

Message from the Executive Director



It's hard to believe that we have been living with the pandemic for almost two years. It has been a strange and stressful time. I hope you are well and managing OK, and that before long, life will be back to normal.

Throughout this period, the Deshpande Center has continued to operate in hybrid mode. We have done remote grant cycles, project meetings and events, and in early December we held an in-person Innovation Showcase. Even though everyone was masked, it was great to see people in 3D rather than on Zoom. Next, on April 29, we plan to host IdeaStream in person for the first time in three years (Omicron willing!).

Despite the pandemic, several of our projects spun out into startups, and our existing spinouts have continued to grow and raise money. Our active projects are making good progress in moving their research to the point where it can leave MIT and be commercialized.

Our project teams are able to accomplish so much because of the support of all our volunteers, friends and financial supporters, and we could not do it without you. Wishing you all Happy Holidays and a Happy and Healthy New Year.

- Leon Sandler

Live and in person: IdeaStream 2022 on April 29


Save the date! IdeaStream is back in late April with the latest in innovative projects from the Deshpande Center. This year's



event will be a return to an in-person experience, offering opportunities to check out the newest technology, build networks or catch up with old friends. If you would like an invitation, please contact deshpandecenter@mit.edu. | [Watch videos of the IdeaStream 2021 panel discussions and presentations](#)


SPINOUT & GRANTEE NEWS

New spinouts launched from Deshpande projects



WINDOW
THERAPEUTICS

Window Therapeutics is developing cancer therapies designed to work against diseased cells and not healthy ones. It draws on its proprietary Bottle-brush-Analogue-Macromonomer (BAM) technology to open the therapeutic windows of a wide range of drug classes, offering clinicians and patients more numerous and effective treatment regimens. Window is a spinout from the 2018 project, [A novel prodrug platform as the next generation blood cancer therapy](#). | [Read more about Window here](#)

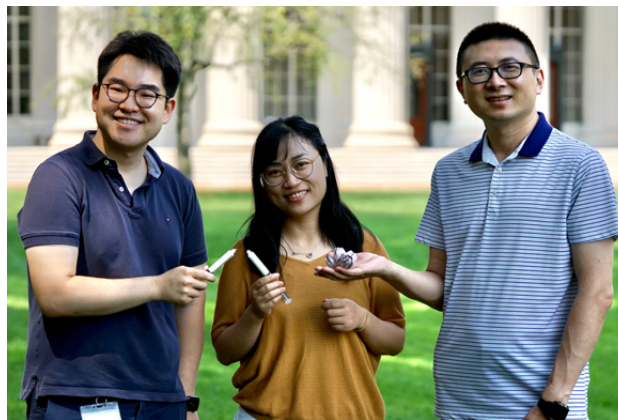


OSMOSES

Osmoses is developing a new membrane for industrial gas and vapor separation. Its molecular filters are designed to distinguish gas molecules 100,000 times smaller than the width of a human hair. The membranes have applications in hydrogen separation, carbon capture, and natural gas purification. The company is a spinout from the 2019 project, [Polymer membranes with exceptional performance and stability](#) | [Learn more about Osmoses here](#)

Bio-inspired, blood-repelling tissue glue could seal wounds quickly

Inspired by the sticky substance that barnacles use to cling to rocks, MIT engineers have designed a strong, biocompatible glue that can seal injured tissues and stop bleeding. “We are solving an adhesion problem in a challenging environment, which is this wet, dynamic environment of human tissues. At the same time, we are trying to translate this fundamental knowledge into real products that can save lives,” says Xuanhe Zhao, a professor of mechanical engineering and civil and environmental engineering and principal investigator on the Deshpande project [Novel nature-inspired bioadhesives for tissue sealing](#). The team is launching a startup and is seeking investors. [Contact them for more information.](#) [Read the MIT News article](#)



Ambri secures \$144 million financing for battery technology for daily cycling, long-duration energy storage applications



Ambri Inc. has announced that it has secured a \$144 million financing to commercialize and grow its daily cycling, long-duration system technology, and to build a domestic manufacturing facility. The financing round was led by strategic investors Reliance New Energy Solar Ltd. “[T]hese funds are instrumental to driving our efforts to scale the company’s operations and establish our manufacturing infrastructure to meet rapidly expanding customer demand.” said Dan Leff, Ambri Executive Chairman. Ambri’s long-duration systems are designed to break through the cost, longevity and safety barriers

associated with lithium-ion batteries—enabling a critically necessary energy storage solution as increasing amounts of renewable energy are integrated into the grid. Ambri spun out of the 2006 Deshpande project [High-Amperage Energy Storage Device](#). | [Read more from Ambri here](#)

Gradiant raises over \$100M for CleanTech Water Growth



Deshpande spinout Gradiant, a cleantech water treatment solutions provider and projects developer, raised over \$100 million in Series C funding. The round was led by financial and strategic partners Warburg Pincus and Schlumberger New

Energy and was oversubscribed from its initial target of \$65 million. Gradiant develops and delivers advanced water and wastewater treatment facilities around the world, with a primary focus in the Asia Pacific region. The round brings Gradiant’s total funding to date to over \$200 million since inception. The company is a spinout from the 2013 project [Treatment of water produced from shale gas extraction](#) | [Read more from Gradiant here](#)

Via Separations raises \$38M in Series B funding

Deshpande Center spinout Via Separations, a rapidly-scaling technology company that enables industrial decarbonization, announced a \$38 million investment, led by NGP ETP, a growth equity investor focused on opportunities in the global transition toward a lower carbon economy. Via has begun deploying its platform to slash energy use and propel enhanced production in the pulp and paper sector with its sights set on broadly applicable industrial manufacturing. “Decarbonizing the production of goods and materials is fundamental to a carbon-free future. Our mission is critical and time sensitive – Via will be slashing CO2 emissions in the next year,” said Shreya Dave, CEO of Via Separations. “By reducing the energy use of the building blocks of production, we generate value for our customers. With the support of our investors, we are positioned to scale this world-changing technology. Via Separations spun out of the 2015 Deshpande project [Fouling Resistant Nanoporous Membranes](#). [Read the Business Wire article](#)



DESHPANDE EVENTS & ANNOUNCEMENTS

Innovation Showcase turns spotlight on newest projects



Nearly two dozen projects and recent spinouts shared the floor this month at the Deshpande Center's annual Innovation Showcase and Open House. The evening drew over 100 guests to learn about the developing technologies. Deshpande grants were awarded to seven new projects this year, representing research in machine learning, material sciences, health care, and biotech. | [Read more about the new grantees](#)

Make Innovation Possible: Giving Opportunities



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