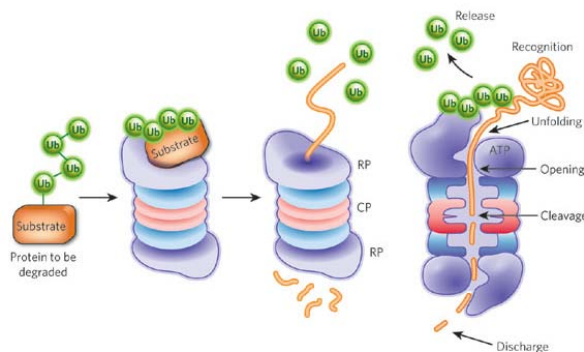


We are looking for BSc /MSc students for a cutting-edge research project!

Proteomics Center | Erasmus MC Rotterdam

Project background | The proteasome is a huge multi-subunit protein degradation machinery in the cell. It degrades damaged proteins by proteolysis. Proteasomes are part of a major mechanism by which cells regulate the concentration of particular proteins and degrade misfolded proteins. The degradation process yields peptides that can then be further degraded into amino acids and used in synthesizing new proteins. Proteins are tagged for degradation with a small protein called ubiquitin. The tagging reaction is catalyzed by enzymes called ubiquitin ligases, resulting in a polyubiquitin chain that is bound by the proteasome, allowing it to degrade the tagged protein.



What are you going to do? | In our lab, we study the proteasome by using combinations of biochemical and cell biological methods, and state-of-the-art mass spectrometry based quantitative proteomics (SILAC). In this project the role of the individual components of the proteasome will be studied by monitoring the quantitative and qualitative changes in the global proteome that occur after selective removal of each individual component by RNAi.

What are we looking for? | We are looking for motivated BSc or MSc students in Chemistry, (Medical) Biology, Biotechnology, Life Sciences or any related field, who are available for an internship of at least 6 months. A background in cell biology and biochemistry and/or analytical chemistry (preferably mass spectrometry) is recommended.

What's in it for you? | In this research project you will learn modern mass spectrometry based proteomics techniques (nLC-MS) and get the opportunity to work with the most recent high-end mass spectrometers yourself. In addition, you will become familiar with biological and biochemical approaches and cell culturing to study proteasome (dys)functioning. Together, this will provide you with a solid background and expertise that will be very useful for your further career, in science or in industry. Obviously, there is the opportunity to (co-)publish the work if it turns out to be successful.

Interested? | Please send your CV and a motivation letter to Dr. Jeroen Demmers (j.demmers@erasmusmc.nl). For more information visit our website www.proteomicscenter.nl.