



A century with the Michaelis-Menten equation.

Agustin López Munguía
Instituto de Biotecnología, UNAM

This year, 2013, we are celebrating the publication of one of the most important scientific reports in biochemistry: “*Die kinetik der Invertinwirkung*” in the German journal: *Biochemische Zeitschrift*, by Leonor Michaelis and Maud Leonora Menten, presenting the now famous Michaelis-Menten equation, still used to describe the behavior and catalytic properties of enzymes, such as substrate affinity, turnover number and catalytic efficiency. Since 1913, the Michaelis and Menten names are repeated year after year in thousands of classrooms and laboratories all over the world in basic biochemistry courses.

After one century of such an important contribution and as a modest tribute to these two illustrious biochemists, in this lecture we will remember their lives and their stories, their scientific careers and their circumstances, and of course: their equation. We will try to reconstruct some of the circumstances regarding the successful event, by answering a few questions:

- Who were Leonor Michaelis and (Maude) Leonora Menten?
- What were their scientific contributions?
- How did this contribution affect their lives?
- What previous reports were the bases for their contribution?
- What was the role of scientists such as G.E. Briggs y J.B.S. Haldane in the construction of their model?
- Is the contribution of H. Lineweaver and D. Burk equally valuable?
- How can we explain that with so many reaction restrictions, as well as experimental and theoretical criticism, the Michaelis Menten kinetic model is still a key tool to describe enzyme behavior?
- What is currently a modern strategy to describe the behavior of an enzyme?

reference to the human beings involved in this discovery, starting by asking ourselves: why not refer to this equation as the Leonora and Leonor model?

We will address the description of enzyme behavior not as in a classical biochemistry course, but instead, with a permanent