

## ***Welcome, clotting experts to the Haematex Newsletter September 2014***

### **FINALLY, APIXABAN CALIBRATORS AND CONTROLS!**

There seems to have been more interest in Apixaban testing lately. Eliquis (BMS) appears to be the NOAC with the highest potency and least effect on conventional clotting tests, so perhaps it may also be the safest. We can now provide you with Apixaban calibrators and controls from the Hyphen BIOPHEN range:

- Apixaban Control #225301; Control Low #225201
- Apixaban Calibrator #226201; Calibrator Low #226201
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If you would like product inserts, let us know and we will email you the files. These products are currently research use only.

Note that the DiXal chromogenic anti FXa method from HBM can be easily adjusted for higher or lower sensitivity to all direct FXa inhibitors by varying the test sample dilution and/or incubation times.

Summarizing all relevant NOAC product offerings from Hyphen BioMed gives us the following table.

### **ANTICOAGULANT TESTING FROM HYPHEN BIOMED MADE EASY:**

	NAME	TRADE NAME	MANUFACTURER	ACTION	TEST KIT	CALIBS CNTRLS
<b>DIRECT INHIBITORS</b>	Dabigatran	Pradaxa	Boehringer Ingelheim	Direct Thrombin Inhibitor	#CK002K/L Hemoclot DTI #220202 Biophen DTI	yes
	Rivaroxaban	Xarelto	Bayer	Direct Xa Inhibitor	#221030 Biophen DiXal	yes
	Apixaban	Eliquis	Bristol- Myers Squibb	Direct Xa Inhibitor	#221030 Biophen DiXal	yes
	Edoxaban	Savaysa	Daiichi Sankyo	Direct Xa Inhibitor	#221030 Biophen DiXal	no

### **NOAC TEST:**

Haematex in conjunction with Kent Chapman at the John Hunter Hospital, Newcastle is investigating the potential of a specialized Russell's Viper Venom-based clotting test for all the NOACs. We are grateful to participating labs for carrying out tests with our prototype method which do support this idea at least for Rivaroxaban and Dabigatran. Still need more results for Apixaban however. Results from this study will be reported at the Perth ASTH coagulation workshop in October.

### **THE NEW GFC?**

Dr Jean Amiral at Hyphen Biomed has designed a new assay for evaluating Global Fibrinolytic Capacity (GFC) in samples including the diagnostic reagent and a dedicated instrument, which can be connected to any computer. Plasma clot lysis is monitored through absorbance with specific software, allowing evaluation of hypofibrinolysis which is poorly studied at the present time. Total assay time is 1 hour. Sounds a bit like the OHP (overall haemostatic potential) method developed originally in the Blomback laboratory (Sweden) and investigated thoroughly by Dr Jenny Curnow and Prof Chris Ward a while ago. Defective fibrinolysis has got to be a prothrombotic risk factor but has been difficult to substantiate partly because of problems with methods.

Hyphen BioMed has a special interest in fibrinolysis with 12 assays for investigating components of the fibrinolytic mechanism such as plasminogen, TPA, PAI-1 and their complex as well as materials. We have available Dr Amiral's comprehensive review of this topic presented recently at the ISFP meeting in Marseille. Please contact us if you would like a copy or further information.

### **WHERE OH WHERE IS THIS WORLD GOING!**

**Race hits legal hurdles:**

Although there is talk of reversing agents to Dabigatran and Rivaroxaban, with announcements that phase III trials on the antidotes have started, this hasn't stopped the bleeding so far with Boehringer Ingelheim (BI). In May 2014, BI announced it would pay \$650 million to settle 4,000 US lawsuits for claims suffered from damaging side effects from bleeding. And back in February 2014, what is believed was the first Xarelto lawsuit brought against Bayer raised similar allegations.

Hot on their tails is the smooth sounding "Eliquis" (Apixaban), this is the third entrant in the warfarin replacement market. Although it lagged well behind its competitors last year, it is now showing signs of life and in July produced its quarterly global revenue figure of \$171 million, an increase from \$12 for the same time last year. It is becoming an interesting race for sure but maybe the best bet will be on the winner of the race to find an acceptable antidote!

#### **CLOTTING DEATHS:**

We have no idea who he was but Americans sure knew him. **Perth born Michael Johns came 8<sup>th</sup> in American Idol in 2008.**

Earlier last **month, he suffered a twisted ankle and** went to a doctor after enduring great pain and watching swelling and bruising rise up his leg. The doctor said he was "clear to go home". The next afternoon was found dead.

It is believed he died from a blood clot. A FDP D-dimer test or a platelet microparticle might have saved him...

World Thrombosis Day is coming on October 13 to enlighten the public about this important but obscure clinical field. ASTH is proposing a massive educational effort.