



# Matrix Signals!

## Cell-matrix interactions in health & Disease

Thursday 8<sup>th</sup> September 2011

|                    |   |  |
|--------------------|---|--|
| <b>Venue:</b>      | <b>Lectures:</b>  | <b>Herschel Lt1</b>                        |
|                    | <b>Lunch/posters:</b>   | <b>Lindisfarne Room</b>                    |
|                    | <b>Conference Dinner:</b>   | <b>8<sup>th</sup> Evening buffet: NUFC</b> |
| 11 – 12.50         | Registration  |  |
| 12.50 – 1.00       | <i>Introductory Remarks (David Young)</i>   |  |
| <b>1.00 – 2.30</b> | <b>Session 1 – MATRIX mechanical forces</b>   |  |
| 1.00 – 1.30        | <b>Akiko Mammoto</b> (Boston) - 'Extracellular matrix (ECM) and mechanical forces in cellular signal transduction'  |  |
| 1.30 – 1.45        | <b>Kristian Franze</b> (Germany) - 'The contribution of ECM to nerve tissue cell mechanosensitivity' - Short talk   |  |
| 1.45 – 2.00        | <b>Martin Knight</b> (London) - 'Primary cilia orchestrate chondrocyte mechanotransduction' - Short talk  |  |
| 2.00 – 2.30        | <b>Charles A Poole</b> (New Zealand) - 'Primary cilia and mechanobiology: The role of the matrix-cilium-Golgi continuum'  |  |
| <b>2.30 – 3.00</b> | <b>Poster Session (including coffee)/ Trade Stands</b>  |  |
| <b>3.00 – 3.30</b> |  <b>Young Investigator – Rachel Oldershaw (Newcastle)</b><br>"Directed differentiation of human embryonic stems cells to chondrocytes" |  |
| <b>3.30 – 5.00</b> | <b>Session 2 – Matrix receptors</b>   |  |
| 3.30 – 4.00        | <b>Attila Aszodi</b> (Germany)- 'Chondrocyte polarity and cartilage function: the role of cell-matrix interactions'   |  |
| 4.00 – 4.15        | <b>Jo Sherwood</b> (London) – 'ELR+ CXC chemokine signaling is required for phenotypic stability of ELR+ human articular chondrocyte' - Short talk  |  |
| 4.15 – 4.30        | <b>Susan Taylor</b> (Manchester) - 'A Role for Collagen IV in Preventing Tendon Adhesions' - Short talk   |  |
| <b>4.30 – 5.00</b> | <b>Christoph Ballestrem</b> (Manchester) - 'Vinculin - a transducer of mechanical force regulating cell adhesion and migration'   |  |
| <b>5.00 – 7.30</b> | <b>Poster Session (including wine and nibbles)</b><br><b>Trade Stands</b>   |  |
| <b>8pm – Late</b>  | <b>Reception, Conference Dinner NUFC</b>  |  |

## Friday 9<sup>th</sup> September

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| <b>9.15 – 10.30</b>  | <b>Session 3 – matrix receptors/sensing</b>  |
| 9.15 – 9.45          | <b>Birgit Leitinger</b> (London) – ‘Discoidin domain receptors: adhesion and transmembrane signalling’   |
| 9.45 – 10.00         | <b>Paul Huang</b> (London) - ‘Quantitative Phosphoproteomic Analysis of Discoidin Domain Receptor Signalling Networks’ - Short talk  |
| 10.00 – 10.15        | <b>Giovanna Nalesso</b> (London) - ‘WNT-3A Modulates Articular Chondrocyte Phenotype By Activating Both Canonical And Noncanonical Pathways’ - Short talk  |
| 10.15 – 10.30        | <b>Nicola Hunt</b> (Newcastle) - ‘ECM control of neural crest cell (NCC) behaviour and implications for heart development’ - Short talk  |
| <b>10.30 – 11.15</b> | <b>Coffee and biscuits</b><br><b>Trade Stands &amp; Posters</b>  |
| <b>11.15 – 12.45</b> | <b>Session 4 – Matrix signalling - fragments</b>   |
| 11.15 – 11.45        | <b>Suneel Apte</b> (Cleveland) – ‘Versican proteolysis by ADAMTS proteases and its impact on mouse development’  |
| 11.45 – 12.00        | <b>Luke Bonser</b> (Manchester) – ‘Evidence for conformational changes in the polymeric mucin MUC5AC following release from the secretory granule’ - Short talk,                                 |
| 12.00 – 12.15        | <b>Douglas Dyer</b> (Manchester) – ‘TSG-6 binds to CXCL8 and modulates its activity’ - Short talk  |
| 12.15 – 12.45        | <b>Kim Midwood</b> (London) – ‘Unique signalling pathways induced by tenascin-C fragments’   |
| <b>12.45 – 2.15</b>  | <b>LUNCH</b><br><b>Trade Stands &amp; Posters</b>  |
| <b>2.15 – 3.45</b>   | <b>Session 5 – Matrix signalling in disease</b>  |
| 2.15 – 2.45          | <b>Wim van den Berg</b> (Netherlands) - ‘Alarmins in arthritis’  |
| 2.45 – 3.00          | <b>Youn-Jung Kang</b> (Manchester) - ‘Synergy between integrin $\alpha\beta3$ , osteopontin and growth factor pathways in embryo-epithelial adhesion at implantation’ - Short talk               |
| 3.00 – 3.15          | <b>Peter Bell</b> (Manchester) - ‘The trafficking of mutant matrilin-3 is not affected by the deletion of matrilin-1 in a mouse model of multiple epiphyseal dysplasia (EDM5 type)’ - Short talk |
| 3.15 – 3.45          | <b>Benjamin Alman</b> (Toronto) - ‘Hedgehog signalling in chondrocytes’  |
| 3.45 – 4.00          | Prizes   |
| <b>4.00</b>          | <b>Tea &amp; biscuits</b>  |

**CLOSE OF MEETING**