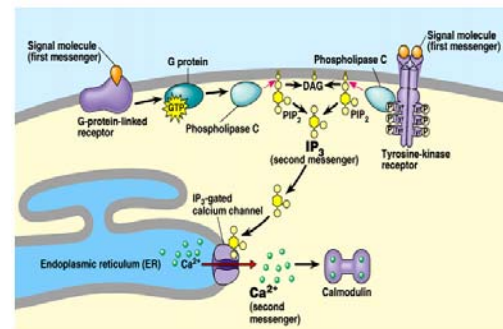
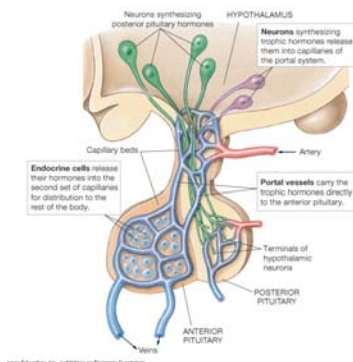
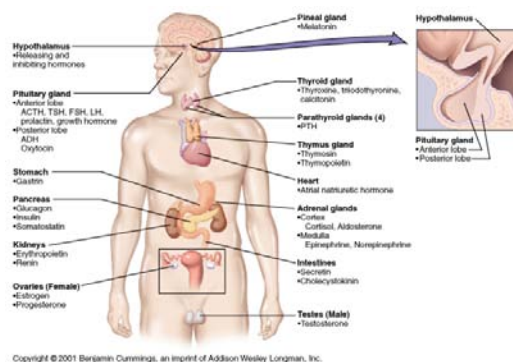


# Endocrinology 3151 Spring 2007

## Dr. Philip Osdoby



The goal of the course is to give you an overview of how cells communicate, how different cells in the same tissue and organ may interact, and how organs integrate with each other to permit the organism to survive, reproduce, and function. The field of endocrinology, our understanding of how cells communicate and the cell and molecular events associated with cell signal transduction processes are advancing at light speed. The last fifty plus years have seen enormous strides in the basic science (fundamental mechanisms) and clinical applications of this expanding knowledge. There are also provocative social benefits and controversial issues that center around past and ongoing discoveries in the discipline of Endocrinology.

The course is designed to "attempt " to integrate anatomy, histology, physiology, and cell and molecular biology so you have a greater appreciation for the complexity and elegance of life. The material should satisfy those interested in the course as a result of their innate curiosity. It may also stimulate a few of you considering academic or industrial research careers to explore areas directly or indirectly related to Endocrinology. Likewise, Endocrinology should help lay a foundation for understanding the complexity of physiological events for individuals considering Medical careers.

It would be difficult, if not impossible, to provide you with a complete course in comparative endocrinology. Each species has its own set of unusual endocrine personalities. The focus of the course will center on human systems with the understanding that much of what has been learned comes from animal experimental models. This is not necessarily the best approach for the course but represents a more realistic strategy. Examples of interesting endocrine behavior in select species will be introduced and discussions on endocrine evolution, pathology, and current events will be dealt with. We will also explore how modern molecular and genetic engineering tools have impacted on the field. I also hope that the course will be enjoyable.

There is a great deal to explore and learn but I need your assistance in making this an interactive and rewarding experience for all of us. Endocrinology, like other areas is founded on good, thoughtful, experimental design. In addition to understanding fundamental concepts of hormone function and action, cell communication, homeostasis etc an additional goal will center on stimulating you to think creatively and analytically. Warning! some thinking will be required! Therefore, if you wish to exercise your mind it is to your advantage to come to class having already run through the reading assignment.

The main text book for the course is entitled ***ENDOCRINOLOGY Basic and Clinical principles*** by Melmed and Conn (2<sup>nd</sup> Edition). The reading assignment on the syllabus lists the reading in this text but I

