













The Oak Crest Institute of Science

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Introduction

The Oak Crest Institute of Science is a scientist run institute in Southern California where faculty use their research projects as a platform to teach laboratory skills to high school and community college students. The presentation will provide an overview of the diverse projects being carried out by this organization and highlight some of the resources open to this community.

Research

Basic research is the driving force of Oak Crest, where the researchers apply their projects to compete for federal and foundation grants. In fact, the major income source for the Institute are the research dollars. As a small institute, we are not encumbered by heavy administrative oversight, and thus we are nimble enough to rapidly mobilize our scientific and grantwriting skills to find the best opportunities for us. Our multiple projects include, but are not restricted to, sustained delivery of FDA-approved drugs, environmental chemistry, environmental microbiology, medical microbiology, virology, COVID-19 testing, synthetic and catalytic chemistry.

Services

Our Institute is rich in resources which we share with the local community, offering instrumentation and technical support to the non-profit and for-profit research community. Our imaging core, open for use by interested scientists, is augmented by analytical chemistry and microbiology services. We also host a biotechnology incubator space for small companies who require laboratory space, technical and legal support, financial backing, and grant-writing help. The companies not only gain access to Oak Crest's broad range of scientific equipment and expertise, but also to help in managing the administrative, regulatory and intellectual property aspects of a successful technology-based enterprise.

Education

Our research projects are used to offer undergraduate students authentic mentored research experiences. The students participate on the research projects with our researchers learning the language of science, developing the links with their mentors, and getting a sense of belonging to the scientific community. Students learn basic and advanced laboratory skills, as well as the principles of ethical research, safe laboratory practices, and how to efficiently communicate their knowledge.

The undergraduate students also train to be near-peer mentors, teaching each other as well as groups of high school students who work in the laboratories over the summer break. Our interns work with K-9 grade students, introducing them to STEM concepts, while also gaining confidence in their own skills and knowledge.







