**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** |
|  | 9.30-11.00Introduction 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, chemokinesand their receptors. Structure function**Louise Donnelly** | 9.30-11.00Genetics of CF***Discussion*****Uta Griesenbach** | 9.30-11.00Retinoic 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** | 11.30-13:00Nitric 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** andPreparation for discussion with **U Griesenbach** | **Private study**Preparation for discussion with **J Mitchell** | **Receive ICA1/Essay Titles** | **Private study** andPreparation for discussion with **M Hind** | **Private study** andPreparation 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** |
|  | 9.30-11.00Cytokines, chemokinesand their receptors. Structure function***Discussion*****Louise Donnelly** | 9.30 – 11.00TLR 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** | 930-1030The 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 studyCourse 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** andPreparation for discussion with **M Paul-Clark** | **Private study** andPreparation for discussion with **S Rankin** |  | Private study andPreparation for discussion with I Adcock | **Private study** andPreparation 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 airwaysMaria Belvisi | **9:30-11:00**Oxidants/antioxidants. Mechanisms of lung damage – ARDS***Discussion*** **Gregory Quinlan** |
|  | 11.00-12:00Oxidants/antioxidants. Mechanisms of lung damage - ARDS**Gregory Quinlan** | **11.30-12.30**Proteases/antiproteases. Role in lung disease.Andrew Thorley | 11.30-13.00Generation of animal models to study molecular basis of lung disease: ***Discussion*** Clare Lloyd | 10.00-11.30Nervous system of the airways***Discussion***Maria Belvisi / Mark Birrell | Private study andPrep 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** andPreparation for discussion with **G Quinlan** | **Private study** andPreparation for discussion with A Thorley |  | Private study andPrep 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 dayWinter meeting British Thoracic Society (BTS) | 9.30-11:00Proteases/ antiproteases. Role in lung disease***Discussion***Andrew Thorley | 9.30-13.00Private studyEssay assignment. |
|  | 11.15- 13.00Oral assignment ICA2/Debates**U Griesenbach, M Jones, J Mitchell, T Tetley**  | 11:30-13:00Oral assignment ICA2/DebatesU Griesenbach, M Jones, J Mitchell, T Tetley  |  | 11:30-13:00Genetics of asthma*Discussion* Meinir Jones |  |
| 13.00 | LUNCH | LUNCH |  | LUNCH | LUNCH |
|  | **Private study**Essay assignment. | **Private study**Essay assignment. |  | Private studyEssay assignment. | Private studyEssay 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)** |