



University of Stuttgart

Stuttgart Research Center Systems Biology



Ubiquitination at the crossroad of cell death and inflammation in health and disease

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**28.05.2025
10:00 CET**

**Lecture Hall 0.106
Allmandring 31
Stuttgart**

**Systems Biology
Seminar Talk**

**Inaugural
Lecture**

Abstract:

Ubiquitination, a versatile post-translational modification, plays a central role in regulating immune responses and cell fate decisions. Acting as a molecular switch, distinct ubiquitin linkages orchestrate signaling cascades that balance inflammation and programmed cell death. Among these, linear (M1-linked) and K63-linked ubiquitin chains are pivotal in modulating NF- κ B and MAPK pathways, ensuring appropriate immune activation while preventing unwarranted cytotoxicity. Dysregulation of ubiquitin-mediated signaling, particularly involving E3 ligases like LUBAC, underlies a spectrum of inflammatory and degenerative diseases, including autoimmune disorders, cancer, and metabolic syndrome. My lab focuses on understanding how specific ubiquitination events at the interface of inflammation and cell death maintain tissue homeostasis—and how their disruption contributes to pathogenesis. Understanding this crosstalk opens new avenues for therapeutic targeting in diseases driven by chronic inflammation and cell death.

CV:

Degree program:

2005-2007: Master thesis (Research traineeship), La Plata University, Argentina and Institut Nationale de la Recherche Agronomique (INRA), Toulouse, France

2000-2006: Degree in Biotechnology, Quilmes University, Buenos Aires, Argentina

Doctorate:

2012: PhD in Life Science, University of Lausanne, Switzerland; supervisor: Christian Widmann

Stages of academic/professional career:

Since 2025: Department of Genome Editing, Institute of Biomedical Genetics, University of Stuttgart, Germany

2019-2024: Junior Group Leader at University of Cologne, Department of Translational Genomics (CCG), Cologne, Germany

2012-2019: Postdoctoral Fellow, UCL Cancer Institute, London, UK

2005-2007: Internship, Institut National de la Recherche Agronomique (INRA), Paris, France