





A wooden cutting board is the central focus, displaying several slices of a fermented sausage. The slices are arranged in a fan-like pattern, showing a reddish-pink interior and a darker, seasoned exterior. To the right of the slices lies a whole, similarly seasoned sausage. Fresh green herbs, including rosemary and thyme, are scattered on the board, along with small red and black peppercorns and coarse salt. The background is a dark, textured surface.

planted.

Transforming Flavors and Labels: The Role of Fermentation in Clean Label Foods

**A journey through clean label product
development and how fermentation is the
key to innovation**



Hi, it's Planted

We bring delicious **plant-based proteins** with the **shortest ingredient list** to the table of meat eaters



High in
Protein



100%
Plant-Based



No
Additives

Clean label- food development



Clean Label

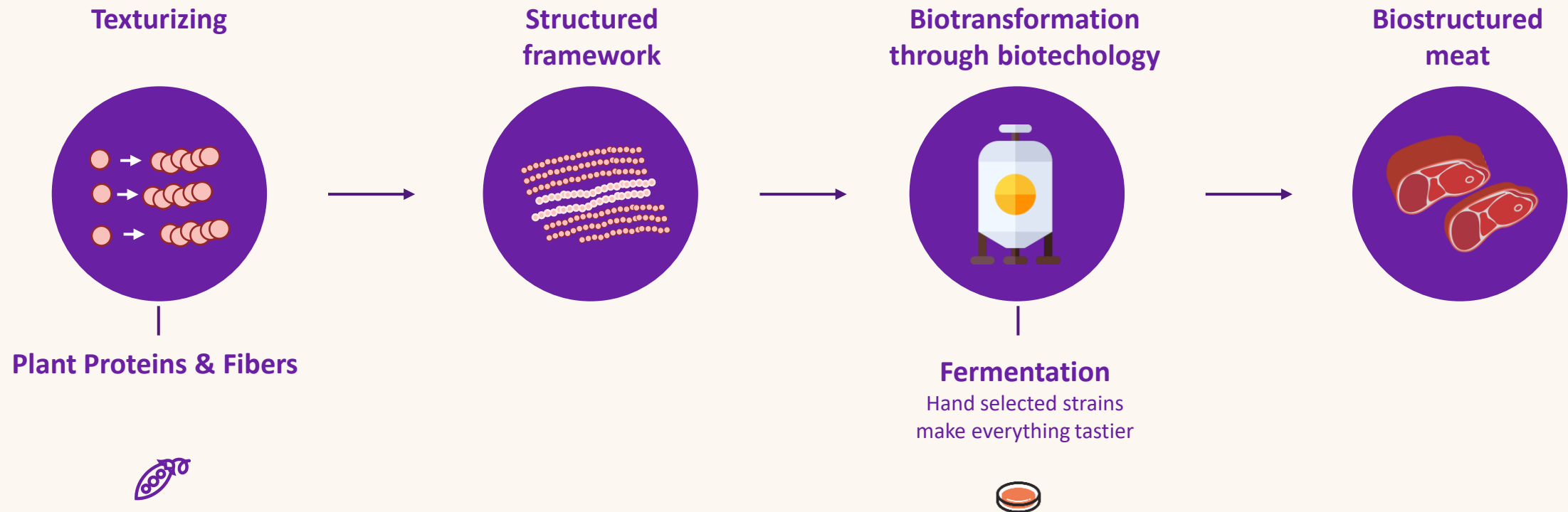
- **Consumer Demand:**
 - Safe
 - Healthy
 - Sustainable
 - Transparent
- **Market Trends:**
 - Demand for **organic** and **natural** products
 - **Regulatory pressure**



Challenges

- **Replacing artificial ingredients**
 - Taste
 - Colour and appearance
 - Texture
- **Maintaining shelf life**

Biostructured meat, from chicken to beef



The Role of Fermentation

- **Flavour Complexity and Enhancement:**
 - complex, layered flavours
 - adding **umami**, **sour**, and **savoury** notes.
- **Natural Preservation:**
 - lowering pH and a_w -Value
- **Nutritional benefits:**
 - Potential probiotic health benefits and
- **Texture Modifications:**
 - improving **chewiness** or **creaminess**
 - improves **digestibility** and **mouthfeel**



What can we achieve?

Tailored characteristics:

- “fatty porky” to “lean beef” flavours
 - texture from tender to chewy
 - juiciness and moisture release
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- **Target acidity**



Incorporating Fermentation in PD

- **Product Development Process:**

- Ingredients
- Organisms
- Type of fermentation
- Conditions
- Safety

- **Bringing the product to market**

- Testing and scaling up
- Simplify wherever possible
- Ensure stability and homogeneity
- Keep up and downstream processes in mind



planted.steak



No
additives

What now?

- Combining extrusion and fermentation
- Fulfil consumer needs
- Expand possibilities on product variety



Let's get talking



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