

STAO 2005 PROGRAM ABSTRACT

DIMITRIOS MELEGOS

<http://biotrek.sitesled.com>

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Grades 11 & 12

Presentation/Demonstration

Biology

Best Practice

Demonstrating Enzyme Action Using Protein Electrophoresis (SDS-PAGE)

If you are tired of teaching enzyme action using the liver and hydrogen peroxide lab, then this is the session to attend. Initially this interactive session, will explore the fundamental principles, logistical aspects, and challenges in executing a protein electrophoresis (SDS-PAGE) lab. Additional SDS-PAGE activities will be introduced and placed into context for the biology curriculum. Participants will have the opportunity to interact with the speaker, and become acquainted with the protein electrophoresis instrumentation. Hints, tips, and optimization protocols will be discussed throughout the session in great detail, and they will be documented in the form of a handout. Participants will also have the chance to view student exemplars. This session will also focus on student misconceptions, and on the promotion of scientific literacy.

ABOUT THE PRESENTER:

Mr. Melegos is currently a science teacher at Dunbarton H.S., with the Durham District School Board. His teaching career started 6 years ago, by teaching high school science and math courses. Mr. Melegos was a former head of science for 3 years at G.L. Roberts C.V.I., and presently he is heading the science department at Dunbarton H.S. Prior to teaching, Mr. Melegos was a medical research associate with The Toronto Western Hospital, Mount Sinai Hospital, and The Hospital For Sick Children. He conducted research in the field of tumorigenesis, cancer monitoring & diagnosis, fetal development, and neurobiology for over 4 years with collaborators from the US, Europe, and Japan. Mr. Melegos has authored and published 22 original research manuscripts in various scientific journals. His educational research interests include the promotion of high school biotechnology, scientific literacy & numeracy, and space science. He has also been supportive in the development and maintenance of environmental programs at both G.L. Roberts C.V.I., and Dunbarton H.S. He is a member of the advisory board of the Durham's College biotechnology program. Mr. Melegos is an honorary member of the Canadian Space Program.