



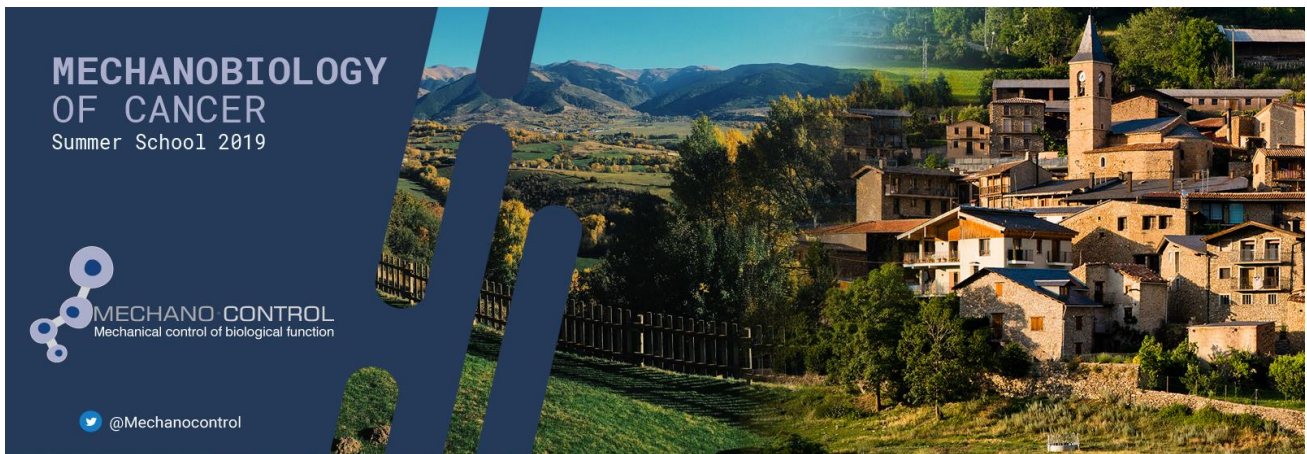
Programme: Mechanobiology of Cancer Summer School

Day 1 – 18th September

Focus on mechanics

Chairs: Xavier Trepât and Marino Arroyo

	<p>Short Talks</p>
09:45 – 10:00	Leda Lacaria - <i>Mechanical properties and structure of cortical cytoskeleton in micropatterned breast cancer cells</i>
10:00 – 10:15	Yago Juste - <i>The role of barotaxis in cancer cell migration</i>
10:15 – 10:30	Jorge Barrasa - <i>Enhancing the accuracy of 3D traction force microscopy by means of a physics-based inverse method</i>
	<p>Short Talks</p>
11:15 – 11:30	Ryan Murphy - <i>An individual-based mechanical model of cell movement in heterogeneous tissues and its coarse-grained approximation</i>
11:30 – 11:45	Julia Eckert - <i>Approach to measure the Intracellular Stress of Cell-Cell Junctions</i>
11:45 – 12:00	Sarah Boyle - <i>Compressive forces in breast cancer activate RHO/ROCK-mediated cellular processes downstream of mechanosensitive ion channels</i>
12:00 – 12:15	Pau Guillamat - <i>Spiral and aster defects in monolayers of cells under confinement</i>



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Day 2 – 19th September

Focus on invasion and cancer progression
Chairs: Johan de Rooij and Patrick Derksen

	Short Talks
09:45 – 10:00	Jennifer Young - <i>Assaying ECM-conferred chemoresistance on orthogonal gradient hydrogel systems</i>
10:00 – 10:15	Inés Velázquez-Quesada - <i>Pranlukast antagonizes CD49f and reduces stemness in the MDA-MB-231 triple-negative breast cancer cell line</i>
10:15 – 10:30	Isabelle Bourgot - <i>Impact of cancer associated fibroblasts-derived cathepsin B on breast cancer progression</i>
	Short Talks
11:15 – 11:30	Karin Jansen - <i>Basal-like breast cancer cells direct invasion by modulation of the extracellular matrix</i>
11:30 – 11:45	Julian Eschenbruch - <i>Cell force-mediated breast cancer invasion is attenuated by basement membrane integrity</i>
11:45 – 12:00	Thomas Waring - <i>Interrogation of acto-myosin mediated nuclear force coupling</i>
12:00 – 12:15	Ignacio Viciano - <i>Computational Modelling of the Cell Adhesive Interactions and Search of Small Molecule PPI Inhibitors as a Potential Cancer Drugs</i>



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Day 3 – 20th September

Focus on mechanosensing

Chairs: Aránzazu del Campo and Sergi Garcia-Manyes

Short Talks	
09:45 – 10:00	Jenny Kechagia - <i>The Integrin β4-keratin link impairs mechanosensing by protecting the nucleus from mechanical loading</i>
10:00 – 10:15	Andrew Holle - <i>Interplay between the nucleus and the cytoskeleton during self-directed breast cancer cell confined migration</i>
10:15 – 10:30	Apeksha Shapeti - <i>Quantifying 3D invasion and matrix deformations around CCM-2 depleted angiogenic sprouts highlights the role of mechanics in CCM</i>
Short Talks	
11:15 – 11:30	Magnus Bauer - <i>Structural and mechanistic insights into mechanoactivation of Focal Adhesion Kinase</i>
11:30 – 11:45	Lorna Young - <i>Beta-pix and Myosin-18a are essential for adhesion-nucleus coupling required for breast cancer cell invasion</i>
11:45 – 12:00	Santosh Phuyal - <i>Spatiotemporal signalling of Rac1 at the endomembranes</i>
12:00 – 12:15	Ariadna Marín - <i>Linking epithelial size tension and pressure in curved epithelial monolayers</i>