

Syllabus SIO 242B – Winter 2016
 Marine Biotechnology
 Instructors:
 Paul Jensen (pjensen@ucsd.edu)
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 Tuesday/Thursday 9:30 – 10:50 AM
 Vaughan Hall 300
 (4 Units)

Date	#	Instructor	Topic	Speaker (organization)
Jan 9	1	Jensen	Introduction to biotechnology	Jensen (SIO)
Jan 11	2	Jensen	Algal biotechnology	Greg Mitchell (SIO)
Jan 16	3	Jensen	Antibiotic discovery	Joe Pogliano (UCSD)
Jan 18	4	Jensen	Commercialization	Gwen Nero (SIO)
Jan 23	5	Jensen	Microbiome research	Austin Swafford (CMI/UCSD)
Jan 25	6	Fenical	History of Marine Natural Products	Bill Fenical (SIO)
Jan 30	7	Fenical	Marine pollution and human health	Eunha Ho (SDSU)
Feb 1	8	Fenical	Career transitions	Barbara Potts (XXXX)
Feb 6	9	Jensen	Nanotechnology	Mark Hildebrand (SIO)
Feb 8	10	Jensen	Detecting pathogens	John Griffith (SCWRRP)
Feb 13	11	Jensen	New methods to monitor microbes	Kelley Goodwin (NOAA)
Feb 15	12	Jensen	Sequencing technologies/bioinformatics	Todd Michell (JCVI)
Feb 20	13	Jensen	Drugs from the sea	Ed Esquinazi (Sirenas)
Feb 22	14	Fenical	Research at Sea	Bruce Applegate (SIO)
Feb 27	15	Fenical	Starting a biotech company	Paul Jensen (SIO)
Mar 1	16	Fenical	Antifungal drug discovery	Jeff Stein (XXXX)
Mar 6	17	Bartlett	Extremophiles	Doug Bartlett (SIO)
Mar 8	18	Bartlett	Technology transfer	Lubo Isakovic (UCSD)
Mar 13	19	Fenical	Research and teaching in the CSU system	Jackie Trishman (CSSM)
Mar 15	20	Fenical	Biotechnology in the skin care industry	Mike Garst (XXXX)

Finals weeks Mar 17-24

SIO242B is the second installment of a graduate level course in marine biotechnology. While SIO242A focused more on practical applications of biotechnology, this follow-up course is designed to provide exposure to diverse aspects of industrial and academic biotechnology. Speakers will provide perspectives on 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. In this regard, 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%), SIBR/NIH application (50%), oral presentation (30%).

Title IX Statement

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