

**ALKEM LABORATORIES LTD.**

Regd. Office : ALKEM HOUSE, Senapati Bapat Marg,  
Lower Parel (West), Mumbai - 400 013, Maharashtra, India.

- Phone: +91-22-3982 9999 • Fax: 022-2495 2955
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- CIN: L00305MH1973PLC174201

11<sup>th</sup> February, 2022

<b>The Corporate Relationship Department</b> <b>BSE Limited</b> Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai 400 001.  <i>Scrip Code: 539523</i>	<b>National Stock Exchange of India Limited</b> Exchange Plaza, Bandra Kurla Complex, Bandra East , Mumbai 400 051.  <i>Scrip Symbol: ALKEM</i>
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Dear Sirs,

**Sub: Press Release – ALKEM signs a license agreement with Harvard University.**

This is to intimate you that Alkem Laboratories Limited (the “Company”) and Harvard University’s Office of Technology Department (OTD) have signed a license agreement for the development and commercialization of a novel technology for effective treatment of diabetic neuropathy, foot ulcers, peripheral arterial disease (PAD), and other injuries caused by vascular disease.

A press release in this regard is enclosed herewith.

Kindly take the same on record.

Sincerely,

For **Alkem Laboratories Limited**

  
**Manish Narang**  
**President – Legal, Company Secretary & Compliance Officer**

Encl: a/a



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## **ALKEM licenses technology from Harvard University, aiming to treat ischemic injury and vascular diseases**

*Novel delivery of established growth and neurotropic factors enables local,  
sustained release for greater efficacy*

**Mumbai, February 11 2022:** Alkem Laboratories Limited (Alkem), an Indian multinational pharmaceutical company, has signed a license agreement with Harvard University's Office of Technology Development (OTD) enabling Alkem to develop and commercialize a novel technology that may help meet the dire need for effective treatment of diabetic neuropathy, foot ulcers, peripheral arterial disease (PAD), and other injuries caused by vascular disease. Developed in the lab of David Mooney, Ph.D. at Harvard's Wyss Institute for Biologically Inspired Engineering and John A. Paulson School of Engineering and Applied Sciences (SEAS), the technology is an injectable, biocompatible scaffold for the sustained release of tissue-regenerative molecules. Alkem plans to apply its drug development and manufacturing capability to advance this technology from bench to bedside through the application of efficient translational, pre-clinical, and clinical models.

"This license agreement with Harvard enables us to harness an innovation with great clinical potential, identified and nurtured by the Wyss Institute, to bring novel treatments to market. It also serves as an example of Alkem's commitment to fostering continued academic, clinical, and commercial collaborations to bring impactful medical technologies to patients," said Alkem's Managing Director, Sandeep Singh. Alkem's President and Chief Medical Officer, Akhilesh Sharma added, "This technology's novel, regenerative medicine approach could help fill a therapy gap in the treatment of multiple causes of ischemic tissue injuries, with the potential to avoid several thousands of foot deformities and amputations and provide relief from other ischemic conditions."

The license grants Alkem commercialization rights in the United States and India.

Donald Ingber, M.D., Ph.D., the Wyss Institute's Founding Director, said, "This technology license represents yet another successful initiative by the Wyss Institute to advance our mission of bringing lifesaving technologies out of the lab and into the real world. Alkem's position in India gives it the potential to reach many millions of patients who do not have access to expensive, brand-name treatments, which could significantly contribute to the reduction of human suffering globally." Ingber is the Judah Folkman Professor of Vascular Biology at Harvard Medical School and Boston Children's Hospital, and Professor of Bioengineering at Harvard SEAS.

### **A new solution to enable regenerative medicine**

Tissue regenerative molecules are naturally occurring biomolecules in the human body that are known to help enhance tissue regrowth after injury or chronic disease. Despite their therapeutic promise, these biologics have not yet been developed into FDA-approved treatments because they are very rapidly cleared from the body, which dramatically reduces their efficacy. Furthermore, because of the high doses required to overcome the clearance challenge, there has been concern that these treatments could cause toxicity when administered to patients orally or via injection.

To solve this problem, researchers led by David Mooney, Ph.D., a Wyss Core Faculty member and the Robert P. Pinkas Family Professor of Bioengineering at Harvard SEAS, developed a technique that encapsulates two tissue regenerative molecules into a biocompatible, precisely designed scaffold that is injected under the skin at the site of ischemia and injury. The scaffold allows the molecules to be released in a sustained manner over time, which enables tissue regeneration at very low doses.



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Initiated as a collaboration between researchers at Harvard SEAS and the Wyss Institute, the technology advanced through development and de-risking at the Wyss Institute to demonstrate proof-of-concept. Preclinical studies conducted at the Wyss Institute and University of Michigan demonstrated that blood perfusion recovered to 80–90%, muscle strength was restored to pre-injury levels and nerve damage was reversed following injection with the treatment, and results persisted for several weeks to months. This novel enabling technology went through a thorough diligence process with Alkem, who were impressed by its potential use in populations worldwide to treat multiple ischemic conditions.

“Scientists can point to many promising treatments for diseases and injuries that have never made it to the clinic, not because they don’t work, but because delivering them via a classic injection or pill wasn’t possible,” said Mooney. “I’m hopeful that our success in solving that problem for these tissue regenerative biomolecules will inspire others in academia and industry to revisit some of those ‘difficult’ drugs and make them available for more patients around the world.”

### **PRESS CONTACTS**

#### **Wyss Institute for Biologically Inspired Engineering at Harvard University**

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#### **Alkem Laboratories Limited**

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**The Wyss Institute for Biologically Inspired Engineering at Harvard University (<https://wyss.harvard.edu>)** uses Nature’s design principles to develop bioinspired technologies that will transform medicine and create a more sustainable world. Wyss researchers are developing innovative new engineering solutions for healthcare, energy, architecture, robotics, and manufacturing that are translated into commercial products and therapies through collaborations with clinical investigators, corporate alliances, and formation of new startups. The Wyss Institute creates transformative technological breakthroughs by engaging in high risk research, and crosses disciplinary and institutional barriers, working as an alliance that includes Harvard’s Schools of Medicine, Engineering, Arts & Sciences, and Design, and in partnership with Beth Israel Deaconess Medical Center, Brigham and Women’s Hospital, Boston Children’s Hospital, Dana–Farber Cancer Institute, Massachusetts General Hospital, the University of Massachusetts Medical School, Spaulding Rehabilitation Hospital, Boston University, Tufts University, Charité – Universitätsmedizin Berlin, University of Zürich, and Massachusetts Institute of Technology.

#### **Alkem Laboratories Limited (<https://alkemlabs.com>)**

Established in 1973 and headquartered in Mumbai, Alkem (NSE: ALKEM, BSE: 539523, Bloomberg: ALKEM.IN, Reuters: ALKE.NS) is a leading Indian pharmaceutical company with global operations, engaged in the development, manufacture and sale of pharmaceutical and nutraceutical products. The Company produces branded generics, generic drugs, active pharmaceutical ingredients (APIs) and nutraceuticals, which it markets in India and International markets. With a portfolio of more than 800 brands in India, Alkem is ranked the fifth largest pharmaceutical company in India in terms of domestic sales (Source: IQVIA March 2021). The Company also has presence in more than 40 international markets, with the United States being its key focus market. For more information on Alkem Laboratories Ltd., please visit [www.alkemlabs.com](http://www.alkemlabs.com)

Harvard University’s Office of Technology Development (Harvard OTD) promotes the public good by fostering innovation and translating new inventions made at Harvard University into useful products that are available and beneficial to society. Our integrated approach to technology development comprises sponsored research and corporate alliances, intellectual property management, and technology commercialization through venture creation and licensing. More than 90 startups have launched to commercialize Harvard technologies in the past 5 years, collectively raising more than \$4.5 billion in financing. To further bridge the academic-industry development gap, Harvard OTD manages the Blavatnik Biomedical Accelerator and the Physical Sciences & Engineering Accelerator. For more information, please visit <https://otd.harvard.edu>.