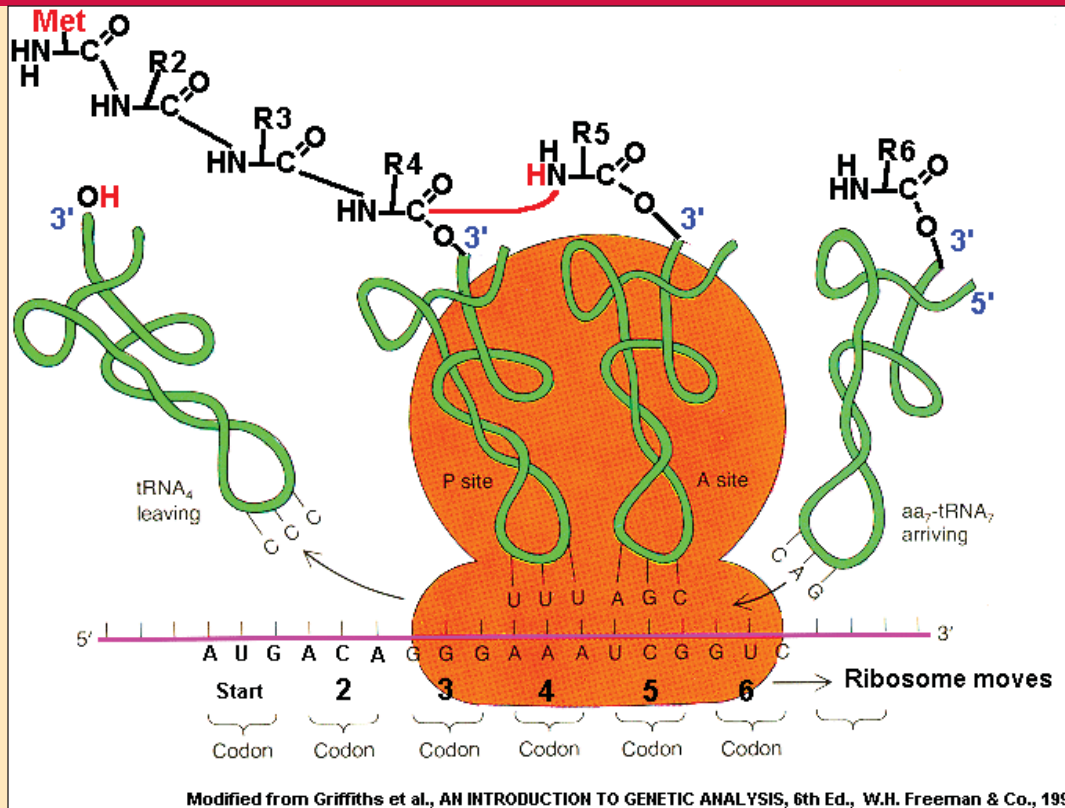


# computer science BIOINFORMATICS LAB

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## Faculty

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The bioinformatics group is trying to understand the mechanisms underlying protein production in living organisms. Using methods from signal processing, information theory, and statistics, we are developing computational models of the physical processes involved in protein synthesis.

Textbook explanations of protein synthesis are good for identifying the key molecules involved in this process, but they do not describe, in any significant detail, how these molecules interact. This is similar to knowing the cast of characters in a movie, but not watching the film. Our goal is to fill in the gaps in our understanding of how cells create proteins by using computer models based on experimental data and our proposed mechanisms. We hope that the knowledge gained from our work will allow us to optimize genetic constructs so a cell can efficiently create its protein products.