Development of an in vitro testing platform to study multicellular interaction

Research emphasis:
Dr. Mora's interests center on exploring innovative platforms to further understand the dynamics of cellular cross-talking involved in the wound healing process. Our research focuses on three main components: cellular engineering, in vitro testing platforms, and biomaterial improvements. The cellular engineering component involves the use of CRISPR/Cas9 as gene editing tool to generate cell reporter lines. In vitro testing platforms are centered on the development of an adequate optical microdevice to monitor the cell reporter lines. Lastly, biomaterial improvements are proposed and tested based on the enhancement of the antimicrobial properties.

Applications:
- Generation of cell reporter lines
- Antimicrobial materials for medical use
- Optical devices for in vitro assessment of new therapies
- Microdevices for in vitro characterization of cellular interactions

Research Strengths:
- Epigenetics
- Molecular biology
- Antimicrobial materials
- Cytotoxicity assessment

Publications and Abstracts:

