broad-spectrum, eco-friendly antifungal.

After we identified the problem, we went on to screen for biocontrol solutions and appreciated the presence of a broad diversity of pathogenic fungi in the environment. Using the principles of rational protein engineering and domain swapping, rationalized a novel, broad-spectrum biocontrol agent. Our in-silico activity prediction model confirmed that our enzyme is indeed more effective and broad-spectrum.

Our team is constantly refining our engineering to make it more reliable, reasonable, and scientifically accurate.

The first phase of the project concludes with an in-vivo proof-of-concept, followed by a proposed delivery mechanism.



The Team.

The IISER Thiruvananthapuram iGEM 2021 team is packed with a driven and dynamic group of 15 undergraduate students, supervised by a faculty Principal Investigator and mentored by two alumni and a postdoc. We bring to the surface a team from various disciplines with diverse interests — from molecular biology, mycology, and genetic engineering to mathematics and design. United by the shared passion for synthetic biology, iGEM is a great platform to channel our creativity and contribute to solving a problem affecting the community. Being the first team of its kind from the institute, we are highly exhilarated towards achieving our goal by challenging our skillset.

> The platform and community provided by iGEM allow us to imbibe a multifaceted growth — by providing us resources, guidance, and encouragement to contribute at the forefront of current synthetic biology research. The team develops to become better innovators, communicators, marketers, and social caretakers.

BECOME A SPONSOR

• why you should sponsor our research •

01

International and truly multidisciplinary

Each year, iGEM brings together 100+ teams from countries around the globe, combining multidisciplinary expertise to find solutions to today's biggest problems. By supporting one of the national institute teams from India, you will be in good company.

02

Deliverable platform in front of a varied international audience

Our sponsors and their stories will be advertised during local and international presentations and in posters in front of academicians and corporates from around the world.

03

Social media space built for your recognition

Being a sponsor implies you will be regularly featured on our social media handles, which reach to an already well established audience. You will be a crucial part of our project wiki and we will be making interactive media, merch and impactful videos where your organisation and its values will be featured.

04

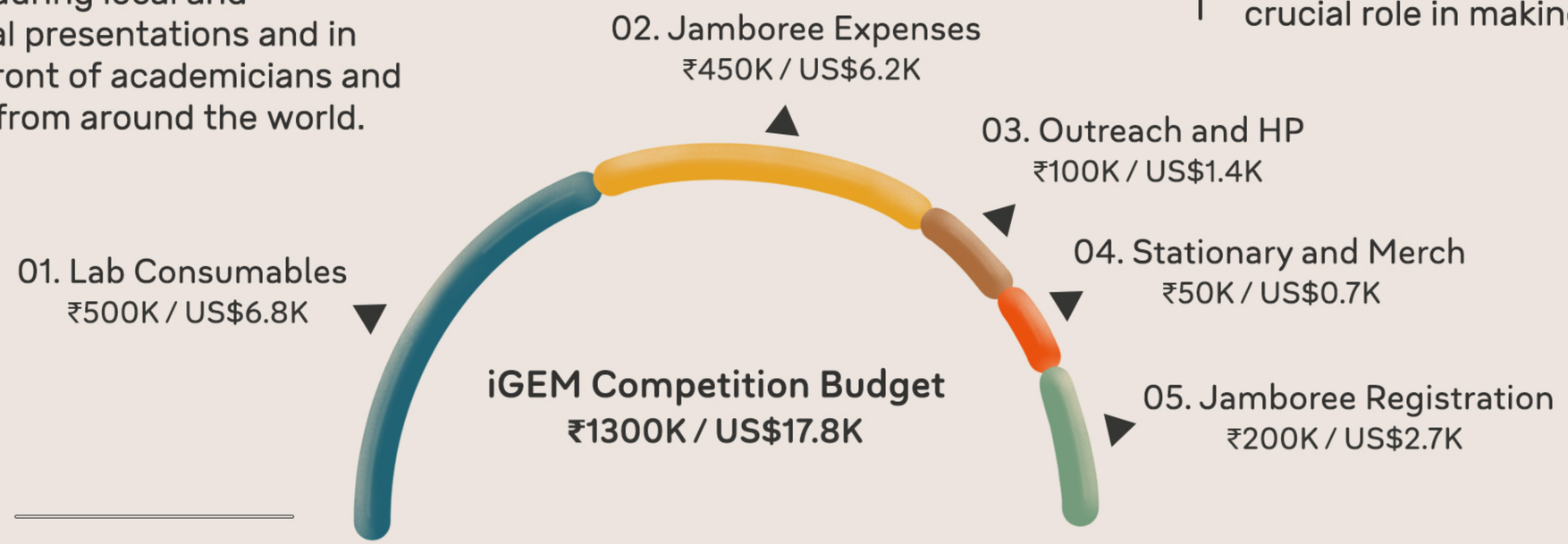
Exposure through Human Practices

Our team will be interacting with the local community, stakeholders and experts, thus connecting a broad set of audiences to your organization through events and activities, where you can take part, interact, and communicate.

05

A social cause your organisation can truly care to support

The core goal of our project lies in making the environment safer from deadly fungal pathogens. Your financial support will play a crucial role in making it possible.



SPONSORSHIP BRACKETS

Our sponsorship packages are much more flexible than our experimental protocols. If you do not fit into any of these general categories, our sponsorship team is always there to curate a custom package.

	Platinum Sponsor > ₹ 300K US$ 4K	Gold Sponsor ₹ 100K to 300 K US$ 1.5K to 4K	Silver Sponsor ₹ 50K to 100K US$ 0.7K to 1.5K	Bronze Sponsor ₹ 20K to 50K US$ 300 to 700
In-video promotion on YouTube and social media	✓	✓		
Logo on official merch and Jamboree project poster	✓			
Logo on official wiki + adverts on social media platforms	✓	✓	✓	
Promotions during collaborations	✓	✓		
Promotion during Giant Jamboree event	✓	✓		
Select events/activities sponsor announcement	✓		✓	✓
Hosting webinars/events	✓			

CONTACT US

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Scan the QR code to know more

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