TAU Online
Innovative Learning Center
Tel Aviv University

Lesson 3
Leading Scientists & Experts

SUB-SECTION	NAME	BORN - DIED	NOBEL PRIZE	MAIN EXPERTISE	IMAGE
3.1	**Aaron Ciechanover**	October 1 1947	2004	▪ Aaron Ciechanover together with his PhD mentor Avram Hershko discovered the biological system which is responsible for degrading proteins in the cells of our body. ▪ Along with Irwin Rose they demonstrated that protein degradation is a multistep process; Unbiquitin, a small protein tag, is attached to the target protein which is then identified by the proteasome. ▪ The proteasome cuts the protein into small pieces that are recycled into their amino acid building blocks. The	

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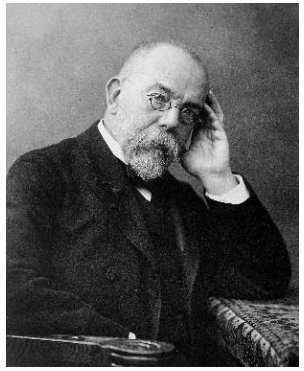
				understanding of the molecular mechanisms underlying protein degradation has led to the rational design of new anti-cancer therapeutics. ▪ He received the Nobel Prize in Chemistry in 2004	
3.2	**Robert Koch**	December 11 1843 – May 27 1910	1905	▪ Robert Heinrich Hermann Koch, was a German physician and a pioneer in the field of microbiology. ▪ Koch played a vital role in the identification of the pathogenic agents of Anthrax, Cholera and Tuberculosis. ▪ With the vast experience he accumulated over the years he was able to formulate four generic rules known as "Koch's Postulates":	

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				1. The specific pathogen must be found in abundance in every case of the disease. 2. The pathogen must be isolated and grown in pure culture. 3. The disease is reproduced when a healthy susceptible host is inoculated with the pure culture. 4. The same pathogen can be recovered from the experimentally infected host. ▪ These "Koch's Postulates" are used, even to this day, to ascertain the cause of many infectious diseases. ▪ He received the Nobel Prize in Physiology or Medicine in 1905	