

MONTCLAIR STATE  
UNIVERSITY

MSU Sustainability Seminar Series and the Dreyfus Foundation  
Present:

# Challenges in developing new therapies for AIDS

WHEN: April 9, 4:00 pm WHERE: CELS 120 lecture hall

**Dr. Karen Anderson**  
**Yale University**



Karen S. Anderson is a Professor of Pharmacology and Molecular Biophysics and Biochemistry. She is involved in teaching undergraduates and graduate students about drug discovery and structure-based drug design. Dr. Anderson's research utilizes mechanistic enzymology and structure-based drug design. Her work focuses on understanding how enzymes, playing critical roles in such diseases as cancer and infectious diseases, including AIDS, work at a molecular level. She uses that information to develop new drug therapies. She has trained over 50 students and postdocs who have gone on to graduate - and medical schools as well as and successful careers in academia and industry.

The World Health Organization estimates that in 2018 almost 40 million people worldwide are infected with HIV. The most recent CDC report estimates that in the US over 1.2 million people are infected including about 13% who are unaware of their infections. With the development of antiretroviral therapy (ART), there has been much needed progress over the past decade. The continual emergence of drug resistance HIV variants and side effects of life long therapy necessitates the development of new therapies. Our work has centered upon the viral polymerase molecular target, HIV reverse transcriptase (RT). We are using mechanistic studies with computational and structural guidance to design more effective therapies that have improved therapeutic properties.

For more information contact Drs. Jaclynn Catalano ([catalanoja@montclair.edu](mailto:catalanoja@montclair.edu)) or Nina Goodey ([goodeyn@montclair.edu](mailto:goodeyn@montclair.edu))