**Respiratory Science BSc Timetable 2012-13**

**Module 2:**  **Molecular Cell Biology of the Lung**

**Module leaders:** Dr Uta Griesenbach, Dr Meinir Jones, Prof Jane Mitchell, Prof Terry Tetley,

**WEEK 1: Venue - Seminar room 2, Sydney Street, RBH campus. Collect key from reception and return after teaching.**

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| Week 1 | **MONDAY 12.11.12** | **TUESDAY 13.11.12** | **WEDNESDAY 14.11.12** | **THURSDAY 15.11.12** | **FRIDAY 16.11.12** |
|  | 9.30-11.00  Introduction to course: Overview of aims, content, teaching structure, assignments  **+**  Quiz - Lung structure  *Not examined!!*  Meinir +Uta | **9.30-10.30**  Retinoic acid in alveolar development and regeneration  **Matthew Hind** | **9.30-10.30**  Cytokines, chemokines  and their receptors. Structure function    **Louise Donnelly** | 9.30-11.00  Genetics of CF  ***Discussion***  **Uta Griesenbach** | 9.30-11.00  Retinoic acid in alveolar development and regeneration  **Discussion**  **Matthew Hind** |
|  | **11.00-12.00**  Genetics of CF  **Uta Griesenbach** | **11.00-12:00**  Nitric oxide, endothelin 1 and prostacyclin. Hormones to treat lung disease. Including clinical relevance.  J**ane Mitchell**  **Postponed to Thu** | **11.00-12.00**  TLR receptors and cell signalling; role in immune defence and inflammation  **Mark Paul-Clark** | 11.30-13:00  Nitric oxide, endothelin 1 and prostacyclin. Hormones to treat lung disease. Including clinical relevance.  **Jane Mitchell** | **11.30-13.00**  **Surgery**/**Feedback after first week**  Any problems, questions, suggestions  **U Griesenbach, M Jones, T Tetley** |
| Until 13.00 | **Private study**  Course assignment | **Private study**  Course assignment | **Private study**  Course assignment |  |  |
|  | LUNCH | LUNCH |  | LUNCH | LUNCH |
|  | **Private study** and  Preparation for discussion with **U Griesenbach** | **Private study**  Preparation for discussion with **J Mitchell** | **Receive ICA1/Essay Titles** | **Private study** and  Preparation for discussion with **M Hind** | **Private study** and  Preparation for seminar with **L Donnelly** |

**WEEK 2: Venue - Seminar room 2, Sydney Street, RBH campus. Collect key from reception and return after teaching.**

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| Week 2 | **MONDAY 19.11.12** | **TUESDAY 20.11.12** | **WED 21.11.12** | **THURSDAY 22.11.12** | **FRIDAY 23.11.12** |
|  | 9.30-11.00  Cytokines, chemokines  and their receptors. Structure function  ***Discussion***    **Louise Donnelly** | 9.30 – 11.00  TLR receptors and cell signalling; role in immune defence and inflammation  ***Discussion***  Mark Paul-Clark | **930-1030**  Inflammation and Lung Cancer  **Tariq Sethi** | **930-1030**  Epigenetics, inflammation and airways disease  **Ian Adcock** | 930-1030  The role of the bone marrow and stem cells in lung disease and repair.  ***Discussion***  **Sara Rankin** |
|  | **11.30-12.30**  Genetics of asthma  **Meinir Jones** | 11.30-12.30  The role of the bone marrow and stem cells in lung disease and repair.  Sara Rankin | **1100-1200**  Lung repair and remodelling  **Terry Tetley** | **11.00-12.00**  Interstitial lung diseases  **Toby Maher** | **11.00-12.30**  Epigenetics, inflammation and airways disease  ***Discussion***  Ian Adcock |
| Until 13.00 | Private study  Course assignment | **13:00-17:00**  **Receive ICA2/Debate Titles**  **Private study**  Course assignment | Nitric oxide, endothelin 1 and prostacyclin. Hormones to treat lung disease.  *Discussion*  **Jane Mitchell** | **Private study**  Course assignment | **Private study**  Course assignment |
|  | LUNCH | LUNCH |  | LUNCH | LUNCH |
|  | **Private study** and  Preparation for discussion with **M Paul-Clark** | **Private study** and  Preparation for discussion with **S Rankin** |  | Private study and  Preparation for discussion with I Adcock | **Private study** and  Preparation for discussion with  **T Tetley** |

**WEEK 3: Venue - Seminar room 2, Sydney Street, RBH campus. Collect key from reception and return after teaching.**

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| Week 3 | **MONDAY 26.11.12** | **TUESDAY 27.11.12** | **WEDNESDAY 28.11.12** | **THURSDAY 29.11.12** | **FRIDAY 30.11.12** |
|  | **9:30-10:30**  An introduction to oxidative stress  **Gregory Quinlan** | **9.30-11.00**  Lung repair and remodelling  ***Discussion***  **Terry Tetley** | **9.30-11.00**  Generation of animal models to study molecular basis of lung disease  **Clare Lloyd** | 9.00-9:45  Nervous system of the airways  Maria Belvisi | **9:30-11:00**  Oxidants/antioxidants. Mechanisms of lung damage – ARDS  ***Discussion***  **Gregory Quinlan** |
|  | 11.00-12:00  Oxidants/antioxidants. Mechanisms of lung damage - ARDS  **Gregory Quinlan** | **11.30-12.30**  Proteases/antiproteases. Role in lung disease. Andrew Thorley | 11.30-13.00  Generation of animal models to study molecular basis of lung disease:  ***Discussion*** Clare Lloyd | 10.00-11.30  Nervous system of the airways  ***Discussion***  Maria Belvisi / Mark Birrell | Private study and  Prep for oral ICA2 |
|  | **12.00-1300**  **Surgery/ Feedback after 2nd week:** Any questions, problems, suggestions?  **What you need to know about the exam………**  **U Griesenbach, M Jones, T Tetley** | **12.30**  Respiratory BSc Project meeting with Prof Debbie Jarvis |  |  |  |
|  | LUNCH | LUNCH |  | LUNCH | LUNCH |
|  | **Private study** and  Preparation for discussion with **G Quinlan** | **Private study** and  Preparation for discussion with A Thorley |  | Private study and  Prep for discussion with M Jones | **Private study** and  Preparation for oral debates |

**WEEK 4: Venue – Seminar Room 2, Sydney Street, RBH campus.**

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| Week 4 | **MONDAY 3.12.12** | **TUESDAY 4.12.12** | **WEDNESDAY 5.12.12** | **THURSDAY 6.12.12** | **FRIDAY 7.12.12** |
|  | 9.00-11.00  Oral assignment  ICA2/Debates  **U Griesenbach, M Jones, J Mitchell, T Tetley** | **9.00-11.00**  Oral assignment  ICA/2/Debates  **U Griesenbach, M Jones, J Mitchell, T Tetley** | All day  Winter meeting British Thoracic Society (BTS) | 9.30-11:00 Proteases/ antiproteases. Role in lung disease ***Discussion*** Andrew Thorley | 9.30-13.00  Private study  Essay assignment. |
|  | 11.15- 13.00  Oral assignment  ICA2/Debates  **U Griesenbach, M Jones, J Mitchell, T Tetley** | 11:30-13:00 Oral assignment  ICA2/Debates U Griesenbach, M Jones, J Mitchell, T Tetley |  | 11:30-13:00 Genetics of asthma  *Discussion*  Meinir Jones |  |
| 13.00 | LUNCH | LUNCH |  | LUNCH | LUNCH |
|  | **Private study**  Essay assignment. | **Private study**  Essay assignment. |  | Private study  Essay assignment. | Private study  Essay assignment. |

**WEEK 5: December 10-14th December 2012. Emmanuel Kaye Building, Manresa Road.**

**Uta Griesenbach, Meinir Jones**

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| Monday | am | Safety induction – handouts – pipetting |
| pm | Expose cells to ligands |
| Tuesday | am + pm | ELISA |
| Wednesday | am | Protein assay |
| pm | Free OR help with data analysis (optional) |
| Thursday | am or pm | Data analysis (supervised) |
| Friday | **am** | Data analysis (supervised) if not done on Wednesday or Thursday  **Submit ICA1 (essay) before 5 pm electronically via blackboard (more details to follow)** |