

## Communicating Across Scales: biophysics and beyond

*The Assembly, Dynamics and Organisation of Filaments and Cellular Responses*

20<sup>th</sup> – 21<sup>st</sup> March 2017, Durham University, Calman Learning Centre 407

Monday 20th March			
<b>Subunits, Networks and Scaling (CLC 407)</b>			
12:30	14:00	<b>Lunch and Welcome – Theme Organisation</b>	
14:00	14:45	Doug Fudge (McMaster, Canada)	An intermediate filament factory: the hagfish slime gland thread cell and the assembly, packing and deployment of filamentous threads
14:45	15:30	Rudolf Leube (Aachen)	Emergent properties of filaments
15:30	16:00	<b>Tea/Coffee Break</b>	
16:00	16:30	Martin Goldberg (Durham)	The nuclear-cytoskeleton interface
16:30	17:00	Anders Aufderhorst-Roberts (AMOLF, Amsterdam)	Intermediate Filament Stiffening and Extensibility on the Network Level: Rheological Insights from Minimal Systems
17:00	18:30	Speed talks from participants	
18:30	20:00	<b>Dinner Hot Fork Buffet (Calman Centre Café)</b>	
20:00	21:00	Session Chairs: Roy Quinlan and Doug Fudge	The Big Questions from our speakers and participants
Tuesday 21st March			
<b>Models and Applications (CLC 407)</b>			
09:00	09:30	Beth Bromley and Tom McLeish (Durham)	A conjecture and initial investigations into the cause of well-defined Alpha-helical fibril diameters
09:30	10:00	Stefan Auer (Leeds)	Modelling protein assembly into amyloid fibrils and networks, and predicting their mechanical properties
10:00	10:30	Chris Prior (Durham)	Worm-like rope models of polymers and their higher ordered structures
10:30	11:00	Stephanie Portet (Manitoba, Canada)	Effect of transport on intermediate filament organization
11:00	11:30	<b>Tea/Coffee Break</b>	
11:30	12:30	Discussion slot	Scaling Problems: membranes, matrix, amyloids and filaments; connecting via partitions to transduce signals
12:30	13:30	<b>Lunch</b>	
13:30	15:00	Groups Report and Actions	