

## Environment Monthly News (July, 2024)

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### **Nanyang Technological University of Singapore Discovers Bioresearch Applications for Recycled Plastic from Electronic Waste Plastic**

Cultivate "mini-tumors."

On July 24, Nanyang Technological University (NTU) in Singapore developed a synthetic matrix for culturing cells using ABS from discarded keyboards. The matrix is porous like a sponge and acts as a support structure and a frame for cells to adhere and grow, making it possible to culture spherical groups of cells called cancer spheroids, which resemble actual tumors. Also, due to its 3D shape, this "mini-tumor" can more accurately represent a tumor than conventional cell cultures. It has similar characteristics to those grown in commercial matrices and could be used for biomedical applications such as drug testing. This innovation not only provides a practical means of reusing ewaste plastics, but also has the potential to reduce the use of new plastics in the biomedical industry.