

Hebrew University Team Announces Creation of Shape-Shifting Pasta to Revolutionize the Packaging Industry

The pasta, which transforms from flat to popular shapes upon boiling, is highly unique and could cut down on packaging costs and carbon dioxide emissions for manufacturers.

Jerusalem, Israel- March 31, 2022- Researchers at the Hebrew University of Jerusalem have developed a technique for manufacturing pasta that can be 'pre-programmed' for specific shape shifting upon boiling. This technology could have significant impact for the packaging industry, potential active dough applications, and even sustainability, Yissum, the technology transfer company of the Hebrew University announced today.

The innovative project, which is currently pursuing a path towards commercialization, was led by Professor Eran Sharon and Dr. Ido Levin of the Racah Institute of Physics, Faculty of Science. This unique pasta starts as flat sheets and can be packaged in small-volume boxes. Upon boiling, the product takes the form of the more popular but bulkier pasta shapes like elbow, bowtie and others. As such, flat-pack pasta enables manufacturers to more efficiently package while minimizing empty space.

A [recent study](#) by Forbes Insights found that 25% or more of what companies worldwide ship in non-optimized packaging is air. Eliminating empty space in packaging has the potential to save approximately \$46 billion annually worldwide. The study also indicated that inefficient packaging accounts for 122 million tonnes of carbon dioxide waste every year, highlighting the significant environmental potential of shape-shifting pasta.

“Our shape-shifting pasta technology has the potential to transform the manufacturing, transportation and storage process,” said Professor Eran Sharon. “The potential of this technology is immense and I look forward to seeing it outside of the lab “wowing” consumers, and providing a positive impact to consumer and business alike.”

“The global packaging industry is long overdue for innovation and Professor Sharon and Dr. Levin’s shape shifting pasta can deliver a creative solution with a major impact,” said Dr. Itzik Goldwaser, CEO of Yissum. “The ability to reduce shipping and storage costs, while also adding carbon savings that enable a rebrand pasta as an environmentally friendly choice is a win for everyone involved. We’re excited to help this project make the jump from lab to grocery aisle in the near future.”

About Yissum:

[Yissum](#) is the technology transfer company of The Hebrew University of Jerusalem. Founded in 1964, it serves as a bridge between cutting-edge academic research and a global community of entrepreneurs, investors, and industry. Yissum’s mission is to benefit society by converting extraordinary innovations and transformational technologies into commercial solutions that

address our most urgent global challenges. Yissum has registered over 11,000 patents globally; licensed over 1,140 technologies and has spun out more than 200 companies. Yissum's business partners span the globe and include companies such as Boston Scientific, ICL, Intel, Johnson & Johnson, Merck, Novartis and many more. For further information please visit www.yissum.co.il