

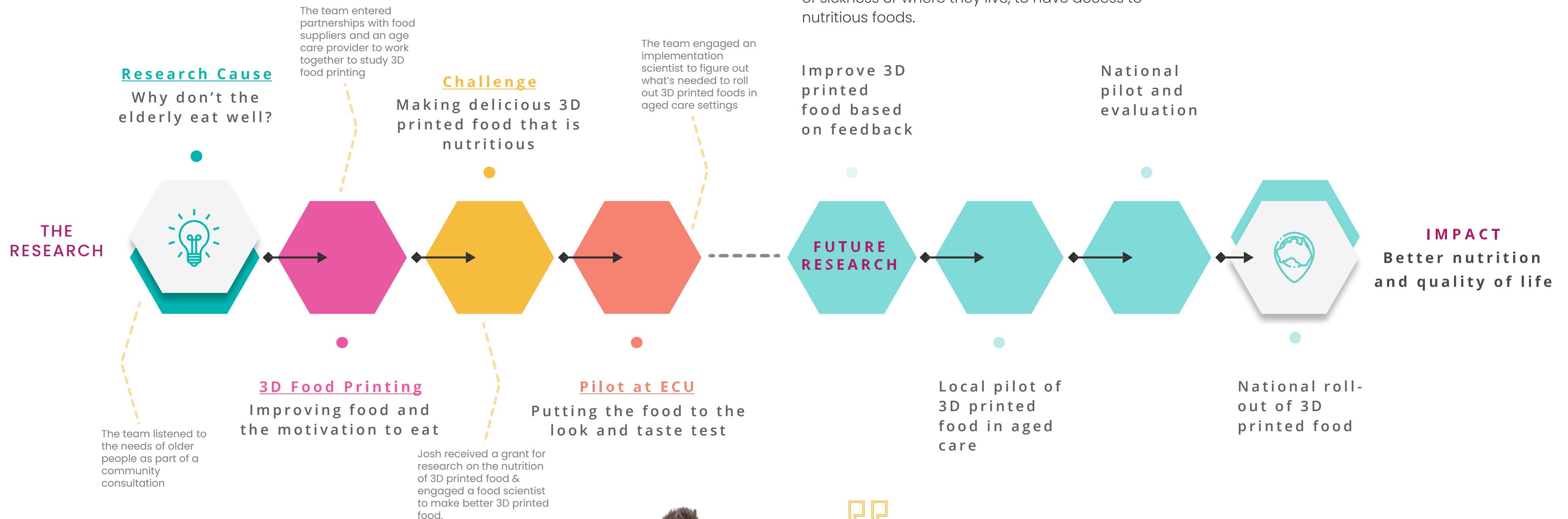
3D Printed Food: Providing better nutrition for healthier older people

We all want our older family members and friends to live long rich lives. But as people age it can be harder for them to eat nutritious foods. They often have trouble chewing and swallowing and need to be given mashed (texture-modified) foods so that they can eat.

In fact, one in three people in residential aged care are on these texture-modified diets and its not uncommon for older people to suffer from malnutrition. When asked in a community consultation why they don't eat healthy fruits and vegetables, it was found that they don't normally get to chose their food and are often given very bland and visually unappealing food. Associate Professor Josh Lewis and his team have set out to print 3D food that looks and tastes great, and is jammed packed with nutrients. His teams is developing Australia's first 3D printed fruit and vegetable-based foods that are nutritionally tailored for older Australians.

3D printed foods have the advantage that they can be produced anywhere from diverse ingredients. Josh's team is working on ways to store these ingredients to retain their maximum nutrition and taste. There has been so much interest in this work that some of Australia's most forward-thinking aged care providers are now partnering with Josh and his team, as are many of WA's fruit and vegetable providers.

This work is forming the foundation of helping others that struggle to have a balanced diet, either because of sickness or where they live, to have access to nutritious foods.



Associate Professor Joshua Lewis

Josh's passion is stopping heart disease and he has developed new ways to detect cardiovascular disease. But he found that even though older Australians understood their risk of disease, they could do very little to reduce the risk of disease. Those with trouble chewing or swallowing food in an old aged home setting have very little control over their diet. They often provided unattractive and nutritionally bland food, like potato mash and gravy.

So Josh is now researching a way to improve the attractiveness and nutrition of food for these older Australians and others that have trouble eating solid foods.



“When we looked at why these older people weren't eating enough fruit and vegetables we were a bit overwhelmed by number of barriers that kept coming up such as cost, loss of independence to prepare and cook food, food waste when cooking for one person, loss of taste, inability to eat usual portion sizes as well as chewing and swallowing difficulties. We thought WOW, how can we overcome all these barriers, we are going to have to get creative!