



UNIVERSITÀ
di VERONA

Dipartimento
di BIOTECNOLOGIE



Seminar

Thurs. May 16th, 2024 at 4:30 p.m. – Room T.04 Ca' Vignal 3

“Biomedical applications of supramolecular chemistry”

Properly functioning cell-instructive biointerfaces are critical for healthy integration of biomedical devices in the body and serve as decisive tools for the advancement of our understanding of fundamental cell biological phenomena. Covalent chemistries to fabricate cell-instructive biointerfaces typically result in a static presentation of pre-defined cell-instructive cues. Chemically defined, but dynamic cell-instructive biointerfaces introduce spatiotemporal control over cell-instructive cues and present another type of biointerfaces, which promises a more biomimetic way to guide cell behavior. Therefore, strategies that offer control over the lateral sorting of ligands, the availability and molecular structure of bioactive ligands and strategies that offer the ability to induce physical, chemical and mechanical changes in-situ are implemented in cell-instructive interfaces. We use the novel biointerfaces to deepen our understanding of molecular and cellular biological processes investigating cell type specific responses and we undertake the translational steps towards targeted in-vivo applications.

Prof. Dr. Ir. Pascal Jonkheijm

University of Twente, Enschede, The Netherlands
Department of Molecules and Materials

Pascal Jonkheijm earned his Ph.D. in macromolecular chemistry from the University of Eindhoven (Netherlands) with Profs. E.W. Meijer and A.P.H.J. Schenning and stayed as an Alexander-von-Humboldt fellow in the Chemical Biology department of Prof. H. Waldmann (Germany, MPI for Molecular Physiology). He is currently a full professor at the University of Twente leading the Laboratory of Biointerface Chemistry in the Molecules and Organ-on-Chip Centres. He received the 2018 Gold Medal of the Royal Netherlands Chemical Society. Present research interests include cell-instructive biointerfaces, self-assembly, cell-surface interactions, and biomimetics. He co-founded Lipocoat B.V., a high-tech start-up that commercializes bio-inspired coatings for medical devices.

Local Organizer: Prof. Roberto Fiammengo roberto.fiammengo@univr.it

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