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FARE announces \$3 million global research competition and passage of FASTER Act in US

In 2012, FARE (Food Allergy Research & Education) was founded by the merger of the Food Allergy & Anaphylaxis Network (FAAN) and the Food Allergy Initiative (FAI). The new organization “combined FAAN’s expertise as a source of food allergy information, programs and resources with FAI’s leadership as the world’s largest private source of funding for food allergy research.”

Currently, FARE’s work includes supporting patients who live with food allergies, sponsoring research and innovation, and pursuing multiple awareness and advocacy initiatives such as the Teal Pumpkin Project®. This program encourages offering non-food treats as an alternative for trick-or-treating and at Halloween celebrations to help ensure that children with food allergies enjoy a safer, happier holiday. FARE recently announced two milestones. The first is the launch of a global research competition, with \$3 million in prize money, for development of a new diagnostic test to identify allergies in patients. The second is passage of a new law in the United States that requires labeling of sesame in packaged foods and additional government focus on food allergy research.

The most common food allergies

Worldwide, an estimated half billion people suffer from food allergies, the majority of which are caused by peanuts, tree nuts, finned fish, shellfish, milk, egg, wheat,



soy and seeds (commonly sesame). Food allergy reactions “can vary unpredictably from mild to severe,” with the most serious progressing to anaphylaxis, loss of consciousness or death.

Types and limitations of available diagnostic tests

Currently, four types of tests are used to diagnose food allergies in patients: skin prick tests, blood tests, food elimination diets and oral food challenges. The FARE website provides descriptions of each but notes that none can predict the severity of a patient’s next food allergy reaction.

Skin prick tests (SPTs) detect the presence of immunoglobulin E (IgE) antibodies in response to suspect foods. Test results are immediate and false negatives rarely occur. However, about 50 to 60 percent of SPTs may give false positive re-

sults. Blood tests also measure the presence of IgE antibodies and can be used if patients are taking antihistamines or have other factors that prevent them from undergoing SPTs. However, obtaining results can take at least several days and, as with SPTs, about 50 to 60 percent of blood tests may yield false positive results. Further, FARE explained that skin prick tests and blood tests that indicate a patient might react to a food can be misinterpreted by patients to mean that they will react to that food. This can lead to unnecessary avoidance of foods, which can increase anxiety and limit food choices and nutrition options.

Along with skin prick tests or blood tests, a food elimination diet, usually conducted for two to four weeks, “can be helpful in diagnosing both IgE-mediated food allergies and related disorders, such as

allergies that affect the gut.” A related test in which a food is gradually reintroduced may be added to the process. However, if all of these tests are inconclusive, an oral food challenge may be tried.

An oral food challenge (OFC), which can be conducted on a double-blind, single-blind or open basis, should be administered under medical supervision. It involves feeding a patient increasing doses of a food protein to determine if they react to it and measuring how much they can consume before having an allergic reaction. If a patient is able to eat the entire challenge dose without reacting, they would not be allergic to that particular food protein. An oral food challenge is considered highly accurate and, when conducted in a double-blind, placebo-controlled manner, is regarded as the current “gold standard” for diagnosing a food allergy.

However, FARE described risks associated with the OFC, explaining that “while generally safe, it can expose some patients to severe food allergy reactions, severe illness and even death. About two percent of patients in the US experience anaphylaxis. The test may also have long-lasting impact on patient anxiety and mental health due to the physical duress and health risks involved.” FARE also indicated that “oral food challenges can be especially difficult for young people who have been taught to always avoid a food but are then told to eat that food to see if they react. In some patients, especially with very young children, it may be difficult to interpret the test if there are no observable physical signs of a reaction.”

Given the limitations of each food allergy test, including the fact that none can predict the severity of a patient’s next food allergy reaction, FARE has made development of a new and improved testing method a priority.

A \$3 million global research competition

FARE believes that “consistent innovation and advancements in medical and healthcare research and diagnostics, genetic research and biomarkers, information technology, clinical research and biotechnology have provided hope that researchers can finally break through and find a new solution for diagnosing food allergies.” Therefore, they have launched a global research competition “to motivate innovative researchers to develop a novel, safe and compassionate method to accurately diagnose food allergies in children and adults. The new solution will replace the oral food challenge as the best current method to diagnose or rule out food allergies.”

FARE is welcoming individuals and teams from around the world to form research consortia and compete. They expect researchers and innovators from food allergy and immunology, technology, biopharma and healthcare, as well as the venture and angel investor community. They are also encouraging those in adjacent disease categories to participate.

A \$1 million cash prize will be awarded to the team (or teams) that successfully designs a new gold standard diagnostic tool for food allergies. In addition, interim diagnostic advancements will receive interim cash awards from a total FAITH funding pool of \$3 million. The funds have been donated by individual and corporate benefactors, including FARE and Aimmune Therapeutics—Nestlé Health Science Partnership. The three-year competition, which began on March 25, 2021, will be completed in 2024. For more information, contact Bruce Roberts, PhD, FARE Chief Research Strategy and Innovation Officer, at broberts@foodallergy.org.

FASTER Act becomes US law

Passage of the Food Allergy Safety, Treatment, Education and Re-

search (FASTER) Act of 2021 has been FARE’s highest legislative priority. After making significant progress in the US Congress during 2020, the bill became law in March 2021.

In part, the new law requires that sesame be labeled as an allergen on packaged foods beginning January 1, 2023. FARE explained that currently, sesame is often used when a label reads “natural flavors” or “natural spices,” which can be confusing for consumers reviewing product labels and working to avoid allergens. Sesame will become the ninth food allergen for which the US Food and Drug Administration (FDA) requires plain-language labeling. It is also the first time since 2004 that a new allergen has been added to the [US] Food Allergen Labeling and Consumer Protection Act (FALCPA).

In addition, the FASTER Act “will require the Secretary of Health and Human Services (HHS) to issue a report on scientific opportunities in food allergy research that examines prevention, treatment and new cures. In addition, the law establishes a risk-based scientific process and framework for establishing additional allergens covered by the Federal Food, Drug and Cosmetic Act.”

“Today is a wonderful day for food allergy families like mine,” said Talia Day, in a FARE news release. Day is a mother of two children who are allergic to sesame and a strong advocate of the FASTER Act. “No longer will I have to live in fear that my children could accidentally eat something that would kill them simply because it was not included on a food label.”

References

Content for this article was based on and excerpted from:

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