Zeynep Altintas appointed to a full professor in Kiel

Start Time: Wednesday, June 22, 2022

End Time:

Dr. Zeynep Altintas, prior associated member of UniSysCat and situated at the Technische Universität Berlin, has accepted the appointment to the W3 professorship in Biomaterials at the Faculty of Engineering at Christian-Albrechts-Universität zu Kiel and started at her new position as of May 1st. Her main research interest is the design and synthesis of functional biomaterials, to facilitate their use in medical, food, and environmental diagnosis. Therefore, she utilizes these biomaterials as target-specific receptors in multiple applications in analogy to the active sites of highly selective enzymes. In order to design and manufacture highly efficient receptors and diagnostics tools she aims for the understanding of the (intra)molecular interactions of biological molecules and the respective interactions with such smart materials. To reach this goal she combines innovative experimental and computational approaches to develop high-throughput diagnostics technologies.

Her interdisciplinary research has led to a new direction in molecular imprinting and epitope-mediated biosensors for medical diagnosis. Her established computational strategy provides highly specific and selective protein binders by eliminating unsuitable epitopes and paves the way for designing stable and efficient protein binders for the research disciplines that require recognition receptors.

Some related highlights of her work are listed below.

Z. Altintas, A. Takiden, T. Utesch, M.A. Mroginski, B. Schmid, F.W. Scheller, R.D. Süssmuth. "Integrated approaches toward high-affinity artificial protein binders obtained via computationally simulated epitopes for protein recognition", *Advanced Functional Materials*, 29 (15): 1807332, 2019. https://doi.org/10.1002/adfm.201807332 - *Cover of the journal*

R. Tchinda, A. Tutsch, B. Schmid, R. Süssmuth, Z. Altintas, "Recognition of protein biomarkers using epitope-mediated molecularly imprinted films: Histidine or cysteine modified epitopes?" Biosensors and Bioelectronics, 123: p. 260-268, 2019. https://doi.org/10.1016/j.bios.2018.09.010 - *Invited special issue paper.*

J. Drzazgowska, B. Schmid, R.D. Süssmuth, Z. Altintas. "Self-assembled monolayer epitope bridges for molecular imprinting and cancer biomarker sensing". *Analytical Chemistry*, 92(7): p.4798-4806, 2020. https://doi.org/10.1021/acs.analchem.9b03813

A. F. T. Waffo, C. Yesildag, G. Caserta, S. Katz, I. Zebger, M. C. Lensen, U. Wollenberger, F. W. Scheller, Z. Altintas. "Fully electrochemical MIP sensor for artemisinin" *Sensors and Actuators B: Chemical* 2018, 275, 163–173, 10.1016/j.snb.2018.08.018