Syllabus SIO 242B – Winter 2024

Marine Biotechnology

Instructors:

Paul Jensen (pjensen@ucsd.edu)

Bradley Moore (bsmoore@ucsd.edu)

Tuesday/Thursday 3:30 – 4:50 PM

Vaughan Hall 100

 (4 Units)

Date # Instructor Topic Speaker

**Jan 9 1 Jensen Introduction to biotechnology Paul Jensen (SIO)**

Jan 11 2 Moore Mass spectrometry technology Pieter Dorrestein (UCSD/SSPPS)

*Jan 16 3 Jensen Industry relations Vanessa Scott (SIO)*

Jan 18 4 Moore Marine enzymes in biotech Bradley Moore (SIO)

*Jan 23 5 Jensen Deep-sea microbiology Doug Bartlett (SIO)*

Jan 25 6 Moore Genomes and other omics Todd Michael (Salk)

*Jan 30 7 Jensen Genomatica John Trawick*

Feb 1 8 Moore Algae biotechnology Stephen Mayfield (UCSD)

*Feb 6 9 Jensen BluNalu Lauran Madden*

Feb 8 10 Moore Intellectual property & patents Skip Cynar (UCSD Innovation)

*Feb 13 11 Jensen HABS research at SCCOOS Clarissa Anderson (SIO)*

Feb 15 12 Moore Marine models in medicine Emma Farley (UCSDSOM)

*Feb 20 13 Jensen SCCWRP John Griffith*

Feb 22 14 Moore Plant biotechnology Joseph Noel (Salk)

*Feb 27 15 Jensen Omics at NOAA Kelly Goodwin (NOAA)*

Feb 29 16 Moore Biotech start up Peter Jordan (Lassogen)

*Mar 5 17 Jensen BASF Xuqiu Tan BASF)*

Mar 7 18 Moore Marine natural products William Fenical (SIO)

Mar 12 19 TBN Algal biotech Lisa Ziegler (SIO)

Mar 14 20 TBN Neuroscience Nathan Shaner (Neurosci)

Final: TBA

SIO242B is a graduate level course in marine biotechnology. It is designed to provide exposure to diverse aspects of industrial and academic biotechnology. Speakers will provide perspectives on their career development in addition to specifics about their field of research. The course aims to provide a broad perspective on career opportunities in biotechnology along with a practical understanding of what is involved in starting a biotechnology company. Each student will be required to develop a concept for a biotechnology start-up company and write an SBIR-style NIH grant application, which will be due the last week of class. The final exam will consist of 10-minute oral presentations describing the concepts behind each company.

Grading: attendance and participation in discussions (20%), SBIR/NIH application (50%), oral presentation (30%).

Title IX Statement

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