

Profile Spotlight: **Peter G. Schultz**

Vivian Nguyen



Early Life and Education

- **1956:** Born on June 23, 1956.
- **1979:** B.S. in Chemistry from CalTech
- **1984:** Ph.D. in Chemistry from CalTech as well.
 - Completed thesis research under Peter Dervan for the generation of selective DNA binding and cleaving molecules.
- **1985:** Completed postdoctoral research at MIT
 - Worked under Christopher Walsh
- **1985:** Joined the faculty at UC Berkeley as a chemistry professor, PI at Lawrence Berkeley National Laboratory, and Investigator at the Howard Hughes Medical Institute
- **1999:** Joined Scripps Research Institute where he was a professor and was made CEO and President.

Research:

Schultz's focus is in biological chemistry where the study of existing molecules and processes are used to understand more complex biological and chemical mechanisms such as genetic codes, antibodies, amino acids, and DNA.

“Playing with the Molecules of Life” : Synthetic Biology

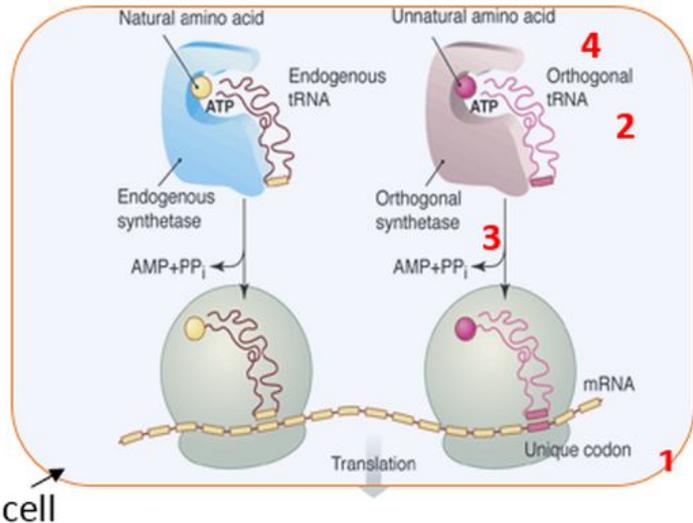


Figure 1: Structure-based design and in vitro evolution tools are used to reprogram the ribosomal machinery to expand genetic code

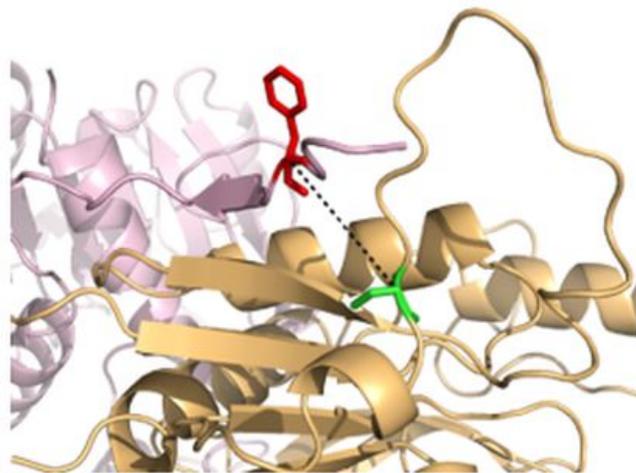


Figure 2: A noncanonical amino acid that stabilizes MetA from identified genetic selections

Research Significance and Current Results: “Cell-Based Screens to Identify Small Molecules with Novel Biological Activities”

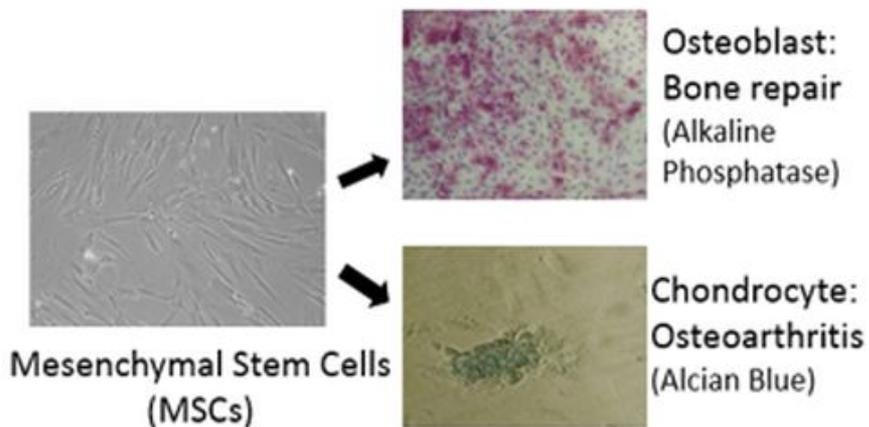


Figure 5: Small molecules that control the fate of endogenous multipotent stem cells

Targets Vimentin: A Mesenchymal Cytoskeletal Protein

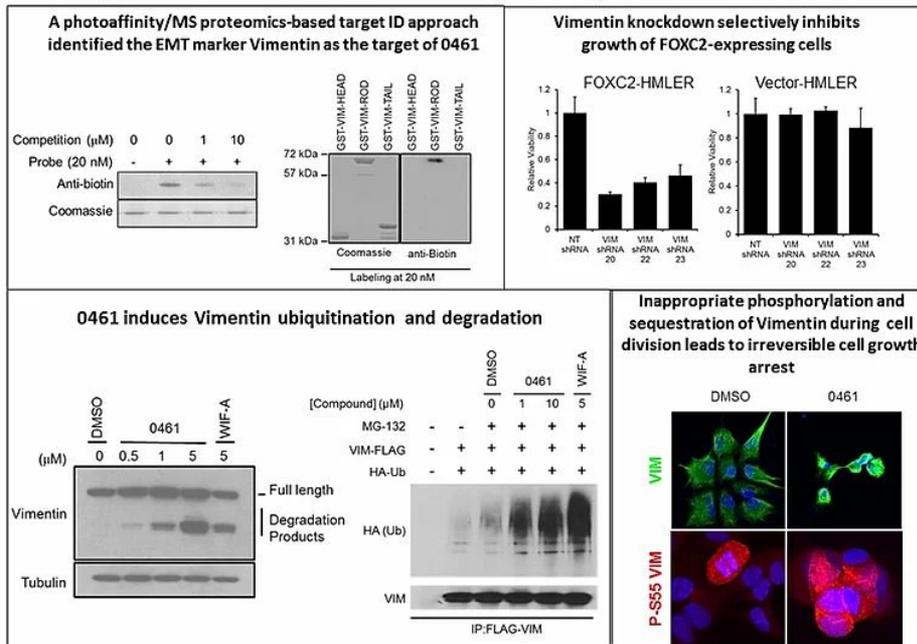


Figure 6: A small molecule block the epithelial to mesenchymal transition in tumor metastasis by binding vimentin

Foundings and Achievements

- **Schultz's research has led to the development and testing of medicines and treatment for neurodegenerative diseases, as well as autoimmune and infectious diseases.**
- **He has coauthored above 600 publications and helped train over 300 graduate students.**
- **Founded:**
 - **Genomics Institute of the Novartis Research Foundation**
 - **California Institute for Biomedical Research (Calibr)**
- **Awards:**
 - **Alan T. Waterman Award, National Science Foundation (1988),**
 - **American Chemical Society (ACS) Award in Pure Chemistry (1990)**
 - **Wolf Prize in Chemistry (1994)**
 - **Paul Ehrlich and Ludwig Darmstaedter Award (2002)**
 - **Solvay Prize (2013)**

Bibliography

- 1.) Peter G. Schultz Lab: Scripps Research: La Jolla, CA. <https://www.schultz.scripps.edu/> (accessed May 26, 2020).
- 2.) Scripps Research Institute. Scripps Research Institute Names Peter Schultz as CEO, Steve Kay as President. <https://www.prnewswire.com/news-releases/scripps-research-institute-names-peter-schultz-as-ceo-steve-kay-as-president-300145677.html> (accessed May 26, 2020).
- 3.) Peter G. Schultz. https://en.wikipedia.org/wiki/Peter_G._Schultz (accessed May 26, 2020).
- 4.) Solvay. The 2013 Prize : Solvay. <https://www.solvay.us/en/company/innovation/solvay-prize/laureate/index.html> (accessed May 26, 2020).