# BSc Haematology - Module 1: Haemostasis and Thrombosis

# 8 October - 9 November 2012

Course convenors: Prof M Laffan (m.laffan@ic.ac.uk), Prof D Lane (d.lane@imperial.ac.uk) and Dr A Shlebak (a.shlebak@imperial.ac.uk)

**Note: all staff IC except:** Richard Manning (HHT); Dr R Liesner, M Mathias (Great Ormond Street Hospital), A. Nathwani (UCL); Dr K Gomez (UCL)

**Week 1:**  Sessions in rooms as indicated

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|  | Mon 8 OctHammersmith | Tues 9 Oct | Wed 10 OctHammersmith | Thurs 11 Oct | Fri 12 OctHammersmith |
| 10.00 -11.00 | Welcome and Introduction to the Module. Essay titles and instructions for in course assessments. Distribution of research paper.Initiation of Coagulation**J.Crawley** Sub basement Seminar Room 1 & 2 |   | **10.00-11.30**Molecular modelling workshop(1.5 hours)**D Lane & Dr Rens De Groot**Sub basement Seminar Room 1 & 2 |   | Von Willebrand Factor and primary haemostasis**T McKinnon and M Laffan** Sub basement Seminar Room 1 & 2 |
| 11.30-12.30 | Fibrinogen, Fibrin and Fibrinolysis**D Lane** Sub basement Seminar Room 1 & 2 |  | Understanding enzymes**D Lane**Sub basement Seminar Room 1 & 2 |  | Post translational modification of coagulation proteins**T MacKinnon and M Laffan**Sub basement Seminar Room 1 & 2 |
| **Lunch** |  |  |  |  |  |
| 13.30-14.30 | Antithrombin and heparin**D Lane** Sub basement Seminar Room 1 & 2 |   | Recreation |   | Introduction to thrombophilia**D Lane**WEC Seminar Room 1 |
| 15.00- 16.00 | Private Study | Private Study |

**Week 2:** all sessions as indicated

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|  | Mon 15 OctHammersmith | Tues 16 OctHammersmith | Wed 17 OctHammersmith | Thurs 18 Oct | Fri 19 Oct |
| 10.00-11.00 | Rare Bleeding disorders**C Millar**WEC Lecture Theatre 2 | **Critical Review of Paper.** (mock for in course assessment)Distribution of paper for assessment **M Laffan**Sub basement Seminar Room 1 & 2 | Pathophysiology of Von Willebrand disease**C Millar**WEC Lecture Theatre 2 |  |  |
| 11.30-12.30 | Mechanisms of haemostatic failure & laboratory assessment **M Laffan**WEC SR4 | Factor V and Factor VIII. Coagulation complexes and the propagation phase of coagulation.**M Laffan**Sub basement Seminar Room 1 & 2 |  |  |  |
| **Lunch** |  |  |  |  |   |
| 13.30-14.30 | Haemophilia: a paradigmatic coagulation disorder**M Laffan**WEC Seminar Room 4 | Platelet function, including Anti-platelet therapy**M Laffan**Sub basement Seminar Room 1 & 2 | Recreation |  |  |
| 15.00- 16.00 | The contact activation system. **M Laffan** WEC Seminar Room 4 | VWF cleaving protease**J Crawley** Sub basement Seminar Room 1 & 2 |  |  |

**Week 3:** all sessions as indicated. Tues 23rd Oct: St Mary’s Hospital, Cockburn Lecture Theatre, Queen Elizabeth Queen Mother building.

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|  | Mon 22 OctHammersmith | Tues 23 OctSt Mary’s QEQM | Wed 24 Oct | Thurs 25 OctHammersmith | Fri 26 OctHammersmith |
| 10.00-11.00 | Vascular disease:Stroke**Dr P Sharma**Sub basement Seminar Room 1 & 2 | Autoimmunity (HIT, acquired haemophilia)**A Shlebak** Cockburn Lecture Theatre |  | Acquired haemostatic defects (DIC, CPB, uraemia)**N Salooja**WEC Seminar Room 1 | Haemostasis and arterial thrombosis**M Laffan**Sub basement Seminar Room 1 & 2 |
| 11.30-12.30 | Platelet function and antiplatelet agentsM LaffanSub basement Seminar Room 1 & 2 | Novel approaches to assessment of haemostatic capacity**M Laffan**Cockburn Lecture Theatre |  | Metabolic disorders associated with thrombosis.**N Salooja** WEC Lecture Theatre 1 | Managing thrombosis: factors contributing to the balance of risk. **M Laffan**Sub basement Seminar Room 1 & 2 |
| **Lunch** |  |  |  |  |   |
| 14.00-15.00 | Hereditary platelet disorders**M Mathias and R Liesner**WEC Seminar Room 5 | Haemostasis and malignancy **A Shlebak** Cockburn Lecture Theatre | Recreation | The multiple roles of thrombin in directing coagulation**D Lane**WEC Lecture Theatre 1 | The Role of the Endothelium **Dr Wojciak-Stothard** WEC Lecture Theatre 2  |
| 15.00- 16.00 | Pregnancy, Oestrogens and the coagulation system.**C Millar**WEC Seminar Room 5 |   | Developmental haemostasis in the neonate**I Roberts**WEC Lecture Theatre 1 |  |
| 16.00 | Assessment feedback**C Millar**WEC Seminar Room 5 |  |  |  |

**Week 4:** Session locations as indicated. Tuesday 30th Oct: Cockburn lecture theatre St Mary’s Hospital, Queen Elizabeth Queen Mother building.

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|  | Mon 29 Oct | Tues 30 OctSt Mary’s QEQM | Wed 31 OctHammersmith | Thurs 1 Nov | Fri 2 NovHammersmith |
| 09.00-10.00 |   |  | Warfarin and heparin: pharmacological mechanisms & monitoring.Wolfson SR III and IV**K Gomez**WEC SR 3 + SR 4  |  | The abnormal Endothelium**Dr Wojciak-Stothard**WEC Lecture Theatre 1 |
| 10.00-11.00 |  | Thrombosis and embolism: genesis and detection **A Shlebak** Cockburn Lecture Theatre | New anticoagulant agents: design and practiceWolfson SR III and IVK GomezWEC SR 3 + SR 4  |  | Protein C pathway **J.Crawley** Sub basement Seminar Room 1 & 2 |
| 11.30-12.30 |  | The antiphospholipid syndrome. A Shlebak Cockburn Lecture Theatre |  |  | Coagulation inflammation and sepsis**J Crawley** Sub basement Seminar Room 1 & 2 |
|  **Lunch** |  |  |  |  |  |
| 13.30-14.30 |  |  | Recreation |  | Gene therapy for haemophilia**Amit Nathwani**Sub basement Seminar Room 1 & 2 |
| 15.00-16.00 |  |  |  |

**Week 5:** Tues: Assessment Sub-basement Seminar Room 1&2, Commonwealth building sub basement.

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|  | Mon 5 Nov | Tues 6 NovHammersmith | Wed 7 Nov | Thurs 8 Nov | Fri 9 Nov |
| 10.00-12.00 |  | In course examination: Written questions forming a critical review of a research paperSub basement Seminar Room 1 & 2 |  | OptionalAnticoagulation clinic. Out patient clinic B. Hammersmith hospital M Laffan | Essay submissionVia Blackboard electronic portal **by 12.00pm midday** |
| 13.00-14.00 |   |  |  |  |  |
| 14.00-17.00 | Optional lab experience. Practical laboratory haemostasis HH (~5) **M Laffan/R Manning** |   | Recreation | OptionalAC clinic OP at SMH (~4) **A Shlebak****OR**Practical laboratory haemostasis Haematology lab, G block Hammersmith Hospital (~6) **M Laffan/R Manning**  |   |