

## Materials and processes to retain pasta texture in shelf-stable products

### Background

Al dente pasta is generally hydrated to the point that it is firm, but tender with some resistance when you bite into it. It is challenging to achieve al dente pasta texture in shelf stable prepared meals due to overhydration of the pasta that may occur during processing and storage of pasta in high moisture sauces. As a result, the typical texture of pasta in shelf stable prepared meals is described as “gummy” and is undesirable to consumers.

### What we're looking for

We are searching for materials or processes that can create a barrier to prevent pasta from hydrating too quickly or a processing technique that preserves the al dente texture of pasta throughout high-heat processing (i.e. retort) in high-moisture sauces for shelf-stable products.

#### Solutions of interest include:

- Starches
- Drying processes
- Process controls
- Hydrophobic coatings/materials
- Additives (e.g., water repellants, acids, etc.)

#### Our must-have requirements are:

- Suitable for food application
- Imparts very little flavor
- Clear path to food regulatory approval in US and Canada

## **Our nice-to-have's are:**

- Retains pasta's al dente texture for a minimum of 3-month, target 12-month, stretch goal of 18-month, under ambient conditions.
- Solutions applicable to refrigerated and frozen prepared meals.
- Stable during high shear processing (e.g., dough kneading, extrusion)
- Demonstrated efficacy of the solutions via texture or rheological analysis.
- Approved for use in food for US and Canada (or other countries with pathway for approval in US and Canada), including FDA GRAS and Novel Food Additives Permitted, respectively.

## **What's out of scope:**

- Materials containing allergens: milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, and soybeans.
- Solutions that are unethical to source.
- Solutions for which continuity of supply is difficult to maintain.

## **Acceptable technology readiness levels (TRL): Levels 4-8**

1. Basic principles observed
2. Concept development
3. Experimental proof of concept
4. Validated in lab conditions
5. Validated in relevant environment
6. Demonstrated in relevant environment
7. Regulatory approval
8. Product in production
9. Product in market

## **What we can offer you**

### **Eligible partnership models:**

**Sponsored research**

**Co-development**

**Supply/purchase**

**Licensing**

### **Benefits:**

**Sponsored Research**

Funding is proposal-dependent starting with a proof-of-concept project with the potential for expansion based on results and opportunities. Ranging from \$25,000 - \$100,000 for a six-month project.

### **Expertise**

We offer the expertise of our team of scientists for collaboration and guidance during the development of the project. Possible partnerships with Kraft Heinz include, but are not limited to, sponsored research, joint development, supply, consulting, and licensing.

### **Who we are**

We are driving transformation at The Kraft Heinz Company, inspired by our Purpose, Let's Make Life Delicious. Consumers are at the center of everything we do. With 2021 net sales of approximately \$26 billion, we are committed to growing our iconic and emerging food and beverage brands on a global scale. We leverage our scale and agility to unleash the full power of Kraft Heinz across a portfolio of six consumer-driven product platforms. As global citizens, we're dedicated to making a sustainable, ethical impact while helping feed the world in healthy, responsible ways. Learn more about our journey by visiting [www.kraftheinzcompany.com](http://www.kraftheinzcompany.com) or following us on LinkedIn and Twitter.

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