

ISAAC NEWTON INSTITUTE workshop on "Multimodal monitoring of cell migration"

at Forschungszentrum Jülich and RWTH Aachen University; 27th July 2015 to 31st July 2015

Experiments

- 1 Monitoring EGF-dependent intracellular keratin dynamics (laser scanning confocal microscopy)
- 2 Parallel detection of focal adhesion and keratin network dynamics (multichannel live cell microscopy)
- 3 Cell matrix interactions in 3D scaffolds (two-photon microscopy)
- 4 Migration assays (Incucyte, Boyden Chamber)
- 5 Labelling of cytoskeletal networks and adhesion structures in fixed cells (ApoTome)
- 6 EGF-dependent migration of keratinocytes in 3D (light sheet microscopy)
- 7 Cell migration analysis using untransfected cells: Characterization of persistence length, structural component analysis, polarization and depolarization
- 8 Analysis of focal adhesion and actin-cytoskeletal dynamics during cell migration using GFP-vinculin and RFP-life-act constructs
- 9 Traction force microscopy during cell migration
- 10 Rho-activation and localization/function analysis using total internal reflection fluorescence microscopy
- 11 Filopodia and lamellipodia dynamics including Z-stack analyses over time / Cooperative cell migration
- 12 Actin and focal adhesion dynamics upon spreading including symmetry break and traction force analysis

Data will be generated in each part to be used subsequently for further discussion and analysis in Cambridge.

SCHEDULE

July															
Sun	26	Transfer Cambridge -> Jülich-Aachen													
		AACHEN						JÜLICH							
		Experiment						Experiment							
		1 2 3 4 5 6						7 8 9 10 11 12							
Mon	27	8.30 h	10.30 h	Introduction						Introduction					
		10.30 h	11.00 h	Coffee Break						Coffee Break					
		11.00 h	13.00 h	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12
		13.00 h	14.00 h	Lunch						Lunch					
		14.00 h	16.00 h	Group 6	Group 1	Group 2	Group 3	Group 4	Group 5	Group 12	Group 7	Group 8	Group 9	Group 10	Group 11
		16.00 h	16.30 h	Coffee Break						Coffee Break					
		16.30 h	18.30 h	Group 5	Group 6	Group 1	Group 2	Group 3	Group 4	Group 11	Group 12	Group 7	Group 8	Group 9	Group 10
Tue	28	8.30 h	10.30 h	Group 4	Group 5	Group 6	Group 1	Group 2	Group 3	Group 10	Group 11	Group 12	Group 7	Group 8	Group 9
		10.30 h	11.00 h	Coffee Break						Coffee Break					
		11.00 h	13.00 h	Group 3	Group 4	Group 5	Group 6	Group 1	Group 2	Group 9	Group 10	Group 11	Group 12	Group 7	Group 8
		13.00 h	14.00 h	Lunch						Lunch					
		14.00 h	16.00 h	Group 2	Group 3	Group 4	Group 5	Group 6	Group 1	Group 8	Group 9	Group 10	Group 11	Group 12	Group 7
		16.00 h	16.30 h	Coffee Break						Coffee Break					
		16.30 h	18.30 h	Reflection						Reflection					
		Transfer Aachen-Jülich						Transfer Jülich-Aachen							
Wed	29	8.30 h	10.30 h	Introduction						Introduction					
		10.30 h	11.00 h	Coffee Break						Coffee Break					
		11.00 h	13.00 h	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
		13.00 h	14.00 h	Lunch						Lunch					
		14.00 h	16.00 h	Group 12	Group 7	Group 8	Group 9	Group 10	Group 11	Group 6	Group 1	Group 2	Group 3	Group 4	Group 5
		16.00 h	16.30 h	Coffee Break						Coffee Break					
		16.30 h	18.30 h	Group 11	Group 12	Group 7	Group 8	Group 9	Group 10	Group 5	Group 6	Group 1	Group 2	Group 3	Group 4
Thu	30	8.30 h	10.30 h	Group 10	Group 11	Group 12	Group 7	Group 8	Group 9	Group 4	Group 5	Group 6	Group 1	Group 2	Group 3
		10.30 h	11.00 h	Coffee Break						Coffee Break					
		11.00 h	13.00 h	Group 9	Group 10	Group 11	Group 12	Group 7	Group 8	Group 3	Group 4	Group 5	Group 6	Group 1	Group 2
		13.00 h	14.00 h	Lunch						Lunch					
		14.00 h	16.00 h	Group 8	Group 9	Group 10	Group 11	Group 12	Group 7	Group 2	Group 3	Group 4	Group 5	Group 6	Group 1
		16.00 h	16.30 h	Coffee Break						Coffee Break					
		16.30 h	18.30 h	Reflection						Reflection					
		Transfer Jülich -> Aachen													
Fri	31	8.30 h	10.30 h	Summary											
		10.30 h	11.00 h	Coffee Break											
		11.00 h	13.00 h	Group discussions											
		13.00 h	14.00 h	Lunch											
		14.00 h	16.00 h	Conclusion											
		16.00 h	16.30 h	Coffee Break											
		16.30 h	22.00 h	BBQ at MOCA											
		Transfer Aachen -> Jülich													
Aug															
Sat	1	Transfer Aachen/Jülich -> Cambridge													