

Separation sciences can be tough to grasp. The real-life impact isn't always immediately obvious, and we're often left wondering how it all affects our day-to-day. **Real-Life Applications** are here to show you some of the most prevalent ways chromatography and more makes life worth living.

It's half past eight and you're late for work. As you rush to fix your tie and find your keys, you realize you haven't eaten breakfast.



I'm sure you can hear your mother's voice in your ear now: that's the most important meal of the day!

You don't have time to cook eggs and bacon, or even wait for toast, so you grab a bowl of



cereal. It's quick, easy, and—most of all—safe.

QuEChERS and LC/MS/MS help to keep it that way.

## OK, but how?

QuEChERS, a **Qu**ick, **E**asy, **Ch**eap, **E**ffective, **R**ugged, and **S**afe Sample Preparation Method, along with LC/MS/MS core-shell column technology test cereal for harmful contamination produced by fungi, such as aflatoxins.

Aflatoxins are naturally occurring mycotoxins produced by fungi that can colonize and



contaminate grain before or during storage. According to <u>Cornell University College of Agriculture and Life Sciences</u>, "Aflatoxins have received greater attention than any other mycotoxins because of their demonstrated potent carcinogenic effect in susceptible laboratory animals and their acute toxicological effects in humans."



Separation sciences aim to keep food as safe and enjoyable as possible—especially when you don't have time to worry about it.

Learn about how <u>roQ QuEChERS</u> and <u>Kinetex</u> 2.6  $\mu$ m XB-C18 core-shell HPLC/UHPLC columns are used to test for aflatoxins <u>here</u>.



## **Related resources:**

- roQ QuEChERS Brochure
- roQ Frequently Asked Questions
- roQ Selection Guide
- Food Quantification of the masked mycotoxin DON-3-glucoside in cereal-based foods by LC/MS/MS
- <u>Cereal based food Multi-toxin quantification of aflatoxins, ochratoxin A, trichothecenes,</u> zearalenone
- <u>iMethod™</u> Food <u>Multi-class screening of 243 mycotoxins by LC/MS/MS</u>
- Aflatoxins on Kinetex 2.6µm C18 50 x 2.1mm ID by LC/MS
- Aflatoxins using Synergi Max-RP