

## E2.4 (C. Franz)

- [E2.4:1] C.M. Franz and P.-H. Puech, *Atomic force microscopy – a versatile tool for studying cell morphology, adhesion and mechanics*, Cell. Mol. Bioeng. **1**, 289 (2008)
- [E2.4:2] \* F. Klein, T. Striebel, J. Fischer, Z. Jiang, C.M. Franz, G. von Freymann, M. Wegener, and M. Bastmeyer, *Elastic Fully Three-dimensional Microstructure Scaffolds for Cell Force Measurements*, Adv. Mater. **22**, 868 (2010)
- [E2.4:3] \* S. Engin, V. Trouillet, C.M. Franz, A. Welle, M. Bruns, and D. Wedlich, *Benzylguanine Thiol Self-Assembled Monolayers for the Immobilization of SNAP-tag Proteins on Microcontact-Printed Surface Structures*, Langmuir **26**, 6097 (2010)
- [E2.4:4] R. Gruschwitz, J. Friedrichs, M. Valtink, C.M. Franz, D.J. Muller, R. Funk, and K. Engelmann, *Alignment And Cell-Matrix Interactions Of Human Corneal Endothelial Cells On Nanostructured Collagen Type I Matrices*, Invest. Ophthalmol. Vis. Sci. **51**, 6303 (2010)
- [E2.4:5] ‡ C. Zeltz, S. Brezillon, J. Kapyła, J.A. Eble, H. Bobichon, C. Terryn, C. Perreau, C.M. Franz, J. Heino, F.X. Maquart, and Y. Wegrowski, *Lumican inhibits cell migration through alpha2beta1 integrin*, Exp. Cell Res. **316**, 2922 (2010)
- [E2.4:6] \* F. Klein, B. Richter, T. Striebel, C.M. Franz, G. von Freymann, M. Wegener, and M. Bastmeyer, *Two-component Polymer Scaffolds for Controlled Three-dimensional Cell Culture*, Adv. Mat. **23**, 1341 (2011)
- [E2.4:7] S. Ulbrich, J. Friedrichs, M. Valtink, S. Murovski, C.M. Franz, D.J. Müller, R.H. Funk, and K. Engelmann, *RPE Cell Alignment on Nanostructured Collagen Matrices*, Cells Tissues Organs **194**, 443 (2011)
- [E2.4:8] C.M. Franz and A. Taubenberger, *AFM-Based Single-Cell Force Spectroscopy*, in: Atomic Force Microscopy in Liquid: Biological Applications, Wiley-VCH, (2012)
- [E2.4:9] C.M. Franz, *Applications of Atomic Force Microscopy and Single-Cell Force Spectroscopy in Cell Adhesion*, Microscopy and Analysis **26**, 12 (2012)
- [E2.4:10] J. Friedrichs, A. Taubenberger, S. Wegmann, D.A. Cisneros, C.M. Franz, and D.J. Müller, *Biofunctionalization of Surfaces Using Ultrathin Nanoscopic Collagen Matrices*, Bio and Nano Packaging Techniques for Electron Devices: Advances in Electronic Device Packaging, Springer (2012)
- [E2.4:11] \* L. Dao, U. Weiland, M. Hauser, I. Nazarenko, H. Kalt, M. Bastmeyer, and C.M. Franz, *Revealing Non-genetic Adhesive Variations in Clonal Populations by Comparative Single-Cell Force Spectroscopy*, Exp. Cell Res. **318**, 2155 (2012)
- [E2.4:12] C.M. Franz, *Studying the Cytoskeleton by Atomic Force Microscopy Atomic Force Microscopy in Nano Biology*, Pan Stanford Publishing, In Press (2013)
- [E2.4:13] T. Gudzenko and C.M. Franz, *Inverting adherent cells for visualizing ECM interactions at the basal cell side*, Ultramicroscopy **128**, 1 (2013)
- [E2.4:14] ‡ F. Badique, D.R. Stamov, P. Davidson, M. Veuillet, G. Laurent, G. Reiter, J.N. Freund, C.M. Franz, and K. Anselme, *Directing nuclear deformation on micropillared surfaces by substrate geometry and cytoskeleton organization*, Biomaterials **34**, 2991 (2013)
- [E2.4:15] ‡ D.R. Stamov, A. Müller, Y. Wegrowski, S. Brezillon, and C.M. Franz, *Quantitative analysis of type I collagen fibril regulation by lumican and decorin using AFM*, Journal of Structural Biology **183**, 394 (2013)

- [E2.4:16] L. Dao, C. Gonnermann, and C.M. Franz, *Investigating differential cell-matrix adhesion by directly comparative single-cell force spectroscopy*, Journal of Molecular Recognition **26**, 578 (2013)
- [E2.4:17] G. Wittenburg, G. Lauer, S. Oswald, D. Labudde, and C.M. Franz, *Nanoscale topographic changes on sterilized glass surfaces affect cell adhesion and spreading*, J. Biomed. Mat. Res. A **102**, 2755 (2013)
- [E2.4:18] \* A. M. Greiner, M. Jäckel, A.C. Scheiwe, D.R. Stamow, T.J. Authenrieth, J. Lahann, C.M. Franz, and M. Bastmeyer, *Multifunctional polymer scaffolds with adjustable pore size and chemoattractant gradients for studying cell matrix invasion*, Biomaterials **35**, 611 (2014)

### **Invited Talks at International Conferences**

- C. Franz, *Studying integrin-mediated interactions with collagen*, III Meeting on Cell Proliferation and Cancer, University of the Balearic Islands, Palma de Mallorca, Spain, September 18–19, 2008
- C. Franz, *International Workshop on Advanced Atomic Force Microscopy Techniques*, Karlsruhe Institute of Technology, Germany, March 1-2, 2010
- C. Franz, *Tailored 2D and 3D Cell Culture Substrates for AFM-based Single-Cell Force Spectroscopy*, International Meeting on SPM & Optical Tweezers for Life Sciences, Berlin, Germany 6-7 October, 2010
- C. Franz, *International Workshop on Advanced Atomic Force Microscopy Techniques*, Karlsruhe Institute of Technology, Karlsruhe (2010)
- C. Franz, *AFM in Cell Biology*, NanoSMH Cross-Border Conference, Pont-à-Mousson, France (2010)
- C. Franz, *AFM-a versatile tool in cell biology*, ZSN Summer School, Schloss Etelsen, Germany (2011)
- C. Franz, *Characterizing Tailored 2D and 3D Cell Culture Substrates by Atomic Force Microscopy*, Bio-inspired Materials, International Conference on Biological Materials Science, Potsdam, Germany (2012)
- C. Franz, *Applications of AFM in Cell Biology*, The 25th European Conference on Biomaterials ESB, Madrid, Spain (2013)
- C. Franz, *Single-Cell Force Spectroscopy*, Second FluidFM European Workshop Liestal, Switzerland (2013)