

Eric Simanek

Robert A. Welch Chair of Chemistry at Texas Christian University

Fort Worth, TX, US

Dr. Simanek's interests include whiskey, science education and basic scientific research aimed at the design of new medicines.

Biography

Simanek was born in Illinois surrounded by fields of corn that was intended for feed or alcohol. He studied biology and chemistry at the University of Illinois, taking a degree in the latter. He completed his Ph.D. under the direction of George Whitesides at Harvard before moving to the labs of Chi-Huey Wong at Scripps. Simanek started his independent career at Texas A&M University, where he rose through the ranks before moving to Texas Christian University as the Robert A. Welch Chair. He currently serves as chair of the department as well. His research focuses on using organic chemistry to create molecules that could positively impact human health. Areas of interest include cancer treatment, gene therapy and more recently, the design of novel drugs. Agencies that have supported his research include the National Institutes of Health, the National Science Foundation, the USDA, the FDA and DARPA.

Areas of Expertise

Medicinal Chemistry, Whiskey, Intellectual Property & Patent Management, Expert Witness, Interdisciplinary Education, Entrepreneurship Ed, Science Education, Higher Education, Higher Education Administration, Organic and Polymer Chemistry

Affiliations

TCU IdeaFactory - Founding/former director, Chair of Advisory Committee, Fort Worth Medical School Affiliated Faculty, Comparative Race & Ethnic Studies Affiliated Faculty, Women & Gender Studies Affiliated Faculty, American Chemical Society (ACS), American Association for the Advancement of Science (AAAS), International Association of Culinary Professionals (IACP)

Event Appearances

Whiskey lectures

The Science & History of Whiskey

Education

Harvard University

Ph.D.

The Scripps Research Institute
Post-doctoral Fellowship medicinal chemistry

University of Illinois- Urbana/Champaign
BS Chemistry chemistry and biology

Accomplishments

Science - Curing Prostate Cancer in Mice

In collaboration with researchers at UTSW, we have shown that our tree-shaped polymers can deliver drugs that 'cure' human prostate cancer in mice at doses equivalent to that of the clinical standard of care.

Science - Very large tree-shaped polymers

We have succeeded in making a single molecule, a polymer that is branched like a tree, that is as big as the viruses that cause the common cold. Achieving such dimensions, 30 nanometers across, are feats for chemistry.

Education - TCU IdeaFactory

The TCU IdeaFactory was created to allow students to pursue dreams of social action and/or entrepreneurship outside the scope of classes. Dr. Simanek was the founding director and now has transitioned to chair the advisory board.

Education - Whiskey Science & History

Dr. Simanek creates and teaches interdisciplinary courses including this one.

Education - Cerebral Palsy & Dance

Dr. Nina Martin included Dr. Simanek on her course to engage students in research to determine how much her movement intervention improved the lives of people living with CP.

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