



Where I work Audrey Teh

Photographed for *Nature* by
Leonora Saunders.

I work in a greenhouse that my team and I call Skylab, on the top floor of St George's, University of London, where we can grow hundreds of plants. We lost roughly 90% of them between March and June, when we closed because of the pandemic, but since then we've regrown them. Our experiments are back up and running.

I use tobacco plants to produce antibodies for drug development, to fight diseases including cancer and COVID-19. We introduce the genes coding for the pharmaceutical proteins and the plants make them. Our laboratory develops the plant-made pharmaceuticals up to the preclinical stage. If one of them looks promising, we hand it to collaborators who have the appropriate regulatory licences for human clinical trials.

This approach is much cheaper than current industrial systems, which rely on human or mammalian cell culture, and is therefore better suited for use in developing countries. I'm passionate about the potential of plants to produce affordable

medicines in countries where agricultural expertise already exists. I'm from Malaysia, where access to the state health-care system can be difficult for people in some areas of the country, and I've seen families financially ruined by medical bills. It would be great for countries to be able to produce pharmaceuticals cheaply for their own use.

Although I have a standard lab bench on the second floor, Skylab is essential to my work. There are always plants to tend, so I can leave the sterile hospital setting each day for the relaxing, vibrant greenhouse. When I'm tending the plants, it's my Zen moment. On a good day, we can see all the way into central London, 11 kilometres away.

I'm excited about my latest project – to test whether we can use tobacco to produce cancer immunotherapeutics. Tobacco has a horrible health legacy, so it would be nice to reform this plant's image by engineering it to produce cancer treatments.

Audrey Teh is a molecular immunologist at St George's, University of London. **Interview** by Virginia Gewin.

Correction

This article erroneously stated that Malaysia does not have state health care. It does have state health care, but not everyone has easy access to it. It also overstated how some families have been affected and misstated Teh's affiliation. She is at St George's medical school, not hospital.