

SHORT BIOSKETCH

I am the head of a translational research group at the interface between tumor biology, lung physiology and bioengineering at the School of Medicine at the University of Barcelona (UB). I am also an associate group at the Institute of Bioengineering of Catalonia (IBEC, 2019-present), and a core scientist of the Functional Unit of Thoracic Tumors at HCB and of the CIBERES. I graduated in Physics at the UB, where I obtained a Ph.D. in Cell Biophysics and Nanobioengineering in 2002. From 2002 until 2007 I was a joint postdoc at the Tumor Biology Lab of Dr Mina J Bissell at the Lawrence Berkeley National Laboratory and the Single Molecule Biophysics Lab of Prof Carlos Bustamante at UC Berkeley. During my postdoc I studied how biophysical cues from the tissue microenvironment control differentiation and cancer progression. In 2007 I was recruited as an assistant professor at the School of Medicine at the UB, where I started in 2010 an independent group to study lung cancer and pulmonary fibrosis in collaboration with lung oncologist Dr Noemi Reguart and neumologist Dr Antoni Xaubet (deceased in 2018) at Hospital Clínic de Barcelona (HCB). I pioneered the study of tumor-associated fibroblasts (TAFs) in lung cancer in Spain by gathering the first collection of patient-derived TAFs, which has been used in 15 publications and 6 PhD theses (3 ongoing). My work has revealed that TAFs exhibit an aberrant myofibroblast-like phenotype depending on the histologic subtype, and has identified novel therapeutic strategies and clinically-relevant biomarkers against the tumor-promoting traits of TAFs. These findings have drawn the interest of the pharmaceutical industry, which has elicited numerous research grants. In 2016 I became tenured associate professor of the Serra-Hunter Programme of the Catalan Government (equivalent to 'Profesor Titular').