

GYNECOLOGY AND OBSTETRICS

Chair: Mary Lake Polan (on leave Autumn, Winter)

Acting Chair: Maurice Druzin (Autumn, Winter)

The Department of Gynecology and Obstetrics does not offer degrees; however, qualified medical, graduate, or undergraduate students with an interest in basic research in reproductive biology may apply to arrange individual projects under the supervision of the faculty. The focus for the Division of Reproductive Biology is the study of molecular and cellular biology of the male and female reproductive organs.

COURSES

88Q. Learning the Language of the Cell: How Cells Communicate with Each Other—Introduction to signaling and the molecular mecha-

nisms that mediate cell-cell communication through lectures/reviews of the primary literature. Topics: the basic concepts of the integration of cell function in multicellular organisms; the chemical nature of extracellular signals; the basic concepts of reception, signals transduction, and protein phosphorylation; autocrine, paracrine, and endocrine communications. Emphasis is on cell-cell interactions in reproductive organs, cell adaptation, sensory reception, sperm/egg signaling during fertilization, chemotaxis, cell surface recognition, and examples of disease caused by disruption of cell-cell communication. The commonly used experimental approaches, including available molecular, genetic, and cell biology tools. Students design experiments addressing selected topics in cell signaling. Prerequisite: one or more quarters of Biological Sciences core.

3 units, Spr (Conti)