



SPECIAL ANNOUNCEMENT:

HESI PATC **COM**prehensive **P**rotein **A**llergen **RE**source (COMPARE) Database Public Release

Washington DC, 10 March 2017,

The ILSI Health and Environmental Sciences Institute ([HESI](#)) Protein Allergenicity Technical Committee ([PATC](#)) is pleased to announce the release of the first iteration of the COMPARE (**COM**prehensive **P**rotein **A**llergen **RE**source) allergen database, a new allergen sequence data resource for public access.

HESI and the PATC intend for the COMPARE database to serve as a publicly accessible, transparent and reliable tool of excellence for assessment of potential protein allergenicity, as well as allergen identification by comparative analyses.

As genomic sequencing technology has become widespread, the number of sequences to be filtered when searching for potential allergens has grown exponentially, making it imperative that modern data handling methods be utilized to sort and identify information relevant for food safety. To address these contemporary needs, HESI PATC initiated a new project in 2016 aiming at implementing a precise, accurate and consistent mechanism to identify protein sequences that are “known” or “putative” allergens via:

1. the development of a cutting-edge, high-throughput, automated bioinformatics sorting algorithm;
2. the identification and collection of scientific information and publications related to individual identified sequences;
3. the scientific review of the collected information by an independent Peer Review Panel of recognized allergy experts from the public sector, who provide the final decision on sequence(s) inclusion in the database;
4. a public release of the database that includes an annual update that repeats steps 1-3 to capture newly identified allergens into the database. The update will be under the review of the independent Peer Review Panel that will reconvene each year for this purpose;
5. a quality control and documentation process that will ensure the integrity of the database and be included in a peer-reviewed publication describing COMPARE (currently under preparation).

Participating members in this effort include:

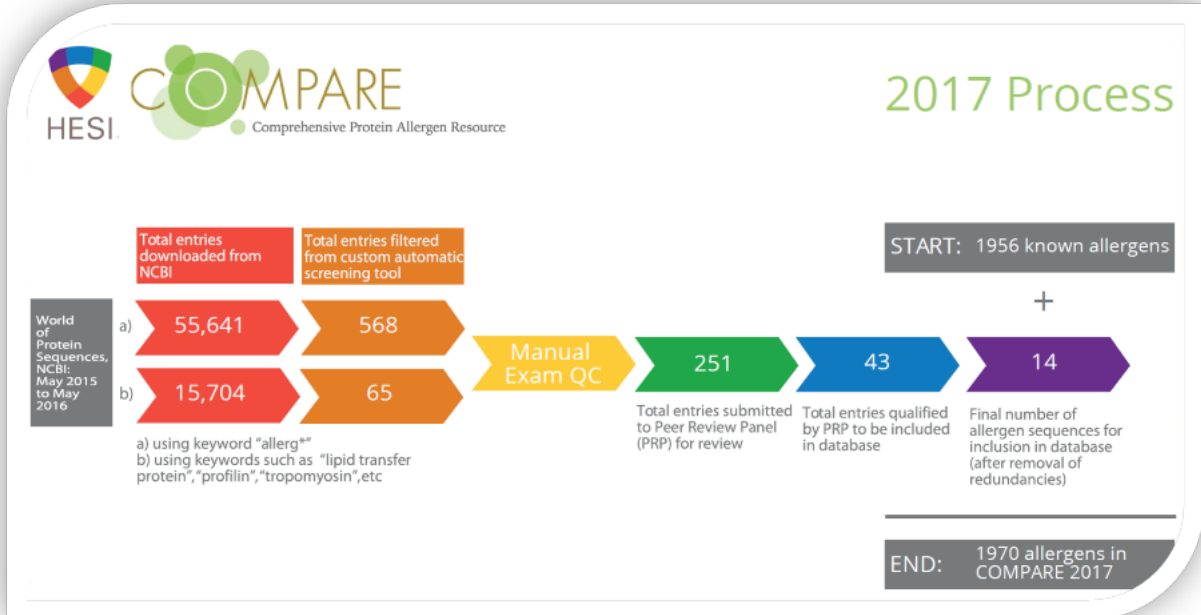
- a collaborative team of 20 multi-sector expert scientists in allergy research, bioinformatics, food safety assessment and regulatory science (across the EU and USA);
- a professional bioinformatics service provided by AccuraScience (www accurascience.com), to support the design of an automated computer-based filtering tool specific to allergens and the implementation of the resulting database;
- the Joint Institute for Food Safety and Nutrition (JIFSAN), established between the United States



Food and Drug Administration (FDA) and the University of Maryland (<http://jifsan.umd.edu>), which provides programmatic support and will include the COMPARE database in their FoodRisk.org website.

For a complete listing of steering team participants and independent peer-reviewers please visit the database website: www.comparedatabase.org.

A key goal for the COMPARE process is to meet contemporary needs for well-documented allergen database population criteria. Transparency is critical to the quality and scientific integrity of this tool. As such, all database design and search algorithm decisions will be publicly documented in the database website: www.comparedatabase.org. With this announcement, we are pleased to provide you with a preview of the 2017 process in the figure below.



HESI and the PATC are committed to COMPARE being a comprehensive database of known protein allergens. We recognize that it is critical to have a parallel commitment to continuously review and improve in a transparent manner the functionality and completeness of the database throughout the year.

TIMELINE: The COMPARE database was released to the public on 03 February 2017. A steering team has convened monthly since early 2016 to ensure that timelines, process, and resources are aligned. As of July 2016, the COMPARE custom sequence filtering algorithm was made available to the COMPARE



process and new sequences selected for peer review. The process of sequence screening, literature sourcing and peer-review was completed in the fourth quarter of 2016 before final assembly and release of the database. The new database is dated for use in 2017.

Who are HESI and PATC?

[HESI](#) is a global non-profit, scientific organization based in Washington, DC, whose mission is to engage scientists from academia, government, and industry to identify and resolve global health and environmental issues. Partners in HESI's scientific programs develop science by combining resources and expertise. One of the many working groups within HESI is the [PATC](#), which brings together a variety of scientists with a shared interest in improving the assessment of allergenicity in the context of safety evaluation.

We hope that you will find this resource a valuable tool for your use in the near future.

For additional information, questions or comments, please contact:

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