Session II Pitch 1

Periodic Table of Food Initiative: Unlocking Food Composition for Human and Planetary Health

Dr. Steven Watkins and Dr. Selena Ahmed Periodic Table of Food Initiative

Food is at the center of society's most pressing challenges and opportunities. The Periodic Table of Food Initiative (PTFI) is empowering a global ecosystem of collaborators with training and data tools to catalog the biomolecular composition of the world's edible biodiversity, enabling data-driven solutions to improve human and planetary health. For the first time in history, with advanced analytics and a global coordinated approach, we can imagine knowing the complete biomolecular profile of what is in food and, how this varies with environmental conditions and food system practices.

The PTFI provides standardized advanced analytical approaches and centralized data processing tools for a global ecosystem to catalog the biomolecular composition of the world's food supply. We are further enabling PTFI's ecosystem to provide robust food composition data through an open-access data platform with exploration tools for a variety of data users. Key principles of PTFI's approach include transparency regarding access and benefit sharing and fostering community-engaged research.

With comprehensive profiling of all biomolecules in food, along with where and how they were grown, the PTFI will enable stakeholders to develop evidencebased practices, programs, and policies to address challenges across the food system in ways that best support people and the planet.



Application of PTFI data for solutions across the food system Source: Ahmed et al. 2022. Frontiers in Nutrition DOI:10.3389/fnut.2022.874312